**DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**

**Water Quality Control Commission**

# REGULATION NO. 37 - CLASSIFICATIONS AND NUMERIC STANDARDS FOR LOWER COLORADO RIVER BASIN

**5 CCR 1002-37**

*[Editor's Notes follow the text of the rules at the end of this CCR Document.]*

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## 37.1 AUTHORITY

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

## 37.2 PURPOSE

These regulations establish classifications and numeric standards for the Colorado River Basin, including all tributaries and standing bodies of water. This includes all or parts of Garfield, Mesa, Rio Blanco, Moffat and Routt Counties. The classifications identify the actual beneficial uses of the water. The numeric standards are assigned to determine the allowable concentrations of various parameters. Discharge permits will be issued by the Water Quality Control Division to comply with basic, narrative, and numeric standards and control regulations so that all discharges to waters of the state protect the classified uses. It is intended that these and all other stream classifications and numeric standards be used in conjunction with and be an integral part of Regulation No. 31 Basic Standards and Methodologies for Surface Water.

## 37.3 INTRODUCTION

These regulations and tables present the classifications and numeric standards assigned to stream segments listed in the attached tables (see Appendix 37-1). As additional stream segments are classified and numeric standards for designated parameters are assigned for this drainage system, they will be added to or replace the numeric standards in the tables in Appendix 37-1. Any additions or revisions of classifications or numeric standards can be accomplished only after public hearing by the Commission and proper consideration of evidence and testimony as specified by the statute and the "basic regulations".

## 37.4 DEFINITIONS

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

## 37.5 BASIC STANDARDS

(1) Temperature

All waters of the Colorado River Basin are subject to the following standard for temperature. (Discharges regulated by permits, which are within the permit limitations, shall not be subject to enforcement proceedings under this standard). Temperature shall maintain a normal pattern of diurnal and seasonal fluctuations with no abrupt changes and shall have no increase in temperature of a magnitude, rate, and duration deemed deleterious to the resident aquatic life. This standard shall not be interpreted or applied in a manner inconsistent with section 25-8-104, C.R.S.

(2) Qualifiers

See Basic Standards and Methodologies for Surface Water for a listing of organic standards at 31.11 and metal standards found at 31.16 Table III. The column in the tables headed "Water + Fish" are presumptively applied to all aquatic life class 1 streams which also have a water supply classification, and are applied to aquatic life class 2 streams which also have a water supply classification, on a case-by-case basis as shown in Appendix 37-1. The column in the tables at 31.11 headed "Fish Ingestion" is presumptively applied to all aquatic life class 1 streams which do not have a water supply classification, and are applied to aquatic life class 2 streams which do not have a water supply classification, on a case-by-case basis as shown in Appendix 37-1.

(3) Uranium

(a) All waters of the Lower Colorado River Basin, are subject to the following basic standard for uranium, unless otherwise specified by a water quality standard applicable to a particular segment. However, discharges of uranium regulated by permits which are within these permit limitations shall not be a basis for enforcement proceedings under this basic standard.

(b) Uranium level in surface waters shall be maintained at the lowest practicable level.

(c) In no case shall uranium levels in waters assigned a water supply classification be increased by any cause attributable to municipal, industrial, or agricultural discharges so as to exceed 16.8-30 µg/l or naturally-occurring concentrations (as determined by the State of Colorado), whichever is greater.

(i) The first number in the 16.8-30 µg/l range is a strictly health-based value, based on the Commission's established methodology for human health-based standards. The second number in the range is a maximum contaminant level, established under the federal Safe Drinking Water Act that has been determined to be an acceptable level of this chemical in public water supplies, taking treatability and laboratory detection limits into account. Control requirements, such as discharge permit effluent limitations, shall be established using the first number in the range as the ambient water quality target, provided that no effluent limitation shall require an "end-of-pipe" discharge level more restrictive than the second number in the range. Water bodies will be considered in attainment of this standard, and not included on the Section 303(d) List, so long as the existing ambient quality does not exceed the second number in the range.

(4) Nutrients

Prior to December 31, 2022 for chlorophyll *a* and prior to December 31, 2027 for total phosphorus, interim nutrient values will be considered for adoption only in the limited circumstances defined at 31.17(e) and (f). These circumstances include headwaters, Direct Use Water Supply (DUWS) Lakes and Reservoirs, and other special circumstances determined by the Commission. Additionally, prior to December 31, 2027, only total phosphorus and chlorophyll a will be considered for adoption. After December 31, 2027, total nitrogen will be considered for adoption per the circumstances outlined in 31.17(g).

Prior to December 31, 2027, nutrient criteria will be adopted for headwaters on a segment by segment basis for the Lower Colorado Basin. Moreover, pursuant to 31.17(e) nutrient standards will only be adopted for waters upstream of all permitted domestic wastewater treatment facilities discharging prior to May 31, 2012 or with preliminary effluent limits requested prior to May 31, 2012, and any non-domestic facilities subject to Regulation 85 effluent limits and discharging prior to May 31, 2012. The following is a list of all permitted domestic wastewater treatment facilities discharging prior to May 31, 2012 or with preliminary effluent limits requested prior to May 31, 2012, and any non-domestic facilities subject to Regulation 85 effluent limits and discharging prior to May 31, 2012 in the Lower Colorado Basin:

| Segment | Permittee | Facility name | Permit No. |
|---|---|---|---|
| COLCLY02 | Craig City of | Craig WWTF | CO0040037 |
| COLCWH07 | Whiteriver RV LLC | Whiteriver RV Sanitation WWTF | COG588048 |
| COLCWH07 | Meeker Sanitation District | Meeker Sanitation District | CO0047139 |
| COLCWH13b | Shell Frontier Oil & Gas Inc | Corral Gulch WWTF | CO0048859 |
| COLCWH21 | Rangely Town of | Rangely WWTF | CO0000010 |
| COLCLC01 | Rifle City of | Rifle Regional WW Reclamation Facility | CO0048151 |
| COLCLC01 | Wastewater Treatment Service LLC | Waste Water Treatment Services WWTF | COG589110 |
| COLCLC01 | Silt Town of | Silt Town of | COG588046 |
| COLCLC01 | West Glenwood Springs SD | West Glenwood Springs SD | COG588008 |
| COLCLC01 | Glenwood Springs City of | Glenwood Springs Regional WWTF | CO0048852 |
| COLCLC01 | Talbott Enterprises Inc | Talbott Enterprises Inc | COG588061 |
| COLCLC01 | New Castle Town of | New Castle WWTF | COG588062 |
| COLCLC01 | Riverbend Water and Sewer Company | Riverbend Subdivision | COG588006 |
| COLCLC02a | Colorado Retail Ventures Services LLC | Cameo Eagle Travel Center | CO0048847 |
| COLCLC02a | DeBeque Town of | DeBeque Town of | CO0048135 |
| COLCLC02a | Battlement Mesa Metro Dist | Battlement Mesa Metro Dist WWTF | COG589086 |
| COLCLC02b | Clifton Sanitation District | Clifton Sanitation District | CO0033791 |
| COLCLC02b | Palisade Town of | Palisade WWTF | CO0000012 |
| COLCLC03 | Fruita City of | Fruita Wastewater Reclamation Facility | CO0048854 |
| COLCLC04e | Tri-State Generation & Transmission Assoc Inc | Rifle Station | CO0042447 |
| COLCLC07a | Weiss & Associates | Canyon Creek Estates WWTF | COG589139 |
| COLCLC13b | Mesa Co/Grand Junction City of | Persigo WWTF | CO0040053 |
| COLCLC15a | Grand Mesa Metro Dist 2 | Grand Mesa Metro Dist 2 | CO0023485 |
| COLCLC15a | Mesa WSD | Mesa WSD | CO0048143 |
| COLCLC16 | Collbran Town of | Valleywide Sewerage System | CO0040487 |

Prior to December 31, 2027:

- For segments located entirely above these facilities, nutrient standards apply to the entire segment.
- For segments with portions downstream of these facilities, *nutrient standards only apply above these facilities*. A note was added to the total phosphorus and chlorophyll a standards in these segments. The note references the table of qualified facilities at 37.5(4).
- For segments located entirely below these facilities, nutrient standards do not apply.

A note was added to the total phosphorus and chlorophyll a standards in lakes segments as nutrients standards apply only to lakes and reservoirs larger than 25 acres surface area.

## 37.6 TABLES

(1) Introduction

The numeric standards for various parameters in this regulation and in the tables in Appendix 37-1 were assigned by the Commission after a careful analysis of the data presented on actual stream conditions and on actual and potential water uses.

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

(2) Abbreviations:

(a) The following abbreviations are used in this regulation and in the tables in Appendix 37-1:

| | | |
|---|---|---|
| ac | = | acute (1-day) |
| °C | = | degrees celsius |
| ch | = | chronic (30-day) |
| CL | = | cold lake temperature tier |
| CLL | = | cold large lake temperature tier |
| CS-I | = | cold stream temperature tier one |
| CS-II | = | cold stream temperature tier two |
| D.O. | = | dissolved oxygen |
| DM | = | daily maximum temperature |
| DUWS | = | direct use water supply |
| E. coli | = | *Escherichia coli* |
| mg/l | = | milligrams per liter |
| MWAT | = | maximum weekly average temperature |
| OW | = | outstanding waters |
| sc | = | sculpin |
| sp | = | spawning |
| SSE | = | site-specific equation |
| T | = | total recoverable |
| t | = | total |
| tr | = | trout |
| TVS | = | table value standard |
| µg/l | = | micrograms per liter |
| UP | = | use-protected |
| WL | = | warm lake temperature tier |
| WS | = | water supply |
| WS-I | = | warm stream temperature tier one |
| WS-II | = | warm stream temperature tier two |
| WS-III | = | warm stream temperature tier three |

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

| | | |
|---|---|---|
| Iron | = | WS |
| | = | WS |
| Manganese | | |
| Sulfate | = | WS |

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

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

(ii) Iron = 300 µg/l (dissolved)
Manganese = 50 µg/l (dissolved)
Sulfate = 250 mg/l

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

(c) Temporary Modification for Water + Fish Chronic Arsenic Standard

(i) The temporary modification for chronic arsenic standards applied to segments with an arsenic standard of 0.02 µg/l that has been set to protect the Water+Fish qualifier is listed in the temporary modification and qualifiers column as As(ch)=hybrid.

(ii) For discharges existing on or before 6/1/2013, the temporary modification is: As(ch)=current condition, expiring on 12/31/2024. Where a permit for an existing discharge is reissued or modified while the temporary modification is in effect, the division will include additional permit Terms and Conditions, which may include requirements for additional monitoring, source identification, and characterization of source control and treatment options for reducing arsenic concentrations in effluent.

(iii) For new or increased discharges commencing on or after 6/1/2013, the temporary modification is: As(ch)=0.02-3.0 µg/l (Trec), expiring on 12/31/2024.

(a) The first number in the range is the health-based water quality standard previously adopted by the Commission for the segment.

(b) The second number in the range is a technology based value established by the Commission for the purpose of this temporary modification.

(c) Control requirements, such as discharge permit effluent limitations, shall be established using the first number in the range as the ambient water quality target, provided that no effluent limitation shall require an "end-of-pipe" discharge level more restrictive than the second number in the range.

(3) Table Value Standards

In certain instances in the tables in Appendix 37-1, the designation "TVS" is used to indicate that for a particular parameter a "table value standard" has been adopted. This designation refers to numerical criteria set forth in the Basic Standards and Methodologies for Surface Water. The criteria for which the TVS are applicable are on the following table.

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

<table>
<tr><th>PARAMETER(1)</th><th>TABLE VALUE STANDARDS(2)(3)</th></tr>
<tr><td>Aluminum (Trec)</td><td>Acute = $e^{(1.3695[\ln(\text{hardness})]+1.8308)}$<br>pH equal to or greater than 7.0<br>Chronic=$e^{(1.3695[\ln(\text{hardness})]-0.1158)}$<br>pH less than 7.0<br>Chronic= $e^{(1.3695[\ln(\text{hardness})]-0.1158)}$ or 87, whichever is more stringent</td></tr>
<tr><td>Ammonia(4)</td><td>Cold Water = (mg/l as N)Total<br>$acute = \frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}}$<br>$chronic = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * MIN\left(2.85,\ 1.45*10^{0.028(25-T)}\right)$</td></tr>
<tr><td></td><td>Warm Water = (mg/l as N)Total<br>$acute = \frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}$</td></tr>
<tr><td></td><td>$chronic\ \ (Apr1-Aug31) = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * MIN\left(2.85,\ 1.45*10^{0.028(25-T)}\right)$<br>$chronic\ (Sep1-Mar31) = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * 1.45*10^{0.028*(25-MAX(T,\ 7))}$</td></tr>
<tr><td>Cadmium</td><td>Acute(warm)(5) = (1.136672-(ln(hardness)* 0.041838))*$e^{(0.9789*\ln(\text{hardness})-3.443)}$<br>Acute(cold)(5) = (1.136672-(ln(hardness)* 0.041838))*$e^{(0.9789*\ln(\text{hardness})-3.866)}$<br>Chronic = (1.101672-(ln(hardness)*0.041838))* $e^{(0.7977*\ln(\text{hardness})-3.909)}$</td></tr>
<tr><td>Chromium III(6)</td><td>Acute = $e^{(0.819[\ln(\text{hardness})]+2.5736)}$<br>Chronic = $e^{(0.819[\ln(\text{hardness})]+0.5340)}$</td></tr>
<tr><td>Chromium VI(6)</td><td>Acute = 16<br>Chronic = 11</td></tr>
<tr><td>Copper</td><td>Acute = $e^{(0.9422[\ln(\text{hardness})]-1.7408)}$<br>Chronic = $e^{(0.8545[\ln(\text{hardness})]-1.7428)}$</td></tr>
<tr><td>Lead</td><td>Acute = (1.46203-[ln(hardness)*(0.145712)])*$e^{(1.273[\ln(\text{hardness})]-1.46)}$<br>Chronic =(1.46203-[ln (hardness)*(0.145712)])*$e^{(1.273[\ln(\text{hardness})]-4.705)}$</td></tr>
<tr><td>Manganese</td><td>Acute = $e^{(0.3331[\ln(\text{hardness})]+6.4676)}$<br>Chronic = $e^{(0.3331[\ln(\text{hardness})]+5.8743)}$</td></tr>
<tr><td>Nickel</td><td>Acute = $e^{(0.846[\ln(\text{hardness})]+2.253)}$<br>Chronic = $e^{(0.846[\ln(\text{hardness})]+0.0554)}$</td></tr>
<tr><td>Selenium(7)</td><td>Acute = 18.4<br>Chronic = 4.6</td></tr>
<tr><td>Silver</td><td>Acute = ½$e^{(1.72[\ln(\text{hardness})]-6.52)}$<br>Chronic = $e^{(1.72[\ln(\text{hardness})]-9.06)}$<br>Chronic(Trout) = $e^{(1.72[\ln(\text{hardness})]-10.51)}$</td></tr>
<tr><td>Temperature</td><td colspan="5"><table>
<tr><th>TEMPERATURE TIER</th><th>TIER CODE</th><th>SPECIES EXPECTED TO BE PRESENT</th><th>APPLICABLE MONTHS</th><th>TEMPERATURE STANDARD (°C) (MWAT)</th><th>(DM)</th></tr>
<tr><td rowspan="2">Cold Stream Tier I(8)</td><td rowspan="2">CS-I</td><td rowspan="2">brook trout, cutthroat trout</td><td>June – Sept.</td><td>17.0</td><td>21.7</td></tr>
<tr><td>Oct. – May</td><td>9.0</td><td>13.0</td></tr>
<tr><td>Cold Stream</td><td>CS-II</td><td>all other cold-water</td><td>April – Oct.</td><td>18.3</td><td>24.3</td></tr>
</table></td></tr>
</table>

| | | | | | | |
|---|---|---|---|---|---|---|
| | Tier II[8] | | species | Nov. – March | 9.0 | 13.0 |
| | Cold Lake | CL | brook trout, brown trout, cutthroat trout, lake trout, rainbow trout, Arctic grayling, sockeye salmon | April – Dec. | 17.0 | 21.2 |
| | | | | Jan. – March | 9.0 | 13.0 |
| | Cold Large Lake (>100 acres surface area) | CLL | brown trout, lake trout, rainbow trout | April – Dec. | 18.3 | 4.2 |
| | | | | Jan. – March | 9.0 | 13.0 |
| | Warm Stream Tier I | WS-I | common shiner, Johnny darter, orangethroat darter, stonecat | March – Nov. | 24.2 | 29.0 |
| | | | | Dec. – Feb. | 12.1 | 24.6 |
| | Warm Stream Tier II | WS-II | brook stickleback, central stoneroller, creek chub, longnose dace, Northern redbelly dace, finescale dace, razorback sucker, white sucker, mountain sucker | March – Nov. | 27.5 | 28.6 |
| | | | | Dec. – Feb. | 13.8 | 25.2 |
| | Warm Stream Tier III | WS-III | all other warm-water Species | March – Nov. | 28.7 | 31.8 |
| | | | | Dec. – Feb. | 14.3 | 24.9 |
| | Warm Lakes | WL | yellow perch, walleye, pumpkinseed, smallmouth bass, striped bass, white bass, largemouth bass, bluegill, spottail shiner, stonecat, northern pike, tiger muskellunge, black crappie, common carp, gizzard shad, sauger, white crappie, wiper | April – Dec. | 26.2 | 29.3 |
| | | | | Jan. – March | 13.1 | 24.1 |
| Uranium | Acute = $e^{(1.1021[\ln(\text{hardness})]+2.7088)}$<br>Chronic = $e^{(1.1021[\ln(\text{hardness})]+2.2382)}$ | | | | | |
| Zinc | Acute = $0.978*e^{(0.9094[\ln(\text{hardness})]+0.9095)}$<br>Chronic = $0.986*e^{(0.9094[\ln(\text{hardness})]+0.6235)}$<br>if hardness less than 102 mg/l $CaCO^3$<br>Chronic (sculpin) = $e^{(2.140[\ln(\text{hardness})]-5.084)}$ | | | | | |

TABLE VALUE STANDARDS - FOOTNOTES

(1) Metals are stated as dissolved unless otherwise specified.

(2) Hardness values to be used in equations are in mg/l as calcium carbonate and shall be no greater than 400 mg/L. The hardness values used in calculating the appropriate metal standard should be based on the lower 95 per cent confidence limit of the mean hardness value at the periodic low flow criteria as determined from a regression analysis of site-specific data. Where insufficient site-specific data exists to define the mean hardness value at the periodic low flow criteria, representative regional data shall be used to perform the regression analysis. Where a regression analysis is not appropriate, a site-specific method should be used. In calculating a hardness value, regression analyses should not be extrapolated past the point that data exist.

(3) Both acute and chronic numbers adopted as stream standards are levels not to be exceeded more than once every three years on the average.

(4) For acute conditions the default assumption is that salmonids could be present in cold water segments and should be protected, and that salmonids do not need to be protected in warm water segments. For chronic conditions, the default assumptions are that early life stages could be present all year in cold water segments and should be protected. In warm water segments the default assumption is that early life stages are present and should be protected only from April 1 through August 31. These assumptions can be modified by the Commission on a site-specific basis where appropriate evidence is submitted.

(5) The acute(warm) cadmium equation applies to segments classified as Aquatic Life Warm Class 1 or 2. The acute(cold) cadmium equation applies to segments classified as Aquatic Life Cold Class 1 or 2.

(6) Unless the stability of the chromium valence state in receiving waters can be clearly demonstrated, the standard for chromium should be in terms of chromium VI. In no case can the sum of the instream levels of Hexavalent and Trivalent Chromium exceed the water supply standard of 50 µg/l total chromium in those waters classified for domestic water use.

(7) Selenium is a bioaccumulative metal and subject to a range of toxicity values depending upon numerous site-specific variables.

(8) 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.

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(4) Site-specific Standards, Assessment Locations, and Assessment Criteria

(a) White River Segment 13b Selenium Assessment Thresholds and Locations

Corral Gulch, Se(ch)=5.7 µg/l
Assessment location: Corral Gulch at the mouth.
Duck Creek, Se(ch)=7.9 µg/l
Assessment location: Duck Creek at the mouth.
Yellow Creek, Se(ch)=6.9 µg/l
Assessment location: Yellow Creek upstream from the confluence with Barcus Creek.
Greasewood Creek, Se(ch)=6.0 µg/l
Assessment location: Greasewood Creek at the mouth.

(b) White River Segment 13c Iron Assessment Threshold and Location

Yellow Creek, Fe(ch)=1625 µg/l
Assessment location: Yellow Creek at the mouth.

(c) Lower Colorado Segment 4e Iron Standards and Assessment

Unnamed tributary, Iron (chronic) = 3500 (T) µg/L, assessment location as follows:

- UT-2: Unnamed tributary, immediately downstream of the Tri-State Rifle Station discharge (39.519572, -107.729424)

Dry Creek and remaining tributaries and wetlands, Iron (chronic) = 5900 (T) µg/L, assessment location as follows:

- DC-2: Dry Creek, downstream of dry tributary channel entering from the east from the Garfield County Airport (39.523944, -107.73496)

(d) Lower Colorado River Segment 1: Temperature Standards

Lower Colorado River from the confluence with the Roaring Fork River to Elk Creek

DM = 21.2 and MWAT = 16.9 from 4/1 – 5/31

DM and MWAT = CS-II from 6/1 – 9/30

DM = 21.2 and MWAT = 16.9 from 10/1 – 10/31

DM and MWAT = CS-II from 11/1 – 3/31

All other locations DM and MWAT = CS-II

(e) Lower Yampa River Segment 3g: Iron Standards and Assessment Locations

Iron Standards:

Collom Gulch from the source to the diversion structure at 40.333977, -107.860833:

March-May, Iron(chronic) = 1500 µg/L, median of all data

June-February, Iron(chronic) = 1000(T)

Iron Assessment Location:

Collom Gulch at County Road 32: located at 40.323530, -107.877200

(5) Stream Classifications and Water Quality Standards Tables

The stream classifications and water quality standards tables in Appendix 37-1 are incorporated herein by reference.

The following is information regarding duration and measured form of standards in Appendix 37-1:

(a) *E. coli* criteria and resulting standards for individual water segments, are established as indicators of the potential presence of pathogenic organisms. Standards for *E. coli* are expressed as a two-month geometric mean. Site-specific or seasonal standards are also two-month geometric means unless otherwise specified.

(b) All phosphorus standards are based upon the concentration of total phosphorus.

(c) The pH standards of 6.5 (or 5.0) and 9.0 are an instantaneous minimum and maximum, respectively to be applied as effluent limits. In determining instream attainment of water quality standards for pH, appropriate averaging periods may be applied, provided that beneficial uses will be fully protected.

(d) All mercury standards apply to the total recoverable fraction of all forms, both organic and inorganic, of mercury in water.

(e) All ammonia, nitrate, and nitrite standards are based upon the concentration reported as nitrogen.

**37.7 – 37.9 RESERVED**

## 37.10 STATEMENT OF BASIS AND PURPOSE

### I. Introduction

These stream classifications and water quality standards for State Waters of the Colorado River Basin below Glenwood Springs; the Yampa River Basin below Elkhead Creek; the Green River; and the entire White River drainage including all tributaries and standing bodies of water associated with those rivers in all of Moffat, Rio Blanco, Garfield, and portions of Mesa and Routt Counties implement requirements of the Colorado Water Quality Control Act C.R.S. 1973, 25-8-101 et seq. (Cum. Supp. 1981). For the sake of brevity this regulation shall be referred to as "The Lower Colorado". Regulations Establishing Basic Standards and an Antidegradation Standard and Establishing a System for Classifying State Waters, for Assigning Standards, and for Granting Temporary Modifications (the "Basic Regulations")

The Basic Regulations establish a system for the classification of State Waters according to the beneficial uses for which they are suitable or are to become suitable, and for assigning specific numerical water quality standards according to such classifications. Because these stream classifications and standards implement the Basic Regulations, the statement of basis and purpose (Section 3.1.16) of those regulations must be referred to for a complete understanding of the basis and purpose of the regulations adopted herein. Therefore, Section 3.1.16 of the Basic Regulations is incorporated by reference. The focus of this statement of basis and purpose is on the scientific and technological rationale for the specific classifications and standards in the Lower Colorado.

Public participation was a significant factor in the development of these regulations. A lengthy record was built through a public hearing held October 11–13, 1982. A total of 25 entities requested and were granted party status by the Commission in accordance with C.R.S. 1973, 24-4-101 et seq. (Cum. Supp. 1980). The record established in the hearing forms the basis for the classifications and standards adopted.

### II. General Considerations

1. The Commission determined that consistant with the policy of January 5, 1981, entitled: "A Policy of Water Quality and Quantity Issues", and section 25-8-503(5) C.R.S. 1973, these water quality classifications and standards adopted for the Lower Colorado River Basin are not intended to be control regulations nor intended to apply to dams, diversion, carriage, and exchange of water from or into streams, lakes, reservoirs, or conveyance structures, or storage of water in or the release of water from lakes, reservoirs, or conveyance structures, in the exercise of water rights.

### III. Definition of Stream Segments

1. For purposes of adopting classifications and water quality standards, the streams and water bodies are identified according to river basin and specific water segments.

2. Within each river basin, specific water segments are defined, for which use classifications and numeric water quality standards, if appropriate, are adopted. These segments may constitute a specified stretch of a river mainstem, a specific tributary, a specific lake or reservoir, or a generally defined grouping of waters within the basin (e.g., a specific mainstem segment and all tributaries flowing into that mianstem segment).

3. Segments are generally defined according to the points at which the use, water quality, or other stream characteristics change significantly enough to require a change in use classification and/or water quality standards. In many cases, such transition points can be specifically identified from available data. In other cases the delineation of segments is based upon best judgments of the points where instream changes in uses, water quality, or other stream characteristics occur.

## IV. Use Classifications and Standards — Generally

1. Initially, recommendations for stream segmentation and use classifications are a result of input from 208 plans, water quality data and reports, the Division of Wildlife, and personal knowledge. After a basic outline of stream segments and use classifications was prepared, water quality data from a variety of sources was compared against the "table value" for the proposed use. "Table value" refers to the four tables attached to the "Basic Regulations". In general, if the mean plus one standard deviation ($\bar{x}$ + s) of the available data for the segment indicated that a particular parameter did not exceed the "table value" for that recommended use, the "table value" was listed as the recommended standard for the parameter. If the $\bar{x}$ + s computation indicated that the instream concentrations of the parameter exceeded the "table value" and yet the use to be protected by that parameter was in place, then the $\bar{x}$ + s value was recommended as the standard for that parameter.

   Conversely, if the ambient quality ($\bar{x}$ + s) for a certain parameter exceeded the "table value" for the protection of a use, and there is information that the proposed use is not in place, the use classification was changed or temporary modifications to the parameters were established. Ambient quality is generally defined as the quality attributable to natural conditions and/or uncontrollable non-point sources.

2. The use classifications have been established in accordance with the provisions of Section 203 of the Water Quality Control Act and Section 3.1.6 and 3.1.13 of the Basic Regulations.

3. In most cases upstream segments of a stream are generally the same as, or higher in classification, than downstream segments in order to protect downstream uses. In a few cases, tributaries are classified at lower classifications than mainstems where flow from tributaries does not threaten the quality of mainstem waters where the evidence indicates that lower classification for the tributaries is appropriate.

4. The Commission has determined that it has the authority to assign the classification "High Quality Waters - Class 1" and "High Quality Waters - Class 2" where the evidence indicates that the requirements of Sections 3.1.13(1)(e) of the basic regulations are met. The appropriateness of this classification has been determined on a case-by-case basis. Streams have in some cases been classified "High Quality - Class 2" for one or more of the following reasons:

   (a) to facilitate the enjoyment and use of the scenic and natural resources of the State in accordance with the Legislative Declaration of the Colorado Water Quality Control Act (25-8-102(1) C.R.S. 1973.

   (b) to provide a high degree of protection deserving of wilderness areas which are a resource providing a unique experience.

   (c) they contain threatened species or apply to wild and scenic river study areas or wilderness areas.

   (d) the concern of the USFS that High Quality 2 classification will unduly burden their management of multiple use areas is not well founded. This is because those historical activities on Forest Service land, i.e. grazing, mineral exploration, trail and road maintenance, are considered as a part of existing ambient water quality conditions and are non-point sources which are presently not subject to any Water Quality Control Commission regulations.

(e) a question exists as to whether existing diversion structures can be maintained consistent with a “High Quality - Class 1” designation. Because of the questions regarding authority to regulate diversions, the Class 1 designation was deemed potentially too rigid. The Commission recognizes its authority to upgrade any segments needing higher levels of protection if and when it is appropriate to do so.

Where High Quality 1 or 2 may not have been proposed, even if the waters meet the criteria in 3.1.13(1)(e) of the Basic Regulation, it was deemed important in those cases to assign specific water quality standards to protect the highest specific use classifications, and only specific use classifications provide the mechanism for assigning such standards. The use of high quality is optional at the discretion of the Commission.

5. In accordance with 25-8-104, C.R.S. 1973, the Commission intends that no provision of this regulation shall be interpreted so as to supercede, abrogate, or impair rights to divert water and apply water to beneficial uses.

6. Recreation — Class 1 and Class 2

In addition to the significant distinction between Recreation - Class 1 and Recreation - Class 2 as defined in Section 3.1.13(1) of the Basic Regulations, the difference between the two classifications in terms of water quality standards is the fecal coliform parameter. Recreation - Class 1 generally has a standard of 200 fecal coliform per 100 ml; Recreation - Class 2 generally has a standard of 2000 fecal coliform per 100 ml.

In accordance with the Colorado Water Quality Control Act, the Commission has decided to classify as Recreation - Class 2 those stream segments where primary contact recreation does not exist and cannot be reasonably expected to exist in the future, regardless of water quality. The Commission has decided to classify as Recreation - Class 1 only those stream segments where primary contact recreation actually exists, or could reasonably be expected to occur. The reasons for the application of Recreation Class 2 are as follows:

(a) The mountain streams in this region are generally unsuitable for primary contact recreation because of low water temperature and low stream flows.

(b) Fecal coliform is an indicator organism. Its presence does not always indicate the presence of pathogens. This depends on the source of the fecal coliform. If the source is agricultural runoff as opposed to human sewage, there may be no health hazard and therefore no significant need to reduce the presence of fecal coliform to the 200 per 100 ml. level. Also, control of nonpoint sources is very difficult.

(c) Treating sewage to meet the 200 per 100 ml. level generally means the treatment plant must heavily chlorinate its effluent to meet the limitation. The presence of chlorine in the effluent can be significantly detrimental to aquatic life. Post-treatment of effluent to meet the residual chlorine standard is expensive and often results in the addition of more chemicals which have a negative effect on water quality and can be detrimental to aquatic life. Therefore, reducing the need for chlorine is beneficial to aquatic life.

(d) Even where a treatment plant in this region might treat its effluent to attain the standard of 200 per 100 ml., agricultural runoff and irrigation return flows below the plant may result in the rapid increase of fecal coliform levels. Therefore, the benefits of further treatment are questionable.

(e) The fecal coliform standard of 2000 per 100 ml. has been established to provide general public health protection. There is no significant impact on domestic drinking water treatment plants because they provide complete disinfection. The standard of 200 per 100 ml. is not intended to protect the water supply classification.

Recreation on private lands will be dealt with by the Commission on a segment by segment basis.

7. Water Supply Classification

The Commission finds that Colorado is a water short state and that it is experiencing considerable growth which places additional burdens on already scarce water supplies. These considerations mitigate in favor of a conservative approach to protecting future water supplies. Where existing water quality is adequate to protect this use, and in the absence of dischargers to these segments or testimony in opposition to such classification, the water supply use has been assigned because it is reasonable to expect that it may exist in the future in such cases. For stream segments that flow through, or in the vicinity of, municipalities, this conclusion is further justified, since there is a reasonable probability that the use exists or will exist. Where the water supply classification has been opposed, the Commission has evaluated the evidence on a site specific basis, and in many cases the classification has been removed.

## V. Water Quality Standards — Generally

1. The water quality standards for classified stream segments are defined as numeric values for specific water quality parameters. These numeric standards are adopted as the limits for chemical constituents and other parameters necessary to protect adequately the classified uses in all stream segments.

2. Not all of the parameters listed in the “Tables” appended to the Basic Regulations are assigned as water quality standards. This complies with Section 3.1.7(c) of the Basic Regulations.

Numeric standards have been assigned for the full range of parameters to a number of segments where little or no data existed specific to the segment. In these cases, there was reason to believe that the classified uses were in place or could be reasonably expected, and that the existing water quality was as good as or better than the numeric standards assigned.

3. A numeric standard for the temperature parameter has been adopted as a basic standard applicable to all waters of the region in the same manner as the basic standards in Section 3.1.11 of the Basic Regulations.

The standard of a 3°C temperature increase above ambient water temperature as defined is generally valid based on the data regarding that temperature necessary to support an “Aquatic Life - Class 1” fishery. The standard takes into account daily and seasonal fluctuations; however, it is also recognized that the 3°C limitation as defined is only appropriate as a guideline and cannot be rigidly applied if the intention is to protect aquatic life. In winter, for example, warm water discharges may be beneficial to aquatic life. It is the intention of the Commission in adopting the standard to prevent radical temperature changes in short periods of time which are detrimental to aquatic life.

4. Numeric standards for seventeen organic parameters have been adopted as basic standards applicable to all waters of the region in the same manner as the basic standards in Section 3.1.11 of the Basic Regulations. These standards are essential to a program designed to protect the waters of the State regardless of specific use classifications because they describe the fundamental conditions that all waters must meet to be suitable for any use.

It is the decision of the Commission to adopt these standards as basic standards because the presence of the organic parameters is not generally suspected. Also, the values assigned for these standards are not detectable using routine methodology and there is some concern regarding the potential for monitoring requirements if the standards are placed on specific streams. This concern should be alleviated by Section 3.1.14(5) of the Basic Regulations but there is uncertainty regarding the interpretation of those numbers by other entities. Regardless of these concerns, because these constituents are highly toxic, there is a need for regulating their presence in State waters. Because the Commission has determined that they have uniform applicability here, their inclusion as basic standards for the region accomplishes this purpose.

5. In some cases, the numeric water quality standards are taken from the "Tables" appended to the Basic Regulations. These table values are used where actual ambient water quality data in a segment indicates that the existing quality is substantially equivalent to, or better than, the corresponding table values. This has been done because the table values are adequate to protect the classified uses.

   Consistent with the Basic Regulations, the Commission has not assumed that the table values have presumptive validity or applicability. This accounts for the extensive data in the record on ambient water quality. However, the Commission has found that the table values are generally sufficient to protect the use classifications. Therefore, they have been applied in the situations outlined in the preceeding paragraph as well as in those cases where there is insufficient data in the record to justify the establishment of different standards. The documentary evidence forming the basis for the table values is included in the record.

6. Cases in which water quality standards reflect these instream values usually involve the metal parameters. On many stream segments elevated levels of metals are present due to natural or unknown causes, as well as mine seepage from inactive or abandoned mines. These sources are difficult to identify and impractical or impossible to control. The classified aquatic life uses may be impacted and/or may have adjusted to the condition. In either case, the water quality standards are deemed sufficient to protect the uses that are present.

