



# COLORADO

Water Quality  
Control Commission

Department of Public Health & Environment

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

### SUBJECT:

For consideration of the adoption of revisions to correct typos, formatting and other non-substantive edits, in the Basic Standards and Methodologies for Surface Water, Regulation #31 (5 CCR 1002-31), and in multiple segments of the Classifications and Numeric Standards for:

- Arkansas River Basin, Regulation #32 (5 CCR 1002-32);
- Rio Grande Basin, Regulation #36 (5 CCR 1002-36); and
- South Platte River Basin, Laramie River Basin, Republican River Basin, Smoky Hill River Basin, Regulation #38 (5 CCR 1002-38).

Revisions proposed by the Water Quality Control Division (division), along with proposed Statements of Basis, Specific Statutory Authority and Purpose, are attached to this notice as Exhibits 1 through 4.

In these attachments, proposed new language is shown with double-underlining and proposed deletions are shown with ~~strikeouts~~. Any alternative proposals related to the subject of this hearing will also be considered.

During the commission’s consideration of whether to approve this notice of rulemaking, the commission determined that there is not a likelihood of significant controversy during the rulemaking process. Therefore, the commission has chosen to pursue an alternative rulemaking process consistent with section 24-4-103(4)(a) C.R.S.; and section 21.3(C)(5) of the Procedural Rules. It is the goal of the commission to complete this rulemaking without oral testimony.

### SCHEDULE OF IMPORTANT DATES

|                           |                        |  |
|---------------------------|------------------------|--|
| Written comments due      | 11/29/2017<br>5 pm     | Additional information below.  |
| <b>Rulemaking Hearing</b> | 12/11/2017<br>11:45 am | Florence Sabin Conference Room<br>Department of Public Health and Environment<br>4300 Cherry Creek Drive South<br>Denver, CO 80246 |

### HEARING SUBMITTALS:

For this hearing, the commission will receive all submittals electronically. Submittals must be provided as PDF documents, except for raw data exhibits which may be provided as Excel workbooks. Sumbittals may be emailed to [cdphe.wqcc@state.co.us](mailto:cdphe.wqcc@state.co.us), provided via an FTP site,

CD or flash drive, or otherwise conveyed to the commission office so as to be received no later than the specified date.

PARTY STATUS:

Pursuant to section 21.3(D) of the commission's Procedural Rules, there shall be no party status for this rulemaking proceeding.

WRITTEN COMMENTS:

The commission encourages input from interested members of the public. Written comments should be emailed to [cdphe.wqcc@state.co.us](mailto:cdphe.wqcc@state.co.us) by November 29, 2017.

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.

Dated this 8<sup>th</sup> day of August, 2017 at Denver, Colorado.

WATER QUALITY CONTROL COMMISSION

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Trisha Oeth, Administrator

**EXHIBIT 1**  
**WATER QUALITY CONTROL DIVISION**

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Commission

REGULATION NO. 31 – THE BASIC STANDARDS AND METHODOLOGIES FOR SURFACE WATER

5 CCR 1002-31

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**31.16 TABLES**

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**TABLE I – PHYSICAL AND BIOLOGICAL PARAMETERS**

| TABLE I PHYSICAL AND BIOLOGICAL PARAMETERS   |   |   |                                   |  |  |                 |             |                       |
|--|---|---|-----------------------------------|--|--|-----------------|-------------|-----------------------|
| Parameter  | Recreational  |   |                                   | Aquatic Life   |  |                 | Agriculture | Domestic Water Supply |
|  | CLASS E (Existing Primary Contact) and CLASS U (Undetermined Use) | CLASS P (Potential Primary Contact Use) | CLASS N (Not Primary Contact Use) | CLASS 1 COLD WATER BIOTA   | CLASS 1 WARM WATER BIOTA   | CLASS 2         |             |                       |
| <b>PHYSICAL</b>  |   |   |                                   |  |  |                 |             |                       |
| ...  |   |   |                                   |  |  |                 |             |                       |
| Temperature (°C) <sup>(5)</sup>  |   |   |                                   | <b>Rivers &amp; Streams:</b><br><b>Tier I<sup>a,g</sup>:</b><br>June-Sept = 17.0 (ch), 21.7 (ac)<br>Oct –May = 9.0 (ch), 13.0 (ac)<br><br><b>Tier II<sup>b,g</sup>:</b><br>Apr-Oct = 18.3 (ch), 24.3 (ac)<br>Nov-Mar = 9.0 (ch), 13.0 (ac)<br><br><b>Lakes &amp; Res<sup>h</sup>:</b><br>Apr-Dec = 17.0 (ch), 21.2 (ac)<br>Jan-Mar = 9.0 (ch), 13.0 (ac)<br><br><b>Large Lakes &amp; Res<sup>c,h</sup>:</b><br>Apr-Dec = 18.3 (ch), 24.2 (ac)<br>Jan-Mar = 9.0 (ch), 13.0 (ac) | <b>Rivers &amp; Streams:</b><br><b>Tier I<sup>d</sup>:</b><br>Mar-Nov = 24.2 (ch), 29.0 (ac)<br>Dec-Feb = 12.1 (ch), 24.6 (ac)<br><br><b>Tier II<sup>e</sup>:</b><br>Mar-Nov = 27.5 (ch), 28.6 (ac)<br>Dec-Feb = 13.8 (ch), 25.2 (ac)<br><br><b>Tier III<sup>f</sup>:</b><br>Mar-Nov = 28.7 (ch), 31.8 (ac)<br>Dec-Feb = 14.3 (ch), 24.9 (ac)<br><br><b>Lakes &amp; Res:</b><br>Apr-Dec = 26.2 (ch), 29.3 (ac)<br>Jan-Mar = 13.1 (ch), 24.1 (ac) | Same as Class 1 |             |                       |
| ...  |   |   |                                   |  |  |                 |             |                       |
| Note: Capital letters In parentheses refer to references listed in section 31.16(3); Numbers in parentheses refer to Table 1 footnotes.  |   |   |                                   |  |  |                 |             |                       |
| <sup>a</sup> Cold Stream Tier I temperature criteria apply where cutthroat trout and brook trout are expected to occur.<br><sup>b</sup> Cold Stream Tier II temperature criteria apply where cold-water aquatic species, excluding cutthroat trout or brook trout, are expected to occur.<br><sup>c</sup> Large Cold Lakes temperature criteria apply to lakes and reservoirs with a surface area equal to or greater than 100 acres surface area.<br><sup>d</sup> Warm Stream Tier I temperature criteria apply where common shiner, johnny darter, or orangethroat darter, or stonecat are expected to occur.<br><sup>e</sup> Warm Stream Tier II temperature criteria apply where brook stickleback, central stoneroller, creek chub, finescale dace, longnose dace, mountain sucker, northern redbelly dace, razorback sucker, or white sucker are expected occur, and none of the more thermally sensitive species in Tier I are expected to occur.<br><sup>f</sup> Warm Stream Tier III temperature criteria apply where warm-water aquatic species are expected to occur, and none of the more thermally sensitive species in Tiers I and II are expected to occur.<br><sup>g</sup> Mountain whitefish-based summer temperature criteria [16.9 (ch), 21.2 (ac)] apply when and where spawning and sensitive early life stages of this species are known to occur.<br><sup>h</sup> Lake trout-based summer temperature criteria [16.6 (ch), 22.4 (ac)] apply where appropriate and necessary to protect lake trout from thermal impacts. |   |   |                                   |  |  |                 |             |                       |

**31.56 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 11, 2017 RULEMAKING; FINAL ACTION DECEMBER 11, 2017; EFFECTIVE DATE JANUARY 31, 2018**

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**

In this hearing, the commission made a correction to Regulation No. 31. A typographical error has been identified that does not reflect the commission's intended decisions from a recent hearing.

