

# STATE OF COLORADO

John W. Hickenlooper, Governor  
Christopher E. Urbina, MD, MPH  
Executive Director and Chief Medical Officer

## WATER QUALITY CONTROL COMMISSION

<http://www.cdphe.state.co.us/op/wqcc/index.html>

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Colorado  
Department  
of Public Health  
and Environment

## NOTICE OF PUBLIC RULEMAKING HEARING BEFORE THE COLORADO WATER QUALITY CONTROL COMMISSION

### SUBJECT:

For consideration of the adoption of revised water quality classifications, standards and designations for multiple segments in the Classifications and Numeric Standards for Arkansas River Basin, Regulation #32 (5 CCR 1002-32) and the Classifications and Numeric Standards for Rio Grande River Basin, Regulation #36 (5 CCR 1002-36).

Proposed revisions and proposed Statement of Basis and Purpose language have been submitted by the following:

- Exhibit 1 - Regulation #32, the Water Quality Control Division (Division);
- Exhibit 2 - Regulation #36, the Water Quality Control Division (Division);
- Exhibit 3 - Regulation #32, Pueblo West Metropolitan District;
- Exhibit 4 - Regulation #32, Cherokee Metropolitan District;
- Exhibit 5 - Regulation #32, Board of Water Works of Pueblo;
- Exhibit 6 - Regulation #32, State of Kansas;
- Exhibit 7 - Regulation #32, XTO Energy/Pioneer Natural Resources;
- Exhibit 8 - Regulation #32, Tri-Lakes Wastewater Treatment Facility;
- Exhibit 9 – Regulation #32, Cripple Creek & Victor Gold Mining Company;
- Exhibit 10 – Regulation #32, Public Service Company of Colorado;
- Exhibit 11 – Regulation #36, Rio Grande Silver; and
- Exhibit 12 – Regulation #36, Hazardous Materials and Waste Management Division (HMWMD).

In these attachments, proposed new language is shown with double-underlining and proposed deletions are shown with ~~strikeouts~~. Any alternative proposals related to the revisions proposed in Exhibits 1 through 12 and developed in response to those proposals will also be considered.

### TRIENNIAL REVIEW PROCESS OVERVIEW:

This Rulemaking Hearing is the third and final step in a three-step process for triennial review of water quality classifications and standards in Colorado. The first step is an Issues Scoping Hearing, which provides an opportunity for early identification of potential issues that may need to be addressed in the next major rulemaking hearing for particular regulations, and for identification of any issues that may need to be addressed in rulemaking prior to that time. The Issues Scoping Hearing for these basins was held in October 2011. The second step in the triennial review process – the Issues Formulation Hearing – results in the identification of specific issues to be addressed in the next major rulemaking. The Issues Formulation Hearing for this basin was held in November 2012. The third step is the Rulemaking Hearing, where any revisions to the water quality classifications and standards are formally adopted. Information regarding triennial reviews of water quality classifications and standards is provided on the Commission's website at <http://www.colorado.gov/cs/Satellite/CDPHE-WQCC/CBON/1251590850500>.

## HEARING SCHEDULE:

DATE: Monday, June 10, 2013  
TIME: 10:00 a.m.  
PLACE: Inn of the Rio Grande  
333 Santa Fe Ave.  
Alamosa, CO 81101

## PUBLIC PARTICIPATION ENCOURAGED:

The Commission encourages all interested persons to provide their opinions or recommendations regarding the matters to be addressed in this rulemaking hearing, either orally at the hearing or in writing prior to or at the hearing. Although oral testimony from those with party status (see below) and other interested persons will be received at the hearing, the time available for such oral testimony may be limited. Written submissions prior to the hearing are encouraged, so that they can be distributed to the Commission for review prior to the hearing.

For logistical reasons, the Commission office cannot guarantee that electronic submissions received after 1:00 p.m. Friday, June 7, 2013 will be provided to Commissioners. Interested persons wishing to submit comments or other documents after that date and time should bring paper copies to the hearing. Oral testimony at the hearing should primarily summarize written material previously submitted. The hearing will emphasize Commission questioning of parties and other interested persons about their written prehearing submittals. Introduction of written material at the hearing by those with party status or mailing list status (see below) generally will not be permitted. The Commission requests that all interested persons submit to the Commission any available information that may be relevant in considering the noticed proposals, including information relating to the factors listed in section 31.7(2) of the Basic Standards and Methodologies for Surface Water, 5 CCR 1002-31.

The Commission encourages informal discussions among the parties, the Water Quality Control Division and other interested persons prior to the hearing, in an effort to reach consensus or to develop proposed resolutions of issues and/or narrow the issues potentially in dispute. **The Commission strongly encourages that any multi-party/Division proposals for the resolution of issues (including proposed Statement of Basis and Purpose language whenever feasible) be submitted as part of the administrative record as early as possible, but at least by the prehearing conference.** To help facilitate discussions, the following contact information is provided:

- Water Quality Control Division: Sarah Johnson; [sarah.johnson@state.co.us](mailto:sarah.johnson@state.co.us)  
303-692-3609
- Pueblo West MD and Cherokee MD: Connie King; [connie@chkinglaw.com](mailto:connie@chkinglaw.com)  
719-650-2783
- Board of Water Works of Pueblo: Lee Johnson, [ljohnson@chp-law.com](mailto:ljohnson@chp-law.com)  
303-861-9000
- State of Kansas: Thomas Stiles, [tstiles@kdheks.gov](mailto:tstiles@kdheks.gov)  
785-296-6170
- XTO/Pioneer: Ronda Sandquist, [rsandquist@bhfs.com](mailto:rsandquist@bhfs.com)  
303-223-1191
- Tri Lakes: Tad Foster, [tadfoster@tsfosterlaw.com](mailto:tadfoster@tsfosterlaw.com)  
719-632-5240
- Cripple Creek & Victor Gold Mining Co.,  
and Public Service Co.: Gabe Racz, [gr@vrlaw.com](mailto:gr@vrlaw.com)  
303-443-6151
- Rio Grande Silver: Jerry Raisch, [jwr@vrlaw.com](mailto:jwr@vrlaw.com)  
303-443-6151
- HMWMD: Austin Buckingham, [austin.buckingham@state.co.us](mailto:austin.buckingham@state.co.us)  
303-692-3435

#### PARTY STATUS/MAILING LIST STATUS:

Participation as a "party" to this hearing or acquisition of "mailing list status," will require compliance with section 21.3(D) of the Procedural Rules, Regulation #21 (5 CCR 1002-21). Mailing list status will allow receipt of all party documents (except individual exhibits more than five pages in length). It is not necessary to acquire party status or mailing list status in order to testify or comment. **For each request for party status or mailing list status, please provide the organization's name, a contact person, mailing address, phone number, fax number and email address if available.** Written party status or mailing list status requests are due in the Commission Office on or before:

DATE: Tuesday, April 2, 2013  
TIME: 5:00 p.m.

A single copy of the party status or mailing list status request may be transmitted as an email attachment to [cdphe.wqcc@state.co.us](mailto:cdphe.wqcc@state.co.us), submitted by fax to 303-691-7702, mailed or otherwise conveyed so as to be received electronically or in the mail room of the Colorado Department of Public Health and Environment (Department) no later than this deadline. PLEASE NOTE that, as indicated below, parties will have the option of distributing materials to other parties electronically, except in instances where a party has requested receiving hard copies of documents. Therefore, **anyone requesting party or mailing list status that wishes to receive hard copies of documents instead of emailed copies should so indicate in the party status/ mailing list status request so that this information can be included on the list distributed by the Commission Office.**

#### PREHEARING STATEMENTS:

**PLEASE NOTE** that for this hearing two separate deadlines for prehearing statements are established: (1) An original and 13 copies of **Proponents' Prehearing Statements** from **each proponent of revisions proposed in the exhibits attached to this notice**, including written testimony and exhibits providing the basis for the proposals, must be received in the Department's mail room no later than **March 19, 2013**; and (2) an original and 13 copies of a **Responsive Prehearing Statement**, including any exhibits, written testimony, and alternative proposals of the Water Quality Control Division or **anyone seeking party status and intending to respond to the proponents' proposals** must be received in the Department's mail room no later than **April 23, 2013**.

For each deadline, the required number of hard copies of documents must be received in the Department's mail room by the specified dates. These requirements are not satisfied by electronic transmission of a facsimile copy or copies. However, **parties should also email a copy of their written documents to the Commission Office**, so that materials received can be posted on the Commission's web site. (Please email to [cdphe.wqcc@state.co.us](mailto:cdphe.wqcc@state.co.us).)

**Where a party's position or proposal is based in part on analysis of water quality data, the party should submit its analysis of the data and a description of the data upon which the analysis is based, but is not required to submit the raw data into the hearing record. However, the party shall provide an electronically manipulable copy of its data to the Division and any party that requests it. If the Division or any party chooses to submit some or all of the data into the hearing record, such data must be provided in PDF format.**

Because the March 19, 2013 deadline for Proponents' Prehearing Statements precedes the April 2, 2013 due date for party status/ mailing list status requests, proponents must transmit copies of the Proponents' Prehearing Statements to all proponents and to the Attorney General's Office representatives for the Commission and the Division, in accordance with a Proponents List provided by the Commission Office. Parties who are not proponents should acquire copies of the Proponents' Prehearing Statements from the Commission's website: <http://www.colorado.gov/cs/Satellite/CDPHE-WQCC/CBON/1251590851371>, or may contact the individual proponents to request hard copies.

Copies of Responsive Prehearing Statements and all subsequent filings for this rulemaking must be mailed or hand-delivered by the specified dates to all persons requesting party status or mailing list status and to the Attorney General's Office representatives for the Commission and the Division, in accordance with the party status list provided by the Commission Office following the party status/ mailing list status deadline. **Alternatively, parties may email documents to those with party status or mailing list status by the specified dates**, except to those that the list distributed by the Commission Office identifies as requesting hard copies.

**In addition, please note the request that each prehearing statement and rebuttal statement identify on the first page each of the water bodies addressed in the statement, including both its common name and the basin and segment number provided in the Regulations #32 and #36 tables.**

Also **note** that the Commission has prepared a document entitled **Information for Parties to Water Quality Control Commission Rulemaking Hearings**. A copy of this document will be mailed or emailed to all persons requesting party status or mailing list status. It is also posted on the Commission's web site as Appendix C to the [Public Participation Handbook](#). Following the suggestions set forth in this document will enhance the effectiveness of parties' input for this proceeding. **Please note the request that all parties submit two-sided copies of all hearing documents on three-hole punch paper.**

#### MAILING LIST STATUS COMMENTS:

Those requesting mailing list status shall provide written testimony, if any testimony is to be offered for the hearing, by the above deadline for responsive prehearing statements – i.e., **April 23, 2013**. Copies shall be submitted and distributed in the same manner as noted above for prehearing statements.

#### REBUTTAL STATEMENTS:

**Written rebuttal statements responding to the prehearing statements due on April 23, 2013 may be submitted by the Division or anyone seeking party status or mailing list status.** Any such rebuttal statements must be received in the Commission Office by **May 14, 2013**. An original and 13 copies of written rebuttal statements must be received in the Department's mail room by this deadline, and submission of an emailed copy as noted above is strongly encouraged. In addition, copies of these documents must be mailed or hand-delivered by that date to all those requesting party status or mailing list status, and to the Attorney General's Office representatives for the Commission and Division. **Alternatively, parties may email documents to those with party status or mailing list status by this deadline**, except to those that the list distributed by the Commission Office identifies as requesting hard copies. No other written materials will be accepted following this deadline except for good cause shown.

#### PREHEARING CONFERENCE:

DATE: Tuesday, May 21, 2013  
TIME: 1:30 p.m.  
PLACE: Conference Room C1A  
Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, Colorado 80246

**Attendance at the prehearing conference is mandatory for all persons requesting party status.** An opportunity may be available to participate in this prehearing conference by telephone. Persons wishing to participate by telephone should notify the Commission Office as early as possible.

#### SPECIFIC STATUTORY AUTHORITY:

The provisions of sections 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402 C.R.S. provide the specific statutory authority for consideration of the regulatory amendments proposed by this notice. Should the Commission adopt the regulatory language as proposed in this notice or alternative

amendments, it will also adopt, in compliance with section 24-4-103(4) C.R.S., an appropriate Statement of Basis, Specific Statutory Authority, and Purpose.

NOTIFICATION OF POTENTIAL MATERIAL INJURY TO WATER RIGHTS:

In accordance with section 25-8-104(2)(d), C.R.S., any person who believes that the actions proposed in this notice have the potential to cause material injury to his or her water rights is requested to so indicate in the party status request submitted. In order for this potential to be considered fully by the Commission and the other agencies listed in the statute, persons must fully explain the basis for their claim in their prehearing statement which is due in the Commission Office on the date specified above. This explanation should identify and describe the water right(s), and explain how and to what degree the material injury will be incurred.

Dated this 11th day of February 2013 at Denver, Colorado.

WATER QUALITY CONTROL COMMISSION

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Paul D. Frohardt, Administrator

**EXHIBIT 1  
WATER QUALITY CONTROL DIVISION**

**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-32**

**REGULATION NO. 32  
CLASSIFICATIONS AND NUMERIC STANDARDS  
FOR  
ARKANSAS RIVER BASIN**

**32.1 AUTHORITY**

These regulations are promulgated pursuant to section 25-8-101 et seq. C.R.S., as amended, and in particular, 25-8-203 and 25-8-204.

**32.2 PURPOSE**

These regulations establish classifications and numeric standards for the Arkansas River, including all tributaries and standing bodies of water as indicated in section 32.6. The classifications identify the actual beneficial uses of the water. The numeric standards are assigned to determine the allowable concentrations of various parameters. Discharge permits will be issued by the Water Quality Control Division to comply with basic, narrative, and numeric standards and control regulations so that all discharges to waters of the state protect the classified uses. (See Regulation No. 31, section 31.14). It is intended that these and all other stream classifications and numeric standards be used in conjunction with and be an integral part of Regulation No. 31 Basic Standards and Methodologies for Surface Water.

**32.3 INTRODUCTION**

These regulations and tables present the classifications and numeric standards assigned to stream segments listed in the attached tables (See section 32.7). As additional stream segments are classified and numeric standards for designated parameters are assigned for this drainage system, they will be added to or replace the numeric standards in the tables in section 32.7. Any additions or revisions of classifications or numeric standards can be accomplished only after public hearing by the Commission and proper consideration of evidence and testimony as specified by the statute and the "Basic Standards and Methodologies for Surface Water".

**32.4 DEFINITIONS**

See the Colorado Water Quality Control Act and the codified water quality regulations for definitions.

**32.5 BASIC STANDARDS**

- (1) TEMPERATURE

All waters of the Arkansas River Basin are subject to the following standard for temperature. (Discharges regulated by permits, which are within the permit limitations, shall not be subject to enforcement proceedings under this standard). Temperature shall maintain a normal pattern of diurnal and seasonal fluctuations with no abrupt changes and shall have no increase in temperature of a magnitude, rate, and duration deemed deleterious to the resident aquatic life. This standard shall not be interpreted or applied in a manner inconsistent with section 25-8-104, C.R.S. ~~Effective until December 31, 2012: Segments or portions of segments that are first, second or third order streams above 7000 feet elevation and classified Aquatic Life cold 1 or 2 shall have a chronic temperature standard of 17 °C (MWAT) with no acute standard.~~

~~Other cold class 1 or 2 segments or portions of segments shall have a chronic temperature standard of 20 °C (MWAT) with no acute standard. Segments that are classified Aquatic Life warm 1 or 2 shall have a chronic temperature standard of 30 °C (MWAT) with no acute standard.~~

(2) QUALIFIERS

See Basic Standards and Methodologies for Surface Water for a listing of organic standards at 31.11 and metal standards found at 31.16 Table III. The column in the tables headed "Water + Fish" are presumptively applied to all aquatic life class 1 streams which also have a water supply classification, and are applied to aquatic life class 2 streams which also have a water supply classification, on a case-by-case basis as shown in the Tables 32.6. The column in the tables at 31.11 and 31.16 Table III headed "Fish Ingestion" is presumptively applied to all aquatic life class 1 streams which do not have a water supply classification, and are applied to aquatic life class 2 streams which do not have a water supply classification, on a case-by-case basis as shown in Tables 32.6.

(3) URANIUM

- (a) All waters of the Arkansas River Basin, are subject to the following basic standard for uranium, unless otherwise specified by a water quality standard applicable to a particular segment. However, discharges of uranium regulated by permits which are within these permit limitations shall not be a basis for enforcement proceedings under this basic standard.
- (b) Uranium level in surface waters shall be maintained at the lowest practicable level.
- (c) In no case shall uranium levels in waters assigned a water supply classification be increased by any cause attributable to municipal, industrial, or agricultural discharges so as to exceed 16.8-30 µg/l or naturally-occurring concentrations (as determined by the State of Colorado), whichever is greater.
  - (i) The first number in the 16.8-30 ug/l range is a strictly health-based value, based on the Commission's established methodology for human health-based standards. The second number in the range is a maximum contaminant level, established under the federal Safe Drinking Water Act that has been determined to be an acceptable level of this chemical in public water supplies, taking treatability and laboratory detection limits into account. Control requirements, such as discharge permit effluent limitations, shall be established using the first number in the range as the ambient water quality target, provided that no effluent limitation shall require an "end-of-pipe" discharge level more restrictive than the second number in the range. Water bodies will be considered in attainment of this standard, and not included on the Section 303(d) List, so long as the existing ambient quality does not exceed the second number in the range.

- (d) ~~In no case shall uranium levels in waters assigned a water supply classification be increased by a cause attributable to municipal, industrial, or agricultural discharges so as to exceed 30 µg/l where naturally-occurring concentrations are less than 30 µg/l.~~

#### (4) NUTRIENTS

Prior to May 31, 2022, interim nutrient values will be considered for adoption only in the limited circumstances defined at 31.17(e). These circumstances include headwaters, Direct Use Water Supply (DUWS) Lakes and Reservoirs, and other special circumstances determined by the Commission. Additionally, prior to May 31, 2017, only total phosphorus and chlorophyll a will be considered for adoption. After May 31, 2017, total nitrogen will be considered for adoption per the circumstances outlined in 31.17(e).

Prior to May 31, 2022, nutrient criteria will be adopted for headwaters on a segment by segment basis for the Arkansas River Basin. Moreover, pursuant to 31.17(e) nutrient standards will only be adopted for waters upstream of all permitted domestic wastewater treatment facilities discharging prior to May 31, 2012 or with preliminary effluent limits requested prior to May 31, 2012, and any non-domestic facilities subject to Regulation 85 effluent limits and discharging prior to May 31, 2012. The following is a list of all permitted domestic wastewater treatment facilities discharging prior to May 31, 2012 or with preliminary effluent limits requested prior to May 31, 2012, and any non-domestic facilities subject to Regulation 85 effluent limits and discharging prior to May 31, 2012 in the Arkansas River Basin:

<u>Segment</u>	<u>Permittee</u>	<u>Facility name</u>	<u>Permit No.</u>
<u>COARFO02a</u>	<u>Fountain Sanitation District</u>	<u>Fountain Sanitation District WWTF</u>	<u>CO0020532</u>
<u>COARFO02a</u>	<u>Colorado Springs Utilities</u>	<u>Las Vegas Street WWTF</u>	<u>CO0026735</u>
<u>COARFO02a</u>	<u>Security Sanitation District</u>	<u>Security Sanitation District WWTF</u>	<u>CO0024392</u>
<u>COARFO02a</u>	<u>Widefield Water and Sanitation District</u>	<u>Widefield WSD WWTF</u>	<u>CO0021067</u>
<u>COARFO04</u>	<u>Academy Water and Sanitation District</u>	<u>Academy Water and San Dist WWTF</u>	<u>COG589020</u>
<u>COARFO04</u>	<u>Broadmoor Park Properties</u>	<u>Broadmoor Park Properties</u>	<u>COG589021</u>
<u>COARFO04</u>	<u>Academy School Dist 20</u>	<u>Edith Wolford Elem School</u>	<u>CO0048429</u>
<u>COARFO06</u>	<u>Colorado Springs Utilities</u>	<u>J D Phillips Water Reclamation Facility</u>	<u>CO0046850</u>
<u>COARFO06</u>	<u>Tri-Lakes Wastewater Treatment Facility</u>	<u>Tri-Lakes WWTF</u>	<u>CO0020435</u>
<u>COARFO06</u>	<u>Donala Water and Sanitation District</u>	<u>Upper Monument Crk Reg WWTF</u>	<u>CO0042030</u>
<u>COARLA01a</u>	<u>Pueblo City of</u>	<u>James R Dilorio WRF</u>	<u>CO0026646</u>
<u>COARLA01a</u>	<u>Meadowbrook MHP LLC</u>	<u>Meadowbrook MHP</u>	<u>COG588022</u>
<u>COARLA01b</u>	<u>Crowley County Correctional</u>	<u>Crowley Correctional Facility</u>	<u>CO0046795</u>
<u>COARLA01b</u>	<u>Colorado Dept of Corrections</u>	<u>Fort Lyon Correctional Facility WWTF</u>	<u>CO0046311</u>
<u>COARLA01b</u>	<u>Colorado Dept of Corrections</u>	<u>Fort Lyon Correctional Facility WWTF</u>	<u>CO0048801</u>
<u>COARLA01b</u>	<u>Fowler Town of</u>	<u>Fowler WWTF</u>	<u>CO0021571</u>
<u>COARLA01b</u>	<u>Las Animas City of</u>	<u>Las Animas WWTF</u>	<u>CO0040690</u>
<u>COARLA01b</u>	<u>North La Junta Sanitation District</u>	<u>North La Junta San Dist WWTF</u>	<u>CO0039519</u>
<u>COARLA01b</u>	<u>Rocky Ford City of</u>	<u>Rocky Ford WWTF</u>	<u>CO0023850</u>
<u>COARLA02a</u>	<u>Boone Town of</u>	<u>Boone WWTF</u>	<u>COG589116</u>
<u>COARLA02a</u>	<u>Calhan Town of</u>	<u>Calhan WWTF</u>	<u>COG589018</u>
<u>COARLA02a</u>	<u>Country Host Motel</u>	<u>Country Host Motel</u>	<u>COG589038</u>
<u>COARLA02a</u>	<u>Crowley Town of</u>	<u>Crowley WWTF</u>	<u>CO0041599</u>



<u>Segment</u>	<u>Permittee</u>	<u>Facility name</u>	<u>Permit No.</u>
COARLA02a	<u>Eads Town of</u>	<u>Eads WWTF</u>	<u>COG589016</u>
COARLA02a	<u>Limon, Town of</u>	<u>Limon WWTF</u>	<u>COG589023</u>
COARLA02a	<u>Simla Town of</u>	<u>Simla WWTF</u>	<u>COG589031</u>
COARLA02a	<u>Springfield Town of</u>	<u>Springfield WWTF</u>	<u>COG589102</u>
COARLA02a	<u>Colorado Dept of Corrections</u>	<u>Trinidad Correctional Facility</u>	<u>CO0046094</u>
COARLA02b	<u>La Junta City of</u>	<u>La Junta WWTF</u>	<u>CO0021261</u>
COARLA05a	<u>Trinidad City of</u>	<u>Trinidad WWTF</u>	<u>CO0024015</u>
COARLA05A; COARLA06	<u>Cokedale Town of</u>	<u>Cokedale WWTF</u>	<u>CO0048461</u>
COARLA07	<u>Hoehne School District R-3</u>	<u>Hoehne School</u>	<u>COG588110</u>
COARLA07	<u>Trinidad City of</u>	<u>Trinidad WWTF</u>	<u>CO0031232</u>
COARMA04a; COARMA04d	<u>Pueblo West Metro District</u>	<u>Pueblo West Metro District WWTF</u>	<u>CO0040789</u>
COARMA04c	<u>Sunset Metropolitan District</u>	<u>Ellicott Springs WWTF</u>	<u>CO0047252</u>
COARMA04c	<u>Woodmen Hills Metropolitan District</u>	<u>Woodmen Hills Metro Dist WWTF</u>	<u>CO0047091</u>
COARMA04d	<u>Avondale Water and Sanitation District</u>	<u>Avondale and Fort Reynolds WWTF</u>	<u>CO0021075</u>
COARMA09	<u>Colorado City Metropolitan District</u>	<u>Colorado City Metro Dist WWTF</u>	<u>CO0021121</u>
COARMA13	<u>Cucharas Sanitation and Water District</u>	<u>Cucharas WWTF</u>	<u>CO0043745</u>
COARMA14	<u>La Veta Town of</u>	<u>La Veta WWTF</u>	<u>CO0032409</u>
COARMA14	<u>City of Walsenburg</u>	<u>Walsenburg City of</u>	<u>CO0020745</u>
COARUA02b	<u>Leadville MHC LLC</u>	<u>Lake Fork MHP</u>	<u>COG588060</u>
COARUA03	<u>Buena Vista Sanitation District</u>	<u>Buena Vista San Dist WWTF</u>	<u>CO0045748</u>
COARUA03	<u>Fremont Sanitation District</u>	<u>Rainbow Park WWTF</u>	<u>CO0039748</u>
COARUA03	<u>Salida City of</u>	<u>Salida WWTF</u>	<u>CO0040339</u>
COARUA05	<u>Young Life Campaign Inc</u>	<u>Frontier Ranch</u>	<u>CO0034304</u>
COARUA05	<u>Moose Haven Condominiums</u>	<u>Moose Haven Condominiums</u>	<u>CO0047279</u>
COARUA05	<u>Mountain View Villages Water &amp; Sanitation District</u>	<u>Mountain View Villages</u>	<u>CO0048372</u>
COARUA06	<u>Leadville Sanitation District</u>	<u>Leadville San Dist WWTF</u>	<u>CO0021164</u>
COARUA12a	<u>Mount Princeton Hot Springs Resort</u>	<u>Mount Princeton Hot Springs Resort WWTF</u>	<u>COG588017</u>
COARUA12a	<u>Christian Mission Concerns</u>	<u>Silver Cliff Ranch</u>	<u>COG588102</u>
COARUA12b	<u>Monarch Mountain Lodge</u>	<u>Garfield WWTF</u>	<u>CO0028444</u>
COARUA12b	<u>PowderMonarch LLC</u>	<u>Monarch Ski Area</u>	<u>CO0031399</u>
COARUA14b	<u>Penrose Sanitation District</u>	<u>Penrose WWTF</u>	<u>CO0046523</u>
COARUA14b	<u>Royal Gorge Company of Colorado</u>	<u>Royal Gorge</u>	<u>CO0029033</u>
COARUA21	<u>Cripple Creek City of</u>	<u>Cripple Creek WWTF</u>	<u>CO0039900</u>
COARUA23	<u>Victor City of</u>	<u>Victor WWTF</u>	<u>CO0024201</u>
Unclassified	<u>Colorado Dept of Natural Resources</u>	<u>Arkansas Point WWTF</u>	<u>COG589008</u>
Unclassified	<u>Manzanola, Town of</u>	<u>Manzanola WWTF</u>	<u>COG589012</u>
Unclassified	<u>Wiley Sanitation District</u>	<u>Wiley San Dist WWTF</u>	<u>COG589007</u>

Prior to May 31, 2022:

- For segments located entirely above these facilities, nutrient standards apply to the entire segment.
- For segments with portions downstream of these facilities, *nutrient standards only apply above these facilities.*
- For segments located entirely below these facilities, nutrient standards do not apply.

Footnotes: Total phosphorus (TP) and chlorophyll a standards apply only to lakes and reservoirs larger than 25 acres surface area.

## 32.6 **TABLES**

### (1) **Introduction**

The numeric standards for various parameters in the attached tables were assigned by the Commission after a careful analysis of the data presented on actual stream conditions and on actual and potential water uses.

Numeric standards are not assigned for all parameters listed in the tables attached to Regulation No. 31. If additional numeric standards are found to be needed during future periodic reviews, they can be assigned by following the proper hearing procedures.

### (2) **Abbreviations:**

(a) The following abbreviations are used in the attached tables:

ac	=	acute (1-day)
Ag	=	silver
Al	=	aluminum
As	=	arsenic
B	=	boron
Ba	=	barium
Be	=	beryllium
°C	=	<u>degrees Celsius</u>
Cd	=	cadmium
ch	=	chronic (30-day)
Chla	=	<u>Chlorophyll a</u>
Cl	=	chloride
CL	=	<u>cold lake temperature tier</u>
Cl <sub>2</sub>	=	residual chlorine
CLL	=	<u>cold large lake temperature tier</u>
CN	=	free cyanide
CrIII	=	trivalent chromium
CrVI	=	hexavalent chromium
CS-I	=	<u>cold stream temperature tier one</u>
CS-II	=	<u>cold stream temperature tier two</u>
Cu	=	copper
dis	=	dissolved
D.O.	=	dissolved oxygen
DM	=	<u>daily maximum temperature</u>
DUWS	=	<u>direct use water supply</u>
E. coli	=	Escherichia coli
F	=	fluoride
Fe	=	iron
Hg	=	mercury
mg/l	=	milligrams per liter

ml	=	milliliters
Mn	=	manganese
Mo	=	<u>molybdenum</u>
MWAT	=	<u>maximum weekly average temperature</u>
NH <sub>3</sub>	=	ammonia as N(nitrogen)
Ni	=	nickel
NO <sub>2</sub>	=	nitrite as N (nitrogen)
NO <sub>3</sub>	=	nitrate as N (nitrogen)
OW	=	outstanding waters
P	=	phosphorus
Pb	=	lead
S	=	sulfide as undissociated H <sub>2</sub> S (hydrogen sulfide)
Sb	=	antimony
Se	=	selenium
SO <sub>4</sub>	=	sulfate
sp	=	spawning
T	=	<u>temperature</u>
Tl	=	thallium
Tot	=	<u>total</u>
tr	=	trout
Trec	=	total recoverable
TVS	=	table value standard
U	=	uranium
ug/l	=	micrograms per liter
UP	=	use-protected
WAT	=	<u>weekly average temperature</u>
WS	=	<u>water supply</u>
WS-I	=	<u>warm stream temperature tier one</u>
WS-II	=	<u>warm stream temperature tier two</u>
WS-III	=	<u>warm stream temperature tier three</u>
WL	=	<u>warm lake temperature tier</u>
Zn	=	zinc

(b) In addition, the following abbreviations are used:

Fe(ch)	=	WS(dis)
Mn(ch)	=	WS(dis)
SO <sub>4</sub>	=	WS

These abbreviations mean: For all surface waters with an actual water supply use, the less restrictive of the following two options shall apply as numerical standards, as specified in the Basic Standards and Methodologies at 31.16 Table II and III:

- (i) existing quality as of January 1, 2000; or
- (ii)
 

Iron	=	300 µg/l (dissolved)
Manganese	=	50 µg/l (dissolved)
SO <sub>4</sub>	=	250 mg/l

For all surface waters with a “water supply” classification that are not in actual use as a water supply, no water supply standards are applied for iron, manganese or sulfate, unless the Commission determines as the result of a site-specific rulemaking hearing that such standards are appropriate.

(c) ~~As used in the “Temporary Modifications and Qualifiers” column of the tables, the term “type I” refers to a temporary modification adopted pursuant to subsection 31.7(3)(a)(i) of the Basic Standards and Methodologies for Surface Water (i.e., “where the standard is~~

not being met because of human-induced conditions deemed correctable within a twenty (20) year period"). The term "type iii" refers to a temporary modification adopted pursuant to subsection 31.7(3)(a)(iii) of the Basic Standards and Methodologies for Surface Water (i.e., "where there is significant uncertainty regarding the appropriate long-term underlying standard"). As used in the Temporary Modifications and Qualifiers column of the tables in 32.6(4), the term "type A" refers to a Temporary Modification adopted pursuant to subsection 31.7(3)(a)(ii)(A) of the Basin Standards and Methodologies for Surface Water (i.e., "there is significant uncertainty regarding the water quality standard necessary to protect current and/or future use"). As used in the Temporary Modifications and Qualifiers column of the tables in 32.6(4), the term "type B" refers to a Temporary Modification adopted pursuant to subsection 31.7(3)(a)(ii)(B) of the Basin Standards and Methodologies for Surface Water (i.e., "there is significant uncertainty regarding the extent to which existing quality is the result of natural or irreversible human-induced conditions"). As used in the Temporary Modifications and Qualifiers column of the tables in 32.6(4), the term "type C" refers to a Temporary Modification adopted pursuant to subsection 31.7(3)(a)(ii)(C) of the Basin Standards and Methodologies for Surface Water (i.e., "there is significant uncertainty regarding the timing of implementing attainable source controls or treatment").

### (3) Table Value Standards

In certain instances in the attached tables, the designation "TVS" is used to indicate that for a particular parameter a "table value standard" has been adopted. This designation refers to numerical criteria set forth in the Basic Standards and Methodologies for Surface Water. The criteria for which the TVS are applicable are on the following table.

TABLE VALUE STANDARDS (Concentrations in ug/l unless noted)	
PARAMETER <sup>(1)</sup>	TABLE VALUE STANDARDS <sup>(2)(3)</sup>
Aluminum (Trec)	<p><u>Acute = <math>e^{(1.3695[\ln(\text{hardness})]+1.8308)}</math></u></p> <p><u>pH equal to or greater than 7.0</u></p> <p><u>Chronic=<math>e^{(1.3695[\ln(\text{hardness})]-0.1158)}</math></u></p> <p><u>pH less than 7.0</u></p> <p><u>Chronic= <math>e^{(1.3695[\ln(\text{hardness})]-0.1158)}</math> or 87, whichever is more stringent</u></p>
Ammonia <sup>(4)</sup>	<p>Cold Water</p> $acute = \frac{0.275}{1 + 10^{7.204 - pH}} + \frac{39.0}{1 + 10^{pH - 7.204}}$ $chronic = \left( \frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * MIN(2.85, 1.45 * 10^{0.028(25-T)})$ <p>Warm Water</p>

TABLE VALUE STANDARDS  
(Concentrations in ug/l unless noted)

PARAMETER <sup>(1)</sup>	TABLE VALUE STANDARDS <sup>(2)(3)</sup>
	$acute = \frac{0.411}{1 + 10^{7.204 - pH}} + \frac{58.4}{1 + 10^{pH - 7.204}}$ $chronic \text{ (Apr 1 - Aug 31)} = \left( \frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * MIN \left( 2.85, 1.45 * 10^{0.028(25 - T)} \right)$ $chronic \text{ (Sep 1 - Mar 31)} = \left( \frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * 1.45 * 10^{0.028 * (25 - MAX(T, 7))}$
<del>NH<sub>3</sub> = old TVS</del>	<del>Cold Water Acute = 0.43/FT/FPH/2<sup>(6)</sup> in mg/l (N)</del> <del>Warm Water Acute = 0.62/FT/FPH/2<sup>(6)</sup> in mg/ (N)</del>
Cadmium	$Acute = (1.136672 - [\ln(hardness) \times (0.041838)]) \times e^{0.9151[\ln(hardness)] - 3.1485}$ $Acute(Trout) = (1.136672 - [\ln(hardness) \times (0.041838)]) \times e^{0.9151[\ln(hardness)] - 3.6236}$ $Chronic = (1.101672 - [\ln(hardness) \times (0.041838)]) \times e^{0.7998[\ln(hardness)] - 4.4451}$
Chromium III <sup>(56)</sup>	$Acute = e^{(0.819[\ln(hardness)] + 2.5736)}$ $Chronic = e^{(0.819[\ln(hardness)] + 0.5340)}$
Chromium VI <sup>(56)</sup>	$Acute = 16$ $Chronic = 11$
Copper	$Acute = e^{(0.9422[\ln(hardness)] - 1.7408)}$ $Chronic = e^{(0.8545[\ln(hardness)] - 1.7428)}$
Lead	$Acute = (1.46203 - [\ln(hardness) * (0.145712)]) * e^{(1.273[\ln(hardness)] - 1.46)}$ $Chronic = (1.46203 - [\ln(hardness) * (0.145712)]) * e^{(1.273[\ln(hardness)] - 4.705)}$
Manganese	$Acute = e^{(0.3331[\ln(hardness)] + 6.4676)}$ $Chronic = e^{(0.3331[\ln(hardness)] + 5.8743)}$

**TABLE VALUE STANDARDS**  
(Concentrations in ug/l unless noted)

PARAMETER<sup>(1)</sup>

TABLE VALUE STANDARDS<sup>(2)(3)</sup>

Nickel

Acute =  $e^{(0.846[\ln(\text{hardness})]+2.253)}$   
Chronic =  $e^{(0.846[\ln(\text{hardness})]+0.0554)}$

Selenium<sup>(67)</sup>

Acute = 18.4  
Chronic = 4.6

Silver

Acute =  $\frac{1}{2}e^{(1.72[\ln(\text{hardness})]-6.52)}$   
Chronic =  $e^{(1.72[\ln(\text{hardness})]-9.06)}$   
Chronic(Trout) =  $e^{(1.72[\ln(\text{hardness})]-10.51)}$

Temperature

<u>TEMPERATURE TIER</u>	<u>TIER CODE</u>	<u>SPECIES EXPECTED TO BE PRESENT</u>	<u>APPLICABLE MONTHS</u>	<u>TEMPERATURE STANDARD (°C)</u>	
				<u>MWAT</u>	<u>DM</u>
<u>Cold Stream Tier 1</u>	<u>CS-I</u>	<u>brook trout, cutthroat trout</u>	<u>June – Sept.</u>	<u>17.0</u>	<u>21.7</u>
			<u>Oct. – May</u>	<u>9.0</u>	<u>13.0</u>
<u>Cold Stream Tier 2</u>	<u>CS-II</u>	<u>Other cold-water species</u>	<u>April – Oct.</u>	<u>18.3</u>	<u>23.9</u>
			<u>Nov. – March</u>	<u>9.0</u>	<u>13.0</u>
<u>Cold Lakes</u>	<u>CL</u>	<u>brook trout, brown trout, cutthroat trout, lake trout, rainbow trout, Arctic grayling, sockeye salmon</u>	<u>April – Dec.</u>	<u>17.0</u>	<u>21.2</u>
			<u>Jan. – March</u>	<u>9.0</u>	<u>13.0</u>
<u>Cold Large Lakes (&gt;100 acres surface area)</u>	<u>CLL</u>	<u>rainbow trout, brown trout, lake trout</u>	<u>April – Dec.</u>	<u>18.3</u>	<u>23.8</u>
			<u>Jan. – March</u>	<u>9.0</u>	<u>13.0</u>
<u>Warm Stream Tier 1</u>	<u>WS-I</u>	<u>common shiner, Johnny darter, orangethroat darter</u>	<u>March – Nov.</u>	<u>24.2</u>	<u>29.0</u>
			<u>Dec. – Feb.</u>	<u>12.1</u>	<u>14.5</u>
<u>Warm Stream Tier 2</u>	<u>WS-II</u>	<u>brook stickleback, central stoneroller, creek chub, longnose dace, Northern redbelly dace, finescale dace, razorback sucker, white sucker</u>	<u>March – Nov.</u>	<u>27.5</u>	<u>28.6</u>
			<u>Dec. – Feb.</u>	<u>13.8</u>	<u>14.3</u>
<u>Warm Stream Tier 3</u>	<u>WS-III</u>	<u>all other warm-water species</u>	<u>March – Nov.</u>	<u>28.7</u>	<u>31.8</u>
			<u>Dec. – Feb.</u>	<u>14.3</u>	<u>15.9</u>

TABLE VALUE STANDARDS  
(Concentrations in ug/l unless noted)

PARAMETER<sup>(1)</sup>

TABLE VALUE STANDARDS<sup>(2)(3)</sup>

<u>Warm Lakes</u>	<u>WL</u>	<u>black crappie, bluegill, common carp, gizzard shad, golden shiner, largemouth bass, Northern pike, pumpkinseed, sauger, smallmouth bass, spottail shiner, striped bass, tiger muskellunge, walleye, wiper, white bass, white crappie, yellow perch</u>	<u>April – Dec.</u>	<u>26.3</u>	<u>29.5</u>
			<u>Jan. – March</u>	<u>13.2</u>	<u>14.8</u>

Uranium

$$\text{Acute} = e^{(1.1021[\ln(\text{hardness})]+2.7088)}$$

$$\text{Chronic} = e^{(1.1021[\ln(\text{hardness})]+2.2382)}$$

Zinc

$$\text{Acute} = 0.978 \cdot e^{(0.8525[\ln(\text{hardness})]+1.0617)(0.9094[\ln(\text{hardness})]+0.9095)}$$

$$\text{Chronic} = 0.986 \cdot e^{(0.8525[\ln(\text{hardness})]+0.9409)(0.9094[\ln(\text{hardness})]+0.6235)}$$

TABLE VALUE STANDARDS - FOOTNOTES

- (1) Metals are stated as dissolved unless otherwise specified.
- (2) Hardness values to be used in equations are in mg/l as calcium carbonate and shall be no greater than 400 mg/L, except for aluminum for which hardness shall be no greater than 220 mg/L. The hardness values used in calculating the appropriate metal standard should be based on the lower 95 per cent confidence limit of the mean hardness value at the periodic low flow criteria as determined from a regression analysis of site-specific data. Where insufficient site-specific data exists to define the mean hardness value at the periodic low flow criteria, representative regional data shall be used to perform the regression analysis. Where a regression analysis is not appropriate, a site-specific method should be used. In calculating a hardness value, regression analyses should not be extrapolated past the point that data exist.
- (3) Both acute and chronic numbers adopted as stream standards are levels not to be exceeded more than once every three years on the average.