7. Some segments encompass great distances and include a large number of tributaries. Some tributaries are perennial streams which legitimately are aquatic uses. However, within the segment are dry gulches which would not be classified as aquatic life. Subsequent reviews should seek to separate the aquatic classified streams from the non-aquatic dry gulches. In some of those segments containing dry gulches, no aquatic numeric standards were adopted.

   Criteria for distinguishing between dry gulches which were classified as aquatic and those which were non-aquatic were as follows: If the aquatic life use exists during times when flow occurs, then the aquatic life use applies, but where no data was presented concerning conditions during flows, then vegetation, slope of dry stream bed, nature of hydrologic conditions (i.e., predominance of sudden precipitation events), condition of the streambed, and proximity to perennial streams were considered in reaching a conclusion.

   In those cases where there was no data for a particular segment, or where the data consists of only a few samples for a limited range of parameters, "table values" were generally recommended. Data at the nearest downstream point was used to support this conclusion. In some cases, where the limited data indicated a problem existed, additional data were collected to expand the data base. Additionally, where there may not be existing data on present stream quality, the Commission anticipates that if necessary, additional data will be collected prior to a hearing required by C.R.S. 1973, 25-8-204(3), as amended.

   There was very little data available particularly for metal parameters for some portions of the following segments: 1/4, 2/9, 3/11, 3/14, 4/15, 4/17, 4/20, 5/21, 5/22, 6/3, 6/5, 6/6, 7/8, 7/9, 7/10, 7/11, 9/19, 10/22, 10/23, 11/5, 11/6, 14/14, 14/17, & 15/18.

8. Where endangered species spawning and young of the year rearing were identified, the Commission considered using the High Quality designation. However, this designation was not adopted at this time since, in the case of the Colorado Squawfish, the Humpbacked Chub, and the Razorback Sucker maintaining existing quality has not been established to date as necessary to maintaining the endangered species. The aquatic classification establishes existing parameter conditions and should provide sufficient protection of the aquatic life use so as to maintain these species

9. In most cases in establishing standards based on instream ambient water quality, a calculation is made based upon the mean (average) plus one standard deviation ($\bar{x}$ + s) for all sampling points on a particular stream segment. Since a standard deviation is not added to the water quality standard for purposes of determining the compliance with the standard, this is a fair method as applied to discharges.

   Levels that were determined to be below the detectable limits of the sampling methodology employed were averaged in as zero rather that at the detectable limit. This moves the mean down but since zero is also used when calculating wasteload allocations, this method is not unfair to dischargers.

   Metals present in water samples may be tied up in suspended solids when the water is present in the stream. In this form they are not “available” to fish and may not be detrimental to aquatic life. Because the data of record does not distinguish as to availability, some deviation from table values, and the use of $\bar{x}$ + s, is further justified because it is unlikely that the total value in all samples analyzed is in available form.

   A number of different statistical methodologies could have been used where ambient water quality data dictates the standards. All of them have both advantages and disadvantages. It is recognized that the $\bar{x}$ + s methodology also has weaknesses, in that the standard may not reflect natural conditions in a stream 100 per cent of the time, even though the use of $\bar{x}$ + s already allows for some seasonal variability. However, the use of this methodology is justified since it provides a meaningful index of stream quality for setting stream standards.

   Since the $\bar{x}$ + s methodology is an index of existing conditions and is not a classical statistical description, use of a methodology which eliminates outlyers, i.e. unusually high or low data which may be in error, is acceptable in approximating an average condition. The practice of eliminating only extremely high recorded data points and not low recorded values may result in erring on the side of safety. High recorded values may be due to sampling, laboratory, or recording error. To a limited degree the high values may be due to seasonal variation in the data base.

   Several parties questioned whether Chauvenet's criterion was being used properly and questioned the appropriateness of not including outliers in the mean plus 1 standard deviation calculation. The Commission finds that both practices are appropriate in their application.

   Chauvenet's criterion is not being used to reject data. Chauvenet's criterion is being used to identify suspicious data points which need to be evaluated further to determine if the data represents typical stream conditions. Data identified by Chauvenet's criterion are only rejected as outliers if it can be shown that: 1) The sample contained high suspended solids or turbidity, indicating a typical spring run-off condition; 2) The sample was taken at a time when a radical change in stream flow was present, indicating an atypical storm event; or, 3) The sample resulted in an unexplained value radically beyond two standard deviations and was an isolated data point, suggesting a sampling, laboratory, or reporting error.

   Data not included in the mean plus 1 standard deviation calculation are not rejected from the data base. Should future testing indicate that these high values are typical results for a particular stream segment. then these data points will be included in the ambient level calculation.

It should be noted that setting stream standards (above table values) involves a multifaceted methodology. Each part of this methodology is founded on certain assumptions: Some of these are conservative in nature, some are not. For example a conservative assumption is the rejection of outliers, an unconservative assumption is the $\bar{x}$ + s calculation which allows for the standard to be exceeded about 15% of the time. This methodology as a whole is needed to protect the beneficial uses of Colorado's water. To relax only one aspect of this methodology without adjusting the counterbalancing assumptions could seriously threaten the beneficial uses of State Waters. No testimony was presented to the Commission which evaluated how the inclusion of outliers would impact aquatic life if the remainder of the methodology remained unchanged.

The Commission recognizes that the $\bar{x}$ + s methodology departs from formal statistical techniques. However, since this methodology is intended only to produce an index of existing stream values which are present 85% of the time, a departure from formal statistical techniques is acceptable. Again, the methodology as a whole represents a balance of assumptions which cannot be forced into a formal statistical approach because of the complexities of the instream chemicals values and biological response relationships.

It was suggested that the stream data be “Normalized” prior to the application of Chauvenet's criterion. The Commission finds that this approach is infeasible for two reasons: 1) Much of the water quality data is not distributed in a “Log-Normal” fashion which precludes it from being normalized; and, 2) The normalization process cannot legitimately be applied to a data set that contains zeros, as water quality data does.

Finally, the fairness and consistency of the use of any methodology in setting standards must recognize the manner in which the standards are implemented and enforced. It is essential that there be consistency between standard setting and the manner in which attainment or non-attainment of the standards is established based on future stream monitoring data. In addition the Division must take this methodology into account in writing and enforcing discharge permits.

10. No water quality standards are set below detectable limits for any parameter, although certain parameters may not be detectable at the limit of the standards using routine methodology. However, it must be noted that stream monitoring, as opposed to effluent monitoring, is generally not the responsibility of the dischargers but of the State. Furthermore, the purpose of the standards is to protect the classified uses and some inconvenience and expense as to monitoring is therefore justifiable.

    Section 3.1.15(5) of the Basic Regulations states that “dischargers will not be required to regularly monitor for any parameters that are not identified by the Division as being of concern”. Generally, there is no requirement for monitoring unless a parameter is in the effluent guidelines for the relevant industry, or is deemed to be a problem as to a specific discharge.

11. The dissolved oxygen standard is intended to apply to the epilimnion and metalimnion strata of lakes and reservoirs. Respiration by aerobic micro-organisms, as organic matter is consumed, is the primary cause of a natural decrease in dissolved oxygen and anaerobic conditions in the hypolimnion. Therefore, this stratum is exempt from the dissolved oxygen standard.

12. Where numeric standards are established based on historic instream water quality data at the level of $\bar{x}$ + s, it is recognized by the Commission that measured instream parameter levels might exceed the standard approximately 15 percent of the time.

13. It is the Commission's intention that the Division implement and enforce all water quality standards consistent with the manner in which they have been established.

14. Hardness/Alkalinity

Where hardness and alkalinity numbers differed, the Commission elected to use alkalinity as the controlling parameter, in order to be consistent with other river basins and because testimony form the Division staff indicated that in most cases alkalinity has a greater effect on toxic form of metals than does hardness.

**VI. Water Quality Standards for Unionized Ammonia**

The Commission retains the use of unionized ammonia as a parameter rather than total ammonia because unionized ammonia is the toxic portion. Furthermore, the relationship of total ammonia as a function of temperature and pH is recognized.

**VII. Water Quality Standards for Uranium**

Given the threat that radioactivity from uranium may pose to human health, it is advisable to limit uranium concentrations in streams to the maximum extent practicable. For segments assigned a water supply classification the Commission has adopted a standard of 40 pCi/l or natural background where higher, for the following reasons:

1. 40 pCi/l generally reflects background concentrations of uranium that may be found in streams in Colorado and therefore this amount approximates routine human exposure.

2. The statistical risk of human health hazards is small at 40 pCi/l.

3. 40 pCi/l is an interim level, established now pending the outcome of further studies currently underway.

Data introduced in the record on the establishment of a standard of 10 pCi/l were rejected. The Commission felt that it was more appropriate to reexamine the uranium standard on a Statewide basis with more public participation at a future date.

**VIII. Water Quality Standards for Cyanide**

The Commission acknowledges that total cyanide is to be used in State Discharge Permits until a method is authorized by EPA for measuring free cyanide, even though free cyanide is the parameter of concern.

**IX. Water Quality Standards for Metals**

Moreover, the Commission recognizes that the overwhelming majority of available water quality data was obtained using total digestion and total recoverable laboratory analytical techniques.

In deciding to retain the total recoverable laboratory analytical technique as appropriate for the purpose of setting stream standards, the Commission noted that the standards setting process consists of many elements that result in a balanced water quality control program. These various elements include laboratory methodologies, stream classifications, statistical analysis of data, mean plus standard deviation, data screening including Chauvenet's criterion, discharge permit monitoring procedures and many others. Changing any of these elements would require total reevaluation of the entire standards setting process and water quality management procedures requiring a much broader base of evidence than is available in the Lower Colorado hearing record.

## X. Linkage of classifications and Standards

The Commission holds that the classifications which it adopts and the standards it assigns to them are linked. Disapproval by EPA of the standards may require reexamination by the Commission of the appropriateness of its original classification. The reason for the linkage is that the Commission recognizes that there is a wide variability in the types of aquatic life in Colorado streams which require different levels of protection. Therefore, the numbers were chosen in some cases on a site specific basis to protect the species existing in that segment. If any reclassification is deemed a downgrading, then it will be based upon the grounds that the original classification was in error.

## XI. Economic Reasonableness

The Commission finds that these use classifications and water quality standards are economically reasonable. The Commission solicited and considered evidence of the economic impacts of these regulations. This evaluation necessarily involved a case-by-case consideration of such impacts, and reference is made to the fiscal impact statement for this analysis. Generally, a judgment was made as to whether the benefits in terms of improving water quality justified the costs of increased treatment. In the absence of evidence on economic impacts for a specific segment, the Commission concluded that the regulations impose no unreasonable economic burden.

## XII. Classifications and Standards - Special Cases

### 1. Page 1, Segment 1

Through its testimony, the City of Craig expressed concern that it would be required to provide advanced waste treatment (AWT) to meet proposed standards for this segment. The Commission found that there was dilution flow sufficient to preclude an AWT requirement at this time.

### 2. Page 1, Segments 2

The Commission recognized that that portion of the segment which is in the Dinosaur National Monument has been proposed for Federal Wild and Scenic designation and that the segment provides a spawning habitat for the Colorado Squawfish, an endangered species. Thus, the Commission chose not to classify the segment as high quality feeling that the proposed classifications adequately protected the existing uses.

### 3. <u>Page 1, Segment 3(a), 3(b), and 3(c)</u> (proposed as page 1, segment 3)

The issue generated by the testimony was the presence of aquatic life and the habitat necessary for fish spawning. It was testified that spawning did not occur in segment 3(a). Portions of these segments were gulches or dry washes not suitable for use by aquatic life. In the physical and biological evaluation of tributaries the Commission found steep sage brush covered slopes. The drainage ways are generally dry and covered by stands of sagebrush and various grass species. The Commission differentiated those gulches which are dry from those which should be classified aquatic due to flow. The criteria of frequency and duration of flow were used by the Commission in determining at what point limited aquatic life existed for which a classification should be assigned. Resegmentation enabled the Commission to be responsive to the testimony of Axial Basin Ranch, Colowyo Coal Company, Trapper Mining, Inc., and Utah International, Inc., in classifying portions of this segment for aquatic life while not so classifying other portions.

**4. Page 2, Segment 7**

The W. R. Grace Company, a partner in the Colowyo Company urged in its testimony that the segment not be classified for water supply because of the impact such classification could have on future coal mining. It was testified that the City of Craig was a growth area but that no water supply use was in place nor did the Division have any record of conditional water decrees. Based on this evidence, the Commission did not classify this segment for water supply use and modified the numeric standards accordingly.

**5. Page 3, Segment 12(a) and 12(b) (proposed as page 2, segment 12)**

The Commission was pursuaded by the testimony of the Trapper Mining Company to segment out Ute and Castor Gulches as 12(b) because they are dry steep drainages of the Williams Fork ridge. They were classified only for agricultural use. Segment 12(a) remains as proposed.

**6. Page 3, Segment 13(a) and 13(b) (proposed as page 3, segment 13)**

This segment was resegmented at the Hamilton Bridge on County Highway 13/789 because it provided a landmark on the segment where temperature changes could occur in a transitional reach. This conclusion was based on observations of cold water fish species above the bridge and warm water species below the bridge. Resegmentation enabled the Commission to assign a cold water aquatic life classification above the bridge and a warm water aquatic life classification below the bridge.

**7. Page 6, Segment 2**

The Commission classified this segment high quality class 1 to provide protection for the Colorado River Cutthroat Trout, a Colorado endangered species. Testimony indicated the segment is a critical spawning area and a resource area for recovery of eggs.

**8. Page 7, Segment 7**

The Commission found from evidence that though the issue of a seasonal standard was raised that two data outlyers were insufficient to warrant such a qualifier. Bar 70 Enterprises Inc., which did not testify but did submit evidence and a summation indicated it intended to use the segment as a water supply source. Their concern was whether the .02 mg/l unionized ammonia would create a problem. The Commission determined that it would not if there was no significant change in the water flow in the stream. There was no evidence of water flow change. It appeared to the Commission that for both the Town of Meeker and Bar 70 Enterprises Inc., there does not appear to be any fiscal impact due to the aquatic life class 1 classification.

**9. Page 7, Segment 12**

For several parameters collected September 11, 1975, the concentrations were deemed to be unusually high and were eliminated. It was felt by the Commission that a recording error had occured.

**10. Page 8, Segment 13(a) and 13(b) (proposed as page 7, segment 13)**

Yellow and Spring Creeks and their tributaries were segmented out as 13(b) due to their limited flow and testimony that they contained no aquatic life. Neither aquatic life nor recreation classifications were assigned to 13(b).

**11. Page 8, segment 14(a) and 14(b) (proposed as page 7, segment 14)**

There is no hardness or alkalinity data available for segment 14(a). The nearest station is in the next segment downstream where alkalinity is recorded in the range of 300 to 400. 400 plus is the combined alkalinity value from all stations in 14(b). Resegmentation was at State Highway 13 separating segment 14(a) from 14(b). The Emily Oldland diversion separating segment 14(b) from segment 15 is a barrier to fish migration.

**12. Page 8, Segment 15**

It was testified that Cathedral Bluffs Oil Shale Company was generally not releasing their discharge to the stream. Depending of the time of year they were either discharging down No-Name Gulch; sprinkling on the tract for evaporation; or using underground injection. This practice was followed because the Company felt that it must take these actions to meet its discharge permit limitations. The Commission found from the testimony that protection was being given aquatic life at the expense of agricultural use. It was testified that the fish in the segment were escapees from agricultural ponds and were not a reproducing population that was fished. Because of its greater economic value, the Commission found agriculture to be a higher and more beneficial use in this segment than was aquatic life. Therefore, the Commission modified the numeric standards for ammonia, cadmium, boron, selenium and alkalinity to levels appropriate for the agricultural use in place. The balance of the numbers were set consistant with the 400 alkalinity level.

**13. Pages 8 & 9, Segment 16(a) and 16(b)**

Segment 16(b) is composed of tributary streams not previously classified. The Commission recognized these segments in the classification system but chose to identify them as not classified. The Commission found that in the light of the direction it received in Senate Bill 10 there is no requirement that it classify every creek bed. In this instance the Commission has examined these tributaries, listed them in the segment description, and said they were not classified. This exempts them from the broad blanket of tributaries. The Commission found no fish in the segment and an extensive algal community present prior to the industrial use. The Commission determined not to classify these tributaries to avoid creating an unreasonable adverse economic impact on Cathedral Bluffs Shale Oil Company.

Because of the industrial nature of the lease tract none of the uses within the table of classifications are likely to occur nor are they economically justified. The Commission found these tributaries to be basically dry gulches.

**14. Pages 12 & 13, Segment 11(a) through 11(f) (proposed as page 10, segment 11)**

The upper portions of Parachute Creek were resegmented 11(a) through 11(f) in order to address specific issues as follows: 11(a) contained portions of streams about which the testimony supported the assigned classifications; 11(b) the Division supported and evidence substantiated that these streams were intermittent. Evidence further substantiated an agricultural use in these segments or at least immediately downstream; 11(c) evidence presented did not support any of the beneficial use classifications listed in the basic regulations as being appropriate for this segment because the Exxon industrial use of the property precludes such uses. No fishery exists or is likely to exist. Algal life existed but the industrial use on the property precludes any aquatic life classification; 11(d) recreation, class 2, was proposed for this segment but was not assigned by the Commission because evidence presented indicated that the major portion of this segment is on private property and public access is prohibited. Water supply was proposed but not assigned because testimony indicated no water supply uses exist in this segment nor could reasonably be expected to occur. The Division recommended and testimony supported the assignment of agriculture and cold water aquatic life, class 1; 11(e) when water is there, aquatic use is there. The stream bed supports aquatic use during spring runoff in the April, May, and June period. Because of aquatic use above and below this segment the Commission expects movement of fish into this stream segment. Because of potential economic impact upon Union Oil Company's shale disposal waste pile, no numeric standards other than minimum standards for this segment were adopted. Discharge may not in fact occur in this segment. The Mined Land Reclamation Board could approve structures over or beside the streambed to protect the stream flow sufficient to protect downstream segments aquatic life, class 1 use; should this segment be used for waste disposal such that the aquatic use no longer occurs even during spring runoff, then a redesignation will be appropriate.

No recreation use was adopted because no access has been historically allowed. 11(f) testimony indicated perennial flow and aquatic life including trout present within this segment.

**15. Page 13, Segment 13**

Clear Creek was moved to this segment from segment 15. There was testimony that recreation classification not be assigned. However, the Commission determined from other testimony that the extent of public access to this segment warranted a recreation classification.

**16. <u>Page 14, Segment 16(a), 16(b) and 16(c)</u> (proposed as page 11, segment 16)**

This resegmentation was to accomodate alkalinity differences between these reaches of the stream.

**FISCAL IMPACT STATEMENT**

Stream Classifications and Water Quality Standards for State Waters of the Lower Colorado Basin below Glenwood Springs; the Yampa River Basin below Elkhead Creek; the Green river; and the entire White River drainage including all tributaries and standing bodies of water associated with those rivers in all of Moffat, Rio Blanco, Garfield, and portions of Mesa and Routt Counties.

**I. INTRODUCTION**

The Water Quality Control Commission is charged with he responsibility to conserve, protect, and improve the quality of state waters pursuant to C.R.S. 1973, 25-8-101 <u>et seq</u>.

The Commission is further empowered and directed to classify waters of the State and to promulgate water quality standards for any measurable characteristic of the water in order to protect both the uses in place and those that can be reasonably expected in the future. (25-8-203 and 25-8-204) The above-titled document assigns use classifications and standards for the state waters in the listed areas in accordance with the “basic regulations” adopted May 22, 1979.

The measurable fiscal impacts which may be caused by these regulations are as follows:

- Cost of construction due to requirements for increased levels of treatment by municipal waste treatment facilities;

- Cost of construction due to requirements for increased levels of treatment by industrial/commercial waste treatment facilities;

- Cost of Operation and Maintenance associated with increased levels of treatment required of municipalities;

- Cost of Operation and Maintenance associated with increased levels of treatment required of industrial and commercial dischargers;

- Cost of instream monitoring and laboratory analysis for new parameters added by the standards.

Dischargers will not be required by the adoption of these regulations to do stream monitoring. The state, federal and local agencies now doing instream monitoring will have some increased cost; however, any additional frequency should be done to improve state surveillance and would be needed regardless of standard changes.

The stream classifications and standards adopted by the Commission will protect the water uses primarily through control of point source pollution. Nonpoint source pollution will be controlled primarily through management practices which are in existence or which will be implemented in the future. Future management practices need careful consideration and may be the result of 208 area-wide wastewater management plans developed by regional planning agencies and being updated annually. These plans involve local governments with general assistance from state government. Some of the possible nonpoint source pollution may be controlled through “Control Regulations” yet to be promulgated by the Commission. These types of controls could involve runoff from construction, mining activities, and urban areas. It is not certain what controls are needed at this time and there is no way that possible costs can be identified at this time.

Persons who benefit from standards which will protect existing and future anticipated uses can be identified as all persons benefiting from recreation, municipal water supply, and agriculture. These benefits are directly economic for agriculture, industry, and municipalities whose health benefit costs are reduced by having clean water, and are both economic and nonquantifiable for some uses such as fishing, recreation, and the aesthetic value of clean waters. Furthermore, benefits will result from human health protection and lack of debilitating disease. Figures have been developed for a recreation/fishing day which can be applied to that aspect of a water use; however, figures which have been developed for total recreation/fishing day uses have been developed statewide and could not be applied region-by-region or stream-by-stream.

The uses of water in this region are adequately protected by these standards. Most municipal treatment facilities and industrial facilities are currently adequate, or are already being upgraded, in order to meet previous requirements. Any additional facilities or expansions in this region will generally be caused by increased capacity required because of population growths or industrial enlargement. Industries are required by federal statute to meet effluent limitations described as “Best Available Technology Economically Achievable” (BATEA) by 1983 or 1984. For most major industries in this region, the water quality standards should not require treatment beyond these limitations.

The fiscal impact of any regulatory decision must take into account only the incremental costs explicitly associated with the regulations as finally promulgated. Costs and expenditures associated with the regulations as finally promulgated. Costs and expenditures associated with the status quo, regulations of other regulatory agencies, or regulations already in effect should not be included in an assessment of the fiscal impact of the Lower Colorado Basin classifications.

In addition, a distinction must be made between actual expenditures or dislocations that will be immediately or unavoidably necessary upon promulgation of these classifications and standards, and those costs which are speculative in nature. In keeping with concepts of “Expected Value”, it is proper for the Commission to place more emphasis on definite impacts.

With the passage in 1981 of Senate Bill 10, amending the Colorado Water Quality Control Act, it became incumbent upon the Water Quality Control Commission to consider the economic impact of their decisions with more emphasis placed upon the concept of the “Economic Reasonableness”. Charged with such a mandate, the Commission was quite sensitive to the objective of minimizing the socio-economic “price” of clean water while adhering to the antidegradation policy that water quality be preserved and protected in all cases, and improved where feasible.

The analysis and data which follows is derived primarily from testimony and exhibits offered by interested parties during the course of the rulemaking hearings. This was supplemented by staff estimates of potential impacts upon other major entities who and private sectors. Except for instances where explicit testimony was given by interested parties at the rulemaking hearing, no attempt has been made to identify future development costs as this type of data is not readily available and estimation techniques are dependent upon many highly subjective assumptions. Finally, to fully illustrate the degree to which costs were minimized where possible, two tables for each sector are presented. The first table itemizes the impacts of the classifications as proposed while the second table depicts the impacts of the classifications as finalized.

## II. FISCAL IMPACT: PUBLIC SECTOR

The primary fiscal impact to the public sector in this basin involves the potential domestic wastewater treatment costs associated with the stream classifications and water quality standards. Other costs, such as tax and employment base impacts due to forgone industrial development opportunities or mitigated growth potentials, can be theoretcially postulated but are difficult to quantify. Generally, it is recognized that higher tap fees, service charges or property taxes associated with increased treatment costs can potentially affect industrial siting decisions. However, this is not as significant as increased levels of treatment that may be required of industries if they are dischargers. While the Commission acknowledges the existence of such potentials, the lack of firm evidence and actual tax base impact estimates make deliberative assessment impractical.

In this basin the Commission acknowledged eleven municipalities that could potentially incur an economic impact: The Towns of Craig, Grand Junction, Monument Meadows, Fruita, DeBeque; and the following special districts: Ute Water Conservancy District, Clifton Sanitation District, Collbran Wastewater, Panorama Improvement District, Meeker Water and Sanitation District, Bar 70 Proposed Sanitation District. In each case the ammonia standard was the factor of concern. It is the Commission's finding that for each of these dischargers, the flow of the receiving waters is sufficient to provide adequate protection from advanced wastewater treatment (AWT) requirements. Although future growth in this region may require AWT considerations, there was no specific evidence to suggest when this could be expected and what final impact would result. The Commission finds that sufficient protection exists in sections 25-8-204(3) and 25-8-205(6) of the Colorado Water Quality Control Act covering AWT and variance provisions to address future impacts if and when they develop.

In summary, public participation and careful deliberation have resulted in regulations that will protect the quality of the waters of the Lower Colorado River Basin through classifications and standards that are economically reasonable in terms of the costs to the municipalities lying within the region.

## III. FISCAL IMPACT: PRIVATE SECTOR

Eight private sector entities identified potential economic impacts as a result of the proposed standards in this basin: Union Oil Company, Exxon, Cathedral Bluffs, Axial Basin Ranch Coal Company, Colowyo Coal Company, Trapper Mining Company, Utah International Inc., and Talboy's Trailer Park. Other parties could be potentially affected at some time in the future, but such impacts are unlikely or hypothetical and have not been quantified.

Talboy's Trailer Park is a private-sector domestic discharge that should not be impacted by these classifications and standards as the receiving waters have a high flow.

Union Oil Company was concerned with an aquatic life classification for a segment of East Fork Creek. Testimony indicated that such a classification could potentially force them into several alternative plans regarding the disposal of spent oil shale. Cost figures were not distinct except in terms of order of magnititude. The Commission found that the indistinct nature of the cost evidence precluded specific analysis of the economic impact. There was no clear way to assign all or part of the costs explicitly to water quality issues nor was there clear indication of the incremental impact of the regulations. The Commission finds at this time that a seasonal qualifier for this segment is an economically reasonable way in which to address the concerns of Union Oil Company until such time as evidence is forthcoming identifying the specific incremental costs associated with their proposed project and the regulations as finally adopted.

Exxon was concerned that an aquatic life classification for parts of Davis Gulch and Middle Fork that lies wholly within the boundaries of their property. It was their contention that the proposed use classifications for these segments to prevent economic costs to protect nonexistant uses, the Commission left segment 11-c unclassified. This was found to be the most economically reasonable manner in which to treat this heavily impacted private property.

Cathedral Bluffs was concerned with the use classifications associated with portions of the Piceance drainage. It was their argument that the majority of the basin did not support aquatic life in any significant way and an aquatic life classification would force them to continue a no-discharge mode of treatment. The commission found that the classification was perhaps marginally appropriate but that the metals standards associated with it would cause a serious hardship to agriculture due to Cathedral Bluffs' method of treatment. The Commission found the most economically reasonable action would be to recognize agariculture to be a higher and more economically valuable use and to modify the standards for several metals to allow for Cathedral Bluffs to discharge their process waters. This was believed to have a negligible impact on the aquatic use of the stream while allowing agriculture users access to water that was previously wasted through evaporation.

The Axial Basin Ranch Company was concerned with a water supply classification that was believed by them to pose a potential for impacting the future of coal development within the region. Little Bear Creek was found by the Commission to have quality sufficient for water supply but considered that there was no wataer supply in place and the Town of Craig has several water supply options if they grow. There were no water rights nor decrees that would lead the Commission to believe that a water supply use would be reasonably expected in the foreseeable future. Thus, the Commission found that the most economically reasonable course would be to drop the water supply classification in favor of future coal development.

Utah International Inc., Axial Basin Ranch Company, Trapper Mining Company, and Colowyo Coal Company were concerned that the aquatic life classification for all of the tributaries to the Upper Yampa River may not be accurate. Several of the tributaries were found to be primarily dry gulches that would only carry water during storm events and spring runoff. Resegmentation allowed the Commission to retain aquatic life classifications where appropriate and remain responsive to the concerns of the coal companies. There was no specific testimony detailing what economic impact this would prevent but it was generally assumed that it would result in savings of potential treatment. The Commission found it reasonable to protect against unspecified potential costs in this case because there was no corresponding beneficial use to protect.

Through evaluation of expert testimony and careful deliberative consideration, the Commission has taken steps to minimize the economic impact impact of these classifications and standards upon the private sector. As adopted, these classifications and standards will have a negligible impact upon the private sector while protecting current and achievable beneficial uses.

**IV. CONCLUSION**

It is important to add that the Commission took several steps in many drainages to protect rare, threatened and endangered species. The Colorado River Cutthroat was specifically protected by a high quality designation on Northwater and Trapper Creeks as well as Trappers Lake. The Commission found these segments to be critical spawning sites and considers the protection of this species to be important to the public at large. The Commission also heard testimony regarding the Humpback Chub, the Bonytail Chub, and the Colorado Squawfish. These last three species are on the national endangered species list. The Commission finds the protection of these species to be important to the public and was particularly sensitive to the testimony regarding what would be necessary to protect them. One in particular, the Colorado Squawfish, is found only in Colorado and portions of Utah. The Commission believes that it has accorded sufficient protection to these species through the classifications and standards it has adopted, and that this action is economically reasonable in that no discharger was found to face the potential of a cost impact. Considering the irrepairable nature of extinction, the Commission finds the preservation of these species to be of significant value to the public.

It is concluded that the Commission has strenously considered the economic factors at issue in this basin and that this regulation is economically reasonable both in terms of potential costs that may result, and in terms of the beneficial uses to be protected.

**STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE SEPTEMBER 12, 1986:**

The provisions of 25-8-202(1)(a)(b) and (2); 25-8-203; and 25-8-204, C.R.S. provide the specific statutory authority for consideration of the attached regulatory amendments and also the statements of Basis and Purpose and Fiscal Impact in compliance with 24-4-103(4) C.R.S.

**BASIS AND PURPOSE:**

At the triennial review conducted April 7, 1986, no recommendations were received from the public. Non-substantive amendments were recommended by the Water Quality Control Commission to correct clerical errors. In adopting these corrections the Commission considered the economic reasonableness of its action. Except as specified, the corrections in no way change the classifications and numeric standards originally adopted by the Commission.

**FISCAL IMPACT STATEMENT:**

The Water Quality Control Commission found that the clerical corrections to its regulation 3.7.0 have no fiscal impact.

**37.11 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE: SEPTEMBER, 1990 HEARING ON SEVERAL SEGMENTS:**

The provisions of 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 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:**

First, the Commission has adopted new introductory language for the tables in section 3.7.6 The purpose of this language is to explain the new references to “table value standards” (TVS) that are contained in the Tables. These provisions also include the adoption of new hardness equations for acute and chronic zinc standards throughout the basin. Based on information developed since the “Basic Standards” were revised, these new equations have been determined to represent more appropriate zinc criteria. New information contained in a 1987 EPA zinc criteria document indicates Colorado's zinc criteria is overly restrictive, especially at hardness in the range of 50 to 200 mg/l. Adoption of the Colorado zinc criteria as site-specific TVS standards may potentially cause undue treatment costs to dischargers who would be regulated by those standards until they could be adjusted through a section 207 hearing or during the next round of basin hearings.

The existing criteria for zinc contained in the “Basic Standards” was developed by the Commission's Water Quality Standards and Methodologies Committee. At the time of development, the EPA zinc criteria document was not available. Because of some limited data indicating a consistent chronic toxicity level at water hardnesses of 200 mg/l or less, the Commission adopted a chronic criteria of 45 ug/l for hardness of 0 to 200 mg/l. This is much more stringent than EPA criteria which, as an example, specifies chronic zinc levels of 59 ug/l and 190 ug/l at hardness of 50 mg/l and 200 mg/l, respectively.

The Commission also has adopted additional organic chemicals standards for certain aquatic life segments. The standards added in section 3.7.5(2) (e) are based on water and fish ingestion criteria contained in the U.S. Environmental Protection Agency's Quality Criteria for Water, 1986 and updates to this document through 1989, which is commonly referred to as the “Gold Book”. The standards are being applied to all class 1 aquatic life segments. The standards are based on a $10^{-6}$ risk factor.

The application of these standards to waters where actual or potential human ingestion of fish is likely is important in assuring that Colorado achieves full compliance with the toxics requirement of section 303(c) (2) (B) of the federal Clean Water Act. It is reasonable to assume that most Class 1 aquatic life segments, because of their variety of fish species and/or suitable habitat, have the potential for fishing and the resultant human consumption of the fish or other aquatic life.

One other general issue should be addressed at the outset. Several parties to this proceeding submitted documents expressing concern regarding the adoption of high quality 2 designations because of potential impact on water rights held by these entities. The Commission transmitted these documents to the State Engineer and the Colorado Water Conservation Board to solicit any comments that they might have. In its transmittal letter, the Commission stated its preliminary assessment that the proposed adoption of high quality 2 designations did not present the potential to cause material injury to water rights.

The high quality designation merely indicates that an antidegradation review will be required for certain activities. In its regulations, the Commission has specifically provided that in an antidegradation review “any alternatives that would be inconsistent with section 25-8-104 of the Water Quality Control Act shall not be considered available alternatives.” If an issue should arise as as to whether the antidegradation review criteria prohibiting material injury are being applied correctly to a specific proposed activity, that issue would be considered during that specific review process, including through consultation with the State Engineer and Water Conservation Board.

The Commission received a letter back from the State Engineer, stating his agreement with the Commission's preliminary assessment. No letter was received from the Water Conservation Board, although the Board had previously indicated its agreement with a similar conclusion when this issue was raised in an earlier rulemaking hearing. Upon consideration of all of the available information, the Commission has determined that the adoption of high quality 2 designations in this proceeding does not cause material injury to water rights.

The other changes considered and adopted are addressed below by segment.

**A. Overview of Segment-Specific Changes**

Two principal issues were in controversy for several of the segments addressed in this hearing. The most controversial was whether to apply a high quality 2 designation to certain waters. In several instances, designations proposed by the Water Quality Control Division were opposed on the basis that there was inadequate information to support such a designation. The three most common challenges to the adequacy of the information were: (1) detection limits for some data were too high to determine whether ambient quality was better than "table values;" (2) for some segments there was not adequate data for some or all of the twelve parameters referenced in section 3.1.8(2) (b) (i) (C); (3) for some segments the sample location(s) of available data were too limited to generalize the results to the whole segment.

The commission explicitly considered establishing minimum data requirements when it adopted the current antidegradation regulation, and consciously rejected that option. Rather, the Commission recognized that it would be necessary to rely on best professional judgment to determine what constitutes representative data in a specific situation. These issues are not new, or unique to high quality designations. The Commission has for years been required to make water quality classification and standards decisions in the absence of perfect information. Requiring substantial, recently acquired data for all parameters from multiple locations in each segment before establishing high quality designations would assure that very few waters in Colorado would receive this protection for many years to come. As a policy matter, the Commission has determined that high quality designations may appropriately be established based on a lower threshold of available data than that suggested by several parties to this proceeding.

The Commission also notes that having adequate information upon which to base a high quality designation is not dependent solely on the availability of specific data for a particular segment. Relevant information may include data from downstream segments, comparison of available data with that for similar streams, and information regarding the presence or absence of activities likely to adversely impact the quality of the segment in question.