When the temperature standards were updated in June 2015, a typo was introduced in Table I – Physical and Biological Parameters, Footnote e. The commission corrected the spelling of northern redbelly dace in the species list included in Footnote e.

**EXHIBIT 2**  
**WATER QUALITY CONTROL DIVISION**

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Commission

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

5 CCR 1002-32

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**32.59 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER  
11, 2017 RULEMAKING; FINAL ACTION DECEMBER 11, 2017; EFFECTIVE DATE JANUARY  
31, 2018**

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**

In this hearing, the commission made a correction to Regulation No. 32. A typographical error has been identified that does not reflect the commission's intended decisions from a past hearing.

The commission corrected the spelling of North Rush Creek, which is included in the description of Lower Arkansas Segment 9b.

**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**

**APPENDIX 32-1  
Stream Classifications and Water Quality Standards Tables**

Effective ~~06/30/2017~~ 01/31/2018

# REGULATION #32 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

## Lower Arkansas River Basin

9b. Mainstem of Apache Creek from the source to the confluence with the North Rusk Creek. Mainstem of Breckenridge Creek from the source to the confluence with Horse Creek. Mainstem of Little Horse Creek from the source to the confluence with Horse Creek. Mainstem of Bob Creek from the source to Meredith Reservoir. Mainstem of Big Sandy Creek within Prowers County. Mainstem of Rule Creek from the Bent/Las Animas county line to John Martin Reservoir. Mainstem of Muddy Creek from the south boundary of the Setchfield State Wildlife Area to the confluence with Rule Creek. Mainstem of Caddoa Creek from CC Road to the confluence with the Arkansas River. Mainstem of Cat Creek from the source to the confluence with Clay Creek. Mainstem of Mustang Creek from the source to the confluence with Apishapa River. Mainstem of Chicosa Creek from the source to the Arkansas River. Mainstem of Smith Canyon from the Otero/Las Animas county line to the confluence with the Purgatoire River. Mainstem of Mud Creek from V Road to the confluence with the Arkansas River. Mainstems of Frijole Creek and Luning Arroyo from their sources to their confluences with the Purgatoire River. Mainstem of Blackwell Arroyo from its source to the confluence with Luning Arroyo. Mainstem of San Isidro Creek from the source to the confluence with San Francisco Creek.

| COARLA09B Classifications |                | Physical and Biological |           | Metals (ug/L) |              |         |            |
|---------------------------|----------------|-------------------------|-----------|---------------|--------------|---------|------------|
| Designation               |                | DM                      | MWAT      |               | acute        | chronic |            |
| UP                        | Agriculture    |                         |           |               |              |         |            |
|                           | Aq Life Warm 2 | Temperature °C          | WS-II     | WS-II         | Aluminum     | ---     | ---        |
|                           | Recreation E   |                         | acute     | chronic       | Arsenic      | 340     | 0.02-10(T) |
|                           | Water Supply   | D.O. (mg/L)             | ---       | 5.0           | Beryllium    | ---     | ---        |
| <b>Qualifiers:</b>        |                | pH                      | 6.5 - 9.0 | ---           | Cadmium      | TVS     | TVS        |
| <b>Other:</b>             |                | chlorophyll a (mg/m2)   | ---       | 150           | Chromium III | 50(T)   | TVS        |
|                           |                | E. Coli (per 100 mL)    | ---       | 126           | Chromium VI  | TVS     | TVS        |
|                           |                | <b>Inorganic (mg/L)</b> |           |               | Copper       | TVS     | TVS        |
|                           |                |                         | acute     | chronic       | Iron         | ---     | WS         |
|                           |                | Ammonia                 | TVS       | TVS           | Iron         | ---     | 1000(T)    |
|                           |                | Boron                   | ---       | 0.75          | Lead         | TVS     | TVS        |
|                           |                | Chloride                | ---       | 250           | Manganese    | TVS     | TVS        |
|                           |                | Chlorine                | 0.019     | 0.011         | Manganese    | ---     | WS         |
|                           |                | Cyanide                 | 0.005     | ---           | Mercury      | ---     | 0.01(t)    |
|                           |                | Nitrate                 | 10        | ---           | Molybdenum   | ---     | 160(T)     |
|                           |                | Nitrite                 | ---       | 0.5           | Nickel       | TVS     | TVS        |
|                           |                | Phosphorus              | ---       | 0.17          | Selenium     | TVS     | TVS        |
|                           |                | Sulfate                 | ---       | WS            | Silver       | TVS     | TVS        |
|                           |                | Sulfide                 | ---       | 0.002         | Uranium      | ---     | ---        |
|                           |                |                         |           |               | Zinc         | TVS     | TVS        |

All metals are dissolved unless otherwise noted.  
T = total recoverable  
t = total  
tr = trout

D.O. = dissolved oxygen  
DM = daily maximum  
MWAT = maximum weekly average temperature  
See 32.6 for details on TVS, TVS(tr), WS, temperature standards.



**EXHIBIT 3**  
**WATER QUALITY CONTROL DIVISION**

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Commission

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

5 CCR 1002-36

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**36.6 TABLES**

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**(4) Additional Site-Specific Criteria**

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(c) Site-specific standards and temporary modifications for Rio Grande Segment 7:

**Standards effective through 12/31/2018**

Cadmium(acute/chronic)=TVS  
Copper(acute/chronic)=TVS  
Lead(acute/~~chromium~~chronic)=TVS  
Manganese(acute/chronic)=TVS  
Silver(acute)=TVS  
Zinc(acute/chronic)=TVS

**Tier 1 standards effective 1/1/2019 through 12/31/2020**

**West Willow**

Cadmium(acute/chronic)=163 / 21 ug/L  
Copper(acute/chronic)=227 / 8.9 ug/L  
Lead(acute/~~chromium~~chronic)=1,014 / 104 ug/L  
Manganese(acute/chronic)=TVS  
Silver(acute)=1.3 ug/L  
Zinc(acute/chronic)=24,000 / 5,977 ug/L

**Windy Gulch**

Cadmium(acute/chronic)=9.1 / 6.3 ug/L  
Copper(acute/chronic)=TVS / 5.8 ug/L  
Lead(acute/~~chromium~~chronic)=TVS  
Manganese(acute/chronic)=TVS  
Silver(acute)=TVS  
Zinc(acute/chronic)=2,804 / 1,914 ug/L

### Willow mainstem

#### Low flow (August-March):

Cadmium(acute/chronic)=17.5 / 15.4 ug/L  
Copper(acute/chronic)=TVS  
Lead(acute/~~chromium~~chronic)=TVS / 30 ug/L  
Manganese(acute/chronic)=TVS  
Silver(acute)=TVS  
Zinc(acute/chronic)=4,541 / 3,917 ug/L

#### High flow (April-July):

Cadmium(acute/chronic)=15.6 / 10.3 ug/L  
Copper(acute/chronic)=TVS  
Lead(acute/~~chromium~~chronic)=TVS / 22 ug/L  
Manganese(acute/chronic)=TVS  
Silver(acute)=TVS  
Zinc(acute/chronic)=4,190 / 3,009 ug/L