~~(4 old)~~  $FT = 10^{0.03(20-TCAP)}$ ;

~~Where TCAP is  $\leq T \leq 30$~~

$$FT = 10^{0.03(20-T)};$$

Where  $0 \leq T \leq TCAP$

$TCAP = 20^\circ\text{C}$  cold water aquatic life species present

$TCAP = 25^\circ\text{C}$  cold water aquatic life species absent

$FPH = 1$ ; Where  $8 < pH \leq 9$

$$FPH = 1 + 10^{(7.4-pH)};$$

1.25 ————— Where  $6.5 \leq pH \leq 8$

FPH means the acute pH adjustment factor, defined by the above formulas.

FT means the acute temperature adjustment factor, defined by the above formulas.

T means temperature measured in degrees celsius.

TCAP means temperature CAP; the maximum temperature which affects the toxicity of ammonia to salmonid and non-salmonid fish groups.

NOTE: If the calculated acute value is less than the calculated chronic value, then the calculated chronic value shall be used as the acute standard.

- (45) For acute conditions the default assumption is that salmonids could be present in cold water segments and should be protected, and that salmonids do not need to be protected in warm water segments. For chronic conditions, the default assumptions are that early life stages could be present all year in cold water segments and should be protected. In warm water segments the default assumption is that early life stages are present and should be protected only from April 1 through August 31. These assumptions can be modified by the commission on a site-specific basis where appropriate evidence is submitted.
- (56) Unless the stability of the chromium valence state in receiving waters can be clearly demonstrated, the standard for chromium should be in terms of chromium VI. In no case can the sum of the instream levels of Hexavalent and Trivalent Chromium exceed the water supply standard of 50 ug/l total chromium in those waters classified for domestic water use.
- (67) Selenium is a bioaccumulative metal and subject to a range of toxicity values depending upon numerous site-specific variables.



## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 13			Desig	Classifications	NUMERIC STANDARDS					TEMPORARY MODIFICATIONS AND QUALIFIERS	
BASIN: UPPER ARKANSAS RIVER		PHYSICAL and BIOLOGICAL			INORGANIC mg/l	METALS ug/l					
Stream Segment Description											
1a. All streams, <del>and wetlands, lakes and reservoirs</del> within Mount Massive and Collegiate Peaks Wilderness areas.			OW	Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
1b. Mainstem of the East Fork of the Arkansas River from its source to a point immediately above the confluence with Birdseye Gulch.				Aq Life Cold 1 Recreation E Water Supply	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=210(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS <del>Zn(ac)=160</del>	
2a. Mainstem of the East Fork of the Arkansas River and the Arkansas River from a point immediately above the confluence with Birdseye Gulch to a point immediately above the confluence with the California Gulch.				Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Fe(ch)=WS(dis) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
2b. Mainstem of the Arkansas River from a point immediately above California Gulch to a point immediately above the confluence with Lake Fork.			9/30/00 Base- line does not apply	Aq Life Cold 1 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=1.136672- (ln(hardness)*0.0418 38)*e <sup>(0.9151*ln(hardness)- 3.6236)</sup> Cd(ch)=(1.101672- [ln(hardness)*0.04183 8])*e <sup>(0.7998[ln(hardness)- 3.1725])</sup> <u>CrIII(ac/ch)=TVS</u> CrIII(ch)=100(Trec)	CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac)= 0.978*e <sup>(0.8537[ln(hardn ess)]+2.2178)</sup> Zn(ch)= 0.986*e <sup>(0.8537[ln(hardn ess)]+2.0469)</sup>	Seasonal (April – May) Temporary Modifications type (i): <del>no Cd(ac)</del> <del>Cd(ch)=1.34</del> <del>no Zn(ac)</del> Zn(ch)=649 Expiration date of 12/31/13.
2c. Mainstem of the Arkansas River from a point immediately above the confluence with the Lake Fork to a point immediately above the confluence with Lake Creek.			9/30/00 Base- line does not apply	Aq Life Cold 1 Recreation E <u>Water Supply</u> Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u>	As(ac)=340 As(ch)=7.60 <u>02</u> (Trec) Cd(ac)=1.136672- (ln(hardness)*0.0418 38)*e <sup>(0.9151*ln(hardness)- 3.6236)</sup> Cd(ch)=(1.101672- [ln(hardness)*0.04183 8])*e <sup>(0.7998[ln(hardness)- 3.1725])</sup> <u>CrIII(ac)=50(Trec)</u> CrIII(ch)=100(Trec) <u>TV</u> <u>S</u>	CrVI(ac/ch)=TVS Cu(ac/ch)=TVS <u>Fe(ch)=WS(dis)</u> Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS <u>Mn(ch)=WS(dis)</u> Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac)= 0.978*e <sup>(0.8537[ln(hardn ess)]+2.2178)</sup> Zn(ch)= 0.986*e <sup>(0.8537[ln(hardn ess)]+2.0469)</sup>	
3. Mainstem of the Arkansas River from a point immediately above the confluence with the Lake Creek <del>to the inlet to Pueblo Reservoir</del> <u>to the Chaffee/Fremont County line.</u>				Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modifications: Type (iii) Cd(ch)=0.48 Expiration date of 12/31/13.

## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 13 BASIN: UPPER ARKANSAS RIVER	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
4a. Mainstem of the Arkansas River from the Chaffee/Fremont County Line to a point immediately above Highway 115 bridge, due east of Florence.		Aq Life Cold 1 Recreation E Water Supply Agriculture	Apr-Oct <u>T<sub>DM</sub>=24.8 °C</u> <u>T<sub>MMAT</sub>=22.1 °C</u> Nov-Mar <u>T=TVS(CS-II)°C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
4b. Deleted Mainstem of the Arkansas River from a point immediately above Highway 115 bridge, due east of Florence, to the inlet of Pueblo Reservoir.		Aq Life Warm 1 Recreation E Water Supply Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS Zn(ac/ch)=TVS	
5. All tributaries to the Arkansas River, including wetlands, lakes and reservoirs, from the source to immediately below the confluence with Brown's Creeks, except for specific listings in segments 6 through 12b.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
6. Mainstem of California Gulch, including all tributaries, from the source to the confluence with the Arkansas River. Mainstem of St. Kevin's Gulch from the source to the confluence with Tennessee Creek.		Recreation N Agriculture	E.Coli=630/100ml						
7. Mainstem of Evans Gulch from the source to the confluence with the Arkansas River.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
8a. Mainstem of Iowa Gulch from the source to the ASARCO water supply intake.		Aq Life Cold 2 Recreation E Water Supply Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02-10(Trec) <sup>a</sup> Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01 (tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modification (type I): Cd(ch)=0.84 Expiration date of 12/31/2013.
8b. Mainstem of Iowa Gulch from a point immediately below the ASARCO water supply intake to a point immediately below the headgate of the Paddock #1 Ditch (Iowa Ditch).	UP	Aq Life Cold 2 Recreation E Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=110 ug/l (tot)	As(ac)=340 As(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modifications (type I): Cd(ch)=4.3 Pb(ch)=6 Zn(ch)=295 Expiration date of 12/31/2013.

## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 13 BASIN: UPPER ARKANSAS RIVER	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
9. Mainstem of Iowa Gulch from a point immediately below the headgate of the Paddock #1 Ditch (Iowa Ditch) to the confluence with the Arkansas River.		Aq Life Cold 1 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <u>CrIII(ac/ch)=TVS</u> CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
10. Mainstem of Lake Creek, including all tributaries; <u>and</u> wetlands, lakes <u>and</u> reservoirs, from the source to the confluence with the Arkansas River, except for the specific listing in segment 11.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02 Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS	Cu(ac)=TVS <u>14.6</u> Cu(ch)=8 <u>10.6</u> Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01 (tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
11. Mainstem of South Fork of Lake Creek, including all tributaries; <u>and</u> wetlands, lakes <u>and</u> reservoirs, from the source to the confluence with Lake Creek.		Aq Life Cold 1 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=5.0-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	Al(ac)=750 As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <u>CrIII(ac/ch)=TVS</u> CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=2000 <u>1000</u> (Trec) Mn(ac/ch)=TVS Pb(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
12a. Mainstem of Chalk Creek from the source to the confluence with the Arkansas River.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modification (type i): Zn(ch)=420 Expiration date of 12/31/2013.
12b. Mainstem of Cottonwood Creek (Chaffee County), from the source to the confluence with the Arkansas River; South Fork of the Arkansas, including all tributaries; <u>and</u> wetlands, lakes <u>and</u> reservoirs, from the source <u>National Forest boundary</u> to the confluence with the Arkansas River.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
13. All tributaries to the Arkansas River, including wetlands, lakes <u>and</u> reservoirs, which are on National Forest lands, from the confluence with Brown's Creek to the inlet to Pueblo Reservoir, except for specific listings in segments 12b, <u>14a</u> , <u>14c</u> and 15-27.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
14a. Mainstem of Big Red Creek, Little Red Creek, and Rush Creek and Hardscrabble Creek from their sources to their confluence with the Arkansas River.		Aq Life Warm 2 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=50(Trec) <u>TVS</u> <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 13 BASIN: UPPER ARKANSAS RIVER	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
14b. All tributaries to the Arkansas River, including wetlands, lakes and reservoirs, which are not on National Forest lands, from the confluence with Brown's Creek to the inlet to Pueblo Reservoir Chaffee/Fremont County line, except for the specific listings in segments 14a, 12b, 14a and 16-27.		Aq Life Cold 2 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.2 0.005</u> <u>S=0.002</u>	B=0.75 NO <sub>2</sub> =40-0.05 NO <sub>3</sub> =109 <u>Cl=250</u> SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=400</u> <u>0.02(Trec)</u> <u>Be(ch)=400(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=40(Trec)TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=400(Trec)TV</u> <u>S</u>	<u>CrVI(ac/ch)=400(Tre</u> <u>ee)TVS</u> <u>Cu(ac/ch)=200(Tre</u> <u>e)TVS</u> <u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=400(Trec</u> <u>)TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u>	<u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=200(Trec)</u> <u>TVS</u> <u>Se(ac/ch)=20(Trec)</u> <u>TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=2000(Tre</u> <u>e)TVS</u>	
14c. Mainstems of North and South Hardscrabble Creeks from their sources to their confluences.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>Jun-Sep</u> <u>T<sub>DM</sub>=22.1 °C</u> <u>T<sub>MWAT</sub>=17.0 °C</u> <u>Oct-May</u> <u>T=TVS(CS-I) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
14d. All tributaries to the Arkansas River, including wetlands, which are not on National Forest lands, from the Chaffee/Fremont County line to the inlet to Pueblo Reservoir, except for specific listings in segments 14a, 14c and 15-27.		Aq Life Cold 2 Recreation E Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	<u>CN=0.2</u> <u>NO<sub>2</sub>=10</u> <u>NO<sub>3</sub>=100</u>	<u>B=0.75</u> <u>P=110 ug/l (tot)</u>	<u>As(ch)=100(Trec)</u> <u>Be(ch)=100(Trec)</u> <u>Cd(ch)=10(Trec)</u> <u>CrIII(ch)=100(Trec)</u>	<u>CrVI(ch)=100(Trec)</u> <u>Cu(ch)=200(Trec)</u> <u>Pb(ch)=100(Trec)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ch)=200(Trec)</u> <u>Se(ch)=20(Trec)</u> <u>Zn(ch)=2000(Trec)</u>	
15. Mainstem of Grape Creek, including all tributaries and wetlands, from the source to the outlet of De Weese Reservoir, except for specific listings in segment 25; Mainstems of Texas, Badger, Hayden, Hamilton, Stout, and Big Cottonwood Creeks, including all tributaries, and wetlands, lakes and reservoirs, from their sources to their confluences with the Arkansas River. Mainstem of Newlin Creek from the National Forest boundary to the City of Florence water diversion.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
16a. Mainstem of Middle Tallahassee Creek, including all tributaries, and wetlands, lakes and reservoirs, from the source to the intersection with Road 23.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
16b. Mainstem of North Tallahassee Creek, South Tallahassee Creek, Middle Tallahassee Creek, and Tallahassee Creek from their sources to a point immediately below their confluence with South Tallahassee Creek, except for the specific listing in segment 16a.		Aq Life Cold 2 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02-10(Trec)<sup>Δ</sup></u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
16c. Mainstem of Tallahassee Creek from a point immediately below the confluence with South Tallahassee Creek to the confluence with the Arkansas River.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 13			Desig	Classifications	NUMERIC STANDARDS					TEMPORARY MODIFICATIONS AND QUALIFIERS	
BASIN: UPPER ARKANSAS RIVER		PHYSICAL and BIOLOGICAL			INORGANIC mg/l	METALS ug/l					
Stream Segment Description											
17a. Mainstem of Cottonwood Creek (Fremont County) including all tributaries; <u>and</u> wetlands, <del>lakes and reservoirs</del> , from the source to a point immediately below the confluence with North Waugh Creek.				Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
17b. Mainstem of Cottonwood Creek (Fremont county), including all tributaries; <u>and</u> wetlands, <del>lakes and reservoirs</del> , from a point immediately below the confluence with North Waugh Creek to the intersection with F6 Road.				Aq Life Cold 2 Recreation E Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
17c. Mainstem of Cottonwood Creek <u>from</u> F6 Road: to the confluence with Currant Creek.				Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
18. Mainstem of Currant Creek (Park County), including all tributaries; <u>and</u> wetlands, <del>lakes and reservoirs</del> , from the source to the confluence with Tallahassee Creek, except for the specific listings in 17a, 17b, and 17c.				Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
19. Mainstem of Fourmile Creek, including all tributaries; <u>and</u> wetlands, <del>lakes and reservoirs</del> , from the source to immediately above the confluence with Cripple Creek.				Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS <u>Mn(ch)=WS(dis)</u> Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
20. Mainstem of Fourmile Creek, including all tributaries; <u>and</u> wetlands, <del>lakes and reservoirs</del> , from immediately above the confluence with Cripple Creek to the confluence with the Arkansas River, except for the specific listing to segment 23.				Aq Life Cold 1 Recreation E Agriculture Water Supply	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)* Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
*Dissolved Mn and SO <sub>4</sub> standards applicable at the point of withdraw.											
21a. Mainstem of Cripple Creek from the source to a point 1.5 miles upstream of the confluence with Fourmile Creek.				Aq Life Cold 2 Recreation E Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac)=TVS(sa) NH <sub>3</sub> (ch)=TVS(ela) CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS <u>Cd(ch)=TVS</u> <u>CrIII(ac/ch)=TVS</u> CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 13			Desig	Classifications	NUMERIC STANDARDS					TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: UPPER ARKANSAS RIVER		PHYSICAL and BIOLOGICAL			INORGANIC mg/l	METALS ug/l				
Stream Segment Description										
21b.	Mainstem of Cripple Creek from a point 1.5 miles upstream to the confluence with Fourmile Creek.		Aq Life Cold 2 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac)=TVS(sp) NH <sub>3</sub> (ch)=TVS(elp) CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u>	As(ac)=340 As(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <u>CrIII(ac/ch)=TVS</u> CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
22a.	Mainstem of Arequa Gulch from the source to the confluence with Cripple Creek.	UP	Aq Life Cold 2 Recreation N Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH=6.0-9.0 E.Coli=630/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	Al(ac/ch)=11,000 As(ch)=100(Trec) As(ac)=340 Cd(ac/ch)=TVS <u>CrIII(ac/ch)=TVS</u> CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac)=5903 Mn(ch)=3674 Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac)=3500 Zn(ch)=600	
22b.	Squaw Gulch from the source to the confluence with Cripple Creek.	UP	Aq Life Cold 2 Recreation N Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=630/100ml	CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B=5.0 <u>P=110 ug/l (tot)</u>	As(ch)=200(Trec) Cd(ch)=50(Trec) CrIII(ch)=1000(Trec) CrVI(ch)=1000(Trec)	Cu(ch)=500(Trec) Pb(ch)=100(Trec) Hg(ch)=10(Trec) <u>Mo(ch)=160(Trec)</u>	Se(ch)=50(Trec) Zn(ch)=25000(Trec)	
23.	Mainstem of Wilson Creek (Teller County) from the source to the confluence with Fourmile Creek.		Aq Life Cold 2 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02-10(Trec) <sup>A</sup> Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
24.	Mainstem of East and West Beaver Creeks, including all tributaries; <u>and</u> wetlands, <del>lakes and reservoirs</del> ; from the source to the confluence with Beaver Creek; mainstem of Beaver Creek from the source to the point of diversion to Brush Hollow Reservoir.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
25.	Mainstem of Cottonwood Creek (Custer County) from the headwaters to Section 23, T20S, R65W.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
26.	Mainstem of Beaver Creek from the point of diversion for Brush Hollow Reservoir to the confluence with the Arkansas River.		Aq Life Warm 2 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> D.O.=5.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=170 ug/l (tot)</u>	As(ch)=100(Trec) As(ac)=340 Cd(ac/ch)=TVS CrIII(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	

## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 13		Desig	Classifications	NUMERIC STANDARDS					TEMPORARY MODIFICATIONS AND QUALIFIERS	
BASIN: UPPER ARKANSAS RIVER				PHYSICAL and BIOLOGICAL	INORGANIC mg/l	METALS ug/l				
Stream Segment Description										
27. Mainstem of Eightmile Creek, including all tributaries, and wetlands, lakes and reservoirs, from the source to <u>County Road 132</u> the mouth of Phantom Canyon; Brush Hollow Reservoir. Mainstem of Coal Creek (Fremont County) from its source to the confluence with the Arkansas River.			Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
28. All lakes and reservoirs within the Mount Massive and Collegiate Peaks Wilderness areas.		OW	Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
29. All lakes and reservoirs tributary to the Arkansas River from the source to immediately below the confluence with Brown's Creek, except for specific listings in segments 28 and 30.			Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
30. Turquoise Reservoir, Clear Creek Reservoir, Twin Lakes and Mt. Elbert Forebay.			Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CLL) °C D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02 Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
31. All lakes and reservoirs tributary to the Arkansas River which are on National Forest lands, from the confluence with Brown's Creek to the inlet to Pueblo Reservoir, except for specific listings in segments 32 and 34-40.			Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
32. All lakes and reservoirs tributary to the South Fork of the Arkansas from the source to the confluence with the Arkansas River.			Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
33. All lakes and reservoirs tributary to the Arkansas River which are not on National Forest lands, from the confluence with Brown's Creek to the inlet to Pueblo Reservoir, except for specific listings in segments 32 and 34-40. This segment includes Teller Reservoir.			Aq Life Cold 2 Recreation E Water Supply Agriculture	T=TVS(CL, CLL) °C D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02-10(Trec) <sup>A</sup> Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 13									
BASIN: UPPER ARKANSAS RIVER	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
Stream Segment Description			PHYSICAL and BIOLOGICAL	INORGANIC mg/l	METALS ug/l				
34. <u>All lakes and reservoirs tributary to the mainstems of Texas, Badger, Hayden, Hamilton, Stout, and Big Cottonwood Creeks from their sources to their confluences with the Arkansas River. All lakes and reservoirs tributary to the mainstem of Grape Creek from the source to the outlet of DeWeese Reservoir, except for the specific listing in segment 35.</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>T=TVS(CL) °C</u> <u>D.O.=6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH=6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=8 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
35. <u>DeWeese Reservoir.</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>T=TVS(CLL) °C</u> <u>April-Dec</u> <u>T<sub>year</sub>=21.3°C</u> <u>D.O.=6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH=6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=8 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
36. <u>All lakes and reservoirs tributary to the mainstem of Currant Creek (Park County) from the source to the confluence with Tallahassee Creek, except lakes and reservoirs tributary to Cottonwood Creek (Fremont County) from a point immediately below the confluence with North Waugh Creek to the intersection with F6 Road. All lakes and reservoirs tributary to the mainstem of Middle Tallahassee Creek from the source to the intersection with Road 23.</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>T=TVS(CL) °C</u> <u>D.O.=6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH=6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=8 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
37. <u>All lakes and reservoirs tributary to the mainstem of Fourmile Creek from the source to the confluence with the Arkansas River. This segment includes Wright Reservoir.</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>T=TVS(CL, CLL) °C</u> <u>D.O.=6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH=6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=8 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
38. <u>All lakes and reservoirs tributary to the mainstem of East and West Beaver Creeks from the source to the confluence with Beaver Creek. This segment includes Skagway and Bison Reservoirs.</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>DUWS*</u> <u>Agriculture</u>	<u>T=TVS(CL, CLL) °C</u> <u>D.O.=6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH=6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=8 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	<u>* Bison Reservoir =</u> <u>DUWS</u>
39. <u>All lakes and reservoirs tributary to the mainstem of Eightmile Creek from the source to the mouth of Phantom Canyon.</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>T=TVS(CL) °C</u> <u>D.O.=6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH=6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=8 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
40. <u>Brush Hollow Reservoir.</u>		<u>Aq Life Warm 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>T=TVS(WL) °C</u> <u>D.O.=5.0 mg/l</u> <u>pH=6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=20 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.5</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=83 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac/ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac/ch)=TVS</u> <u>Zn(ac/ch)=TVS</u>	



## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 7 BASIN: MIDDLE ARKANSAS RIVER Stream Segment Description	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
1. All tributaries, including wetlands, to the Arkansas River within the Sangre de Cristo, Greenhorn, and Spanish Peaks Wilderness areas.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
1. Pueblo Reservoir.		Aq Life Cold 1 Recreation E Water Supply Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.049 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
2. Mainstem of the Arkansas River from the outlet of Pueblo Reservoir to a point immediately above the confluence with Wildhorse/Dry Creek Arroyo.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
3. Mainstem of the Arkansas River from a point immediately above the confluence with Wildhorse/Dry Creek Arroyo to a point immediately above the confluence with Fountain Creek, Valeo Ponds and Fountain Lake.		Aq Life Warm 1 Recreation E Water Supply Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS Cd(ac/ch)=TVS(Trec) CrIII(ac)=TVS CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac)=26.350-9 Se(ch)=17.14 Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
4a. Mainstem of Wildhorse Creek from the source to the confluence with the Arkansas River.	UP	Aq Life Warm 12 Recreation E Agriculture	T=TVS(WS-II) °C D.O.=5.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=170 ug/l (tot)	As(ac)=340 As(ch)=7.6400(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ch)=1815.0597 Se(ac)=7087.7 Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
4b. Mainstem of Rock Creek, Salt Creek and Peck Creek from their sources to the confluence with the Arkansas River.	UP	Aq Life Warm 12 Recreation E Agriculture	T=TVS(WS-II) °C D.O.=5.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=170 ug/l (tot)	As(ac)=340 As(ch)=7.6400 (Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
4c. Mainstem of Chico Creek, including all tributaries, and wetlands, lakes and reservoirs, from the source to the confluence with the Arkansas River.		Aq Life Warm 1 Recreation E Water Supply Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100m Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=170 ug/l (tot)	As(ac)=340 As(ch)=0.027-6(Tre c) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modification type (iii): NH <sub>3</sub> (ac/ch)=Existing Quality Expiration date of 12/31/2013

## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 7	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: MIDDLE ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
4d. All tributaries, including wetlands, to the Arkansas River and Pueblo Reservoir from the inlet to Pueblo Reservoir to the Colorado Canal headgate, except for specific listings in the Fountain Creek Subbasin and in segments 4a, 4b, 4c, 5a through 18b.	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	CN=0.2 NO <sub>2</sub> =1.0 NO <sub>3</sub> =100 S=0.05	B=0.75 Cl=250 SO <sub>4</sub> =WS P=170 ug/l (tot)	As(ac)=340 As(ch)=0.02- 100(Trec) <sup>ab</sup> Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ac)=50(Trec) CrIII(ch)=TVS+100(Tf- ee)	Fe(ch)=WS(dis) CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec) Mn(ch)=WS(dis) Hg(ac)=2.0(tot) Mo(ch)=160(Trec)	Ni(ch)=200(Trec) Se(ch)=20(Trec) Zn(ch)=2000(Trec)	
4e. Golf Course Wash	UP	Aq Life Warm 2 Recreation E Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B=0.75 P=170 ug/l (tot)	As(ac)=340 As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec) CrIII(ac/ch)=TVS	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec) Mo(ch)=160(Trec)	Ni(ch)=200(Trec) Se(ch)=20(Trec) Zn(ch)=2000(Trec)	
5a. Mainstem of the Saint Charles River, including all tributaries, and wetlands, lakes and reservoirs, from the source to the San Isabel National Forest boundary, a point immediately above the CF&I diversion canal near Burnt Mill.	UP	Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
5b. Mainstem of the Saint Charles River, including all tributaries and wetlands, from the San Isabel National Forest boundary to a point immediately above the CF&I diversion canal near Burnt Mill.	UP	Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
6. Mainstem of the Saint Charles River from a point immediately above the CF&I diversion canal near Burnt Mill to the confluence with the Arkansas River.	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=170 ug/l (tot)	As(ac)=340 As(ch)=0.02- 10(Trec) <sup>ab</sup> Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modification type (iii): Se(ch)=39.0, Expiration date of 12/31/2013.
7a. Mainstem of Greenhorn Creek, including all tributaries, and wetlands, lakes and reservoirs, from the source to the San Isabel National Forest boundary, to a point immediately below the Greenhorn Highline (Hayden Supply Ditch) diversion dam, except for specific listings in segment 8; Mainstem of Graneros Creek,; mainstem of North Muddy Creek, from the source to the San Isabel National Forest boundary. All tributaries to Muddy Creek, including wetlands, from the source to the San Isabel National Forest boundary.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
7b. Mainstem of Greenhorn Creek, including all tributaries and wetlands, from the San Isabel National Forest boundary to a point immediately below the Greenhorn Highline (Hayden Supply Ditch) diversion dam. Mainstem of Graneros Creek below the San Isabel National Forest boundary. Muddy Creek, including all tributaries and wetlands, from the San Isabel National Forest boundary to 232/Bondurant Road.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 7 BASIN: MIDDLE ARKANSAS RIVER	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
8. <del>Beckwith Reservoir</del>		Aq Life Cold 1 Recreation E Water Supply Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.06 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
9. Mainstem of Greenhorn Creek, from a point immediately below the Greenhorn Highline (Hayden Supply Ditch) diversion dam, to the confluence with the Saint Charles River.	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =700 <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modifications: type (iii) Se(ch)=8.6: Expiration date of 12/31/2013.
10. Mainstem of Sixmile Creek from the source to the confluence with the Arkansas River.	UP	Aq Life Warm 2 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 <u>NO<sub>3</sub>=100</u> <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
11a. Mainstem of the Huerfano River including all tributaries, and wetlands, lakes and reservoirs from the source to 570 Road near Malachite, except for the specific listings in segment 1, the confluence with Muddy Creek near Gardner, Pass Creek, including all tributaries and wetlands, from the source to 565 Road, Muddy Creek, including all tributaries and wetlands, from the source to a point immediately below the confluence with Bruff Creek, except for the specific listings in segment 1, Mainstem of Turkey Creek (in Huerfano County) from the source to 620 Road, except for the specific listings in segment 1, confluence with the Huerfano River.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
11b. Mainstem of the Huerfano River, including all tributaries and wetlands, from 570 Road near Malachite to Highway 69 at Badito, except for the specific listings in segment 1, 11a and 12.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
12. Mainstem of Huerfano River from Highway 69 at Badito to the confluence with Muddy Creek near Gardner to the confluence with the Arkansas River.	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02- 10400(Trec) <sup>a</sup> Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
13a. All tributaries, including wetlands, to the Cucharas River within the San Isabel National Forest boundaries, except for the specific listings in segment 1, Mainstem of the Cucharas River, including all tributaries, wetlands, lakes and reservoirs, from the source to a point immediately above the confluence with Middle Creek, except for the specific listings in segment 1, the point of diversion for the Walsenburg public water supply, Wadatoya Creek, including all tributaries and wetlands, from the source to the confluence with the Cucharas River, except for the specific listings in segment 1, All tributaries to Middle Creek, including wetlands, from the source to a point immediately below the confluence of North and South Middle Creeks.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 7 BASIN: MIDDLE ARKANSAS RIVER Stream Segment Description	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
13b. Mainstem of the Cucharas River from a point immediately above the confluence with Middle Creek to the point of diversion for the Walsenburg public water supply. All tributaries, including wetlands, to the Cucharas River from the San Isabel National Forest boundary to the point of diversion for the Walsenburg public water supply.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
14. Mainstem of the Cucharas River from the point of diversion for the Walsenburg public water supply to the outlet of Cucharas Reservoir.		Aq Life Warm 1 Recreation E Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =100 P=170 ug/l (tot)	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ch)=100(Trec) CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
15. Mainstem of Cucharas River from the outlet of Cucharas Reservoir to the confluence with the Huerfano River.	UP	Aq Life Warm 2 Recreation E Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B=0.75	As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec) CrIII(ac/ch)=TVS	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec) Mo(ch)=160(Trec)	Ni(ch)=200(Trec) Zn(ch)=2000(Trec)	
16. Huajatolla Reservoirs, Diagre Reservoir, Walsenburg Lower Town Lake, Horseshoe Lake, and Martin Lake (Ohem Lake) Deleted.		Aq Life Cold 1 Recreation E Water Supply Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
17. All tributaries to Apache Creek, including wetlands, from the source to a point immediately below the confluence of North and South Apache Creeks, except for the specific listings in segment 1. Mainstem of the South Apache Creek from the source to the boundary of BLM lands, in Section 25, T25S, R68W; mainstem of North Apache Creek from the source to the southern boundary of Section 24, T25S, R68W. All tributaries, including wetlands, to the Huerfano River above the confluence with the Cucharas River that are within the San Isabel National Forest boundaries, except for the specific listings in segment 1 and 11a.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
18a. Mainstem of Boggs Creek from the source to Pueblo Reservoir.		Aq Life Warm 1 Recreation E Water Supply Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=170 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
18b. Turkey Creek (Pueblo County) from U.S. Highway 50 to Pueblo Reservoir; unnamed tributary to Arkansas River, that flows from the south and whose confluence with the Arkansas River is located at 38.267623, -104.668298 located in Section 33, Township 20 South, Range 65 West; Mainstem of Rush Creek (Pueblo County) from the source to the confluence with the Arkansas River.		Aq Life Warm 1 Recreation E Water Supply Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=170 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
19. All lakes and reservoirs tributary to the Arkansas River within the Sangre de Cristo, Greenhorn, and Spanish Peaks Wilderness areas.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l <sup>a</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 7 BASIN: MIDDLE ARKANSAS RIVER	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
20. <u>Pueblo Reservoir.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture DUWS	T=TVS(CLL) °C Apr - Dec T(MWAT)=23.3 °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/L <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
21. <u>All lakes and reservoirs tributary to Chico Creek from the source to the confluence with the Arkansas River. Valco Ponds and Fountain Lake.</u>		Aq Life Warm 1 Recreation E Water Supply Agriculture	T=TVS(WL) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/L <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=83 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
22. <u>All lakes and reservoirs tributary to the Saint Charles River from the source to a point immediately above the CF&amp;I diversion canal near Burnt Mill.</u>	UP	Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/L <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
23. <u>All lakes and reservoirs tributary to Greenhorn Creek from the source to a point immediately below the Greenhorn Highline (Hayden Supply Ditch) diversion dam. All lakes and reservoirs tributary to Graneros Creek from the source to the San Isabel National Forest boundary. All lakes and reservoirs tributary to Muddy Creek from the source to 232/Bondurant Road. Beckwith Reservoir.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture DUWS*	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/L <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	*DUWS Applies only to Beckwith Reservoir
24. <u>All lakes and reservoirs tributary to the Huerfano River from the source to Highway 69 at Badito, except for the specific listings in segment 19. All lakes and reservoirs tributary to the Huerfano River above the confluence with the Cucharas River that are within the San Isabel National Forest boundaries, except for the specific listings in segment 19.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/L <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
25. <u>All lakes and reservoirs tributary to the Cucharas River from the source to the point of diversion for the Walsenburg public water supply, except for the specific listings in segment 19. Huajatolla Reservoirs and Diagre Reservoir</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/L <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 7 BASIN: MIDDLE ARKANSAS RIVER	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
26. <u>Horseshoe Lake, Martin Lake (Ohem Lake) and Walsenburg Lower Town Lake...</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u> <u>DUWS</u>	<u>Horseshoe</u> <u>Apr - Dec</u> <u>T(MWAT)=21.7 °C</u> <u>Jan-Mar</u> <u>T=TVS(CLI) °C</u> <u>Martin</u> <u>Apr - Dec</u> <u>T(MWAT)=18.8 °C</u> <u>Jan-Mar</u> <u>T=TVS(CLI) °C</u> <u>Walsenburg</u> <u>T=TVS(CI) °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O. (sp)=7.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=8 ug/l</u> <sup>B</sup>	<u>NH<sub>3</sub>(ac/ch)=TV</u> <u>S</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l</u> <u>(tot)</u> <sup>B</sup>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u>	<u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
27. <u>Teller Reservoir</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u> <u>DUWS</u>	<u>T=TVS(CLI) °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O. (sp)=7.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=8 ug/l</u> <sup>B</sup>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l</u> <u>(tot)</u> <sup>B</sup>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u>	<u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	

REGION: 4 & 7		Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: FOUNTAIN CREEK				PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description										
1a. Mainstem of Fountain Creek, including all tributaries, <u>and lakes</u> , wetlands <u>and reservoirs</u> , from the source to a point immediately above the confluence with Monument Creek, except for specific listings in segment 1b.			Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modification type (iii): <u>Se(ch)=8.7</u> Expiration date 12/31/2013.
1b. Severy Creek and all tributaries from the source to a point just upstream of where US Forest Service Road 330 crosses the stream.		OW	Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
2a. Mainstem of Fountain Creek from a point immediately above the confluence with Monument Creek to a point immediately above the State Highway 47 Bridge.			Aq Life Warm 2 Recreation E Water Supply Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =4.0 <u>5</u> NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> = <u>330-290</u>	As(ac)=340 As(ch)=0.02-10(Trec) <sup>Δ</sup> Cd(ac/ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)** Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac)=TVS Se(ch)= <u>8 4.8</u> Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modifications: NH <sub>3</sub> (ac/ch)=TVS (old); Expiration date of 12/31/2013.  Type (iii): Cu(ac/ch)=current condition, Expiration date of 12/31/2013.
**Dissolved Mn point of compliance at Pinello Ranch Clear Well in NW ¼ of SW ¼ of sec. 11, T15S, R66W.										
2b. Mainstem of Fountain Creek from a point immediately above the State Highway 47 Bridge to the confluence with the Arkansas River.			Aq Life Warm 2 Recreation E Water Supply Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =4.0 <u>5</u> NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =485	As(ac)=340 As(ch)=0.02-10(Trec) <sup>Δ</sup> Cd(ac/ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)= <u>5280</u> 3300(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac)=42.3 Se(ch)=28.1 Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
3a. All tributaries to Fountain Creek which are within the boundaries of National Forest or Air Force Academy lands, including all wetlands, <u>lakes and reservoirs</u> , from a point immediately above the confluence with Monument Creek to the confluence with the Arkansas River, except for the mainstem of Monument Creek in the Air Force Academy lands, <u>land</u> , except for <u>and</u> specific listings in segment 3b.			Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
3b. Bear Creek, and all tributaries, from the source to a point <u>immediately</u> upstream of <u>Gold Camp Road</u> . GPS coordinates <u>N3847682, W-10454917</u> (this location is at elevation 8,200 feet above sea level at a 250° angle and 3,000 feet from the trailhead of the Mount Buckhorn Trail off High Drive).		OW	Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
4. All tributaries to Fountain Creek which are not within the boundaries of National Forest or Air Force Academy lands, including all wetlands, <u>lakes and reservoirs</u> , from a point immediately above the confluence with Monument Creek to the confluence with the Arkansas River, <u>except</u> expect for the specific listings in segments 5, <u>and 6 and 7a and 7b</u> .		UP	Aq Life Warm 2 Recreation E <u>Water Supply</u> Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.2005</u> <u>S=0.002</u>	B=0.75 NO <sub>2</sub> =40 <u>0.5</u> NO <sub>3</sub> =100 Cl=250 SO <sub>4</sub> =WS <u>P=170 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=400 0.02-10</u> <u>(Trec)<sup>Δ</sup></u> <u>Be(ch)=400(Trec)</u> <u>Cd(ac/ch)=40TVS(T</u> <u>rec)</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=400TVS(T</u> <u>rec)</u>	<u>CrVI(ch)=400TVS(Trec</u> <u>)</u> <u>Cu(ac/ch)=200TVS(T</u> <u>rec)</u> <u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=400TVS(Tre</u> <u>c)</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u>	<u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec</u> <u>)</u> <u>Ni(ac/ch)=200TV</u> <u>S(Trec)</u> <u>Se(ac/ch)=20TV</u> <u>S(Trec)</u> <u>Ag(ac/ch)=TVS</u> <u>Zn(ac/ch)=2000TVS(Trec)</u>	Temporary modification type (i): NH <sub>3</sub> (ac/ch)=TVS (old); Expiration date of 12/31/2013.