Where there is a substantial basis for considering a high quality 2 designation, in the face of some residual uncertainty the Commission has chosen to err in the direction of providing the protection. This policy decision is strongly influenced by the ease with which designations can be changed if better data is developed in the future. Unlike classifications, downgrading restrictions do not apply to water quality designations. If new site-specific data is developed that demonstrates that a particular high quality designation is improper, it can and should be removed by the Commission.

With respect to detection limits, the Commission has chosen to continue the same policy that it has followed for over ten years—i.e. to treat data reported as below detection limits as being equivalent to zero. While other methodologies have been proposed and may be defensible, the Commission has determined that this approach is reasonable and appropriate. Requiring routine analysis to below table value standard levels for all constituents would substantially increase monitoring costs for the state and the public. Moreover, the Commission believes that the "zero" assumption is fair, so long as it is applied consistently throughout the water quality regulatory system.

Use of zeros in the water quality designation or standard-setting process may marginally err in the direction of increased protection. However, when zeros are used in applying standards to specific dischargers, those dischargers benefit by the assumption that there is more assimilative capacity available in the stream (allowing higher levels of pollutants to be discharged) since the existing pollution is considered to be zero rather than some level between zero and the detection limit.

The second recurring issue addressed for multiple segments in this hearing was whether to establish a recreation class 1 classification wherever a high quality 2 designation is established. The Division proposed this classification change for applicable segments, since the high quality 2 designation indicates that such segments have adequate water quality to support the recreation class 1 use. However, the Commission generally has declined to change the recreation classification from class 2 to class 1 in such circumstances, unless there was also evidence submitted that class 1 uses were present or likely for the waters in question. Unless the use is present or likely, application of use-protection-based water quality standards does not appear appropriate. At the same time, the Commission notes that this approach does not diminish application of antidegradation protection requirements for high quality waters. Where the existing quality is adequate, a high quality 2 designation has been established, requiring antidegradation requirements to be met before any degradation is allowed, even though the recreation classification is class 2.

A related issue is the determination of which uses warrant the class 1 recreation classification. The recreation classification definition in section 3.1.13(1) (a) (i) of the Basic Standards and Methodologies for Surface Water refers to “activities when the ingestion of small quantities of water is likely to occur,” and states that “such waters include but are not limited to those used for swimming.” In the past the Commission often has applied the class 1 classification only when swimming occurs, and not where other recreational uses that may result in ingestion of small quantities of water occur. The Commission now believes it is appropriate for the class 1 classification also to be applied for uses such as rafting, kayaking, and water skiing.

The appropriateness of recreation class 1 versus class 2 classifications was debated for several segments in the Lower Colorado Basin. The Commission has received information regarding actual recreational uses. It has also received substantial input regarding the propriety (or lack thereof) of broadening the application of the class 1 recreation classification, based upon an evolving interpretation of the Basic Standards language. After lengthy discussion, the Commission has decided that it is appropriate as a matter of policy in this proceeding to apply the recreation class 1 classification for all uses that involve a significant likelihood of ingesting water, including but not necessarily limited to rafting, kayaking, and water skiing. In particular, the uses at issue for segments in this basin were kayaking and rafting. The Commission has received substantial testimony that kayaking often results in water ingestion. In addition, the testimony presented in this and prior proceedings, as well as the personal experience of individual Commissioners, indicates that rafting—white water or otherwise—also presents a significant potential for water ingestion.

Section 3.1.6(1) (d) of the Basic Standards and Methodologies for Surface Water requires the Commission to establish classifications to protect all actual uses. Therefore, for waterbodies where rafting and kayaking is an actual use, the recreation class 1 use classification should be applied, since ingestion of water is likely to occur. The Commission sees no reason to distinguish between ingestion that may result from swimming and ingestion that may result from rafting or kayaking. In fact, there has been some testimony indicating that ingestion is more likely to result from the latter activities.

The Commission wishes to emphasize that the action that it is now taking is consistent with the existing definition of class 1 recreation uses. Some of the comments submitted stated or suggested that the action now being taken by the Commission would constitute a “definitional change” that should be addressed only in a review of the Basic Standards and Methodologies for Surface Water. No change in the regulatory definitions of the classifications is being considered or adopted at this time. Rather, the Commission is applying what it believes to be the proper interpretation of the existing definition.

The Commission believes that as a matter of policy it is not necessary or appropriate to wait until the July, 1991 rulemaking hearing regarding the Basic Standards and Methodologies for Surface Water to implement its current interpretation of the class 1 recreation classification. Over the last decade, there have been many instances when arguments and facts presented in basin-specific rulemaking hearings have resulted in an evolving interpretation of the provisions of the Basic Standards and Methodologies for Surface Water. This Commission is not bound by interpretations made by its predecessors in other basin-specific hearings. To the degree that the class 1 recreation classification in the past has not been applied for some existing activities that involve a likelihood of ingesting water, the Commission now believes that such decisions were in error.

This action does not improperly exclude input from entities interested in other river basins. First, the Commission specifically reopened an earlier hearing on the Gunnison Basin and received input from entities not specifically concerned with that basin. This issue has now received extensive consideration in two separate basins. Moreover, the Commission can further modify its policy if in other basin-specific reviews, or in the upcoming review of the Basic Standards and Methodologies, parties that did not participate in this proceeding bring forth new considerations that the Commission believes warrant a modification in the approach to recreation classifications that is now being adopted. The Commission also does not believe that there was any problem with the notice provided for the specific segments at issue in this hearing. Each of the segments for which the recreation classification is being changed from class 2 to class 1 based on rafting or kayaking uses were proposed to be changed to class 1 in the original hearing notice. Although the basis for this proposal evolved during the hearing, any parties potentially concerned with a recreation class 1 classification were on notice that this change would be considered in this hearing.

In applying the interpretation of the existing recreation class 1 definition that has been described, the Commission is also influenced by the fact that the importance of recreational uses of surface waters in Colorado has increased over the last decade. Testimony in this and prior proceedings indicated that uses such as rafting and kayaking have expanded substantially, and it is therefore even more important that adequate water quality protection now be provided.

Some of the testimony submitted addressed the appropriateness of the current fecal coliform standards that are applied in association with recreation classifications. The Commission believes that the appropriateness of the existing standards can and should be addressed, when and if there is new evidence available indicating that the current standards are not appropriate. However, changes in such standards were not at issue in this hearing. The Commission believes that questions regarding the appropriate numerical standards should not interfere with its obligation to establish appropriate classifications to protect existing uses. If members of the public have information indicating that a different indicator parameter should be used, or that different fecal coliform levels are appropriate for the respective recreation classifications, that issue can and should be considered in the upcoming review of the Basic Standards and Methodologies for Surface Water.

Comment also has been submitted to the Commission expressing concern regarding the potential effect of downgrading restrictions, should the Commission now adopt class 1 recreation classifications for certain waters and later change its views regarding the appropriate approach to recreation classifications. The Commission does not believe that this presents a substantial problem. Downgrading is appropriate only when a use is not in place. So long as the class 1 recreation classification is defined as including activities that involve ingestion, applying that classification to waters where uses involving ingestion are present should not present a downgrading issue in the future. If the Commission at some later date should completely revise its approach to, and definition of, recreation classifications, application of the new system would involve a set of “de novo” determinations, and not questions regarding upgrading or downgrading.

The Commission recognizes that the approach now being adopted may result in increased economic impacts for some dischargers, to meet the class 1 classifications. The evidence that has been submitted to the Commission indicates that in many instances this will not be the case, because state-wide effluent limitations for fecal coliform and chlorine standards to protect aquatic life will often drive the level of disinfection and dechlorination that are required. Moreover, in some circumstances it may be possible for the Division to consider an expanded use of seasonal effluent limitations that take low flow or high flow circumstances into account. However, irrespective of these considerations, a potential increase in treatment requirements for some dischargers cannot eliminate the Commission's obligation to classify state waters to protect actual uses.

Finally, concern was expressed that the approach now taken by the Commission will result in inconsistency regarding recreation classifications for different waters throughout the state. Anytime a policy interpretation changes or evolves in any significant way, the first time the change is applied to specific state waters there will be some inconsistency among individual water bodies, since sitespecific classifications and standards are addressed on a basin-by-basin basis. However, it is the Commission's intention to apply its policy interpretations consistently as individual basins are addressed. This is now the second basin in which this approach has been applied.

**B. Aquatic Life Class 1 with Table Values: New High Quality 2 Designations**

Lower Yampa/Green River segments 1, 2, 4, 9, 10, 11, 18, 19, 21
White River segments 3, 4, 6, 7, 8, 10, 23
Lower Colorado River segments 1, 5, 7, 15, 16, 18

Numerical standards for metals for these segments have in most instances been based on table values contained in Table III of the previous Basic Standards and Methodologies for Surface Water. Table III has been substantially revised, effective September 30, 1988. From the information available, it appears that the existing quality of these segments meets or exceeds the quality specified by the revised criteria in Table III, and new acute and chronic table value standards based thereon have therefore been adopted. There are also some of these segments whose previous standards were based in part on ambient quality, since their quality did not meet old table values based on alkalinity ranges. However, these segments generally have much higher hardness than alkalinity, and the new table values (based on hardness-dependent equations) are now appropriate as standards.

Second, review of available data and existing uses indicates that Yampa/Green River segments 1 and 2, White River segment 7, and Lower Colorado segment 1 are appropriate to be upgraded to Recreation class 1 with a corresponding fecal coliform standard of 200 MPN/100 ml.

Third, a High Quality 2 designation has been established for each of these segments. Generally for these segments, the best available information in each case indicates that the existing quality for dissolved oxygen, pH, fecal coliform, cadmium, copper, iron, lead, manganese, mercury, selenium, silver and zinc is better than that specified in Tables I, II, and III of the Basic Standards and Methodologies for Surface Water, for the protection of aquatic life class 1 and recreation class 1 uses. In addition, a portion of Lower Yampa/Green River segment 2 is located within Dinosaur National Monument. The entire segment has been designated High Quality 2 to protect the Monument and for consistency with the upstream and downstream waters. The Commission rejected a proposal to resegment Lower Yampa/Green River segment 2 at the Dinosaur National Monument boundary. An ambient-quality-based iron standard = 1,900 ug/l (Trec) has been established for this segment.

Previous Lower Colorado segments 16a and 16b have been renumbered as segment 15; previous segment 16c is now segment 16.

**C. Existing High Quality 2 Segments; New Classifications and Standards**

White River segment 1
Lower Colorado River segment 8

These segments were already described as High Quality class 2, and available information indicates that the parallel new High Quality 2 designation continues to be appropriate for each. All are within wilderness areas. In addition, the following use classifications, and associated table value standards, have been adopted for these segments:

Recreation - Class 2
Cold Water Aquatic Life - Class 1
Water Supply
Agriculture

These classifications and standards are appropriate based on the best available information regarding existing quality and uses. These provisions would apply in the event that degradation is determined to be necessary following an activity-specific antidegradation review.

**D. New Use-Protected Designations; No Change in Numeric Standards**

Lower Yampa/Green River segments 3b, 6, 12, 14, 17, 20
White River segments 5, 9, 13a, 13b, 16a, 22
Lower Colorado River segments 4, 11b, 11e, 13

These segments all qualify for a use-protected designation based on their present classifications. All are aquatic class 2 streams. Existing standards are recommended because these segments have only a minimal number of standards, with no metal or nutrient standards, except for Lower Colorado segment 4.

The descriptions of Lower Yampa/Green segments 3b and 12a (now 12) have been revised. Segments 3c and 12b have been deleted.

**E. New Use-Protected Designations; Revised Numeric Standards**

Lower Yampa/Green River segments 3a, 5, 13a, 13b, 16, 22
White River segments 15, 17, 18, 19
Lower Colorado River segments 6, 11d, 17

All of these segments are aquatic life class 2 streams with numeric standards to protect the existing aquatic life. Except as specified below, numerical standards for metals have been based on table values contained in Table III of the previous Basic Standards and Methodologies for Surface Water. Table III has been substantially revised, effective September 30, 1988. From the information available, it appears that the existing quality of these segments meets or exceeds the quality specified by the revised criteria in Table III, and new acute and chronic table value standards based thereon have been adopted. There are also some of these segments whose previous standards were based in part on ambient quality, since their quality did not meet old table values based on alkalinity ranges. However, these segments generally have much higher hardness than alkalinity, and the new table values (based on hardness-dependent equations) are now appropriate as standards.

Ambient quality-based standards:

| Segment | Constituents, ug/l |
|---|---|
| Lower Yampa/Green River 5 | Fe (ch) = 1500 ug/l (Trec) |
| Lower Yampa/Green River 13a | Fe (ch) = 1700 ug/l (Trec) |
| Lower Yampa/Green River 16 | Fe (ch) = 2400 ub/l (Trec) |
| White River 15 | Fe (ch) = 11000 ug/l (Trec) |

In addition, the aquatic life classification for Lower Yampa/Green River segment 3a is changed from cold water class 2 to warm water class 2.

**F. No Change in Classification; No Designations; Revised Numeric Standards**

Lower Yampa segment 7, 15
White segments 11, 14, 20
Lower Colorado segments 9, 11a, 11f, 12, 14, 19

These are water bodies whose classifications are appropriate for High Quality 2 designation (CW1 or WW1 and Rec 1) but had quality not suitable for a water supply classification or 85th percentile values of one or two parameters exceeding the criteria for class 1 aquatic life, or may not meet the water quality criteria based on the best available information. Previous segments 14a and 14b have been combined.

Table value standards have been adopted for these segments with the following exceptions:

| Segment | Constituents, ug/l |
|---|---|
| White 20 | Fe (ch) = 13,500 ug/l (Trec) |
| Lower Colorado 14 | Fe (ch) = 1,250 ug/l (Trec) |

**G. Changes in Classification; No Designations; Revised Numeric Standards**

White River segment 12, 21
Lower Colorado River segment 2, 3

Review of available data and existing uses indicates that Lower Yampa/Green River segment 2, White River segments 12 and 21, and Lower Colorado segments 2 and 3 are all appropriate to be upgraded to Recreation class 1 with a corresponding fecal coliform standard of 200 MPN/100 ml.

All segments are proposed for the appropriate table value standards except for total recoverable ambient standards for iron of 2,100 ug/l on White, segment 12; 2,300 ug/l on White, segment 20; 2,000 ug/l on Lower Colorado, segment 2; and 2,600 ug/l on Lower Colorado, segment 3.

**H. No change in Classifications or Standards**

White River segment 2, 16b
Lower Colorado segment 11c

Segment 2 of the White River is currently designated HQ1. White River segment 16b, and Lower Colorado segment 11c have no classifications.

**I. Deleted segments**

Lower Yampa/Green River segment 8
Lower Colorado segment 10

Each of these segments were reservoirs that are no longer in operation.

Parties to the September, 1990 Hearing

1. Associated Governments of Northwest Colorado
2. Union Oil Company of California dba Unocal
3. City of Rifle, Town of Palisade and Town of Debeque
4. Mobile Oil Corporation; Main Elk Corporation and Mobil Mining and Minerals Co.
5. Getty Oil Exploration Compary ("Getty") and the Colorado River Water Conservation District
6. Rio Blanco Oil Shale Company, Inc.
7. Chevron Shale Oil Company
8. EXXON Company, U.S.A.
9. Colorado River Water Conservation District
10. Getty Oil Exploration Company

**37.12 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; MARCH 1, 1993 HEARING:**

The provisions of 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 adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4), C.R.S., the following statement of basis and purpose.

**BASIS AND PURPOSE:**

The changes to the designation column eliminating the old High Quality 1 and 2 (HQ1, HQ2) designations, and replacing HQ1 with Outstanding Waters (OW) designation were made to reflect the new mandates of section 25-8-209 of the Colorado Water Quality Act which was amended by HB 92-1200. The Commission believes that the immediate adoption of these changes and the proposals contained in the hearing notice is preferable to the alternative of waiting to adopt them in the individual basin hearings over the next three years. Adoption now should remove any potential for misinterpretation of the classifications and standards in the interim.

In addition, the Commission made the following minor revisions to all basin segments to conform them to the most recent regulatory changes:

1. The glossary of abbreviations and symbols were out of date and have been replaced by an updated version in section 3.7.6.(2).

2. The organic standards in the Basic Standards were amended in October, 1991, which was subsequent to the basin hearings. The existing table was based on pre-1991 organic standards and are out of date and no longer relevant. Deleting the existing table and referencing the Basic Standards will eliminate any confusion as to which standards are applicable.

3. The table value for ammonia and zinc in the Basic Standards was revised in October, 1991. The change to the latest table value will bring a consistency between the tables in the basin standards and Basic Standards.

4. The addition of acute un-ionized ammonia is meant to bring a consistency with all other standards that have both the acute and chronic values listed. The change in the chlorine standard is based on the adoption of new acute and chronic chlorine criteria in the Basic Standards in October, 1991.

Finally, the Commission confirms that in no case will any of the minor update changes described above change or override any segment-specific water quality standards.

### 37.13 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE, SEPTEMBER 7, 1993:

The provisions of 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 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:**

On November 30, 1991, revisions to "The Basic Standards and Methodologies for Surface Water", 3.1.0 (5 CCR 1002-8), became effective. As part of the revisions, the averaging period for the selenium criterion to be applied as a standard to a drinking water supply classification was changed from a 1-day to a 30-day duration. The site-specific standards for selenium on drinking water supply segments were to be changed at the time of rulemaking for the particular basin. Only one river basin, the South Platte, has gone through basin-wide rulemaking since these revisions to the "Basic Standards". Through an oversight, the selenium standards was not addressed in the rulemaking for this basin and has since become an issue in a wasteload allocation being developed for segments 15 and 16 of the South Platte. Agreement on the wasteloads for selenium is dependent upon a 30-day averaging period for selenium limits in the effected parties permits. Therefore, the parties requested that a rulemaking hearing be held for the South Platte Basin to address changing the designation of the 10 ug/l selenium standard on all water supply segments from a 1-day to a 30-day standard. The Water Quality Control Division, foreseeing the possibility of a selenium issue arising elsewhere in the state, made a counter proposal to have one hearing to change the designation for the selenium standard on all water supply segments statewide. The Commission and the parties concerned with South Platte segments 15 and 16 agreed that this would be the most judicious way to address the issue.

The change in the averaging period may cause a slight increase in selenium loads to those segments which have CPDS permits regulating selenium on the basis of a water supply standard. However, these segments are only five in number and the use will still be fully protected on the basis that the selenium criterion is based on 1975 national interim primary drinking water regulations which assumed selenium to be a potential carcinogen. It has since been categorized as a non-carcinogen and new national primary drinking water regulations were promulgated in 1991 that raised the standard to 50 ug/l.

The Commission also corrected a type error in the TVS for Silver by changing the sign on the exponent for the chronic standard for Trout from + 10.51 to - 10.51.

### 37.14 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE (1995 Silver hearing)

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

**BASIS AND PURPOSE**

The changes described below are being adopted simultaneously for surface water in all Colorado river basins.

This action implements revisions to the Basic Standards and Methodologies for Surface Water adopted by the Commission in January, 1995. As part of a July, 1994 rulemaking hearing, the Commission considered the proposal of various parties to delete the chronic and chronic (trout) table values for silver in Table III of the Basic Standards. As a result of that hearing, the Commission found that the evidence demonstrated that ionic silver causes chronic toxicity to fish at levels below that established by the acute table values. It was undisputed that silver is present in Colorado streams and in the effluent of municipal and industrial dischargers in Colorado. The evidence also demonstrated that the removal of silver from wastewater can be costly. However, there was strongly conflicting scientific evidence regarding the degree to which silver does, or could in the absence of chronic standards, result in actual toxicity to aquatic life in Colorado surface waters. In particular, there was conflicting evidence regarding the degree to which the toxic effects of free silver are mitigated by reaction with soluble ligands to form less toxic compounds and by adsorption to particulates and sediments.

The Commission concluded that there is a need for additional analysis of the potential chronic toxicity of silver in streams in Colorado. The Commission encouraged the participants in that hearing, and any other interested parties, to work together to develop additional information that will help resolve the differences in scientific opinions that were presented in the hearing. The Commission believes that it should be possible to develop such information within the next three years.

In the meantime, the Commission decided as a matter of policy to take two actions. First, the chronic and chronic (trout) table values for silver have been repealed for the next three years. The Commission is now implementing this action by also repealing for the next three years, in this separate rulemaking hearing, all current chronic table value standards for silver previously established on surface waters in Colorado. Any acute silver standards and any site-specific silver standards not based on the chronic table values will remain in effect. The Commission intends that any discharge permits issued or renewed during this period will not include effluent limitations based on chronic table value standards, since such standards will not currently be in effect. In addition, at the request of any discharger, any such effluent limitations currently in permits should be deleted.

The second action taken by the Commission was the readoption of the chronic and chronic (trout) table values for silver, with a delayed effective date of three years from the effective date of final action. The Commission also is implementing this action by readopting chronic silver standards with a corresponding delayed effective date at the same time that such standards are deleted from the individual basins. The Commission has determined that this is an appropriate policy choice to encourage efforts to reduce or eliminate the current scientific uncertainty regarding in-stream silver toxicity, and to assure that Colorado aquatic life are protected from chronic silver toxicity if additional scientific information is not developed. If the current scientific uncertainty persists after three years, the Commission believes that it should be resolved by assuring protection of aquatic life.

In summary, in balancing the policy considerations resulting from the facts presented in the July 1994 rulemaking hearing and in this hearing, the Commission has chosen to provide relief for dischargers from the potential cost of treatment to meet chronic silver standards during the next three years, while also providing that such standards will again become effective after three years if additional scientific information does not shed further light on the need, or lack of need, for such standards.

Finally, the Division notes that arsenic is listed as a TVS standard in all cases where the Water Supply classification is not present. This is misleading since Table III in the Basic Standards lists an acute aquatic life criterion of 360 ug/l and a chronic criterion of 150 ug/l for arsenic, but a more restrictive agriculture criterion of 100 ug/l. It would be clearer to the reader of the basin standards if, for each instance where the standard “As(ac/ch)=TVS” appears, the standard “As=100(Trec)” is being inserted as a replacement. This change should make it clear that the agriculture protection standard would prevail in those instances where the more restrictive water supply use protective standard (50 ug/l) was not appropriate because that classification was absent.

The chemical symbol for antimony (Sb) was inadvertently left out of the “Tables” section which precedes the list of segments in each set of basin standards. The correction of this oversight will aid the reader in understanding the content of the segment standards. Also preceding the list of segment standards in each basin is a table showing the Table Value Standards for aquatic life protection which are then referred to as “TVS” in the segment listings. For cadmium, two equations for an acute table value standard should be shown, one for all aquatic life, and one where trout are present. A third equation for chronic table value should also be listed. The order of these three equations should be revised to first list the acute equation, next the acute (trout) equation, followed by the chronic equation. This change will also aid the reader in understanding the intent of the Table Value Standards.

PARTIES TO THE PUBLIC RULEMAKING HEARING JUNE 12, 1995

1. Coors Brewing Company
2. The Silver Coalition
3. Cyprus Climax Metals Company
4. The City of Fort Collins
5. The City of Colorado Springs

### 37.16 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JULY, 1997 RULEMAKING

The provisions of sections 25-8-202 and 25-8-401, C.R.S., provide the specific statutory authority for adoption of the attached regulatory amendments. The Commission also adopted, in compliance with section 24-4-103(4) C.R.S., the following statement of basis and purpose.

**BASIS AND PURPOSE**

The Commission has adopted a revised numbering system for this regulation, as a part of an overall renumbering of all Water Quality Control Commission rules and regulations. The goals of the renumbering are: (1) to achieve a more logical organization and numbering of the regulations, with a system that provides flexibility for future modifications, and (2) to make the Commission's internal numbering system and that of the Colorado Code of Regulations (CCR) consistent. The CCR references for the regulations will also be revised as a result of this hearing.

### 37.17 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JULY, 2001 RULEMAKING

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

**BASIS AND PURPOSE**

**A. Resegmentation**

Some renumbering and/or creation of new segments were adopted in the basin due to information which showed that: a) the original reasons for segmentation no longer applied; b) new water quality data showed that streams should be resegmented based on changes in their water quality; and/or c) certain segments could be grouped together in one segment because they had similar quality and uses. The following changes were made:

> Lower Yampa, Segment 3a – 3f: Tributaries to the Lower Yampa were separated out to reflect differences in the aquatic life use, water supply use, agricultural use, recreational use and designations.

Segment 3b: Named tributaries which are generally ephemeral and have less plentiful aquatic life use and the agricultural use is limited to livestock watering.

Segment 3c: The Milk Creek system has a known water supply use and has more plentiful aquatic life. The boundary on Good Spring Creek is set at the inlet to Wilson Reservoir. Wilson Reservoir and lower Good Spring Creek below Wilson Reservoir are included in this segment.

Segment 3d: Temple Gulch, Lay Creek and Morgan Gulch have more plentiful aquatic life, including species of special concern, and no known water supply use.

Segment 3e: Upper Good Spring, Taylor and Wilson Creeks have low flows and less plentiful aquatic life. Upper Good Spring Creek and Taylor Creek have a water supply use.

Segment 3f: Big Gulch was placed in a separate segment due to the presence of primary contact recreation uses.

Lower Yampa, Segments 3a and 14: Wetlands, lakes and reservoirs were added to the segment description to clarify that this is an “All” tributary segment.

Lower Yampa, Segment 6: Freeman Reservoir was separated from the tributaries to Fortification Creek to reflect its recreation 1a use and became segments 6a and 6b, respectively.

Lower Yampa, Segments 8 and 9: East Fork of the Williams Fork was separated out to reflect those waters within the Flat Tops Wilderness Area. Segment 8 had previously been deleted and is now replaced with the East Fork.

Lower Yampa, Segments 12 and 13b: Morapos Creek was moved from segment 13b to segment 12 to better reflect its cold water class 1 aquatic life use. Aldrich Lakes were separated from segment 12 into a new segment 12b to reflect its recreation 1a use.

Lower Yampa, Segments 14 and 20: Tributaries to the Yampa River from the Little Snake to the Green River were moved from segment 14 to segment 20 to better reflect the recreation 1a uses in Dinosaur National Monument and the associated watershed.

Lower Yampa, Segment 17: Tributaries to the Little Snake River were separated into segments 17a and 17b to reflect the differences in aquatic life use.

Lower Yampa, Segment 22: Tributaries to Vermillion Creek were added to this segment to reflect their recreational uses.

White River, Segments 1 and 2: Waterbodies in segment 2 were combined with those in segment 1. This combines the waters within the Flat Tops Wilderness Area. Segment 2 was deleted.

White River, Segments 4 and 5: Segments 4 and 5 were combined into segment 4 to reflect the similarity in water quality and aquatic life uses in the North Fork tributaries. Segment 5 was deleted.

White River, Segments 9 and 10: Coal Creek was separated out from segment 9 and is now included in segment 10 which better reflects its cold water class 1 aquatic life use. Lake Avery was separated from segment 10 into a new segment 10a to reflect its recreation 1a use with the remainder of segment 10 renamed segment 10b.

White River, Segment 13a: Wetlands, lakes and reservoirs were added to the segment description to clarify that this is an "All" tributary segment.

White River, Segments 13a and 13b: Little Spring Creek (previously identified in segment 13b as "Spring Creek") was deleted from segment 13b due to its dry nature and is now included in segment 13a. The description for segment 13b was also changed to include the entire Yellow Creek system. The aquatic life warm 2 classification is a better characterization of Yellow Creek's aquatic life use.

White River, Segments 16a and 16b: Waterbodies in segment 16b were combined into segment 16a to reflect the similarity in water quality and aquatic life uses in the tributaries to Piceance Creek. Segment 16b was deleted and segment 16a was renamed 16.

White River, Segments 17 and 18: Waterbodies in segment 18 were combined with those in segment 17 due to their similar natures and uses. Segment 18 was deleted.

White River, Segment 23: West Douglas Creek was added to segment 23 to better reflect its cold water class 1 aquatic life use.

Lower Colorado, Segments 4, 13a, and 13b: Wetlands, lakes and reservoirs were added to the segment descriptions to reflect the all tributaries system. These wetlands, lakes and reservoirs were previously unclassified.

Lower Colorado, Segments 4 and 10: Lower Rifle Creek was separated from segment 4 and moved to segment 10 to reflect its aquatic life cold 1 and recreation 1a uses. Segment 10 had previously been deleted and is now replaced with Lower Rifle Creek.

Lower Colorado, Segments 4 and 11g: Tributaries in the vicinity of lower Parachute Creek were separated from segment 4 to create segment 11g. These tributaries are generally ephemeral and there is no known water supply use. Since there is little or no information on aquatic life in this segment, and since the adequacy of flows to sustain aquatic life is an unresolved question, the last paragraph of section 31.6(2)(b) will apply to future changes without application of the downgrading criteria in that section. This segment is classified aquatic life cold 2, recreation 2, agriculture. Numeric standards are adopted to protect recreation and agriculture, and for DO and pH.

Lower Colorado, Segment 11h: The lower mainstem of Parachute Creek was separated from segment 4 to create segment 11h to reflect difference in land use and in water supply use, and for consistency within the Parachute Creek drainage basin which is predominantly reflected by other basin-specific segments. The evidence does not support a water supply use classification for this segment. This segment remains classified as aquatic life cold 2 and agriculture, and is classified as recreation 1b.

Lower Colorado, Segment 13: The tributary system to the Lower Colorado River was separated into several segments based on aquatic life uses and changes in water quality. Segment 13b was created to include tributaries known to have aquatic life class 2 uses. Segment 13c was created to include waterbodies with aquatic life class 1 uses. Evidence was submitted that indicated that high concentrations of selenium are present in portions of segments 13b and 13c. Segment 13 was renamed 13a and now excludes the new segments 13b and 13c.

Lower Colorado, Segment 14: Segment 14 was renamed 14a. Segment 14b was created to include the lower portion of Roan Creek which has an aquatic life warm 1 use. Lower Roan Creek was previously included in Segment 13.

Lower Colorado, Segment 16: This segment was deleted since no waterbodies could be identified in this segment.

Lower Colorado, Segment 19: Highline Reservoir and Mack Mesa Reservoir are now included in Segment 19 due to their aquatic life warm 1 uses and similar characteristics to the other lakes in Segment 19. These reservoirs were previously unclassified.

**B. Wetlands**

In March 1993, the Commission amended the Basic Standards and Methodologies for Surface Water, Regulation #31 (5 CCR 1002-31) to include wetlands in the stream classification and standards system for the State. Due to that action, it became necessary to revise the segment description for all segments of the "all tributary" type to clarify that wetlands are also part of the tributary system for a given mainstem segment. All tributary wetlands now clearly carry the same classifications and standards as the stream to which they are tributary as provided for in 31.13(1)(e)(iv).

**C. Manganese**

The aquatic life manganese criterion was initially changed in the 1997 revisions to the Basic Standards (5 CCR 1002-31) from a single chronic dissolved criterion to acute and chronic hardness-based equations. The equations were further modified in the 2000 revisions to the Basic Standards. The new manganese acute and chronic equations were added as table value standards in 37.6(3). As a result of the adoption of these new TVS, all segments classified for aquatic life use that had a chronic total recoverable manganese standard of 1,000 µg/L had the 1,000 standard stricken and replaced with Mn(ac/ch)=TVS.

**D. Selenium**

The regulation in 37.6 (3) listed the table value standards for selenium as Acute=135 µg/L and Chronic=17 µg/L. This was updated to reflect the existing acute and chronic criteria for selenium listed in the Basic Standards as Acute= 18.4 µg/L and Chronic= 4.6 µg/L which was adopted in 2000 by the Commission. This change means that all segments with standards for selenium given as TVS now have these lower acute and chronic standards. Because of this change, on all segments classified for a water supply use, the chronic total recoverable selenium of 10 µg/L was stricken and replaced with Se(ac/ch)=TVS.

The Commission adopted the table value standards for selenium and temporary modifications of existing ambient quality for selenium for Lower Colorado segments 13b and 13c. The temporary modifications were adopted pursuant to section 31.7(3)(a)(iii) of the Basic Standards regulation, based on the fact that there is significant uncertainty as to the appropriate underlying selenium standard for these segments. The reason for the adoption of the temporary modifications has been noted in the temporary modifications and qualifiers column of the table.

Water Quality monitoring has shown that many small drainages in the Grand Valley have selenium concentrations significantly in excess of the table value standards. The reduction of selenium, and the extent to which the current levels of selenium are the result of natural sources, reversible activities, and/or irreversible activities is unknown at this time. Therefore, it is not clear whether the table value standards are achievable in these segments. The Commission does not intend its actions to in any way impede current efforts to reduce salinity levels in the Colorado River mainstem and to implement the Grand Valley Water Management Plan. The Commission intends that the actions taken in this hearing will mark the beginning of a process to identify the appropriate long-term selenium standards for these tributaries. It is expected that the process may result in the adoption of site-specific standards for selenium in some or all of the affected segments.

## E. Outstanding Waters Designations

Several segments or waterbodies were designated outstanding waters (OW) due to their meeting certain criteria pursuant to section 31.8(2)(a). Segments which already included wilderness areas in their description were designated OW. The water quality of the following segments met the 12 parameter test and other requirements of 31.8(2)(a):

Lower Yampa, Segment 8
White River, Segment 1

## F. Removal of Use Protected Designation

The Division proposed that a number of aquatic life class 2 waterbodies be assigned undesignated status under the state antidegradation regulation due to the presence of Colorado State species of special concern. State regulations governing the "use-protected" designation allow this exception if the Commission determines that the waters are of exceptional ecological significance. The Commission believes that a number of important issues have been raised in this hearing regarding when and how this exception should be applied, and that further examination of these issues should occur. Nevertheless, for purposes of this hearing, the Commission, based upon a concern over the protection of classified uses and the absence of evidence of potential injury to permitted entities, has decided to accept the change to reviewable water status for the following:

Lower Yampa, Segments: 3d, 16 and 22
White River, Segment 15

Based upon representations made by certain parties to this rulemaking, the Commission endorses the formation of a workgroup to address the following topics and develop recommendations to be submitted to the Commission

- The relationship between the "exceptional ecological significance" exception to useprotected designations and the aquatic life class 2 basis for applying use-protected designations
- The need for and content of guidance to determine what water bodies are exceptionally ecologically significant
- The roles of a) water quality data; b) the nexus between water quality conditions and species decline, and c) other stressors, in using this exception
- The need for and nature of any amendments to the state antidegradation regulation if the presence of species of special concern constitute a basis for modification to the antidegradation designation of a water body.

The above listed segments would then be reviewed in light of the work group recommendations in the next triennial review of these basins.

The Commission urges that the work group process to address these issues move forward as expeditiously as possible. The Commission intends that the actions taken in this rulemaking not serve in any way as a precedent with respect to decisions in future Commission rulemaking proceedings.

## G. Recreation Classifications/Fecal Coliform and E. Coli Standards

The biological standards were updated to include the dual standards for E. coli and fecal coliform, which were adopted by the Commission in the 2000 revisions to the Basic Standards. As stated in the statement of basis for the Basic Standards revisions, the Commission intends that dischargers will have the option of either parameter being used in establishing effluent limitations in discharge permits. In making section 303(d) listing decisions, in the event of a conflict between fecal coliform and E. coli data, the E. coli data will govern. The Commission believes that these provisions will help ease the transition from fecal coliform to E. coli standards.