### **Tier 2 standards effective from 1/1/2021**

### West Willow

#### Low flow (August-March):

Cadmium(acute/chronic)=67 / 50 ug/L  
Copper(acute/chronic)=17.6 / 15.0 ug/L  
Lead(acute/~~chromium~~chronic)=268 / 183 ug/L  
Manganese(acute/chronic)=TVS / 1,779 ug/L  
Silver(acute)=TVS  
Zinc(acute/chronic)=11,873 / 11,022 ug/L

#### High flow (April-July):

Cadmium(acute/chronic)=32 / 19.2 ug/L  
Copper(acute/chronic)=15.0 / 9.4 ug/L  
Lead(acute/~~chromium~~chronic)=103 / 47 ug/L  
Manganese(acute/chronic)=TVS  
Silver(acute)=TVS  
Zinc(acute/chronic)=8,772 / 5,611 ug/L

### Windy Gulch

Cadmium(acute/chronic)=9.1 / 6.3 ug/L  
Copper(acute/chronic)=TVS / 5.8 ug/L  
Lead(acute/~~chromium~~chronic)=TVS  
Manganese(acute/chronic)=TVS  
Silver(acute)=TVS  
Zinc(acute/chronic)=2,804 / 1,914 ug/L

### Willow mainstem

#### Low flow (August-March):

Cadmium(acute/chronic)=13.9 / 11.2 ug/L  
Copper(acute/chronic)=TVS  
Lead(acute/~~chromium~~chronic)=TVS / 18.6 ug/L  
Manganese(acute/chronic)=TVS  
Silver(acute)=TVS  
Zinc(acute/chronic)=2,521 / 1,733 ug/L

High flow (April-July):  
Cadmium(acute/chronic)=14.5 / 8.9 ug/L  
Copper(acute/chronic)=TVS  
Lead(acute/~~chromium~~chronic)=TVS / 13.1 ug/L  
Manganese(acute/chronic)=TVS  
Silver(acute)=TVS  
Zinc(acute/chronic)=3,635 / 2,373 ug/L

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**36.40 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 11, 2017 RULEMAKING; FINAL ACTION DECEMBER 11, 2017; EFFECTIVE DATE JANUARY 31, 2018**

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**

In this hearing, the commission made corrections to Regulation No. 36. Several errors have been identified which do not reflect the commission's intended decisions from recent hearings.

**A. Section 36.6(4)(c)**

The commission corrected a series of typos in Section 36.6(4)(c). Several of the lead values were erroneously written "acute/chromium"; the commission replaced the word "chromium" with the word "chronic".

**B. Alamosa Segment 28**

The commission made corrections to the description of Alamosa Segment 28. A typo was corrected and Alamosa Segment 30 was added as an exception.

**C. Alamosa Segment 29**

The commission made a correction to the description of Alamosa Segment 29. Alamosa Segment 8 was added as an exception.

**D. Closed Basin Segment 3**

The commission made a correction to the description of Closed Basin Segment 3. Closed Basin Segment 1 was added as an exception.

**E. Closed Basin Segment 9a**

The commission made corrections to the description of Closed Basin Segment 9a. The extra "tributaries and wetlands" was removed. In addition, the description of the start of the segment was corrected to "a point immediately above the Cocomongo Mill site" instead of "the source".

**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**

**APPENDIX 36-1  
Stream Classifications and Water Quality Standards Tables**

Effective ~~06/30/2017~~ 01/31/2018

# REGULATION #36 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

## Alamosa River/La Jara Creek/Conejos River Basins

28. 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, and 30.

| CORGAL28   | Classifications | Physical and Biological |           | Metals (ug/L) |              |             |
|--|-----------------|-------------------------|-----------|---------------|--------------|-------------|
| Designation  | Agriculture     | DM                      | MWAT      | acute         | chronic      |             |
| Reviewable   | Aq Life Cold 1  | Temperature °C          | CL        | CL            | Aluminum     | ---         |
|  | Recreation E    | acute                   | chronic   | Arsenic       | 340          | 0.02(T)     |
|  | Water Supply    | D.O. (mg/L)             | ---       | 6.0           | Beryllium    | ---         |
| <b>Qualifiers:</b>   |                 | D.O. (spawning)         | ---       | 7.0           | Cadmium      | TVS(tr) TVS |
| <b>Other:</b>  |                 | pH                      | 6.5 - 9.0 | ---           | Chromium III | 50(T) TVS   |
| *chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area. |                 | chlorophyll a (ug/L)    | ---       | 8*            | Chromium VI  | TVS TVS     |
| *Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.           |                 | E. Coli (per 100 mL)    | ---       | 126           | Copper       | TVS TVS     |
|  |                 | Inorganic (mg/L)        |           | Iron          | ---          | WS          |
|  |                 | acute                   | chronic   | Iron          | ---          | 1000(T)     |
|  |                 | Ammonia                 | TVS       | TVS           | Lead         | TVS TVS     |
|  |                 | Boron                   | ---       | 0.75          | Manganese    | TVS TVS     |
|  |                 | Chloride                | ---       | 250           | Manganese    | ---         |
|  |                 | Chlorine                | 0.019     | 0.011         | Mercury      | ---         |
|  |                 | Cyanide                 | 0.005     | ---           | Molybdenum   | ---         |
|  |                 | Nitrate                 | 10        | ---           | Nickel       | TVS TVS     |
|  |                 | Nitrite                 | ---       | 0.05          | Selenium     | TVS TVS     |
|  |                 | Phosphorus              | ---       | 0.025*        | Silver       | TVS TVS(tr) |
|  |                 | Sulfate                 | ---       | WS            | Uranium      | ---         |
|  |                 | Sulfide                 | ---       | 0.002         | Zinc         | TVS TVS     |

29. All lakes and reservoirs tributary to the Alamosa River, La Jara Creek, or Conejos River, excluding the specific listings in segments 8, 23 through 28, and 30.

| CORGAL29   | Classifications | Physical and Biological |           | Metals (ug/L) |              |             |
|--|-----------------|-------------------------|-----------|---------------|--------------|-------------|
| Designation  | Agriculture     | DM                      | MWAT      | acute         | chronic      |             |
| UP   | Aq Life Warm 2  | Temperature °C          | WL        | WL            | Aluminum     | ---         |
|  | Recreation E    | acute                   | chronic   | Arsenic       | 340          | 100(T)      |
| <b>Qualifiers:</b>   |                 | D.O. (mg/L)             | ---       | 5.0           | Beryllium    | ---         |
| <b>Other:</b>  |                 | pH                      | 6.5 - 9.0 | ---           | Cadmium      | TVS(tr) TVS |
| *chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area. |                 | chlorophyll a (ug/L)    | ---       | 20*           | Chromium III | TVS TVS     |
| *Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.           |                 | E. Coli (per 100 mL)    | ---       | 126           | Chromium III | ---         |
|  |                 | Inorganic (mg/L)        |           | Chromium VI   | TVS          | TVS         |
|  |                 | acute                   | chronic   | Copper        | TVS          | TVS         |
|  |                 | Ammonia                 | TVS       | TVS           | Iron         | ---         |
|  |                 | Boron                   | ---       | 0.75          | Lead         | TVS TVS     |
|  |                 | Chloride                | ---       | ---           | Manganese    | TVS TVS     |
|  |                 | Chlorine                | 0.019     | 0.011         | Mercury      | ---         |
|  |                 | Cyanide                 | 0.005     | ---           | Molybdenum   | ---         |
|  |                 | Nitrate                 | 100       | ---           | Nickel       | TVS TVS     |
|  |                 | Nitrite                 | ---       | 0.05          | Selenium     | TVS TVS     |
|  |                 | Phosphorus              | ---       | 0.083*        | Silver       | TVS TVS(tr) |
|  |                 | Sulfate                 | ---       | ---           | Uranium      | ---         |
|  |                 | Sulfide                 | ---       | 0.002         | Zinc         | TVS TVS     |

All metals are dissolved unless otherwise noted.  
T = total recoverable  
t = total  
tr = trout

D.O. = dissolved oxygen  
DM = daily maximum  
MWAT = maximum weekly average temperature  
See 36.6 for details on TVS, TVS(tr), WS, temperature standards.