## 32.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 4 & 7 BASIN: FOUNTAIN CREEK	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
5. Marshland on Nash Property (60 acres at 13030 Old Pueblo Road, El Paso County) located in Section 28 T16S R65W; Jimmy Camp Creek from the irrigation diversion east of Old Pueblo Road to its confluence with Fountain Creek; unnamed tributary from the boundary of Fort Carson to the confluence with Fountain Creek; located in S1/2, SW1/4, Section 6 and N1/2, NW1/4, Section 7, T16S, R65W.		Aq Life Cold 2 Warm 2 Recreation N Water Supply Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=630/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=170 ug/l (tot)	As(ac)=340 As(ch)=1000(Trec) Cd(ac/ch)=TVS Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ac)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
6. Mainstem of Monument Creek, from the boundary of National Forest lands to the confluence with Fountain Creek.		Aq Life Warm 2 Recreation E Water Supply Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =329WS P=170 ug/l (tot)	As(ac)=340 As(ch)=0.02-10(Trec) <sup>a</sup> Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1430(Trec) (Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modification: type (iii): Cu(ac/ch)=current condition, Expiration date of 12/31/2013
7a. Pikeview Reservoir, Willow Springs Pond #1, and Willow Springs Pond #2.	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	<u>T=TVS(WL) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=205 126/100ml Chla=20 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=83 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Water + Fish Standards Apply
7b. Prospect Lake, Quail Lake, and Monument Lake.	UP	Aq Life Warm 2 Recreation E Agriculture	<u>T=TVS(WL) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=20 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =4-0.5 NO <sub>3</sub> =100 P=83 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Fish Ingestion Standards Apply
8. All lakes and reservoirs tributary to the mainstem of Fountain Creek from the source to a point immediately above the confluence with Monument Creek, except for specific listings in segment 9.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CL) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
9. North Catamount Reservoir, South Catamount Reservoir, and Crystal Creek Reservoir.		Aq Life Cold 1 Recreation E Water Supply DUWS* Agriculture	<u>T=TVS(PLL) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	*All reservoirs=DUWS
10. All lakes and reservoirs tributary to Fountain Creek which are within the boundaries of National Forest or Air Force Academy lands from a point immediately above the confluence with Monument Creek to the confluence with the Arkansas River, except for specific listings in Segment 11. This segment includes Rampart Reservoir.		Aq Life Cold 1 Recreation E Water Supply DUWS* Agriculture	<u>T=TVS(CL, PLL) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	* Rampart Reservoir = DUWS



# 32.6(4)

# STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 4 & 7  BASIN: FOUNTAIN CREEK	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
<u>11. All lakes and reservoirs tributary to Fountain Creek which are not within the boundaries of National Forest or Air Force Academy lands, except AFA Non-Potable Reservoir #1, from a point immediately above the confluence with Monument Creek to the confluence with the Arkansas River, excluding the specific listings in segments 7a and 7b.</u>		<u>Aq Life Warm 2 Recreation E Water Supply Agriculture</u>	<u>T=TVS(WL) °C</u> <u>D.O. = 5.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=20 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.5</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=83 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=0.02-10(Trec)<sup>A</sup></u> <u>Cd(ac/ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac/ch)=TVS</u> <u>Zn(ac/ch)=TVS</u>	

REGION: 7	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: LOWER ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
1a. Mainstem of the Arkansas River from a point immediately above the confluence with Fountain Creek to immediately above the Colorado Canal headgate near Avondale.	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =329	As(ac)=340 As(ch)=0.02-10(Trec) <u>As</u> Cd(ac/ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)= <u>28002765(Tr ec)</u> Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac)= 19.1 Se(ch)=14.1 Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modifications: type (i) Se(ac/ch) = existing quality; SO <sub>4</sub> = existing quality. Expiration date of 6/30/2016.
1b. Mainstem of the Arkansas River from the Colorado Canal headgate to the inlet to John Martin Reservoir.	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =902	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)= <u>30574950(Trec)</u> Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modification type (iii): Se(ch)=current condition" Expiration date of 12/31/2013  Water + Fish Standards Apply.
1c. Mainstem of the Arkansas River from the outlet of John Martin Reservoir to the Colorado/Kansas border.	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =1900	As(ac)=340 As(ch)=0.02 (Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)= <u>190642(dis)</u> Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modification type (iii): Se(ch)=22-5; Expiration date of 12/31/2013- Water + Fish Standards Apply.
2a. All tributaries to the Arkansas River, including wetlands, <del>all lakes and reservoirs</del> , from the Colorado Canal headgate to the Colorado/Kansas border except for specific listings in segments 2b, 2c, 3 through <u>9b</u> +3, and Middle Arkansas Basin listings.	UP	Aq Life Warm 2 Recreation N <u>Water Supply</u> Agriculture	<u>T=TVS(WS-III) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=630/100ml	CN=0.2 NO <sub>2</sub> =1.0 NO <sub>3</sub> = <u>100</u> <u>S=0.05</u>	B=0.75 <u>NO<sub>2</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=170</u> <u>ug/l (tot)</u>	<u>As(ac)= 340(Trec)</u> <u>As(ch)=0.02-</u> <u>10400(Trec)±</u> Be(ch)= <u>4.0400(Trec)</u> <u>Cd(ac)=5.0(Trec)</u> <u>Cd(ch)=10(Trec)</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS400(Tre e)</u>	<u>CrVI(ac)=50(Trec)</u> <u>CrVI(ch)=400(Tree)</u> Cu(ch)=200(Trec) <u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac)=50(Trec)</u> <u>Pb(ch)=400(Tree)</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u>	<u>Hg(ac)=2.0(tot)</u> <u>Mo(ch)=160(Trec)</u> Ni(ch)=1200(Trec) Se(ch)=20(Trec) <u>Ag(ac)=100(Trec)</u> Zn(ch)=2000(Trec)	
2b. King Arroyo.	UP	Aq Life Warm 2 Recreation E Agriculture	<u>T=TVS(WS-III) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B=5.0 <u>P=170</u> <u>ug/l (tot)</u>	As(ch)=200(Trec) Cd(ch)=50(Trec) CrIII(ch)=1000(Trec) <u>CrIII(ac/ch)=TVS</u>	CrVI(ch)=1000(Trec) Cu(ch)=500(Trec) Pb(ch)=100(Trec)	Hg(ch)=10.0(tot) <u>Mo(ch)=160(Trec)</u> Se(ch)=50(Trec) Zn(ch)=25000(Trec)	Livestock Watering Only.
2c. Mainstem of Wildhorse Creek, including all tributaries, from a point immediately below US Highway 287 in Kit Carson to the confluence with Big Sandy Creek.	UP	Aq Life Warm 2 Recreation N Agriculture	<u>T=TVS(WS-III) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=630/100ml	CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B=0.75 <u>P=170</u> <u>ug/l (tot)</u>	As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)= 50(Trec) CrIII(ch)=100(Trec) <u>CrIII(ac/ch)=TVS</u>	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec) <u>Mo(ch)=160(Trec)</u>	Ni(ch)=200(Trec) Se(ch)= 50(Trec) Zn(ch)=2000(Trec)	
3a. Mainstem of the Apishapa River, including <u>all tributaries and wetlands, tributaries, lakes and reservoirs</u> , from the source to I-25, except for specific listings in <u>Middle Arkansas segment 1 and Lower Arkansas segments 3b and 3c.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

REGION: 7	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: LOWER ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
3b. Mainstem of West Torino Canyon Creek, North Fork, Middle Fork and mainstem of Trujillo Creek, Mitotes Canyon Creek, Luis Canyon Creek, Wheeler Canyon Creek, Mauricio Canyon Creek, Daisy Canyon Creek, Adobe Canyon Creek, Gonzales Canyon Creek, Frio Canyon Creek, Borrego Canyon Creek, Munoz Canyon Creek, William Canyon Creek and Castro Canyon Creek, including all tributaries, from their sources to their confluences with the Apishapa River, <u>except for the specific listings in Middle Arkansas segment 1.</u>	UP	Aq Life Warm 2 Recreation N Water Supply Agriculture	$T=TVS(WS-II) \text{ } ^\circ C$ D.O. = 5.0 mg/l pH = 6.5-9.0 E. Coli=630/100ml	NH <sub>3</sub> (ch)=0.5 CN=0.2 S=0.05	B=0.75 NO <sub>2</sub> (ac)=1.0 NO <sub>3</sub> (ac)=10 Cl=250 SO <sub>4</sub> =WS <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02-10(Trec) <u>Δ</u> Cd(ac)=5.0(Trec) CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac)=50(Trec) Cu(ac)=200(Trec)	Fe(ch)=WS(dis) Pb(ac)=50(Trec) Mn(ch)=WS(dis)	Hg(ac)=2.0(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ch)=100(Trec) Se(ch)=20(Trec) Ag(ac)=100(Trec) Zn(ch)=2000(Trec)	
3c. The mainstem of Jarosa Canyon Creek including all tributaries from the source to the confluence with the Apishapa River.		Aq Life Cold 2 Recreation E Water Supply Agriculture	$T=TVS(CS-II) \text{ } ^\circ C$ D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E. Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02-10(Trec) <u>Δ</u> Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(tot)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
4a. Mainstem of the Apishapa River from I-25 to the confluence with the Arkansas River; <del>mainstem of Timpas Creek from the source to the Arkansas River; mainstem of Lorencito Canyon, from the source to the confluence with the Purgatoire River.</del>	UP	Aq Life Warm 2 Recreation E <u>Water Supply</u> Agriculture	$T=TVS(WS-II) \text{ } ^\circ C$ D.O. = 5.0 mg/l pH = 6.5-9.0 E. Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02- <u>10400(Trec)Δ</u> Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	<u>Fe(ch)=WS(dis)</u> <del>Fe(ch)=1000+805(Trec)</del> Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mn(ch)=WS(dis)</u> <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
<u>4b. Mainstem of Timpas Creek from the source to the confluence with the Arkansas River.</u>	UP	Aq Life Warm 1 Recreation E Agriculture	$T=TVS(WS-II) \text{ } ^\circ C$ D.O. = 5.0 mg/l pH = 6.5-9.0 E. Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =100 P=170 ug/l (tot)	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
<u>4c. Mainstem of Lorencito Canyon, from the source to the confluence with the Purgatoire River.</u>	UP	Aq Life Warm 2 Recreation E Agriculture	$T=TVS(WS-II) \text{ } ^\circ C$ D.O. = 5.0 mg/l pH = 6.5-9.0 E. Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =100 P=170 ug/l (tot)	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
5a. Mainstem of the North Fork of the Purgatoire River, including all tributaries <del>and wetlands, lakes and reservoirs, from the source to a point immediately below the confluence with Guajayoh Creek</del> the confluence with the Purgatoire River; mainstem of the Middle Fork of the Purgatoire River, including all tributaries <del>and wetlands, lakes, and reservoirs, from the source to the USGS gage at Stonewall; the mainstem of the Middle Fork of the Purgatoire River from the USGS gage at Stonewall to the confluence with the North Fork of the Purgatoire River; the mainstem of the South Fork of the Purgatoire River, including all tributaries; and wetlands, lakes, and reservoirs, from the source to Tercio; the mainstem of the South Fork of the Purgatoire River from Tercio to the confluence with the Purgatoire River; mainstem of the Purgatoire River to Interstate 25, except for the specific listing in segment 5b; mainstem of Long Creek from the source to the confluence with Trinidad Reservoir; mainstem of Raton Creek from the source to the confluence with the Purgatoire River.</del>		Aq Life Cold 1 Recreation E Water Supply Agriculture	$T=TVS(CS-I) \text{ } ^\circ C$ D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E. Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modification type (iii): Se(ch)=14.2. Expiration date of 12/31/2013.

REGION: 7	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: LOWER ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
5b. Mainstem of the North Fork of the Purgatoire River, including all tributaries and wetlands, from a point immediately below the confluence with Guajatoyah Creek to the confluence with the Purgatoire River. Mainstem of the Middle Fork of the Purgatoire River from the USGS gage at Stonewall to the confluence with the North Fork of the Purgatoire River. Mainstem of the South Fork of the Purgatoire River from Tercio to the confluence with the Purgatoire River. Mainstem of the Purgatoire River to Interstate 25. Mainstem of Long Canyon Creek from the source to Trinidad Reservoir. Mainstem of Raton Creek from the source to the confluence with the Purgatoire River.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH= 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
5b. Trinidad Reservoir, Long Canyon Reservoir, and Lake Dorothy.		Aq Life Cold 1 Recreation E Water Supply Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH= 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
6a. All tributaries to the Purgatoire River, including all wetlands, lakes and reservoirs, from the source to Interstate 25, except for specific listings in segments 4c, 5a, 5b and 6b.	UP	Aq Life Cold 2 Recreation E Agriculture	T=TVS(CS-II) °C D.O.=6.0 mg/l D.O. (sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B=0.75 P=110 ug/l (tot)	As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)=100(Trec) CrIII(ch)=100(Trec) CrIII(ac/ch)=TVS	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec) Mo(ch)=160(Trec)	Ni(ch)=200(Trec) Se(ch)=20(Trec) Zn(ch)=2000(Trec)	Temporary modification type (iii): Se(ch)=21-3; Expiration date of 12/31/2013.
6b. Wet Canyon and all tributaries, including wetlands, from the source to the confluence with the Purgatoire River.	UP	Aq Life Cold 2 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O.=6.0 mg/l D.O. (sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	CN=0.2 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 S=0.05	B=0.75 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)=100(Trec) CrIII(ac)=50(Trec) CrIII(ch)=TVS	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Fe(ch)=WS(dis) Pb(ch)=100(Trec) Mn(ch)=WS(dis) Mo(ch)=160(Trec)	Ni(ch)=200(Trec) Se(ch)=20(Trec) Zn(ch)=2000(Trec)	
7. Mainstem of the Purgatoire River from Interstate 25 to the confluence with the Arkansas River.		Aq Life Warm 1 Recreation E Agriculture	T=TVS(WS-II) °C D.O.=5.0 mg/l pH=6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =100	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS Cd(ch)=100(Trec) CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modification type (iii): Se(ch)=6-4; Expiration date of 12/31/2013.
8. Mainstem of Ricardo Creek, including all tributaries, and wetlands, lakes and reservoirs; which are within Colorado (Costilla and Las Animas Counties), mainstem of the Canadian River, including all tributaries, wetlands, lakes and reservoirs.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-I) °C D.O.=6.0 mg/l D.O. (sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

REGION: 7	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: LOWER ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
9a. <u>Mainstems of Adobe, Buffalo, Cheyenne, Clay, Gageby, Horse, Two Butte, Wildhorse and Wolf Creeks from their sources to their confluences with the Arkansas River.</u> <u>Mainstem of Adobe Creek and Gageby Creek from the source to the confluence with the Arkansas River.</u> <u>Mainstems of Chacuacho Creek, San Francisco Creek, Trinchera Creek and Van Bremer Arroyo from their sources to their confluences with the Purgatoire River.</u> <u>Mainstem of Willow Creek from Highway 287 to the confluence with the Arkansas River.</u> <u>Mainstem of Big Sandy Creek from the source to the El Paso/Elbert county line.</u> <u>Mainstem of South Rush Creek from the source to the confluence with Rush Creek.</u> <u>Mainstem of Middle Rush Creek from the source to the confluence with North Rush Creek.</u> <u>North Rush Creek from the source to the confluence with South Rush Creek.</u> <u>Mainstem of Rush Creek to the Lincoln County Line.</u> <u>Mainstem of Antelope Creek from the source to the confluence with Rush Creek.</u> <u>mainstems of Horse Creek, Buffalo Creek and Cheyenne Creek from their sources to their confluences with the Arkansas River.</u> <u>the West May Valley drain from the Fort Lyon Canal to the confluence with the Arkansas River.</u>		Aq Life Warm 1 Recreation E <u>Water Supply</u> Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)= <u>0.027-6(Trec)</u> Cd(ac/ch)=TVS <u>CrIII(ac)=50(Trec)</u> CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	<u>Fe(ch)=WS(dis)</u> Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS <u>Mn(ch)=WS(dis)</u> Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS	Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
9b. Mainstem of Apache Creek from the source to the confluence with the North Rusk Creek; <u>Mainstem of Breckenridge Creek from the source to the confluence with Horse Creek.</u> <u>Mainstem of Little Horse Creek from the source to the confluence with Horse Creek.</u> <u>Mainstem of Bob Creek; from the source to Meredith Reservoir.</u> <u>mainstems of Wildhorse Creek and Wolf Creek from their sources to their confluences with the Arkansas River.</u> <u>Mainstem of Big Sandy Creek within Prowers County.</u> <u>Mainstem of Rule Creek from the Bent/Las Animas county line to John Martin Reservoir.</u> <u>Mainstem of Muddy Creek from the south boundary of the Setchfield State Wildlife Area to the confluence with Rule Creek.</u> <u>Mainstem of Caddoa Creek from CC Road to the confluence with the Arkansas River.</u> <u>Mainstem of Cat Creek from the source to the confluence with Clay Creek.</u> <u>Mainstem of Mustang Creek from the source to the confluence with Apishapa River.</u> <u>Mainstem of Chicosa Creek from the source to the Arkansas River.</u> <u>Mainstem of Smith Canyon from the Otero/Las Animas county line to the confluence with the Purgatoire River.</u> <u>Mainstem of Mud Creek from V Road to the confluence with the Arkansas River.</u> <u>Mainstems of Frijole Creek and Luning Arroyo from their sources to their confluences with the Purgatoire River.</u> <u>Mainstem of Blackwell Arroyo from its source to the confluence with Luning Arroyo.</u> <u>Mainstem of San Isidro Creek from the source to the confluence with San Francisco Creek.</u>	UP	Aq Life Warm 2 Recreation E <u>Water Supply</u> Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)= <u>0.02100(Trec)</u> Cd(ac/ch)=TVS <u>CrIII(ac)=50(Trec)</u> CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	<u>Fe(ch)=WS(dis)</u> Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS <u>Mn(ch)=WS(dis)</u> Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS	Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
9c. Mainstem of Rule Creek from the Bent/Las Animas county line to John Martin Reservoir; <u>mainstem of Muddy Creek from the south boundary of the Setchfield State Wildlife Area to the confluence with Rule Creek;</u> <u>mainstem of Caddoa Creek from CC road to the confluence with the Arkansas River;</u> <u>mainstem of Clay Creek from source to the confluence with the Arkansas;</u> <u>mainstem of Cat Creek to the confluence with Clay Creek;</u> <u>mainstem of Two Butte Creek from the source to the confluence with the Arkansas River, except for listings in segment 10;</u> <u>mainstem of Trinchera Creek from the source to the confluence with the Purgatoire River;</u> <u>mainstem of Mustang Creek from the source to the confluence with Apishapa River;</u> <u>mainstem of Chicosa Creek from the source to the Arkansas River;</u> <u>mainstem of Smith Canyon from the Otero/Las Animas county line to the confluence with the Purgatoire River.</u>	UP	Aq Life Warm 2 Recreation E Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5	As(ch)=100(Trec) As(ac)=340 Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.04(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS	Ag(ac/ch)=TVS Zn(ac/ch)=TVS	

REGION: 7 BASIN: LOWER ARKANSAS RIVER Stream Segment Description	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l			METALS ug/l		
10. Two Buttes Reservoir, Two Buttes Pond, Hasty Lake, Holbrook Reservoir, Burchfield Lake, Nee-Skah (Queens) Reservoir, Adobe Creek Reservoir, Neeo Pah Reservoir, Nee Noshe Reservoir; Nee Gronda Reservoir.		Aq Life Warm 1 Recreation E Water Supply Agriculture	<u>T=TVS(WL) °C</u> D.O.=5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=20 ug/l</u> <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=83 ug/l (tot)</u> <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
11. John Martin Reservoir.		Aq Life Warm 1 Recreation E Water Supply Agriculture	<u>T=TVS(WL) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)= <u>38.890(dis)</u> Mn(ac/ch)=TVS	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Zn(ac/ch)=TVS	
12. Lake Henry, Lake Meridith.		Aq Life Warm 1 Recreation E Agriculture	<u>T=TVS(WL) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=20 ug/l</u> <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 <u>NO<sub>3</sub>=100</u> <u>P=83 ug/l (tot)</u> <sup>B</sup>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Hg(ch)=TVS(tr) Zn(ac/ch)=TVS	
13. American Crystal Reservoir, Chancellor Ponds, Horse Creek Reservoir, Hugo Ponds, Jim Davis Pond, John Robertson Ponds, Karval Lake, Kinney Lake, Kissel Pond, La Junta Kid's Pond, Las Animas Kid's Pond, Mayhem Pond, Merit Lake, Olney Springs Pond, Otero Pond, Pursley Ponds, Ranch Reservoir, Reynolds Gravel Pit, Ryan Ponds, Thurston Reservoir, Turks Pond, Ramah Reservoir.		Aq Life Warm 1 Recreation E Agriculture	<u>T=TVS(WL) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=20 ug/l</u> <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 <u>NO<sub>3</sub>=100</u> <u>P=83 ug/l (tot)</u> <sup>B</sup>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
14. <u>All lakes and reservoirs tributary to the Apishapa River from the source to I-25, except for specific listings in Middle Arkansas segment 19.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CL) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=8 ug/l</u> <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=10</u> Cl=250 SO <sub>4</sub> =WS <u>P=25 ug/l (tot)</u> <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
15. <u>All lakes and reservoirs tributary to the mainstem of the North Fork of the Purgatoire River from the source to a point immediately below the confluence with Guajayyah Creek. All lakes and reservoirs tributary to the Middle Fork of the Purgatoire River from the source to the USGS gage at Stonewall mainstem of the South Fork of the Purgatoire River from the source to Tercio. Monument Lake, North Lake, Trinidad Lake, Long Canyon Reservoir and Lake Dorothy.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture DUWS*	<u>T=TVS(CL) °C</u> Trinidad Reservoir T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=8 ug/l</u> <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=10</u> Cl=250 SO <sub>4</sub> =WS <u>P=25 ug/l (tot)</u> <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	*DUWS Applies only to Monument Lake and North Lake
16. <u>All lakes and reservoirs tributary to the Purgatoire River from the source to I-25, except for the specific listings in segment 15 and 17.</u>	UP	Aq Life Cold 2 Recreation E Agriculture	<u>T=TVS(CL) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>3</sup></u>	CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B=0.75 <u>P=110 ug/l (tot)</u>	As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)=100(Trec) <u>CrIII(ch)=100(Trec)</u> CrIII(ac/ch)=TVS	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec) <u>Mo(ch)=160(Trec)</u>	Ni(ch)=200(Trec) Se(ch)=20(Trec) <u>Zn(ch)=2000(Trec)</u>	

REGION: 7  BASIN: LOWER ARKANSAS RIVER	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
<u>17. All lakes and reservoirs tributary to Wet Canyon, from the source to the confluence with the Purgatoire River.</u>	UP	<u>Aq Life Cold 2 Recreation E Water Supply Agriculture</u>	<u>T=TVS(CL) °C D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=150 mg/m<sup>2</sup></u>	<u>CN=0.2 NO<sub>2</sub>=0.05 NO<sub>3</sub>=10 S=0.05</u>	<u>B=0.75 Cl=250 SO<sub>4</sub>=WS P=110 ug/l (tot)</u>	<u>As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ac)=50(Trec) CrIII(ch)=TVS</u>	<u>CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Fe(ch)=WS(dis) Pb(ch)=100(Trec) Mn(ch)=WS(dis) Mo(ch)=160(Trec)</u>	<u>Ni(ch)=200(Trec) Se(ch)=20(Trec) Zn(ch)=2000(Trec)</u>	
<u>18. All lakes and reservoirs tributary to Ricardo Creek, which are within Colorado (Costilla and Las Animas Counties). All lakes and reservoirs tributary to the Canadian River.</u>		<u>Aq Life Cold 1 Recreation E Water Supply Agriculture</u>	<u>T=TVS(CL) °C D.O.=6.0 mg/l D.O. (sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=8 ug/l<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS CL<sub>2</sub>(ac)=0.019 CL<sub>2</sub>(ch)=0.011 CN=0.005 S=0.002</u>	<u>B=0.75 NO<sub>2</sub>=0.05 NO<sub>3</sub>=10 Cl=250 SO<sub>4</sub>=WS P=25 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)</u>	<u>Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS</u>	
<u>19. All lakes and reservoirs tributary to the Arkansas River, except for specific listings in segments 10-18 and Middle Arkansas Basin segments 19-27.</u>		<u>Aq Life Warm 1 Recreation E Water Supply Agriculture</u>	<u>T=TVS(WL) °C D.O.=5.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=20 ug/l<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS S CL<sub>2</sub>(ac)=0.019 CL<sub>2</sub>(ch)=0.011 CN=0.005 S=0.002</u>	<u>B=0.75 NO<sub>2</sub>=0.5 NO<sub>3</sub>=10 Cl=250 SO<sub>4</sub>=WS P=83 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)</u>	<u>Hg(ch)=0.01(tot) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS</u>	

REGION: 7  BASIN: CIMARRON RIVER	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
1. Mainstem of the Cimarron River, including all tributaries <u>and wetlands, lakes and reservoirs</u> , in Las Animas, Baca, and Prowers Counties, except for the specific listing in segment 2.	UP	Aq Life Warm 2 Recreation N Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=630/100ml	CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B=0.75 <u>P=170 ug/l</u> <u>(tot)</u>	As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec) <u>CrIII(ac/ch)=TVS</u>	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec) <u>Mo(ch)=160(Trec)</u>	Ni(ch)=200(Trec) Se(ch)=20(Trec) Zn(ch)=2000(Trec)	
2. Mainstem of North Carrizo Creek from the source to the Colorado/Oklahoma state line; mainstems of East and West Carrizo Creek, to the confluence with North Carrizo Creek; mainstems of Cottonwood Creek and Tecolote Creek to the confluence with West Carrizo Creek, Fitzler Pond.	UP	Aq Life Warm <u>12</u> Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> D.O.=5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.5 <u>NO<sub>3</sub>=100</u> <u>P=170 ug/l</u> <u>(tot)</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Fish Ingestion Standards Apply.
<u>3. All lakes and reservoirs tributary to the Cimarron River.</u>	<u>UP</u>	<u>Aq Life Warm 2</u> <u>Recreation E</u> <u>Agriculture</u>	<u>T=TVS(WL) °C</u> <u>D.O.=5.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=20 ug/l<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ac)=0.019</u> <u>CL<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u> <u>S=0.002</u>	<u>B=0.75</u> <u>NO<sub>2</sub>=0.5</u> <u>NO<sub>3</sub>=100</u> <u>P=83 ug/l (tot)</u> <u><sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=7.6(Trec)</u> <u>Cd(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> <u>CrIII(ac/ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(tot)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac/ch)=TVS</u> <u>Zn(ac/ch)=TVS</u>	Fish Ingestion Standards Apply.

**STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS – FOOTNOTES**

- (A) Whenever a range of standards is listed and referenced to this footnote, the first number in the range is a strictly health-based value, based on the Commission's established methodology for human health-based standards. The second number in the range is a maximum contaminant level, established under the federal Safe Drinking Water Act that has been determined to be an acceptable level of this chemical in public water supplies, taking treatability and laboratory detection limits into account. Control requirements, such as discharge permit effluent limitations, shall be established using the first number in the range as the ambient water quality target, provided that no effluent limitation shall require an "end-of-pipe" discharge level more restrictive than the second number in the range. Water bodies will be considered in attainment of this standard, and not included on the Section 303(d) List, so long as the existing ambient quality does not exceed the second number in the range.
- (B) Total phosphorus (TP) and chlorophyll *a* standards apply only to lakes and reservoirs larger than 25 acres surface area.



## **PROPOSED WATER QUALITY CONTROL DIVISION**

### **32.52 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013; EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

#### **BASIS AND PURPOSE:**

##### **A. Waterbody Segmentation**

The Commission split lakes and reservoirs from segments that also contained streams, so that new temperature standards could be adopted. Lakes and reservoirs were deleted from the following segments that previously encompassed both streams, and lakes and reservoirs:

Upper Arkansas segments: 1a, 5, 10, 11, 12b, 13, 14b, 15, 16a, 17a-b, 18-21, 24 and 27

Middle Arkansas segments: 1, 3, 4c, 5, 7, 8, 11, 13 and 16

Fountain Creek segments: 1a, 3a and 4

Lower Arkansas segments: 2a, 3a, 5a, 5b, 6 and 8

Cimarron segment: 1

The following segments were created for lakes and reservoirs:

Upper Arkansas segments: 28-40

Middle Arkansas segments: 19-27

Fountain Creek segments: 8-11

Lower Arkansas segments: 14-19

Cimarron segment: 3

The following segment was deleted when the constituent waterbodies were merged with other segments:

Lower Arkansas segment: 9c

Some renumbering and/or creation of new segments was made based on information that showed: a) the original reason for segmentation no longer applied; b) differences in water-quality; and/or c) certain segments could be merged into one segment because they had similar quality and uses. In particular, segmentation was changed to facilitate the adoption of new temperature standards into individual segments. The following changes were made:

Upper Arkansas River 1a: The lakes and reservoirs in this segment were moved to a new Segment 28 to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 3: The mainstem of Arkansas River from the Chaffee/Fremont County line to a point immediately above Highway 115 bridge due east of Florence was moved to a new Segment 4a. The mainstem of Arkansas River from a point immediately above Highway 115 bridge due east of Florence to the inlet of Pueblo Reservoir was moved to a new Segment 4b. These segments were split to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 4a: This segment was created to encompass the mainstem of Arkansas River from the Chaffee/Fremont County line to a point immediately above Highway 115 bridge due east of Florence. This segment was created to facilitate the adoption of appropriate temperature standards formerly in Segment 3.

Upper Arkansas River 4b: This segment was created to encompass the mainstem of Arkansas River from a point immediately above Highway 115 bridge due east of Florence to the inlet of Pueblo Reservoir. This segment was created to facilitate the adoption of appropriate temperature standards formerly in Segment 3.

Upper Arkansas River 5: The coldwater lakes and reservoirs less than 100 acres in this segment were moved to a new Segment 29 and combined with lakes and reservoirs from Segment 10 and 11 to facilitate the adoption of appropriate temperature standards. Turquoise Reservoir and Clear Creek Reservoir were moved to a new Segment 30 with other coldwater lakes larger than 100 acres surface area to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 10: The coldwater lakes and reservoirs less than 100 acres in this segment were moved to a new Segment 29 and combined with lakes and reservoirs from Segments 5 and 11 to facilitate the adoption of appropriate temperature standards. Twin Lakes and Mt. Elbert Forebay were moved to a new Segment 30 with other coldwater lakes larger than 100 acres surface area to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 11: The lakes and reservoirs in this segment were moved to a new Segment 29 and combined with lakes and reservoirs from segments 5 and 10 to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 12b: The upper portion of the South Fork of the Arkansas, including tributaries and wetlands, from its source to the National Forest boundary were moved to Segment 13. The lakes and reservoirs in this segment were moved to a new Segment 32. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 13: The upper portion of the South Fork of the Arkansas, including tributaries and wetlands, from its source to the National Forest boundary were moved to this segment. The portions of the North Fork and South Fork of Hardscrabble Creek, including their tributaries and wetlands, within National Forest lands were moved to new Segment 14c. The lakes and reservoirs in this segment were moved to a new Segment 31. These waters were either added or split into different segments to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 14b: All tributaries to the Arkansas River, including wetlands, which are not on National Forest lands from the Chaffee/Fremont County to the inlet of Pueblo Reservoir, were moved to new Segment 14d in order to facilitate the adoption of a water supply use in Segment 14b. Multiple alluvial wells that were being used as a drinking water source were discovered on numerous tributaries adjacent to the City of Salida, but north of the Chaffee/Fremont County line. Rather than propose to broadly adopt a water supply use for the entirety of Segment 14b, the segment was split at the Chaffee/Fremont County line to facilitate the adoption of a water supply use for tributaries and wetlands to the Arkansas River from Brown's Creek to the Chaffee/Fremont County line. The tributaries and wetlands to the Arkansas River, which are not on National Forest lands, from the Chaffee/Fremont County line to the inlet of Pueblo Reservoir were moved to new Segment 14d with the exception of other segment splits listed below.

The upper portions of the North Fork and South Fork of Hardscrabble Creek, including their tributaries and wetlands, which are not on National Forest lands, were moved to new Segment 14c to facilitate the adoption of appropriate temperature standards.

The tributaries and wetlands to Grape Creek from the sources to the outlet of DeWeese Reservoir were moved to Segment 15 to facilitate the adoption of a water supply use and appropriate temperature

standards. The mainstem of Eightmile Creek, including all tributaries and wetlands from the mouth of Phantom Creek to County Road 132 and the mainstem of Coal Creek (Fremont County) from its source to the confluence with the Arkansas River were moved to Segment 27 to facilitate the adoption of a water supply use and appropriate temperature standards.

Lakes and reservoirs tributary to the mainstem of Grape Creek from the source to the outlet of DeWeese Reservoir were moved to a new Segment 34. All other lakes and reservoirs were moved to a new Segment 33. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 14c: This segment was created to encompass the North Fork and South Fork of Hardscrabble Creek, including tributaries and wetlands, from their sources to their confluence. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 14d: This segment was created to encompass the tributaries and wetlands to the Arkansas River, which are not on National Forest lands, from the Chaffee/Fremont County line to the inlet of Pueblo Reservoir. This segment was created to preserve a no water supply use classification and appropriate temperature standards.

Upper Arkansas River 15: The tributaries and wetlands to Grape Creek from the sources to the outlet of DeWeese Reservoir were moved from Segment 14b to Segment 15 to facilitate the adoption of a water supply use and appropriate temperature standards. Multiple alluvial wells that were being used as a drinking water source were discovered on numerous tributaries south and west of the Town of Westcliffe, which were previously described within Segment 14b. Rather than try to describe the numerous locations of these tributaries within a new segment, these larger swaths of tributaries were moved to Segment 15, which already had an existing water supply use.

The lakes and reservoirs in this segment were moved to a new Segment 34, with the exception of DeWeese Reservoir, which was moved to Segment 35 as a stand-alone coldwater lake larger than 100 acres surface area.

Upper Arkansas River 16a: The lakes and reservoirs in this segment were moved to a new Segment 36 and combined with lakes and reservoirs from Segments 17a and 18 to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 17a: The lakes and reservoirs in this segment were moved to a new Segment 36 and combined with lakes and reservoirs from Segments 16a and 18 to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 17b: The lakes and reservoirs in this segment were moved to a new Segment 33 and combined with lakes and reservoirs from Segment 14b to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 18: The lakes and reservoirs in this segment were moved to a new Segment 36 and combined with lakes and reservoirs from Segments 16a and 17a to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 19: The lakes and reservoirs in this segment, including large coldwater lake Wright Reservoir, were moved to a new Segment 37 and combined with lakes and reservoirs from Segment 20 to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 20: The lakes and reservoirs in this segment were moved to a new Segment 37 and combined with lakes and reservoirs from Segment 19 to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 24: The lakes and reservoirs in this segment were moved to a new Segment 38 to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 27: The mainstem of Eightmile Creek, including all tributaries and wetlands from the mouth of Phantom Creek to County Road 132 and the mainstem of Coal Creek (Fremont County) from its source to the confluence with the Arkansas River were moved from Segment 14b to Segment 27 to facilitate the adoption of a water supply use and appropriate temperature standards. Several alluvial wells that were being used as a drinking water source were discovered on one tributary just southeast of the mouth of Phantom Canyon as well as Coal Creek (Fremont County), which were previously described within Segment 14b. Rather than try to describe the numerous locations of these tributaries within a new segment, these tributaries were moved to Segment 27, which already had an existing water supply use.

The lakes and reservoirs in this segment were moved to a new Segment 39, with the exception of Brush Hollow Reservoir, which was moved to Segment 40 as a stand-alone warmwater lake.

Upper Arkansas River 28: This segment was created to encompass the lakes and reservoirs within the Mount Massive and Collegiate Peaks Wilderness Area, formerly in Segment 1a. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 29: This segment was created to encompass the non-large coldwater lakes and reservoirs above Brown's Creek, formerly in Segments 5, 10, and 11. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 30: This segment was created to encompass large cold lakes and reservoirs above Brown's Creek. This segment includes Turquoise Reservoir and Clear Creek Reservoir, which were formerly in Segment 5, and Twins Lakes and Mt. Elbert Forebay, which were formerly in Segment 10. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 31: This segment was created to encompass the lakes and reservoirs tributary to the Arkansas River, which are on National Forest lands, from the confluence with Brown's Creek to the inlet of Pueblo Reservoir, formerly in Segment 13. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 32: This segment was created to encompass the lakes and reservoirs tributary to the upper portions of South Fork of the Arkansas from its source to the National Forest boundary, formerly in Segment 12b. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 33: This segment was created to encompass the lakes and reservoirs tributary to the Arkansas River, which are not on National Forest lands, from the confluence with Brown's Creek to the inlet of Pueblo Reservoir, formerly in Segment 14b; and lakes and reservoirs tributary to the mainstem of Cottonwood Creek (Fremont County) from a point immediately below the confluence with North Waugh Creek to the intersection with F6 Road, formerly in Segment 17b. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 34: This segment was created to encompass the lakes and reservoirs tributary to the mainstems of Texas, Badger, Hayden, Hamilton, Stout, and Big Cottonwood Creeks from their sources to their confluences with the Arkansas River, formerly in Segment 15; and lakes and reservoirs tributary to the mainstem of Grape Creek from its source to the outlet of DeWeese Reservoir, formerly in Segment 14b. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 35: This segment was created to encompass DeWeese Reservoir, a coldwater reservoir tributary to the mainstem of Grape Creek that is greater than 100 acres surface area. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 36: This segment was created to encompass the lakes and reservoirs tributary to the mainstem of Currant Creek (Park County) from the source to the confluence with Tallahassee Creek, formerly in Segment 18; lakes and reservoirs tributary to the mainstem of Middle Tallahassee Creek from the source to the intersection with Road 23, formerly in Segment 16a; and lakes and reservoirs tributary to the mainstem of Cottonwood Creek (Fremont County) from the source to a point immediately below the confluence with North Waugh Creek, formerly in Segment 17a. These waters were grouped together in one segment because they had similar quality and uses and to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 37: This segment was created to encompass the lakes and reservoirs tributary to the mainstem of Fourmile Creek from the source to the confluence with the Arkansas River, formerly in Segments 19 and 20. This includes a coldwater lake that is greater than 100 acres in surface area – Wright Reservoir. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 38: This segment was created to encompass the lakes and reservoirs tributary to the mainstem of East and West Beaver Creeks from the source to the confluence with the Arkansas River, formerly in Segment 24. This includes coldwater lakes that are greater than 100 acres in surface area – Skagway Reservoir and Bison Reservoir. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 39: This segment was created to encompass the lakes and reservoirs tributary to the mainstem of Eightmile Creek from the source to the mouth of Phantom Canyon, formerly in Segment 27. This segment was created to facilitate the adoption of appropriate temperature standards.

Upper Arkansas River 40: Brush Hollow Reservoir was moved from Segment 27 to this new segment to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 1: Pueblo Reservoir was moved to a new Segment 20 to facilitate the adoption of appropriate temperature standards. The new Segment 1 was created to encompass tributaries to the Arkansas River within the Sangre de Cristo, Greenhorn, and Spanish Peaks Wilderness Areas. These tributaries were formerly in Middle Arkansas Segments 11, 13 and 17 and Lower Arkansas Segments 2a, 3a and 3b. This segment was created to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 3: Valco Ponds and Fountain Lake were moved to a new Segment 21 to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 4c: The lakes and reservoirs in this segment were moved to a new Segment 21 to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 4d: The following waters were moved to a new Segment 7a: All tributaries to Muddy Creek other than North Muddy Creek, including wetlands, from the source to the San Isabel National Forest boundary.

The following waters were moved to a new Segment 7b: Muddy Creek, including all tributaries and wetlands, from the San Isabel National Forest boundary to 232/Bondurant Road.

The lakes and reservoirs in this segment were moved to a new Segment 23, except for Teller Reservoir, which was moved to Segment 27 as a stand-alone coldwater lake larger than 100 acres surface area.

These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 5a-5b: The mainstem of the St. Charles River, including all tributaries and wetlands, from the San Isabel National Forest boundary to a point immediately above the CF&I diversion

canal near Burnt Mill, was moved to a new Segment 5b. The lakes and reservoirs in Segment 5 were moved to a new Segment 22. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 7a-7b: The following waters were moved to a new Segment 7b: The mainstem of Greenhorn Creek, including all tributaries and wetlands, from the San Isabel National Forest boundary to a point immediately below the Greenhorn Highline (Hayden Supply Ditch) diversion dam. The mainstem of Graneros Creek below the San Isabel National Forest boundary.

The following waters were moved from Segment 4d to a new Segment 7a: All tributaries to Muddy Creek other than North Muddy Creek, including wetlands, from the source to the San Isabel National Forest boundary.

The following waters were moved from Segment 4d to a new Segment 7b: Muddy Creek, including all tributaries and wetlands, from the San Isabel National Forest boundary to 232/Bondurant Road.

The lakes and reservoirs in Segment 7 were moved to a new Segment 23.

These waters were split into different segments or combined to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 8: This segment was deleted and Beckwith Reservoir was moved to a new Segment 23 to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 11a-11b, 12: The following waters were moved from Segment 11 to a new Segment 1: All tributaries, including wetlands, to the Arkansas River within the Sangre de Cristo and Greenhorn Wilderness Areas.

The following waters were moved from Segment 11 to a new Segment 11b: Mainstem of the Huerfano River including all tributaries, and wetlands, lakes and reservoirs from 570 Road near Malachite, to the confluence with Muddy Creek near Gardner. Mainstem of Turkey Creek (in Huerfano County) from 620 Road to the confluence with the Huerfano River.

The following waters were moved from Lower Arkansas Segment 2a to Segment 11a: Pass Creek, including all tributaries and wetlands, from the source to 565 Road. Muddy Creek, including all tributaries and wetlands, from the source to a point immediately below the confluence with Bruff Creek, not within the Sangre de Cristo and Greenhorn Wilderness Areas.

The following waters were moved from Lower Arkansas Segment 2a to Segment 11b: All tributaries, including wetlands to the Huerfano River, from the confluence with Muddy Creek near Gardner to Highway 69 at Badito, that are not within the Sangre de Cristo and Greenhorn Wilderness Areas or the San Isabel National Forest.

The following waters were moved from Segment 12 to Segment 11b: Mainstem of the Huerfano River, from the confluence with Muddy Creek near Gardner to Highway 69 at Badito.

The lakes and reservoirs in Segment 11 were moved to a new Segment 24.

These waters were split into different segments or combined to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 13a-13b: The following waters were moved from Segment 13 to a new Segment 1: All tributaries, including wetlands, to the Cucharas River within the Spanish Peaks Wilderness Area.

The following waters were moved to a new Segment 13b: Mainstem of the Cucharas River from a point immediately above the confluence with Middle Creek to the point of diversion for the Walsenburg public

water supply (~1.75 miles downstream from 350 Road). All tributaries, including wetlands, to the Cucharas River not within the San Isabel National Forest boundaries. Mainstem of Middle Creek, including all tributaries and wetlands, from a point immediately below the confluence of North and South Middle Creeks to the confluence with the Cucharas River.

The lakes and reservoirs in Segment 13 were moved to a new Segment 25.

These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 16: This segment was deleted. Huajatolla and Diagre Reservoirs were moved to a new Segment 25. Horseshoe Lake, Martin Lake (Ohem Lake) and Walsenburg Lower Town Lake were moved to a new Segment 26. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 17: The following waters were moved from Lower Arkansas Segment 2a: The mainstem of South Apache Creek, including all tributaries and wetlands, from the boundary of BLM lands, in Section 25, T25S, R68W to the confluence with North Apache Creek. The mainstem of North Apache Creek, including all tributaries and wetlands, from the southern boundary of Section 24, T25S, R68W to the confluence with South Apache Creek. All tributaries, including wetlands, to the Huerfano River above the confluence with the Cucharas River that are within the San Isabel National Forest boundaries that are not within the Sangre de Cristo and Greenhorn Wilderness Areas, except for specific listings in segment 11a. These waters were combined to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 19: This segment was created to encompass the lakes and reservoirs tributary to the Arkansas River within the Sangre de Cristo, Greenhorn, and Spanish Peaks Wilderness Areas, formerly in Middle Arkansas Segments 11, 13 and 17 and Lower Arkansas Segments 2a, 3a and 3b. This segment was created to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 20: This segment was created to encompass Pueblo Reservoir formerly in Segment 1. This segment was created to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 21: This segment was created to encompass the lakes and reservoirs tributary to Chico Creek from the source to the confluence with the Arkansas River formerly in Segment 4c as well as Valco Ponds and Fountain Lake formerly in Segment 3. This segment was created to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 22: This segment was created to encompass the lakes and reservoirs tributary to the Saint Charles River from the source to a point immediately above the CF&I diversion canal near Burnt Mill formerly in Segment 5. This segment was created to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 23: This segment was created to encompass Beckwith Reservoir formerly in Segment 8; the lakes and reservoirs tributary to Greenhorn Creek from the source to a point immediately below the Greenhorn Highline (Hayden Supply Ditch) diversion dam formerly in Segment 7; the lakes and reservoirs tributary to Graneros Creek from the source to the San Isabel National Forest boundary formerly in Segment 4d; and the lakes and reservoirs tributary to Muddy Creek from the source to 232/Bondurant Road formerly in Segment 4d. This segment was created to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 24: This segment was created to encompass the lakes and reservoirs tributary to the Huerfano River from the source to Highway 69 at Badito, not within the Sangre de Cristo and Greenhorn Wilderness Areas formerly in Middle Arkansas Segment 11 and Lower Arkansas Segment 2a. All lakes and reservoirs tributary to the Huerfano River above the confluence with the Cucharas River that are within the San Isabel National Forest boundaries, not within the Sangre de Cristo and Greenhorn

Wilderness Areas formerly in Lower Arkansas Segment 2a. This segment was created to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 25: This segment was created to encompass Huajatolla and Diagre Reservoirs formerly in Segment 16, as well as the lakes and reservoirs tributary to the Cucharas River from the source to the point of diversion for the Walsenburg public water supply not within the Spanish Peaks Wilderness Area formerly in Segment 13. This segment was created to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 26: This segment was created to encompass Horseshoe Lake, Martin (Ohem) Lake, and Walsenburg Lower Town Lake formerly in Segment 16. This segment was created to facilitate the adoption of appropriate temperature standards.