In a continuation of the Commission's efforts to comply with the requirements contained in the federal Clean Water Act that all waters of the nation should be suitable for recreation in and on the water (known as the “swimmable” goal), the Commission reviewed all Recreation Class 2 segments. In Colorado, the “swimmable” goal translates into Recreation Class 1a, with the 200/100 ml fecal coliform and 126/100 ml E. Coli standard, and Class 1b with the 325/100 ml fecal coliform and 205/100 ml E. coli standard. Class 1a indicates waters where primary contact uses have been documented or are presumed to be present. Class 1b indicates waters where no use attainability analysis has been performed demonstrating that a recreation class 2 classification is appropriate, but for which no existing primary contact uses have been documented following a reasonable level of inquiry. A Recreation Class 2 classification must be supported by a use attainability analysis that shows that there is not a reasonable potential for primary contact uses.

There was considerable evidence and testimony submitted in this hearing regarding what activities should be considered primary contact recreation. Section 31.13(1)(a) of the Basic Standards provides a non-exclusive list of primary contact activities. In this hearing, much discussion focused on the issue of whether “child's play” in streams that are too shallow to accommodate the primary contact uses listed in the Basic Standards should be considered a primary contact use. The Commission does not believe that a theoretical potential for child's play means that all streams should be classified Recreation Class 1a or 1b. However, the Commission concludes that the evidence submitted demonstrates that there is a potential risk of ingestion of small quantities of water by children playing in relatively shallow streams, based on the hand-to-mouth pathway, which warrants Recreation Class 1 protection in appropriate circumstances as elaborated below. Thus, such ingestion may occur in streams where whole body immersion is not likely.

This does not mean, as suggested by some, that all water bodies would be reclassified as Recreation Class 1a or 1b based on some potential for child's play. Rather, the Commission intends that a stream should be classified Recreation Class 1a or 1b due to the presence or potential for child's play only where the evidence demonstrates a likelihood of such activity on a frequently occurring basis. Therefore, child's play may be an appropriate basis for a Recreation Class 1a or 1b classification in a developed area where there is easy access to a stream for children and it is likely that children will desire to play in the stream; it may not be an appropriate basis for such classifications in areas where it is not expected that children will be playing in a stream on a frequently occurring basis. Factors such as lack of adequate flow, excessive flows, remoteness from developed areas, physical limitations to access, steep banks, and visibly poor water quality may make it unlikely that child's play will take place on a frequently occurring basis. The Commission anticipates that these classification decisions will require case-by-case judgments until more experience is gathered with this issue.

A recreation Class 1a or 1b classification of a segment is not intended to imply that the owner or operator of property surrounding any waterbody in a segment would allow access for primary contact recreation. The application of recreation classifications to state waters pursuant to these provisions does not create any rights of access on or across private property for the purposes of recreation in or on such waters. A recreation Class 1a classification is intended to only affect the use classification and water quality standards of a segment, and does not imply public or recreational access to waters with restricted access within a segment.

For segments changing to recreation Class 1a because no evidence or inadequate evidence was submitted on the record about actual or potential recreational uses, the last paragraph of section 31.6(2)(b) will apply to future changes to the recreation classification where a proper showing is made through a use attainability analysis that a recreation Class 2 classification is appropriate, without application of the other downgrading criteria in this section. Moreover, the Commission is relying in part on the testimony from EPA that completion of a use attainability analysis showing that a lower recreation classification is appropriate satisfies applicable downgrading criteria. Based on these factors, the Commission intends that in a future rulemaking hearing, the test for adopting a recreation Class 2 classification would be the same as if it had been considered in this hearing.

The following segments with existing Recreation Class 1 classifications were changed to Class 1a:

Lower Yampa, Segments: 1, 2, 19
White River, Segments: 11, 12, 21
Lower Colorado, Segments: 1, 2, 3, 9

Based on the information received that showed Recreation Class 1a uses are in place or are presumed to be present in at least a portion of the segment, the Commission changed the following segments from Class 2 to Class 1a with a 200/100 ml fecal coliform and 126/100 ml E. coli standard:

Lower Yampa, Segments: 3f, 5, 6b, 8, 10, 12b, 13a, 13b, 15, 16, 20
White River, Segments: 1, 3, 4, 6, 10a, 23
Lower Colorado, Segments: 7, 10, 13b, 13c, 15, 19

Based on the information received, where a reasonable levei of inquiry failed to identify any existing class 1 uses of the waters in these segments, the Commission changed the following segments to Class 1b with a 325/100 ml fecal coliform and 205/100 ml E. coli standard:

Lower Yampa, Segments: 3b, 3c, 3e, 4, 6a, 7, 9, 11, 12a, 17a, 18, 21
White River, Segments: 8, 10b, 14, 15, 19, 22
Lower Colorado, Segments: 5, 11h, 13a, 14a, 14b, 18

Although Wilson Reservoir, in Lower Yampa segment 3c is open to public fishing, it is on private property and is posted “no swimming”. Other streams in segments 3b, 3c, and 3e are located in undeveloped areas, have limited or no public access and are generally characterized as shallow low-flow streams.

For Lower Colorado segment 17, the Commission adopted a Class 1b classification, based on inquiry that failed to identify existing uses, while retaining the 200/100 ml fecal coliform standard and adopting a 126/100 ml E. coli standard, because the segment currently meets these more stringent standards, water users on this segment support the more stringent standards and no water users or dischargers will be adversely affected.

For the following segments, the Commission adopted seasonal recreation classifications, based on evidence of differences in actual or potential recreation uses at different times of the year:

| | |
|---|---|
| Lower Yampa, Segment 22: | Class 1b, June 1 through August 31 |
| | Class 2, September 1 through May 31 |
| White River, Segment 7: | Class 1a, March 1 through November 30 |
| | Class 1b, December 1 through February 28 |

The following segments retained their Recreation Class 2 classification with 2,000/100mL fecal coliform and 630/100 ml E. coli standards after sufficient evidence was received that a Recreation Class 1a use was unattainable.

Lower Yampa, Segment: 3a, 3d, 14, 17b
White River, Segments: 9, 13a, 13b, 16, 17, 20
Lower Colorado, Segments: 4, 6, 8, 11a, 11b, 11c, 11d, 11e, 11f, 11g, 12

The classification for Lower Yampa/Green River segments 3a, 3d, 14 and 17b are based upon the fact that the streams are ephemeral and/or intermittent and have limited access. The classification for White River segment 9 is based upon low flows and limited access through private lands. The classifications for White River segments 13a, 13b, 16, 17 and 20 are based upon the fact that the streams are ephemeral and/or intermittent. The classification for Lower Colorado segment 4 is based upon limited streamflows. The classification for Lower Colorado segment 6 is based upon limited streamflows and steep stream banks. The classifications for Lower Colorado segments 8, 11a–g and 12 are based upon limited streamflows and limited access due to private and industrial lands.

**H. Aquatic Life Segments without Full Standards**

The Commission reviewed information regarding Aquatic Life Class 2 segments where the full set of inorganic aquatic life protection standards have not been applied. Generally, these are dry segments with only rudimentary aquatic life. The Commission's policy has been that rather than adopt the full set of inorganic standards for these segments, standards for dissolved oxygen, pH and fecal coliform provide sufficient protection.

Segments where investigation showed that aquatic life was present were upgraded with the addition of the full suite of inorganic standards. These segments are:

Lower Yampa, Segments: 3c, 3d, 17a
White River, Segments: 9, 13b
Lower Colorado, Segments: 5, 13b

**I. Ambient Quality-Based Standards**

There are several segments in the Lower Colorado Basin that contain standards based on existing ambient quality. Ambient standards are adopted where natural or irreversible maninduced conditions result in water quality levels higher (i.e. worse) than table value standards. EPA had requested that the Commission review the information that is the basis for these standards as well as any new information that would indicate whether they are still appropriate, need to be modified, or should be dropped.

The Division reviewed the information about ambient water quality levels and provided testimony that justified revising the ambient standards on Lower Yampa, Segment 16.

Ambient standards were removed from the following segments due to new data and/or changes to the Basic Standards which indicated ambient standards were no longer appropriate:

Lower Yampa, Segments: 2, 5, 13a
White River, Segments: 12, 20, 21
Lower Colorado, Segments: 2, 3, 14a

**J. Temporary Modifications**

There were several segments where temporary modifications that reflect current ambient conditions were adopted. Temporary modifications were set to expire on 12/31/08. The segments and the constituents are:

Lower Yampa, Segment 16: fecal coliform
White River, Segment 9: selenium
White River, Segment 13b: all numeric standards

Lower Colorado, Segments 4, 13b, and 13c: selenium
Lower Colorado, Segment 13b (Persigo Wash and Little Salt Wash): several parameters

In accordance with the triennial review requirements in the federal Clean Water Act and Colorado Water Quality Control Act, the Commission retains its authority to reexamine and revise temporary modifications, if necessary, based upon new information that it may obtain prior to the December 31, 2008 expiration date, regarding the reason for the temporary modifications.

White River, Segment 13b: This segment is subject to temporary modification for all numeric standards to reflect "current conditions." The temporary modifications reflect uncertainty regarding the numeric standards necessary to protect aquatic life and agricultural uses in Yellow Creek. Shell Frontier Oil will work in coordination with the Division to resolve the uncertainty before the temporary modification expires.

Lower Yampa Segments 3c and 3e: The temporary modifications for lower Yampa Segments 3c and 3e reflect significant uncertainty regarding the appropriate long-term underlying inorganics and metals standards for these segments or portions thereof. This uncertainty stems from a general lack of knowledge regarding existing water quality conditions, potential future uses (for example, the Colowyo Coal Company has expressed its intention to relocate its water supply diversion on Taylor Creek to an upstream location that would be above any existing discharges to the stream) and aquatic biota occurring in these segments. The Colowyo Coal Company will coordinate with the Division and conduct water quality, habitat and aquatic life investigations, before the next review to resolve the noted uncertainty.

With respect to Lower Yampa segments 3c and 3e, although the next triennial review will occur in July 2003, the Commission does not anticipate that sufficient information will have been collected as of that time to justify removal of the temporary modifications. Therefore, the Commission has assigned an expiration date of 12/31/2008 for the temporary modifications for these segments. This date coincides with the next subsequent major review of standards in this basin.

Lower Colorado, segment 13b: Temporary modification of "current conditions" is provided in Segment 13b for Persigo Wash from immediately above the Persigo Wash Wastewater Treatment Plant discharge point to the confluence with the Colorado River and for Little Salt Wash from immediately above the Fruita Wastewater Treatment Plant discharge point to the confluence with the Colorado River. The temporary modification is for ammonia, boron, fecal coliform, cadmium, copper, mercury, silver, nickel, nitrite, and dissolved oxygen and shall expire 12/31/08. The temporary modification is provided to the Cities of Grand Junction and Fruita and others to resolve questions about and the uncertainty of application of the specific standards to the segment and the lower portions of Persigo and Little Salt Washes. The temporary modification provides time for setting appropriate, attainable standards, evaluating the feasibility of discharge point(s) in the wash or moving the discharge points elsewhere, including into the Colorado River, the need for additional treatment processes, if any, for the wastewater treatment plant and the affect of any action on the endangered species. The adoption of the temporary modification recognizes current conditions while providing an opportunity to remove the uncertainty.

The Commission expects that a plan for resolving the uncertainty that is the basis for the temporary modification will be developed, with participation from EPA, the U.S. Fish and Wildlife Service and others, by the time of the November, 2002 "issues formulation hearing" for this basin. Based upon review of that plan at that informational hearing, the Commission can determine whether there is any need for formally considering a change to the duration of this temporary modification in the July, 2003 rulemaking hearing for this basin.

## K. Organic Chemical Standards

The organic chemical standards were updated to include changes adopted by the Commission in the 2000 revisions to the Basic Standards (see section 31.11 in Regulation No. 31). “Water + Fish” organic chemical standards are presumptively applied to all Aquatic Life Class 1 streams which also have a Water Supply classification, and are applied to Aquatic Life Class 2 streams which also have a Water Supply classification, on a case-by-case basis. The “Fish Ingestion” organic chemical standards are presumptively applied to all Aquatic Life Class 1 streams which do not have a Water Supply classification, and are applied to aquatic life class 2 streams which do not have a Water Supply classification, on a case-by-case basis.

Information was reviewed regarding Aquatic Life Class 2 segments that have fish that are presently being taken for human consumption or have fisheries that would indicate the potential for human consumption. That information showed that one additional segment had the potential for consumption of fish. White River, Segment 17 was designated to receive the full protection of numeric Fish Ingestion organic standards.

## L. Water Supply Classification

These segments had the Water Supply classification added to them. The associated water supply standards will now apply to segments:

Lower Yampa, Segment: 3c, 3e
White River, Segments: 9, 21
Lower Colorado, Segments: 4

## M. Modification of Water Supply Standards

Water supply standards were modified to conform to the changes made by the Commission in the 2000 revisions to the Basic Standards (see Regulation No. 31 at section 31.11(6)). The Commission modified the water supply standards for iron, manganese, and sulfate that are based on secondary drinking water standards (based on aesthetics as opposed to humanhealth risks). The numeric values in the tables were changed to Fe(ch) = WS (dis), Mn(ch) = WS (dis), and $SO_4$ = WS. These abbreviations mean that for all surface waters with an actual water supply use, the less restrictive of the following two options shall apply as numerical standards, as discussed in the Basic Standards and Methodologies at section 31.11(6): either (i) existing quality as of January 1 2000; or (ii) Iron = 300 µg/L (dissolved); Manganese = 50 µg/L (dissolved); Sulfate = 250 mg/L (dissolved). For all surface waters with a “Water Supply” classification that are not in actual use as a water supply, no water supply standards are applied for iron, manganese or sulfate, unless the Commission determined as the result of a sitespecific rulemaking hearing that such standards are appropriate.

## N. Agriculture Classifications

There are two segments in the Lower Colorado River Basin that were not classified for Agricultural use. The Agricultural use classification was adopted for Lower Colorado, Segment 11c. White River segment 16b previously did not have an agriculture use; however, it was combined with segment 16a which had an agriculture use. The new segment 16 has an agriculture use.

## O. Agriculture Standards

Numeric Standards to protect Agricultural Uses were adopted for the following segments:

Lower Yampa, Segments: 3a, 3b, 6, 14, 17b, 20
White River, Segments: 13a, 22
Lower Colorado, Segments: 11b, 11c, 11e, 11g, 13a

**P. Other Site-Specific Revisions**

The Commission corrected several typographical and spelling errors, clarified segment descriptions and removed “eff 3-2-98:” which refers to the now past effective date for the chronic silver standards.

The following aquatic life classifications were upgraded from class 2 to class 1 based on information presented that showed diverse aquatic communities in these segments.

Lower Yampa, Segments: 5, 12, 17a

In addition, Lower Colorado, Segment 17 was changed from aquatic life class 2 warm to class 1 cold, based on information received about the aquatic community that includes trout species.

Site-specific numeric standards were adopted for the following segments:

Lower Yampa, Segment 3b: Site-specific agricultural standards were adopted to protect livestock watering since Trapper Mining provided evidence that water from this segment is not used for crop irrigation.

White River, Segment 13b: Site-specific agricultural standards were adopted to protect livestock watering and irrigation of pasture for livestock feed since Shell Frontier Oil provided evidence that water from this segment is not used for irrigation of sensitive crops.

PARTIES TO THE RULEMAKING HEARING

1. Animas River Stakeholders Group
2. Colorado Wild, San Juan Citizen’s Alliance, Sierra Club-Rocky Mountain Chapter, Colorado Environmental Coalition and The Wilderness Society
3. U.S. Department of the Interior, Bureau of Land Management
4. Sunnyside Gold Corporation
5. The Southwestern Water Conservation District
6. Silver Wing Company, Inc.
7. U.S. Department of Agriculture Forest Service
8. Shenandoah Mining Company Incorporated
9. Town of Silverton
10. Pagosa Area Water and Sanitation District
11. Peter Butler
12. U.S. Department of the Interior National Park Service
13. Climax Molybdenum Company
14. Tri-State Generation and Transmission Association, Inc.
15. Town of Olathe
16. The Board of County Commissioners of the County of Gunnison
17. Gunnison County Stockgrowers Association. Inc.
18. High Country Citizens' Affiance and Western Slope Environmental Resource Council
19. The City of Grand Junction
20. Homestake Mining Company
21. The Board of County Commissioners of the County of San Miguel
22. Mt. Crested Butte Water and Sanitation District
23. Colorado River Water Conservation District
24. Town of Cedaredge
25. The Board of County Commissioners of the County of Mesa
26. The Uncompahgre Valley Water Users Association
27. Umetco Minerals Corporation
28. The Colowyo Coal Company, LP.
29. The Uncompahgre Valley Association

30. Town of Crested Butte
31. The City of Delta
32. Trapper Mining, Inc.
33. The Colowyo Coal Company, LP.
34. The City of Grand Junction
35. Colorado River Water Conservation District
36. Yellow Jacket Water Conservation District
37. The Town of Meeker
38. The City of Fruita
39. Exxon Mobil Corporation
40. Shell Frontier Oil & Gas Inc.
41. The Board of County Commissioners of the County of Mesa
42. American Soda, LLP
43. The Rio Blanco Water Conservancy District
44. Colorado Division of Wildlife
45. The Northern Colorado Water Conservancy District and its Municipal Subdistrict
46. Upper Gunnison River Water Conservancy District
47. U.S. EPA Region
48. Ralph E. Clark III
49. U.S. Department of the Interior

### 37.18 STATEMENT OF BASIS. SPECIFIC STATUTORY AUTHORITY AND PURPOSE: JULY. 2002 RULEMAKING

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**

As a result of major rulemaking hearings in July, 2001, the Commission adopted extensive revisions to the water quality designation, classifications and standards for the waters in this basin. Subsequent to the filing of the final action documents resulting from that rulemaking, minor error were identified in the published revisions. Errors in the segment description for White River segment 17 were corrected in this rulemaking.

### 37.19 STATEMENT OF BASIS. SPECIFIC STATUTORY AUTHORITY AND PURPOSE: JULY. 2003 RULEMAKING

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

**BASIS AND PURPOSE**

The Water Quality Control Commission completed a thorough review of Regulation No. 37 in July 2001, coincident with Regulation Nos. 34 and 35. To balance the workload and provide continuity with the upper basin, the Lower Colorado basin was moved to the cycle with the Upper Colorado basin (Regulation No. 33). This hearing addressed issues that had arisen since the 2001 hearing.

## A. Resegmentation

Some renumbering and/or creation of new segments was made in the basin due to information which showed that: a) the original reasons for segmentation no longer applied; b) new water quality data showed that streams should be resegmented based on changes in their water quality; and/or c) certain segments could be grouped together in one segment because they had similar quality and uses. The following changes were made:

Lower Yampa segment 22
Lower Yampa segment 22a
Lower Yampa segment 22b
White River segment 9
White River segment 9a
White River segment 9c
White River segment 10a
Lower Colorado segment 4a
Lower Colorado segment 4b
Lower Colorado segment 9a
Lower Colorado segment 9b
Lower Colorado segment 13a
Lower Colorado segment 13b
Lower Colorado segment 19

## B. Recreation Classifications/Fecal Coliform and E. Coli Standards

In a continuation of the Commission's efforts to comply with the requirements contained in the federal Clean Water Act that all waters of the nation should be suitable for recreation in and on the water (known as the “swimmable” goal), the Commission reviewed several Recreation Class 2 segments. In Colorado, the “swimmable” goal translates into Recreation Class 1a, with the 200/100 ml fecal coliform and 126/100 ml E. Coli standard, and Class 1b with the 325/100 ml fecal coliform and 205/100 ml E. coli standard. Class 1a indicates waters where primary contact uses have been documented or are presumed to be present. Class 1b indicates waters where no use attainability analysis has been performed demonstrating that a recreation class 2 classification is appropriate, but where a reasonable level of inquiry has failed to identify any existing class 1 use. To maintain the existing Recreation Class 2 with the 2000/100 ml fecal coliform and 630/100 ml E. coli. standard on a segment, it must be shown that there is not reasonable potential for Recreation Class 1 uses to occur within the next 20-year period (e.g.: ephemeral or small streams that have Insufficient depth to support any type of Recreation Class 1 use or very restricted access).

A recreation class 1a classification of a segment is not intended to imply that the owner or operator of property surrounding a waterbody in a segment would allow access for primary contact recreation. The application of recreation classifications to state waters pursuant to these provisions does not create any rights of access on or across private property for the purposes of recreation in or on such waters. A recreation class 1 a classification is intended to only affect the use classification and water quality standards of a segment, and does not imply public or recreational access to waters with restricted access within a segment.

For segments changing to recreation Class 1a because no information was available about actual recreational uses, the last paragraph of section 31.6(2)(b) will apply to future changes to the recreation classification where a proper showing is made through a use attainability analysis that a recreation Class 2 classification is appropriate, without application of the other downgrading criteria in this section. Moreover, the Commission is relying in part on the testimony from EPA that completion of a use attainability analysis showing that a lower recreation classification is appropriate satisfies applicable downgrading criteria. Based on these factors, the Commission intends that in a future rulemaking hearing, the test for adopting a recreation Class 2 classification would be the same as if it had been considered in this hearing

Based on the information received that showed Recreation Class 1 a uses are in place or are presumed to be present in at least a portion of the segment, the Commission changed the following segment from Class 2 to Class 1 a with a 200/100 ml fecal coliform and 126/100 ml E. coli standard on a seasonal basis:

White River segment 9b from 6/1 to 8/31

Based on the information received that showed Recreation Class 1a uses are in place or are presumed to be present in at least a portion of the segment, the Commission designated the following segments Class 1a with a 200/100 ml fecal coliform and 126/100 ml E. coli standard:

White River segment 10a
Lower Colorado segment 4b
Lower Colorado segment 9b
Lower Colorado segment 19
Lower Yampa 22b

Based on evidence presented, the Commission changed the following from Recreation Class 2 classification to Recreation Class 1b with a 325/100 ml fecal coliform and 205/100 ml E. coli standard:

Lower Colorado segment 6

The following segments retained their Recreation Class 2 classification with 2,000/100mL fecal coliform and 630/100 ml E. coli standard after sufficient evidence was received that a Recreation Class 1a or 1b use was unattainable.

Lower Yampa segment 21
Lower Yampa segment 22a
Lower Colorado segment 4a
White River segment 9a
White River segment 9b from 9/1 to 5/31

**C. Lower Yampa 3b Temporary Modification**

The Commission adopted a temporary modification for selenium of existing quality and a goal qualifier of TVS for Johnson Gulch from the confluence of Johnson Gulch and Pyeatt Gulch to the confluence with the Yampa River based on uncertainty.

Johnson Gulch is one of sixteen gulches included in Segment 3b of the lower Yampa River. This temporary modification was adopted pursuant to Regulation 31.7(3)(a)(iii) and data collected in the lower portion of Johnson Gulch near the Yampa River which showed selenium standards higher than aquatic life TVS. The Commission made no changes to the agriculture based selenium standard of 50 ug/L that was previously adopted in Segment 3b for upper Johnson Gulch, Pyeatt Gulch or any of the other fourteen gulches included in Segment 3b.

**D. Modification of Water Supply Standards**

Water supply standards were modified at the July 2001 hearing to conform to the changes made by the Commission in the 2000 revisions to the Basic Standards (see Regulation No. 31 at 31.11(6)). The Commission modified the water supply standards for iron, manganese, and sulfate that are based on secondary drinking water standards (based on esthetics as opposed to human-health risks). The numeric values in the tables were changed to Fe(ch) = WS (dis), Mn(ch) = WS (dis), and $SO_4$ = WS. These abbreviations mean that for all surface waters with an actual water supply use, the less restrictive of the following two options shall apply as numerical standards, as discussed in the Basic Standards and Methodologies at 31.11(6): either (i) existing quality as of January 1 2000; or (ii) Iron = 300 µg/l (dissolved); Manganese = 50 µg/l (dissolved); Sulfate = 250 mg/L (dissolved). For all surface waters with a "Water Supply" classification that are not in actual use as a water supply, no water supply standards are applied for iron, manganese or sulfate, unless the Commission determined as the result of a site-specific rulemaking hearing that such standards are appropriate.

White River segment 21

**E. Other Site-Specific Revisions**

The Commission also clarified several segment descriptions.

PARTIES/MAILING LIST TO THE JULY, 2003 RULEMAKING HEARING.

1. Colorado River Water Conservation District
2. U.S. EPA Region VIII
3. Xcel Energy
4. Colorado Division of Wildlife
5. The City of Grand Junction
6. Trapper Mining Company
7. Exxon Mobil Corporation
8. Shell Frontier Oil & Gas Inc.
9. City of Rifle
10. Town of New Castle
11. West Glenwood Springs Sanitation District

**37.20 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 12, 2005 RULEMAKING EFFECTIVE DATE OF MARCH 2, 2006**

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 the process of digitally mapping the segments in the Lower Colorado Basin, the Division discovered errors and inconsistencies between segment descriptions. To resolve these issues the Commission adopted changes in the following segment descriptions:

Lower Yampa / Green River segments 3b, 14, and 17a
White River segments 10a, 13a, 16, and 17

## 37.21 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE DECEMBER 2006 RULEMAKING REGARDING TEMPORARY MODIFICATIONS; ADOPTED JANUARY 8, 2007; EFFECTIVE MARCH 4, 2007

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

BASIS AND PURPOSE

The Commission recently restructured section 31.7(4) and established an annual rulemaking hearing to review temporary modifications (regardless of the basis) that are due to expire in the two years following the rulemaking hearing. In this hearing, the Commission considered evidence as discussed in subsections 31.7(3) (b) and (c) to determine whether the temporary modification should be modified, eliminated or extended.

The Commission deleted the temporary modifications for the following segments thereby allowing the underlying standards to go into effect:

Lower Yampa segment 3b: Se(ac/ch) existing quality for Johnson Gulch from the confluence of Johnson Gulch and Pyeatt Gulch to the confluence with the Yampa River

Lower Yampa segment 3c: inorganics and metals, existing quality

Lower Yampa segment 3e: inorganics and metals, existing quality

Lower Yampa segment 16: f. coli =275/100 ml

White River segment 9b: Se(ch) = existing ambient quality

Lower Colorado segment 4a: Se(ch) = existing ambient quality

Lower Colorado segment 13c: Se(ch) = existing ambient quality

Because parties are working to resolve uncertainty and are on schedule to address these segments at the regularly scheduled basin-wide rulemaking (June 2008), the Commission took no action on the temporary modifications for the following segments, leaving their expiration dates unchanged:

White River segment 13b: all numeric standards = current conditions

Lower Colorado segment 13b: Se(ch) = existing ambient quality; Persigo Wash from Grand Junction discharge to confluence with the Colorado River, and Little Salt Wash from Fruita discharge to confluence with the Colorado River for D.O., F coli., $NH_3$, Cd, Cu, Ag, Ni, B, Hg, $NO_2$ = exiting quality

PARTIES TO THE RULEMAKING HEARING

1. Trapper Mining Inc.
2. The City of Grand Junction
3. Corrections Corporation of America
4. Keystone Resort
5. U.S. EPA Region VII
6. The City of Black Hawk and the Black Hawk/Central City Sanitation District
7. The City of Colorado Springs
8. Information Network for Responsible Mining

9. Seneca Coal Company

**37.22 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: January 2007 Rulemaking Hearing; Final Action February 12, 2007; Revisions effective July 1, 2007**

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

**BASIS AND PURPOSE:**

The Commission revised the basin-wide temperature standards as part of the 2007 rulemaking hearing. These changes clarify the numeric temperature standards that will be in effect until the basin-wide rulemaking hearing in June of 2008. At that time, the Commission intends to consider segment specific temperature standards for all segments with aquatic life uses.

The Commission applied 17°C as an interim chronic standard for small, high elevation streams that are likely to be habitat for brook trout and cutthroat trout. First, second and third order streams are defined at section 31.5 in the Basic Standards.

For the remainder of the cold water segments, the Commission left the current 20°C in place as an interim standard with the clarification that it is a chronic standard. The existing 30°C criterion for warm water segments was left in place as an interim standard with the clarification that is also to be applied as a chronic standard.

PARTIES TO THE RULEMAKING HEARING

1. The Temperature Group (City of Aurora, City of Boulder, Colorado Springs Utilities, Littleton/Englewood Wastewater Treatment, The Metro Wastewater Reclamation District, Colorado Mining Association, Colorado Rock Products Association, Tri-State Generation & Transmission Assn., Xcel Energy, Denver Water, Northern Colorado Water Conservancy District, Southeastern Colorado Water Conservancy District)
2. City of Grand Junction
3. City of Loveland
4. City of Pueblo
5. Metro Wastewater Reclamation District
6. City of Aurora
7. City of Boulder
8. Colorado River Water Conservation District
9. Colorado Wastewater Utility Council
10. Bear Creek Watershed Association
11. Chatfield Watershed Authority
12. Mountain Coal Company, L.L.C.
13. Northern Colorado Water Conservancy District
14. Colorado Rock Products Association
15. Littleton/Englewood Wastewater Treatment Plant
16. Northwest Colorado Council of Governments
17. Southeastern Colorado Water Conservancy District
18. Colorado Mining Association
19. Colorado Division of Wildlife
20. South Platte Coalition for Urban River Evaluation
21. City and County of Denver
22. City of Colorado Springs and Colorado Springs Utilities
23. City of Westminster
24. Board of Water Works of Pueblo
25. Coors Brewing Company

26. City and County of Broomfield
27. Centennial Water and Sanitation District
28. Plum Creek Wastewater Authority
29. Climax Molybdenum Company
30. Cripple Creek & Victor Gold Mining Company
31. Tri-State Generation and Transmission Association
32. Xcel Energy
33. Sky Ranch Metropolitan District No. 2
34. Parker Water and Sanitation District
35. CAM-Colorado and CAM Mining LLC
36. Aggregate Industries – WCR, Inc.
37. Grand County Water and Sanitation District #1, Winter Park Water and Sanitation District, Winter Park West Water and Sanitation District and Fraser Sanitation District
38. Trout Unlimited and Colorado Trout Unlimited
39. Colorado Contractors Association
40. United States Environmental Protection Agency, Region 8
41. Hot Springs Lodge and Pool
42. Denver Regional Council of Governments

### 37.23 STATEMENT OF BASIN SPECIFIC STATUTORY AUTHORITY AND PURPOSE MARCH 2007 RULEMAKING REGARDING AMMONIA STANDARDS

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:**

At the June 2005 Basic Standards rulemaking, the Commission adopted the 1999 Update of Ambient Water Quality Criteria for Ammonia (US EPA, Office of Water, EPA-822-R-99-014, December 1999) as the numeric ammonia criteria for Colorado. These new criteria are in the form of total ammonia rather than un-ionized ammonia. The Commission modified the ammonia equations in 35.6(3) and footnotes to conform to Regulation # 31.

Consistent with the approach outlined in the Basic Standards statement of basis and purpose, the Commission provided flexibility for dischargers faced with the possibility of new, more stringent effluent limits.

Temporary modifications were generally set to expire on 12/31/11. This date is set far enough in the future to allow facilities to consider their specific circumstances and to develop a plan regarding how to proceed, yet soon enough to assure that facilities are making progress in developing facility plans. For those that feel the underlying standards are inappropriate, time is allowed to study the receiving water and develop a proposal for an alternate standard. For those that need time to plan, finance or construct new facilities, time is allowed to develop that facility improvement plan.

The intent of the Commission is that in general, the permits for dischargers to warm water segments, that need time to achieve compliance, will contain schedules of compliance in the next renewal. The Commission understands that such a compliance schedule may include time to complete necessary sub-tasks or milestones. For example, this might include time to do facility planning, make financing arrangements, pre-design, design, construction, startup and commissioning.

There are several opportunities to revisit the duration of the temporary modifications before they expire on 12/31/2011. For those segments in the Upper and Lower Colorado Basins (Regulations # 33 and 37), persons can come forward at the Issues Formulation hearing in November 2007 with their intent to seek a site-specific adjustment in the June 2008 hearing. For those segments in the South Platte Basin (Regulation No 38), persons can come forward at the Issues Formulation hearing in November 2008 with their intent to seek a site-specific adjustment in the June 2009 hearing. In addition, all of these temporary modifications will be subject to the Annual Temporary Review process which will have hearings in December 2009 and 2010.

The Commission intends that the temporary modifications adopted in this rulemaking are "type i" temporary modifications.

The issues raised in this rulemaking hearing have highlighted the need to clarify the relationship between the temporary modification tool and the compliance schedule tool in Colorado's water quality management program. The Commission requests that the Division consider this issue further, with input from interested stakeholders, and bring forth any suggested revisions/clarifications for the 2010 Basic Standards rulemaking.

In the meantime, because of the Commission's previously expressed concerns regarding the unique and widespread challenges associated with compliance with the new ammonia standards, the Commission's intent with respect to temporary modifications and compliance schedules regarding these new ammonia standards is as follows:

- Where a demonstration has been made that a period of time longer than the end of 2011 will be required for compliance with the new ammonia standards, the Commission has approved an appropriate site-specific temporary modification expiration date.

- For segments where the 12/31/11 expiration date applies, and for which discharge permit renewals may be issued prior to that date, it is the Commission's intent, consistent with section 31.14(15)(a), that the Division have the authority to issue compliance schedules that may not result in full attainment of the ammonia standard prior to expiration of the renewal permit. Such compliance schedules should be issued only where the Division determines that a specific demonstration has been made that additional time is needed to attain the standard. In such cases, the Commission anticipates that permits would include milestones that assure reasonable progress toward attainment of the standard.

PARTIES TO THE RULEMAKING

1. Boxelder Sanitation District
2. Estes Park Sanitation District
3. City of Pueblo
4. The City of Boulder
5. The Metro Wastewater Reclamation District
6. The Colorado Wastewater Utility Council
7. The Paint Brush Hills Metropolitan District
8. The Grand County Water & Sanitation District #1, the Winter Park West Water & Sanitation District, the Fraser Sanitation District and the Winter Park Water & Sanitation District
9. Mountain Water & Sanitation District
10. The Town of Gypsum
11. The City of Grand Junction
12. City and County of Broomfield
13. Centennial Water & Sanitation District
14. Town of Erie
15. The City of Fort Collins
16. Plum Creek Wastewater Authority
17. The City of Sterling

18. Eastern Adams County Metropolitan District
19. The City of Littleton
20. Two River Metro District
21. H Lazy F Mobile Home Park
22. Rock Gardens Mobile Home
23. Blue Creek Ranch
24. The City of Greeley
25. US EPA

**37.24 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: DECEMBER 10, 2007 RULEMAKING REGARDING TEMPORARY MODIFICATIONS; EFFECTIVE MARCH 1, 2008**

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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the Commission reviewed the status of temporary modifications to determine whether the temporary modification should be modified, eliminated or extended.

Language was added to subsection 37.6(2) to explain the terms “type i” and “type iii” temporary modifications.

Because parties are working to resolve uncertainty and are on schedule to address these segments at the regularly scheduled basin-wide rulemaking (June 2008), the Commission either added “type iii” or made the reference consistent, but took no action on the temporary modifications for the following segments, leaving their expiration dates unchanged.

White River segment 13b: (temporary modifications of all numeric standards). Shell presented evidence that they are making progress on their study of appropriate underlying standards and will make a proposal for the 2008 rulemaking hearing.

Lower Colorado segment 13b: (temporary modifications for selenium, dissolved oxygen, fecal coliform, ammonia, cadmium, copper, silver, nickel, boron, mercury and nitrite). The cities of Grand Junction and Fruita and Mesa County presented evidence that they are making progress on their study of appropriate underlying standards and will make a proposal for the 2008 rulemaking hearing.