# REGULATION #36 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

## Closed Basin-San Luis Valley River Basin

| 3. All tributaries to the Closed Basin excluding the listings in segments <u>1</u> , 2a, 2b, 2c, and 4 through 13.  |                 |                         |           |         |               |                         |
|---|-----------------|-------------------------|-----------|---------|---------------|-------------------------|
| CORGCB03  | Classifications | Physical and Biological |           |         | Metals (ug/L) |                         |
| Designation   |                 |                         | DM        | MWAT    | acute         | chronic                 |
| Reviewable  | Agriculture     |                         |           |         |               |                         |
|   | Aq Life Warm 1  | Temperature °C          | WS-II     | WS-II   | ---           | ---                     |
|   | Recreation E    |                         | acute     | chronic |               |                         |
|   | Water Supply    | D.O. (mg/L)             | ---       | 5.0     | ---           | ---                     |
| <b>Qualifiers:</b>  |                 | pH                      | 6.5 - 9.0 | ---     | TVS           | TVS                     |
| <b>Other:</b>   |                 | chlorophyll a (mg/m2)   | ---       | 150*    | 50(T)         | TVS                     |
| Temporary Modification(s):  |                 | E. Coli (per 100 mL)    | ---       | 126     | TVS           | TVS                     |
| Arsenic(chronic) = hybrid   |                 | <b>Inorganic (mg/L)</b> |           |         | TVS           | TVS                     |
| Expiration Date of 12/31/2021   |                 |                         | acute     | chronic | ---           | WS                      |
| *chlorophyll a (mg/m2)(chronic) = applies only above the facilities listed at 36.5(4).  |                 | Ammonia                 | TVS       | TVS     | ---           | 1000(T)                 |
| *Phosphorus(chronic) = applies only above the facilities listed at 36.5(4).   |                 | Boron                   | ---       | 0.75    | TVS           | TVS                     |
|   |                 | Chloride                | ---       | 250     | TVS           | TVS                     |
|   |                 | Chlorine                | 0.019     | 0.011   | ---           | WS                      |
|   |                 | Cyanide                 | 0.005     | ---     | ---           | 0.01(t)                 |
|   |                 | Nitrate                 | 10        | ---     | ---           | 160(T)                  |
|   |                 | Nitrite                 | ---       | 0.05    | TVS           | TVS                     |
|   |                 | Phosphorus              | ---       | 0.17*   | TVS           | TVS                     |
|   |                 | Sulfate                 | ---       | WS      | TVS           | TVS                     |
|   |                 | Sulfide                 | ---       | 0.002   | ---           | ---                     |
|   |                 |                         |           |         | Uranium       | ---                     |
|   |                 |                         |           |         | Zinc          | TVS                     |
|   |                 |                         |           |         |               | TVS                     |
| 9a. Mainstem, <del>tributaries and wetlands</del> of Kerber Creek, including all tributaries and wetlands, from <u>a point immediately above the Cocomongo Mill site</u> the source to immediately above the confluence of Brewery Creek, excluding the specific listings in segment 8. |                 |                         |           |         |               |                         |
| CORGCB09A   | Classifications | Physical and Biological |           |         | Metals (ug/L) |                         |
| Designation   |                 |                         | DM        | MWAT    | acute         | chronic                 |
| UP  | Agriculture     |                         |           |         |               |                         |
|   | Recreation E    |                         |           |         |               |                         |
|   | Water Supply    |                         | acute     | chronic |               |                         |
| <b>Qualifiers:</b>  |                 | D.O. (mg/L)             | ---       | 3.0     | 340           | 0.02-10(T) <sup>A</sup> |
| <b>Goal Qualifier for Agriculture and Water Supply</b>  |                 | pH                      | 6.5 - 9.0 | ---     | 5.0(T)        | ---                     |
| <b>Other:</b>   |                 | chlorophyll a (mg/m2)   | ---       | 150     | 50(T)         | ---                     |
|   |                 | E. Coli (per 100 mL)    | ---       | 126     | 50(T)         | ---                     |
|   |                 | <b>Inorganic (mg/L)</b> |           |         | ---           | 1000(T)                 |
|   |                 |                         | acute     | chronic | ---           | WS                      |
|   |                 | Ammonia                 | ---       | ---     | 50(T)         | ---                     |
|   |                 | Boron                   | ---       | 0.75    | ---           | WS                      |
|   |                 | Chloride                | ---       | 250     | ---           | 2.0(t)                  |
|   |                 | Chlorine                | ---       | ---     | ---           | 160(T)                  |
|   |                 | Cyanide                 | ---       | ---     | ---           | ---                     |
|   |                 | Nitrate                 | 10        | ---     | ---           | 20(T)                   |
|   |                 | Nitrite                 | ---       | 1.0     | ---           | 50(T)                   |
|   |                 | Phosphorus              | ---       | ---     | ---           | ---                     |
|   |                 | Sulfate                 | ---       | WS      | ---           | 5000(T)                 |
|   |                 | Sulfide                 | ---       | 0.002   |               |                         |

All metals are dissolved unless otherwise noted.  
T = total recoverable  
t = total  
tr = trout

D.O. = dissolved oxygen  
DM = daily maximum  
MWAT = maximum weekly average temperature  
See 36.6 for details on TVS, TVS(tr), WS, temperature standards.

**EXHIBIT 4**  
**WATER QUALITY CONTROL DIVISION**

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Commission

REGULATION NO. 38 – CLASSIFICATIONS AND NUMERIC STANDARDS FOR SOUTH PLATTE RIVER BASIN, LARAMIE RIVER BASIN, REPUBLICAN RIVER BASIN, SMOKY HILL RIVER BASIN

5 CCR 1002-38

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**38.96 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 11, 2017 RULEMAKING; FINAL ACTION DECEMBER 11, 2017; EFFECTIVE DATE JANUARY 31, 2018**

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**

In this hearing, the commission made corrections to Regulation No. 38. Several errors have been identified which do not reflect the commission's intended decisions from recent hearings.

**A. South Platte Segment 16i**

The commission made corrections to the standards applied to Upper South Platte Segment 16i. This segment currently has Agriculture, Aquatic Life Warm 2, and Recreation E uses, and a Fish Ingestion Standards qualifier. However, several Water Supply standards (cadmium, chromium III, lead, and nickel) were erroneously assigned to this segment. Because this segment does not have a Water Supply use, the commission deleted the Water Supply-based standards for cadmium, chromium III, lead, and nickel, and retained the standards to protect Aquatic Life and Agriculture uses. The commission also corrected the chronic arsenic standard. Because this segment has a Fish Ingestion Standards qualifier, the commission replaced the existing Agriculture-based chronic arsenic standard of 100(T) µg/L with the Fish Ingestion-based chronic standard of 7.6(T) µg/L.

**B. South Platte Segment 22a**

The commission made a correction to the qualifiers on Upper South Platte Segment 22a. The commission replaced the "Fish Ingestion Standards" qualifier with the "Water + Fish Standards" qualifier because this segment has a Water Supply use.