Middle Arkansas River 27: This segment was created to encompass Teller Reservoir, which was formerly in Segment 4d. This segment was created to facilitate the adoption of appropriate temperature standards.

Fountain Creek 1a: The coldwater lakes and reservoirs less than 100 acres in surface area in this segment were moved to a new Segment 8. Coldwater lakes and reservoirs greater than 100 acres in surface area were moved to a new Segment 9. These large coldwater lakes included North and South Catamount Reservoirs and Crystal Creek Reservoir. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Fountain Creek 3a: The lakes and reservoirs in this segment, except AFA Non-Potable Reservoir #1, were moved to a new Segment 10. AFA Non-Potable Reservoir #1 was moved to a new Segment 11. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Fountain Creek 3b-4: The lower boundary of Segment 3b was extended to encompass portions of Bear Creek that previously existed in Segment 4. This boundary was changed because several multi-metric index (MMI) scores indicated a diverse and sensitive benthic macroinvertebrate community that is presently under-protected by an Aquatic Life Warm 2 designation. This segment was modified to facilitate the adoption of appropriate Aquatic Life use classifications and temperature standards.

Fountain Creek 4: The lakes and reservoirs in this segment were moved to a new Segment 11 to facilitate the adoption of appropriate temperature standards.

Fountain Creek 8: This segment was created to encompass the non-large coldwater lakes and reservoirs tributary to Fountain Creek from the source to a point immediately above the confluence with Monument Creek, formerly in Segment 1a. This segment was created to facilitate the adoption of appropriate temperature standards.

Fountain Creek 9: This segment was created to encompass the large coldwater lakes and reservoirs tributary to Fountain Creek from the source to a point immediately above the confluence with Monument Creek that are larger than 100 acres in surface area, formerly in Segment 1a.

Fountain Creek 10: This segment was created to encompass the lakes and reservoirs tributary to Fountain Creek which are within the boundaries of National Forest or Air Force Academy lands from a point immediately above the confluence with Monument Creek to the confluence with the Arkansas River, formerly in Segment 3a. This includes a coldwater lake that is greater than 100 acres in surface area – Rampart Reservoir. This segment was created to facilitate the adoption of appropriate temperature standards.

Fountain Creek 11: This segment was created to encompass the lakes and reservoirs tributary to Fountain Creek which are not within the boundaries of National Forest or Air Force Academy lands, except AFA Non-Potable Reservoir #1, from a point immediately above the confluence with Monument



Creek to the confluence with the Arkansas River, formerly in Segment 4. This segment was created to facilitate the adoption of appropriate Aquatic Life use classifications and temperature standards.

Lower Arkansas River 2a: Numerous tributaries, including wetlands, in this segment were moved to Middle Arkansas Segments 1, 11a, 11b and 17 and Lower Arkansas Segments 9a and 9b. The lakes and reservoirs in this segment were moved to Middle Arkansas Segments 19 and 24 and Lower Arkansas segment 19. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 3a: The tributaries in this segment within the Spanish Peaks Wilderness Area were moved to Middle Arkansas Segment 1. The lakes and reservoirs in this segment within the Spanish Peaks Wilderness Area were moved to a new Middle Arkansas Segment 19. The lakes and reservoirs in this segment not within the Spanish Peaks Wilderness Area were moved to a new Segment 14. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 3b: The tributaries in this segment within the Spanish Peaks Wilderness Area were moved to a new Middle Arkansas Segment 1. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 4a-4c: The mainstem of the Apishapa River from I-25 to the confluence with the Arkansas River was moved to Segment 4a to facilitate the adoption of a Water Supply use classification.

The mainstem of Timpas Creek from the source to the Arkansas River was moved to Segment 4b to facilitate the adoption of the appropriate Aquatic Life use classification for Timpas Creek of Aquatic Life Warm 1.

The mainstem of Lorencito Canyon from the source to the confluence with the Purgatoire River was moved to Segment 4c.

Lower Arkansas River 5a-5b: The following waters were moved to a new rivers and streams Segment 5b: The mainstem of the North Fork of the Purgatoire River, including all tributaries and wetlands, from a point immediately below the confluence with Guajatoyah Creek to the confluence with the Purgatoire River. The mainstem of the Middle Fork of the Purgatoire River from the USGS gage at Stonewall to the confluence with the North Fork of the Purgatoire River. The mainstem of the South Fork of the Purgatoire River from Tercio to the confluence with the Purgatoire River. The mainstem of the Purgatoire River to Interstate 25. The mainstem of Long Canyon Creek from the source to Trinidad Reservoir. The mainstem of Raton Creek from the source to the confluence with the Purgatoire River.

The lakes and reservoirs in Segment 5a, including North Lake and Monument Lake, were moved to a new Segment 15. The lakes and reservoirs formerly in Segment 5b, including Trinidad Reservoir (Lake), Long Canyon Reservoir and Lake Dorothey, were also moved to a new Segment 15.

These waters were split into different segments or combined to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 6a-6b: Wet Canyon and all tributaries, including wetlands, from the source to the confluence with the Purgatoire River was moved to Segment 6b to facilitate the adoption of a Water Supply Use for new Segment 6b.

The lakes and reservoirs in this segment were moved to a new Segment 16. Lakes and reservoirs tributary to Wet Canyon were moved to a new Segment 17.

These waters were split into different segments or combined to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 8: The lakes and reservoirs in this segment were moved to a new Segment 18 to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 9a-9c: The following waters were moved from Segment 2a to Segment 9a: The mainstems of Chacuacho Creek, San Francisco Creek and Van Bremer Arroyo from their sources to their confluences with the Purgatoire River.

The following waters were moved from Segment 2a to Segment 9b: The mainstem of Mud Creek from V Road to the confluence with the Arkansas River. The mainstems of Frijole Creek and Luning Arroyo from their sources to their confluences with the Purgatoire River. The mainstem of Blackwell Arroyo from its source to the confluence with Luning Arroyo. The mainstem of San Isidro Creek from its source to the confluence with San Francisco Creek.

The following waters were moved from Segment 9b to Segment 9a: The mainstems of Wildhorse Creek and Wolf Creek from their sources to their confluences with the Arkansas River.

The following waters were moved from Segment 9c to Segment 9a: The mainstems Clay and Two Butte Creeks from their sources to their confluences with the Arkansas. The mainstem of Trinchera Creek from the source to the confluence with the Purgatoire River.

The following waters were moved from Segment 9c to Segment 9b: The mainstem of Rule Creek from the Bent/Las Animas county line to John Martin Reservoir. The mainstem of Muddy Creek from the south boundary of the Setchfield State Wildlife Area to the confluence with Rule Creek. The mainstem of Caddoa Creek from CC Road to the confluence with the Arkansas River. The mainstem of Cat Creek to the confluence with Clay Creek. The mainstem of Mustang Creek from the source to the confluence with Apishapa River. The mainstem of Chicosa Creek from the source to the Arkansas River. The mainstem of Smith Canyon from the Otero/Las Animas county line to the confluence with the Purgatoire River

Segment 9c was deleted.

These waters were split into different segments or combined to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 14: This segment was created to encompass the lakes and reservoirs tributary to tributary to the Apishapa River from the source to I-25 not within the Spanish Peaks Wilderness Area formerly in Segment 3a. This segment was created to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 15: This segment was created to encompass the lakes and reservoirs formerly in Segment 5a that are tributary to the mainstem of the North Fork of the Purgatoire River from the source to a point immediately below the confluence with Guajatoyah Creek, including Monument Lake and North Lake. All lakes and reservoirs tributary to the Middle Fork of the Purgatoire River from the source to the USGS gage at Stonewall mainstem of the South Fork of the Purgatoire River, from the source to Tercio. Trinidad Reservoir, Long Canyon Reservoir and Lake Dorothy formerly in Segment 5b. This segment was created to facilitate the adoption of appropriate temperature standards. Trinidad Reservoir was changed to Trinidad Lake.

Lower Arkansas River 16: This segment was created to encompass the lakes and reservoirs tributary to the Purgatoire River from the source to I-25 that are not contained in Segment 15 and 17. This segment was created to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 17: This segment was created to encompass the lakes and reservoirs tributary to Wet Canyon from the source to the confluence with the Purgatoire River formerly in Segment 6. This segment was created to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 18: This segment was created to encompass the lakes and reservoirs tributary to Ricardo Creek, which are within Colorado (Costilla and Las Animas Counties) and lakes and reservoirs tributary to the Canadian River formerly in Segment 8. This segment was created to facilitate the adoption of appropriate temperature standards.

Lower Arkansas River 19: This segment was created to encompass the all the remaining lakes and reservoirs tributary to Arkansas River, except for specific listings in segments 10-18 and Middle Arkansas Basin segments 19-27 formerly in Segment 2a. This segment was created to facilitate the adoption of appropriate temperature standards.

Cimarron River 1: The lakes and reservoirs in this segment were moved to a new Segment 3 to facilitate the adoption of appropriate temperature standards.

Cimarron River 3: This segment was created to encompass the lakes and reservoirs tributary to the Cimarron River formerly in Segment 1.

The following segment descriptions were edited to improve clarity, correct typographical errors, and correct spelling errors:

Upper Arkansas segments: 1a, 10, 11, 12b, 13, 14b, 15, 16a, 17a-c, 18-20, 24 and 27  
Middle Arkansas segments: 4c, 4d, 5a, 7a, 11a and 18b  
Fountain Creek segments: 1a, 3a-b, 4 and 7b  
Lower Arkansas segments: 3a, 3b, 3c, 5a, 8, 9a, 9b and 13  
Cimarron segment: 1

#### B. Revised Aquatic-Life Use Classifications

The Commission reviewed information regarding the existing aquatic communities. Class 2 segments with exceptionally high MMI scores or a wide variety of fish species, were upgraded from Class 2 to Class 1.

The following segments or portions of segments were upgraded from Warm 2 to Warm 1.

Middle Arkansas segments: 4a and 4b  
Lower Arkansas segments: 2a, 4b, 9a and 10  
Cimarron segment: 2

The following segments or portions of segments were upgraded from Cold 2 to Cold 1:

Upper Arkansas segments: 14c\*, 15\*\* and 27\*\*\*

\* Upgrade applies to only the upper portions of North and South Forks of Hardscrabble Creek above the National Forest boundary, formerly in Segment 14b.

\*\* Upgrade applies to only the tributaries of Grape Creek from its source to the outlet of DeWeese Reservoir, formerly in Segment 14b.

\*\*\* Upgrade applies to only the portions of Eightmile Creek between the mouth of Phantom Canyon and County Road 132 and the mainstem of Coal Creek (Fremont County), formerly in Segment 14b.

The following segments or portions of segments were upgraded from Warm 2 to Cold 1 based on biological data showing that the segment has a wide variety of cold-water species:

Middle Arkansas segments: 1, 7a, 7b, 11a, 11b, 17, 19, 23, 24 and 27  
Fountain Creek segment: 3b\*  
Lower Arkansas segments: 2a and 3b

\* Upgrade applies to only the portion of Bear Creek between coordinates N38.47682/W104.54917 and Gold Camp Road, formerly in Segment 4.

Fish Ingestion qualifiers were deleted for the following segments that were upgraded from Class 2 to Class 1, since fish ingestion is presumed for all Class 1 waters:

Cimarron segments: 2

A Use Attainability Analysis was prepared to downgrade the following segments, or portions of these segments, from Cold 1 to Warm 1 or 2.

Upper Arkansas segments: 4b and 40  
Fountain Creek segment: 11

A Use Attainability Analysis was prepared to downgrade the following segment from Cold 2 to Warm 2.

Fountain Creek segment: 5

#### C. Recreation Classifications and Standards

Newly created segments were given the same Recreation Use classification as the segment from which they were split, unless there was insufficient evidence to support keeping that classification, or evidence to show that the existing use classification was inappropriate.

The following segment or portions of segments with year-round or seasonal Recreation N standards was upgraded to Recreation E.

Lower Arkansas segments: 2a and 3b  
Cimarron segment: 1

The following segments with year-round or seasonal Recreation P standards were upgraded to Recreation E:

Fountain Creek segment: 7a

#### D. Water Supply Use Classification and Standards

The Commission added a Water Supply use classification and standards where the evidence demonstrates a reasonable potential for a hydrological connection between surface water and alluvial wells used for drinking water. The Water Supply Use classification and standards were added to the following segments:

Upper Arkansas segments: 2c and 14b  
Middle Arkansas segments: 4c, 4d and 12  
Fountain Creek segments: 4 and 5  
Lower Arkansas segments: 2a, 4a, 9a and 9b

A review of the segments with an existing Water Supply Use classification showed that some segments were missing one or more standards to protect that use. The full suite of Water Supply standards were added to the following segments:

Upper Arkansas segments: 19 and 20  
Fountain Creek segment: 7a

#### E. Agriculture Standards

Chromium III: A review of the standards associated with the Agriculture Use classification showed that many segments were missing a chronic chromium III standard to protect the use. The chronic chromium III standard to protect the Aquatic Life Use classification may be not be protective of the Agriculture Use in some high hardness situations. A chromium III standard of  $CrIII(ch)=100(Trec)$ , was added to the following segments classified for Agriculture Use, but not for Water Supply, which has a more restrictive chromium III standard:

Upper Arkansas segments: 14a, 17b and 26  
Middle Arkansas segments: 4a, 4b, 10 and 14  
Fountain Creek segments: 7b  
Lower Arkansas segments: 7, 12 and 13  
Cimarron segments: 2

Molybdenum: In 2010, the Commission adopted a new standard for molybdenum to protect cattle from the effects of molybdenosis. The table value adopted at that time was 300 ug/l, but included an assumption of 48 mg/day of copper supplementation to ameliorate the effects of molybdenosis. State and local experts on cattle nutrition indicated that copper supplementation in region is common, but is not universal. Therefore, copper supplementation assumption was removed from the equation, which yields a standard of 160 ug/l. The Commission expects that this value may be revised when data on the copper and molybdenum content of local forage becomes available. The Commission also notes that in view of EPA's disapproval of the 300 ug/l table value in the Basic Standards and Methodologies for Surface Water, the Commission intends to review this value during the next Basic Standards triennial review.

The Agriculture table value assumes that the safe copper:molybdenum ratio is 4:1. Food and water intake is based on a 273 kg (600 lb) feeder steer consuming 6.8 kg/day of dry matter and 20% of its body weight in water per day. Total copper and molybdenum intakes are calculated from the following equations:

$$Cu \text{ intake mg/day} = ([Cu] \text{ forage, mg/kg}) \times (\text{forage intake, kg/day}) + ([Cu] \text{ water, mg/l}) \times (\text{water intake, L/day}) + (Cu \text{ supplementation, mg/day})$$

$$Mo \text{ intake mg/day} = ([Mo] \text{ forage, mg/kg}) \times (\text{forage intake, kg/day}) + ([Mo] \text{ water, mg/l}) \times (\text{water intake, L/day}) + (Mo \text{ supplementation, mg/day})$$

The assumed values for these equations are as follows:

[Cu] forage = 7 mg/kg, [Mo] forage = 0.5 mg/kg, forage intake = 6.8 kg/day, [Cu] water = 0.008 mg/L, [Mo] water = 0.375 mg/L, water intake = 54.6 L/day, Cu supplementation = 0 mg/day, Mo supplementation = 0 mg/day.

A molybdenum standard of 160 ug/l was adopted for the following segments in Regulation 32 that have an Agriculture Use classification, and where livestock or irrigated forage are present or expected to be present.

Upper Arkansas segments: All segments, except 1b  
Middle Arkansas segments: All segments, except 8 and 16 (deleted)  
Fountain Creek segments: All segments  
Lower Arkansas segments: All segments, except 9c (deleted)  
Cimarron segments: All segments

The following segments do not have an Agriculture Use classification, and livestock or irrigated forage are not expected to be present. A molybdenum standard of 210 ug/L was applied to these segments to protect the Water Supply Use classification:

Upper Arkansas segments: 1b

#### F. Changes to Antidegradation Designation

Decoupling Cold 2 and Use-Protected designations: As part of the Basic Standards hearing of 2005, the Commission eliminated the direct linkage between Cold Water Aquatic Life Class 2 and the Use-Protected designation. The Commission reviewed all Cold 2 segments that were Use-Protected to determine if that designation was still warranted. No segments were changed to Reviewable.

Decoupling Aquatic Life Warm 2 and Use-Protected designations: As part of the Basic Standards hearing of 2005, the Commission decided that the presence of a Warm Water Class 2 classification would still be a presumptive basis for applying a Use-Protected designation; however, that presumption can be overcome if there is data showing that the water is of high quality. The Commission reviewed all Warm 2 segments to determine if the Use-Protected designation is still warranted. The following segment is now Reviewable:

Fountain Creek segment: 4

#### G. Ambient Standards

Ambient standards are adopted where natural or irreversible man-induced conditions result in exceedances of table value standards. The Commission reviewed the information that is the basis for these standards, as well as any new information that would indicate whether they are still appropriate, need to be modified, or should be dropped. In some cases, new ambient standards were adopted. The following segments have ambient-based standards:

Upper Arkansas segments: 4a, 10, 11, 14c, 22a and 35

Middle Arkansas segments: 3 and 4a

Fountain Creek segments: 2a and 2b

Lower Arkansas segments: 1a, 1b, 1c, 2b, 2c and 11

#### H. Aquatic Life Ammonia and Metals Standards

New Table Value Standards: The zinc, zinc sculpin, and aluminum table values were revised in the 2010 Basic Standards hearing. The acute and chronic zinc, zinc sculpin, and aluminum equations in 32.6(3) were modified to conform to Regulation No. 31. The footnotes to the table values in 32.6(3) were renumbered to match the appropriate references. Footnote (4 old) was deleted, and footnotes 5 through 7 were renumbered 4 through 6.

Chromium III Standards (Aquatic Life + Water Supply use): A review of chromium III standards showed that the standard associated with the Water Supply Use classification is not protective of aquatic life where the average hardness is low (less than 61 mg/l). A chromium III standard, CrIII(ch)=TVS, was added to the following segments with Aquatic Life and Water Supply Use classifications that did not previously include this standard:

Upper Arkansas segments: 1a-b, 2a, 3, 5, 7, 8a, 10, 12a-b, 13, 15, 16a-c, 17a, 17c, 18, 19, 23-25 and 27

Middle Arkansas segments: 2, 3, 5a, 6, 7a, 9, 11a, 13a, 17, 18a and 18b

Fountain Creek segments: 1a-b, 2a-b, 3a-b, 6 and 7a

Lower Arkansas segments: 1a, 1b, 1c, 2a, 3a, 3b, 3c, 5a, 8, 10 and 11

Chromium III Standards (Aquatic Life + No Water Supply use): A review of chromium III standards showed that some segments with no Water Supply use had a standard that was protective of the Agriculture use classification but was not protective of aquatic life where the average hardness is low (less than 61 mg/L). A chromium III standard, CrIII(ac/ch)=TVS, was added to the following segments with an Aquatic Life Use classification, but no Water Supply use, that did not previously include this standard:

Upper Arkansas segments: 2b, 9, 11, 21a-b and 22a  
Middle Arkansas segments: 4e and 15  
Lower Arkansas segments: 2b, 2c and 6  
Cimarron segment: 1

I. Uranium Standards

At the 2010 Basic Standards rulemaking hearing, the Commission changed the Water Supply table value for uranium from 30 ug/L to a hyphenated standard of 16.8-30 ug/L. The Commission revised the language in 32.5(3)(c) to reflect the change to the basin-wide standard. A new section 32.5(3)(c)(i) was added to explain the hyphenated standard. Subsection 32.5(3)(d) was deleted because it was redundant with 32.5(3)(c).

J. Temporary Modifications

All existing Temporary Modifications were examined to determine if they should be allowed to expire or to extend them. Temporary Modifications were not automatically extended if non-attainment persisted due to revisions made to the Temporary Modification provisions in 2005 and 2010.

The following segments had Temporary Modifications that were not renewed:

Upper Arkansas segments: 2b, 3, 8a-b and 12a  
Middle Arkansas segments: 4c, 6 and 9  
Fountain Creek segments: 1a, 2a, 4 and 6  
Lower Arkansas segments: 1b, 1c, 5a, 6a and 7

K. Temperature

New table values were adopted for temperature in the 2007 Basic Standards hearing, and revised in the 2010 Basic Standards hearing. Temperature standards were applied to individual segments based upon the fish species expected to be present as provided by Parks and Wildlife, temperature data, and other available evidence.

The following segments have a Cold Stream Tier I temperature standard (CS-I):

Upper Arkansas segments: 1a-b, 2a-c, 5, 7, 8a-b, 9-11, 12a, 13, 14c, 15, 16a, 17a, 19, 21b and 25  
Middle Arkansas segments: 1, 5a, 7a, 11a, 13a and 17  
Fountain Creek segments: 1b, 3a and 3b  
Lower Arkansas segments: 5a and 8

The following segments have a Cold Stream Tier II temperature standard (CS-II):

Upper Arkansas segments: 3, 4a, 12b, 14b, 14d, 16b-c, 17b-c, 18, 20, 21a, 22a-b, 23, 24 and 27  
Middle Arkansas segments: 2, 5b, 7b, 11b and 13b  
Fountain Creek segments: 1a  
Lower Arkansas segments: 3a, 3c, 5b, 6a and 6b

The following segments have a Warm Stream Tier II temperature standard (WS-II):

Upper Arkansas segments: 4b, 14a and 26  
Middle Arkansas segments: 3, 4a, 4b, 4c, 4d, 4e, 6, 9, 10, 12, 14, 15, 18a and 18b  
Fountain Creek segments: 2a-b, 4, 5 and 6  
Lower Arkansas segments: 1a, 1b, 1c, 3b, 4a, 4b, 4c, 7, 9a and 9b  
Cimarron segments: 1 and 2

The following segments have a Warm Stream Tier III temperature standard (WS-III):

Lower Arkansas segments: 2a, 2b and 2c

The following segments have a Cold Lakes temperature standard (CL):

Upper Arkansas segments: 28, 29, 31, 32, 33, 34, 36, 37, 38 and 39

Middle Arkansas segments: 19, 22, 23, 24, 25 and 26

Fountain Creek segments: 8 and 10

Lower Arkansas segments: 14, 15, 16, 17 and 18

The following segments have a Large Cold Lakes (greater than 100 acres surface area) temperature standard (CLL):

Upper Arkansas segments: 30, 33, 35, 37 and 38

Middle Arkansas segments: 20 and 27

Fountain Creek segments: 9 and 10

The following segments have a Warm Lakes temperature standard (WL):

Upper Arkansas segments: 40

Middle Arkansas segments: 21

Fountain Creek segments: 7a-b and 11

Lower Arkansas segments: 10, 11, 12, 13 and 19

Cimarron segments: 3

A temperature standard was not adopted for the following segment, which does not have an Aquatic Life Use classification:

Upper Arkansas segments: 6

The following segments have ambient-based temperature standards:

Upper Arkansas segments: 4a, 14c and 35

Middle Arkansas segments: 20 and 26

The Commission recognizes that in some cases there is uncertainty about the temperature standards adopted in this hearing. The uncertainty stems from a lack of data about temperature, the aquatic community, or where there is a conflict between these two lines of evidence. It is the Commission's intent that the Division and interested parties work to resolve the uncertainty for the following segments:

Upper Arkansas segments: 14c

Lower Arkansas segments: 5b, 6a, 6b and 16

#### L. Nutrients

In March 2012, the Commission adopted interim nutrient values in the Basic Standards (Regulation 31) and created a new statewide control regulation (Regulation 85) to address nutrients in Colorado. Regulation 31.17 includes interim nutrient values for total phosphorus, total nitrogen, and chlorophyll *a* for both lakes and reservoirs, and rivers and streams. Due to the phased implementation approach adopted with these criteria (31.17(e)), the Commission adopted only total phosphorus and chlorophyll *a* standards at this time. Nitrogen standards were not considered as part of this rulemaking hearing, but will be considered in the next triennial review, currently scheduled for June, 2018.

Total phosphorus and chlorophyll *a* standards were adopted for waters upstream of all permitted domestic wastewater treatment facilities discharging prior to May 31, 2012 or with preliminary effluent



limits requested prior to May 31, 2012, and any non-domestic facilities subject to Regulation 85 effluent limits and discharging prior to May 31, 2012. A new section (4) was added at 32.5 describing implementation of the interim nutrient values into the tables at 32.6, and includes a table which lists these facilities and the segment to which they discharge.

- For segments located entirely above these facilities, nutrient standards apply to the entire segment.
- For segments with portions downstream of these facilities, *nutrient standards only apply above these facilities*.
- For segments located entirely below these facilities, nutrient standards do not apply.

For rivers and streams segments, total phosphorus standards were adopted for segments with an aquatic life use. Chlorophyll *a* standards were adopted for segments with either an E or P recreation use classification.

For lakes and reservoirs segments, a footnote was added to total phosphorus and chlorophyll standards adopted for lakes in the tables at 32.6, as these standards only apply to lakes >25 acres.

31.17(e)(iii) also allows the Commission to adopt numeric nutrient standards for Direct Use Water Supply (DUWS) lakes and reservoirs. No proposals were made to adopt standards based on this provision in this rulemaking.

31.17(e)(iii) also allows the Commission to adopt numeric nutrient standards for circumstances where the provisions of Regulation 85 are not adequate to protect waters from existing or potential nutrient pollution. No proposals were made to adopt standards based on this provision in this rulemaking.

Chlorophyll *a* standards were adopted for the following segments:

Upper Arkansas segments: 1a-b, 2a, 5, 7, 8a-b, 9-11, 12a-b, 13, 14a-d, 15, 16a-c, 17a-c, 18-20 and 23-40  
Middle Arkansas segments: 1, 4a-e, 5a-b, 6, 7a-b, 9, 10, 11a-b, 12, 13a-b, 14, 17, 18a-b and 19-27  
Fountain Creek segments: 1a-b, 3a-b, 4, 6, 7a-b and 8-11  
Lower Arkansas segments: 2b, 3a, 3c, 4a-c, 5a-b, 6a-b, 8, 9a-b, 10 and 12-19  
Cimarron segments: 2 and 3

Total Phosphorus standards were adopted for the following segments:

Upper Arkansas segments: 1a-b, 2a, 5, 7, 8a-b, 9-11, 12a-b, 13, 14a-d, 15, 16a-c, 17a-c, 18-20, 21a, 22a-b and 23-40  
Middle Arkansas segments: 1, 4a-e, 5a-b, 6, 7a-b, 9, 10, 11a-b, 12, 13a-b, 14, 17, 18a-b and 19-27  
Fountain Creek segments: 1a-b, 3a-b, 4-6, 7a-b and 8-11  
Lower Arkansas segments: 2a-c, 3a-c, 4a-c, 5a-b, 6a-b, 8, 9a-b, 10 and 12-19  
Cimarron segments: 1-3

#### M. Direct Use Water Supply Sub-classification

Also in the March 2012 rulemaking hearing, the Commission adopted a sub-classification of the Domestic Water Supply Use called "Direct Use Water Supply Lakes and Reservoirs Sub-classification (Regulation #31, at 31.13(1)(d)(i)). This sub-classification is for water supply lakes and reservoirs where there is a plant intake location in the lake or reservoir or a man-made conveyance from the lake or reservoir that is

used regularly to provide raw water directly to a water treatment plant that treats and disinfects raw water. In this action today, the Commission has begun to apply this sub-classification and anticipates that it will take several basin reviews to evaluate all the reservoirs in the basin. The Commission adopted the DUWS sub-classification on the following reservoirs and added “DUWS” to the classification column in the standards tables. The public water systems are listed along with the reservoirs and segments.

Upper Arkansas segment 38	Bison Reservoir: City of Victor
Middle Arkansas segment 20	Pueblo Reservoir: Pueblo Board of Water Works, St Charles Mesa, Pueblo West, Fountain Valley
Middle Arkansas segment 23	Beckwith Reservoir: City of Colorado City
Middle Arkansas segment 26	Horseshoe, Martin and Lower Walsenburg Reservoirs: City of Walsenburg
Fountain Creek segment 9	North Catamount Reservoir, South Catamount Reservoir, and Crystal Creek Reservoir: City of Colorado Springs
Fountain Creek segment 10	Rampart Reservoir: City of Colorado Springs
Lower Arkansas segment 15	Monument and North Lakes: City of Trinidad

31.17(e)(iii) also allows the Commission to adopt numeric nutrient standards for Direct Use Water Supply (“DUWS”) lakes and reservoirs. No standards were adopted based on this provision in this rulemaking.

#### N. Other Site-Specific Revisions

Upper Arkansas River 1b: This segment had an ambient acute zinc standard. Recent data showed that East Fork of the Arkansas River was attaining the table value standards for zinc, so the ambient-based acute standard was replaced with TVS.

Upper Arkansas River 2b: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the Agriculture use classification.

Upper Arkansas River 8a: A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard.

Upper Arkansas River 8b: This segment was missing a boron and nitrate standard. A TVS boron standard of 0.75 mg/L was added to this segment to protect the Agriculture use classification. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the Agriculture use classification.

This segment had a typographical error in the cadmium temporary modification. The temporary modification for the chronic cadmium standard should be 1.2 ug/L, rather than 1.3 ug/L. If the temporary modification is allowed to expire, this typographical error will remedy itself. However, if the temporary modification is extended, then the chronic cadmium should be changed to 1.2 ug/L.

Upper Arkansas River 9: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the Agriculture use classification.

Upper Arkansas River 10: This segment had an ambient chronic copper standard. Recent data showed that the copper concentrations were higher than the ambient-based chronic copper and acute TVS copper standards, so the chronic copper standard was changed from 8.0 ug/L to 10.6 ug/L and an ambient-based acute copper standard was added by changing TVS to 14.6 ug/L.

Upper Arkansas River 11: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added. This segment was missing chronic copper standard. A chronic TVS copper standard was added.

The standard for pH is based on ambient conditions which are due to uncontrollable non-point sources. There continues to be no active mining in this segment and recent evidence continues to indicate low pH values. Therefore, the ambient pH standard of 5.0 was left unchanged.

This segment had ambient aluminum and iron standards. No recent data was available to determine if a change was needed to the ambient aluminum standard. Therefore, the ambient aluminum standard of 750 ug/L was left unchanged. Recent data showed that the iron concentrations were lower than the table value standard (TVS), so the total recoverable iron standard was changed from 2000 ug/L to TVS.

Upper Arkansas River 14a: This segment does not have a Water Supply use, but had a nitrite standard associated with that use. The nitrite standard was changed from 0.05 mg/L to 0.5 mg/L to protect the Aquatic Life Warm 2 use classification. This segment was also missing a nitrate standard, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the Agriculture use classification.

Upper Arkansas River 16b: A footnote <sup>"A"</sup> was added to the chronic arsenic standard to explain the hyphenated standard.

Upper Arkansas River 17b: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added.

Upper Arkansas River 17c: This segment was missing acute and chronic nickel standards. Acute and chronic TVS nickel standards were added to this segment.

Upper Arkansas River 21a: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added. The acute and chronic TVS cadmium standards were combined to read as: Cd(ac/ch)=TVS.

Upper Arkansas River 21b: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the Agriculture use classification.

Upper Arkansas River 22a: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the Agriculture use classification.

This segment had ambient pH, aluminum, manganese and zinc standards. No recent data was available to determine if a change was needed to any of the ambient-based standards, so all ambient standards were left unchanged.

Upper Arkansas River 23: A footnote <sup>"A"</sup> was added to the chronic arsenic standard to explain the hyphenated standard.

Upper Arkansas River 26: This segment does not have a Water Supply use, but had a nitrite standard associated with that use. The nitrite standard was changed from 0.05 mg/L to 0.5 mg/L to this segment to protect the Aquatic Life Warm 2 use classification. This segment was also missing a nitrate standard, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the Agriculture use classification.

Upper Arkansas River 33: A footnote <sup>"A"</sup> was added to the chronic arsenic standard to explain the hyphenated standard.

Middle Arkansas River 2: The recreation use classification had been omitted for this segment. A Recreation E use classification was added to this segment.

Middle Arkansas River 3: Recent data showed that the selenium concentrations were lower than the ambient-based standard, so the selenium standards were recalculated and changed from (ac)50.9 ug/L to (ac)26.3 ug/L and (ch)17.4 ug/L to (ch)17.1 ug/L.

Middle Arkansas River 4a: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the agriculture use classification. Recent data showed that the selenium concentrations were different from the ambient-based standard, so the selenium standards were recalculated and changed from (ac)597 ug/L to (ac)1815 ug/L and (ch)708 ug/L to (ch)707.7 ug/L.

The aquatic life use classification for this segment was changed from Warm 2 to Warm 1. Therefore, an acute arsenic standard of 340 ug/L was added and the chronic arsenic standard was changed from (ch)100 ug/L (Trec) to (ch)7.6 ug/L (Trec).

Middle Arkansas River 4b: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the agriculture use classification.

The aquatic life use classification for this segment was changed from Warm 2 to Warm 1. Therefore, an acute arsenic standard of 340 ug/L was added and the chronic arsenic standard was changed from (ch)100 ug/L (Trec) to (ch)7.6 ug/L (Trec).

Middle Arkansas River 4d: The exceptions in the segment description were amended to reflect the creation of Segment 5a and the existence of Segment 18b. A footnote <sup>“An”</sup> was added to the chronic arsenic standard to explain the hyphenated standard.

Middle Arkansas River 6: A footnote <sup>“An”</sup> was added to the chronic arsenic standard to explain the hyphenated standard.

Middle Arkansas River 10: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the agriculture use classification. The chronic and acute arsenic standards were reordered for consistency.

Middle Arkansas River 12: A footnote <sup>“An”</sup> was added to the chronic arsenic standard to explain the hyphenated standard.

Middle Arkansas River 14: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the agriculture use classification.

Middle Arkansas River 18b: The segment description was changed to more precisely describe the unnamed tributary to the Arkansas located in Section 33, Township 20 South, Range 65 West. The segment description now states: Unnamed tributary to Arkansas River, that flows from the south and whose confluence with the Arkansas River is located at 38.267623, -104.668298.

Fountain Creek 2a: The nitrite standard was changed from 1.0 mg/L to 0.5 mg/L to protect the Water Supply use classification. A footnote <sup>“An”</sup> was added to the chronic arsenic standard to explain the hyphenated standard.

This segment had ambient sulfate and selenium standards. Recent data showed that the sulfate and selenium concentrations were lower than the ambient-based standard, so the sulfate standard was changed from 330 mg/L to 290 mg/L and the chronic selenium standard was changed from 8.0 ug/L to 4.8 ug/L. In the latter instance, an existing ambient chronic selenium standard was in place, but the acute

standard was not. Recent data showed that Fountain Creek, from a point immediately above the confluence with Monument Creek to a point immediately above State Highway 47, was attaining the table value standards for acute selenium, so the TVS standard was left unchanged.

Fountain Creek 2b: The nitrite standard was changed from 1.0 mg/L to 0.5 mg/L to protect the Water Supply use classification. A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard.

This segment had an ambient iron standard. Recent data showed that the iron concentrations were lower than the ambient-based standard, so the total recoverable iron standard was changed from 5280 ug/L to 3300 ug/L.

This segment had attainability-based underlying sulfate and selenium standards. Recent water quality data showed that sulfate and selenium concentrations were higher than the attainability-based standards, so the sulfate and selenium standards were left unchanged because this increase indicates that sulfate and selenium loads in this basin are not presently being reduced enough to merit reconsideration of the attainability-based underlying standards.

Fountain Creek 3a: This segment had duplicate standards for acute manganese. The numeric standard Mn(ac)=TVS was deleted while Mn(ac/ch)=TVS was retained.

Fountain Creek 3b: This segment had duplicate standards for acute manganese. The numeric standard Mn(ac)=TVS was deleted while Mn(ac/ch)=TVS was retained.

Fountain Creek 4: A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard.

Fountain Creek 5: A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard.

Fountain Creek 6: This segment had ambient sulfate and iron standards. Recent data showed that Monument Creek was attaining the table value standards for sulfate and total recoverable iron, so the ambient-based standards were replaced with TVS. A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard.

Fountain Creek 7b: This segment does not have a Water Supply use, but had a nitrite standard associated with that use. The nitrite standard was changed from 1.0 mg/L to 0.5 mg/L. This segment was also missing a nitrate standard, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the Agriculture use classification.

Fountain Creek 11: A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard.

Lower Arkansas River 1a: A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard. Recent data showed that the total recoverable iron concentrations were different than the ambient-based standard, so the total recoverable iron standards were changed from 2765 ug/L to 2800 ug/L.

Lower Arkansas River 1b: Recent data showed that the total recoverable iron concentrations were different from the ambient-based standard, so the total recoverable iron standards were recalculated and changed from 1950 ug/L to 3057 ug/L.

Lower Arkansas River 1c: Recent data showed that the manganese concentrations were lower than the ambient-based standard, so the manganese standards were recalculated and changed from 642 ug/L to 190 ug/L.

Lower Arkansas River 2a: A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard.

Lower Arkansas River 3b: A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard.

Lower Arkansas River 3c: A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard.

Lower Arkansas River 4a: A footnote “<sup>A</sup>” was added to the chronic arsenic standard to explain the hyphenated standard. Recent data showed that the total recoverable iron concentrations were lower than the table value standards (TVS), so the ambient based total recoverable iron standards were changed to TVS.

Lower Arkansas River 4b: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the agriculture use classification. Recent data showed that the total recoverable iron concentrations were lower than the table value standards (TVS), so the ambient based total recoverable iron standards were changed to TVS.

Lower Arkansas River 4c: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the agriculture use classification. Recent data showed that the total recoverable iron concentrations were lower than the table value standards (TVS), so the ambient based total recoverable iron standards were changed to TVS.

Lower Arkansas River 7: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the agriculture use classification.

Lower Arkansas River 8: A close parenthesis was added to the chronic chromium III standard.

Lower Arkansas River 12: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the agriculture use classification.

Lower Arkansas River 13: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the agriculture use classification.

Lower Arkansas River 15: Trinidad Reservoir was changed to Trinidad Lake.

Cimarron River 2: This segment was missing a nitrate standard. This segment does not have a Water Supply use, so a TVS nitrate standard of 100 mg/L was added to this segment to protect the agriculture use classification.

**EXHIBIT 2  
WATER QUALITY CONTROL DIVISION**

**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-36**

**REGULATION NO. 36  
CLASSIFICATIONS AND NUMERIC STANDARDS  
FOR  
RIO GRANDE BASIN**

**36.1 AUTHORITY**

These regulations are promulgated pursuant to section 25-8-101 et seq. C.R.S., as amended, and in particular, 25-8-203 and 25-8-204.

**36.2 PURPOSE**

These regulations establish classifications and numeric standards for the Rio Grande Basin, including all tributaries and standing bodies of water as indicated in section 36.6. The classifications identify the actual beneficial uses of the water. The numeric standards are assigned to determine the allowable concentrations of various parameters. Discharge permits will be issued by the Water Quality Control Division to comply with basic, narrative, and numeric standards and control regulations so that all discharges to waters of the state protect the classified uses. (See Regulation No. 31, section 31.14). It is intended that these and all other stream classifications and numeric standards be used in conjunction with and be an integral part of Regulation No. 31 Basic Standards and Methodologies for Surface Water.

**36.3 INTRODUCTION**

These regulations and tables present the classifications and numeric standards assigned to stream segments listed in the attached tables (See section 36.6(4)). As additional stream segments are classified and numeric standards for designated parameters are assigned for this drainage system, they will be added to or replace the numeric standards in the tables in section 36.6(4)). Any additions or revisions of classifications or numeric standards can be accomplished only after public hearing by the Commission and proper consideration of evidence and testimony as specified by the statute and the "basic regulations".

**36.4 DEFINITIONS**

See the Colorado Water Quality Control Act and the codified water quality regulations for definitions.

**36.5 BASIC STANDARDS**

**(1) TEMPERATURE**

All waters of the Rio Grande Basin are subject to the following standard for temperature.  
(Discharges regulated by permits, which are within the permit limitations, shall not be subject to

enforcement proceedings under this standard). Temperature shall maintain a normal pattern of diurnal and seasonal fluctuations with no abrupt changes and shall have no increase in temperature of a magnitude, rate, and duration deemed deleterious to the resident aquatic life. This standard shall not be interpreted or applied in a manner inconsistent with section 25-8-104, C.R.S. ~~Effective until December 31, 2012: Segments or portions of segments that are first, second or third order streams above 7000 feet elevation and classified Aquatic Life cold 1 or 2 shall have a chronic temperature standard of 17 °C (MWAT) with no acute standard. The following waters designated as Gold Medal fisheries by the Colorado Wildlife Commission shall have a chronic temperature standard of 18.2 °C (MWAT):~~

- ~~▪ Rio Grande River (brown and rainbow trout fishery) from the upper boundary of Coller State Wildlife Area downstream to the Farmers' Union Canal.~~

~~Other cold class 1 or 2 segments or portions of segments shall have a chronic temperature standard of 20 °C (MWAT) with no acute standard. Segments that are classified Aquatic Life warm 1 or 2 shall have a chronic temperature standard of 30 °C (MWAT) with no acute standard.~~

## (2) QUALIFIERS

See Basic Standards and Methodologies for Surface Water for a listing of organic standards at 31.11 and metal standards found at 31.16 Table III. The column in the tables headed "Water + Fish" are presumptively applied to all aquatic life class 1 streams which also have a water supply classification, and are applied to aquatic life class 2 streams which also have a water supply classification, on a case-by-case basis as shown in the Tables 36.6(4). The column in the tables at 31.11 and 31.16 Table III headed "Fish Ingestion" is presumptively applied to all aquatic life class 1 streams which do not have a water supply classification, and are applied to aquatic life class 2 streams which do not have a water supply classification, on a case-by-case basis as shown in Tables 36.6(4).