The following segments’ temporary modifications were inadvertently left in the table after last year’s hearing. They were deleted in this hearing.

Lower Yampa segment 3b: temporary modification for selenium.
Lower Yampa segment 3c: temporary modification for inorganics and metals.
Lower Yampa segment 3e: temporary modification for inorganics and metals.
Lower Yampa segment 16: temporary modification for fecal coliform.
White River segment 9b: temporary modification for selenium.
Lower Colorado segment 4a: temporary modification for selenium.
Lower Colorado segment 13c: temporary modification for selenium.

PARTIES TO THE RULEMAKING

1. Big Dry Creek Cities (City of Westminster, City of Northglenn, and City and County of Broomfield)
2. Colorado Rock Products Association

3. City of Grand Junction
4. City of Colorado Springs and Colorado Springs Utilities
5. Upper Clear Creek Watershed Association
6. City of Black Hawk and Black Hawk / Central City Sanitation District
7. Department of Energy Office of Legacy Management
8. City of Aurora
9. Shell Frontier Oil & Gas, Inc.
10. City of Boulder
11. Tri-Lakes Wastewater Treatment Facility
12. Security Sanitation District
13. City of Fort Collins
14. Metro Wastewater Reclamation District
15. U.S. EPA

**37.25 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JUNE 2008 RULEMAKING; FINAL ACTION AUGUST 11, 2008; EFFECTIVE DATE JANUARY 1, 2009**

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

**BASIS AND PURPOSE:**

A. Waterbody Segmentation

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

Lower Yampa/Green River segments: 3a, 3c, 4, 6a, 7, 8, 9, 12a, 18, and 20.
White River segments: 1, 4, 6, 8, 10b, 12, 13a, 16, and 22.
Lower Colorado segments: 5, 7a, 8, 9b, 10, 14a, 14c, 15, 17a, and 18.

The following lakes/reservoirs segments were created:

Lower Yampa/Green River segments: 23-33.
White River segments: 13d, 24-27.
Lower Colorado segments: 20 and 21.

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

Lower Yampa/Green River 1: This segment was deleted and the mainstem of the Yampa encompassed by this segment was moved to segment 2. The Commission determined that this segment had been mis-classified as cold-water habitat. The Commission combined the listings in segment 1 with segment 2 because they are both warm-water habitat, cover a geographically contiguous area, and the Commission determined they should have identical anti-degradation designation, use classifications, and standards.

Lower Yampa/Green River 2: The segment description was amended to include the mainstem of the Yampa between Elkhead Creek and Lay Creek, which was deleted from segment 1. The Commission combined these segments because they are warm-water habitat, cover a geographically contiguous area, and the Commission determined they should both have identical antidegradation designation, use classifications, and standards. This segment now encompasses all portions of the Yampa mainstem that are critical habitat for the federally endangered razorback sucker.

Lower Yampa/Green River 3a: The segment description was amended to include all tributaries and wetlands to the Yampa River between Lay Creek and the Little Snake River, which were deleted from segment 14. The Commission combined these segments because they cover a geographically contiguous area, and the Commission determined they should both have identical antidegradation designation, use classifications, and standards. Segments 17a, 17b, and 18 were added to the listings specifically excluded from this segment.

Lower Yampa/Green River 3b: Ben Morgan Creek, Boxelder Gulch, Collom Gulch, Hale Gulch and Jubb Creek were deleted from this segment and moved to a new segment 3g. The creeks and gulches that remain in this segment drain the Williams Fork Mountains and have inorganic and metals standards that are protective of livestock watering only.

Lower Yampa/Green River 3g: This segment was created to encompass Ben Morgan Creek, Boxelder Gulch, Collom Gulch, Hale Gulch and Jubb Creek. The creeks and gulches in this new segment drain the Danforth Hills and now have inorganic and metals standards that are protective of irrigated agriculture instead of livestock watering only.

Lower Yampa/Green River 4: The segment description was amended to include the North Fork of Fortification Creek and Little Cottonwood Creek. The Commission determined that these streams are cold-water habitat and moved them to this segment from segment 6a to facilitate the adoption of appropriate temperature standards.

Lower Yampa/Green River 6a: The North Fork of Fortification Creek was removed from this segment. The Commission moved the North Fork of Fortification Creek to segment 4 to facilitate the adoption of appropriate temperature standards.

Lower Yampa/Green River 6b: This segment was deleted and Freeman Reservoir was moved to a newly created cold-water lakes/reservoirs segment 24 where it was combined with Aldrich Lakes.

Lower Yampa/Green River 9: The South Fork of the Williams Fork River, including tributaries and wetlands, within the Routt National Forest was moved to this segment from segment 11. The Commission combined segments 9 and 11 because they cover a geographically contiguous area, and the Commission determined they should both have identical antidegradation designation, use classifications, and standards.

Lower Yampa/Green River 10: The segment description was amended to include tributaries and wetlands to the East Fork of the Williams Fork River from the boundary of the Routt National Forest to the confluence with the South Fork. The Commission determined these tributaries are cold-water habitat and moved them to this segment from segment 3a to facilitate the adoption of appropriate temperature standards.

Lower Yampa/Green River 11: This segment was deleted and the South Fork of the Williams Fork River, including tributaries and wetlands, were incorporated into segment 9. The Commission combined segments 9 and 11 because they cover a geographically contiguous area, and the Commission determined they should both have identical antidegradation designation, use classifications, and standards.

Lower Yampa/Green River 12a: The segment description was amended to include all wetlands and tributaries to the South Fork of the Williams Fork River and Beaver Creek. The Commission moved these wetlands and tributaries from segment 3a to facilitate the adoption of appropriate temperature standards. The segment description was also amended to move the boundary for Milk Creek upstream to Clear Creek. The Commission moved Milk Creek between Clear Creek and County Road 15 in Thornburg to segment 12b.

Lower Yampa/Green River 12b: Aldrich Lakes were moved to a newly created cold-water lakes/reservoirs segment 24, where they were combined with Freeman Reservoir. The portion of Milk Creek between the confluence with Clear Creek and County Road 15 in Thornburg was moved to this segment from segment 12a to facilitate the adoption of appropriate temperature standards.

Lower Yampa/Green River 14: This segment was deleted and wetlands and tributaries to the Yampa between Lay Creek and the Little Snake River were incorporated into segment 3a. The Commission combined segments 3a and 14 because they cover a geographically contiguous area, and the Commission determined they should both have identical antidegradation designation, use classifications, and standards.

Lower Yampa/Green River 17b: The segment description was amended to remove the exclusion for specific listings in segment 18. None of the listings in segment 18 would otherwise be encompassed by this segment.

Lower Yampa/Green River 18: Slater Creek, including all wetlands and tributaries, between Second Creek and the Little Snake River were moved from this segment to segment 17a to facilitate the adoption of appropriate temperature standards. The segment description was also amended to include the mainstems of Fourmile and Willow Creeks, including all wetlands and tributaries, from their sources to the boundary of the Routt National Forest. The Commission moved these sections of Fourmile and Willow Creeks to this segment from segment 17a to facilitate the adoption of appropriate temperature standards.

Lower Yampa/Green River 19a-19b: Segment 19 was split into segments19a and 19b to facilitate the adoption of appropriate temperature standards. Segment 19a is a cold-water segment that includes the Green River from its entrance at the Colorado/Utah border to the confluence with the Yampa River. Segment 19b is a warm-water segment that includes the Green River from the Yampa River to its exit at the Colorado/Utah border.

Lower Yampa/Green River 20: Segments 22a, 22b, and 22c were added to the listings specifically excluded from this segment.

Lower Yampa/Green River 22a: Vermillion Creek, including all tributaries and wetlands, from the confluence with Talamantes Creek to the confluence with the Green River were removed from the segment description. The Commission moved this portion of Vermillion Creek to a newly created segment 22b to facilitate the adoption of appropriate temperature standards.

Lower Yampa/Green River 22b: This segment was created to encompass Vermillion Creek, including all tributaries and wetlands, from the confluence with Talamantes Creek to the confluence with the Green River, except for specific listings in segment 22c. The Commission created this segment from portions of Vermillion Creek split from segment 22a to facilitate the adoption of appropriate temperature standards.

Lower Yampa/Green River 22c: This segment was formerly segment 22b, but was changed to segment 22c to facilitate the splitting of segment 22a.

Lower Yampa/Green River 23: This segment was created to encompass lakes and reservoirs tributary to the Yampa River from the confluence with Elkhead Creek to a point below the confluence with the Little Snake River. This segment includes lakes/reservoirs formerly in segments 3a and 14.

Lower Yampa/Green River 24: This segment was created to encompass Freeman Reservoir and Aldrich Lakes. Freeman Reservoir was formerly in segment 6b, and Aldrich Lakes were formerly in segment 12b. The Commission combined segments 6b and 12b because they have identical antidegradation designations, use classifications, and standards.

Lower Yampa/Green River 25: This segment was created to encompass cold-water lakes tributary to the North and South Forks of Fortification Creek, Little Cottonwood Creek, and Little Bear Creek from the source to the confluence with the Dry Fork. The lakes/reservoirs tributary to the South Fork were formerly in segment 4. Lakes and reservoirs tributary to the North Fork and Little Cottonwood Creek were formerly in segment 6a. Lakes and reservoirs tributary to Little Bear Creek were formerly in segment 7.

Lower Yampa/Green River 26: This segment was created to encompass warm-water lakes and reservoirs tributary to Fortification Creek. This segment includes most of the lakes and reservoirs that were formerly in segment 6a.

Lower Yampa/Green River 27: This segment was created to encompass warm-water lakes and reservoirs tributary to Milk Creek between Thornburgh (County Rd 15) and the Yampa River. This segment includes lakes/reservoirs formerly in segments 3c and 12a.

Lower Yampa/Green River 28: This segment was created to encompass cold-water lakes and reservoirs within the boundaries of the Flat Tops Wilderness Area and tributary to the East Fork of the Williams Fork River. The lakes and reservoirs in this segment were formerly in segment 8.

Lower Yampa/Green River 29: This segment was created to encompass cold-water lakes and reservoirs tributary to the East and South Forks of the Williams Fork River, and the mainstem of the Williams Fork River from the source to the Highway 13/789 bridge at Hamilton. Lakes and reservoirs tributary to the East Fork were formerly in segment 9. Lakes and reservoirs tributary to the South Fork were formerly in segment 11. Lakes and reservoirs tributary to the Williams Fork from the boundary of the Routt National Forest to the bridge in Hamilton were formerly in segment 3a.

Lower Yampa/Green River 30: This segment was created to encompass cold-water lakes and reservoirs tributary to Milk Creek from the source to the confluence with Clear Creek, and lakes and reservoirs tributary to Morapos Creek from the source to the confluence with the Williams Fork River. Lakes and reservoirs tributary to Milk Creek were formerly in segment 12a. Lakes and reservoirs tributary to Morapos Creek were formerly in segment 3a.

Lower Yampa/Green River 31: This segment was created to encompass cold-water lakes and reservoirs tributary to Slater Creek from the source to Second Creek, and lakes and reservoirs tributary to Fourmile and Willow Creeks within the Routt National Forest. Lakes and reservoirs tributary to Slater Creek were formerly in segment 18. All lakes and reservoirs tributary to Fourmile and Willow Creeks were formerly in segment 14.

Lower Yampa/Green River 32: This segment was created to encompass warm-water lakes and reservoirs tributary to the Yampa River from a point just below the confluence with the Little Snake River to the confluence with the Green River, and lakes and reservoirs tributary to the Green River. Lakes and reservoirs in this segment were formerly in segment 20.

Lower Yampa/Green River 33: This segment was created to encompass cold-water lakes and reservoirs tributary to Beaver Creek and Vermillion Creek from the Colorado/Wyoming border to the confluence with Talamantes Creek. Lakes and reservoirs in this segment were formerly in segment 20.

White River 9a: The tributaries and wetlands to the White River, and not within a national forest, between Flag Creek and Piceance Creek were removed from the segment description. The Commission moved these tributaries and wetlands to segment 9b to facilitate the adoption of appropriate temperature standards. Segments 9c and 9d were added to the list of segments specifically excluded from this segment, and segment 9b was removed from that list.

White River 9b: This segment was created to encompass the tributaries and wetlands to the White River between Flag Creek and Piceance Creek, and not within a national forest. The Commission moved these tributaries and wetlands to this segment from segment 9a to facilitate the adoption of appropriate temperature standards. Segments 9c and 9d were added to the list of segments specifically excluded from this segment.

White River 9c: This segment was formerly numbered 9b, but was changed to segment 9c to facilitate the splitting of segment 9a. Sulphur Creek and Flag Creek between the East Fork Flag Creek and the White River were moved to segment 9d.

White River 9d: This segment was created to encompass Sulphur Creek, and Flag Creek from the confluence with East Fork Flag Creek to the confluence with the White River. The Commission moved Sulphur Creek and the lower portion of Flag Creek to this segment from segment 9c to facilitate the adoption of appropriate temperature standards.

White River 10a: The segment description was clarified by indicating that the lower segment boundary occurs at a point immediately above the confluence with Piceance Creek so that lakes and reservoirs tributary to Piceance Creek are specifically excluded from this segment. Additionally, segments 25 and 27 were added to the listings specifically excluded from this segment.

White River 10b: The segment description was clarified by deleting the exclusion for Lake Avery and adding wetlands to the segment description.

White River 11: The segment description was amended to include Taylor Draw Reservoir (a.k.a Kenney Reservoir). The Commission moved Taylor Draw from segment 12 as part of a basin-wide effort to split lakes/reservoirs from stream segments to facilitate the adoption of appropriate temperature standards.

White River 12: Taylor Draw Reservoir was removed from the segment description. The Commission moved Taylor Draw to segment 11 as part of a basin-wide effort to split lakes/reservoirs from stream segments to facilitate the adoption of appropriate temperature standards.

White River 13b-13d: Segment 13b was split into three segments (see Section P.). Segment 13b includes Yellow Creek from the source to Barcus Creek, and all tributaries to Yellow Creek. Segment 13c includes Yellow Creek from Barcus Creek to the mouth. Segment 13d includes Violett Springs Ponds.

White River 14a-14b: Segment 14 was split to facilitate the adoption of appropriate temperature standards. Segment 14a includes Piceance Creek from the source to Hunter Creek. Segment 14b includes Piceance Creek between Hunter Creek and Ryan Gulch. The Emily Oldhand diversion dam was removed from the segment description because its location is unknown. The segment boundaries at Hunter Creek and Ryan Gulch are based upon current information about fish distributions and their associated temperature standards. However, the fish data in Piceance Creek are limited and there is some uncertainty associated with these segment boundaries. These boundaries should be re-evaluated if additional temperature or fish data are collected.

White River 15: The upper boundary for the mainstem of Piceance Creek in this segment was moved from the Emily Oldhand diversion dam to Ryan Gulch. The Emily Oldhand diversion dam was removed from the segment description because its location is unknown. Ryan Gulch was selected as the segment boundary between warm and cold water on the mainstem of Piceance Creek based on current information about temperature and fish distributions in Piceance Creek. However, the fish data in Piceance Creek are limited and there is some uncertainty associated with the segment boundary at Ryan Gulch. This boundary should be re-evaluated if additional temperature or fish data are collected. The segment description was also amended to include the Dry Fork of Piceance Creek, including all tributaries and wetlands, from the confluence with Little Reigan Gulch to the confluence with Piceance Creek. The Commission moved the mainstem of the Dry Fork mainstem from segment 17, and the tributaries and wetlands to this portion of the Dry Fork from segment 16, to facilitate adoption of appropriate temperature standards.

White River 16: The segment description was amended so that segments 15 and 18 were added to the listings specifically excluded from this segment.

White River 17: Willow Creek, and the Dry Fork of Piceance Creek were removed from this segment. The Commission moved Willow Creek to segment 18, and moved the Dry Fork of Piceance Creek to segments 15 and 18, to facilitate adoption of appropriate temperature standards.

White River 18: Willow Creek, Hunter Creek, and the Dry Fork of Piceance Creek from the source to the confluence with Little Reigan Gulch were added to this segment. The Commission moved Willow Creek and this portion of the Dry Fork to this segment from segment 17, and Hunter Creek from segment 20 to facilitate the adoption of appropriate temperature standards.

White River 20: The segment description was amended to include all wetlands and tributaries to Black Sulphur Creek. The Commission moved these tributaries from segment 16 to facilitate the adoption of appropriate temperature standards. Hunter Creek was also moved from this segment to segment 18 to facilitate the adoption of appropriate temperature standards.

White River 24: This segment was created in encompass cold-water lakes and reservoirs tributary to the White River that are within the boundaries of the Flat Tops Wilderness Area. Lakes and reservoirs within this segment were formerly in segment 1.

White River 25: This segment was created to encompass Lake Avery (a.k.a. Big Beaver Reservoir), which is the only cold lake in the White River basin greater than 100 acres surface area. Lake Avery was formerly in segment 10a.

White River 26: This segment was created to encompass other cold-water lakes and reservoirs tributary to the North and South Forks of the White River, from the boundary of the Flat Tops Wilderness Area to the confluence of the North and South Forks. The lakes and reservoirs tributary to the North Fork were formerly in segment 4, and the lakes and reservoirs tributary to the South Fork were formerly in segment 6.

White River 27: This segment was created to encompass warm-water lakes and reservoirs tributary to the White River from Piceance Creek to the Colorado/Utah border. The lakes and reservoirs tributary to the White River from the confluence with Piceance Creek to the confluence with Douglas Creek were formerly in segment 13a. The lakes and reservoirs tributary to Piceance Creek were formerly in segment 16. The lakes and reservoirs tributary to the White River from the confluence with Douglas Creek to the Utah/Colorado border were formerly in segment 22. Segment 13d was specifically excluded from the segment description.

Lower Colorado 1: The Colorado River between Rifle Creek and Parachute Creek was moved from this segment to segment 2a to facilitate the adoption of appropriate temperature standards.

Lower Colorado 2a-2b: Segment 2 was split into segments 2a and 2b at Rapid Creek to recognize changes in water quality due to the presence of selenium bearing shales in the vicinity of Rapid Creek. Segment 2a includes the mainstem of the Colorado River from Rifle Creek to Rapid Creek. Segment 2b includes the mainstem of the Colorado River from Rapid Creek to the Gunnison River. The upper boundary of segment 2a was moved upstream from Parachute Creek to Rifle Creek to facilitate the adoption of appropriate temperature standards.

Lower Colorado 4a: Segments 4c, 4d, 4e, 7a, 7b, 9a, 9c, and 12a were added to the listings specifically excluded from this segment.

Lower Colorado 4c: This segment was created to encompass the mainstem of South Canyon Creek from the South Canyon Hot Springs to the confluence with the Colorado River. The Commission split this portion of South Canyon Creek from segment 4a to facilitate the adoption of appropriate temperature standards.

Lower Colorado 4d: This segment was created to encompass the mainstem of Dry Hollow Creek, including all tributaries and wetlands, from the source to the confluence with the Colorado River. The Commission decided to split Dry Hollow Creek from segment 4a to facilitate the adoption of appropriate temperature standards.

Lower Colorado 4e: This segment was created to encompass Dry Creek, including all tributaries and wetlands (37.25. Q.). The Commission split Dry Creek from segment 4a because Dry Creek does not have a Water Supply use, and has no irrigated agriculture.

Lower Colorado 7a-7b: Segment 7 was split into segments 7a and 7b to facilitate the adoption of appropriate temperature standards. Divide Creek from the boundary of the White River National Forest to the confluence with the Colorado River, including all tributaries and wetlands, was moved from segment 7a to segment 7b. Additionally, Battlement Creek was moved from segment 7a to a new segment 9c to facilitate and Outstanding Waters designation.

Lower Colorado 8: The East Middle Fork of Parachute Creek, including all tributaries and wetlands, from the source to the boundary of the White River National Forest was moved to this segment from segment 11d to facilitate the application of an Outstanding Waters designation (see Section O.).

Lower Colorado 9a: West Rifle Creek and the lower portion of East Rifle Creek were moved from this segment to segment 10 to facilitate the adoption of appropriate temperature standards.

Lower Colorado 9b: The segment description was clarified by indicating that the lower segment boundary ends at a point immediately below the confluence of the Colorado River and Parachute Creek, so that lakes and reservoirs tributary to Parachute Creek are specifically included. The segment description was also amended to include all lakes and reservoirs within the White River National Forest and the Grand Mesa National Forest. Lakes/reservoirs within the National Forests were moved to this segment from segments 5, 15, 16 and 19, to facilitate the adoption of appropriate temperature standards. The segment description was also amended to remove Rifle Gap Reservoir and Harvey Gap Reservoir. The Commission moved these large cold lakes to segment 20 to facilitate the adoption of appropriate temperature standards. Segment 20 was added to the list of segments specifically excluded from this segment, and segments 5, 6, 7, 8, 10, 11a-h, and 12 were removed from that list.

Lower Colorado 9c: This segment was created to encompass Battlement Creek, including all tributaries and wetlands, from the source to the White River National Forest boundary (see Section O.).

Lower Colorado 10: West Rifle Creek and East Rifle Creek from the White River National Forest boundary were moved to this segment from segment 9a to facilitate the adoption of appropriate temperature standards.

Lower Colorado 11a: The segment description was amended to include tributaries and wetlands to the East Fork of Parachute Creek to facilitate the adoption of appropriate temperature standards.

Lower Colorado 11d: The East Middle Fork of Parachute Creek, including all tributaries and wetlands, from the source to the boundary of the White River National Forest was moved from this segment to segment 8 to facilitate the application of an Outstanding Waters designation.

Lower Colorado 11e: The segment description was amended to include tributaries and wetlands to the existing segment description for the East Fork of Parachute Creek to facilitate the adoption of appropriate temperature standards.

Lower Colorado 11g: The segment description was clarified by excluding the specific listings in segment 7a. This exclusion was added to remove a double listing of Battlement Creek.

Lower Colorado 11h: The segment description was amended to include tributaries and wetlands to the existing segment description. These tributaries were moved from segment 4a so that all tributaries to the Parachute would be included in segments 11a-h.

Lower Colorado 12b: This segment was created to encompass tributaries to the Colorado River, including wetlands, from the confluence with Parachute Creek to the confluence with Roan Creek. The Commission moved these tributaries to this segment from segment 13a to facilitate the adoption of appropriate temperature standards.

Lower Colorado 13a: The segment description was amended to remove the tributaries to the Colorado River, including wetlands, from the confluence with Parachute Creek to the confluence with Roan Creek. The Commission moved these tributaries and wetlands to a newly created segment 12b to facilitate the adoption of appropriate temperature standards.

Lower Colorado 13b: The segment description was clarified by adding an “and” to the segment description so that it is clear that both conditions must be met for waters to be included in this segment (between Government Highline Diversion and Salt Creek AND down-gradient from the canals). The exclusion for segment 13c was removed from the segment description since those listings would not otherwise be included in this segment.

Lower Colorado 13d: This segment was created to encompass lower Coal Canyon Creek downgradient of the Government Highline Canal (37.25. S.). The Commission split lower Coal Canyon Creek from segment 13b because lower Coal Canyon Creek has a Recreation P use classification, site-specific copper standards, and has no irrigated agriculture.

Lower Colorado 14a: Clear Creek from the source to Tom Creek was added to the segment description to facilitate the adoption of appropriate temperature standards. Segment 14b was added to the list of segments specifically excluded from this segment.

Lower Colorado 14b: This segment was created to encompass lower Clear Creek, including all wetlands and tributaries, between Tom Creek and Roan Creek. The Commission moved lower Clear Creek, Kimball Creek, and a portion of Roan Creek to this segment from segment 14a to facilitate the adoption of appropriate temperature standards.

Lower Colorado 14c: This segment was formerly 14b, but was changed to 14c to facilitate the splitting of segment 14a. Additionally, the upper boundary of the segment was moved from Clear Creek to Kimball Creek.

Lower Colorado 15-16: Segment 15 was split to facilitate the adoption of appropriate temperature standards. Plateau Creek, including all tributaries and wetlands, between the HWY 330 bridge in Collbran and the Colorado River, except Kimball Creek, Grove Creek, Big Creek, Cottonwood Creek, Bull Creek, Spring Creek, Coon Creek, and Mesa Creek were moved from segment 15 to segment 16.

Lower Colorado 17a-17b: Segment 17 was split to facilitate the application of an Outstanding Waters designation for segment 17a (see Section R). Segment 17a includes Rapid Creek from the source to Cottonwood Creek including flow from Kruzen Springs located at 39.05441 N latitude and 108.26180 W longitude, and elevation 8,950 feet. Segment 17b includes Rapid Creek between Cottonwood Creek and the Colorado River.

Lower Colorado 19: This segment description was clarified by specifically naming Highline Reservoir in the segment description. Segments 9b, 13c, 20, and 21 were added to the list of segments specifically excluded from this segment.

Lower Colorado 20: This segment was created to encompass Rifle Gap Reservoir, Harvey Gap Reservoir, and Vega Reservoir, which are all cold water lakes larger than 100 acres in surface area. Rifle Gap and Harvey Reservoir were formerly in segment 9b. Vega Reservoir was formerly in segment 15.

Lower Colorado 21: This segment was created to encompass those cold-water lakes and reservoirs tributary to Rapid Creek, Little Dolores River from the source to the confluence with Hay Press Creek, and Roan Creek from the source to Clear Creek. The lakes and reservoirs tributary to Roan Creek were formerly in segment 14a. The lakes and reservoirs tributary to Rapid Creek were formerly in segment 17. The lakes and reservoirs tributary to the Little Dolores were formerly in segment 18.

B. Revised Aquatic-Life Use Classifications

The Commission reviewed information regarding existing aquatic communities. The following changes to the aquatic-life use classification were made:

Lower Yampa/Green River 1 was moved to segment 2: Cold 1 to Warm 1.
Lower Yampa/Green River 17b: Cold 2 to Warm 2.
Lower Yampa/Green River 19b was split from segment 19: Cold 1 to Warm 1.
Lower Yampa/Green River 20: Warm 2 to Cold 2.
Lower Yampa/Green River 22a: Warm 2 to Cold 1.
White River 17 was split and part was moved to segment 15: Cold 2 to Warm 2.
Lower Colorado 1 was split and part was moved to segment 2a: Cold 1 to Warm 1.
Lower Colorado 4a was split and part was moved to segment 4c: Cold 2 to Warm 1.

C. Recreation Classifications and Standards

As part of the Basic Standards hearing of 2005, recreation classifications were revised into four new classifications. The Commission reviewed the previous segment classifications (1a, 1b and 2) and determined the appropriate new classification based on classification criteria presented as part of the Basic Standards Hearing, use attainability analyses or other basis. In addition, during the 2005 Basic Standards Hearing, the transition from the use of the fecal coliform standard to *E. coli* standard was completed. Fecal coliform criteria were deleted from the numeric standards.

Based on information that showed existing primary contact recreation use is in place in at least a portion of the segment, the Commission converted the following segments from Recreation Class 1a to Recreation Class E with a 126/100 ml *E. coli* standard:

Lower Yampa/Green River segments: 2, 3f, 5, 8, 10, 13a-b, 15, 16, 19a-b, 20, 22c, 24, 28, 29, and 32.

White River segments: 1, 3, 4, 6, 7, 9c, 9d, 10a, 11, 12, 21, and 23-25.
Lower Colorado segments: 1-3, 4b-c, 7a-b, 9b-c, 10, 13b-c, 15, 16, and 19-20.

The following segments were converted from Recreation Class 1b to Recreation Class P with a 205/100 ml *E. coli* standard:

Lower Yampa/Green River segments: 3b-c, 3e, 3g, 4, 6a, 7, 9, 12a-b, 17a, and 18.
White River segments: 7, 8, 10b, 13d, 14a-b, 15, 16, 19, and 22.
Lower Colorado segments: 5, 6, 11h, 12b, 13a, 13d, 14a-c, 17a-b, and 18.

Based on a review of existing Use Attainability Analyses showing that primary contact recreation does not occur or is not attainable, the following segments were converted to Recreation Class N classification with 630/100 ml *E. coli* standard:

Lower Yampa/Green River segments: 3a, 3d, 17b, 21, and 22a-b.
White River segments: 9a-d, 13a-c, 17, 18, and 20.
Lower Colorado segments: 4a, 4d-e, 8, 11a-g, and 12a.

Newly created segments had the same Recreation use classification as the segment they were split from, unless there was insufficient evidence to support keeping that classification or evidence to show that the use classification was inappropriate. The following newly created segments are classified Recreation Class U with a 126/100 ml *E. coli* standard:

Lower Yampa/Green River segments: 23, 25, 26, 27, 30, 31, and 33.
White River segments: 26 and 27.
Lower Colorado segment: 21.

The following segment was upgraded from a Recreation Class 2 to a Recreation E:

Lower Colorado segment 9a.

D. Addition of Water Supply Use Classification and Standards

Based on review of information regarding the location of public water supplies, Water Supply use classifications and standards were added to the following segment:

White River segment 11.

E. Agriculture Standards

A review of the standards associated with the Agriculture use classification showed that many segments were missing a nitrate standard protective of the use. A nitrate standard, $NO_3$ =100, was added to the following segments classified for Agriculture use:

Lower Yampa/Green River segments: 3d, 5, 7, 16, and 22a.
White River segments: 14a and 20.
Lower Colorado segments: 3, 9a, 11d, 11h, 13b, 13c, and 19.

F. Changes to Antidegradation Designation

Decoupling Cold 2 and UP: As part of the Basic Standards hearing of 2005, the Commission eliminated the direct linkage between cold-water aquatic life class 2 and the use-protected designation. Therefore, all cold-water aquatic life class 2 segments that are use-protected were reviewed to determine if that designation is still warranted. The following segments are now reviewable:

Lower Yampa/Green River segments: 13a, and 20.
White River segments: 9a, 9c, 17, and 19.
Lower Colorado segments: 6, 11b, 11c, and 11e.

Decoupling Aquatic Life Warm 2 and UP: As part of the Basic Standards hearing of 2005, the Commission decided that the presence of a warm water class 2 use classification would still be a presumptive basis for applying a use-protected designation; however, that presumption can be overcome if there is data showing that the water is of high quality. Therefore, the Commission reviewed all warm water class 2 segments to determine if the use protected designation is still warranted. The following segment(s) are now reviewable:

Lower Yampa/Green River segments: 3e and 13b.
White River segments: 13b, 13c, 13d, 16, and 22.
Lower Colorado segment: 13d.

Outstanding Waters: Outstanding waters designation was added to the following segments (see Sections O. and R.):

Lower Colorado segments: 8, 9c, and 17a.

G. Ambient Quality-Based Standards

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

Lower Yampa/Green River segment 16: Fe(ch)=6221(Trec).
White River segment 13b: Se(ch)=7.3 (see Section P.).
White River segment 13c: Fe(ch)=1425(Trec) (see Section P.).

Ambient-based summer temperature standards were adopted for many cold large lakes. The WAT standard is not attainable in the majority of large lakes (> 100 acres in surface area) including many lakes with apparently healthy cold-water fish populations. Summertime temperature for large lakes and reservoirs (collectively referred to as lakes) is well correlated to the lake's elevation. Since the thermal properties are natural or man induced irreversible (in the case of reservoirs) the Commission adopted ambient temperature standards for large lakes wherever data were available to characterize a WAT. For lakes, the WAT is assumed to be equivalent to the average temperature of the mixed layer. If there were less than three years of data, the highest observed WAT was selected for the summertime ambient standard. If three to five years of data were available, the second highest observed WAT was used as the ambient standard. Where temperature data from multiple stations in the same reservoir were collected on the same date, the Division used an average of those stations to calculate the WAT.

White River segment 25: Apr.-Dec. $T_{(WAT)}$ =20.7 °C.
Lower Colorado segment 20: Rifle Gap Reservoir Apr.-Sept. $T_{(WAT)}$ =23.0 °C.
Lower Colorado segment 20: Vega Reservoir Apr.-Sept. $T_{(WAT)}$ =21.5 °C.

Ambient-based DM temperature standards were also adopted for the Little Dolores River where cutthroat and brook trout are present, but the DM temperature standards exceed the default table values associated with those species. Additionally, a site-specific adjustment of the season was adopted. The summer season was expanded to include May. The area is remote and the exceedances of the temperature standard could not be attributed to anthropogenic effects, abnormally high air temperatures, or abnormally low flows. The need for ambient-based temperature standards should be re-examined or recalculated if additional data or other information becomes available.

Lower Colorado segment 18: May-Sept. T(DM) =24.4 °C, $T_{(MWAT)}$ =CS-I °C.
Oct-Apr $T_{(DM)}$ =13.9 °C, $T_{(MWAT)}$ =CS-I °C.

H. Aquatic Life Metals Standards

New Table Value Standards: As part of the Basic Standards hearing of 2005, new zinc and cadmium table values were adopted. The acute and chronic zinc and cadmium equations in 37.6(3) were modified to conform to Regulation No. 31.

Site-Specific Zinc Standards for Mottled Sculpin: In low hardness situations (hardness below 113 mg/L) the new chronic zinc equation is not protective of mottled sculpin (*Cottus bairdi*), a native west-slope fish species. The Commission adopted a sculpin-specific chronic zinc equation as site-specific standards for the following segments that are inhabited by mottled sculpin and also have low hardness:

Lower Yampa/Green River segments: 2, 4, 7, 10, 12a, 13b, 15, and 18.
White River segments: 1, 3, and 6.
Lower Colorado segments: 7a and 15.

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

Lower Yampa/Green River segments: 4, 8, 15, and 18.

I. Arsenic Standards

For arsenic, each use (except recreation) has a different arsenic (“As”) value, including Fish Ingestion (FI) and Water Plus Fish (W+F). In different combinations of uses, different values become the most limiting. In order to eliminate the confusion, the Commission added the operative value to the individual segments. The following matrix displays the most limiting arsenic criteria.

**Most Limiting Arsenic Criteria Depending on the Possible Combinations of Uses and Qualifiers**

| **If the Use Classifications were:** | **These Arsenic Standards were Applied (dissolved unless otherwise noted)** |
|---|---|
| Class 1 aquatic life, water supply | As(ac) = 340, As(ch) = 0.02(Trec) |
| Class 2 aquatic life (water + fish standards), water supply | As(ac) = 340, As(ch) = 0.02(Trec) |
| Class 2 aquatic life (no fish ingestion standards), water supply | As(ac) = 340, As(ch) = 0.02 - 10(Trec) |
| Class 1 aquatic life | As(ac) = 340, As(ch) = 7.6(Trec) |
| Class 2 aquatic life (fish ingestion standards) | As(ac) = 340, As(ch) = 7.6(Trec) |
| Class 2 aquatic life (no fish ingestion standards), agriculture | As(ac) = 340, As(ch) = 100(Trec) |
| Agriculture only | As(ch) = 100(Trec) |
| Water supply only | As(ch) = 0.02 - 10(Trec) |

J. Uranium Standards

At the 2005 Basic Standards rulemaking hearing, the Commission changed the drinking water supply table value for uranium from 40 pCi/L to 30 ug/L.

K. Temporary Modifications

All temporary modifications were re-examined to determine whether to delete or extend them, either as existing or with modifications of the numeric standards. Because of the June 2005 changes to Regulation No. 31, temporary modifications were not automatically extended if non-attainment persisted.

The following segments had temporary modifications that were not renewed:

White River segment: 13c.
Lower Colorado segment: 13b.