**C. Clear Creek Segment 3b**

The commission made a correction to the standards applied to Clear Creek Segment 3b. The acute arsenic standard of 50(T) µg/L was intended to be deleted during the 2015 Regulation No. 38 hearing, but

was erroneously retained. The commission deleted the acute arsenic standard of 50(T) µg/L and retained the arsenic standards to protect the Aquatic Life and Water Supply uses.

**D. Clear Creek Segments 6 and 21**

The commission made a correction to the description of Clear Creek Segment 6. This segment included an exception for Segment 7; this was replaced with Segment 7a.

The commission made a correction to the description of Clear Creek Segment 21. This segment included an exception for Segment 7; this was replaced with Segment 7b.



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

**5 CCR 1002-38**

**REGULATION NO. 38  
CLASSIFICATIONS AND NUMERIC STANDARDS  
FOR  
SOUTH PLATTE RIVER BASIN, LARAMIE RIVER BASIN  
REPUBLICAN RIVER BASIN, SMOKY HILL RIVER BASIN**

**APPENDIX 38-1  
Stream Classifications and Water Quality Standards Tables**

Effective ~~06/30/2017~~ 01/31/2018

# REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

## Upper South Platte River Basin

| 16i. Mainstem of Sand Creek from the confluence with Toll Gate Creek to the confluence with the South Platte River.  |  |                         |         |         |                    |                   |                   |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
|--|--|-------------------------|---------|---------|--------------------|-------------------|-------------------|-----|-----|-------------|-----|-----|--|--|---------|-----|------------------|----|-----------|-----|--|--|-----------|-----|-----|------------------------------------|-----|------|--|--|---------|-----|-----|----------------------|-----|-----|--|--|--------------------|-------------------|----------------|------------------|--|-------|---------|--|--------------|-----------------|-----|--|--|-------|---------|--|-------------|-----|-----|---------|-----|-----|--|--|--------|-----|-----|-------|-----|------|--|--|------|-----|---------|----------|-----|-----|--|--|------|-----|-----|----------|-------|-------|--|--|-----------------|------------------|----------------|---------|-------|-----|--|--|-----------|-----|-----|---------|----|-----|--|--|---------|-----|---------|---------|-----|-----|--|--|---------|-----|-----------|------------|-----|-------|--|--|------------|-----|--------|---------|-----|-----|--|--|--------|-----|-----|---------|-----|-------|--|--|-------------------|----------------|-------------------|--|--|--|--|--|----------|-----|---------|--|--|--|--|--|----------|---------|-----|--|--|--|--|--|--------|-----|-----|--|--|--|--|--|---------|-----|-----|--|--|--|--|--|------|-----|-----|
| COSPUS16I  | Classifications  | Physical and Biological |         |         | Metals (ug/L)      |                   |                   |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Designation  | Agriculture  | DM                      | MWAT    | acute   | chronic            |                   |                   |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Reviewable   | Aq Life Warm 2<br>Recreation E   | WS-II                   | WS-II   |         |                    |                   |                   |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Qualifiers:  |  | acute                   | chronic |         |                    |                   |                   |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Fish Ingestion Standards   |  |                         |         |         |                    |                   |                   |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Other:   |  |                         |         |         |                    |                   |                   |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| <p>*chlorophyll a (mg/m<sup>2</sup>)(chronic) = applies only above the facilities listed at 38.5(4).<br/>                     *Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).<br/>                     *Mercury(chronic) = 0.026 below Brighton Blvd, see section 38.6(4)(f) for mercury assessment locations<br/>                     *Selenium(acute) = See section 38.6(4)(f) for selenium standards and assessment locations.<br/>                     *Selenium(chronic) = See section 38.6(4)(f) for selenium standards and assessment locations.</p> <p>Discharger Specific Variance(s):<br/>                     Selenium (acute) = TVS; no limit<br/>                     Selenium (chronic) = 9: 24 µg/L<br/>                     Expiration Date of 12/31/2023<br/>                     Variance: Selenium = see 38.6(6) for details.</p> | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Temperature °C</th> <th style="text-align: center;">WS-II</th> <th style="text-align: center;">WS-II</th> <th style="text-align: center;">acute</th> <th style="text-align: center;">chronic</th> <th style="text-align: left;">Aluminum</th> <th style="text-align: center;">---</th> <th style="text-align: center;">---</th> </tr> </thead> <tbody> <tr> <td>D.O. (mg/L)</td> <td style="text-align: center;">---</td> <td style="text-align: center;">5.0</td> <td></td> <td></td> <td>Arsenic</td> <td style="text-align: center;">340</td> <td style="text-align: center;"><u>7.6+00(T)</u></td> </tr> <tr> <td>pH</td> <td style="text-align: center;">6.5 - 9.0</td> <td style="text-align: center;">---</td> <td></td> <td></td> <td>Beryllium</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> </tr> <tr> <td>chlorophyll a (mg/m<sup>2</sup>)</td> <td style="text-align: center;">---</td> <td style="text-align: center;">150*</td> <td></td> <td></td> <td>Cadmium</td> <td style="text-align: center;">TVS</td> <td style="text-align: center;">TVS</td> </tr> <tr> <td>E. Coli (per 100 mL)</td> <td style="text-align: center;">---</td> <td style="text-align: center;">126</td> <td></td> <td></td> <td><del>Cadmium</del></td> <td style="text-align: center;"><del>5.0(T)</del></td> <td style="text-align: center;"><del>---</del></td> </tr> <tr> <th colspan="2" style="text-align: center;">Inorganic (mg/L)</th> <th style="text-align: center;">acute</th> <th style="text-align: center;">chronic</th> <td></td> <td>Chromium III</td> <td style="text-align: center;"><u>10050(T)</u></td> <td style="text-align: center;">TVS</td> </tr> <tr> <td></td> <td></td> <th style="text-align: center;">acute</th> <th style="text-align: center;">chronic</th> <td></td> <td>Chromium VI</td> <td style="text-align: center;">TVS</td> <td style="text-align: center;">TVS</td> </tr> <tr> <td>Ammonia</td> <td style="text-align: center;">TVS</td> <td style="text-align: center;">TVS</td> <td></td> <td></td> <td>Copper</td> <td style="text-align: center;">TVS</td> <td style="text-align: center;">TVS</td> </tr> <tr> <td>Boron</td> <td style="text-align: center;">---</td> <td style="text-align: center;">0.75</td> <td></td> <td></td> <td>Iron</td> <td style="text-align: center;">---</td> <td style="text-align: center;">1000(T)</td> </tr> <tr> <td>Chloride</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> <td></td> <td></td> <td>Lead</td> <td style="text-align: center;">TVS</td> <td style="text-align: center;">TVS</td> </tr> <tr> <td>Chlorine</td> <td style="text-align: center;">0.019</td> <td style="text-align: center;">0.011</td> <td></td> <td></td> <td><del>Lead</del></td> <td style="text-align: center;"><del>50(T)</del></td> <td style="text-align: center;"><del>---</del></td> </tr> <tr> <td>Cyanide</td> <td style="text-align: center;">0.005</td> <td style="text-align: center;">---</td> <td></td> <td></td> <td>Manganese</td> <td style="text-align: center;">TVS</td> <td style="text-align: center;">TVS</td> </tr> <tr> <td>Nitrate</td> <td style="text-align: center;">10</td> <td style="text-align: center;">---</td> <td></td> <td></td> <td>Mercury</td> <td style="text-align: center;">---</td> <td style="text-align: center;">0.01(t)</td> </tr> <tr> <td>Nitrite</td> <td style="text-align: center;">---</td> <td style="text-align: center;">0.5</td> <td></td> <td></td> <td>Mercury</td> <td