## (3) URANIUM

- (a) All waters of the Rio Grande Basin, are subject to the following basic standard for uranium, unless otherwise specified by a water quality standard applicable to a particular segment. However, discharges of uranium regulated by permits which are within these permit limitations shall not be a basis for enforcement proceedings under this basic standard.
- (b) Uranium level in surface waters shall be maintained at the lowest practicable level.
- (c) In no case shall uranium levels in waters assigned a water supply classification be increased by any cause attributable to municipal, industrial, or agricultural discharges so as to exceed 16.8-30 µg/l or naturally-occurring concentrations (as determined by the State of Colorado), whichever is greater.
  - (i) The first number in the 16.8-30 ug/l range is a strictly health-based value, based on the Commission's established methodology for human health-based standards. The second number in the range is a maximum contaminant level, established under the federal Safe Drinking Water Act that has been determined to be an acceptable level of this chemical in public water supplies, taking treatability and laboratory detection limits into account. Control requirements, such as discharge permit effluent limitations, shall be established using the first number in the range as the ambient water quality target, provided that no effluent limitation shall require an "end-of-pipe" discharge level more restrictive than the second number in the range. Water bodies will be considered in attainment of



this standard, and not included on the Section 303(d) List, so long as the existing ambient quality does not exceed the second number in the range.

- (d) ~~In no case shall uranium levels in waters assigned a water supply classification be increased by a cause attributable to municipal, industrial, or agricultural discharges so as to exceed 30 µg/l where naturally-occurring concentrations are less than 30 µg/l.~~

#### (4) NUTRIENTS

Prior to May 31, 2022, interim nutrient values will be considered for adoption only in the limited circumstances defined at 31.17(e). These circumstances include headwaters, Direct Use Water Supply (DUWS) Lakes and Reservoirs, and other special circumstances determined by the Commission. Additionally, prior to May 31, 2017, only total phosphorus and chlorophyll a will be considered for adoption. After May 31, 2017, total nitrogen will be considered for adoption per the circumstances outlined in 31.17(e).

Prior to May 31, 2022, nutrient criteria will be adopted for headwaters on a segment by segment basis for the Rio Grande River Basin. Moreover, pursuant to 31.17(e) nutrient standards will only be adopted for waters upstream of all permitted domestic wastewater treatment facilities discharging prior to May 31, 2012 or with preliminary effluent limits requested prior to May 31, 2012, and any non-domestic facilities subject to Regulation 85 effluent limits and discharging prior to May 31, 2012. The following is a list of all permitted domestic wastewater treatment facilities discharging prior to May 31, 2012 or with preliminary effluent limits requested prior to May 31, 2012, and any non-domestic facilities subject to Regulation 85 effluent limits and discharging prior to May 31, 2012 in the Rio Grande River Basin:

<u>Segment</u>	<u>Permittee</u>	<u>Facility name</u>	<u>Permit No.</u>
<u>CORGAL12</u>	<u>La Jara Town of</u>	<u>La Jara WWTF</u>	<u>CO0020150</u>
<u>CORGAL15</u>	<u>Manassa Town of</u>	<u>Manassa WWTF</u>	<u>CO0042935</u>
<u>CORGAL18</u>	<u>Antonito Town of</u>	<u>Antonito WWTF</u>	<u>CO0040975</u>
<u>CORGC03</u>	<u>Baca Grande Water and Sanitation District</u>	<u>Aspen Institute</u>	<u>CO0046914</u>
<u>CORGRG02</u>	<u>Mountain Views at Rivers Edge RV</u>	<u>Mtn Views At Rvrs Edge Rv Rst</u>	<u>COG588069</u>
<u>CORGRG04b</u>	<u>South Fork Water and Sanitation District</u>	<u>South Fork Water and San Dist WWTF</u>	<u>COG588039</u>
<u>CORGRG04c</u>	<u>Monte Vista City of</u>	<u>Veterans Center WWTF</u>	<u>CO0036927</u>
<u>CORGRG04c;</u> <u>CORGRG15</u>	<u>Monte Vista City of</u>	<u>Henderson Lagoon Facility</u>	<u>CO0023132</u>
<u>CORGRG04b;</u> <u>CORGRG18</u>	<u>Del Norte Town of</u>	<u>Del Norte WWTF</u>	<u>CO0020281</u>
<u>CORGRG07</u>	<u>Creede City of</u>	<u>Creede WWTF</u>	<u>CO0040533</u>
<u>CORGRG09</u>	<u>Fun Valley Resort</u>	<u>Fun Valley Resort</u>	<u>COG588018</u>
<u>CORGRG09</u>	<u>Wolf Creek Ski Corp</u>	<u>Wolf Creek Ski Corp WWTF</u>	<u>CO0041785</u>
<u>CORGRG12</u>	<u>Alamosa City of</u>	<u>Alamosa Regional WWTF</u>	<u>CO0044458</u>
<u>CORGRG15</u>	<u>San Luis Water and Sanitation District</u>	<u>San Luis Water and San Dist WWTF</u>	<u>COG589082</u>
<u>CORGRG30</u>	<u>Costilla County Water and Sanitation System</u>	<u>Costilla County Water &amp; San Dist WWTF</u>	<u>CO0036528</u>

Prior to May 31, 2022:

- For segments located entirely above these facilities, nutrient standards apply to the entire segment.
- For segments with portions downstream of these facilities, *nutrient standards only apply above these facilities.*
- For segments located entirely below these facilities, nutrient standards do not apply.

Footnotes: Total phosphorus (TP) and chlorophyll a standards apply only to lakes and reservoirs larger than 25 acres surface area.

## 36.6 **TABLES**

### (1) **Introduction**

The numeric standards for various parameters in the attached tables were assigned by the Commission after a careful analysis of the data presented on actual stream conditions and on actual and potential water uses.

Numeric standards are not assigned for all parameters listed in the tables attached to Regulation No. 31. If additional numeric standards are found to be needed during future periodic reviews, they can be assigned by following the proper hearing procedures.

### (2) **Abbreviations**

(a) The following abbreviations are used in the attached tables:

ac	=	acute (1-day)
Ag	=	silver
Al	=	aluminum
As	=	arsenic
B	=	boron
Ba	=	barium
Be	=	beryllium
°C	=	<u>degrees Celsius</u>
Cd	=	cadmium
ch	=	chronic (30-day)
<u>Chla</u>	=	<u>chlorophyll a</u>
Cl	=	chloride
<u>CL</u>	=	<u>cold lake temperature tier</u>
Cl <sub>2</sub>	=	residual chlorine
<u>CLL</u>	=	<u>cold large lake temperature tier</u>
CN	=	free cyanide
CrIII	=	trivalent chromium
CrVI	=	hexavalent chromium
<u>CS-I</u>	=	<u>cold stream temperature tier one</u>
<u>CS-II</u>	=	<u>cold stream temperature tier two</u>
Cu	=	copper
dis	=	dissolved
D.O.	=	dissolved oxygen
<u>DM</u>	=	<u>daily maximum temperature</u>
<u>DUWS</u>	=	<u>direct use water supply</u>
E. coli	=	Escherichia coli
F	=	fluoride
F.Coli	=	fecal coliforms
Fe	=	iron
Hg	=	mercury

mg/l	=	milligrams per liter
ml	=	milliliters
Mn	=	manganese
Mo	=	molybdenum
MWAT	=	<u>maximum weekly average temperature</u>
NH <sub>3</sub>	=	<del>un-ionized</del> ammonia as N(nitrogen)
Ni	=	nickel
NO <sub>2</sub>	=	nitrite as N (nitrogen)
NO <sub>3</sub>	=	nitrate as N (nitrogen)
OW	=	outstanding waters
P	=	phosphorus
Pb	=	lead
S	=	sulfide as undissociated H <sub>2</sub> S (hydrogen sulfide)
Sb	=	antimony
Se	=	selenium
SO <sub>4</sub>	=	sulfate
sp	=	spawning
T	=	<u>temperature</u>
Tl	=	thallium
tot	=	<u>total</u>
tr	=	trout
Trec	=	total recoverable
TVS	=	table value standard
U	=	uranium
ug/l	=	micrograms per liter
UP	=	use-protected
WAT	=	<u>weekly average temperature</u>
WS	=	<u>water supply</u>
WS-I	=	<u>warm stream temperature tier one</u>
WS-II	=	<u>warm stream temperature tier two</u>
WS-III	=	<u>warm stream temperature tier three</u>
WL	=	<u>warm lake temperature tier</u>
Zn	=	zinc

(b) In addition, the following abbreviations are used:

Fe(ch) = WS(dis)  
Mn(ch) = WS(dis)  
SO<sub>4</sub> = WS

These abbreviations mean: For all surface waters with an actual water supply use, the less restrictive of the following two options shall apply as numerical standards, as specified in the Basic Standards and Methodologies at 31.11(6);

- i. existing quality as of January 1, 2000; or
- ii.

Iron	=	300 (µg/l (dissolved))
Manganese	=	50 (µg/l (dissolved))
SO <sub>4</sub>	=	250 mg/l

For all surface waters with a “water supply” classification that are not in actual use as a water supply, no water supply standards are applied for iron, manganese or sulfate, unless the Commission determines as the result of a site-specific rulemaking hearing that such standards are appropriate.

- (c) As used in the “Temporary Modifications and Qualifiers” column of the tables, the term “type i” refers to a temporary modification adopted pursuant to subsection 31.7(3)(a)(i) of the Basic Standards and Methodologies for Surface Water (i.e., “where the standard is not being met because of human-induced conditions deemed correctable within a twenty (20) year period”). The term “type iii” refers to a temporary modification adopted pursuant to subsection 31.7(3)(a)(iii) of the Basic Standards and Methodologies for Surface Water (i.e., “where there is significant uncertainty regarding the appropriate long-term underlying standard”). As used in the Temporary Modifications and Qualifiers column of the tables in 36.6(4), the term “type A” refers to a Temporary Modification adopted pursuant to subsection 31.7(3)(a)(ii)(A) of the Basin Standards and Methodologies for Surface Water (i.e., “there is significant uncertainty regarding the water quality standard necessary to protect current and/or future use”). As used in the Temporary Modifications and Qualifiers column of the tables in 36.6(4), the term “type B” refers to a Temporary Modification adopted pursuant to subsection 31.7(3)(a)(ii)(B) of the Basin Standards and Methodologies for Surface Water (i.e., “there is significant uncertainty regarding the extent to which existing quality is the result of natural or irreversible human-induced conditions”). As used in the Temporary Modifications and Qualifiers column of the tables in 36.6(4), the term “type C” refers to a Temporary Modification adopted pursuant to subsection 31.7(3)(a)(ii)(C) of the Basin Standards and Methodologies for Surface Water (i.e., “there is significant uncertainty regarding the timing of implementing attainable source controls or treatment”).

### (3) Table Value Standards

In certain instances in the attached tables, the designation “TVS” is used to indicate that for a particular parameter a “table value standard” has been adopted. This designation refers to numerical criteria set forth in the Basic Standards and Methodologies for Surface Water. The criteria for which the TVS are applicable are on the following table.

TABLE VALUE STANDARDS (Concentrations in µg/l unless noted)	
PARAMETER <sup>(1)</sup>	TABLE VALUE STANDARDS <sup>(2)(3)</sup>
Aluminum (Trec)	<p><u>Acute = <math>e^{(1.3695[\ln(\text{hardness})] + 1.8308)}</math></u></p> <p><u>pH equal to or greater than 7.0</u></p> <p><u>Chronic = <math>e^{(1.3695[\ln(\text{hardness})] - 0.1158)}</math></u></p> <p><u>pH less than 7.0</u></p> <p><u>Chronic = <math>e^{(1.3695[\ln(\text{hardness})] - 0.1158)}</math> or 87, whichever is more stringent</u></p>
Ammonia <sup>(4)</sup>	<p>Cold Water</p> $acute = \frac{0.275}{1 + 10^{7.204 - pH}} + \frac{39.0}{1 + 10^{pH - 7.204}}$ $chronic = \left( \frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * MIN(2.85, 1.45 * 10^{0.028(25 - T)})$

**TABLE VALUE STANDARDS**  
(Concentrations in µg/l unless noted)

PARAMETER <sup>(1)</sup>	TABLE VALUE STANDARDS <sup>(2)(3)</sup>
	<p><b>Warm Water</b></p> $acute = \frac{0.411}{1 + 10^{7.204 - pH}} + \frac{58.4}{1 + 10^{pH - 7.204}}$ $chronic \text{ (Apr 1 - Aug 31)} = \left( \frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * MIN \left( 2.85, 1.45 * 10^{0.028(25 - T)} \right)$ $chronic \text{ (Sep 1 - Mar 31)} = \left( \frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * 1.45 * 10^{0.028 * (25 - MAX(T, 7))}$
<del>NH<sub>3</sub> = old TVS</del>	<p><del>Cold Water Acute = 0.43/FT/FPH/2<sup>(4 old)</sup> in mg/l (N)</del></p> <p><del>Warm Water Acute = 0.62/FT/FPH/2<sup>(4 old)</sup> in mg/ (N)</del></p>
Cadmium	$Acute = (1.136672 - [\ln(hardness) \times (0.041838)]) \times e^{0.9151[\ln(hardness)] - 3.1485}$ $Acute(Trout) = (1.136672 - [\ln(hardness) \times (0.041838)]) \times e^{0.9151[\ln(hardness)] - 3.6236}$ $Chronic = (1.101672 - [\ln(hardness) \times (0.041838)]) \times e^{0.7998[\ln(hardness)] - 4.4451}$
Chromium III <sup>(5)</sup>	$Acute = e^{(0.819[\ln(hardness)] + 2.5736)}$ $Chronic = e^{(0.819[\ln(hardness)] + 0.5340)}$
Chromium VI <sup>(5)</sup>	<p>Acute = 16</p> <p>Chronic = 11</p>
Copper	$Acute = e^{(0.9422[\ln(hardness)] - 1.7408)}$ $Chronic = e^{(0.8545[\ln(hardness)] - 1.7428)}$
Lead	$Acute = (1.46203 - [\ln(hardness) * (0.145712)]) * e^{(1.273[\ln(hardness)] - 1.46)}$ $Chronic = (1.46203 - [\ln(hardness) * (0.145712)]) * e^{(1.273[\ln(hardness)] - 4.705)}$
Manganese	$Acute = e^{(0.3331[\ln(hardness)] + 6.4676)}$

**TABLE VALUE STANDARDS**  
(Concentrations in µg/l unless noted)

PARAMETER<sup>(1)</sup>

TABLE VALUE STANDARDS<sup>(2)(3)</sup>

$$\text{Chronic} = e^{(0.3331 [\ln(\text{hardness})] + 5.8743)}$$

Nickel

$$\text{Acute} = e^{(0.846[\ln(\text{hardness})] + 2.253)}$$

$$\text{Chronic} = e^{(0.846[\ln(\text{hardness})] + 0.0554)}$$

Selenium<sup>(6)</sup>

Acute = 18.4

Chronic = 4.6

Silver

$$\text{Acute} = \frac{1}{2}e^{(1.72[\ln(\text{hardness})] - 6.52)}$$

$$\text{Chronic} = e^{(1.72[\ln(\text{hardness})] - 9.06)}$$

$$\text{Chronic(Trout)} = e^{(1.72[\ln(\text{hardness})] - 10.51)}$$

Temperature

<u>TEMPERATURE TIER</u>	<u>TIER CODE</u>	<u>SPECIES EXPECTED TO BE PRESENT</u>	<u>APPLICABLE MONTHS</u>	<u>TEMPERATURE STANDARD (°C)</u>	
				<u>MWAT</u>	<u>DM</u>
<u>Cold Stream Tier 1</u>	<u>CS-I</u>	<u>brook trout, cutthroat trout</u>	<u>June – Sept.</u>	<u>17.0</u>	<u>21.7</u>
			<u>Oct. – May</u>	<u>9.0</u>	<u>13.0</u>
<u>Cold Stream Tier 2</u>	<u>CS-II</u>	<u>all other cold-water species</u>	<u>April – Oct.</u>	<u>18.3</u>	<u>23.9</u>
			<u>Nov. – March</u>	<u>9.0</u>	<u>13.0</u>
<u>Cold Lakes</u>	<u>CL</u>	<u>brook trout, brown trout, cutthroat trout, lake trout, rainbow trout, Arctic grayling, sockeye salmon</u>	<u>April – Dec.</u>	<u>17.0</u>	<u>21.2</u>
			<u>Jan. – March</u>	<u>9.0</u>	<u>13.0</u>
<u>Cold Large Lakes (&gt;100 acres surface area)</u>	<u>CLL</u>	<u>rainbow trout, brown trout, lake trout</u>	<u>April – Dec.</u>	<u>18.3</u>	<u>23.8</u>
			<u>Jan. – March</u>	<u>9.0</u>	<u>13.0</u>
<u>Warm Stream Tier 1</u>	<u>WS-I</u>	<u>common shiner, Johnny darter, orangethroat darter</u>	<u>March – Nov.</u>	<u>24.2</u>	<u>29.0</u>
			<u>Dec. – Feb.</u>	<u>12.1</u>	<u>14.5</u>
<u>Warm Stream Tier 2</u>	<u>WS-II</u>	<u>brook stickleback, central stoneroller, creek chub, longnose dace, Northern redbelly dace, finescale dace, razorback sucker, white sucker</u>	<u>March – Nov.</u>	<u>27.5</u>	<u>28.6</u>
			<u>Dec. – Feb.</u>	<u>13.8</u>	<u>14.3</u>
<u>Warm Stream</u>	<u>WS-III</u>	<u>all other warm-water</u>	<u>March – Nov.</u>	<u>28.7</u>	<u>31.8</u>

**TABLE VALUE STANDARDS**  
(Concentrations in µg/l unless noted)

PARAMETER<sup>(1)</sup>

TABLE VALUE STANDARDS<sup>(2)(3)</sup>

<u>Tier 3</u>		<u>species</u>	<u>Dec. – Feb.</u>	<u>14.3</u>	<u>15.9</u>
<u>Warm Lakes</u>	<u>WL</u>	<u>black crappie, bluegill, common carp, gizzard shad, golden shiner, largemouth bass, Northern pike, pumpkinseed, sauger, smallmouth bass, spottail shiner, striped bass, tiger muskellunge, walleye, wiper, white bass, white crappie, yellow perch</u>	<u>April – Dec.</u>	<u>26.3</u>	<u>29.5</u>
			<u>Jan. – March</u>	<u>13.2</u>	<u>14.8</u>

Uranium

$$\text{Acute} = e^{(1.1021[\ln(\text{hardness})]+2.7088)}$$

$$\text{Chronic} = e^{(1.1021[\ln(\text{hardness})]+2.2382)}$$

Zinc

$$\text{Acute} = 0.978 \cdot e^{(0.8525[\ln(\text{hardness})]+1.0617)(0.9094[\ln(\text{hardness})]+0.9095)}$$

$$\text{Chronic} = 0.986 \cdot e^{(0.8525[\ln(\text{hardness})]+0.9409)(0.9094[\ln(\text{hardness})]+0.6235)}$$

if hardness less than 113 mg/l CaCO<sub>3</sub>

**TABLE VALUE STANDARDS - FOOTNOTES**

- (1) Metals are stated as dissolved unless otherwise specified.
- (2) Hardness values to be used in equations are in mg/l as calcium carbonate and shall be no greater than 400 mg/L, except for aluminum for which hardness shall be no greater than 220 mg/L. The hardness values used in calculating the appropriate metal standard should be based on the lower 95 per cent confidence limit of the mean hardness value at the periodic low flow criteria as determined from a regression analysis of site-specific data. Where insufficient site-specific data exists to define the mean hardness value at the periodic low flow criteria, representative regional data shall be used to perform the regression analysis. Where a regression analysis is not appropriate, a site-specific method should be used. In calculating a hardness value, regression analyses should not be extrapolated past the point that data exist.
- (3) Both acute and chronic numbers adopted as stream standards are levels not to be exceeded more than once every three years on the average.

~~(4 old)~~  $FT = 10^{0.03(20-TCAP)}$

~~Where TCAP is  $\leq T \leq 30$~~

$$FT = 10^{0.03(20-T)}$$

~~Where  $0 \leq T \leq \text{TCAP}$~~

~~$\text{TCAP} = 20^\circ \text{C}$  cold water aquatic life species present~~

~~$\text{TCAP} = 25^\circ \text{C}$  cold water aquatic life species absent~~

~~$\text{FPH} = 1$ ; Where  $8 < \text{pH} \leq 9$~~

~~$\text{FPH} = 1 + 10^{(7.4 - \text{pH})}$ ;~~

~~$1.25$  ————— Where  $6.5 \leq \text{pH} \leq 8$~~

~~FPH means the acute pH adjustment factor, defined by the above formulas.~~

~~FT means the acute temperature adjustment factor, defined by the above formulas.~~

~~T means temperature measured in degrees celsius.~~

~~TCAP means temperature CAP; the maximum temperature which affects the toxicity of ammonia to salmonid and non-salmonid fish groups.~~

~~NOTE: If the calculated acute value is less than the calculated chronic value, then the calculated chronic value shall be used as the acute standard.~~

- (~~4~~5) For acute conditions the default assumption is that salmonids could be present in cold water segments and should be protected, and that salmonids do not need to be protected in warm water segments. For chronic conditions, the default assumptions are that early life stages could be present all year in cold water segments and should be protected. In warm water segments the default assumption is that early life stages are present and should be protected only from April 1 through August 31. These assumptions can be modified by the commission on a site-specific basis where appropriate evidence is submitted.
- (~~5~~6) Unless the stability of the chromium valence state in receiving waters can be clearly demonstrated, the standard for chromium should be in terms of chromium VI. In no case can the sum of the instream levels of Hexavalent and Trivalent Chromium exceed the water supply standard of 50 ug/l total chromium in those waters classified for domestic water use.
- (~~6~~7) Selenium is a bioaccumulative metal and subject to a range of toxicity values depending upon numerous site-specific variables.



## 36.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8 <b>BASIN: Rio Grande</b>	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
1. All tributaries to the Rio Grande, including all wetlands, lakes and reservoirs, which are within the Weminuche Wilderness Area.	OW	Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
2. Mainstem of the Rio Grande, including all tributaries and wetlands, tributaries, lakes and reservoirs; from the source to a point immediately above the confluence with Willow Creek, except for the specific excluding the listings in segments 1 and 3.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
3. Rio Grande Reservoir; Santa Maria Reservoir; m Mainstem of Seepage Creek from the outlet of Santa Maria Reservoir to a point one mile below the outlet of Santa Maria Reservoir; Mainstem of North Clear Creek from the outlet of Continental Reservoir to a point immediately above the confluence with Rio Hondo Creek.		Aq Life Cold 21 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Fish Ingestion
4a. Mainstem of the Rio Grande from a point immediately above the confluence with Willow Creek to the Rio Grande/Alamosa County line; a point immediately above the confluence with South Fork Rio Grande.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary Modification type iii: As(ch)=existing quality Cd(ch)=existing quality Cu(ch)=existing quality Pb(ch)=existing quality Zn(ch)=existing quality Expiration Date of 12/31/2013
4b. Mainstem of the Rio Grande from a point immediately above the confluence with South Fork Rio Grande to the County Road 5N crossing near Sevenmile Plaza.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
4c. Mainstem of the Rio Grande from the County Road 5N crossing near Sevenmile Plaza to the Rio Grande/Alamosa County line.		Aq Life Warm 1 Recreation E Water Supply Agriculture	<u>T=TVS(WS-I) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	

## 36.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8 <b>BASIN: Rio Grande</b>	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
5. All tributaries to the Rio Grande, including all wetlands, lakes and reservoirs, from immediately above the confluence with Willow Creek to State Highway Hwy 112 bridge in near Del Norte, except for specific excluding the listings in segments 6 through 10.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
6. Mainstem of West Willow Creek from immediately above Deerhorn Creek to the Park Regent Mine dump, East Willow Creek from the confluence with Whited Creek to the confluence with West Willow Creek.		Aq Life Cold 1 Recreation E	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS <del>CrIII(ac)=50(Trec)</del> <u>CrIII(ac/ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
7. Mainstem of West Willow Creek from the Park Regent Mine dump to the confluence with East Willow Creek, mainstem of East Willow Creek from the confluence with Whited Creek to the confluence with West Willow Creek, Mainstem of Willow Creek, including all tributaries from the confluence of East and West Willow Creeks to the confluence with the Rio Grande.	UP	<u>Aq Life Cold 2</u> Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=10</u> <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=100(Trec)</u> <u>Cd(ac/ch)=TVS</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(Trec)</u> <u>Mo(ch)=160(Trec)</u>	<u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac/ch)=TVS</u> <u>Zn(ac/ch)=TVS</u>	<u>Temporary</u> <u>Modifications</u> <u>Type B:</u> <u>As(ch)=1.00(Trec)</u> <u>Cd(ac)=37.0</u> <u>Cd(ch)=27.7</u> <u>Cu(ac)=6.00</u> <u>Cu(ch)=4.29</u> <u>Pb(ac)=119</u> <u>Pb(ch)=63.8</u> <u>Zn(ac)=10280</u> <u>Zn(ch)=7946</u> <u>Expiration Date</u> <u>June 30, 2017</u>
8. Mainstem of Goose Creek, including all tributaries, and wetlands, from the source to the confluence with the Rio Grande, except excluding the specific listings in segment 1.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
9. Mainstem of the South Fork of Rio Grande, including all tributaries, and wetlands, lakes and reservoirs, from source to confluence with the Rio Grande except segment 1.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
10. Mainstem of Pinos Creek, including all tributaries, and wetlands, lakes and reservoirs, from the source to the confluence with the Rio Grande.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

## 36.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8			NUMERIC STANDARDS							TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: Rio Grande	Desig	Classifications	PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l				
Stream Segment Description										
11. Mainstem of San Francisco Creek (Rio Grande County), including all tributaries, <del>and</del> wetlands, lakes and reservoirs, from the source to <u>a point immediately below</u> the confluence with Spring Branch.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		
12. Mainstem of the Rio Grande from the Rio Grande/Alamosa County line to the Old State Bridge east of Lobatos (Conejos County Road G).		Aq Life Warm 1 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.50 <u>NO<sub>3</sub>=100</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS		
13. Mainstem of the Rio Grande from Old State Bridge east of Lobatos (Conejos County Road G) to the Colorado/New Mexico border.		Aq Life <del>Cold</del> <u>Warm</u> 1 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = <del>6.0</del> <u>6.95</u> mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u>	As(ac)=340 As(ch)=7.6(Trec) Cd( <del>ac</del> <u>ch</u> )=TVS( <del>tr</del> ) <del>Cd(ch)=TVS</del> CrIII(ac/ch)=TVS <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag( <del>ac</del> <u>ch</u> )=TVS <del>Ag(ch)=TVS(tr)</del> Zn(ac/ch)=TVS		
14. All tributaries to the Rio Grande including wetlands, lakes and reservoirs, <del>which are within the Rio Grande National Forest, from the State Highway 112 bridge in Del Norte to immediately below the confluence of Rock Creek with the Rio Grande, except for specific listings in segments 11, 19 and 20.</del> <u>Mainstems of Dry Pole Creek, Limekiln Creek, Nicomodes Gulch, Raton Creek, and Dry Creek, including all tributaries and wetlands, within the boundaries of the Rio Grande National Forest.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		
15. All tributaries to the Rio Grande from State Highway <del>the Hwy</del> 112 bridge <del>in near</del> Del Norte to the Colorado-New Mexico State line <del>except for specific border, excluding the listings in segments 11, 14 and 16 through 3031.</del>	UP	Recreation N <u>Water Supply</u> Agriculture	D.O. = <del>5.03</del> <u>5.0</u> mg/l pH=6.5-9.0 E.Coli=630/100ml	CN=0.2 NO <sub>2</sub> = <del>400</del> <u>10</u> NO <sub>3</sub> = <del>4010</del>	<u>S=0.05</u> B=0.75 <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u>	As(ch)= <del>1000</del> <u>0.02-10</u> (Trec) <sup>h</sup> Be(ch)= <del>4004.0</del> <u>0</u> (Trec) Cd(ch)= <del>405.0</del> <u>0</u> (Trec) <u>CrIII(ac)=50(Trec)</u> <u>CrVI(ac)=50(Trec)</u>	<u>CrIII(ch)=100(Trec)</u> <u>CrVI(ch)=100(Trec)</u> Cu(ch)=200(Trec) <u>Fe(ch)=WS(dis)</u> <u>Pb(ac)=50(Trec)</u> <u>Pb(ch)=100(Trec)</u> <u>Mn(ch)=WS(dis)</u> <u>Hg(ch)=2.0(Trec)</u> <u>Mo(ch)=160(Trec)</u>	Ni(ch)= <del>200</del> <u>100</u> (Trec) ec) Se(ch)=20(Trec) <u>Ag(ac)=100(Trec)</u> Zn(ch)=2000(Trec)		
16. All <del>water</del> tributaries to the Rio Grande, including wetlands, within the Alamosa National Wildlife Refuge, except segment 12.	UP	Aq Life Warm 2 Recreation E Agriculture	<u>T=TVS(WS-III) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS		
17. All <del>water</del> tributaries to the Rio Grande, including wetlands, within the Monte Vista National Wildlife Refuge.	UP	Aq Life Warm 2 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS		

## 36.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
<b>BASIN: Rio Grande</b>				PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description										
18.	All wetlands tributary to the Rio Grande, including lakes and reservoirs, from State Highway Hwy 112 bridge in near Del Norte to the Colorado/New Mexico border, except for excluding the specific listings in segments 16, 17, 24, 22, 19 through 3021b, 23a, 25, 28, 30 and 31.	UP	Aq Life Warm 2 Recreation E Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=170 ug/l (tot)	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Fish Ingestion
19.	Mainstem of Rock Creek, including all tributaries, and wetlands, lakes and reservoirs from the source to the Monte Vista Canal.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
20a.	Mainstem of Cat Creek, including all tributaries and wetlands, from the source to the Terrace Main Canal the Rio Grande National Forest boundary.		Aq Life Cold 1 Recreation E Agriculture	May-Sept T <sub>PM</sub> =21.7 °C T <sub>MWAT</sub> =17.0 °C Oct-Apr T <sub>PM</sub> =13.0 °C T <sub>MWAT</sub> =9.0 °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =40100 Cl=250 P=110 ug/l (tot)	As(ac)=340 As(ch)=7.6(Trec) Be(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec)	CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS	Hg(ch)=0.01(Trec) Mn(ac/ch)=TVS Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
20b.	Mainstem of Cat Creek from the Rio Grande National Forest Boundary to the Terrace Main Canal.		Aq Life Cold 2 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02-10(Trec) Be(ch)=4.0(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) Mo(ch)=160(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
21a.	Mainstem of Ute Creek, including all tributaries, and wetlands, lakes and reservoirs, from the source to U.S. Hwy 160 the crossing at 37.50 °N latitude (WGS84).		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
21b.	Mainstem of Ute Creek, including all tributaries and wetlands, from the crossing at 37.50 °N latitude (WGS84) to Hwy 160.		Aq Life Cold 1 Recreation E Water Supply Agriculture	June-Sept T <sub>PM</sub> =22.3 °C T <sub>MWAT</sub> =17.0 °C Oct-May T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=110 ug/l (tot)	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8 <b>BASIN: Rio Grande</b>	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
22. Mainstem of Ute Creek from U.S.-Hwy 160 to the confluence with Sangre de Cristo Creek.		Aq Life Cold 2 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02- 10(Trec) <sup>4</sup> Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
23a. Mainstem of Sangre de Cristo Creek, including all tributaries; and wetlands, lakes and reservoirs, from the source to State-Hwy 159, <u>excluding the specific listings in segment 23b.</u>		Aq Life Cold 1 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <del>CrIII(ac)=50(Trec)</del> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
23b. <u>Mainstem of Sangre de Cristo Creek from a point immediately below the confluence with Placer Creek to Hwy 159.</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Agriculture</u>	<u>May-Sept</u> <u>T<sub>DM</sub>=27.2 °C</u> <u>T<sub>MWAT</sub>=20.1 °C</u> <u>Oct-Apr</u> <u>T<sub>DM</sub>=14.7 °C</u> <u>T<sub>MWAT</sub>=9.0 °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O. (sp)=7.0 mg/l</u> pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=7.6(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> <u>CrVI(ac/ch)=TVS</u>	<u>Cu(ac/ch)=TVS</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
24. Mainstem of Sangre de Cristo Creek from State Highway Hwy 159 to <u>the</u> inlet of Smith Reservoir.		Aq Life Cold 2 Recreation E Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <del>CrIII(ac)=50(Trec)</del> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
25. Mainstem of Trinchera Creek including all tributaries, <u>and</u> wetlands, lakes and reservoirs, from <u>the</u> source to the <u>outlet/inlet</u> of Mountain Home Reservoir.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
26. Mainstem of Trinchera Creek from the outlet of Mountain Home Reservoir to the Rio Grande <u>with the exception of segment 27.</u>		Aq Life Cold 2 Recreation E Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <del>CrIII(ac/ch)=50</del> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8			NUMERIC STANDARDS							TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: Rio Grande	Desig	Classifications	PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l				
Stream Segment Description										
27.     Smith Reservoir. <del>Deleted</del>		Aq-Life Cold-1 Recreation-E Water-Supply Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005 —	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		
28.     Mainstem of Rito Seco, including all tributaries, <u>and</u> wetlands, <del>lakes and reservoirs</del> , from the source to the outlet of Salzar Reservoir.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		
29.     Mainstem of Rito Seco from the outlet of Salzar Reservoir to the confluence with Culebra Creek.		Aq Life Cold 2 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02-10(Trec) <sup>Δ</sup> Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		
30.     Mainstem of Culebra Creek, including all tributaries, <u>and</u> wetlands, <del>lakes and reservoirs</del> , from the source to <u>State Highway 159 except Hwy 159, excluding the listings in segments 28, and 29 and 31,</u> mainstem and all tributaries of <u>East Fork and West Fork of</u> Costilla Creek in Colorado to <u>7 Road</u> from the source to the Colorado/New Mexico border.		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		
31. <u>Mainstem of Ventero Creek from the Colorado/New Mexico border to the confluence with Culebra Creek. Mainstem of Costilla Creek, including all tributaries and wetlands within Colorado, excluding the East Fork and West Fork.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> CN=0.005	S=0.002 <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ac/ch)=TVS</u>	<u>Hg(ch)=0.01(Trec)</u> <u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>		
32. <u>All lakes and reservoirs tributary to the Rio Grande, and within the Weminuche Wilderness Area.</u>	OW	Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=8 ug/l (tot)<sup>B</sup></u>	NH <sub>3</sub> (ac/ch)=TVS <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> CN=0.005	S=0.002 <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l (tot)<sup>B</sup></u>	As(ac)=340 <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u>	<u>Cu(ac/ch)=TVS</u> <u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ac/ch)=TVS</u>	<u>Hg(ch)=0.01(Trec)</u> <u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>		

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8 <b>BASIN: Rio Grande</b>	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
33. <u>All lakes and reservoirs tributary to the Rio Grande from the source to the Hwy 112 bridge near Del Norte, excluding the specific listings in segments 32 and 38. All lakes and reservoirs tributary to San Francisco Creek from the source to a point immediately below the confluence with Spring Branch.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
34. <u>All lakes and reservoirs tributary to Dry Pole Creek, Limekiln Creek, Nicomodes Gulch, Raton Creek, or Dry Creek, and within the boundaries of the Rio Grande National Forest. All lakes and reservoirs tributary to Rock Creek from the source to the Monte Vista Canal.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
35. <u>All lakes and reservoirs tributary to the Rio Grande from the Hwy 112 bridge near Del Norte to the Colorado/New Mexico border, excluding the specific listings in segments 34, 36, 37, 38 and 39.</u>	UP	Aq Life Warm 2 Recreation E Agriculture	T=TVS(WL) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=20 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=83 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Fish Ingestion
36. <u>All lakes and reservoirs tributary to Ute Creek from the source to Hwy 160. All lakes and reservoirs tributary to Sangre de Cristo Creek, from the source to Hwy 159. All lakes and reservoirs tributary to Trinchera Creek from the source to the inlet of Mountain Home Reservoir. All lakes and reservoirs tributary to Culebra Creek from the source to Hwy 159 excluding the specific listing in segment 37. All lakes and reservoirs tributary to Costilla Creek, and within Colorado.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
37. <u>Sanchez Reservoir.</u>		Aq Life Warm 1 Recreation E Water Supply Agriculture	T=TVS(WL) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=20 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=83 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
38. <u>Continental Reservoir, Upper Brown Lake, Santa Maria Reservoir, Road Canyon Reservoir, Rio Grande Reservoir, Big Meadows Reservoir, Beaver Creek Reservoir, Smith Reservoir, Mountain Home Reservoir.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CLL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
<b>BASIN: Alamosa River/La Jara Creek/Conejos River</b>	Desig		PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
1. All tributaries to the Rio Grande <del>Alamosa River or Conejos River</del> , including all wetlands, lakes and reservoirs which are within the South San Juan Wilderness area.	OW	Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
2. Mainstem of the Alamosa River, including all tributaries <del>and</del> wetlands, lakes and reservoirs from the source to immediately above the confluence with Alum Creek, except for specific listings in segments 1, <u>4a</u> , and <u>4b</u> .		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
3a. Mainstem of <u>the</u> Alamosa River from immediately above the confluence with Alum Creek to immediately above the confluence of Wightman Fork.	UP	Aq Life Cold 2 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>  <b>Seasonal Stds.</b> <b>12/1-2/28</b> pH=3.52-9.0 <b>3/1-5/31:</b> pH=4.0-9.0 <b>6/1-8/31</b> pH=4.73-9.0 <b>9/1-11/31:</b> pH= 3.94-9.0	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS  <b>Seasonal Stds.</b> <b>5/1-6/30</b> Al(ch)=3,100(Trec) Al(ch)=98 Al(ac)=4,000(Trec) Al(ac)=161 <b>7/1-4/30</b> Al(ch)=6,200(Trec) Al(ch)=903 Al(ac)=19,900(Trec) Al(ac)=6,005	Cu(ac)=TVS Fe(ch)=12000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	



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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS	
Desig				PHYSICAL and BIOLOGICAL	INORGANIC mg/l	METALS ug/l				
BASIN: Alamosa River/La Jara Creek/Conejos River		UP	Aq Life Cold 1 Recreation E Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=110 ug/l (tot)	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS  Seasonal Stds. 5/1-6/30 Al(ch)=3,000(Trec) Al(ch)=41 Al(ac)=4,300(Trec) Al(ac)=41 7/1-4/30 Al(ch)=3,000(Trec) Al(ch)=317 Al(ac)=3,100(Trec) Al(ac)=756	Cu(ac)=TVS Cu(ch)=30 Fe(ch)=12000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
Stream Segment Description										
3b. Mainstem of the Alamosa River from immediately above the confluence with the Wightman Fork to immediately above the confluence with Fern Creek.										
3c. Mainstem of the Alamosa River from immediately belowabove the confluence with Fern Creek to immediately below the confluence with Ranger Creek.		UP	Aq Life Cold 1 Recreation E Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=110 ug/l (tot)	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ac/ch)=TVS CrIII(ch)=100(Trec)  Seasonal Stds. 5/1-6/30 Al(ch)=4,600(Trec) Al(ch)=42 Al(ac)=6,200(Trec) Al(ac)=87 7/1-4/30 Al(ch)=3,700(Trec) Al(ch)=137 Al(ac)=6,700(Trec) Al(ac)=645	CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=12000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: Alamosa River/La Jara Creek/Conejos River		Desig	PHYSICAL and BIOLOGICAL	INORGANIC mg/l	METALS ug/l				
Stream Segment Description									
3d. Mainstem of the Alamosa River from immediately below the confluence with Ranger Creek to the inlet of Terrace Reservoir.		Aq Life Cold 1 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u>  <b>Seasonal Stds.</b> <b>5/1-6/30</b> Al(ch)=3,500(Trec) Al(ch)=87 Al(ac)=5,200(Trec) Al(ac)=90 <b>7/1-4/30</b> Al(ch)=3,100(Trec) Al(ch)=56 Al(ac)=3,700(Trec) Al(ac)=559	CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=12000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
4a. Mainstem of Alum Creek, Bitter Creek, Burnt Creek and Iron Creek, Alum Creek, Bitter Creek, and Burnt Creek, including all tributaries and wetlands, from their sources to their confluences with the Alamosa River, with the exception of excluding the listings in segment 4b.		UP Recreation E Agriculture	pH = 2.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>						
4b. Mainstem of Iron Creek from its source to immediately above the confluence with South Mountain Creek.		Aq Life Cold 1 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
5. Mainstem of Wightman Fork from the source to the west line of S30, T37N, R4E, including all tributaries and wetlands.		Aq Life Cold 1 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
6. Mainstem of Wightman Fork from the west line of S30, T37N, R4E to the confluence with the Alamosa River.		UP Recreation E Agriculture	E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>						
7. Jasper Creek, including all tributaries and wetlands, from the source to the confluence with the Alamosa River.		UP Aq Life Cold 2 Recreation E Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 5.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	As(ac)=340(dis) As(ch)=100 Cd(ch)=1 CrIII(ch)=100 CrVI(ch)=25 Cu(ch)=90	Fe(ch)=3400 Pb(ch)=4 Mn(ch)=1000 Hg(ch)=0.05 <u>Mo(ch)=160</u> Ni(ch)=5	Se(ch)=20 Ag(ch)=0.1 Zn(ch)=170	All metals are Trec unless otherwise noted.