The following segments have temporary modifications for ammonia that were amended to clarify the chronic standard as 0.06, rather than just "TVS old". As specified in 61.8(2)(c)(iii) (the Permit Rules, Regulation No 61), where a temporary modification has been adopted, limits in permits are to be set based on the temporary modification and the provision strictly limiting the loading from the facility does not apply. These temporary modifications will be subject to review and rulemaking for the two years before their scheduled expiration in order to track progress towards the full attainment of water body standards and uses.

Lower Yampa/Green River segment: 2.
White River segment: 21.
Lower Colorado segments: 2a and 13b.

A new type i temporary modification for ammonia $NH_3$ (ac)=TVS(old) and $NH_3$ (ch)=0.06 was adopted for the following segment:

Lower Colorado segment 2b.

The following segment has a type iii temporary modification for temperature to allow the Mesa County / City of Grand Junction Persigo Wastewater Treatment Facility time to address areas of uncertainty with regards to the appropriate underlying winter temperature standard. The primary uncertainty relates to the winter temperature requirements of species expected to be present in Persigo Wash. In addition, since Persigo Wash is designated as Endangered Species Act critical aquatic habitat there are additional mixing zone restrictions that must be considered. The temporary modification of the winter temperature standard is Dec-Feb $T_{(DM)}$ = 18.0 °C, $T_{(MWAT)}$ = 18.0 °C, expiration date of 12/31/2011. The temporary modification will be subject to review and rulemaking for the two years before their scheduled expiration in order to track progress towards the full attainment of water body standards and uses.

Lower Colorado segment 13b.

In some cases the Commission adopted temporary modifications of underlying standards with the notation of "existing quality" rather than a numeric. This was done where it was not possible to derive an appropriate characterization of current instream concentrations or temperature conditions. The Commission's intent of using the notation "existing quality" is to preserve the status quo during the term of the temporary modification. Dischargers to those segments shall maintain the existing water quality or pollutant loading characteristics of their effluent with respect to the parameter that has the temporary modification. The Commission does not intend the temporary modifications to apply to new facilities or in Preliminary Effluent Limitations. The Commission adopted type iii temporary modifications equal to "existing quality," for the following segments:

Lower Colorado segment 4e: temperature, dissolved copper, and total recoverable iron; expiration 5/31/2011 (see Section Q.).
Lower Colorado segment 13d: dissolved selenium; expiration 5/31/2011 (see Section S.).

L. Temperature

As part of the Basic Standards hearing of 2007, new table values were adopted for temperature. Temperature standards were applied to individual segments based upon the distribution of fish species, as provided by the CDOW, temperature data, and other available evidence.

The following segments are cold stream tier one (CS-I):

Lower Yampa/Green River segments: 4, 8, 9, 10, 12a, 18, 21, and 22a.
White River segments: 1, 3, 4, 6, 8, 9a, 9c, 10b, 14a, 17, 19, 20, and 23.
Lower Colorado segments: 5, 6, 7a, 8, 9a, 9c, 11a-g, 12a, 14a, 15, and 18.

The following segments are cold stream tier two (CS-II):

Lower Yampa/Green River segments: 7, 12b, 13a, 15, 17a, 19a, and 20.
White River segments: 7, 9b, 9d, 14b, and 18.
Lower Colorado segments: 1, 4a, 4d, 4e, 7b, 10, 11h, 12b, 14b, 16, 17a, and 17b.

The following segments are warm stream tier two (WS-II):

Lower Yampa/Green River segments: 2, 3c, 3d, 3e, 3f, 5, 13b, and 19b.
White River segments: 12, 13c, 15, and 21.
Lower Colorado segments: 2a, 2b, 3, 13b, 13d, and 14c.

The following segments are warm stream tier four (WS-IV):

Lower Yampa/Green River segments: 3a, 3b, 3g, 6a, 16, 17b, 22b, and 22c.
White River segments: 13a, 13b, 16, and 22.
Lower Colorado segments: 4c and 13a.

The following segments are cold lakes (CL):

Lower Yampa/Green River segments: 24, 25, 28-31, and 33.
White River segments: 10a, 13d, 24, and 26
Lower Colorado segments: 9b and 21.

The following segments are cold lakes larger than 100 acres surface area (CLL):

White River segment 25.
Lower Colorado segment 20.

The following segments are warm lakes (WL):

Lower Yampa/Green River segments: 23, 26, 27, and 32.
White River segments: 11 and 27.
Lower Colorado segments: 13c and 19.

A temperature standard was not adopted for Lower Colorado segment 4b, which encompasses the South Canyon Hot Springs.

Seasonal ambient-based temperature standards were adopted for the following segments (see Section G.):

White River segment 25.
Lower Colorado segments: 18 and 20.

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

Lower Yampa/Green Rivers segment: 3b
White River segments: 14a, 14b, and 15.
Lower Colorado segments: 4d, 4e, and 16.

M. Other Site-Specific Revisions

Lower Yampa/Green River 3b: The erroneous reference to temporary modifications and associated expiration date were deleted since all temporary modifications were previously deleted from this segment.

Lower Yampa/Green River 3d: To reflect the Aquatic-Life Warm 2 use classification the standard for chromium III was changed from CrIII(ac)=TVS to CrIII(ac/ch)=TVS.

Lower Yampa/Green River 5: To reflect the Aquatic Life Warm 1 use classification, D.O.=6.0 mg/l was changed to D.O.=5.0 mg/l.

Lower Yampa/Green River 12a: To reflect the Agriculture use classification and absence of a Water Supply use classification, $NO_3$ =10 was changed to $NO_3$ =100.

Lower Yampa/Green River 17a: To reflect the Agriculture use classification and absence of a Water Supply use classification, $NO_3$ =10 was changed to $NO_3$ =100.

Lower Yampa/Green River 17b: To reflect the change in Aquatic Life use classification from Cold 2 to Warm 2, D.O.=6.0 mg/l was changed to D.O.=5.0 mg/l, and D.O.(sp)=7.0 mg/l was deleted.

Lower Yampa/Green River 20: To reflect the change in Aquatic Life use classification from Warm 2 to Cold 2, D.O.=5.0 mg/l was changed to D.O.=6.0 mg/l, and D.O.(sp)=7.0 mg/l was added.

Lower Yampa/Green River 22a: The reflect the changed in Aquatic Life use classification from Warm 2 to Cold 1, D.O.=5.0 mg/l was changed to D.O.=6.0 mg/l, and D.O.(sp)=7.0 mg/l was added. The Colorado Division of Wildlife provided evidence that trout were present, so trout standards were added to cadmium and silver: Cd(ac/ch)=TVS was changed to Cd(ac)=TVS(tr) and Cd(ch)=TVS, and Ag(ac/ch)=TVS was changed to Ag(ac)=TVS and Ag(ch)=TVS(tr).

Lower Yampa/Green River 22c: To reflect the Agriculture use classification and absence of a Water Supply use classification, $NO_3$ =10 was changed to $NO_3$ =100.

White River 11: To reflect the addition of the Water Supply use classification, $NO_3$ =10, Cl=250, $SO_4$ =WS, Fe(ch)=WS(dis), Mn(ch)=WS(dis) were added, and CrIII(ac/ch)=50 was changed to CrIII(ac)=50(Trec).

White River 15: To reflect the Agriculture use classification and absence of a Water Supply use classification, $NO_3$ =10 was changed to $NO_3$ =100.

White River 16: To reflect the Agriculture use classification and absence of a Water Supply use classification, $NO_3$ =10 was changed to $NO_3$ =100.

White River 17: To reflect the Agriculture use classification and absence of a Water Supply use classification, $NO_3$ =10 was changed to $NO_3$ =100.

White River 19: To reflect the Agriculture use classification and absence of a Water Supply use classification, $NO_3$ =10 was changed to $NO_3$ =100.

White River 21: To reflect the Water Supply use classification CrIII(ac)=TVS was changed to CrIII(ac)=50(Trec).

Lower Colorado 3: To reflect the Aquatic Life Warm 1 use classification for this segment, D.O.=6.0 mg/l was changed to D.O.=5.0 mg/l, and D.O.(sp)= 7.0 mg/l was deleted.

Lower Colorado 4b: To reflect the Aquatic Life Warm 2 use classification and the absence of a Water Supply use classification, the CrIII(ac)=50(Trec) was changed the CrIII(ac/ch)=TVS.

Lower Colorado 9a: The Recreation use classification was changed from Recreation 2 to Recreation E. All of the streams and wetlands within Rifle Gap State Park, Rifle Falls State Park, and Rifle Creek State Wildlife Area are encompassed within this segment. Fishing, hunting, camping, and hiking are allowed, and numerous public roads and trails allow access to Rifle Creek and its tributaries.

Lower Colorado 11d: To reflect the Aquatic Life use classification and absence of the Water Supply use classification the chromium III standard was changed from CrIII(ac/ch)=50 to Cr(ac/ch)=TVS.

Lower Colorado 11e: To reflect the Water Supply use classification for this segment, $NO_2$ (ac)=10 was changed to $NO_2$ =1.0, $NO_3$ (ac)=100 was changed to $NO_3$ =10, and the following standards were added: S=0.002, Cl=250, $SO_4$ =WS, CrIII(ac)=50(Trec), Fe(ch)=WS(dis), Mn(ch)=WS(dis), and Hg(ch)=0.01(tot).

Lower Colorado 12a: To reflect the Agriculture use classification, and the absence of a Water Supply use classification, $NO_3$ =10 was changed to $NO_3$ =100, and the chloride standard Cl=250 was deleted.

Lower Colorado 14c: To reflect the Water Supply use classification, CrIII(ac)=50(Trec) was added and CrIII(ac/ch)=TVS was deleted.

Lower Colorado 17a: To reflect the Recreation P use classification, E.coli=126/100 ml was changed to E.coli=205/100 ml. To reflect the Cold 1 use classification, D.O. = 5.0 mg/l was changed to D.O.=6.0 mg/l, and D.O.(sp)= 7.0 mg/l was added.

N. Other changes

The Commission corrected several typographical and spelling errors, and clarified segment descriptions. The abbreviation for chlorine was changed from Cl2 to $Cl_2$, and the (ac) and (ch) designations were removed from the inorganic standards where that designation was not appropriately applied.

The reference to “Water+Fish *Organics*” was corrected to “Water+Fish *Standards*” to incorporate the appropriate standards from both the organics table and the metal parameter table in Regulation No. 31.

O. Trout Unlimited

Based on evidence that shows that water quality meets the requirements of 31.8(2)a and the presence of Colorado River cutthroat trout, the Outstanding Water (OW) designation was added to the following segments:

Lower Colorado segments: 8 and 9c.

The Commission understands that existing land uses are in place in these watersheds. The evidence demonstrates that these existing land uses are compatible with the OW designation since the current high level of water quality has been attained with these uses in place. It is the Commission's intent that this OW designation should not be used to establish additional permit requirements for existing uses within this area.

P. Shell Frontier Oil and Gas, White River Segment 13b - Yellow Creek

Shell Frontier Oil and Gas (Shell) has proposed resegmentation of the Yellow Creek watershed in the White River basin. Shell proposed revised classifications and standards for the new segments.

The Commission determined that the Yellow Creek basin warranted resegmentation in order to appropriately apply ambient-based site-specific criteria for total recoverable iron and dissolved selenium. It also recognizes the absence of fish in the upper Yellow Creek basin and the presence in the lower basin. The Commission notes that a hydrologically disconnected waterbody, Violett Springs Ponds , has characteristics unlike Yellow Creek and its tributaries. Ponds or lakes exhibit different physical biological and chemical characteristics than streams. Furthermore, these ponds are managed by Colorado Division of Wildlife as a stocked recreational fishery for brook trout. As a result, the Commission determined this segment met the definitions of Class 2 aquatic life use.

Continued application of the existing agricultural standards for livestock watering adopted for the Yellow Creek basin by the Commission in 2003 was supported by the UAA and Shell's rebuttal statement. These standards were retained for all three segments. Segments 13b and 13c retained the Recreation N classification (previously Recreational Class 2) currently applied to Yellow Creek. A Recreation P classification was applied to Segment 13d to acknowledge the CDOW management activities in the Little Hills State Wildlife Area. Segments 13b and c were assigned undesignated antidegradation designation because although they are classified as warm 2, the existing water quality meets the 12 parameter test of 31.8.(2)(b). Segment 13d is undesignated because it is cold 2.

The current Aquatic Life Warm 2 classification was retained for Segments 13b and 13c. Segment 13d was classified as Aquatic Life Cold 2, reflecting CDOW management strategies for the Violett Springs Ponds.

Site-specific chronic aquatic life standards based on ambient conditions were adopted for iron for Segment 13c [Fe(ch), 50th percentile = 1425 µg/L] and selenium [Se(ch), 85th percentile = 7.3 µg/L] for Segment 13b. The Commission determined that these reflected natural or man-induced irreversible conditions for these segments and would be protective of the attainable aquatic life use. The ambient selenium standard for Segment 13b recognizes the spatial variability of monitoring locations in this segment. It was developed from data collected from four separate monitoring sites (Corral Gulch upstream of Water Gulch, Corral Gulch upstream of Stake Springs, Duck Creek near the mouth, and Yellow Creek immediately downstream of Duck Creek). Future evaluation of attainment of the ambient selenium standard for Segment 13c will apply to the four sites used to develop the ambient standard. Current water quality will be maintained at the remaining sites in the segment where TVS for selenium were met.

For Segment 13d, the Commission determined that certain standards specific to the Cold 2 Aquatic Life Use classification would be applied. Dissolved oxygen was set at 6.0 mg/L, but the Commission did not adopt a spawning dissolved oxygen standard because spawning habitat is not present. The cold water ammonia TVS includes the present acute "salmonids" value but is not intended to include the "early life stages present" standard.

Warm water temperature standards (Warm Stream Tier II) were applied for Segment 13c, based on CDOW's recommendation in consideration of the presence of the flannelmouth sucker. Warm Stream Tier IV temperature standards were applied to Segment 13b. Default temperature standards for cold lakes (also known as CL) were applied for Segment 13d based on the size of the ponds.

Q. Tri-State Generation and Transmission, Lower Colorado segment 4e – Dry Creek

The Commission resegmented Dry Creek and its tributaries and wetlands from the source to the confluence with the Colorado River into new segment 4e. This segment is undesignated and classified as Aquatic Life Cold 2, Recreation N, and Agriculture. Water quality standards normally associated with these uses are adopted with the exception of boron which is based on livestock watering instead of irrigated agriculture. The Commission adopted a CS-II temperature standard.

The Commission adopted type (iii) temporary modifications of "existing quality" to expire on May 31, 2011 based on uncertainty for temperature, copper, and iron. It is the intention of the parties to preserve the status quo during the term of the temporary modification. Tri-State shall maintain the existing quality or pollutant loading of its effluent with respect to temperature, copper, and iron. The Commission does not intend the temporary modifications to apply to new facilities or in Preliminary Effluent Limitations. During the term of the temporary modification, Tri-State will evaluate the relevant factors associated with the antidegradation designation, aquatic life use, monitor its discharge for priority pollutants and determine what numeric criteria are appropriate to protect the aquatic life use. The Division and EPA will work with Tri-State to develop a work plan to evaluate the relevant factors remaining from the 2008 UAA submitted by Tri-State. Tri-State will submit the additional information collected to the Commission as part of either the December, 2009 or 2010 temporary modification hearings. The Commission expects to review these issues as well as the temporary modifications in December, 2009 or 2010.

R. Town of Palisade

The Town of Palisade proposed resegmentation of Rapid Creek and designation of the upper portion, which is the source water area for the Town's water supply, as outstanding waters (OW). The Commission resegmented Rapid Creek and its tributaries and wetlands into two segments: segment 17a from its source to a point immediately below the confluence with Cottonwood Creek including Kruzen Springs, and segment 17b from a point immediately below the confluence with Cottonwood Creek to the confluence with the Colorado River. Based on evidence that shows that water quality in segment 17a meets the requirements of 31.8(2)(a) and the presence of Colorado River cutthroat trout within this segment, the OW designation was added to the new segment 17a. The evidence demonstrates that the existing land uses are compatible with the new OW designation since the current high level of water quality has been attained with these uses in place. It is the Commission's intent that this OW designation should not be used to establish additional permit requirements for existing uses within this area.

S. Public Service, Lower Colorado segment 13d - Lower Coal Canyon Creek

The Commission determined that a new segment 13d was warranted to separate lower Coal Canyon Creek, downgradient of the Government Highline Canal, from the rest of the stream reaches in segment 13b. This new segment 13d is undesignated based on the ecological significance of the stream as habitat for juvenile roundtail chub and flannelmouth sucker as indicated in Regulation 31.8(2)(b)(i)(C). Aquatic Life Warm 2, Recreation P, and Agriculture use classifications were assigned. Evidence submitted at the hearing showed this small stream lacks diverse habitat due to low base-flows, yet still supports an aquatic community comprised of multiple species of juvenile fish and benthic invertebrates as well as two amphibian species. Given the use classification and attainable aquatic community, the Commission adopted a WS-II temperature standard and determined that site-specific standards for copper were appropriate, based on Regulation 31.7(1)(b)(iii). The recalculation procedure was used to derive the site-specific copper standards, with *Ephoron* (mayfly), *Tubifex* (worm), *Bufo* (amphibian), and *Physa* (snail) as the four most sensitive genera.

In addition, a type iii temporary modification of existing quality was adopted for selenium with an expiration date of 5/31/2011, based on uncertainty regarding the current effluent and stream quality as well as the appropriate standard for protection of aquatic life. It is the intention of the parties to preserve the status quo during the term of the temporary modification. Public Service shall maintain the existing quality or pollutant loading of its effluent with respect to selenium. The Commission does not intend the temporary modification to apply to new facilities or in Preliminary Effluent Limitations.

PARTIES TO THE RULEMAKING

1. Jackson County Water Conservancy District
2. Medicine Bow-Routt National Forests
3. Seneca Coal Company
4. Northwest Colorado Council of Governments and Grand County
5. The Grand County Water and Sanitation District #1, the Winter Park West Water and Sanitation District, The Fraser Sanitation District and The Winter Park Sanitation District
6. Keystone Resort
7. Trout Unlimited and Colorado Trout Unlimited
8. Hazardous Materials and Waste Management Division and USEPA Superfund Program
9. CBS Operations Inc.
10. Shell Frontier Oil and Gas, Inc.
11. Tri-State Generation and Transmission
12. Town of Palisade
13. CAM-Colorado LLC and CAM Mining LLC
14. Public Service Company of Colorado, a Colorado corporation
15. Colorado River Water Conservation District
16. Trapper Mining, Inc.
17. Town of Minturn
18. Colorado Division of Wildlife
19. City of Grand Junction
20. Southeastern Colorado Water Conservancy District
21. Twenty Mile Coal Company
22. Eagle River Watershed Council, Inc.
23. ERWC Eagle Mine Ltd. and John Woodling
24. Ginn Entities (Ginn Battle North, LLC, Ginn Battle South, LLC, Ginn-LA Battle One, Ltd., LLLP, and Ginn-LA Battle One A, LLC)
25. Northern Colorado Water Conservancy District
26. Eagle River Water & Sanitation District
27. Upper Eagle Regional Water Authority
28. Eagle Park Reservoir Company
29. Vail Associates, Inc.
30. Black Diamond Minerals, LLC
31. U.S. Environmental Protection Agency (EPA), Region 8
32. United States Department of Agriculture Forest Service, Arapaho-Roosevelt National Forests, Sulphur Ranger District
33. Hot Springs Lodge and Pool
34. White River National Forest
35. U.S. Fish and Wildlife Service
36. City of Aurora

### 37.26 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE DECEMBER 2009 RULEMAKING REGARDING TEMPORARY MODIFICATIONS; FINAL ACTION FEBRUARY 8, 2010; EFFECTIVE DATE JUNE 30, 2010

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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the Commission reviewed the status of temporary modifications to determine whether the temporary modification should be modified, eliminated or extended.

Ammonia: Temporary modifications of ammonia standards on five segments were reviewed.

Deleted: The ammonia temporary modification on White River Segment 21 was deleted because the Town of Rangely's permit had recently been reissued for discharges on the segment. Compliance schedules in recently issued permits are adequate to address any necessary treatment plant upgrade issues.

No action: The Commission took no action on the ammonia temporary modifications on the following segments. These will expire 12/31/2011 and will be reviewed again in the December 2010 Temporary Modification hearing.

Lower Yampa River segment 2
Lower Colorado River segments 2a, 2b and 13b

Other Parameters: The following temporary modifications were also reviewed. The Commission took no action on these temporary modifications which will expire 12/31/2011 and will be reviewed again in the December 2010 Temporary Modification hearing.

Lower Colorado segment 4e copper, iron, temperature
Lower Colorado River segment 13b temperature
Lower Colorado River segment 13d selenium

PARTIES TO THE RULEMAKING

1. City of Grand Junction
2. City of Colorado Springs and Colorado Springs Utilities
3. Tri-Lakes, Upper Monument, Security and Fountain Wastewater Treatment Facilities
4. Paint Brush Hills Metropolitan District
5. Pueblo West Metropolitan District
6. City of La Junta
7. Seneca Coal Company
8. Tri-State Generation and Transmission Association
9. Plum Creek Wastewater Authority
10. Centennial Water and Sanitation District
11. City and County of Broomfield
12. City of Fort Collins
13. Metro Wastewater Reclamation District
14. City of Black Hawk and the Black Hawk/Central City Sanitation District
15. Colorado Division of Wildlife
16. U.S. Environmental Protection Agency

**37.27 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE: DECEMBER 13, 2010 RULEMAKING; FINAL ACTION JANUARY 10, 2011; EFFECTIVE DATE JUNE 30, 2011**

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

**BASIS AND PURPOSE**

The Commission determined that a new segment was warranted to separate ephemeral reaches of streams in the Grand Valley from Lewis Wash to West Salt Creek and between the base of the Book Cliffs at 5,200 feet elevation to the Government Highline Canal, which are currently in Lower Colorado segment 13a.

**Lower Colorado River Basin Re-segmentation – New Segment 13e**

The Commission created Lower Colorado segment 13e, which includes ephemeral streams that support extremely limited or rudimentary aquatic life north of the Colorado River, and separates these streams from the perennial and intermittent streams in segment 13a. The Commission specifically excluded the potentially perennial or intermittent headwater portions of the streams by limiting the up-gradient extent of segment 13e at an elevation of 5,200 feet, which approximates the base of the Book Cliffs. This allows for the uppermost headwater reaches of these streams and portions of streams, including the potentially perennial Munger Creek, to remain in segment 13a. In addition, Big Salt Wash, East Salt Creek, and West Salt Creek were identified as streams which are intermittent or perennial; thus, the Commission also specifically excluded these streams from segment 13e.

Lower Colorado segment 13e has Aquatic Life Warm 2, Recreation P, and Agriculture use classifications, and the metals standards for protection of agriculture irrigation uses were retained to provide a level of protection for rudimentary aquatic life, even though irrigated crops are not known to be present in the segment. The Commission noted that information on existing water quality in the segment is limited, because these washes have no base flow, which severely limits the ability to collect water and biological samples. Because of limited sampling data, ambient-based criteria were not calculated. However, the limited sample results available indicated the potential for high levels of arsenic, nickel, zinc and manganese. As additional water-quality data become available in the future, the possibility of ambient-based water quality standards can be revisited.

PARTIES TO THE RULEMAKING HEARING

1. CAM-Colorado LLC and CAM Mining LLC
2. Colorado Division of Wildlife
3. U. S. Environmental Protection Agency

**37.28 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE DECEMBER 13, 2010 RULEMAKING REGARDING TEMPORARY MODIFICATIONS; FINAL ACTION JANUARY 10, 2011; EFFECTIVE DATE JUNE 30, 2011**

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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the Commission reviewed the status of temporary modifications to determine whether the temporary modification should be modified, eliminated or extended.

A. Revisions Advanced by the Division

The type i temporary modifications of ammonia standards on four segments were reviewed. The Commission deleted the temporary modifications on Lower Yampa segment 2 and Lower Colorado segment 2a, as they are no longer needed. The Commission took no action on Lower Colorado segments 2b and 13b.

The Commission took no action on the temporary modification of the temperature standard for Lower Colorado segment 13b or the selenium temporary modification for Lower Colorado 13d.

B. Dry Creek, Lower Colorado segment 4e

Tri-State Generation and Transmission Association, Inc. proposed revisions to segment 4e of the Lower Colorado. Based on a Use Attainability Analysis for Dry Creek and an Unnamed Tributary near Rifle, Colorado and other information on the record, the Commission concluded that existing Segment 4e should be split into two segments at the Last Chance Ditch crossing.

- Segment 4e includes the mainstem of Dry Creek, all tributaries and wetlands from the source to immediately above the Last Chance Ditch crossing. This segment was found to be ephemeral and effluent dependent and was, therefore, designated Use Protected. The UAA showed that segment 4e does not support fish and supports limited macroinvertebrates as a result of limited flow. In response to Tri-State's proposal that the agriculture standards are protective of the limited aquatic community in this segment the Commission retained Aquatic Life Cold 2, Recreation N, and Agriculture use classifications. However, the Commission recognized there is uncertainty regarding the protectiveness of the agriculture metal standards in Tri-State's proposal. Therefore, the Commission kept the aquatic life standards and extended the temporary modifications for copper and iron to provide time to resolve this uncertainty. The existing temporary modification for temperature was deleted.

- New segment 4f includes the mainstem of Dry Creek and all tributaries and wetlands from a point immediately above the Last Chance Ditch crossing to the confluence with the Colorado River. This short segment of Dry Creek receives flow at times from the Last Chance Ditch and supports a broad assemblage of fish and macroinvertebrates, including cold-water species. Therefore, the segment was designated reviewable, with Aquatic Life Cold 1, Recreation N, and Agriculture use classifications, and assigned the cold stream tier II temperature standard.

PARTIES TO THE RULEMAKING HEARING

1. Paint Brush Hills Metropolitan District
2. Tri-State Generation and Transmission Association
3. Seneca Coal Company
4. Mountain Water and Sanitation District
5. City of Grand Junction
6. Colorado Division of Wildlife
7. City of Boulder
8. U. S. Environmental Protection Agency
9. City of Colorado Springs and Colorado Springs Utilities

**37.29 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 13, 2011 RULEMAKING REGARDING TEMPORARY MODIFICATIONS; EFFECTIVE DATE JANUARY 1, 2012**

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

**BASIS AND PURPOSE**

The Commission's decision to delay consideration of nutrient criteria until March 2012, resulted in cancelation of the December 2011 review of temporary modifications. Accordingly, the Commission considered the expiration dates of temporary modifications expiring on or before December 31, 2012 in a written comment rulemaking.

The Commission extended the expiration date of the following temporary modification to December 31, 2013. It will be reviewed again in a Temporary Modification hearing in December 2012.

Lower Colorado segment 4e (Cu, Fe)

The Commission extended the expiration date of the following temporary modification to June 30, 2013. It is anticipated that the City of Grand Junction will propose a site-specific temperature standard for consideration at the December 2012 Temporary Modification hearing.

Lower Colorado segment 13b, Persigo Wash from the Grand Junction discharge to the confluence with the Colorado River (Temperature)

The following temporary modifications were deleted because they will have expired as of the effective date of this revision:

Lower Colorado segment 2b (NH3)
Lower Colorado segment 13b (NH3)
Lower Colorado segment 13d (Se, expired 5/31/2011).

**37.30 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE DECEMBER 10, 2012 RULEMAKING; FINAL ACTION JANUARY 14, 2013 EFFECTIVE DATE JUNE 30, 2013**

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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the Commission reviewed the status of temporary modifications scheduled to expire before December 31, 2014, to determine whether the temporary modification should be modified, eliminated or extended.

Temporary modifications standards on two segments were reviewed. The Basic Standards Statement of Basis for the 2010 hearing records the Commission's intent regarding temporary modifications. (see 31.48 at I.A)

Since temporary modifications have no impact on other aspects of Colorado's water quality management program such as the 303(d) list, the Non-point Source Program or the Total Maximum Daily Load (TMDL) Program, it is fitting that temporary modifications only be used where there are permitted discharges that would face unreasonable consequences in the absence of a temporary modification (e.g., a permit compliance schedule to meet a standard that is significantly uncertain).

No action: The Commission took no action on the temporary modifications on the following segment which is receiving waters for permitted discharges.

Lower Colorado segment 13b: Temperature (expiration date 6/30/2013)

Lower Colorado River segment 4e, Dry Creek: Tri-State Generation and Transmission Association, Inc. proposed extending the temporary modifications for copper and iron for Dry Creek. The Commission considered Tri-State's plan to eliminate the need for the temporary modification. Tri-State is working to resolve uncertainty and is making progress in addressing this segment. The Commission extended the expiration date to 12/31/2015.

PARTIES TO THE RULEMAKING HEARING

1. City of Pueblo
2. Seneca Coal Company
3. Tri-State Generation and Transmission Association
4. Eagle River Water and Sanitation District
5. Board of County Commissioners for the County of Gunnison, Colorado
6. Colorado Parks and Wildlife
7. High Country Citizens' Alliance
8. Bill Thiebaut, DA for 10th Judicial District and the Office of the DA for the 10th Judicial District
9. City of Colorado Springs
10. Town of Crested Butte
11. Upper Gunnison River Water Conservancy District
12. U.S. Energy Corp.
13. Gunnison County Stockgrowers Association, Inc.
14. Environmental Protection Agency
15. Cherokee Metropolitan District
16. Fountain Sanitation District
17. Lower Fountain Metropolitan Sewage Disposal District
18. Monument Sanitation District
19. Palmer Lake Sanitation District
20. Town of Monument
21. Academy Water and Sanitation District
22. Tri-Lakes Wastewater Treatment Facility
23. Town of Palmer Lake
24. Woodmoor Water and Sanitation District No. 1
25. Upper Monument Creek Regional Wastewater Treatment Facility

## 37.31 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE APRIL 8, 2013 RULEMAKING; FINAL ACTION MAY 13, 2013 EFFECTIVE DATE SEPTEMBER 30, 2013

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 August of 2005, the Commission adopted revisions to the Basic Standards and Methodologies for Surface Waters (Regulation #31) to add a Water + Fish (W+F) table value standard for chronic arsenic of 0.02 micrograms per liter (µg/L). W+F standards are numeric human health-based water quality standards that are calculated protective values that take into account the combined exposure from the pollutant in drinking water and the pollutant accumulated in fish flesh. This criterion automatically went into effect for Aquatic Life Class 1 waters which also have a Domestic Water Supply use, when the changes to the Basic Standards became effective. It was also adopted on a segment by segment basis for Aquatic Life class 2 waters with Domestic Water Supply where the Commission determined there are fish of a catchable size of species that are normally consumed. Because of the complicated nature of the arsenic standards, specific values were added to the basin tables in the basin hearings between 2006 and 2009.

In this hearing, the Commission adopted temporary modifications for W+F chronic arsenic where a permitted discharger with a water quality–based effluent limit compliance problem exists. The adopted temporary modification is listed in the regulation tables as “As(ch)=hybrid”. An explanation of the temporary modification and its expected implementation into control requirements, such as Colorado Discharge Permit System (CDPS) effluent limitations, is described in 37.6(2)(d). The temporary modification was established by the Commission to allow for a temporarily less stringent application of the chronic arsenic standard in control requirements for both existing discharges and new or increased discharges.

For discharges existing on or before 6/1/2013, the temporary modification adopted for W+F chronic arsenic is “current condition”, expiring on 12/31/2021. The Commission intends that, when implementing the temporary modification of “current condition” in a CDPS permit, the Division will assess the current effluent quality, recognizing that it changes over time due to variability in treatment facility removal efficiency and influent loading from natural or anthropogenic sources, and due to changes in the influent flow and concentration over time. Maintaining the current condition will include maintaining permitted total arsenic loading to a treatment facility from arsenic contributors at the levels existing on the effective date of the temporary modification, while expressly allowing for variability in such loading due to changes in effluent quality as described above and due to changes in the influent flow and concentration over time within the permitted design flow of that facility. The Commission understands that the Division's past practice implementing this requirement in permits has been through reporting regarding the arsenic loading to the facility, and not through numeric effluent limitations. The Commission intends that the Division will continue this practice. For facilities that lack enough representative data to quantify arsenic loading, the permittee may satisfy reporting requirements through narrative descriptions of potential sources of arsenic. No permit action shall be approved that allows an increase in permitted total arsenic loading to a treatment facility. The expiration date of the temporary modification was set at 12/31/21 to allow for CDPS permits that are issued prior to the effective date of anticipated changes to the chronic arsenic standard in the 2016 Basic Standards Rulemaking to not have the temporary modification expire within the term of a permit. The Commission adopted this temporary modification to allow time for the Division, dischargers and stakeholders to continue a workgroup process to resolve the uncertainty regarding the appropriateness of the W+F chronic arsenic standard of 0.02 µg/L with respect to a technologically feasible level of treatment.

For new or increased discharges that commence on or after 6/1/2013, the temporary modification adopted is As(ch) = 0.02–3.0 µg/L (Trec), expiring on 12/31/2021. The Commission decided that since the technologically achievable arsenic level is less stringent than the calculated W+F criterion, the temporary modification for new or increased discharges will be a range of 0.02-3.0 µg/L. The first number in the range is the health-based value, based on the Commission’s established methodology for human health-based standards that protect against the combined exposure of drinking water and eating fish. The second number in the range is the Commission’s initial determination of a technologically achievable value for arsenic, set at 3.0 µg/L. Control requirements, such as discharge permits effluent limitations, shall be established using the first number in the range as the ambient water quality target, provided that no effluent limitation shall require an “end of pipe” discharge level more restrictive than the second number in the range during the effective period for this temporary modification. The expiration date of the temporary modification was set at 12/31/21 to allow for CDPS permits that are issued prior to the effective date of anticipated changes to the chronic arsenic standard in the 2016 Basic Standards Rulemaking to not have the temporary modification expire within the term of a permit. The Commission adopted this temporary modification to allow time for the Division, dischargers and stakeholders to continue a workgroup process to resolve the uncertainty regarding the appropriateness of the W+F chronic arsenic standard of 0.02 µg/L with respect to a technologically feasible level of treatment.

The technologically feasible level of 3.0 µg/L for arsenic is based upon testimony heard by the Commission at the December 13, 2011 Emergency Revisions to Regulation #38. At the December 13, 2011 hearing, the Commission determined, as a practical manner, that 3.0 µg/L is the lowest level that is technologically achievable for common types of water treatment facilities. At the April 8, 2013 Rulemaking, the Commission heard testimony that concurred with the finding from December 13, 2011 that an initial reasonable lower limit of treatment technology for arsenic is 3.0 µg/L, pending further investigation by the Division, dischargers and stakeholders. The Division intends to address the uncertainty of the W+F chronic arsenic standard with respect to a technologically feasible level of treatment through a continued workgroup process, and propose a revised W+F chronic arsenic standards as part of the 2016 Basic Standards Rulemaking Hearing

Temporary modifications were adopted on the following segments. The segments identified have the previously adopted W+F chronic arsenic standard of 0.02 µg/L and an identified CDPS permit or permits that discharge immediately to or directly above the identified segment.