style="text-align: center;">---</td> <td style="text-align: center;">0.026(t)*</td> </tr> <tr> <td>Phosphorus</td> <td style="text-align: center;">---</td> <td style="text-align: center;">0.17*</td> <td></td> <td></td> <td>Molybdenum</td> <td style="text-align: center;">---</td> <td style="text-align: center;">150(T)</td> </tr> <tr> <td>Sulfate</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> <td></td> <td></td> <td>Nickel</td> <td style="text-align: center;">TVS</td> <td style="text-align: center;">TVS</td> </tr> <tr> <td>Sulfide</td> <td style="text-align: center;">---</td> <td style="text-align: center;">0.002</td> <td></td> <td></td> <td><del>Nickel</del></td> <td style="text-align: center;"><del>---</del></td> <td style="text-align: center;"><del>100(T)</del></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Selenium</td> <td style="text-align: center;">---</td> <td style="text-align: center;">varies*</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Selenium</td> <td style="text-align: center;">varies*</td> <td style="text-align: center;">---</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Silver</td> <td style="text-align: center;">TVS</td> <td style="text-align: center;">TVS</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Uranium</td> <td style="text-align: center;">---</td> <td style="text-align: center;">---</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Zinc</td> <td style="text-align: center;">TVS</td> <td style="text-align: center;">TVS</td> </tr> </tbody> </table> | Temperature °C          | WS-II   | WS-II   | acute              | chronic           | Aluminum          | --- | --- | D.O. (mg/L) | --- | 5.0 |  |  | Arsenic | 340 | <u>7.6+00(T)</u> | pH | 6.5 - 9.0 | --- |  |  | Beryllium | --- | --- | chlorophyll a (mg/m <sup>2</sup> ) | --- | 150* |  |  | Cadmium | TVS | TVS | E. Coli (per 100 mL) | --- | 126 |  |  | <del>Cadmium</del> | <del>5.0(T)</del> | <del>---</del> | Inorganic (mg/L) |  | acute | chronic |  | Chromium III | <u>10050(T)</u> | TVS |  |  | acute | chronic |  | Chromium VI | TVS | TVS | Ammonia | TVS | TVS |  |  | Copper | TVS | TVS | Boron | --- | 0.75 |  |  | Iron | --- | 1000(T) | Chloride | --- | --- |  |  | Lead | TVS | TVS | Chlorine | 0.019 | 0.011 |  |  | <del>Lead</del> | <del>50(T)</del> | <del>---</del> | Cyanide | 0.005 | --- |  |  | Manganese | TVS | TVS | Nitrate | 10 | --- |  |  | Mercury | --- | 0.01(t) | Nitrite | --- | 0.5 |  |  | Mercury | --- | 0.026(t)* | Phosphorus | --- | 0.17* |  |  | Molybdenum | --- | 150(T) | Sulfate | --- | --- |  |  | Nickel | TVS | TVS | Sulfide | --- | 0.002 |  |  | <del>Nickel</del> | <del>---</del> | <del>100(T)</del> |  |  |  |  |  | Selenium | --- | varies* |  |  |  |  |  | Selenium | varies* | --- |  |  |  |  |  | Silver | TVS | TVS |  |  |  |  |  | Uranium | --- | --- |  |  |  |  |  | Zinc | TVS | TVS |
| Temperature °C   | WS-II  | WS-II                   | acute   | chronic | Aluminum           | ---               | ---               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| D.O. (mg/L)  | ---  | 5.0                     |         |         | Arsenic            | 340               | <u>7.6+00(T)</u>  |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| pH   | 6.5 - 9.0  | ---                     |         |         | Beryllium          | ---               | ---               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| chlorophyll a (mg/m <sup>2</sup> )   | ---  | 150*                    |         |         | Cadmium            | TVS               | TVS               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| E. Coli (per 100 mL)   | ---  | 126                     |         |         | <del>Cadmium</del> | <del>5.0(T)</del> | <del>---</del>    |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Inorganic (mg/L)   |  | acute                   | chronic |         | Chromium III       | <u>10050(T)</u>   | TVS               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
|  |  | acute                   | chronic |         | Chromium VI        | TVS               | TVS               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Ammonia  | TVS  | TVS                     |         |         | Copper             | TVS               | TVS               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Boron  | ---  | 0.75                    |         |         | Iron               | ---               | 1000(T)           |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Chloride   | ---  | ---                     |         |         | Lead               | TVS               | TVS               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Chlorine   | 0.019  | 0.011                   |         |         | <del>Lead</del>    | <del>50(T)</del>  | <del>---</del>    |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Cyanide  | 0.005  | ---                     |         |         | Manganese          | TVS               | TVS               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Nitrate  | 10   | ---                     |         |         | Mercury            | ---               | 0.01(t)           |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Nitrite  | ---  | 0.5                     |         |         | Mercury            | ---               | 0.026(t)*         |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Phosphorus   | ---  | 0.17*                   |         |         | Molybdenum         | ---               | 150(T)            |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Sulfate  | ---  | ---                     |         |         | Nickel             | TVS               | TVS               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
| Sulfide  | ---  | 0.002                   |         |         | <del>Nickel</del>  | <del>---</del>    | <del>100(T)</del> |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
|  |  |                         |         |         | Selenium           | ---               | varies*           |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
|  |  |                         |         |         | Selenium           | varies*           | ---               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
|  |  |                         |         |         | Silver             | TVS               | TVS               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
|  |  |                         |         |         | Uranium            | ---               | ---               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |
|  |  |                         |         |         | Zinc               | TVS               | TVS               |     |     |             |     |     |  |  |         |     |                  |    |           |     |  |  |           |     |     |                                    |     |      |  |  |         |     |     |                      |     |     |  |  |                    |                   |                |                  |  |       |         |  |              |                 |     |  |  |       |         |  |             |     |     |         |     |     |  |  |        |     |     |       |     |      |  |  |      |     |         |          |     |     |  |  |      |     |     |          |       |       |  |  |                 |                  |                |         |       |     |  |  |           |     |     |         |    |     |  |  |         |     |         |         |     |     |  |  |         |     |           |            |     |       |  |  |            |     |        |         |     |     |  |  |        |     |     |         |     |       |  |  |                   |                |                   |  |  |  |  |  |          |     |         |  |  |  |  |  |          |         |     |  |  |  |  |  |        |     |     |  |  |  |  |  |         |     |     |  |  |  |  |  |      |     |     |

All metals are dissolved unless otherwise noted.  
 T = total recoverable  
 t = total  
 tr = trout

D.O. = dissolved oxygen  
 DM = daily maximum  
 MWAT = maximum weekly average temperature  
 See 38.6 for details on TVS, TVS(tr), WS, temperature standards.

# REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

## Upper South Platte River Basin

| 22a. Lakes and reservoirs in watersheds tributary to the South Platte River from the outlet of Chatfield Reservoir to a point immediately below the confluence with Big Dry Creek, except for specific listings in the subbasins of the South Platte River, and in Segments 16b, 17a, 17b, 17c, 22b, and 23. |                 |                         |           |         |               |         |         |
|--|-----------------|-------------------------|-----------|---------|---------------|---------|---------|
| COSPUS22A  | Classifications | Physical and Biological |           |         | Metals (ug/L) |         |         |
| Designation  |                 | DM                      | MWAT      |         | acute         | chronic |         |
| Reviewable   | Agriculture     |                         |           |         |               |         |         |
|  | Aq Life Warm 2  | Temperature °C          | WL        | WL      | Aluminum      | ---     | ---     |
|  | Recreation E    |                         | acute     | chronic | Arsenic       | 340     | 0.02(T) |
|  | Water Supply    | D.O. (mg/L)             | ---       | 5.0     | Beryllium     | ---     | ---     |
|  | DUWS*           | pH                      | 6.5 - 9.0 | ---     | Cadmium       | TVS     | TVS     |
| <b>Qualifiers:</b>   |                 | chlorophyll a (ug/L)    | ---       | ---     | Cadmium       | 5.0(T)  | ---     |
| <b>Water + Fish Ingestion Standards</b>  |                 | E. Coli (per 100 mL)    | ---       | 126     | Chromium III  | 50(T)   | TVS     |
| <b>Other:</b>  |                 | <b>Inorganic (mg/L)</b> |           |         | Chromium VI   | TVS     | TVS     |
| Temporary Modification(s):   |                 |                         | acute     | chronic | Copper        | TVS     | TVS     |
| Arsenic(chronic) = hybrid  |                 | Ammonia                 | TVS       | TVS     | Iron          | ---     | WS      |
| Expiration Date of 12/31/2021  |                 | Boron                   | ---       | 0.75    | Iron          | ---     | 1000(T) |
| *Classification: DUWS applies to McLellan and Quincy only.   |                 | Chloride                | ---       | 250     | Lead          | TVS     | TVS     |
| *Molybdenum(chronic) = 210 ug/L for McLellan Reservoir   |                 | Chlorine                | 0.019     | 0.011   | Lead          | 50(T)   | ---     |
|  |                 | Cyanide                 | 0.005     | ---     | Manganese     | TVS     | TVS     |
|  |                 | Nitrate                 | 10        | ---     | Manganese     | ---     | WS      |
|  |                 | Nitrite                 | ---       | 0.5     | Mercury       | ---     | 0.01(t) |
|  |                 | Phosphorus              | ---       | ---     | Molybdenum    | ---     | 150(T)  |
|  |                 | Sulfate                 | ---       | WS      | Molybdenum    | ---     | 210(T)* |
|  |                 | Sulfide                 | ---       | 0.002   | Nickel        | TVS     | TVS     |
|  |                 |                         |           |         | Nickel        | ---     | 100(T)  |
|  |                 |                         |           |         | Selenium      | TVS     | TVS     |
|  |                 |                         |           |         | Silver        | TVS     | TVS     |
|  |                 |                         |           |         | Uranium       | ---     | ---     |
|  |                 |                         |           |         | Zinc          | TVS     | TVS     |

All metals are dissolved unless otherwise noted.  
T = total recoverable  
t = total  
tr = trout

D.O. = dissolved oxygen  
DM = daily maximum  
MWAT = maximum weekly average temperature  
See 38.6 for details on TVS, TVS(tr), WS, temperature standards.

# REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

## Clear Creek Basin

| 3b. Mainstem of Leavenworth Creek from source to confluence with South Clear Creek. |                 |                         |              |                |               |         |
|---|-----------------|-------------------------|--------------|----------------|---------------|---------|
| COSPCL03B   | Classifications | Physical and Biological |              |                | Metals (ug/L) |         |
| Designation   | Agriculture     | DM                      | MWAT         | acute          | chronic       |         |
| Reviewable*   | Aq Life Cold 2  | acute                   | chronic      | Aluminum       | ---           | ---     |
|   | Recreation E    | Temperature °C          | CS-I         | CS-I           | Arsenic       | 340     |
|   | Water Supply    | D.O. (mg/L)             | ---          | 6.0            | Arsenic       | 50(T)   |
| Qualifiers:   |                 | D.O. (spawning)         | ---          | 7.0            | Beryllium     | ---     |
| Other:  |                 | pH                      | 6.5 - 9.0    | ---            | Cadmium       | TVS(tr) |
|   |                 | chlorophyll a (mg/m2)   | ---          | 150            | Cadmium       | 5.0(T)  |
|   |                 | E. Coli (per 100 mL)    | ---          | 126            | Chromium III  | 50(T)   |
|   |                 |                         |              |                | Chromium VI   | TVS     |
|   |                 |                         |              |                | Copper        | TVS     |
|   |                 |                         |              |                | Iron          | ---     |
|   |                 |                         |              |                | Iron          | ---     |
|   |                 |                         |              |                | Lead          | TVS     |
|   |                 |                         |              |                | Lead          | 50(T)   |
|   |                 |                         |              |                | Manganese     | TVS     |
|   |                 |                         |              |                | Manganese     | ---     |
|   |                 |                         |              |                | Mercury       | ---     |
|   |                 |                         |              |                | Molybdenum    | ---     |
|   |                 |                         |              |                | Nickel        | TVS     |
|   |                 |                         |              |                | Nickel        | ---     |
|   |                 |                         |              |                | Selenium      | TVS     |
|   |                 |                         |              |                | Silver        | TVS     |
|   |                 |                         |              |                | Uranium       | ---     |
|   |                 |                         |              |                | Zinc          | ---     |
|   |                 |                         |              |                | Zinc          | SSE*    |
|   |                 | <b>Inorganic (mg/L)</b> |              |                |               |         |
|   |                 |                         | <b>acute</b> | <b>chronic</b> |               |         |
|   |                 | Ammonia                 | TVS          | TVS            | Iron          | WS      |
|   |                 | Boron                   | ---          | 0.75           | Iron          | 1000(T) |
|   |                 | Chloride                | ---          | 250            | Lead          | TVS     |
|   |                 | Chlorine                | 0.019        | 0.011          | Lead          | 50(T)   |
|   |                 | Cyanide                 | 0.005        | ---            | Manganese     | TVS     |
|   |                 | Nitrate                 | 10           | ---            | Manganese     | ---     |
|   |                 | Nitrite                 | ---          | 0.05           | Mercury       | ---     |
|   |                 | Phosphorus              | ---          | 0.11           | Mercury       | 0.01(t) |
|   |                 | Sulfate                 | ---          | WS             | Molybdenum    | ---     |
|   |                 | Sulfide                 | ---          | 0.002          | Nickel        | 150(T)  |
|   |                 |                         |              |                | Nickel        | TVS     |
|   |                 |                         |              |                | Nickel        | ---     |
|   |                 |                         |              |                | Selenium      | 100(T)  |
|   |                 |                         |              |                | Selenium      | TVS     |
|   |                 |                         |              |                | Silver        | TVS     |
|   |                 |                         |              |                | Silver        | TVS(tr) |
|   |                 |                         |              |                | Uranium       | ---     |
|   |                 |                         |              |                | Zinc          | ---     |
|   |                 |                         |              |                | Zinc          | SSE*    |
|   |                 |                         |              |                | Zinc          | ---     |