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Classifications	NUMERIC STANDARDS							TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: Alamosa River/La Jara Creek/Conejos River		Desig		PHYSICAL and BIOLOGICAL	INORGANIC mg/l	METALS ug/l				
Stream Segment Description										
8. Terrace Reservoir.		UP	Aq Life Cold 2 Recreation E Agriculture	<u>T=TVS(CLL) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=8 ug/l (tot) <sup>B</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =40 <u>100</u> <u>Cl=250</u> <u>SO<sub>4</sub>=250</u> <u>P=25 ug/l (tot) <sup>B</sup></u>	Al(ch)=28 Al(ac)=77 As(ac)=340 As(ch)=400 <u>7.6</u> (Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u>  <b>Seasonal Stds.</b> <b>5/1-6/30 Near Surface</b> Al(ch)=1,800(Trec) Al(ac)=1,800(Trec) <b>5/1-6/30 Near Bottom</b> Al(ch)=4,800(Trec) Al(ac)=5,600(Trec) <b>7/1-4/30 Near Surface</b> Al(ch)=200(Trec) Al(ac)=200(Trec) <b>7/1-4/30 Near Bottom</b> Al(ch)=400(Trec) Al(ac)=600(Trec)	CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=200(Trec)	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	<u>Fish Ingestion</u>
9. Mainstem of Alamosa River from the outlet of Terrace Reservoir to Colorado Hwy 15 (Gunbarrel Road).		UP	Aq Life Cold 1 Recreation E Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	Al(ac <del>ch</del> )= <del>750</del> <u>TVS/</u> <u>Trec</u> <u>Al(ch)=87</u> As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u>	CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=200(Trec)	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
10. Mainstem of the Alamosa River from Colorado Highway Hwy 15 (Gunbarrel Road) to its point of final diversion.		UP	Aq Life <del>Cold</del> <u>Warm</u> 2 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = <del>6.0</del> <u>5.0</u> mg/l <del>D.O.(sp)=7.0 mg/l</del> pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=170 ug/l (tot)</u>	Al(ac <del>ch</del> )= <del>750</del> <u>TVS/</u> <u>Trec</u> <u>Al(ch)=87</u> As(ac)=340 As(ch)=100(Trec) Cd <del>(ac)</del> =TVS(tr) <u>Cd(ac/ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u>	CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=200(Trec)	Hg(ch)=0.01(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS <u>Ag(ac/ch)=TVS</u> <u>Ag(ch)=TVS(tr)</u> Zn(ac/ch)=TVS	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: Alamosa River/La Jara Creek/Conejos River	Desig		PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
11a. Mainstem of La Jara Creek, including all tributaries, wetlands, lakes and reservoirs, from the source to immediately above the confluence with Hot Creek. <u>All tributaries, including wetlands, to La Jara Reservoir. La Jara Creek, including all tributaries and wetlands, from the outlet of La Jara Reservoir to a point immediately below the confluence with Jarosa Creek, excluding the listings in segment 11b.</u>		Aq Life Cold 1 Recreation E Agriculture	<u>T=TVS(CS-II) °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u>	<u>CN=0.005</u> <u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=100</u> <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=7.6(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=300(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=200(Trec)</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
11b. Mainstem of La Jara Creek from the outlet of La Jara Reservoir to the a point immediately above the confluence with Hot Creek. <u>All tributaries to La Jara Creek from a point immediately above the confluence with Jarosa Creek to a point immediately above the confluence with Hot Creek.</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>T=TVS(CS-II) °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=300(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ch)=200(Trec)</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
12. Mainstem of La Jara Creek from immediately above the confluence with Hot Creek to the confluence with the Rio Grande.		Aq Life Warm 2 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> <u>D.O. =5.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=100</u> <u>P=170 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=7.6(Trec)</u> <u>Cd(ac/ch)=TVS</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=200(Trec)</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac/ch)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	Fish Ingestion
13. Mainstem Hot Creek from <u>the source</u> to <u>the</u> confluence with La Jara Creek.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH=6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
14a. Mainstem of Conejos River including all tributaries, <u>and</u> wetlands, <u>lakes and reservoirs</u> , from <u>the</u> source to immediately above the confluence with <u>Fox</u> <u>Elk</u> Creek, <u>except for excluding the specific listings in segment 1.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
14b. Mainstem of Conejos River including all tributaries and wetlands, <u>from a point immediately below the confluence with Elk Creek to a point immediately above the confluence with Fox Creek.</u>		<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>T=TVS(CS-II) °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O.(sp)=7.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Design	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
				PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
BASIN: Alamosa River/La Jara Creek/Conejos River										
Stream Segment Description										
15.	Mainstem of <u>the</u> Conejos River from a point immediately above the confluence with Fox Creek to the confluence with the San Antonio River.		Aq Life Cold 21 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)= <u>0.01</u> (Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Fish Ingestion
16.	Mainstem of the Conejos River from the confluence with the San Antonio River to the confluence with the Rio Grande.	UP	Aq Life Warm 21 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=1000 Hg(ch)=TVS(Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS <u>Ag(ch)=TVS(tr)</u> Zn(ac/ch)=TVS	Fish Ingestion
17a.	Mainstem of Rio de Los Pinos, including all tributaries, <u>and</u> wetlands, <del>lakes and reservoirs</del> , from the source to the <u>Colorado/New Mexico border, except for</u> <del>excluding the</del> specific listings in segment 1. <del>Mainstem of the Rio San Antonio from the New Mexico border to Highway 285.</del>		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
17b.	<del>Mainstem of the Rio San Antonio from the New Mexico border to Hwy 285.</del>		<del>Aq Life Cold 1 Recreation E Water Supply Agriculture</del>	<del><u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u></del>	<del>NH<sub>3</sub>(ac/ch)=TVS Cl<sub>2</sub>(ac)=0.019 Cl<sub>2</sub>(ch)=0.011 CN=0.005</del>	<del>S=0.002 B=0.75 NO<sub>2</sub>=0.05 NO<sub>3</sub>=10 Cl=250 SO<sub>4</sub>=WS P=110 ug/l (tot)</del>	<del>As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS</del>	<del>Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)</del>	<del><u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS</del>	
18.	Mainstem of the Rio San Antonio from <del>Highway Hwy</del> 285 to the confluence with the Conejos River.		Aq Life Warm 2 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = <del>6.0</del> 5.0 mg/l <del>D.O. (sp)=7.0 mg/l</del> pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=1000 Hg(ch)=TVS <u>0.01</u> (Trec) <u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac <del>ch</del> )=TVS <u>Ag(ch)=TVS(tr)</u> Zn(ac/ch)=TVS	Fish Ingestion
19.	Mainstem of Rio Chama, including all tributaries, <u>and</u> wetlands, <del>lakes and reservoirs</del> , from the source to the Colorado New Mexico border except for the specific listing in segment 1.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. =6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Design	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: Alamosa River/La Jara Creek/Conejos River				PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description										
20. All tributaries to the Rio Grande <del>Alamosa River, La Jara Creek, or the Conejos River</del> , including wetlands, lakes and reservoirs, which are <del>and</del> within the <u>boundaries of the</u> Rio Grande National Forest, <del>except for</del> <u>excluding the</u> specific listings in segments 1 through 7, 11a, 11b, 13, 14a, 14b, 17a and 17b, and 19.			Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CS-I) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
21. All tributaries to the Alamosa River, La Jara Creek, and the Conejos River from the confluence with Fox Creek to the Rio Grande <del>except for the specific listings in segment 22.</del>		UP	Recreation N <u>Water Supply</u> Agriculture	D.O. = <del>5-9.3</del> 0 mg/l pH = 6.5-9.0 E.Coli=630/100ml	CN=0.2 NO <sub>2</sub> = <del>400</del> 10 NO <sub>3</sub> = <del>40</del> 100	B=0.75 <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u>	As(ch)= <del>4000.02-</del> 10(Trec) <sup>Δ</sup> Be(ch)= <del>4004.0</del> (Trec ) Cd(ch)= <del>405.0</del> (Trec) CrIII( <del>eh</del> ac)= <del>40050</del> (Trec) CrVI( <del>eh</del> ac)= <del>40050</del> (Trec)	Cu(ch)=200(Trec) <u>Fe(ch)=WS(dis)</u> Pb( <del>eh</del> ac)= <del>40050</del> (Trec) <u>Mn(ch)=WS(dis)</u> Mn(ch)=200(Trec) <u>Hg(ch)=2.0(Trec)</u>	<u>Mo(ch)=160(Trec)</u> Ni(ch)= <del>200</del> 100(Trec ) Se(ch)=20(Trec) <u>Ag(ac)=100(Trec)</u> Zn(ch)=2000(Trec)	
22. All <del>tributaries, including</del> wetlands, lakes, and reservoirs tributary to the Rio Grande <del>Alamosa River or La Jara Creek</del> , <del>except for specific</del> <u>excluding the specific</u> listings in segments 1 through 2021.		UP	Aq Life Warm 2 Recreation E Agriculture	T=TVS(WS-III) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)=100(Trec) <del>Cd(ac)=TVS(tr)</del> Cd( <del>ac</del> )ch)=TVS <del>CrIII(ac)=50(Trec)</del> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag( <del>ac</del> )ch)=TVS Ag( <del>ch</del> )=TVS(tr) Zn(ac/ch)=TVS	
23. <u>All lakes and reservoirs tributary to the Alamosa River or the Conejos River, and within the South San Juan Wilderness area.</u>		<u>OW</u>	<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	T=TVS(CL) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=8 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ac/ch)=TVS</u>	<u>Hg(ch)=0.01(Trec)</u> <u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
24. <u>All lakes and reservoirs tributary to the Alamosa River from the source to a point immediately above the confluence with Alum Creek, excluding the specific listings in segment 23.</u>			<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	T=TVS(CL) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=8 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=25 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ac/ch)=TVS</u>	<u>Hg(ch)=0.01(Trec)</u> <u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	
25. <u>All lakes and reservoirs tributary to La Jara Creek from the source to a point immediately above the confluence with Hot Creek, excluding the specific listings in segment 30.</u>			<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Agriculture</u>	T=TVS(CL) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=8 ug/l (tot)<sup>B</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u>	<u>CN=0.005</u> <u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=100</u> <u>P=25 ug/l (tot)<sup>B</sup></u>	<u>As(ac)=340</u> <u>As(ch)=7.6(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac/ch)=TVS</u> <u>CrIII(ch)=100(Trec)</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Mn(ch)=200(Trec)</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: Alamosa River/La Jara Creek/Conejos River	Desig		PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
26. <u>All lakes and reservoirs tributary to the Conejos River from the source to a point immediately above the confluence with Fox Creek, excluding the specific listings in segments 23 and 30.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
27. <u>All lakes and reservoirs tributary to the Rio de Los Pinos from the source to the Colorado/New Mexico border, excluding the specific listings in segment 23. All lakes and reservoirs tributary to the Rio Chama from the source to the Colorado/New Mexico border, excluding the specific listings in segment 23.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
28. <u>All lakes and reservoir tributary to the Alamosa River, La Jara Creek, or Conejos River, and within the boundaries of the Rio Grande National Forest, excluding the specific listings in segments 23 through 27.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
29. <u>All lakes and reservoirs tributary to the Alamosa River, La Jara Creek, or Conejos River, excluding the specific listings in segments 23 through 28, and 30.</u>	UP	Aq Life Warm 2 Recreation E Agriculture	T=TVS(WL) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=20 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=83 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
30. <u>La Jara Reservoir and Platoro Reservoir.</u>		Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS	
BASIN: Closed Basin-San Luis Valley Stream Segment Description				PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l				
1. All tributaries to the Closed Basin, including all wetlands, lakes and reservoirs, which are within the La Garita Wilderness Area.		OW	Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		
2a. Mainstem of La Garita Creek, including all tributaries, and wetlands, lakes, and reservoirs, from the source to 38 Road; a point immediately below the confluence with Geronimo Creek, mainstem of The North, Middle, and South Forks of Camero Creek, including all tributaries, and wetlands, lakes and reservoirs, from the source to their sources to 42 Road; their confluences at the inception of the mainstem of Camero Creek.			Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		
2b. Mainstem of La Garita Creek, including all tributaries and wetlands, from a point immediately below the confluence with Geronimo Creek to 38 Road. All tributaries to the mainstem of Camero Creek from its inception at the confluence of the North, Middle, and South Forks to 42 Road, excluding the specific listings in segment 2a.			<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>T=TVS(CS-II) °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O. (sp)=7.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>		
2c. Mainstem of Camero Creek from its inception at the confluence of the North, Middle, and South Forks to 42 Road.			<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>Apr-Oct</u> <u>T<sub>DM</sub>=26.5 °C</u> <u>T<sub>MWAT</sub>=20.0 °C</u> <u>Nov-Mar</u> <u>T<sub>DM</sub>=13.0 °C</u> <u>T<sub>MWAT</sub>=9.0 °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O. (sp)=7.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>		
3. All tributaries to the Closed Basin <del>except for</del> excluding the listings in segments 2a, 2b, 2c, segments and 4 to through 13b.		UP	Aq Life Warm 21 Recreation E Water Supply Agriculture	<u>T=TVS(WS-II) °C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=170 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02- 40(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		
4. Mainstem of San Luis Creek, including all tributaries, including wetlands, lakes and reservoirs, from the source to a point immediately below the confluence with Piney Creek, <del>except for</del> excluding the listings in segments 8, 9a and 9b.			Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		



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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Desig	Classifications	NUMERIC STANDARDS					TEMPORARY MODIFICATIONS AND QUALIFIERS	
BASIN: Closed Basin-San Luis Valley				PHYSICAL and BIOLOGICAL	INORGANIC mg/l	METALS ug/l				
Stream Segment Description										
5. Mainstem of San Luis Creek from a point immediately below the confluence with Piney Creek to the inlet to San Luis Lake.			Aq Life Cold 2 Recreation E Agriculture	T=TVS(CS-II) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=110 ug/l (tot)	As(ac)=340 As(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
6. San Luis Lake-Deleted.			Aq Life Cold 1 Recreation E Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
7. Head Lake-Deleted.			Aq Life Cold 2 Recreation E Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
8. Mainstem of Kerber Creek, including all tributaries and wetlands; tributaries, lakes and reservoirs, from the source to a point immediately above the Cocomongo Mill site. Mainstem of Squirrel Creek from the source to immediately above Bear Creek, Brewery Creek from source to Kerber Creek, and the mainstem of Elkhorn Gulch.			Aq Life Cold 1 Recreation E Agriculture	T=TVS(CS-I) °C D.O.=6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=110 ug/l (tot)	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
9a. Mainstem, tributaries and wetlands of Kerber Creek, including all tributaries and wetlands, except for specific listings in segment 8; from the source to immediately above the confluence of Brewery Creek, excluding the specific listings in segment 8.		UP	Recreation E Water Supply* Agriculture*	D.O.=3.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>		S=0.002 B=0.75 NO <sub>2</sub> =1.0 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02-10(Trec) <sup>Δ</sup> Cd(ac)=5 CrIII(ac)=50 CrVI(ac)=50 Cu(ch)=1000	Fe(ch)=WS(dis) Pb(ac)=50 Mn(ch)=WS(dis) Hg(ch)=2.0(tot) Mo(ch)=160	Se(ch)=20 Ag(ch)=50 Zn(ch)=5000	*Goal Qualifier: All metals are Trec unless otherwise noted.

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Desig	Classifications	NUMERIC STANDARDS					TEMPORARY MODIFICATIONS AND QUALIFIERS	
BASIN: Closed Basin-San Luis Valley				PHYSICAL and BIOLOGICAL	INORGANIC mg/l	METALS ug/l				
Stream Segment Description										
9b. Mainstem of Kerber Creek from <u>a point immediately above</u> the confluence with Brewery Creek to the confluence with San Luis Creek.		UP	Aq Life Cold 1 Recreation E Water Supply* Agriculture*	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02( <del>Free</del> ) CrIII(ac)=50( <del>Free</del> ) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS  Cd(ac)=e <sup>(0.7852ln[hard]-1.545)</sup> Cd(ch)=e <sup>(0.7852ln[hard]-2.906)</sup> Cu(ac)=e <sup>(0.8889ln[hard]+0.53)</sup> Cu(ch)=e <sup>(0.8889ln[hard]-1.519)</sup> Zn(ac)=e <sup>(0.8179ln[hard]+3.757)</sup> Zn(ch)=e <sup>(0.8179ln[hard]+2.907)</sup>	Fe(ch)=1000( <del>Trec</del> ) Fe(ch)=300(dis) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01( <del>Free</del> ) <u>Mo(ch)=160</u>	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	*Goal Qualifier: All metals are Trec unless otherwise noted.
10. <u>Mainstem of Sand Creek, mainstem and including</u> all tributaries and wetlands, from the source to the mouth. <u>Mainstem of Medano Creek, mainstem and including</u> all tributaries and wetlands, from the source to the mouth.		OW	Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=210(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
11. All tributaries to the Closed Basin within the Rio Grande National Forest boundaries except segments 1, <u>2a</u> , <u>2b</u> , <u>2c</u> , 4, <u>9a</u> , <u>9b</u> , 10, and <u>12a and 12b</u> .			Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
12a. Mainstem of Saguache Creek, <u>including all tributaries and wetlands</u> , from the boundary of the La Garita Wilderness Area to <u>Hwy 285a point just below the confluence Ford Creek, excluding the listings in segment 1</u> ; all tributaries to Saguache Creek, including all wetlands, lakes and reservoirs, from the source to a point immediately below the confluence with Ford Creek, except for the specific listing in segment 1.			Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-I) °C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chla=150 mg/m<sup>2</sup></u>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS <u>P=110 ug/l (tot)</u>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) <u>CrIII(ch)=TVS</u> CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	<u>Mo(ch)=160(Trec)</u> Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
12b. <u>Mainstem of Saguache Creek, including all tributaries and wetlands, from a point just below the confluence with Ford Creek to Hwy 285.</u>			<u>Aq Life Cold 1</u> <u>Recreation E</u> <u>Water Supply</u> <u>Agriculture</u>	<u>T=TVS(CS-I) °C</u> <u>D.O. = 6.0 mg/l</u> <u>D.O. (sp)=7.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u> <u>Chla=150 mg/m<sup>2</sup></u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>Cl<sub>2</sub>(ac)=0.019</u> <u>Cl<sub>2</sub>(ch)=0.011</u> <u>CN=0.005</u>	<u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.05</u> <u>NO<sub>3</sub>=10</u> <u>Cl=250</u> <u>SO<sub>4</sub>=WS</u> <u>P=110 ug/l (tot)</u>	<u>As(ac)=340</u> <u>As(ch)=0.02(Trec)</u> <u>Cd(ac)=TVS(tr)</u> <u>Cd(ch)=TVS</u> <u>CrIII(ac)=50(Trec)</u> <u>CrIII(ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=WS(dis)</u> <u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ch)=WS(dis)</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(Trec)</u>	<u>Mo(ch)=160(Trec)</u> <u>Ni(ac/ch)=TVS</u> <u>Se(ac/ch)=TVS</u> <u>Ag(ac)=TVS</u> <u>Ag(ch)=TVS(tr)</u> <u>Zn(ac/ch)=TVS</u>	

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## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Desig	Classifications	NUMERIC STANDARDS					TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: Closed Basin-San Luis Valley				PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l		
Stream Segment Description									
13a. Mainstem of Saguache Creek from U.S.-Hwy 285 to the confluence with San Luis Creek; mainstem of Russel Creek and mainstem of Cottonwood Creek downstream of the National Forest Boundary.		UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.50 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=170 ug/l (tot)	As(ac)=340 As(ch)=0.02-10(Trec) <sup>Δ</sup> Cd(ac)=TVS(tr) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Ag(eh)=TVS(tr) Zn(ac/ch)=TVS
13b. North Branch Saguache Creek and all tributaries		UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02-10(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(eh)=WS(dis) Fe(eh)=1000(Trec) Pb(ac/ch)=TVS Mn(eh)=WS(dis) Mn(ac/ch)=TVS Hg(eh)=0.01(Trec)	Ni(ac/e)=TVS Se(ac/e)=TVS Ag(ac/e)=TVS Zn(ac/e)=TVS
14. All wetlands tributary to the Closed Basin, <del>excluding the</del> except for specific listings in segments 1 through 13b.		UP	Aq Life Warm 2 Recreation E Agriculture	T=TVS(WS-II) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=150 mg/m <sup>2</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=170 ug/l (tot)	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) Mo(ch)=160(Trec) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS
15. All lakes and reservoirs tributary to the Closed Basin, and within the La Garita Wilderness Area.		OW	Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS
16. All lakes and reservoirs tributary to La Garita Creek from the source to 38 Road. All lakes and reservoirs tributary to Carnero Creek from the source to 42 Road. All lakes and reservoirs tributary to San Luis Creek, from the source to a point immediately below the confluence with Piney Creek. All lakes and reservoirs tributary to Saguache Creek from the boundary of the La Garita Wilderness Area to Hwy 285.			Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS
17. All lakes and reservoirs within the Closed Basin and within the Rio Grande National Forest boundaries, excluding the specific listings in segments 15 and 16.			Aq Life Cold 1 Recreation E Water Supply Agriculture	T=TVS(CL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS

## 36.6(4)

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 8		Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
<b>BASIN: Closed Basin-San Luis Valley</b>				PHYSICAL and BIOLOGICAL	INORGANIC mg/l	METALS ug/l				
Stream Segment Description										
18. <u>All lakes and reservoirs within the Closed Basin, excluding the specific listings in segments 16,17, 19 and 20.</u>		UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	T=TVS(WL) °C D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=20 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS P=83 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=0.02-10(Trec) <sup>A</sup> Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrIII(ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
19. <u>San Luis Lake.</u>			Aq Life Cold 1 Recreation E Agriculture	Apr-Dec T <sub>MWAT</sub> =21.2 °C Jan-Mar T <sub>MWAT</sub> =TVS(CLL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=7.6(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
20. <u>Head Lake.</u>			Aq Life Cold 2 Recreation E Agriculture	T=TVS(CLL) °C D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml Chla=8 ug/l (tot) <sup>B</sup>	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =100 P=25 ug/l (tot) <sup>B</sup>	As(ac)=340 As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac)=TVS	Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Mo(ch)=160(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	

**STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS – FOOTNOTES**

- (A) Whenever a range of standards is listed and referenced to this footnote, the first number in the range is a strictly health-based value, based on the Commission's established methodology for human health-based standards. The second number in the range is a maximum contaminant level, established under the federal Safe Drinking Water Act that has been determined to be an acceptable level of this chemical in public water supplies, taking treatability and laboratory detection limits into account. Control requirements, such as discharge permit effluent limitations, shall be established using the first number in the range as the ambient water quality target, provided that no effluent limitation shall require an "end-of-pipe" discharge level more restrictive than the second number in the range. Water bodies will be considered in attainment of this standard, and not included on the Section 303(d) List, so long as the existing ambient quality does not exceed the second number in the range.
- (B) Total phosphorus (TP) and chlorophyll a standards apply only to lakes and reservoirs larger than 25 acres surface area.

## **PROPOSED WATER QUALITY CONTROL DIVISION**

**36.34 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013; EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

**BASIS AND PURPOSE:**

**A. Waterbody Segmentation**

The Commission split lakes and reservoirs from segments that also contained streams, so that new temperature standards could be adopted. Lakes and reservoirs were deleted from the following segments that previously encompassed both streams, and lakes and reservoirs:

Rio Grande segments: 1- 3, 5, 9-11, 14, 18, 19, 21, 23, 25, 28 and 30  
Alamosa River/La Jara Creek/Conejos River segments: 1, 2, 11, 14, 17, 19, 20 and 22  
Closed Basin – San Luis Valley segments: 1, 2, 4, 8 and 12

The following segments were created for lakes and reservoirs:

Rio Grande segments: 32-38  
Alamosa River/La Jara Creek/Conejos River segments: 23-30  
Closed Basin – San Luis Valley segments: 15-20

The following segments were deleted when the constituent waterbodies were merged with other segments:

Rio Grande segment: 27  
Closed Basin – San Luis Valley segments: 6, 7 and 13b

Some renumbering and/or creation of new segments was made based on information that showed: a) the original reason for segmentation no longer applied; b) differences in water-quality; and/or c) certain segments could be merged into one segment because they had similar quality and uses. In particular, segmentation was changed to facilitate the adoption of new temperature standards into individual segments. The following changes were made:

Rio Grande segment 1: The lakes and reservoirs within the Weminuche Wilderness Area were moved to a new segment 32. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 2: Lakes and reservoirs tributary to the Rio Grande from the source to Willow Creek were moved to a new segment 33, with the exception of Continental Reservoir, Upper Brown Lake, and Road Canyon Reservoir, which were moved to a new segment 38 with other coldwater lakes and reservoirs larger than 100 acres surface area. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 3: Rio Grande Reservoir and Santa Maria Reservoir were moved from this segment to a new segment 38 with other coldwater lakes and reservoirs larger than 100 acres surface area. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segments 4a-c: Segment 4, which previously encompassed the mainstem of the Rio Grande from Willow Creek to the Rio Grande/Alamosa County Line was split into three segments to recognize changes in water quality, aquatic life, and to facilitate the adoption of appropriate temperature standards. Segment 4a now encompasses the mainstem of the Rio Grande from the confluence with Willow Creek to the confluence with South Fork Rio Grande. Segment 4b encompasses the Rio Grande from the confluence with South Fork Rio Grande to the County Road 5N crossing near Sevenmile Plaza. Segment 4c encompasses the Rio Grande from the County Road 5N crossing near Sevenmile Plaza to the Rio Grande/Alamosa County line. This segment was split at the confluence with South Fork Rio Grande to recognize an improvement in water quality, and was split near Sevenmile Plaza to recognize a change in the Aquatic Life use from Cold 1 to Warm 1.

Rio Grande segment 5: Lakes and reservoirs tributary to the Rio Grande from Willow Creek to the Highway 112 bridge near Del Norte were moved to a new segment 33. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segments 6 and 7: The East Fork of Willow Creek from the confluence with Whited Creek to the confluence with West Willow Creek, was moved from segment 7 to segment 6. Macroinvertebrate data showed that the aquatic life use in the East Fork of Willow Creek was much better than the waters of West Willow Creek or Willow Creek in segment 7. Segment 6 has an Aquatic Life Cold 1 use classification and standards, which now apply to the East Fork of Willow Creek, which previously had no Aquatic Life use classification or standards.

Rio Grande segment 9: Lakes and reservoirs tributary to the South Fork Rio Grande were moved to a new segment 33, with the exception of Big Meadows Reservoir and Beaver Creek Reservoir, which were moved to segment 38 with other coldwater lakes and reservoirs larger than 100 acres surface area. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 10: Lakes and reservoirs tributary to Pinos Creek were moved to a new segment 33. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 11: The segment description was clarified by specifying that Spring Branch is also included in the segment. The lakes and reservoirs tributary to San Francisco Creek were moved to a new segment 33. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 14: The existing segment description referenced all tributaries to the Rio Grande from the Highway 112 bridge near Del Norte to the confluence with Rock Creek, and within the Rio Grande National Forest. Rock Creek breaks into multiple channels when it reaches the San Luis Valley floor, and most of the water sinks into the ground. Any remaining surface water in the channels of Rock Creek is intercepted by the Monte Vista Canal, therefore no confluence exists between Rock Creek and the Rio Grande. The Commission adopted a new segment description that encompasses the portions of Dry Pole Creek, Limekiln Creek, Nicomodes Gulch, Raton Creek and Dry Creek within the boundaries of the Rio Grande National Forest, which is thought to describe the intent of the original segment description. The lakes and reservoirs tributary to these streams, and within Rio Grande National Forest boundaries, were moved to a new segment 34. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 15: Segments 11, 14 and 31 were added to the list of waters specifically excluded from this segment.

Rio Grande segment 16: Lakes and reservoirs within the Alamosa National Wildlife Refuge were moved to a new segment 35. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 17: Lakes and reservoirs within the Monte Vista National Wildlife Refuge were moved to a new segment 35. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 18: Lakes and reservoirs tributary to the Rio Grande from Highway 112 bridge near Del Norte to the Colorado/New Mexico border were moved to a new segment 35. These waters were split into different segments to facilitate the adoption of appropriate temperature standards. The list of waters specifically excluded from this segment was updated to only include those segments that have wetlands, and segments 16 and 19 were added to this list.

Rio Grande segment 19: Lakes and reservoirs tributary to Rock Creek were moved to a new segment 35. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segments 20a-b: Cat Creek was split at the Rio Grande National Forest boundary to facilitate the adoption of appropriate temperature standards, Aquatic Life use classification, and Water Supply use classification. Segment 20a encompasses Cat Creek, including all tributaries and wetlands, from the source to the Rio Grande National Forest boundary. The tributaries and wetlands to upper Cat Creek were moved from segment 15, which has not Aquatic Life use, to segment 20a, since upper Cat Creek has a historic population of Rio Grande cutthroat trout. Segment 20b encompasses Cat Creek from the Rio Grande National Forest boundary to the Terrace Main Canal. The lower portion of Cat Creek is dewatered by two diversions near the Forest Service boundary, and was downgraded from Aquatic Life Cold 1 to Aquatic Life Cold 2. A Water Supply use classification was added to segment 20b, based on the presence of an alluvial well used for drinking water.

Rio Grande segments 21a-b: Ute Creek was split at latitude 37.50°N to facilitate the adoption of appropriate temperature standards. Segment 21a encompasses Ute Creek including all tributaries and wetlands, from the source to 37.50°N latitude. Segment 21b encompasses Ute Creek from 37.50°N latitude to Highway 160. Lakes and reservoirs tributary to Ute Creek from the source to Highway 160 were moved to a new segment 36. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 23a-b: Sangre de Cristo Creek was split to facilitate the adoption of appropriate temperature standards. Segment 23a encompasses Sangre de Cristo Creek, including all tributaries and wetlands, from the source to Highway 159, excluding the mainstem from Pass Creek to Highway 159. Segment 23b encompasses the mainstem of Sangre de Cristo Creek from Pass Creek to Highway 159. Lakes and reservoirs tributary to Sangre de Cristo Creek from the source to Highway 159 were moved to a new segment 36. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 25: Lakes and reservoirs tributary to Trinchera Creek from the source to Mountain Home Reservoir were moved to a new segment 36, with the exception of Mountain Home Reservoir, which was moved to a new segment 38 with other coldwater lakes and reservoirs larger than 100 acres surface area. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 26: The exclusion was deleted since the segment description did not overlap with Smith Reservoir.

Rio Grande segment 27: Smith Reservoir was moved from this segment to a new segment 38 with other coldwater lakes and reservoirs larger than 100 acres surface area.

Rio Grande segment 28: Lakes and reservoirs tributary to Rito Seco from the source to the outlet of Salzar Reservoir were moved to a new segment 36. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Rio Grande segments 30-31: The tributaries to Culebra Creek were split to facilitate the adoption of appropriate temperature standards. The mainstem of Ventero Creek was moved to a new segment 31 to facilitate the adoption of appropriate temperature standards. Additionally, Costilla Creek, including all tributaries and wetlands within Colorado, but excluding the East Fork and West Fork, were moved to segment 31 to facilitate appropriate temperature standards. The lakes and reservoirs tributary to Culebra Creek from the source to State Highway 159 were moved to a new segment 36, with the exception of Sanchez Reservoir. Sanchez Reservoir was moved to a new segment 37, and downgraded from Aquatic Life Cold 1 to Aquatic Life Warm 1. These waters were split into different segments to facilitate the adoption of appropriate temperature standards and Aquatic Life use classification.

Rio Grande segment 32: This segment was created to encompass the lakes and reservoirs within the Weminuche Wilderness Area. The lakes and reservoirs in this segment were previously in segment 1. This segment was created to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 33: This segment was created to encompass the lakes and reservoirs tributary to the Rio Grande River from the source to the Highway 112 bridge near Del Norte, and all lakes and reservoirs tributary to San Francisco Creek from the source to Spring Branch. This segment excludes lakes and reservoirs in the Weminuche Wilderness Area, and coldwater lakes larger than 100 acres surface area. The lakes and reservoirs in this segment were previously in segments 2, 5, 9, 10 and 11. This segment was created to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 34: This segment was created to encompass the lakes and reservoirs tributary to Dry Pole Creek, Limekiln Creek, Nicomodes Gulch, Raton Creek, or Dry Creek, and within the Rio Grande National Forest boundaries. This segment also includes all lakes and reservoirs tributary to Rock Creek from the source to the Monte Vista Canal. The lakes and reservoirs in this segment were previously in segments 14 and 19. This segment was created to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 35: This segment was created to encompass the lakes and reservoirs tributary to the Rio Grande River from the Highway 112 bridge near Del Norte to the Colorado/New Mexico border, excluding lakes and reservoirs within the boundaries of the Rio Grande National Forest, and excluding lakes and reservoirs tributary to portions of Rock Creek, Ute Creek, Sangre de Cristo Creek, Trinchera Creek, Culebra Creek and Costilla Creek. The lakes and reservoirs in this segment were previously in segments 16, 17 and 18. This segment was created to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 36: This segment was created to encompass lakes and reservoirs tributary to portions of Ute Creek, Sangre de Cristo Creek, Trinchera Creek, Culebra Creek, and Costilla Creek. The lakes and reservoirs in this segment were previously in segments 21, 23, 25, 28 and 30. This segment was created to facilitate the adoption of appropriate temperature standards.

Rio Grande segment 37: This segment was created to encompass Sanchez Reservoir, which was previously in segment 30. This segment was created to facilitate the adoption of appropriate temperature standards, and Aquatic Life use classification. Sanchez Reservoir was downgraded from Aquatic Life Cold 1 to Aquatic Life Warm 1.

Rio Grande segment 38: This segment was created to encompass cold lakes and reservoirs larger than 100 acres in surface area. The lakes and reservoirs in this segment were previously in segments 2, 3, 9, 25 and 27. This segment was created to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 1: Lakes and reservoirs within the South San Juan Wilderness Area were moved to a new segment 23. These waters were split into different segments to facilitate the adoption of appropriate temperature standards. The segment description was clarified by replacing the reference to the Rio Grande River with the Alamosa River and Conejos Creek.



Alamosa River/La Jara Creek/Conejos River segment 2: Lakes and reservoirs tributary to the Alamosa River from the source to Alum Creek were moved to a new segment 24. These waters were split into different segments to facilitate the adoption of appropriate temperature standards. Segments 4a and 4b were added as specific exclusions to this segment.

Alamosa River/La Jara Creek/Conejos River segment 3c: The description of the upper segment boundary was changed from immediately below Fern Creek to immediately above Fern Creek to match the lower segment boundary described in segment 3b.

Alamosa River/La Jara Creek/Conejos River segment 4a: Tributaries and wetlands to Iron Creek, Alum Creek, Bitter Creek and Burnt Creek were added to this segment. These tributaries were added to the mainstem listings since they have similarly poor water-quality as the mainstems listed in this segment.

Alamosa River/La Jara Creek/Conejos River segment 11a-b: Lakes and reservoirs tributary to La Jara Creek from the source to Hot Creek were moved to a new segment 25, with the exception of La Jara Reservoir, which was moved to segment 30 with other coldwater lakes larger than 100 acres surface area. These waters were split into different segments to facilitate the adoption of appropriate temperature standards. La Jara Creek was split into two segments to facilitate the adoption of appropriate temperature standards and Water Supply use classification. Segment 11a encompasses all tributaries to La Jara Reservoir, and La Jara Creek tributaries to La Jara Creek from the outlet of La Jara Reservoir to Jarosa Creek. Segment 11b encompasses the mainstem of La Jara Creek from the outlet of La Jara Reservoir to Hot Creek, and the tributaries to La Jara Creek from Jarosa Creek to Hot Creek. A Water Supply use classification and standards were added to new segment 11b.

Alamosa River/La Jara Creek/Conejos River segment 14a-b: Lakes and reservoirs tributary to the Conejos River from the source to Fox Creek were moved to a new segment 26, with the exception of Platoro Reservoir, which was moved to segment 30 with other coldwater lakes larger than 100 acres surface area. The mainstem of Conejos Creek from Elk Creek to Fox Creek, including all tributaries and wetlands, were moved to a new segment 14b. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 17a-b: Lakes and reservoirs tributary to Rio de Los Pinos from the source to the New Mexico border were moved to a new segment 27. The Rio San Antonio from the Colorado/New Mexico border to Highway 285 was moved to a new segment 17b. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 19: Lakes and reservoirs tributary to Rio Chama from the source to the Colorado/New Mexico border were moved to a new segment 27. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 20: Lakes and reservoirs tributary to the Alamosa River, La Jara Creek, or the Conejos River from the source to the Colorado/New Mexico border and within the boundaries of the Rio Grande National Forest, and not within another segment, were moved to a new segment 28. These waters were split into different segments to facilitate the adoption of appropriate temperature standards. The segment description was clarified by replacing the reference to tributaries to the Rio Grande with tributaries to the Alamosa River, La Jara Creek, and the Conejos River. The list of waters specifically excluded from this segment was updated to reflect segment splits for segments 11, 14, and 17.

Alamosa River/La Jara Creek/Conejos River segment 21: The segment description was clarified by replacing the reference to tributaries to the Alamosa River, La Jara Creek, and the Conejos River, to tributaries to the Conejos River only. The segment references Fox Creek, which is a tributary to the Conejos River. The exclusion for the listings in segment 22 was removed.

Alamosa River/La Jara Creek/Conejos River segment 22: The segment description was clarified by replacing the reference to tributaries to the Rio Grande with tributaries to the Alamosa River and La Jara

Creek. Many of the tributaries to the Alamosa River and La Jara Creek were previously unclassified (it appears they were intended to be included in segment 21), and were added to this segment. Segment 21 was added to the list of exclusions. The lakes and reservoirs tributary to the Alamosa River or La Jara Creek and not listed elsewhere, were moved to a new segment 29. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 23: This segment was created to encompass the lakes and reservoirs tributary to Alamosa River or Conejos Creek, and with the South San Juan Wilderness Area. The lakes and reservoirs in this segment were previously in segment 1. This segment was created to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 24: This segment was created to encompass the lakes and reservoirs tributary to Alamosa River from the source to Alum Creek, excluding lakes and reservoirs in the South San Juan Wilderness Area. The lakes and reservoirs in this segment were previously in segment 2. This segment was created to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 25: This segment was created to encompass the lakes and reservoirs tributary to La Jara Creek from the source to Hot Creek, excluding La Jara Reservoir. The lakes and reservoirs in this segment were previously in segment 11. This segment was created to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 26: This segment was created to encompass the lakes and reservoirs tributary to the Conejos River from the source to Fox Creek, excluding lakes and reservoirs in the South San Juan Wilderness Area and Platoro Reservoir. The lakes and reservoirs in this segment were previously in segment 14. This segment was created to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 27: This segment was created to encompass the lakes and reservoirs tributary to the Rio de Los Pinos and Rio Chama, excluding lakes and reservoirs in the South San Juan Wilderness Area. The lakes and reservoirs in this segment were previously in segments 17 and 19. This segment was created to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 28: This segment was created to encompass the lakes and reservoirs tributary to the Alamosa River, La Jara Creek, or the Conejos River, and with the Rio Grande National Forest, and not listed in another segment. The lakes and reservoirs in this segment were previously in segment 20. This segment was created to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 29: This segment was created to encompass the lakes and reservoirs tributary to the Alamosa River, La Jara Creek, or the Conejos River, and not within the boundaries of the Rio Grande National Forest, or listed in another segment. The lakes and reservoirs in this segment were previously in segment 20. This segment was created to facilitate the adoption of appropriate temperature standards.

Alamosa River/La Jara Creek/Conejos River segment 30: This segment was created to encompass coldwater lakes and reservoirs larger than 100 acres in surface area. The lakes and reservoirs in this segment were previously in segments 11 and 14. This segment was created to facilitate the adoption of appropriate temperature standards.

Closed Basin – San Luis Valley segment 1: Lakes and reservoirs tributary to the Closed Basin and within the La Garita Wilderness Area were moved to a new segment 15. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Closed Basin – San Luis Valley segment 2a-c: Lakes and reservoirs tributary to La Garita Creek and Carnero Creek were moved to a new segment 16. Segment 2, which previously encompassed La Garita Creek and Carnero Creek was split into three segments to facilitate the adoption of appropriate temperature standards. Segment 2a now encompasses La Garita Creek from the source to Geronimo Creek, and the North, Middle, and South Forks of Carnero Creek from their sources to their confluence. Segment 2b encompasses La Garita Creek from Geronimo Creek to 38 Road, and all tributaries to the mainstem of Carnero Creek from its inception at the confluence of the North, Middle and South Forks of Carnero Creek to 42 Road. Segment 2c encompasses the mainstem of Carnero Creek from its inception at the confluence of the North, Middle and South Forks to 42 Road.

Closed Basin – San Luis Valley segment 3: The specific exclusions from this segment were updated to reflect changes in segmentation.

Closed Basin – San Luis Valley segment 4: Lakes and reservoirs tributary to San Luis Creek from the source to Piney Creek were moved to a new segment 16. This segment was created to facilitate the adoption of appropriate temperature standards.

Closed Basin – San Luis Valley segment 6: San Luis Lake was deleted from this segment and moved to a new segment 19. This segment was moved to group lake segments together.

Closed Basin – San Luis Valley segment 7: Head Lake was deleted from this segment and moved to a new segment 20. This segment was moved to group lake segments together.

Closed Basin – San Luis Valley segment 8: Lakes and reservoirs tributary to Kerber Creek from the source to the Cocomongo Mill were moved to a new segment 16. These waters were split into different segments to facilitate the adoption of appropriate temperature standards.