Lower Yampa River, Green River 2
Lower Yampa River, Green River 3c
Lower Yampa River, Green River 4
Lower Yampa River, Green River 10
Lower Yampa River, Green River 18
White River 4
White River 7
White River 10b
White River 12
White River 21
White River 23
Lower Colorado River 1
Lower Colorado River 2a
Lower Colorado River 2b
Lower Colorado River 5
Lower Colorado River 7a
Lower Colorado River 7b
Lower Colorado River 10
Lower Colorado River 14b
Lower Colorado River 14c
Lower Colorado River 15
Lower Colorado River 16
Lower Colorado River 17a
Lower Colorado River 18

PARTIES TO THE RULEMAKING HEARING

1. Colorado Mining Association
2. Union Gold, Inc.
3. Colorado Department of Transportation
4. City of Colorado Springs and Colorado Springs Utilities
5. Town of Crested Butte
6. Mountain Coal Company
7. Centennial Water and Sanitation District
8. MillerCoors, LLC
9. Plum Creek Wastewater Authority
10. Tri-State Generation & Transmission Association
11. Climax Molybdenum Company
12. Littleton/Englewood Wastewater Treatment Plant
13. Eagle River Water and Sanitation District
14. City of Boulder

15. City and County of Denver
16. Parker Water and Sanitation District
17. U.S. Energy Corp.
18. U.S. Environmental Protection Agency
19. City of Greeley

**37.32 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE DECEMBER 9, 2013 RULEMAKING; FINAL ACTION MARCH 11, 2014; EFFECTIVE DATE JUNE 30, 2014**

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

**BASIS AND PURPOSE**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the Commission reviewed the status of temporary modifications scheduled to expire before December 31, 2015, to determine whether the temporary modification should be modified, eliminated or extended. Temporary modifications of 2 segments were reviewed.

Deleted: The temperature Temporary Modifications on Lower Colorado segment 13 b (Persigo Wash) were deleted since they expired on 6/30/2013.

No Action: Temporary modifications of the copper and iron standards on Lower Colorado segment 4e. Tri-state Generation and Transmission Association, Inc., presented evidence that progress is being made on the plan to resolve uncertainty. Tri-State is on schedule to make a water quality standards proposal for consideration by the Commission in the basin-wide hearing in June 2014.

PARTIES TO THE RULEMAKING HEARING

1. Rio Grande Silver, Inc.
2. Black Hawk/Central City Sanitation District and City of Black Hawk
3. Centennial Water & Sanitation District, City of Littleton, City of Englewood
4. Colorado Parks and Wildlife
5. Homestake Mining Company of California
6. Metro Wastewater Reclamation District
7. South Platte Coalition for Urban River Evaluation (SP CURE)
8. City of Boulder
9. Seneca Coal
10. Tri-State Generation and Transmission Association
11. City of Fort Collins
12. MillerCoors, LLC
13. Environmental Protection Agency
14. Barr Lake and Milton Reservoir Watershed Association
15. Plum Creek Water Reclamation Authority

**37.33 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE JUNE 9, 2014 RULEMAKING; FINAL ACTION AUGUST 11, 2014 EFFECTIVE DATE DECEMBER 31, 2014**

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

**BASIS AND PURPOSE**

A. Waterbody Segmentation

Some water bodies were moved from one segment to another segment to improve organization and/or to facilitate changes in classified uses or standards. Some new segments were created to facilitate changes that applied only to a portion of an existing segment. The following changes were made:

Lower Yampa/Green River Segments 3b and 3i: Lower Johnson Gulch from the confluence with Pyeatt Gulch at CO 107 to the confluence with the Yampa River was moved from Segment 3b to a new Segment 3i to facilitate a change in the antidegradation designation.

Lower Yampa/Green River Segments 3d and 3h: Lay Creek was moved from Segment 3d to a new Segment 3h to facilitate the adoption of a water supply use classification and standards.

Lower Yampa/Green River Segments 3c and 3e: Wilson Creek was moved from segment 3e to segment 3c to upgrade the aquatic life use from Warm 2 to Warm 1.

Lower Yampa/Green River Segment 6a was renumbered as segment 6.

Lower Yampa/Green River Segments 9 and 12c: Beaver Creek was moved from Segment 9 to a a new Segment 12c to facilitate the adoption of the Outstanding Waters designation.

Lower Yampa/Green River Segments 17b and 17c: Scandinavian Gulch was moved from Segment 17b to a new Segment 17c to facilitate adoption of standards for the protection of the aquatic life use.

Lower Yampa/Green River Segments 20 and 22d: Conway Draw was moved from Segment 20 to a new Segment 22d to facilitate the adoption of a water supply use classification and standards.

White River Segments 4a and 4b: Lost Creek and Snell Creek were moved from Segment 4a to Segment 4b to facilitate the adoption of the Outstanding Waters designation.

White River Segments 16a and 16b: Some of the tributaries to Piceance Creek were moved from Segment 16a to a new Segment16b to facilitate the adoption of a water supply use classification and standards on Segement 16a.

White River Segements 18a and 18b: Some tributaries to Piceance Creek were moved from Segment 18a to a new Segment 18b to facilitate the adoption of a water supply use classification and standards on Segment 18b.

Lower Colorado River Segments 11b and 11c: The water bodies in these segments were combined into one segment because the designation, uses and standards are the same.

Lower Colorado Segments 13a and 13f: Asbury Creek was moved from Segment 13a to a new Segment 13f to facilitate the adoption of a water supply use classification and standards.

Lower Colorado River Segments 19 and 21: All lakes and reservoirs tributary to Plateau Creek and within Grand Mesa National Forest were moved from Segment 19 to Segment 21 to upgrade the aquatic life use from Warm 1 to Cold 1 and to facilitate the adoption of water supply standards.

Lower Colorado Segments 15a – 15d and 16: Plateau Creek and its tributaries (Segment 15) were divided into 4 segments to facilitate changing the temperature tier on the new Segment 15b and the adoption of site-specific ambient temperature standards on the new Segments 15c and 15d. The upstream boundary of Segment 16 was changed to facilitate a change in the aquatic life use and adoption of ambient temperature standards for the lower portion of Plateu Creek.

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

Lower Yampa/Green River Segments: 10, 19a
White River Segments: 9a, 9b,10b, 13b
Lower Colorado River Segments: 11g, 12b, 13d

B. Revised Aquatic-Life Use Classifications

The Commission reviewed information regarding the existing aquatic communities. Class 2 segments with exceptionally high MMI scores, or a wide variety of fish species were upgraded from Class 2 to Class 1. Segments that supported Colorado State Species of Special Concern such as mountain sucker or native cutthroat trout were also upgraded from Class 2 to Class 1.

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

Lower Yampa/Green River Segments: 3e (Wilson Creek moved to 3c), 22b, 22c

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

White River Segment: 19
Lower Colorado River Segments: 11b, 11h

Based upon evidence that the waters are expected to support cold water fisheries, portions of the following segment were upgraded from Warm 1 to Cold 1:

Lower Colorado River Segment: 21

Based upon the results of a Use Attainability Analysis that demonstrated the Cold Aquatic Life Use is not attainable, the following segment was downgraded from Cold 1 to Warm 1:

Lower Colorado River Segment: 16

C. Recreation Classifications and Standards

Based upon evidence that portions of these segments support recreational fishing and are publicly accessible and/or accessible to families who live in the area, it was determined that there is the potential for primary contact recreation. The following segments with year-round Recreation N standards were upgraded to Recreation P:

White River Segments: 13b, 13c, 17, 18b, 20
Lower Colorado River Segment: 8

The use classification for the following segment was inadvertently changed to Recreation P in 2007, and the Recreation N use classification was restored in this rulemaking hearing:

White River Segment: 16

D. Water Supply Use Classification and Standards

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

Lower Yampa/Green River Segments: 3h, 5, 6, 12a, 16, 22d
White River Segments: 13b, 14a, 16a, 18b, 20
Lower Colorado River Segments: 11h, 13f

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

Lower Colorado River segments: 11e

E. Agriculture Standards

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

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

Cu intake mg/day = [([Cu] forage, mg/kg) x (forage intake, kg/day)] + [([Cu] water, mg/l) x (water intake, L/day)] + (Cu supplementation, mg/day)

Mo intake mg/day = [([Mo] forage, mg/kg) x (forage intake, kg/day)] + [([Mo] water, mg/l) x (water intake, L/day)] + (Mo supplementation, mg/day)

The assumed values for these equations are as follows:

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

A molybdenum standard of160 ug/l was adopted for the following segments in Regulation 37 that have an Agriculture use classification, and where livestock or irrigated forage are present or expected to be present:

Lower Yampa/Green River Segments: 2, 3a, 3b, 3c, 3d, 3e, 3f, 3g, 3h, 3i, 4, 5, 6, 7, 8, 9, 10, 12a, 12b, 12c, 13a, 13b, 15, 16, 17a, 17c, 18, 19a, 19b, 20, 21, 22a, 22b, 22c, 22d, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33
White River Segments: 1, 3, 4a, 4b, 6, 7, 8, 9a, 9b, 9c, 9d, 10a, 10b, 11, 12, 13a, 13b, 13c, 13d, 14a, 14b, 15, 16a, 16b, 17, 18a, 18b, 19, 20, 21, 22, 23, 24, 25, 26, 27

Lower Colorado River Segments: 1, 2a, 2b, 3, 4a, 4c, 4d, 4e, 4f, 5, 6, 7a, 7b, 8, 9a, 9b, 9c, 10, 11a, 11b, 11d, 11e, 11f, 11g, 11h, 12a, 12b, 13a, 13b, 13c, 13d, 13e, 13f, 14a, 14b, 14c, 15a, 15b, 15c, 15d, 16, 17a, 17b, 18, 19, 20, 21

The following segment does not have an Agriculture use classification or a Water Supply use classification, and a molybdenum standard was not applied:

Lower Yampa/Green River Segment: 17b
Lower Colorado River Segment: 4b

F. Changes to Antidegradation Designation

The Commission reviewed all Cold 2 segments that were Use-Protected to determine if that designation was still warranted. No segments were changed to Reviewable.

The Commission reviewed all Warm 2 segments to determine if the Use-Protected designation is still warranted. Based upon available water quality data that meet the criteria of 31.8(2), the Use-Protection designation was removed from the following segments:

Lower Yampa/Green River Segments: 3g, 3i, 6

The Commission adopted an Outstanding Waters (OW) designation for the following segments based on evidence presented by WildEarth Guardians showing that water quality meets the requirements of 31.8(2)(a):

Lower Yampa/Green River Segment: 12c
White River Segment: 4b

The presence of designated Critical Cutthroat Trout Habitat by the State of Colorado proves the exceptional recreational or ecological significance of the waters. Outreach conducted by WildEarth Guardians demonstrated support for the change in designation, the outstanding nature of these waters and the need for the additional protection of the outstanding waters designation. The Commission understands that existing land uses, including grazing, are in place in these watersheds. The evidence demonstrates that these existing land uses are compatible with the OW designation since the current high level of water quality has been attained with these uses in place. It is the Commission's intent that this OW designation should not be used to establish additional permit requirements for existing uses within this area.

G. Ambient Standards

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

Lower Yampa/Green River Segment: 16
White River Segments: 13b, 13c

New assessment locations were adopted for White River segments 13b and 13c, because additional data was available to develop individual site-specific selenium standards for Corral Gulch, Duck Creek, Greasewood Creek and Yellow Creek. The assessment locations are listed at 37.6(4).

H. Aquatic Life Ammonia and Metals Standards

New Table Value Standards: The zinc, zinc sculpin, and aluminum table values were revised in the 2010 Basic Standards hearing. The acute and chronic zinc, zinc sculpin, and aluminum equations in 37.6(3) were modified to conform to Regulation 31. The footnotes to the table values in 37.6(3) were renumbered to match the appropriate references. Footnote (4 old) was deleted and a new footnote 4 was added.

Zinc sculpin standards: In low-hardness situations (hardness below 102 mg/L), the zinc equation is not protective of mottled sculpin (Cottus bairdi), a native west-slope fish species. For the following segments where sculpin are expected to occur and hardness could be low, both the zinc sculpin standard and the chronic zinc table value standard were adopted:

Lower Yampa/Green River Segments: 4, 7, 10, 15, 18
White River Segments: 1, 3, 6

Based upon a review of existing hardness and fishery data, the sculpin-specific zinc equation was deleted from the following segments where hardness is consistently higher than 102 mg/L:

Lower Yampa/Green River Segments: 2, 12a, 13b
Lower Colorado River Segments: 7a, 15a

The following segments were designated as Aquatic Life Warm 2 or Cold 2, but lacked standards to fully support the Aquatic Life Use. Available data indicates that the Aquatic Life Use is attainable, and therefore the full suite of standards protective of aquatic life was added to the following segments, with a delayed effective data of December 31, 2019 on Lower Yampa segment 3b:

Lower Yampa/Green River Segments: 3b, 3i, 6, 17c
Lower Colorado River Segments: 11b, 13a

The goal qualifier for selenium was deleted on Lower Yampa/Green River segment 3b, based upon data that indicate the table value standard for selenium is attained.

I. Uranium Standards

At the 2010 Basic Standards rulemaking hearing, the Commission changed the Water Supply table value for uranium from 30 ug/L to a hyphenated standard of 16.8-30 ug/L. The Commission revised the language in 37.5(3)(c) to reflect the change to the basin-wide standard. A new section 37.5(3)(c)(i) was added to explain the hyphenated standard. Subsection 37.5(3)(d) was deleted because it was redundant with 37.5(3)(c).

J. Temporary Modifications

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

To remain consistent with the Commission's decisions regarding arsenic at 37.31, all existing temporary modifications for arsenic of "As(ch)=hybrid" (expiration date of 12/31/21) were retained. An arsenic temporary modification was added to the following segments, which had an existing or newly added chronic arsenic standard of 0.02 ug/L and a permitted discharger with a predicted water quality–based effluent limit compliance problem:

Lower Yampa/Green River Segments: 5, 17a,
Lower Colorado River Segments: 4c, 11h, 15b, 15c, 15d, 17b
New or modified Temporary Modifications were adopted for the following segments.

Lower Colorado Segment 4e: The Commission extended the Type A Temporary Modification for copper from December 31, 2015 to June 30, 2017. The extension of the Temporary Modification of the underlying copper standards recognizes that Tri-State Generation and Transmission Association, Inc. (Tri-State) provided water quality data predicting a compliance issue associated with its permitted discharge on Lower Colorado Segment 4e and there remains uncertainty as to the appropriate standards for that segment. Tri-State submitted a plan to collect additional data and to evaluate the bioavailability of copper in this segment. The progress on resolving the uncertainty with the copper standards will be reviewed in the annual Temporary Modification hearing in December 2015.

The Commission shortened the Type A Temporary Modification for iron from December 31, 2015 to June 30, 2015. This will allow time for Tri-State to develop a more definitive plan to resolve the uncertainty with the iron standards. Tri-State provided water quality data predicting a compliance issue associated with its permitted discharge on Lower Colorado Segment 4e and there remains uncertainty as to the appropriate standards for that segment. Tri-State may request an extension of the temporary modification at the annual Temporary Modification hearing in December 2014.

Where the Commission has adopted a narrative temporary modification of “current condition”, the Commission intends that, when implementing the temporary modification in a CDPS permit, the permit conditions will reflect the current effluent quality, recognizing that it changes over time due to seasonal variability, change in the influent flow and the concentration over time.

K. Temperature

Ambient temperature standards for lakes

In the 2008 triennial review, the WAT standard was found to be unattainable for a number of cold large lakes and reservoirs with apparently healthy cold-water fish populations. Because summertime temperature in the mixed layer for large lakes and reservoirs is very well correlated to the waterbody’s elevation, the Commission adopted ambient temperature standards for large lakes wherever data were available to characterize a WAT and the thermal characteristics of the lakes and reservoirs were determined to be the result of natural conditions. As a result of setting ambient temperature standards, the adequate refuge defined in Regulation 31, Table 1, footnote 5(c)(iii) was assessed using the site-specific temperature standard, and many lakes with obvious dissolved oxygen issues were considered to have adequate refuge.

Footnote 5(c)(iii) states:

> When a lake or reservoir is stratified, the mixed layer may exceed the criteria in Table 1 provided that an adequate refuge exists in water below the mixed layer. Adequate refuge depends on concurrent attainment of applicable dissolved oxygen standards. If the refuge is not adequate because of dissolved oxygen levels, the lake or reservoir may be included on the 303(d) List as “impaired” for dissolved oxygen, rather than for temperature.

To ensure that adequate refuge is defined in a way that protects the Aquatic Life use, the Commission adopted Footnote D which was applied to the temperature standard for deep stratified lakes. Footnote D states “Assessment of adequate refuge shall rely on the Cold Large Lake table value temperature criterion and applicable dissolved oxygen standard rather than the site-specific temperature standard”, and was applied to the following lake segments:

> White River segment: 25 (Lake Avery)
> Lower Colorado River segment: 20 (Rifle Gap, Harvey Gap and Vega Reservoirs)

Based upon a Use Attainability Analysis that demonstrates the table value standards for temperature are not attainable, ambient-based temperature standards were adopted for the following segments:

Lower Colorado River Segments: 15c, 15d, 16

Based upon a Use Attainability Analysis that determined Cold Stream Tier I species were not expected to occur, the temperature standard was changed from CS-I to CS-II on the following segment:

Lower Colorado Segment: 15b

L. Nutrients

In March 2012, the Commission adopted interim nutrient values in the Basic Standards (Regulation 31) and created a new statewide control regulation (Regulation 85) to address nutrients in Colorado. Regulation 31.17 includes interim nutrient values for total phosphorus, total nitrogen, and chlorophyll *a* for both lakes and reservoirs, and rivers and streams. Due to the phased implementation approach adopted with these criteria (31.17(e)), the Commission adopted only total phosphorus and chlorophyll *a* standards at this time. Nitrogen standards were not considered as part of this rulemaking hearing, but will be considered in the next triennial review, currently scheduled for June, 2019.

Total phosphorus and chlorophyll *a* standards were adopted for waters upstream of all permitted domestic wastewater treatment facilities discharging prior to May 31, 2012 or with preliminary effluent limits requested prior to May 31, 2012, and any non-domestic facilities subject to Regulation 85 effluent limits and discharging prior to May 31, 2012. A new section (4) was added at 37.5 describing implementation of the interim nutrient values into the tables at 37.6, and includes a table which lists these facilities and the segment to which they discharge.

- For segments located entirely above these facilities, nutrient standards apply to the entire segment.
- For segments with portions downstream of these facilities, *nutrient standards only apply above these facilities*. A footnote “C” was added to the total phosphorus and chlorophyll a standards in these segments. The footnote references the table of qualified facilities at 37.5(4).
- For segments located entirely below these facilities, nutrient standards do not apply.
- For rivers and streams segments, total phosphorus standards were adopted above the dischargers listed at 37.5(4) for segments with an Aquatic Life Use. Chlorophyll *a* standards were adopted above the dischargers listed at 37.5(4) for segments with either an E, P, or U Recreation use classification.
- For lakes and reservoirs segments above the dischargers listed at 37.5(4), total phosphorus and chlorophyll standards were adopted with a footnote “B” as these standards only apply to waterbodies larger than 25 acres surface area.

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

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

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

Lower Yampa/Green River Segments: 3b, 3c, 3e, 3f, 3g, 3i, 4, 5, 6, 7, 8, 9, 10, 12a, 12b, 12c, 13a, 13b, 15, 16, 17a, 18, 19a, 19b, 20, 22c, 22d, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33
White River Segments: 1, 3, 4a, 4b, 6, 7, 8, 9c, 9d, 10a, 10b, 11, 13b, 13c, 13d, 14a, 14b, 15, 16a, 16b, 17, 18b, 19, 20, 22, 23, 24, 25, 26, 27
Lower Colorado River Segments: 4b, 4c, 5, 6, 7a, 7b, 8, 9a, 9b, 9c, 10, 11h, 12b, 13a, 13b, 13c, 13d, 13e, 13f, 14a, 14b, 14c, 15a, 15b, 15c, 15d, 16, 17a, 17b, 18, 19, 20, 21

Total Phosphorus standards were adopted for the following segments:

Lower Yampa/Green River Segments: 3a, 3b, 3c, 3d, 3e, 3f, 3g, 3h, 3i, 4, 5, 6, 7, 8, 9, 10, 12a, 12b, 12c, 13a, 13b, 15, 16, 17a, 17b, 17c, 18, 19a, 19b, 20, 21, 22a, 22b, 22c, 22d, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33
White River Segments: 1, 3, 4a, 4b, 6, 7, 8, 9a, 9b, 9c, 9d, 10a, 10b, 11, 13a, 13b, 13c, 13d, 14a, 14b, 15, 16a, 16b, 17, 18a, 18b, 19, 20, 22, 23, 24, 25, 26, 27
Lower Colorado River Segments: 4a, 4b, 4c, 4d, 4e, 4f, 5, 6, 7a, 7b, 8, 9a, 9b, 9c, 10, 11a, 11b, 11d, 11e, 11f, 11g, 11h, 12a, 12b, 13a, 13b, 13c, 13d, 13e, 13f, 14a, 14b, 14c, 15a, 15b, 15c, 15d, 16, 17a, 17b, 18, 19, 20, 21

Lower Colorado Segment 4e: A footnote C was added to the total phosphorus standard on this segment and on Lower Colorado Segment 4f. Tri-State Generation and Transmission Association, Inc was added to the list of facilities at 37.5(4). Tri-State submitted effluent data that demonstrated a compliance problem with the total phosphorus standard. At the time when Regulation 31.17(e) was adopted, it was not apparent that cooling tower discharges were a significant source of phosphorus or that these facilies would be impacted by nutrient standards. The Commission decided to include Tri-State in the list of exempt dischargers at 37.5(4) as a matter of policy on the basis that the overall intention of the phased implementation of nutrient criteria was to control existing discharges through Regulation 85, rather than through water-quailty based effluent limits.

M. Direct Use Water Supply Sub-classification

Also in the March 2012 rulemaking hearing, the Commission adopted a sub-classification of the Domestic Water Supply Use called “Direct Use Water Supply Lakes and Reservoirs Sub-classification (Regulation 31, at 31.13(1)(d)(i)). This sub-classification is for water supply lakes and reservoirs where there is a plant intake location in the lake or reservoir or a man-made conveyance from the lake of reservoir that is used regularly to provide raw water directly to a water treatment plant that treats and disinfects raw water. In this action today, the Commission has begun to apply this sub-classification and anticipates that it will take several basin reviews to evaluate all the reservoirs in the basin. The Commission adopted the DUWS sub-classification on the following reservoirs and added “DUWS” to the classification column in the standards tables. The public water systems are listed along with the reservoirs and segments.

| | |
|---|---|
| White River segment 11: | Kenney Reservoir (Western Fuels) |
| Lower Colorado River segment 21: | Jerry Creek Reservoirs Number 1 and 2 (Ute Water Conservancy District) |
| Lower Colorado River segment 21: | Palisade Cabin Reservoir (Town of Palisade) |

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

N. Chromium III Standards

A review of the chromium III standards showed that standards to protect the Aquatic Life use classification may not be protective of the Agriculture use in some high-hardness situations. A chromium III standard of CrIII(ch)=100(Trec) was added to segments with Aquatic Life and Agriculture use classifications, but no Water Supply use. The acute chromium III standard associated with the Water Supply use is protective of the Agriculture use, but is not protective of the Aquatic Life use when hardness is less than 61 ug/l. For segments that have both Aquatic Life and Water Supply Use classifications, a chronic chromium III standard of CrIII(ch)=TVS was added to all segments that did not previously have that standard. Changes were made to the following segments:

Lower Yampa/Green River Segments: 2, 3b, 3c, 3d, 3e, 3h, 3i, 7, 9, 10, 12b,12c, 13a, 13b, 17a, 19a, 19b, 21, 22a, 22b, 22c, 23, 25, 26, 27, 30, 32, 33
White River Segments: 1, 3, 4a, 6, 7, 8, 9a, 9b, 9c, 9d, 10a, 10b, 11, 12, 13c, 13d, 14b, 15, 16b, 17, 18a, 19, 21, 23, 25, 26, 27
Lower Colorado River Segments: 1, 2a, 2b, 3, 4a, 4c, 4d, 4e, 4f, 5, 6, 7a, 7b, 8, 9a, 9b, 9c, 10, 11a, 11b, 11d, 11f, 12a, 12b, 13a, 13b, 13c, 13d, 13f, 14a, 14b, 14c, 15a, 15b, 15c, 15d, 16, 17a, 17b, 18, 19, 20, 21

O. Other Site-Specific Revisions

A footnote “A” was added to the chronic arsenic standard to explain the hyphenated standard on the following segments:

Lower Yampa/Green River Segments: 3e, 3h, 6, 13a, 13b, 16, 17c, 22d,
White River Segments: 9a, 9b, 9c, 9d, 13b, 16a, 18b
Lower Colorado River Segments: 4a, 4d, 6, 11e, 12b, 13f

PARTIES TO THE RULEMAKING HEARING

1. Grand County, Northwest Colorado Council of Governments and Northern Colorado Water Conservancy District
2. Eagle River Water and Sanitation District
3. Trout Unlimited
4. WildEarth Guardians
5. Tri-State Generation and Transmission Association
6. Seneca Coal Company, Peabody Sage Creek Mining, LLC, and Twentymile Coal Company
7. Western Resource Advocates
8. Colorado River Water Conservation District
9. Climax Molybdenum Company
10. Trapper Mining, Inc.
11. Upper Blue Sanitation District
12. Clinton Ditch & Reservoir Company
13. Vail Resorts, Inc. and Vail Summit Resorts, Inc.
14. Eagle Park Reservoir Company
15. Upper Eagle Regional Water Authority
16. Colorado Parks and Wildlife
17. Denver Water
18. Environmental Protection Agency
19. Powdr-Copper Mountain, LLC
20. Town of Frisco

### 37.34 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 8, 2014 RULEMAKING; FINAL ACTION JANUARY 12, 2015; EFFECTIVE DATE JUNE 30, 2015

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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the Commission reviewed the status of temporary modifications scheduled to expire before December 31, 2016, to determine whether the temporary modification should be modified, eliminated or extended. Temporary modification of a standard on one segment was reviewed.

Lower Colorado segment 4e, extend the temporary modification of the iron standard: The Commission reviewed the plan to resolve uncertainty about the iron standards for Dry Creek (Lower Colorado River Segment 4e) submitted by Tri-State Generation and Transmission Association, Inc. The Commission approved Tri-State's implementation plan as modified in the hearing and extended the temporary modification to December 31, 2017. Progress on the plan will be reviewed by the Commission in December 2015.

PARTIES TO THE RULEMAKING HEARING

1. Pioneer Natural Resources USA, Inc. and XTO Energy, Inc.
2. U.S. Energy Corp.
3. Plum Creek Water Reclamation Authority
4, Upper Clear Creek Watershed Association
5. Upper Thompson Sanitation District
6. Colorado Parks and Wildlife
7. U.S. Environmental Protection Agency
8. High Country Conservation Advocates
9. Metro Wastewater Reclamation District
10. Climax Molybdenum Company
11. Rio Grande Silver, Inc.
12. City of Pueblo
13. Tri-State Generation and Transmission, Inc.
14. Centennial Water and Sanitation District
15. Xcel Energy
16. MillerCoors
17. Seneca Coal Company
18. Peabody-Sage Creek Mining, LLC
19. City of Boulder

### 37.35 STATEMENT OF BASIS AND PURPOSE REGARDING THE ADOPTION OF NON-SUBSTANTIVE CHANGES TO THE CLASSIFICATION AND NUMEIRC STANDARDS FOR LOWER COLORADO RIVER BASIN, JANUARY 11, 2016 RULEMAKING; EFFECTIVE DATE MARCH 1, 2016

The provisions of C.R.S. 25-8-202(1)(i) and 25-8-401(2) provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

**BASIS AND PURPOSE**

The Commission, in a public rulemaking hearing adopted extensive changes to the format of this regulation. The Commission does not intend to change any existing designations, use classifications or standards, or the implementation of any standards as the results of changing the format.

This rulemaking was in response to longstanding issues with managing the information contained in the standards tables. The changes made in this hearing reflect a change from storing the information in word processing documents to storing the information in a relational database. This change in platform will provide better consistency, facilitate error checking as well as a more readable format for the standards tables. Storing the information in a database allows it to be used more efficiently by other programs in the Division.

While it was the Commission's intent not to change the substantive meaning of the regulations in this rulemaking, in cases where there was ambiguity the revised regulation reflects the Commission's interpretation of the previous format based on Regulation #31 (the Basic Standards and Methodologies for Surface Water) and the experience of the Commission and its staff.

Overall format changes: The new format displays parameters by name, rather than by period table element abbreviations. The section formerly titled "Temporary Modifications and Qualifiers" does not appear in the new format. Instead, there is a separate section for qualifiers, and an "Other" section. Temporary modifications, variances and other footnotes are displayed in the "Other" section. Many items that were formerly in the "Temporary Modifications and Qualifiers" column will be displayed in the "Other" column and will have a different appearance or modified wording, although the information is substantively the same. Each footnote in the "Other" section is preceded by a heading that indicates where the footnote applies:

- Footnotes regarding a use classification will begin with the heading "Classification…"
- Footnotes regarding the antidegradation designation begin with the heading "Designation…"
- Footnotes that relate to a particular standard begin with the name of the parameter, for example "Selenium(chronic)= …"

Also, since there is more room for information within each segment, footnotes "B" and "C" were replaced with the full text in each segment where these footnotes were applied. Footnote "A" was maintained because the text is too long to be displayed in the "Other" section for each segment where it applies. Footnote "D" was changed to footnote "B" and was maintained because the text is too long to be displayed in the "Other" section.

Constraints of the new format: Some adjustments were made to the way that data is displayed in order to be compatible with the functions of the Standards Database. Database organization requires that information which relates to multiple standards must be attached to each individual parameter. For example, a segment with a temporary modification listed for "all parameters" in the old format will have a temporary modification listed for each individual parameter in the new format. There are also spacing constraints in the new format, which require some information to be moved either to the "other" box on the new format, or moved out of the segment entirely and into another location in the regulation.

Clarification of changes: The shift to a database organizational structure required consistency in the way each data element is addressed. To insure that data is stored and displayed correctly, the following changes were made

- The "type" of temporary modification is no longer displayed in the segment tables, since they have no regulatory effect and have been inconsistently displayed.

- In the old format, waters that had a reviewable antidegradation designation were identified by the absence of either “UP” or “OW” in the designation column. These segments now display the word “reviewable” under the designation heading. There needed to be a value in the designation column for every segment.

- Dissolved standards are not specifically noted as dissolved in the new format. All metals standards are dissolved unless noted with a “T” or a “t”. For example, a manganese standard in the old format of “WS(dis”) is displayed as “WS” in the new format.

- A new footnote 7 was added to clarify that although E. coli is listed in the “chronic” column, the standard is a two-month geometric mean rather than a 30-day average. The language of footnote 7 was taken from Regulation 31, Table 1, footnote 7.

- A new footnote 8 was added to indicate that all phosphorus standards are based upon the concentration of total phosphorus. In the old format, individual phosphorus standards were noted as “total” in some basins and not others.

- A new footnote 9 was added to clarify that although pH is listed in the “acute” column, the standard is not applied as a 1-day average. The language of footnote 7 was taken from Regulation 31, Table 1, footnote 3.

- Physical and Biological Parameters: Some parameters are not specifically identified in the old format segment tables as acute or chronic. The new format requires that each parameter is placed in either the acute or chronic column. Specifically, these parameters and the basis for being identified as acute or chronic are as follows:

    - pH (acute) – Regulation #31, Table 1, footnote 3

    - E. Coli (chronic) – Regulation #31, Table 1, footnote 7

    - D.O. (chronic) – Regulation #31, Table 1, footnote 1

    - cyanide (acute) – Regulation #31, Table 2

    - sulfide (chronic) - Regulation #31, Table 2

    - nitrate (acute) - Regulation #31, Table 2

    - nitrite (chronic) – not specified in Regulation #31. Nitrite has been implemented as a 30-day average standard in permits and assessments.

    - chloride (chronic) Regulation #31, Table 2

    - boron (chronic) - Regulation #31, Table 2

    - sulfate (chronic) Regulation #31, Table 2

**37.36 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 14, 2015 RULEMAKING; FINAL ACTION JANUARY 11, 2016; EFFECTIVE DATE JUNE 30, 2016**

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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the Commission reviewed the status of temporary modifications scheduled to expire before December 31, 2017, to determine whether the temporary modification should be modified, eliminated or extended. Temporary modifications of standards on one segment was reviewed.

Lower Colorado segment 4e: Temporary modifications of the copper and iron standards. Tri-state Generation and Transmission, Inc. provided evidence that it is making progress on the plan for eliminating the need for the temporary modification and on resolving the uncertainty regarding the underlying standards. The Commission made no change to the expiration date of 6/30/2017 for copper, and 12/31/2017 for iron as the time allotment was deemed adequate.

PARTIES TO THE RULEMAKING HEARING

1. City of Delta
2. Resurrection Mining Company
3. U.S. Energy Corp.
4. City of Pueblo
5. Peabody Sage Creek Mining and Seneca Coal Company
6. Climax Molybdenum Company
7. Rio Grande Silver
8. City of Colorado Springs and Colorado Springs Utilities
9. Tri-State Generation and Transmission Association, Inc.
10. High Country Conservation Advocates
11. U.S. Environmental Protection Agency
12. Colorado Parks and Wildlife
13. Town of Crested Butte and Coal Creek Watershed Coalition
14. Public Service Company of Colorado

**37.37 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 12, 2016 RULEMAKING; FINAL ACTION JANUARY 9, 2017; EFFECTIVE DATE JUNE 30, 2017**

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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the commission reviewed the status of temporary modifications scheduled to expire before December 31, 2018, to determine whether the temporary modifications should be modified, eliminated or extended.

Lower Colorado Segment 4e: temporary modifications of the copper (expire 6/30/2017) and iron (expire12/31/2017) standards on Lower Colorado Segment 4e were reviewed. Tri-State Generation and Transmission Association, Inc. presented evidence that it is making progress on the plan for eliminating the need for need for the temporary modifications.

IRON

The commission considered the temporary modification for iron on Lower Colorado Segment 4e, Dry Creek and all tributaries upstream of the Last Chance Ditch. Tri-State Generation and Transmission Association, Inc., originally proposed ambient-based site-specific standards for iron in this rulemaking. Preliminary data shows an ambient standard for iron is likely appropriate because in-stream conditions in minimally impacted sites exceed the table value standards (TVS) for chronic iron. The data also indicate that natural or irreversible sources of ambient iron are present within the upper reaches of Dry Creek, which are driving the instream concentrations of total recoverable iron detected at sample locations downstream of the Tri-State Rifle Station. However, due to challenges in obtaining data because of the limited/intermittent flow in Segment 4e, the dataset for this segment is small. More data is needed to accurately characterize the ambient-condition in this segment. Therefore, the commission extended the iron temporary modification on Lower Colorado Segment 4e until December 31, 2018, to allow Tri-State an additional year to collect data to calculate appropriate ambient-based iron standards.

COPPER

The commission considered the temporary modification for copper for Lower Colorado Segment 4e. Tri-State proposed extending the temporary modification. Tri-State submitted evidence that it has been collecting data to determine whether copper standards may be based on the Biotic Ligand Model (BLM).