| 6. All tributaries to West Fork Clear Creek, including all wetlands, from the source to the confluence with Clear Creek, except for specific listings in Segments 7a and 8. |                 |                         |              |                |               |         |
|---|-----------------|-------------------------|--------------|----------------|---------------|---------|
| COSPCL06  | Classifications | Physical and Biological |              |                | Metals (ug/L) |         |
| Designation   | Agriculture     | DM                      | MWAT         | acute          | chronic       |         |
| Reviewable*   | Aq Life Cold 1  | acute                   | chronic      | Aluminum       | ---           | ---     |
|   | Recreation E    | Temperature °C          | CS-I         | CS-I           | Arsenic       | 340     |
|   | Water Supply    | D.O. (mg/L)             | ---          | 6.0            | Beryllium     | ---     |
| Qualifiers:   |                 | D.O. (spawning)         | ---          | 7.0            | Cadmium       | TVS(tr) |
| Other:  |                 | pH                      | 6.5 - 9.0    | ---            | Cadmium       | TVS     |
|   |                 | chlorophyll a (mg/m2)   | ---          | 150            | Cadmium       | 5.0(T)  |
|   |                 | E. Coli (per 100 mL)    | ---          | 126            | Chromium III  | ---     |
|   |                 |                         |              |                | Chromium III  | 50(T)   |
|   |                 |                         |              |                | Chromium VI   | TVS     |
|   |                 |                         |              |                | Copper        | TVS     |
|   |                 |                         |              |                | Iron          | TVS     |
|   |                 |                         |              |                | Iron          | ---     |
|   |                 |                         |              |                | Iron          | ---     |
|   |                 |                         |              |                | Lead          | 1000(T) |
|   |                 |                         |              |                | Lead          | TVS     |
|   |                 |                         |              |                | Lead          | 50(T)   |
|   |                 |                         |              |                | Manganese     | ---     |
|   |                 |                         |              |                | Manganese     | TVS     |
|   |                 |                         |              |                | Manganese     | ---     |
|   |                 |                         |              |                | Mercury       | ---     |
|   |                 |                         |              |                | Mercury       | 0.01(t) |
|   |                 |                         |              |                | Molybdenum    | ---     |
|   |                 |                         |              |                | Nickel        | 150(T)  |
|   |                 |                         |              |                | Nickel        | ---     |
|   |                 |                         |              |                | Nickel        | TVS     |
|   |                 |                         |              |                | Nickel        | ---     |
|   |                 |                         |              |                | Selenium      | 100(T)  |
|   |                 |                         |              |                | Selenium      | TVS     |
|   |                 |                         |              |                | Silver        | TVS     |
|   |                 |                         |              |                | Silver        | TVS(tr) |
|   |                 |                         |              |                | Uranium       | ---     |
|   |                 |                         |              |                | Zinc          | ---     |
|   |                 |                         |              |                | Zinc          | TVS     |
|   |                 | <b>Inorganic (mg/L)</b> |              |                |               |         |
|   |                 |                         | <b>acute</b> | <b>chronic</b> |               |         |
|   |                 | Ammonia                 | TVS          | TVS            | Iron          | WS      |
|   |                 | Boron                   | ---          | 0.75           | Iron          | 1000(T) |
|   |                 | Chloride                | ---          | 250            | Lead          | TVS     |
|   |                 | Chlorine                | 0.019        | 0.011          | Lead          | 50(T)   |
|   |                 | Cyanide                 | 0.005        | ---            | Manganese     | TVS     |
|   |                 | Nitrate                 | 10           | ---            | Manganese     | ---     |
|   |                 | Nitrite                 | ---          | 0.05           | Mercury       | ---     |
|   |                 | Phosphorus              | ---          | 0.11           | Mercury       | 0.01(t) |
|   |                 | Sulfate                 | ---          | WS             | Molybdenum    | ---     |
|   |                 | Sulfide                 | ---          | 0.002          | Nickel        | 150(T)  |
|   |                 |                         |              |                | Nickel        | ---     |
|   |                 |                         |              |                | Nickel        | TVS     |
|   |                 |                         |              |                | Nickel        | ---     |
|   |                 |                         |              |                | Selenium      | 100(T)  |
|   |                 |                         |              |                | Selenium      | TVS     |
|   |                 |                         |              |                | Silver        | TVS     |
|   |                 |                         |              |                | Silver        | TVS(tr) |
|   |                 |                         |              |                | Uranium       | ---     |
|   |                 |                         |              |                | Zinc          | ---     |
|   |                 |                         |              |                | Zinc          | TVS     |

All metals are dissolved unless otherwise noted.  
T = total recoverable  
t = total  
tr = trout

D.O. = dissolved oxygen  
DM = daily maximum  
MWAT = maximum weekly average temperature  
See 38.6 for details on TVS, TVS(tr), WS, temperature standards.

# REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

## Clear Creek Basin

| 21. Lakes and reservoirs in the Clear Creek system from sources to the Farmer's Highline Canal diversion in Golden, CO, except as specified in Segments 7b, 20, 22 and 25. Upper Long Lake. |                 |                         |           |           |               |         |         |
|---|-----------------|-------------------------|-----------|-----------|---------------|---------|---------|
| COSPCL21  | Classifications | Physical and Biological |           |           | Metals (ug/L) |         |         |
| Designation   | Agriculture     | DM                      | MWAT      | acute     |               | chronic |         |
| Reviewable*   | Aq Life Cold 1  | CL                      | CL        | Aluminum  | ---           | ---     |         |
|   | Recreation E    | acute                   | chronic   | Arsenic   | 340           | 0.02(T) |         |
|   | Water Supply    | ---                     | 6.0       | Beryllium | ---           | ---     |         |
| Qualifiers:   |                 | D.O. (mg/L)             | ---       | 6.0       | Cadmium       | TVS(tr) | TVS     |
| Other:  |                 | D.O. (spawning)         | ---       | 7.0       | Cadmium       | 5.0(T)  | ---     |
| Temporary Modification(s):  |                 | pH                      | 6.5 - 9.0 | ---       | Chromium III  | 50(T)   | TVS     |
| Arsenic(chronic) = hybrid   |                 | chlorophyll a (ug/L)    | ---       | 8*        | Chromium VI   | TVS     | TVS     |
| Expiration Date of 12/31/2021   |                 | E. Coli (per 100 mL)    | ---       | 126       | Copper        | TVS     | TVS     |
| *chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.  |                 | Inorganic (mg/L)        |           |           | Iron          | ---     | WS      |
| *Designation: 9/30/00 Baseline does not apply   |                 | acute                   | chronic   | Iron      | ---           | 1000(T) |         |
| *Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.  |                 | Ammonia                 | TVS       | TVS       | Lead          | TVS     | TVS     |
|   |                 | Boron                   | ---       | 0.75      | Lead          | 50(T)   | ---     |
|   |                 | Chloride                | ---       | 250       | Manganese     | TVS     | TVS     |
|   |                 | Chlorine                | 0.019     | 0.011     | Manganese     | ---     | WS      |
|   |                 | Cyanide                 | 0.005     | ---       | Mercury       | ---     | 0.01(t) |
|   |                 | Nitrate                 | 10        | ---       | Molybdenum    | ---     | 150(T)  |
|   |                 | Nitrite                 | ---       | 0.05      | Nickel        | TVS     | TVS     |
|   |                 | Phosphorus              | ---       | 0.025*    | Nickel        | ---     | 100(T)  |
|   |                 | Sulfate                 | ---       | WS        | Selenium      | TVS     | TVS     |
|   |                 | Sulfide                 | ---       | 0.002     | Silver        | TVS     | TVS(tr) |
|   |                 |                         |           |           | Uranium       | ---     | ---     |
|   |                 |                         |           |           | Zinc          | TVS     | TVS     |

All metals are dissolved unless otherwise noted.  
T = total recoverable  
t = total  
tr = trout

D.O. = dissolved oxygen  
DM = daily maximum  
MWAT = maximum weekly average temperature  
See 38.6 for details on TVS, TVS(tr), WS, temperature standards.