Closed Basin – San Luis Valley segment 9b: The segment description was clarified by specifying that the segment begins at a point immediately above Brewery Creek, which matches the lower boundary of segment 9a.

Closed Basin – San Luis Valley segment 12a-b: Lakes and reservoirs tributary to Saguache Creek from the source to Highway 285 were moved to a new segment 16. Segment 12 was split to facilitate the adoption of appropriate temperature standards. Segment 12a encompasses Saguache Creek, including all tributaries and wetlands, from the source to Ford Creek, excluding the listings in the La Garita Wilderness Area. Segment 12b encompasses the mainstem of Saguache Creek, including all tributaries and wetlands, from Ford Creek to Highway 285.

Closed Basin – San Luis Valley segment 13: Segments 13a and 13b were combined. The North Branch of Saguache Creek was split to segment 13b in the last basin hearing in preparation for a site-specific proposal. Since that proposal is no longer being pursued, all of Saguache Creek below Highway 285 was re-combined into segment 13.

Closed Basin – San Luis Valley segment 15: This segment was created to encompass the lakes and reservoirs within the La Garita Wilderness Area. The lakes and reservoirs in this segment were previously in segments 2, 4, 8 and 12. This segment was created to facilitate the adoption of appropriate temperature standards.

Closed Basin – San Luis Valley segment 16: This segment was created to encompass the lakes and reservoirs tributary to portions of La Garita Creek, Carnero Creek, San Luis Creek and Saguache Creek. The lakes and reservoirs in this segment were previously in segment 1. This segment was created to facilitate the adoption of appropriate temperature standards.

Closed Basin – San Luis Valley segment 17: This segment was created to encompass lakes and reservoirs within the Rio Grande National Forest boundaries, excluding lakes and reservoirs tributary to

portions of La Garita Creek, Carnero Creek, San Luis Creek, Saguache Creek, or within the La Garita Wilderness Area. The lakes and reservoirs in this segment were previously unclassified.

Closed Basin – San Luis Valley segment 18: This segment was created to encompass lakes and reservoirs within the Closed Basin, excluding lakes and reservoirs within the Rio Grande National Forest boundaries, or tributary to portions of La Garita Creek, Carnero Creek, San Luis Creek, or Saguache Creek. The lakes and reservoirs in this segment were previously unclassified.

Closed Basin – San Luis Valley segment 19: This segment was created to encompass San Luis Lake, which was previously in segment 6. This segment was created to group lake and reservoir segments together.

Closed Basin – San Luis Valley segment 20: This segment was created to encompass Head Lake, which was previously in segment 7. This segment was created to group lake and reservoir segments together.

The following segment descriptions were edited to improve clarity, improve consistency, correct typographical errors, and correct spelling errors:

Rio Grande segments: 1- 3, 5, 8-10, 15, 18, 19, 22, 24, 25 and 30

Alamosa River/La Jara Creek/Conejos River segments: 1- 3a, 3d, 4b, 5- 7, 9, 10, 13, 14a, 15, 17a, 18, 19 and 20

Closed Basin – San Luis Valley segments: 1, 3, 4, 8, 9a, 10, 13 and 14

#### B. Revised Aquatic-Life Use Classifications

The Commission reviewed information regarding the existing aquatic communities. Class 2 segments with exceptionally high MMI scores or a wide variety of fish species, were upgraded from Class 2 to Class 1.

The following segments were upgraded from Warm 2 to Warm 1.

Closed Basin – San Luis Valley segment: 3

The following segments were upgraded from Cold 2 to Cold 1:

Rio Grande segments: 3 and 38

Alamosa River/La Jara Creek/Conejos River segments: 15 and 16

Fish Ingestion qualifiers were deleted for the following segment that was upgraded from Class 2 to Class 1, since fish ingestion is presumed for all Class 1 waters:

Rio Grande segments: 3 and 38

Alamosa River/La Jara Creek/Conejos River segments: 15 and 16

A fish ingestion qualifier was added to the following segment since fishing is now allowed on Terrace Reservoir:

Alamosa River/La Jara Creek/Conejos River segment: 8

The following segment previously had no Aquatic Life use classification, but was upgraded to Cold 2:

Rio Grande segment: 7

The lakes and reservoirs in the following segment were previously unclassified. This segment is now classified Cold 1:

Closed Basin – San Luis Valley segment: 17

The lakes and reservoirs in the following segment were previously unclassified. This segment is now classified Warm 2:

Closed Basin – San Luis Valley segment: 18

The following segments, or portions of segments, previously had no Aquatic Life use classification, but were upgraded to Cold 1:

Rio Grande segment: 6\*

\*Applies to the East Fork of Willow Creek from Whited Creek to the confluence with West Willow Creek, which was previously in Segment 7, and had no Aquatic Life use classification.

A Use Attainability Analysis was prepared to downgrade the following segments, or portions of these segments, from Cold 1 to Warm 1.

Rio Grande segments: 4c, 13 and 37

A Use Attainability Analysis was prepared to downgrade the following segment from Cold 1 to Cold 2.

Rio Grande segment: 20b

A Use Attainability Analysis was prepared to downgrade the following segments from Cold 2 to Warm 2 based on biological data showing that warm-water species are present or expected to be present:

Alamosa River/La Jara Creek/Conejos River segment: 10

A Use Attainability Analysis was prepared to remove the Aquatic Life Use classification:

Alamosa River/La Jara Creek/Conejos River segment: 2\*

\*Applies to the tributaries to Iron Creek below South Mountain Creek, Alum Creek, Bitter Creek, and Burnt Creek, which were moved to segment 4a (no Aquatic Life use).

#### C. Recreation Classifications and Standards

Newly created segments were given the same Recreation Use classification as the segment from which they were split, unless there was insufficient evidence to support keeping that classification, or evidence to show that the existing use classification was inappropriate.

All segments with a Recreation N use classification were reviewed. No new information was found to support a change in classification.

#### D. Water Supply Use Classification and Standards

The Commission added a Water Supply use classification and standards where the evidence demonstrates a reasonable potential for a hydrological connection between surface water and alluvial wells used for drinking water. The Water Supply Use classification and standards were added to the following segments:

Rio Grande segments: 15 and 20b

Alamosa River/La Jara Creek/Conejos River segments: 11b and 21

A Water Supply use classification and standards were added to some lakes and reservoirs when they were split from stream segments and combined with similar lakes and reservoirs that previously had that use:

Rio Grande segment: 38  
Alamosa River/La Jara Creek/Conejos River segment: 30  
Closed Basin – San Luis Valley segment: 16

#### E. Agriculture Standards

Chromium III: A review of the standards associated with the Agriculture Use classification showed that many segments were missing a chronic chromium III standard to protect the use. The chronic chromium III standard to protect the Aquatic Life Use classification may be not be protective of the Agriculture Use in some high hardness situations. A chromium III standard of  $CrIII(ch)=100(Trec)$ , was added to the following segments classified for Agriculture Use, but not for Water Supply, which has a more restrictive chromium III standard:

Rio Grande segments: 3, 16-18, 20a, 23a-24, 26 and 35  
Alamosa River/La Jara Creek/Conejos River segments: 3a-3d, 4b, 5, 8-11a, 12, 16, 18, 22, 25 and 29  
Closed Basin – San Luis Valley segments: 5, 8, 14, 19 and 20

Molybdenum: In 2010, the Commission adopted a new standard for molybdenum to protect cattle from the effects of molybdenosis. The table value adopted at that time was 300 ug/l, but included an assumption of 48 mg/day of copper supplementation to ameliorate the effects of molybdenosis. State and local experts on cattle nutrition indicated that copper supplementation in region is common, but is not universal. Therefore, copper supplementation assumption was removed from the equation, which yields a standard of 160 ug/l. The Commission expects that this value may be revised when data on the copper and molybdenum content of local forage becomes available. The Commission also notes that in view of EPA's disapproval of the 300 ug/l table value in the Basic Standards and Methodologies for Surface Water, the Commission intends to review this value during the next Basic Standards triennial review.

The Agriculture table value assumes that the safe copper:molybdenum ratio is 4:1. Food and water intake is based on a 273 kg (600 lb) feeder steer consuming 6.8 kg/day of dry matter and 20% of its body weight in water per day. Total copper and molybdenum intakes are calculated from the following equations:

$$Cu \text{ intake mg/day} = ([Cu] \text{ forage, mg/kg}) \times (\text{forage intake, kg/day}) + ([Cu] \text{ water, mg/l}) \times (\text{water intake, L/day}) + (Cu \text{ supplementation, mg/day})$$

$$Mo \text{ intake mg/day} = ([Mo] \text{ forage, mg/kg}) \times (\text{forage intake, kg/day}) + ([Mo] \text{ water, mg/l}) \times (\text{water intake, L/day}) + (Mo \text{ supplementation, mg/day})$$

The assumed values for these equations are as follows:

$[Cu] \text{ forage} = 7 \text{ mg/kg}$ ,  $[Mo] \text{ forage} = 0.5 \text{ mg/kg}$ ,  $\text{forage intake} = 6.8 \text{ kg/day}$ ,  $[Cu] \text{ water} = 0.008 \text{ mg/L}$ ,  $[Mo] \text{ water} = 0.375 \text{ mg/L}$ ,  $\text{water intake} = 54.6 \text{ L/day}$ ,  $Cu \text{ supplementation} = 0 \text{ mg/day}$ ,  $Mo \text{ supplementation} = 0 \text{ mg/day}$ .

A molybdenum standard of 160 ug/l was adopted for the following segments in Regulation 36 that have an Agriculture Use classification and standards, and where livestock or irrigated forage are present or expected to be present.

Rio Grande segments: 1-38  
Alamosa River/La Jara Creek/Conejos River segments: 1-3d, 4b, 5 and 7-30  
Closed Basin – San Luis Valley segments: 1-9b and 11-20

The following segments have an Agriculture Use classification, but neither livestock nor irrigated forage are present, nor are they expected to be present. A molybdenum standard of 210 ug/L was applied to these segments to protect the Water Supply Use classification:

Closed Basin – San Luis Valley segment: 10

Nitrate: A review of the standards associated with the Agriculture Use classification showed that many segments were missing a nitrate standard to protect the use. A nitrate standard of  $\text{NO}_3=100$ , was added to the following segments with an Agriculture Use and standards, but no Water Supply use, which has a more restrictive nitrate standard:

Rio Grande segments: 3, 6, 12, 13, 16-18, 20a, 23a-24, 26 and 35

Alamosa River/La Jara Creek/Conejos River segments: 3a-3d, 4b, 5, 7, 9-11a, 12, 16, 18 and 22

Closed Basin – San Luis Valley segments: 5, 8, 14, 19 and 20

#### F. Changes to Antidegradation Designation

Decoupling Cold 2 and Use-Protected designations: As part of the Basic Standards hearing of 2005, the Commission eliminated the direct linkage between Cold Water Aquatic Life Class 2 and the Use-Protected designation. The Commission reviewed all Cold 2 segments that were Use-Protected to determine if that designation was still warranted. No Aquatic Life Cold 2 segments were changed to Reviewable.

Decoupling Aquatic Life Warm 2 and Use-Protected designations: As part of the Basic Standards hearing of 2005, the Commission decided that the presence of a Warm Water Class 2 classification would still be a presumptive basis for applying a Use-Protected designation; however, that presumption can be overcome if there is data showing that the water is of high quality. The Commission reviewed all Warm 2 segments to determine if the Use-Protected designation is still warranted. No Aquatic Life Warm 2 segments were changed to Reviewable.

The Use Protected designation was removed from the following segments that were upgraded from Aquatic Life Class 2 to Class 1. The following segments are now Reviewable:

Alamosa River/La Jara Creek/Conejos River segment: 16

Closed Basin – San Luis Valley segment: 3

#### G. Ambient Standards

Ambient standards are adopted where natural or irreversible man-induced conditions result in exceedances of table value standards. The Commission reviewed the information that is the basis for these standards, as well as any new information that would indicate whether they are still appropriate, need to be modified, or should be dropped. In some cases, new ambient standards were adopted. The following segments have ambient-based standards:

Alamosa River/La Jara Creek/Conejos River segments: 3a, 3b, 3c, 3d, 4a, 7, 8 and 16

#### H. Aquatic Life Ammonia and Metals Standards

New Table Value Standards: The zinc, zinc sculpin, and aluminum table values were revised in the 2010 Basic Standards hearing. The acute and chronic zinc, zinc sculpin, and aluminum equations in 36.6(3) were modified to conform to Regulation No. 31. The footnotes to the table values in 36.6(3) were renumbered to match the appropriate references. Footnote (4 old) was deleted, and footnotes 5 through 7 were renumbered 4 through 6.

Aluminum: The following segments had old numeric TVS values for replaced with “TVS” to reflect the new hardness and pH based standards:

Alamosa River/La Jara Creek/Conejos River segments: 9 and 10

Chromium III standards: A review of chromium III standards showed that the standard associated with the Water Supply Use classification is not protective of aquatic life where the average hardness is low (less than 61 mg/l). A chromium III standard, CrIII(ch)=TVS was added to following segments with Aquatic Life and Water Supply Use classifications that did not previously include this standard:

Rio Grande segments: 1, 2, 4a-5, 8-14, 19, 21-22, 25, 28-34 and 36-38

Alamosa River/La Jara Creek/Conejos River segments: 1, 2, 13-15, 17a, 17b, 19, 20, 23, 24, 26-28 and 30

Closed Basin – San Luis Valley segments: 1-4, 9b-13 and 15-18

Chromium VI standards: An extra parenthesis was removed from the chromium VI standards in the following segments:

Rio Grande segments: 2, 6, 11, 22, 25, 28, 29, 30 and 31

Alamosa River/La Jara Creek/Conejos River segments: 1, 2, 3a, 3b, 3c, 3d, 8, 9, 10, 14 and 17

Closed Basin – San Luis Valley segments: 11 and 13

#### I. Uranium Standards

At the 2010 Basic Standards rulemaking hearing, the Commission changed the Water Supply table value for uranium from 30 ug/L to a hyphenated standard of 16.8-30 ug/L. The Commission revised the language in 36.5(3)(c) to reflect the change to the basin-wide standard. A new section 36.5(3)(c)(i) was added to explain the hyphenated standard. Subsection 36.5(3)(d) was deleted because it was redundant with 36.5(3)(c).

#### J. Temporary Modifications

All existing Temporary Modifications were examined to determine if they should be allowed to expire or to extend them. Temporary Modifications were not automatically extended if non-attainment persisted due to revisions made to the Temporary Modification provisions in 2005 and 2010.

The following segments had Temporary Modifications that were not renewed:

Rio Grande segments: 4a, 4b and 4c

New Temporary Modifications were adopted for the segments below.

Rio Grande Segment 7: The Commission adopted Type B Temporary Modifications for chronic arsenic, acute and chronic cadmium, acute and chronic copper, acute and chronic lead, and acute and chronic zinc with expiration dates of June 30, 2017. The Temporary Modifications are based on ambient conditions that were calculated as the 85<sup>th</sup> percentile (chronic) or 95<sup>th</sup> percentile (acute) of a dataset that had been de-biased by calculating the median of all samples taken within a 7-day period. The Division has developed a sampling plan to determine the natural and man-induced irreversible sources of arsenic, cadmium, copper, lead and zinc in the Willow Creek watershed, which is the basis for a Type B Temporary Modification.

#### K. Temperature

New table values were adopted for temperature in the 2007 Basic Standards hearing, and revised in the 2010 Basic Standards hearing. Temperature standards were applied to individual segments based upon



the fish species expected to be present as provided by Parks and Wildlife, temperature data, and other available evidence.

The following segments have a Cold Stream Tier I temperature standard (CS-I):

Rio Grande segments: 1-3, 5, 6, 8-11, 14, 19, 21a, 23a, 25 and 30  
Alamosa River/La Jara Creek/Conejos River segments: 1, 2, 3a-3d, 4b, 5, 7, 11a, 14a, 17a, 19 and 20  
Closed Basin – San Luis Valley segments: 1, 2a, 4, 8 and 9b-12a

The following segments have a Cold Stream Tier II temperature standard (CS-II):

Rio Grande segments: 4a, 4b, 7, 20b, 22, 24, 26, 28, 29 and 31  
Alamosa River/La Jara Creek/Conejos River segments: 9, 11b, 13, 14b, 15 and 17b  
Closed Basin – San Luis Valley segments: 2b, 5 and 12b

The following segments have a Warm Stream Tier II temperature standard (WS-II):

Rio Grande segments: 4c, 12, 13, 17 and 18  
Alamosa River/La Jara Creek/Conejos River segments: 10, 12, 16 and 18  
Closed Basin – San Luis Valley segments: 3, 13 and 14

The following segments have a Warm Stream Tier III temperature standard (WS-III):

Rio Grande segment: 16  
Alamosa River/La Jara Creek/Conejos River segment: 22

The following segments have a Cold Lakes temperature standard (CL):

Rio Grande segments: 32-34 and 36  
Alamosa River/La Jara Creek/Conejos River segments: 23-28  
Closed Basin – San Luis Valley segments: 15-17

The following segments have a Large Cold Lakes (greater than 100 acres surface area) temperature standard (CLL):

Rio Grande segment: 38  
Alamosa River/La Jara Creek/Conejos River segments: 8 and 30  
Closed Basin – San Luis Valley segment: 20

The following segments have a Warm Lakes temperature standard (WL):

Rio Grande segments: 35 and 37  
Alamosa River/La Jara Creek/Conejos River segment: 29  
Closed Basin – San Luis Valley segment: 18

A temperature standard was not adopted for the following segment, which does not have an Aquatic Life Use classification:

Rio Grande segment: 15  
Alamosa River/La Jara Creek/Conejos River segments: 4a, 6 and 21  
Closed Basin – San Luis Valley segment: 9a

The following segments have ambient-based temperature standards:

Rio Grande segments: 20a, 21b and 23b

Closed Basin – San Luis Valley segments: 2c and 19

L. Nutrients

In March 2012, the Commission adopted interim nutrient values in the Basic Standards (Regulation 31) and created a new statewide control regulation (Regulation 85) to address nutrients in Colorado. Regulation 31.17 includes interim nutrient values for total phosphorus, total nitrogen, and chlorophyll *a* for both lakes and reservoirs, and rivers and streams. Due to the phased implementation approach adopted with these criteria (31.17(e)), the Commission adopted only total phosphorus and chlorophyll *a* standards at this time. Nitrogen standards were not considered as part of this rulemaking hearing, but will be considered in the next triennial review, currently scheduled for June, 2018.

Total phosphorus and chlorophyll *a* standards were adopted for waters upstream of all permitted domestic wastewater treatment facilities discharging prior to May 31, 2012 or with preliminary effluent limits requested prior to May 31, 2012, and any non-domestic facilities subject to Regulation 85 effluent limits and discharging prior to May 31, 2012. A new section (4) was added at 36.5 describing implementation of the interim nutrient values into the tables at 36.6, and includes a table which lists these facilities and the segment to which they discharge.

- For segments located entirely above these facilities, nutrient standards apply to the entire segment.
- For segments with portions downstream of these facilities, *nutrient standards only apply above these facilities.*
- For segments located entirely below these facilities, nutrient standards do not apply.

For rivers and streams segments, total phosphorus standards were adopted for segments with an aquatic life use. Chlorophyll *a* standards were adopted for segments with either an E or P recreation use classification.

For lakes and reservoirs segments, a footnote was added to total phosphorus and chlorophyll standards adopted for lakes in the tables at 36.6, as these standards only apply to lakes larger than 25 acres.

31.17(e)(iii) also allows the Commission to adopt numeric nutrient standards for Direct Use Water Supply (DUWS) lakes and reservoirs. No proposals were made to adopt standards based on this provision in this rulemaking.

31.17(e)(iii) also allows the Commission to adopt numeric nutrient standards for circumstances where the provisions of Regulation 85 are not adequate to protect waters from existing or potential nutrient pollution. No proposals were made to adopt standards based on this provision in this rulemaking.

Chlorophyll *a* standards were adopted for the following segments:

Rio Grande segments: 1- 3, 5- 11, 14, 16- 26 and 28-38  
Alamosa River/La Jara Creek/Conejos River segments: 1-15, 17a-20 and 22-30  
Closed Basin – San Luis Valley segments: 1-5 and 8-20

Total phosphorus standards were adopted for the following segments:

Rio Grande segments: 1-3, 5-11, 14, 16-26 and 28-38  
Alamosa River/La Jara Creek/Conejos River segments: 1-3d, 4b-5, 7-15, 17a-20 and 22-30  
Closed Basin – San Luis Valley segments: 1-5, 8 and 9b-18

M. Direct Use Water Supply Sub-classification

Also in the March 2012 rulemaking hearing, the Commission adopted a sub-classification of the Domestic Water Supply Use called "Direct Use Water Supply Lakes and Reservoirs Sub-classification (Regulation #31, at 31.13(1)(d)(i)). This sub-classification is for water supply lakes and reservoirs where there is a plant intake location in the lake or reservoir, or a man-made conveyance from the lake or reservoir that is used regularly to provide raw-water directly to a water treatment plant that treats and disinfects raw water. The Commission did not adopt the DUWS sub-classification for any lakes in Regulation 36, because no lakes were identified with a direct water supply use.

N. Other Site-Specific Revisions

Rio Grande segment 6: An extra parenthesis was deleted from the chromium VI standard. This segment does not have a Water Supply use, but had a chromium III standard associated with that use. The chromium III Water Supply standard was deleted from this segment.

Rio Grande segment 15: This segment does not have an Aquatic Life use, but had a dissolved oxygen standard of 5.0 mg/l, which is associated with that use. The dissolved oxygen standard was changed to 3.0 mg/l to protect Water Supply and Agriculture uses on this segment.

Rio Grande segment 20a: This segment does not have a Water Supply use, but had a chromium III and chloride standard associated with that use. The chromium III and chloride Water Supply standards were deleted from this segment.

Rio Grande segment 23a: This segment does not have a Water Supply use, but had a chromium III standard associated with that use. The chromium III Water Supply standard was deleted from this segment.

Rio Grande segment 24: This segment does not have a Water Supply use, but had a chromium III standard associated with that use. The chromium III Water Supply standard was deleted from this segment.

Rio Grande segment 26: This segment does not have a Water Supply use, but had a chromium III standard associated with that use. The chromium III Water Supply standard was deleted from this segment.

Alamosa River/La Jara Creek/Conejos River segment 3a-d: These segments do not have a Water Supply use, but had a chromium III standard associated with that use. The chromium III Water Supply standard was deleted from these segments.

Alamosa River/La Jara Creek/Conejos River segment 4b-5: These segments do not have a Water Supply use, but had a chromium III standard associated with that use. The chromium III Water Supply standard was deleted from these segments.

Alamosa River/La Jara Creek/Conejos River segment 8: This segment does not have a Water Supply use, but had a chromium III, chloride, nitrate and sulfate standard associated with that use. The chromium III, chloride, and sulfate Water Supply standards were deleted from this segment. The nitrate standard was changed from  $\text{NO}_3=10$  to  $\text{NO}_3=100$  to protect the Agriculture use.

Alamosa River/La Jara Creek/Conejos River segment 9: This segment does not have a Water Supply use, but had a chromium III standard associated with that use. The chromium III Water Supply standard was deleted from this segment.

Alamosa River/La Jara Creek/Conejos River segment 10: This segment does not have a Water Supply use, but had a chromium III standard associated with that use. The chromium III Water Supply standard was deleted from this segment. An extra parenthesis was removed from the selenium standard.

Alamosa River/La Jara Creek/Conejos River segment 11a: This segment does not have a Water Supply use, but had chromium III and dissolved iron standards associated with that use. The chromium III and dissolved iron Water Supply standards were deleted from this segment.

Alamosa River/La Jara Creek/Conejos River segment 12: The trout qualifier for the chronic silver standard was deleted since this is a warmwater segment.

Alamosa River/La Jara Creek/Conejos River segment 16: The trout qualifier for the chronic silver standard was deleted since this is a warmwater segment.

Alamosa River/La Jara Creek/Conejos River segment 18: The mercury standard of "TVS" was changed to 0.01. The trout qualifier for the chronic silver standard was deleted since this is a warmwater segment.

Alamosa River/La Jara Creek/Conejos River segment 21: The nitrate and nitrite standards were flipped. The nitrate standard was changed from  $\text{NO}_2=100$  to  $\text{NO}_2=10$ . The nitrite standard was changed from  $\text{NO}_3=10$  to  $\text{NO}_3=100$ .

Alamosa River/La Jara Creek/Conejos River segment 22: The trout qualifier for the acute cadmium and chronic silver standards were deleted since this is a warmwater segment.

Closed Basin – San Luis Valley segment 9a: A dissolved qualifier was added to the acute arsenic standard.

Closed Basin – San Luis Valley segment 9b: A dissolved qualifier was added to the following standards to protect the Aquatic Life use: acute arsenic, chromium VI, copper, lead, manganese, nickel, selenium, silver, and zinc.

Closed Basin – San Luis Valley segment 13: The trout qualifier for the acute cadmium and chronic silver standards were deleted since this is a warmwater segment.

Closed Basin – San Luis Valley segment 14: A parenthesis was added to the manganese standards.

# **EXHIBIT 3** **PUEBLO WEST METROPOLITAN DISTRICT**

## **COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT** **WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-32**

### **REGULATION NO. 32** **CLASSIFICATIONS AND NUMERIC STANDARDS** **FOR** **ARKANSAS RIVER BASIN**

REGION: 7	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: MIDDLE ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
1. Pueblo Reservoir.		Aq Life Cold 1 Recreation E Water Supply Agriculture <u>Direct Use Water Supply</u>	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
4a. Mainstem of Wildhorse Creek from the source to the confluence with the Arkansas River.	UP	Aq Life Warm 2 Recreation E Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05	As(ch)=100(Trec) As(ac)=340 Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ch)= <del>5972249</del> Se(ac)= <del>7082481</del> Ag(ac/ch)=TVS Zn(ac/ch)=TVS	
4d. All tributaries, including wetlands, to the Arkansas River and Pueblo Reservoir from the inlet to Pueblo Reservoir to the Colorado Canal headgate, except for specific listings in the Fountain Creek Subbasin and in segments 4a, 4b, 4c, <u>4e, 4f</u> , 5 through 18.	UP	Aq Life Warm 2 Recreation E Agriculture	D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B=0.75	As(ch)=100(Trec) As(ac)=340 Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec)	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec)	Ni(ch)=200(Trec) <del>Se(ch)=20(Trec)</del> Se(ch)= <u>2440</u> <del>Se(ac)=2600</del> Zn(ch)=2000(Trec)	

REGION: 7	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: MIDDLE ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
4e. Golf Course Wash	UP	Aq Life Warm 2 Recreation E Agriculture	D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B=0.75	As(ac)=340 As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec)	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec)	Ni(ch)=200(Trec) <del>Se(ch)=20(Trec)</del> Se(ch)=1841 <del>Se(ac)=1870</del> Zn(ch)=2000(Trec)	
<u>4f. Pesthouse Gulch</u>	<u>UP</u>	<u>Aq Life Warm 2 Recreation E Agriculture</u>	<u>D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml</u>	<u>CN=0.2 NO<sub>2</sub>=10 NO<sub>3</sub>=100</u>	<u>B=0.75</u>	<u>As(ch)=100(Trec) As(ac)=340 Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec)</u>	<u>CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec)</u>	<u>Ni(ch)=200(Trec) Se(ch)=384 Se(ac)=405 Zn(ch)=2000(Trec)</u>	

## **PUEBLO WEST METROPOLITAN DISTRICT PROPOSED**

### **32.52 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013 EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

#### **BASIS AND PURPOSE**

##### **Middle Arkansas Segment 1**

Based upon evidence that a plant intake located in Pueblo Reservoir is used regularly to provide raw water to the Pueblo West Metropolitan District water treatment plant and the Pueblo Board of Water Works water treatment plant and both of these water treatment plants treat and disinfect the raw water to provide drinking water to their customers, the Commission added a new Direct Use Water Supply sub-classification to Middle Arkansas Segment 1 Pueblo Reservoir.

The default interim chlorophyll a value of 5 µg/L for the Direct Use Water Supply sub-classification was developed using a general calculation based upon the averages or medians of data from numerous Colorado lakes and reservoirs and water treatment systems. The Commission determined that a different chlorophyll a value might be calculated on a site-specific basis. Since the currently available USGS water quality data may not be representative of the raw water diverted by the plant intake, the Commission directed the Division to collaborate with USGS, Pueblo West Metropolitan District and Pueblo Board of Water Works to design and conduct a scientific study to evaluate whether a site-specific numerical standard for chlorophyll a would be appropriate for the Pueblo Reservoir. When the results of this scientific study become available in the future, the possibility of a site-specific numerical standard can be revisited.

##### **Middle Arkansas Segments 4a, 4d, 4e and 4f**

Based upon selenium data collected in Middle Arkansas Segments 4a, 4d and 4e and an engineering report that concluded the source of selenium in the Pueblo West Metropolitan District Wastewater Treatment Plant influent and the surrounding ground and surface waters is the geologic shale formations ubiquitous to the Middle Arkansas sub-basin, the Commission revised the selenium ambient quality-based site-specific standards for Middle Arkansas Segment 4a; replaced the current selenium standard with ambient quality-based site-specific selenium standards for Middle Arkansas Segments 4d and 4e; and resegmented Pesthouse Gulch, previously part of Middle Arkansas Segment 4d, into a new Middle Arkansas Segment 4f described as Pesthouse Gulch from its headwaters to its confluence with Wildhorse Creek, designated Use Protected, with ambient quality-based site-specific selenium standards.

# **EXHIBIT 4** **CHEROKEE METROPOLITAN DISTRICT**

## **COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**

### **WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-32**

### **REGULATION NO. 32** **CLASSIFICATIONS AND NUMERIC STANDARDS** **FOR** **ARKANSAS RIVER BASIN**

REGION: 7	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: MIDDLE ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
4c. Mainstem of Chico Creek, including all tributaries and wetlands, <del>lakes and reservoirs</del> , from the source to the confluence with the Arkansas River, <u>except for specific listings in segments 4f, 4g, and 4h.</u>		Aq Life Warm 42 Recreation E Agriculture	<u>T=TVS(WS-II) °C</u> <u>D.O. = 5.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ae)=0.049</u> <u>CL<sub>2</sub>(ch)=0.011</u>	<u>CN=0.005</u> <u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.5</u> <u>NO<sub>3</sub>=100</u>	<u>As(ac)=340</u> <u>As(ch)=7.6(Trec)</u> <u>Cd(ac/ch)=TVS</u> <u>CrIII(ac/ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(tot)</u> <u>Ni(ac/ch)=TVS</u>	<u>Se(ac/ch)=TVS</u> <u>Ag(ac/ch)=TVS</u> <u>Zn(ac/ch)=TVS</u>	<del>Temporary modification type (iii):</del> <u>NH<sub>3</sub>(ae/ch)=Existing</u> Quality Expiration date of <del>12/31/2013</del>
<u>4f. Mainstem of Black Squirrel Creek, including all tributaries and wetlands, from the source to Highway 94.</u>		<u>Aq Life Warm 2</u> <u>Recreation E</u> <u>Agriculture</u>	<u>T=TVS(WS-II) °C</u> <u>D.O. = 5.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ch)=0.011</u>	<u>CN=0.005</u> <u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.5</u> <u>NO<sub>3</sub>=100</u>	<u>As(ac)=340</u> <u>As(ch)=7.6(Trec)</u> <u>Cd(ac/ch)=TVS</u> <u>CrIII(ac/ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(tot)</u> <u>Ni(ac/ch)=TVS</u>	<u>Se(ac/ch)=TVS</u> <u>Ag(ac/ch)=TVS</u> <u>Zn(ac/ch)=TVS</u>	
<u>4g. Mainstem of Black Squirrel Creek, including all tributaries and wetlands, from just below Highway 94 to Squirrel Creek Road.</u>	<u>UP</u>	<u>Aq Life Warm 2</u> <u>Recreation P</u> <u>Agriculture</u>	<u>T=TVS(WS-III) °C</u> <u>D.O. = 3.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=205/100ml</u>	<u>CN(ac)=0.2</u> <u>B=0.75</u>	<u>NO<sub>2</sub>=10</u> <u>NO<sub>3</sub>=100</u>	<u>As(ch)=100(Trec)</u> <u>Be(ch)=100(Trec)</u> <u>Cd(ch)=10(Trec)</u> <u>CrIII(ch)=100(Trec)</u> <u>CrVI(ch)=100(Trec)</u> <u>Cu(ch)=200(Trec)</u>	<u>Pb(ch)=100(Trec)</u> <u>Mn(ch)=200(Trec)</u> <u>Mo(ch)=300(Trec)</u> <u>Ni(ch)=200(Trec)</u>	<u>Se(ch)=20(Trec)</u> <u>Zn(ch)=2000(Trec)</u>	<u>No Fish</u>
<u>4h. Mainstem of Black Squirrel Creek, including all tributaries wetlands, from just below Squirrel Creek Road to the confluence with Chico Creek.</u>		<u>Aq Life Warm 2</u> <u>Recreation E</u> <u>Agriculture</u>	<u>T=TVS(WS-II) °C</u> <u>D.O. = 5.0 mg/l</u> <u>pH = 6.5-9.0</u> <u>E.Coli=126/100ml</u>	<u>NH<sub>3</sub>(ac/ch)=TVS</u> <u>CL<sub>2</sub>(ch)=0.011</u>	<u>CN=0.005</u> <u>S=0.002</u> <u>B=0.75</u> <u>NO<sub>2</sub>=0.5</u> <u>NO<sub>3</sub>=100</u>	<u>As(ac)=340</u> <u>As(ch)=7.6(Trec)</u> <u>Cd(ac/ch)=TVS</u> <u>CrIII(ac/ch)=TVS</u> <u>CrVI(ac/ch)=TVS</u> <u>Cu(ac/ch)=TVS</u>	<u>Fe(ch)=1000(Trec)</u> <u>Pb(ac/ch)=TVS</u> <u>Mn(ac/ch)=TVS</u> <u>Hg(ch)=0.01(tot)</u> <u>Ni(ac/ch)=TVS</u>	<u>Se(ac/ch)=TVS</u> <u>Ag(ac/ch)=TVS</u> <u>Zn(ac/ch)=TVS</u>	



## CHEROKEE METROPOLITAN DISTRICT PROPOSED

### **32.52 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013 EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

#### **BASIS AND PURPOSE**

A use-attainability analysis conducted in Middle Arkansas Segment 4c for Cherokee Metropolitan District concluded the seasonal and limited presence of water throughout much of the Chico Creek and Black Squirrel Creek watersheds affects the number and variety of aquatic life that can reside within these streams, making the application of an Aquatic Life Warm 1 use classification inappropriate. The sampling conducted in 2006 through 2012 indicated that, while fish populations persist in discrete locations, flow is also intermittent or ephemeral in all or most of Black Squirrel Creek and throughout some reaches of Chico Creek, limiting the potential to support reproducing fish populations. The data also indicate that only the upper third and the bottom third of the Black Squirrel Creek watershed have water in enough quantity for enough time to provide habitat for fish, and sufficient water is only present at some locations within these portions. The middle reach has primarily ephemeral flows and no water was observed during all sampling events. Any new discharge to the middle reach of the Black Squirrel Creek drainage would create an effluent-dependent stream for some length as surface flows persist and that portion of the middle reach would be classified as use-protected. Should future effluent result in the creation of a flowing stream, additional study of the appropriate uses may be needed.

Based upon these results, the Commission revised the Middle Arkansas Segment 4c Aquatic Life use classification to Warm 2 and divided a portion of Segment 4c to form three new segments: 4f, 4g, and 4h. Segment 4c now includes the mainstem of Chico Creek and its tributaries, except for specific listings in Segments 4f, 4g, and 4h. Segment 4f was created to account for the evidence of fish and includes the mainstem of Black Squirrel Creek and its tributaries from the source to Highway 94. Segment 4g was created to account for the absence of fish in this ephemeral reach, and includes the mainstream of Black Squirrel Creek and its tributaries from just below Highway 94 to Squirrel Creek Road. Segment 4h was created to account for the presence of fish in the lower reaches with intermittent and perennial flows and includes the mainstem of Black Squirrel Creek and its tributaries from just below Squirrel Creek Road to the confluence with Chico Creek.

Segments 4c, 4f, and 4h have Aquatic Life Warm 2, Recreation E, and Agriculture use classifications and the full suite of standards applied for those uses. Segment 4g has Aquatic Life Warm 2, Recreation P, and Agriculture use classifications, and the metals standards for protection of agriculture irrigation uses were retained to provide a level of protection for rudimentary aquatic life in this ephemeral reach. The Commission noted that information on existing water quality and biology in the segment is limited, because these streams have no base flow, which severely limits the ability to collect water and biological samples.

Based on fish species expected or observed to be present, Warm Stream Tier II temperature standards were adopted for Segments 4c, 4f, and 4h. Warm Stream Tier III temperature standards were adopted for Segment 4g, where fish have not been observed.

# **EXHIBIT 5** **BOARD OF WATER WORKS OF PUEBLO, COLORADO**

## **COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT** **WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-32**

### **REGULATION NO. 32** **CLASSIFICATIONS AND NUMERIC STANDARDS** **FOR** **ARKANSAS RIVER BASIN**

REGION: 7	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: MIDDLE ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
1. Pueblo Reservoir.		Aq Life Cold 1 Recreation E Water Supply Agriculture <u>Direct Use</u> <u>Water</u> <u>Supply</u>	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml <u>Chl. a = 5 ug/l *</u>	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	<u>* As measured at a sampling point adjacent to the Pueblo Reservoir dam. Mar-Nov average. 1 in 5 yr allowable exceedance frequency</u>

## **BOARD OF WATER WORKS OF PUEBLO, COLORADO PROPOSED**

### **32.52 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013 EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

#### **BASIS AND PURPOSE**

The Board of Water Works of Pueblo, Colorado, (the "Board"), proposes the application of a Direct Use Water Supply subclassification to Pueblo Reservoir, (Middle Arkansas River Segment 1). Pueblo Reservoir serves as the drinking water source for a variety of entities, including the Board. Water derived from the Board's water rights is stored in Pueblo Reservoir, where it is then regularly and directly delivered through a plant intake pipeline to the Whitlock Water Treatment Plant for treatment, disinfection and distribution through the Board's water supply system. In accordance with Regulation 31.13(d)(i) of the Basic Standards for Surface Water, the Commission determines that the direct pipeline from Pueblo Reservoir to the Board's water treatment plant constitutes a "plant intake," and raw water from Pueblo Reservoir is delivered directly to said water treatment plant. Following treatment and disinfection, drinking water derived from Pueblo Reservoir is provided to customers throughout the Board's service area. As such, application of a Direct Use Water Supply subclassification is appropriate for Pueblo Reservoir (Middle Arkansas River Segment 1). Furthermore, based on the consideration of the factors set forth in Regulation 31.17(e)(ii), the Commission determines that the interim numerical chlorophyll a standard of 5 ug/l is appropriate to apply to Pueblo Reservoir. Compliance with this chlorophyll a standard will be measured at a point adjacent to the Pueblo Reservoir Dam using a March 1 to November 30 average chlorophyll a (ug/L) in the mixed layer with an allowable exceedance frequency of 1-in-5 years. The Commission therefore revises the classifications for Pueblo Reservoir to include a Direct Use Water Supply subclassification and adopts a numerical chlorophyll a standard of 5 ug/l for Pueblo Reservoir, (Middle Arkansas River Segment 1) as contemplated above.

**EXHIBIT 6**  
**KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT**

**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**  
**WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-32**

**REGULATION NO. 32**  
**CLASSIFICATIONS AND NUMERIC STANDARDS**  
**FOR**  
**ARKANSAS RIVER BASIN**

REGION: 7  BASIN: LOWER ARKANSAS RIVER	Desig	Classifications	NUMERIC STANDARDS							TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l				
Stream Segment Description										
1c. Mainstem of the Arkansas River from the outlet of John Martin Reservoir to the Colorado/Kansas border.	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =1900	As(ac)=340 As(ch)=0.02 (Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=642(dis) Mn(ac/ch)=TVS Hg(ch)=0.01(tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modification type (iii): Se(ch)=22.5, Expiration date of 12/31/2013. Water + Fish Standards Apply.	

## KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT PROPOSED

### **32.52 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013 EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

#### **BASIS AND PURPOSE**

Temporary Modification for Selenium on Lower Arkansas Segment 1c

The Commission has commented extensively in past rulemaking hearings on the use and role of temporary modifications. The intent of the Commission regarding temporary modifications remains to account for the uncertainty of certain water quality standards and to provide relief to certain point source discharges having difficulty complying with attainment of the underlying standard. Regulation 31.7 (3) identifies a two-prong test to determine if temporary modifications are warranted. First, is there uncertainty regarding the water quality standard necessary to protect uses, uncertainty regarding the extent that existing quality is the result of natural or irreversible anthropogenic conditions or uncertainty over the timing of implementing appropriate source controls (to be repealed 10/01/2013)? Second, is there an existing permitted discharge that currently demonstrates or is predicted to have an effluent limit compliance problem?

As recently as 2012, the Commission reiterated its view regarding temporary modifications (Regulation 32.50), stating "...it is fitting that temporary modifications only be used where there are permitted discharges that would face unreasonable consequences in the absence of a temporary modification..." Uncertainty over the appropriately protective standard continues to exist on segment 1c, complicated by uncertainty over the extent the levels of selenium in the river, ranging from two- to four-fold the chronic standard, reflect natural contributions or man-made influences from water use along the river. Historically, segment 1c of the Lower Arkansas River has elevated selenium concentrations, invoking temporary modifications from the chronic table value standard of 4.6 µg/l since 1998

While there are a number of state permitted facilities located along segment 1c, these are chiefly general permits governing the discharge of stormwater from construction, industrial activities and sand and gravel extraction operations. There are a few individual discharge permits in Lamar, Wiley and Granada, but in no case was the WQCD requirement for these facilities any more ominous than monitoring for selenium (and uranium). No problematic effluent limits are in place for any facility, negating the need for a temporary modification for selenium in segment 1c.

Therefore, the Commission believed there is no justification for providing a temporary modification to the criteria for selenium on segment 1c. Additionally, there may be a question of whether a temporary modification on this segment might conflict with EPA regulations requiring consideration of impacts to downstream State water quality standards when designating criteria. Instead, the Commission suggested the Division revisit regulation 31.44 and use the TMDL program to address the non-attainment of selenium (and uranium) criteria on this segment and the need for additional information regarding the extent that existing quality results from natural and human-induced conditions. As an initial goal for a TMDL, the ambient quality of selenium (and uranium) in water discharged from John Martin Reservoir was suggested.

**EXHIBIT 7**  
**XTO ENERGY and PIONEER NATURAL RESOURCES**

**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**  
**WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-32**

**REGULATION NO. 32**  
**CLASSIFICATIONS AND NUMERIC STANDARDS**  
**FOR**  
**ARKANSAS RIVER BASIN**

REGION: 7  BASIN: LOWER ARKANSAS RIVER  Stream Segment Description	DESIG	CLASSIFICATIONS	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC  mg/l		METALS  ug/l			
4. Mainstem of the Apishapa River from I-25 to the confluence with the Arkansas River; mainstem of Timpas Creek from the source to the Arkansas River; mainstem of Lorencito Canyon, from the source to the confluence with the Purgatoire River.	UP	Ag Life Warm 2 Recreation E Agriculture	D.O.=5.0mg/l pH=6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B= <u>0.755</u> NO <sub>2</sub> =0.5	As(ch)=100(Trec) As(ac)=340 Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1805(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(tot) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modifications type (iii): Se(ch)=27 Expiration date of 12/31/2013.

REGION: 7	DESIG	CLASSIFICATIONS	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: LOWER ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC		METALS			
Stream Segment Description				mg/l		ug/l			
5. Mainstem of the North Fork of the Purgatoire River, including all tributaries, wetlands, lakes, and reservoirs, from the source to the confluence with the Purgatoire River; mainstem of the Middle Fork of the Purgatoire River, including all tributaries, wetlands, lakes, and reservoirs, from the source of the USGS gage at Stonewall; the mainstem of the Middle Fork of the Purgatoire River from the USGS gage at Stonewall to the confluence with the North Fork of the Purgatoire River; mainstem of the South Fork of the Purgatoire River, including all tributaries, wetlands, lakes and reservoirs, from the source to Tercio; the mainstem of the South Fork of the Purgatoire River from Tercio to the confluence with the Purgatoire River; mainstem of the Purgatoire River to Interstate 25, except for the specific listing in segment 5b; mainstem of Long Creek from the Source of the confluence with Trinidad Reservoir; mainstem of Raton Creek from the source of the confluence with Purgatoire River.		Aq Life Cold 1 Recreation E Water Supply  Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E..Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B= <u>0.755.0</u> NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modifications type (iii): Se(ch)=11.2. Expiration date of 12/31/2013.
6. All tributaries to the Purgatoire River, including all wetlands, lakes and reservoirs, from the source to Interstate 25, except for specific listings in segments 4, 5a and 5b.	UP	Ag Life Cold 2 Recreation E Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 E.Coli=126/100ml	CN=0.2 NO <sub>2</sub> =10 NO <sub>3</sub> =100	B= <u>0.755.0</u>	As(ch)=100(Trec) Be(ch)=100(Trec) Cd(ch)=10(Trec) CrIII(ch)=100(Trec)	CrVI(ch)=100(Trec) Cu(ch)=200(Trec) Pb(ch)=100(Trec)	Ni(ch)=200(Trec) Se(ch)=20(Trec) Zn(ch)=2000(Trec)	Temporary modifications type (iii): Se(ch)=21.3, Expiration date of 12/31/2013.

## **XTO ENERGY and PIONEER NATURAL RESOURCES PROPOSED**

### **32.52 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013 EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

#### **BASIS AND PURPOSE**

Pioneer Natural Resources USA, Inc. and XTO Energy Inc. proposed a site-specific boron standard of 5.0 mg/l for Lower Arkansas River Basin Segments 4, 5a, and 6.

Surface water standards for boron are changed from 0.75 mg/l to 5.0 mg/l for these segments. Boron is essential to the normal growth of all plants, but the concentration required for such growth is very small and, if exceeded, may reduce crop productivity. The 0.75 mg/l boron level had been set to protect certain boron-sensitive plants such as pecan, black walnut, cherry, orange, and avocado.

The Commission has reviewed site-specific evidence regarding the crops and soil chemistry existing in the area of Segments 4, 5a, and 6. Crop data reflects that boron tolerant species such as alfalfa and other pasture grass and hay species are the predominant crops grown in the area.

Accordingly, the Commission approved the 5.0 mg/l boron standards for the Lower Arkansas River Basin Segments 4, 5a, and 6. This action is consistent with the Commission's boron groundwater standard, which is 5.0 mg/l for groundwater pumped and used for surface irrigation where irrigation of boron-sensitive crops is not expected.



**EXHIBIT 8  
TRI-LAKES WASTEWATER TREATMENT FACILITY**

**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-32**

**REGULATION NO. 32  
CLASSIFICATIONS AND NUMERIC STANDARDS  
FOR  
ARKANSAS RIVER BASIN**

.....

**32.6 Tables**

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**(4) Assessment Criteria**

The following criteria shall be used when assessing whether a specified waterbody is in attainment of the specified standard.

- (a) Fountain Creek Segment 6, Monument Creek: Assessment based on site-specific Biotic Ligand Model (BLM)-based copper criteria calculation of a Fixed Monitoring Benchmark (FMB) applicable from immediately above Tri-Lakes Wastewater Treatment Facility to North Gate Boulevard Bridge, as shown in the Qualifiers Column.

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REGION: 4 & 7		Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: FOUNTAIN CREEK				PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description										
6. Mainstem of Monument Creek, from the boundary of National Forest lands to the confluence with Fountain Creek.			Aq Life Warm 2 Recreation E Water Supply Agriculture	D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =329	As(ac)=340 As(ch)=0.02- 10(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1430(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modification: type (iii): Cu(ac/ch)=current condition. Expiration date of 12/31/2013 ** <u>Copper BLM-based</u> <u>Fixed Monitoring</u> <u>Benchmark (FMB)</u> <u>Copper.FMBa = 25 ug/l</u> <u>Copper.FMBc = 16 ug/l</u> <u>For subsegment from</u> <u>immediately above Tri-</u> <u>Jakes WWTF to North</u> <u>Gate Boulevard Bridge</u>

\*\* Deletion of the Temporary Modification is proposed, subject to adoption of the new copper criteria. Should such not be adopted due to the novelty of the BLM method, extension of the Temporary Modification from December 2013 to December 2016 is proposed.

## TRI-LAKES WASTEWATER TREATMENT FACILITY PROPOSED

### **32.52 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013 EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

#### **BASIS AND PURPOSE**

Copper: Site-specific copper criteria for a portion of Segment 6 were adopted based on U.S.EPA's water quality criteria for copper (Cu) using an approved method known as the Biotic Ligand Model or BLM (U.S.EPA 2007), and EPA's method for site-specific calculations in the April 2012 "Calculation of BLM Fixed Monitoring Benchmarks for Copper at Selected Monitoring Sites in Colorado" (820OR12009). Fixed Monitoring Benchmarks (FMB) for Cu are derived from a probability-based method that incorporates time variability in the BLM-predicted instantaneous water quality criteria (IWQC) as compared to measured in-stream Cu concentrations. The term "FMB" is used because it is a benchmark that can be used to evaluate compliance with water quality criteria at the specific allowed excursion frequency set by these criteria (i.e., no more than one excursion every three years). The site-specific standard was adopted for a sub-segment or increment of Segment 6, described as from immediately above Tri-Lakes Wastewater Treatment Facility to the North Gate Boulevard Bridge. The BLM derives instantaneous water quality criteria on the basis of multiple variables such as dissolved organic carbon (DOC), pH and hardness-related variables. BLM variables, like DOC, can be significantly different in streams below municipal wastewater effluent discharges.

Extensive data collection supported the derivation of the BLM-based FMB for application in Monument Creek. To generate FMB values for that portion of Segment 6, described as from immediately above Tri-Lakes Wastewater Treatment Facility to the North Gate Boulevard Bridge, data from Baptist Road and North Gate Boulevard Bridge were combined. The resulting acute FMB (FMBa) was calculated at 25.4 µg/L, and the chronic FMB (FMBc) was calculated at 16.0 µg/L. The hardness-based chronic table values standard (TVS) for the same dataset would be 9.2 µg/l at Northgate Bridge. While effluent concentrations exceed 9.2 µg/l, the 85<sup>th</sup> percentile in-stream copper concentrations at Baptist and North Gate were less than 5 µg/l. The Commission determined that retaining the TVS below the North Gate Boulevard Bridge would still be protective of the lower standard downstream.

**EXHIBIT 9**  
**CRIPPLE CREEK & VICTOR GOLD MINING COMPANY**

**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**  
**WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-32**

**REGULATION NO. 32**  
**CLASSIFICATIONS AND NUMERIC STANDARDS**  
**FOR**  
**ARKANSAS RIVER BASIN**

REGION: 13	DESIG	CLASSIFICATIONS	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: UPPER ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC		METALS			
Stream Segment Description				mg/l		ug/l			
19. Mainstem of Fourmile Creek, including all tributaries <u>and</u> wetlands, <del>lakes and reservoirs</del> , from the source to immediately above the confluence with <del>Cripple</del> <u>High</u> Creek.		Aq Life Cold 1 Recreation E Water Supply Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.5 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
20a. Mainstem of Fourmile Creek, including all tributaries <u>and</u> wetlands, <del>lakes and reservoirs</del> , from <u>immediately above</u> the confluence with <del>Cripple</del> <u>High</u> Creek to <u>a point immediately above</u> the confluence with the <u>Arkansas River Long Gulch</u> , except for the specific listing to segment 23.		Aq Life Cold 1 Recreation E Agriculture Water Supply	<del>March-Oct</del> <del>T<sub>DM</sub>=25.9°C</del> <del>T<sub>MM</sub>=20.7°C</del> <del>Nov-Feb</del> <del>T=TVS(CS-II)°C</del> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=100</u> <u>SO<sub>4</sub>=WS</u>	As(ac)=340 As(ch)= <u>0.027.6</u> (Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	<del>Fe(ch)=WS(dis)</del> Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS <del>Mn(ch)=WS(dis)*</del>	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

REGION: 13	DESIG	CLASSIFICATIONS	NUMERIC STANDARDS							TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: UPPER ARKANSAS RIVER			PHYSICAL and BIOLOGICAL	INORGANIC		METALS				
Stream Segment Description				mg/l		ug/l				
<u>20b. Mainstem of Fourmile Creek, including all tributaries and wetlands, from the confluence with Long Gulch to the confluence with the Arkansas River.</u>		Aq Life Cold 1 Recreation E Agriculture Water Supply	<u>March-Oct</u> <u>T<sub>DM</sub>=28.5°C</u> <u>T<sub>MMAT</sub>=22.5°C</u> <u>Nov-Feb</u> <u>T=TVS(CS-II)°C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011	CN=0.005 S=0.002 B=0.75 NO <sub>2</sub> =0.05 <u>NO<sub>3</sub>=10</u> SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ch)=100(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		
23. Mainstem of Wilson Creek (Teller County), <u>including all tributaries and wetlands, from the source to the confluence with Fourmile Creek.</u>		Aq Life Cold 2 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II)°C</u> D.O.=6.0 mg/l <del>D.O.(sp)=7.0 mg/l</del> pH=6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS <del>CL<sub>2</sub>(ac)=0.019</del> CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 <del>NO<sub>3</sub>=100</del> <del>Cl=250</del> <del>SO<sub>4</sub>=WS</del>	As(ac)=340 <del>As(ch)=0.02-10</del> <u>100</u> (Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS <del>Fe(ch)=WS(dis)</del> Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS <del>Mn(ch)=WS(dis)</del>	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS		

# **CRIPPLE CREEK & VICTOR GOLD MINING COMPANY PROPOSED**

## **32.52 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013 EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

### **BASIS AND PURPOSE**

#### **FOURMILE CREEK SEGMENTATION**

Upper Arkansas Segment 20, described as Fourmile Creek and its tributaries from the confluence with Cripple Creek to the Arkansas River, was broken into two segments (20a and 20b) to facilitate adoption of appropriate temperature standards and water supply use classification. In addition, the lower boundary of Segment 19, described as Fourmile Creek from the source to the confluence with Cripple Creek, was moved upstream, also to facilitate adoption of appropriate temperature standards and water supply use classification.

Segment 20a includes Fourmile Creek and its tributaries from the confluence with High Creek to the confluence with Long Gulch. The Commission found that there is a significant change in the Fourmile Creek temperature regime downstream of Long Gulch, and that Fourmile Creek's elevation changes significantly in this reach. Regulation 31.6(4) states, "Segments shall generally be delineated according to the points at which the use, physical characteristics or water quality characteristics of a watercourse are determined to change significantly enough to require a change in use classifications and/or water quality standards." Therefore, Segment 20b was created to account for increasing instream water temperature and includes Fourmile Creek and its tributaries from Long Gulch to its confluence with the Arkansas River.

#### **FOURMILE CREEK SITE-SPECIFIC TEMPERATURE STANDARDS**

The Commission adopted site-specific temperature standards for summer to reflect the existing thermal conditions in Segments 20a and 20b. Stream temperatures in Fourmile Creek were consistently higher than Cold Stream Tier II temperature standards over a 6-year monitoring period during the summer months and occasionally during the spring shoulder season at sites upstream and downstream of both the Cripple Creek confluence and the Carlton Tunnel.

The Carlton Tunnel was completed in 1941 to drain the Cripple Creek Mining District, and has been draining the regional ground water for over 70 years. Flows from the Carlton Tunnel enter Fourmile Creek approximately ½ mile downstream of the confluence with Cripple Creek, at a relatively constant year-round flow rate and water temperature. The constant, warm temperature of the ground water flowing out of the tunnel, together with the geology of the area, indicates that natural geothermal activity probably warms the water. No person or entity controls the flow of water out of the Carlton Tunnel, and there are no means to control the temperature of the flow.

Upstream of the Carlton Tunnel, CC&V documented that there are no known anthropogenic sources of heat to Fourmile Creek. Therefore, the Commission found that ambient temperatures in segments 20a and 20b reflect natural or irreversible man-induced conditions. In addition, stream temperatures were warmer in Segment 20b than in Segment 20a, which is expected because lower Fourmile Creek is approximately 1,000 feet lower in elevation. A robust and abundant brown trout population persists

throughout Fourmile Creek, indicating that thermal conditions are not negatively affecting populations of this cold water species, and therefore ambient-based temperature standards are adequate to protect the use.

The site-specific summer temperature standards apply from March 1 through October 31 for both segments and were derived using the cumulative probability distribution, which calculated daily maximum and weekly average temperature based on the 1-in-3 year probability of exceedance during summer months. Cold Stream Tier II winter temperature table value standards apply from November through February.

#### **FOURMILE CREEK WATER SUPPLY**

Based on evidence that there is currently no Water Supply use and there is little potential for future Water Supply use along the portion of Fourmile Creek to be included in Segment 20a, the Commission removed the Water Supply use classification from Segment 20a.

#### **WILSON CREEK SEGMENTATION**

Upper Arkansas Segment 23, described as Wilson Creek (Teller County) from its source to the confluence with Fourmile Creek, was modified to include all of its tributaries and wetlands. These tributaries are currently included in Segment 20, despite the fact that the Wilson Creek tributaries do not flow directly into Fourmile Creek. This modification clarifies the boundaries of Segment 23 and makes its description more consistent with other segment descriptions. In addition, no evidence exists to suggest that the uses and classifications applied to the mainstem of Wilson Creek are not appropriate for its tributaries.

#### **WILSON CREEK WATER SUPPLY and FISH-BASED STANDARDS**

Based on evidence that there is currently no Water Supply use and there is little potential for future Water Supply use along Wilson Creek and its tributaries, the Commission removed the Water Supply use classification from Segment 23.

Similarly, long-term monitoring of the aquatic life community in Wilson Creek and North Fork Wilson Creek indicates fish do not occur and would not be expected to occur in Segment 23 due to the interrupted nature and/or low flow conditions in these streams. Therefore, trout-specific acute cadmium and chronic silver standards, as well as the spawning-based dissolved oxygen standard, were removed from Segment 23.

**EXHIBIT 10**  
**PUBLIC SERVICE COMPANY of COLORADO**

**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**

**WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-32**

**REGULATION NO. 32**  
**CLASSIFICATIONS AND NUMERIC STANDARDS**  
**FOR**  
**ARKANSAS RIVER BASIN**

REGION: 7  BASIN: MIDDLE ARKANSAS RIVER  Stream Segment Description	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
6a. Mainstem of the Saint Charles River from a point immediately above the CF&I diversion canal near Burnt Mill to the confluence with the Arkansas River <u>a point immediately upstream of the confluence with Edson Arroyo.</u>	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02- 10(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modification type (iii): Se(ch)=39.0; Expiration date of 12/31/2013.
6b. Mainstem of the Saint Charles River from a point immediately above the CF&I diversion canal near Burnt Mill <u>from the confluence with Edson Arroyo</u> to the confluence with the Arkansas River.	UP	Aq Life Warm 2 Recreation E Water Supply Agriculture	D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS CL <sub>2</sub> (ac)=0.019 CL <sub>2</sub> (ch)=0.011 CN=0.005 S=0.002	B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =WS	As(ac)=340 As(ch)=0.02- 10(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS <u>Se(ac/ch)=TVS55(tot)</u> Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modification type (iii): <u>Se(ch)=39.0;</u> Expiration date of 12/31/2013. <u>Attainment evaluations for the Se(ch) standard will be based on all available data from the segment.</u>



## **PUBLIC SERVICE COMPANY of COLORADO PROPOSED**

### **32.52 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013 EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

#### **BASIS AND PURPOSE**

##### **St. Charles River, Segmentation and Selenium Standards (Proposal by Public Service Company of Colorado).**

The Commission divided Middle Arkansas Segment 6 (St. Charles River) into two segments. Segment 6a is the mainstem of the St. Charles River from a point immediately above the CF&I diversion canal near Burnt Mill to a point immediately upstream of the confluence with Edson Arroyo. Segment 6b is the mainstem of the Saint Charles River from the confluence with Edson Arroyo to the confluence with the Arkansas River. Regulation 31.6(4)(c) provides that segments will generally be delineated “according to the points at which the use, physical characteristics or water quality characteristics of a watercourse are determined to change significantly enough to require a change in use classifications and/or water quality standards.” Public Service Company of Colorado (PSCo) presented evidence that the table value standards for selenium are met in the St. Charles River upstream of Edson Arroyo, but natural concentrations of selenium increase significantly downstream of Edson Arroyo. Therefore, the Commission chose the confluence with Edson Arroyo as the dividing point between Segments 6a and 6b. Evidence submitted by PSCo showed that selenium loading to Segment 6b results from natural sources and is not exacerbated by land use or other reversible anthropogenic factors. Also, the evidence demonstrated that the naturally elevated selenium concentrations, which vary widely and at times greatly exceed the table value standards, are not impairing aquatic life. Therefore, for Segment 6b the Commission removed the acute selenium standard and adopted a site-specific ambient-based chronic selenium standard of 55 µg/L (total) based on the 85<sup>th</sup> percentile of all available data from the segment. Because of the wide spatial and temporal variability of selenium concentrations in the segment, attainment evaluations for Segment 6b should be conducted using all available data from the segment.

The Commission removed the temporary modification for selenium of “current condition” that had previously been in place for Segment 6.

**EXHIBIT 11**  
**RIO GRANDE SILVER, INC**

**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**

**WATER QUALITY CONTROL COMMISSION**

**5 CCR 1002-36**

**REGULATION NO. 36**  
**CLASSIFICATIONS AND NUMERIC STANDARDS**  
**FOR**  
**RIO GRANDE BASIN**

REGION: 8 BASIN: RIO GRANDE	DESIG	CLASSIFICATIONS	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
4a. Mainstem of the Rio Grande from a point immediately above the confluence with Willow Creek to the Rio Grande/Alamosa County line Highway 149 bridge at the Town of South Fork.	<u>UP</u>	Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II)*C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH3(ac/ch)=TVS Cl2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO2=0.05 NO3=10 Cl=250 SO4=WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary Modifications (Type <u>A and B</u> ): As(ch)=existing quality <u>current</u> conditions Cd(ch)=existing quality <u>current conditions</u> Cu(ch)=existing quality Pb(ch)=existing quality <u>current conditions</u> Zn(ch)=existing quality <u>current conditions</u> Expiration Date of 12/31/2013 12/31/2018
4b. Mainstem of the Rio Grande from a point immediately below the Highway 149 bridge at the Town of South Fork to Seven Mile Plaza in Del Norte.		Aq Life Cold 1 Recreation E Water Supply Agriculture	<u>T=TVS(CS-II)*C</u> D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH3(ac/ch)=TVS Cl2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO2=0.05 NO3=10 Cl=250 SO4=WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
4c. Mainstem of the Rio Grande from a point immediately below the Seven Mile Plaza in Del Norte to the Rio Grande/Alamosa County line.		Aq Life Warm 1 Recreation E Water Supply Agriculture	<u>T=TVS(WS-II)*C</u> D.O. = 5.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH3(ac/ch)=TVS Cl2(ac)=0.019 Cl2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO2=0.05 NO3=10 Cl=250 SO4=WS	As(ac)=340 As(ch)=0.02(Trec) Cd(ac/ch)=TVS Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ch)=WS(dis) Mn(ac/ch)=TVS	Hg(ch)=0.01(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS Zn(ac/ch)=TVS	

## **RIO GRANDE SILVER, INC PROPOSED**

### **36.34 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013 EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

#### **BASIS AND PURPOSE**

##### **SEGMENTATION**

Rio Grande River Segment 4, described as the Rio Grande River mainstem from the confluence with Willow Creek to the Rio Grande/Alamosa County line, is an 83-mile long segment which was broken into three segments: 4a, 4b, and 4c. Segment 4 was split into these three segments to reflect the changes in water quality and facilitate the adoption of appropriate temperature standards. Segment 4a now includes the mainstem of the Rio Grande River from a point immediately above the confluence with Willow Creek to the Highway 149 bridge at the Town of South Fork. Segment 4b was created to account for improved water quality and includes the main stem of the Rio Grande River from the Highway 149 bridge at the Town of South Fork to Seven Mile Plaza in Del Norte. Segment 4c was created to address appropriate temperature standards and includes the mainstem of the Rio Grande River from Seven Mile Plaza in Del Norte to the Rio Grande/Alamosa County line.

##### **TEMPORARY MODIFICATIONS**

The Commission extended the existing temporary modifications for arsenic, cadmium, lead, and zinc in Segment 4a to December 31, 2018. The existing copper temporary modification was allowed to expire. The temporary modification narrative value of "existing quality" for these parameters was changed to "current conditions." The temporary modifications meet conditions A and B of Regulation 31.7(3)(a)(ii). With respect to condition A, there is significant uncertainty concerning the water quality necessary to protect current and future uses. Existing aquatic life data show that the Aquatic Life Cold 1 classification is achieved despite existing metals data that exceeds Table Value Standards. Rio Grande Silver, Inc. has committed to perform a Use Attainability Analysis to determine the water quality standards necessary to protect the Aquatic Life Cold Water 1 use classification in Segment 4a. Concerning condition B, there is significant uncertainty as to whether existing quality is the result of natural or irreversible human-induced conditions. Rio Grande Silver, Inc. submitted evidence of natural sources of cadmium and zinc in Segment 4a as well as potentially irreversible human-induced conditions for arsenic, cadmium, lead, and zinc; more specifically, Rio Grande Silver, Inc. demonstrated that Willow Creek, Rio Grande Segment 7, contributes heavy metals loads to Segment 4a. EPA has initiated a Remedial Investigation and Feasibility Study (RI/FS) concerning these metal loads under CERCLA. The RI/FS is evaluating and will identify major sources of metal loading. In addition, Rio Grande Silver, Inc. has committed to perform a source and fate study on Segment 4a to determine, among other things, the extent of natural pollutant loads in this segment. Further, as noted above, EPA is investigating potential remedial actions to address major metals sources in Willow Creek, which contribute substantially to the metal loads in Segments 4a, 4b and 4c. Consequently, there is significant uncertainty concerning the timing of implementing attainable source controls and/or treatment. EPA's RI/FS will further evaluate alternatives for remedial action, and it is anticipated that, following public review of the RI/FS, EPA will issue a Record of Decision selecting a preferred remedial action. The progress on resolving the uncertainty concerning the arsenic, cadmium, lead, and zinc standards will be reviewed at the annual temporary modification hearing held in December 2015.

### **USE PROTECTED DESIGNATION**

The Commission adopted a Use Protected designation for Segment 4a based on water quality data submitted by Rio Grande Silver, Inc. that the existing quality of chronic cadmium, lead, and zinc is worse than that specified in Table III for the Protection of Aquatic Life Class I.

### **REVISED AQUATIC LIFE USE CLASSIFICATION**

A Use Attainability Analysis was submitted by the Division to change the aquatic life use classification in Segment 4c from Cold 1 to Warm 1.

### **TEMPERATURE**

Based on fish species expected to be present as provided by Colorado Parks and Wildlife, temperature data, and other available evidence submitted by the Division, Cold Stream Tier II temperature standards were adopted for Segments 4a and 4b and Warm Stream Tier II temperature standards were adopted for Segment 4c.

# EXHIBIT 12

## HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION

### COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

#### WATER QUALITY CONTROL COMMISSION

5 CCR 1002-36

#### REGULATION NO. 36

#### CLASSIFICATIONS AND NUMERIC STANDARDS

#### FOR

#### RIO GRANDE BASIN

REGION: 8	Desig	Classifications	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: Alamosa River/La Jara Creek/Conejos River			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l			
Stream Segment Description									
3a. Mainstem of Alamosa River from immediately above the confluence with Alum Creek to immediately above the confluence of Wightman Fork.	UP	Aq Life Cold 2 Recreation E Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l E.Coli=126/100ml  <b>Seasonal Stds.</b> <b>12/1-2/28</b> pH=3.52-9.0 <b>3/1-5/31:</b> pH=4.0-9.0 <b>6/1-8/31</b> pH=4.73-9.0 <b>9/1-11/31:</b> pH= 3.94-9.0	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05	As(ac)=340 As(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac)/ch)=TVS  <b>Seasonal Stds.</b> <b>5/1-6/30</b> Al(ch)= <del>3,100</del> <u>3,090</u> (Trec) Al(ch)= <del>9897</del> Al(ac)= <del>4,000</del> <u>3,960</u> (Trec) Al(ac)= <del>464285</del> <b>7/1-4/30</b> Al(ch)= <del>6,200</del> <u>6,120</u> (Trec) Al(ch)= <del>9034,149</del> Al(ac)= <del>19,900</del> <u>21,430</u> (Trec) Al(ac)= <del>6,005</del> <u>5,772</u>	Cu(ac)=TVS Fe(ch)=12000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

REGION: 8		Classifications		NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
Desig			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS ug/l				
BASIN: Alamosa River/La Jara Creek/Conejos River										
Stream Segment Description										
3b. Mainstem of the Alamosa River from immediately above the confluence with the Wightman Fork to immediately above the confluence with Fern Creek.		UP	Aq Life Cold 1 Recreation E Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac)/ch)=TVS  <b>Seasonal Stds.</b> <b>5/1-6/30</b> Al(ch)= <del>3,000</del> <u>3,280</u> (Trec) Al(ch)= <del>414</del> <u>8</u> Al(ac)= <del>4,300</del> <u>4,610</u> (Trec) Al(ac)= <del>416</del> <u>9</u> <b>7/1-4/30</b> Al(ch)= <del>3,000</del> <u>3,140</u> (Trec) Al(ch)= <del>347</del> <u>479</u> Al(ac)= <del>3,400</del> <u>TVS</u> (Trec) Al(ac)= <del>756</del> <u>930</u>	Cu(ac)=TVS Cu(ch)=30 Fe(ch)=12000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary Modification type iii: Se(ch)=existing quality  Expiration Date 12/31/2013
3c. Mainstem of the Alamosa River from immediately below the confluence with Fern Creek to immediately below the confluence with Ranger Creek.		UP	Aq Life Cold 1 Recreation E Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec)  <b>Seasonal Stds.</b> <b>5/1-6/30</b> Al(ch)= <del>4,600</del> <u>4,670</u> (Trec) Al(ch)= <del>427</del> <u>2</u> Al(ac)= <del>6,200</del> <u>6,770</u> (Trec) Al(ac)= <del>874</del> <u>21</u> <b>7/1-4/30</b> Al(ch)= <del>3,700</del> <u>3,720</u> (Trec) Al(ch)= <del>437</del> <u>619</u> Al(ac)= <del>6,700</del> <u>TVS</u> (Trec) Al(ac)= <del>645</del> <u>1,167</u>	CrVI(ac)/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=12000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

REGION: 8		Classifications		NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
BASIN: Alamosa River/La Jara Creek/Conejos River	Desig		PHYSICAL and BIOLOGICAL	INORGANIC mg/l	METALS ug/l					
Stream Segment Description										
3d. Mainstem of the Alamosa River from immediately below the confluence with Ranger Creek to the inlet of Terrace Reservoir			Aq Life Cold 1 Recreation E Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05	As(ac)=340 As(ch)=7.6(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec)  <b>Seasonal Stds.</b> <b>5/1-6/30</b> Al(ch)= <del>3,500</del> <u>4,540</u> (Trec) Al(ch)= <del>8785</del> Al(ac)= <del>5,200</del> <u>6,940</u> (Trec) Al(ac)= <del>9089</del> <b>7/1-4/30</b> Al(ch)= <del>3,100</del> <u>2,290</u> (Trec) Al(ch)= <del>56125</del> Al(ac)= <del>3,700</del> <u>TVS</u> (Trec) Al(ac)= <del>559176</del>	CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=12000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Trec)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
8. Terrace Reservoir.		UP	Aq Life Cold 2 Recreation E Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 E.Coli=126/100ml	NH <sub>3</sub> (ac/ch)=TVS Cl <sub>2</sub> (ac)=0.019 Cl <sub>2</sub> (ch)=0.011 CN=0.005	S=0.002 B=0.75 NO <sub>2</sub> =0.05 NO <sub>3</sub> =10 Cl=250 SO <sub>4</sub> =250	Al(ch)= <del>28</del> Al(ac)= <del>77</del> As(ac)=340 As(ch)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec)  <b>Seasonal Stds.</b> <b>5/1-6/30 Near Surface</b> Al(ch)= <del>4,800</del> <u>1,850</u> (Trec) Al(ac)= <del>4,800</del> <u>TVS</u> (Trec) <u>Al(ch)=68</u> <u>Al(ac)=184</u> <b>5/1-6/30 Near Bottom</b> Al(ch)= <del>4,800</del> <u>4,100</u> (Trec) Al(ac)= <del>5,600</del> <u>5,610</u> (Trec) <u>Al(ch)=48</u> <u>Al(ac)=75</u> <b>7/1-4/30 Near Surface</b> Al(ch)= <del>200</del> <u>240</u> (Trec) Al(ac)= <del>200</del> <u>TVS</u> (Trec) <u>Al(ch)=19</u> <u>Al(ac)=32</u> <b>7/1-4/30 Near Bottom</b> Al(ch)= <del>400</del> <u>560</u> (Trec) Al(ac)= <del>600</del> <u>TVS</u> (Trec) <u>Al(ch)=19</u> <u>Al(ac)=24</u>	CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=200(Trec)	Hg(ch)=0.01(Trec) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	

## HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION PROPOSED

### **36.34 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 10, 2013 RULEMAKING; FINAL ACTION AUGUST 12, 2013 EFFECTIVE DATE JANUARY 1, 2014**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

#### **BASIS AND PURPOSE**

Alamosa River Segments 3a, 3b, 3c, 3d and 8: The Commission adopted site-specific standards developed by the HMWMD for the dissolved and total recoverable forms of aluminum in 2007 pursuant to Regulation 36.27(M). While establishing these site-specific standards, the Commission requested that HMWMD and others continue to collect data in the basin and to update the site-specific 85<sup>th</sup> percentile (chronic) and 95<sup>th</sup> percentile (acute) aluminum standards during the next Rio Grande Basin Rulemaking.

The HMWMD submitted a Use Attainability Analysis (UAA) update for the upper Alamosa River as part of the 2007 Rio Grande Basin Rulemaking. The 2007 UAA update specifically addressed the aluminum sources in the Alamosa River watershed. The objective of the 2007 UAA update was to evaluate the existing conditions and the attainable conditions of the upper Alamosa River with respect to aluminum in recognition of:

- Natural conditions
- Irreversible human-caused sources (abandoned mines)
- The effectiveness of remedial activities both completed and planned at the SMSS

The data and modeling results presented in the 2007 UAA update indicated that, even if all reversible and irreversible human-caused aluminum sources were completely removed from the Alamosa River basin, attainment of the then applicable aluminum standards in the Alamosa River would not be achieved.

Aluminum loading from natural sources located in the Stunner, Summitville and Jasper altered Areas results in elevated aluminum concentrations in Alamosa River Segments 3a, 3b, 3c, 3d and 8. These natural sources of aluminum have existed since well before the advent of mining in the basin and will continue to negatively impact the Alamosa River for the foreseeable future (i.e., longer than 20 years). The HMWMD has continued to implement remedial actions at the Summitville Mine Superfund Site (SMSS) since 2007. Specific actions that impact downstream water quality and have been implemented or enhanced since 2007 include an increased capacity to store contaminated water in the on-site reservoir (the SDI), construction of a new, single stage water treatment plant, and installation of a system to collect seepage from the SDI embankment. These actions have led to an increase in the HMWMD's overall ability to manage water at the SMSS.

The HMWMD and others have collected additional water quality data since 2007. The number of samples used to calculate the aluminum standards in 2007 and the number of samples currently available to assess aluminum standards in Alamosa River Segments 3a, 3b, 3c, 3d and 8 are:



Alamosa River Segment	Number of Samples (n)					
	Dissolved Aluminum			Total Recoverable Aluminum		
	2007 (n)	2013 (n)	Database Increase	2007 (n)	2012 (n)	Database Increase
3a	103	118	15%	104	119	14%
3b	13	23	77%	13	23	77%
3c	21	47	124%	21	47	124%
3d	9	39	333%	9	42	367%
8 (upper)	19	29	53%	19	29	53%
8 (lower)	19	29	53%	19	29	53%

The HMWMD revised the models developed for the 2007 UAA update to reflect advances in water collection, storage and treatment at the SMSS. The HMWMD used the models to recalculate the attainable aluminum concentrations in the Alamosa River watershed based on the inclusion of additional data collected through 2011. In the models, the contribution of aluminum from abandoned mines and SDI embankment seepage is first removed from the existing aluminum load in the Alamosa River to simulate the "Updated Condition 1" from the 2007 UAA update. Using the Updated Condition 1 results, the operation of the new single stage water treatment plant is modeled and the aluminum load in the Alamosa River is reduced appropriately to simulate the "New-Single-Stage Plant" from the 2007 UAA update. Using the reduced loads from the New Single-Stage Plant model, the 85<sup>th</sup> and 95<sup>th</sup> percentile concentrations of dissolved and total recoverable aluminum in the Alamosa River are recalculated. The recalculated percentile aluminum concentrations are an estimate of the attainable aluminum concentrations in the Alamosa River given the natural conditions, the contribution of historic mining operations in the basin, and the technological limitations of water treatment at the SMSS. Independent of the HMWMD's analysis and as part of the June 2013 Rulemaking, the Commission has adopted hardness-based chronic and acute standards for the total recoverable form of aluminum in the Rio Grande Basin. In those Alamosa River segments where these newly adopted table value standards (TVS) are higher than the recalculated 85<sup>th</sup> and 95<sup>th</sup> percentile values, then the TVS represent a more appropriate standard than a site-specific value.

The Commission adopts the following chronic and acute standards in Segments 3a, 3b, 3c, 3d and 8 for the total recoverable and dissolved forms of aluminum during both the snowmelt and non-snowmelt seasons. The snowmelt season is defined as the period May 1 through June 30 with the non-snowmelt season covering the remainder of the year. For Terrace Reservoir (Segment 8), seasonal standards are established for the upper and lower portions in the reservoir.

#### Segment 3a

Segment 3a aluminum concentrations are naturally elevated and would only be slightly reduced if remediation of abandoned mines occurred. Based on data collected from 1993 through 2011, the Commission adopts these seasonal, site-specific standards for Segment 3a:

Season	Form of Aluminum	Chronic Standard (µg/L)	Acute Standard (µg/L)
Snowmelt (5/1 – 6/30)	Dissolved	97	285
	Total Recoverable (TREC)	3,090	3,960
Non-Snowmelt (7/1 – 4/30)	Dissolved	4,149	5,772
	Total Recoverable (TREC)	6,120	21,430

### Segment 3b

Segment 3b aluminum concentrations are influenced by loading originating in Segment 3a, loading from natural sources and abandoned mines in the Summitville Altered Area, and activities at the SMSS. The existing aluminum concentrations in Segment 3b will be reduced through the future operation of the new SDI seepage capture system and the new 1,600 gpm water treatment plant, and optimized water management at the SMSS. Aluminum concentrations would be further reduced if future remediation of abandoned mines occurred. Based on a review of the Segment 3b data, the Commission adopts these seasonal, site-specific standards and TVS for Segment 3b:

<b>Season</b>	<b>Form of Aluminum</b>	<b>Chronic Standard (µg/L)</b>	<b>Acute Standard (µg/L)</b>
Snowmelt (5/1 – 6/30)	Dissolved	48	69
	Total Recoverable (TREC)	3,280	4,610
Non-Snowmelt (7/1 – 4/30)	Dissolved	479	930
	Total Recoverable (TREC)	3,140	TVS

The Segment 3b standards were derived from data collected from 1999 through 2011.

### Segment 3c

The aluminum concentrations in Segment 3c are influenced by loading from Segments 3a and 3b, and from natural sources and abandoned mines in the Jasper Altered Area. The existing aluminum concentrations in Segment 3c will be reduced through remedial actions at the SMSS. Aluminum concentrations would be further reduced if future remediation of abandoned mines occurred. Based on a review of the Segment 3c data, the Commission adopts these seasonal, site-specific standards and TVS for Segment 3c:

<b>Season</b>	<b>Form of Aluminum</b>	<b>Chronic Standard (µg/L)</b>	<b>Acute Standard (µg/L)</b>
Snowmelt (5/1 – 6/30)	Dissolved	72	421
	Total Recoverable (TREC)	4,670	6,770
Non-Snowmelt (7/1 – 4/30)	Dissolved	619	1,167
	Total Recoverable (TREC)	3,720	TVS

The Segment 3c standards were derived from data collected from 1999 through 2011.

### Segment 3d

The aluminum concentrations in Segment 3d are influenced by loading from Segments 3a, 3b and 3c.

The existing aluminum concentrations in Segment 3d will be reduced through remedial actions at the SMSS. Aluminum concentrations would be further reduced if future remediation of abandoned mines occurred. Based on a review of the Segment 3d data, the Commission adopts these seasonal, site-specific standards and TVS for Segment 3d:

<b>Season</b>	<b>Form of Aluminum</b>	<b>Chronic Standard (µg/L)</b>	<b>Acute Standard (µg/L)</b>
Snowmelt (5/1 – 6/30)	Dissolved	85	89
	Total Recoverable (TREC)	4,540	6,940
Non-Snowmelt (7/1 – 4/30)	Dissolved	125	176
	Total Recoverable (TREC)	2,290	TVS

The Segment 3d standards were derived from data collected from 1999 through 2011.

#### Segment 8

The aluminum concentrations in Terrace Reservoir (Segment 8) are influenced by loading from Segments 3a, 3b and 3c.

The existing aluminum concentrations in Segment 8 will be reduced through remedial actions at the SMSS. Aluminum concentrations would be further reduced if future remediation of abandoned mines occurred. Based on a review of the Segment 8 data, the Commission adopts these seasonal, site-specific standards and TVS for the upper portion of Terrace Reservoir (Segment 8):

<b>Season</b>	<b>Form of Aluminum</b>	<b>Chronic Standard (µg/L)</b>	<b>Acute Standard (µg/L)</b>
Snowmelt (5/1 – 6/30)	Dissolved	68	184
	Total Recoverable (TREC)	1,850	TVS
Non-Snowmelt (7/1 – 4/30)	Dissolved	19	32
	Total Recoverable (TREC)	240	TVS

The Commission adopts these seasonal, site-specific standards and TVS for the lower portion of Terrace Reservoir (Segment 8):

<b>Season</b>	<b>Form of Aluminum</b>	<b>Chronic Standard (µg/L)</b>	<b>Acute Standard (µg/L)</b>
Snowmelt (5/1 – 6/30)	Dissolved	48	75
	Total Recoverable (TREC)	4,100	5,610
Non-Snowmelt (7/1 – 4/30)	Dissolved	19	24
	Total Recoverable (TREC)	560	TVS

These standards were derived from data collected in Terrace Reservoir from 1999 through 2011.