The division recommends that a minimum of 24 samples be collected over a two-year period in order to fully capture seasonality before implementation of any BLM-based site-specific standard. The temporary modification for copper was set to expire June 30, 2017, with the assumption that since water quality data collection began in 2015, this would provide sufficient time for data to be collected prior to expiration of the temporary modification. However, due to the extremely intermittent nature of the discharge and an ephemeral stream which flows only in response to precipitation or discharge events, it has been challenging to develop a database containing a sufficient number of samples. Based on the limited number of samples available at this time, the commission determined that additional time was necessary and extended the temporary modification expiration to December 31, 2019. The extended timeframe will allow additional collection of samples in this difficult environment of limited flows. The expiration date is coordinated with the June 2019 basin hearing.

ANTIDEGRADATION

The commission reviewed the antidegradation designation for Segment 4e. Based on available water quality data that meet the requirements of Section 31.8(2)(b)(i)(B), the commission determined that Segment 4e should retain the Use Protected designation.

SUMMARY

An extension of the iron temporary modification was adopted of December 31, 2018, in order to collect additional data to develop appropriate ambient-based iron standards. An extension of the copper temporary modification was adopted of December 31, 2019, in order to continue building the existing database. The commission retained the Use Protected designation based on Section 31.8(2)(b)(i)(B).

New Temporary Modifications of the Arsenic Standard:

> Consistent with the actions taken in 2013, the commission adopted a temporary modification of the arsenic standard on segments on the following list, with an expiration date of 12/31/2021. At the April 8, 2013 rulemaking, the commission heard testimony that concurred with the finding from a December 13, 2011 hearing that an initial reasonable lower limit of treatment technology for arsenic is 3.0 µg/L, pending further investigation by the division, dischargers and stakeholders. The temporary modification was established by the commission to allow for a temporarily less stringent application of the chronic arsenic standard in control requirements for both existing discharges and new or increased discharges.

Lower Yampa Segment 9
Lower Yampa Segment 12a
Lower Yampa Segment 12b
Lower Yampa Segment 12c
Lower Yampa Segment 15
White River Segment 4b
White River Segment 14a
White River Segment 20
Lower Colorado Segment 17b

PARTIES TO THE RULEMAKING HEARING

1. Colorado Parks and Wildlife
2. Resurrection Mining Company
3. Public Service Company of Colorado
4. City of Pueblo
5. Peabody Sage Creek Mining Company and Seneca Coal Company
6. Tri-State Generation and Transmission Association, Inc.
7. Climax Molybdenum Company
8. Rio Grande Silver, Inc.
9. Mt. Emmons Mining Company
10. Plum Creek Water Reclamation Authority
11. Environmental Protection Agency
12. Raytheon Company
13. City of Boulder Open Space and Mountain Parks
14. High Country Conservation Advocates
15. City of Colorado Springs and Colorado Springs Utilities
16. City of Black Hawk and Black Hawk/Central City Sanitation District
17. Town of Crested Butte and Coal Creek Watershed Coalition
18. Parker Water and Sanitation District

**37.38 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 11, 2017 RULEMAKING; FINAL ACTION JANUARY 8, 2018; EFFECTIVE DATE JUNE 30, 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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the commission reviewed the status of temporary modifications scheduled to expire before December 31, 2019 to determine whether the temporary modification should be modified, eliminated, or extended.

No action: The commission took no action on the temporary modifications on the following segments:

Lower Colorado Segment 4e: temporary modification of the copper standard (expires 12/31/2019). Tri-State Generation and Transmission Association, Inc. presented evidence that it is making progress on the temporary modification of the copper standard.

Site specific standards: The commission adopted site specific standards on the following segment:

Lower Colorado Segment 4e: Tri-State Generation and Transmission Association, Inc. (Tri-State) submitted sufficient data and justification to adequately characterize the highest attainable use in Segment 4e, and support adoption of site-specific ambient-based total recoverable iron standards for Segment 4e with two associated assessment locations. Based on this evidence, the commission determined that the highest attainable uses for Segment 4e are the existing classifications of Agriculture, Recreation N, and Aquatic Life Cold 2. The commission determined that there is no need to change the Aquatic Life Cold 2 use, which is appropriate for segments like Dry Creek that are not capable of sustaining a wide variety of cold water biota due to physical habitat, water flows or levels, or uncorrectable water quality conditions. To accurately represent the spatial and temporal variability in natural iron conditions, water quality data included were from samples taken at times when no discharge from the Rifle Station was occurring. These data demonstrated that natural sources within the Dry Creek watershed are solely driving elevated instream concentrations of total recoverable iron.

The commission adopted ambient-based site-specific iron standards of 3500 µg/L for the unnamed tributary (39.519572, -107.729424), and 5900 µg/L for the remaining portions of the segment including Dry Creek (39.523944, -107.73496) in accordance with 31.7(1)(b)(ii). Evidence submitted by Tri-State demonstrated that ambient iron concentrations are adequate to protect the highest attainable Aquatic Life use. Therefore, ambient iron concentrations provide a reasonable basis for site-specific standards, which protect the aquatic community, and the highest attainable uses for the segment.

Based on the evidence presented by Tri-State and in accordance with Section 31.3 of the Basic Standards and Methodologies for Surface Waters, the commission found that given the current discharge and environmental conditions, the ambient-based standards adopted in Segment 4e will not jeopardize downstream waters and that water quality classifications and standards of downstream waters will be attained and maintained.

The commission specified assessment locations for the two iron standards at section 37.6(4)(c) to ensure that future assessment is consistent with the methods used to derive the standards.

The commission removed the temporary modification for iron of “current condition” that had previously been in place for Lower Colorado Segment 4e.

PARTIES TO THE RULEMAKING HEARING

1. Peabody Sage Creek Mining Company, Seneca Coal Company and Twentymile Coal, LLC
2. Tri-State Generation and Transmission Association, Inc.
3. Colorado Parks and Wildlife
4. Environmental Protection Agency
5. City of Black Hawk and Black Hawk/Central City Sanitation District
6. Rio Grande Silver, Inc.
7. MillerCoors LLC
8. Plum Creek Water Reclamation Authority
9. Public Service Company of Colorado
10. City of Pueblo

**37.39 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 10, 2018 RULEMAKING; FINAL ACTION JANUARY 14, 2019; EFFECTIVE DATE JUNE 30, 2019**

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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the commission reviewed the status of temporary modifications scheduled to expire before December 31, 2020 to determine whether the temporary modifications should be modified, eliminated, or extended.

For the temporary modifications set to expire after the effective date of this hearing, the commission reviewed progress toward resolving the uncertainty in the underlying standard and/or the extent to which conditions are a result of natural or anthropogenic conditions, and evaluated whether the temporary modifications were still necessary. The commission took no action on the following temporary modifications:

Lower Colorado Segment 4e (COLCLC04e): temporary modification of the acute and chronic copper standards (expires 12/31/2019). Tri-State Generation and Transmission Association, Inc. continues to make progress to resolve the uncertainty and is working to develop a proposal for the June 2019 Regulation No. 37 rulemaking hearing. The commission made no change to the expiration date, as the original time allotment was deemed adequate to resolve the uncertainty.

The commission deleted the temporary modifications on the following segments:

Lower Yampa Segment 17a (COLCLY17a): temporary modification of the chronic arsenic standard (expires 12/31/2021). The commission deleted this temporary modification because it was adopted in error. The temporary modification is more stringent than the underlying standard.

**37.40 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JUNE 10, 2019 RULEMAKING; FINAL ACTION AUGUST 12, 2019; EFFECTIVE DATE DECEMBER 31, 2019**

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

**BASIS AND PURPOSE**

**A. Water Body Segmentation**

Some segments were renumbered, combined, or new segments were created to facilitate appropriate organization of water bodies in this regulation. Renumbering and/or creation of new segments was made based on information that showed: a) the original reason for segmentation no longer applied; b) significant differences in uses, water quality and/or physical characteristics warrant a change in standards on only a portion of the existing segment; and/or c) certain segments could be merged into one segment because they had similar water quality and uses. The following changes were made:

Lower Yampa segments 3a and 3b: The mainstems of Jeffway Gulch and Deacon Gulch were moved from Segment 3a to Segment 3b to facilitate application of the appropriate use classifications. A Water Supply use, Water + Fish qualifier, and standards to protect those uses were added to Segment 3a. Segment 3b does not have a Water Supply use or Water + Fish qualifier.

Lower Yampa segments 3g and 3j: The mainstem of Little Collom Gulch was moved from Segment 3g to new Segment 3j to facilitate adoption of appropriate standards on these segments if necessary. A site-specific iron standard was adopted for a portion of Segment 3g.

Lower Colorado segments 7a and 9d: The lower portion of Battlement Creek was moved from Segment 7a to new Segment 9d to facilitate improved organization of the regulation. Uses and standards from Segment 7a were retained.

Lower Colorado segments 11a, 11b, 11c, 11d, 11e, 11f, 11g and 12a: Segments 11a, 11b, 11c, 11d, 11e, 11f and 12a were combined in their entirety into Segment 11a, and a portion of Segment 11g was added to Segment 11a to facilitate appropriate adoption of appropriate use classifications and standards and organization of the regulation. The use classifications for this new Segment 11a are Agriculture, Aquatic Life Cold 1, Recreation P and Water Supply.

Lower Colorado Segment 11g: Segment 11g was renumbered to Segment 11b. Additionally, the original segment was divided into three segments to facilitate improved geographic organization of the regulation and adoption of appropriate standards. Tributaries to East Fork Parachute Creek were included in new Segment 11a. Tributaries to the Colorado included in the description were moved to new Segment 12a. Tributaries to the east side of Parachute Creek were retained in Segment 11b with no changes to the use classifications.

Lower Colorado Segment 11h: Segment 11h was moved to previously deleted segment 11c to improve clarity of the regulation. The segment description was also reworded for clarity, but content was not altered.

Lower Colorado segments 5, 12b and 12c: Wallace Creek was moved from Segments 5 and 12b to new Segment 12c to improve clarity and facilitate adoption of the appropriate Aquatic Life use classification and standards. Segment 5 retained an Aquatic Life Cold 1 use with CS-I temperature standards, and Segment 12b retained an Aquatic Life Cold 2 use with CS-II temperature standards. New Segment 12c was assigned an Aquatic Life Cold 1 use with CS-I temperature standards.

Lower Colorado Segment 13d: Coal Canyon Creek downgradient of the Government Highline Canal was moved from Segment 13d to Segment 13a to facilitate adoption of appropriate standards to protect the Aquatic Life use. Segment 13d was deleted.

Segment descriptions were also edited to improve clarity, correct typographical errors, and correct spelling errors. These changes are listed in Section M.

**B. Aquatic Life Use Classifications and Standards**

Some segments assigned an Aquatic Life use classification were missing a standard to protect that use. The commission adopted the missing standards for the following segments:

Lower Yampa/Green River: 3a (full suite of aquatic life use standards), 3b (acute chlorine, nitrite), 3f (full suite of aquatic life use standards), 3g (full suite of aquatic life use standards), 3i (acute chlorine, nitrite), 17b (full suite of aquatic life use standards), 17c (nitrite), 20 (full suite of aquatic life use standards), 22d (full suite of aquatic life use standards)

White River: 13a (full suite of aquatic life use standards), 13c (nitrite), 13d (nitrite), 22 (full suite of aquatic life use standards)

Lower Colorado River: 11b (full suite of aquatic life use standards), 13a (acute and chronic chlorine, nitrite), 15d (cadmium and silver trout qualifiers)

The commission reviewed information regarding the existing aquatic communities. Where the existing aquatic communities are not aligned with the Aquatic Life use, the following segments were upgraded from Cold 2 to Cold 1:

Lower Colorado River: 12c

The commission reviewed all Class 2 segments that have fish that are "of a catchable size and which are normally consumed and where there is evidence that fishing takes places on a recurring basis." Water + Fish or Fish Ingestion standards were applied to the following segments:

Lower Yampa/Green River: 3a, 16

White River: 9d, 13c, 15

Lower Colorado River: 13b

**C. Recreation Use Classifications and Standards**

The commission reviewed information regarding the current Recreation use classifications and evidence pertaining to actual or potential primary contact recreation. In addition, newly created segments were given the same Recreation use classification as the segment from which they were split, unless there was insufficient evidence to support keeping that classification, or evidence to show that the existing use classification was inappropriate.

Based upon evidence that portions of these segments are publicly accessible and located in a developed area where there is easy access for children, it was determined that primary contact recreation is expected to occur. The following segments with a Recreation P use classification and standards were upgraded to Recreation E:

Lower Colorado River: 14b, 14c

Based upon evidence that portions of these segments are publicly accessible and located in a developed area where there is easy access for children, it was determined that primary contact recreation is expected to occur. The following segments with a seasonal Recreation N use classification and standards were upgraded to Recreation E:

White River: 9c, 9d

Based upon evidence that portions of these segments are publicly accessible and/or accessible to families who live in the area or visitors to public recreation lands in these segments, it was determined that there is the potential for primary contact recreation, including water play by children. However, at this time, existing primary contact uses were not identified. Therefore, the following segments with a Recreation N use classification and standards were upgraded to Recreation P:

Lower Yampa/Green River: 3a, 3d, 3h, 17b, 17c, 21, 22a, 22b

White River: 9a, 9b, 13a, 16a, 16b, 18a

Lower Colorado River: 4d, 11a

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

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

Lower Yampa/Green River: 3a

Lower Colorado River: 9a, 13a

**E. Agriculture Use Classification and Standards**

The commission reviewed the single segment lacking an Agriculture use. Based on an evaluation of the available data and information, no changes were adopted at this time.

Some segments assigned an Agriculture use classification were missing a standard to protect that use. The commission adopted the missing standards for the following segments:

Lower Yampa/Green River: 3b (boron), 3i (boron)

**F. Other Standards to Protect Agriculture, Aquatic Life, and Water Supply Uses**

**1. Molybdenum:** In 2010, the commission adopted a new standard for molybdenum to protect cattle from the effects of molybdenosis. The table value adopted at that time was 300 µg/L, but included an assumption of 48 mg/day of copper supplementation to ameliorate the effects of molybdenosis. State and local experts on cattle nutrition indicated that copper supplementation in the region is common, but is not universal. Therefore, the copper supplementation assumption was removed from the equation, which then yielded a standard of 160 µg/L. That standard was applied in recent basin reviews.

In the 2015 Regulation No. 38 hearing, the commission adopted a standard of 150 µg/L, based on an improved understanding of the dietary- and water-intake rates for various life-stages of cattle. This standard is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

The Agriculture table value assumes that the safe copper:molybdenum ratio is 4:1. Food and water intake is based on growing heifers, steers, and bulls consuming 6.7 kg/day of dry matter and 56.8 liters of water per day. Molybdenum supplementation is assumed to be zero. The table value standard (TVS), which considers total copper and molybdenum intakes, is calculated from the following equation:

$$\text{Mo TVS} = \frac{(Cu_{forage} \times Forage_{intake}) + (Cu_{water} \times Water_{intake}) + Cu_{supp}}{\text{Cu:Mo Safe Ratio}} - (Mo_{forage} \times Forage_{intake})$$

$$Water_{intake}$$

The assumed values for these equations are as follows:

Cuforage = 7 mg/kg, Forageintake = 6.7 kg/day, Cuwater = 0.008 mg/L, Waterintake = 56.8 L/day, Cusupplementation = 0 mg/day, Cu:Mo Safe Ratio = 4:1, Moforage = 0.5 mg/kg.

In 2010, the commission also adopted a new standard for molybdenum to protect the Water Supply use that was calculated in accordance with Policy 96-2.

A molybdenum standard of 150 µg/L was adopted for all segments in Regulation No. 37 that have an Agriculture use classification, and where livestock or irrigated forage are present or expected to be present.

2. **Cadmium for Aquatic Life:** The commission adopted updated hardness-based cadmium Aquatic Life standards on a targeted, site-specific basis in cold waters to reflect the most up-to-date science. The new standards, released by the U.S. Environmental Protection Agency (EPA) in March 2016, are protective of sensitive cold water aquatic life (i.e., trout). The cadmium criteria recommended by EPA and adopted by the commission are as follows:

   Acute = e(0.9789*ln(hardness) –3.866)*(1.136672-(ln(hardness)*0.041838))

   Chronic = e(0.7977*ln(hardness) –3.909)*(1.101672-(ln(hardness)*0.041838))

   EPA's updated cadmium criteria are less stringent than Colorado's current cadmium standards when water hardness is greater than 45 mg/L CaCO3. Although the criteria are less stringent, they were developed using the latest science and are protective of aquatic life, and it is expected that Colorado's state-wide cadmium standards will likely be updated using the 2016 EPA cadmium criteria at a later date. Therefore, the commission determined it was appropriate to adopt the new criteria for waters known to be impaired for cadmium to ensure forthcoming clean-up goal development and Total Maximum Daily Load (TMDL) evaluations are based on the most relevant water quality standards available. The updated cadmium standards were adopted for the following segments:

   Lower Colorado River: 4e (chronic)

3. **Cadmium, Nickel, and Lead for Water Supply:** A review of the cadmium, nickel, and lead standards showed that uses were not always adequately protected by the standards currently in the tables. Depending on hardness, the Aquatic Life standards for cadmium, lead, and nickel were not protective of the Water Supply use. The division reviewed all segments in Regulation No. 37 to determine if the current standards applied to each segment are fully protective of the assigned uses, and revised or added standards where appropriate.

   The cadmium Water Supply standard was added because the acute Aquatic Life standard is not protective when the hardness was greater than 200 mg/L in non-trout streams and 345 mg/L in trout streams; the lead Water Supply standard was added because the acute Aquatic Life standard is not protective when hardness is greater than 79 mg/L; and the nickel Water Supply standard was added because the chronic Aquatic Life standard is not protective when hardness is greater than 216 mg/L. Cadmium, lead, and nickel Water Supply standards were added to the following segments:

   Lower Yampa/Green River: 2, 3c, 3e, 3h, 4, 5, 6, 8, 9, 10, 12a, 12c, 13a, 13b, 15, 16, 18, 19a, 19b, 21, 25, 27, 28, 29, 31, 33

   White River: 1, 3, 4a, 4b, 6, 7, 8, 9a, 9b, 9c, 9d, 10a, 10b, 11, 12, 13b, 14a, 16a, 18b, 20, 21, 23, 24, 25, 26

   Lower Colorado River: 1, 2a, 2b, 4a, 4c, 4d, 5, 6, 7a, 7b, 8, 9b, 9c, 10, 11a, 11c, 12b, 13f, 14a, 14b, 14c, 15a, 15b, 15c, 15d, 16, 17a, 17b, 18, 19, 20, 21

4. **Aquatic Life Criteria for Selenium, Ammonia, and Aluminum:** The commission declined to adopt EPA's revised 304(a) Aquatic Life criteria for selenium, ammonia, and aluminum at this time; however, the division is committed to evaluating these new criteria. Studies are currently underway for each parameter to improve understanding of these criteria in the context of water quality conditions in Colorado and how these criteria may be adopted and implemented in Colorado in the future.

## G. Antidegradation Designations

The commission reviewed all segments designated Use Protected to determine if the Use Protected designation was still warranted. Based upon available water quality data that meet the criteria of 31.8(2)b, the Use Protected designation was not removed from any segments.

The commission reviewed all segments designated Reviewable to determine if the Reviewable designation was still warranted. Based upon available water quality data that fails to meet the criteria of 31.8(2)b, the Reviewable designation was not removed from any segments.

## H. Ambient Quality-Based and Site-Specific Criteria-Based Standards

Ambient quality-based standards are adopted where a comprehensive analysis has been conducted demonstrating that elevated existing water quality levels are the result of natural conditions or are infeasible to reverse, but are adequate to protect the highest attainable use.

Ambient-based standards were adopted on the following segment:

Lower Yampa/Green River: 3g (iron)

All existing site-specific standards were reviewed, and where appropriate were revised or deleted. Site-specific standards were deleted from the following segments:

Lower Yampa/Green River: 3b (boron), 3i (boron)

## I. Temporary Modifications

All existing temporary modifications were examined to determine if they should be allowed to expire or deleted, or if they should be extended, either unchanged or with changes to the numeric limits.

The commission deleted temporary modifications on the following segments:

Lower Yampa/Green River: 12b (arsenic)

The commission extended temporary modifications on the following segments:

Lower Colorado River: 4e (acute and chronic copper)

To remain consistent with the commission's decisions regarding arsenic in section 37.31, all existing temporary modifications for arsenic of "As(ch)=hybrid" (expiration date of 12/31/21) were retained. In addition, for the following segments, an arsenic temporary modification was adopted for the 0.02 µg/L Water + Fish numeric standard in recognition of the uncertainty regarding "the water quality standard necessary to protect current and/or future uses" (31.7(3)). For arsenic, a known human carcinogen, the uncertainty is multi-faceted. For example, there are unresolved questions about existing water quality conditions (including spatial and temporal variation), the sources and causes of any numeric standard exceedances, and to what extent existing conditions may be a result of natural or irreversible sources. Likewise, with reference to the equations used to calculate the Water + Fish, Water Supply, and Fish Ingestion table value standards for arsenic (Policy 96-2), there are unresolved questions about the cancer slope, the bioconcentration or bioaccumulation factor, and the percentage of total arsenic in fish tissue that is inorganic. The commission recognizes the need to resolve the uncertainty in the arsenic standards and ensure that human health is adequately protected. Temporary modifications for arsenic were added to the following segments:

Lower Yampa/Green River: 3a, 16

White River: 9d

## J. Temperature Standards

The commission revised temperature criteria in Regulation No. 31 in 2007, and again in 2010, based on the development of the Colorado Temperature Database and a lengthy stakeholder process. In 2014, the new temperature standards were adopted for all segments with an Aquatic Life use classification in Regulation No. 37. In June 2016, temperature criteria in Regulation No. 31 were further revised, including changes to the temperature table value standards, revision of warm water winter acute standards, and the addition of footnotes to protect lake trout and mountain whitefish.

1. **Colorado Temperature Database Update:** The Colorado Temperature Database was updated in 2016 to reflect the most recent research regarding the thermal requirements of Colorado's fishes, which allowed for adoption of an overall update of the cold and warm water acute and chronic temperature table value standards. In this hearing, the commission adopted revisions at 37.6(3) to bring this regulation into conformity with the revised table value standards found in Table I of Regulation No. 31.

2. **Warm Water Winter Acute Table Values:** The 2016 updates to the temperature database also allowed for the adoption of revisions to the warm water winter acute table values. When seasonal numeric temperature standards were first adopted in 2007, warm water winter acute and chronic standards were simply set at half the summer season table values, recognizing a pattern seen in cold waters. In 2016, the acute winter table values for warm water fish were revised based on lethal temperature thresholds established in laboratory experiments for fish acclimated to "winter" temperatures. Standards derived using this new method more accurately protect warm water fish from acute thermal effects in winter. In this hearing, the commission adopted revisions at 37.6(3) to bring this regulation into conformity with the revised warm water winter acute temperature table value standards found in Table I of Regulation No. 31.

3. **Mountain Whitefish and Lake Trout Footnotes:** In 2016, the commission adopted two footnotes to Table I of Regulation No. 31 to allow for additional thermal protection of mountain whitefish and lake trout where appropriate. These species were given special summer standards due to their thermal sensitivity and limited distributions. Lake trout occur in only a small number of lakes and reservoirs, and thermally-sensitive early life stages of mountain whitefish are known to occur only in certain cold waters during certain times of the year.

   While early life stages of mountain whitefish are known to be the most thermally-sensitive, the time period these early life stages occur can vary from site to site. Mountain whitefish spawn in the fall, but timing of spawning, incubation, and emergence all depend on a variety of site-specific factors, including water temperature. The incubation period takes longer when water is colder, and that will delay hatching, emergence, and migration of fry. Depending on when spawning occurs and the water temperature in which the eggs are spawned and incubated, the incubation period could last through late spring.

   Based on information provided by Colorado Parks and Wildlife (CPW), thermally-sensitive early life stages of mountain whitefish occur in certain water bodies in Regulation No. 37. Spawning begins in October and the fry life stage is complete by May in these water bodies. Therefore, only limited application of the mountain whitefish summer temperature standards to protect eggs, larvae, and fry is necessary.

In segments currently assigned CS-I temperature standards, the application of the mountain whitefish summer temperature standards is not necessary. The winter season included in CS-I temperature standards (i.e., October to May) is expected to cover the period when mountain whitefish early life stages are expected to occur (i.e., October to May). In addition, the CS-I winter standards are more stringent than the mountain whitefish summer standards. Therefore, because the CS-I temperature standards are protective of mountain whitefish early life stages, the commission did not adopt the mountain whitefish summer standards on segments with CS-I temperature standards in Regulation No. 37. While the commission made no changes to the temperature standards, mountain whitefish spawning and early life stages are known to occur in the following CS-I segments:

White River: 3, 6

The commission adopted standards to protect mountain whitefish on a season- and site-specific basis where information provided by CPW biologists indicated that thermally-sensitive early life stages of mountain whitefish are known to occur. CS-II summer temperature standards typically apply from April to October. Because mountain whitefish spawning and early life stages are expected to occur from October to May, the mountain whitefish summer temperature standards were applied for the months of April, May, and October. The CS-II table value standards were retained for the remainder of the summer (i.e., June through September). Standards to protect mountain whitefish were not adopted where a site-specific temperature standard was in place. Temperature standards to protect mountain whitefish were applied to the following CS-II segments for the months of April, May, and October:

Lower Colorado River: 1 (Colorado River from the confluence with the Roaring Fork River to Elk Creek)

In Regulation No. 37, there are no known water bodies where lake trout are expected to occur, based upon information provided by CPW. No changes were adopted at this time to protect lake trout.

4. **Refinement of Temperature Standards:** Since temperature criteria were revised in Regulation No. 31 in 2007, the division and others have worked to ensure that appropriate temperature standards were adopted for segments throughout the state. At times, this effort to assign temperature standards has also included reevaluation of the existing Aquatic Life use classifications, and use revisions have been proposed and adopted where appropriate. Incremental progress continues as temperature standards are refined based on the experience and data gains that have occurred since initial adoption of temperature standards.

In the 2016 Regulation No. 31 hearing, the commission declined to adopt the division's proposal for statewide solutions for temperature transition zones and shoulder seasons, in favor of a basin-by-basin consideration of temperature standards on a site-specific basis. The basin-by-basin approach was selected as it allows for consideration of temperature attainability and ambient quality-based site-specific temperature standards issues in the context of multiple lines of evidence and site-specific contravening evidence. The sections below describe the considerations and methods used to develop and support the site-specific temperature standards revisions adopted in this basin hearing.

i. Existing Uncertainty: While a great deal of progress has been made regarding the development and implementation of temperature standards, uncertainty still remains for some segments due to the lack of site-specific temperature or aquatic community information or conflicts between the lines of evidence. To address the uncertainty, additional data collection has been conducted where possible, and all new information collected since the last basin review was evaluated.

ii. Attainability: Following the commission's 2016 direction to consider attainability issues using a basin-by-basin approach, the division reviewed all available information to identify segments where attainability issues may exist based upon available instream temperature data and expected in-stream summer maximum weekly average temperatures (MWATs). Expected MWATs were determined using regression analysis of temperature and elevation and the NorWeST Stream Temperature Regional Database and Model. This screening found that many segments, or portions of segments, were not expected to attain the summer or winter chronic temperature standards. These waters were targeted for additional review, as were waters listed as impaired for temperature on the 2016 303(d) List.

iii. Aquatic Life Use: For these selected segments, the division conducted a comprehensive, site-specific review of the existing use classification and temperature standards. Fishery data provided by CPW was evaluated to identify fish species expected to occur, whether reproduction is expected (i.e., stocked, transient, or resident species), age class structures, and any other relevant information regarding aquatic life communities. For segments where little or no information on fish species expected to occur existed, fish population data from adjacent and representative water bodies was utilized when possible.

iv. Thermal Drivers: In cases where temperature standards to protect the highest attainable use were determined, but the temperature standards were not attainable, site-specific factors that influence in-stream temperature were evaluated to identify any correctable anthropogenic thermal sources. All available data on temperature, hydrology, hydro-modification, canopy cover, groundwater influence, point and non-point thermal sources, and other relevant information was reviewed.

Temperature standards have been implemented and reviewed in Regulation No. 37 during three triennial reviews - 2008, 2014, 2018. The level of emphasis and effort dedicated to understanding the aquatic community and temperature standards implementation during these reviews has resulted in a great deal of progress and application of appropriate temperature standards across the basin. Accordingly, fewer site-specific temperature standards and/or corresponding Aquatic Life use revisions were necessary compared to previous basin reviews.

Based upon information regarding the species expected to occur, temperature data, physical habitat, land cover/use, groundwater inputs, flow conditions, and all other available information regarding thermal drivers, the commission adopted revisions of temperature standards for the segments listed below where water quality is not feasible to improve or where the thermal regime is the result of natural conditions, but is sufficient to protect the highest attainable use.

The following segments were changed from CS-II to CS-I:

Lower Colorado River: 12c

Moving forward with this site-specific approach, the commission encourages the division to consider whether any additional information would be appropriate to be included in the use attainability analyses.

**K. Other/Site-Specific Revisions**

Lower Yampa segments 3g and 3j (COLCLY03g and COLCLY03j): For Segment 3g, the commission adopted table value standards to protect the Aquatic Life use, based on evidence submitted by the division and Tri-State Generation & Transmission Association, Inc. (Tri-State) that there are aquatic life habitat, the presence of macroinvertebrates, and at least occasional flow in this segment. The commission also adopted a site-specific ambient-based iron standard of 1,500 µg/L on Collom Gulch from its source to the diversion structure at 40.333977, 107.860833, which applies during the runoff season, from March to May, with one assessment location (at County Road 32; 40.323530, -107.877200). The table value standard of 1,000 µg/L applies during the non-runoff season (June to February). The TVS applies year-round to all other waters in Segment 3g, with the exception of Little Collom Gulch, which was moved to new Segment 3j.

Tri-State submitted sufficient data and justification to adequately characterize the highest attainable use in Collom Gulch and supported adoption of a site-specific ambient-based total recoverable iron standard for a portion of Segment 3g, Collom Gulch from its source to the diversion structure at 40.333977, 107.860833, to apply from March to May. Although there was one sample demonstrating an exceedance of the standard in June, generally the lack of data precluded extending the ambient standard through June. Additional sampling at the Upper Collom Gulch site located upstream of all mine disturbance may support future adjustment to the applicable season for the ambient standard. The water quality data demonstrated that natural sources within the Collom Gulch drainage are solely driving elevated instream concentrations of total recoverable iron during the spring runoff season.

The division proposed that the commission create a new segment for Little Collom Gulch (Segment 3j), separating it from Collom Gulch, and adopt the full suite of Aquatic Life standards for Little Collom Gulch. Tri-State also proposed that the site-specific iron standard apply to Little Collom Gulch, but a lack of flow during all sampling events (since 2011) in this tributary precluded the collection of data to derive an ambient-based standard. Tri-State presented evidence it has made numerous attempts to collect water quality data in Little Collom Gulch since 2011 but never found flow to sample and that a 2018 survey found no aquatic habitat or aquatic macroinvertebrates in Little Collom Gulch. Due to the lack of observed flow in Little Collom Gulch, there is uncertainty regarding what water quality standards should apply. The commission, however, recognized that Tri-State's new stormwater ponds, which began discharging in April 2019, may affect the hydrology and aquatic life of Little Collom Gulch in the future. Tri-State is required to report flow from the ponds under its permit, and Tri-State committed to developing more information about the ponds and their impacts on Little Collom Gulch for the next triennial review hearing.

For new Segment 3j, the commission determined that there was currently insufficient information and data regarding Little Collom Gulch to apply the full suite of Aquatic Life standards to the segment, and therefore, the commission chose to make no change and retain the Agriculture standards that currently apply for the waters in the new segment. It is the commission's expectation that Tri-State will provide additional information regarding flow from the stormwater ponds at the next triennial review hearing and develop further information regarding how the ponds affect the hydrology and aquatic life of Little Collom Gulch for the commission to consider at the next rulemaking hearing.

Lower Colorado River Segment 4e (COLCLC04e): The commission considered the copper standards for Lower Colorado Segment 4e (Dry Creek). In this hearing, Tri-State initially proposed replacing the temporary modification with site-specific standards. Tri-State submitted evidence that it has been collecting data to determine whether copper standards may be based on the Fixed Monitoring Benchmark (FMB) application of the Biotic Ligand Model (BLM). The division recommends that a minimum of 24 samples be collected over a two-year period in order to fully capture seasonality before development of any BLM-based site-specific standard. In addition, the division recommends the use of field pH measurements, rather than pH measurements in the laboratory, to most closely match field conditions for use in the BLM model. Because the evidence submitted by Tri-State did not contain sufficient reliable field pH measurements, Tri-State withdrew its site-specific standards proposal and proposed an extension of the temporary modification.

The temporary modification for copper was first adopted by the commission in 2008. The maximum effluent potentially dissolved copper concentration for the Tri-State Rifle Station before 2008 was 1,380 µg/L. During the temporary modification term, the maximum effluent potentially dissolved copper concentration was 277 µg/L. The commission determined that effluent quality has been as good as, or better than, the "current condition" while the temporary modification has been in place.

The temporary modification for copper was set to expire December 31, 2019. Because water quality data collection for development of BLM-based standards has been ongoing since 2015, it was expected that this duration would be sufficient. However, because Tri-State Rifle Station's discharge is intermittent and Dry Creek and its tributaries are ephemeral, flowing only in response to precipitation or discharge events, it has been challenging to develop a database containing a sufficient number of samples. In addition, due to documented pH inconsistencies and probe calibration errors, insufficient field pH data were available to use for the BLM at the time of this hearing. Therefore, the commission determined that additional time was necessary to collect additional water quality data, and extended the temporary modification to June 30, 2021. Through continued data collection, it will be possible to correlate field and laboratory pH values and/or develop a field pH database of sufficient size to derive BLM-based standards. It is anticipated that Tri-State will propose site-specific copper standards for consideration at the December 2020 temporary modifications review hearing.

The operative value of the temporary modification is the narrative "current conditions." In future reviews of this temporary modification, the commission will use the following values from the most recent 5 years of data to determine if effluent and waterbody quality is maintained and ensure that the existing uses are protected: the maximum 30-day average (277 µg/L, 11/2015-4/2019) potentially dissolved copper effluent concentration and the 85$^{th}$ (117 µg/L, 11/2015-4/2019) and 95$^{th}$ (143 µg/L, 11/2015-4/2019) percentile dissolved copper instream concentrations at site DC-1.

## L. Standards Corrections and Clarifications

1. **Duration of Nitrite Standard:** The commission corrected the duration of the nitrite standard from chronic to acute on all segments. When the commission adopted the new format for tables in 2016, all nitrite standards were incorrectly included in the "chronic" standards column.

2. **Uranium:** To improve the clarity of the regulation, the commission included references to the basin-wide uranium standards at 37.5(3) in the Appendix 37-1 tables. For the acute and chronic uranium standards for all segments, the commission included a reference to 37.5(3) to clarify that the basic standard at 37.5(3) applies to all waters in Regulation No. 37. Because these standards already applied basin-wide, there is no practical effect of this change.

3. **Mercury:** To improve the clarity of the regulation, the commission added Total Recoverable notation (T) to the mercury Aquatic Life and Water Supply standards. The standards apply to the total recoverable fraction of all forms, both organic and inorganic, of mercury in water. Multiple forms of mercury exist in the environment and these forms differ dramatically in both their potential to cause toxic effects and their availability for uptake by organisms. Certain aquatic conditions can lead to the conversion to the highly bioaccumulative, toxic, organic form (methylmercury). The mercury standards are designed to provide protection from the accumulation of those toxic forms and therefore, the standards address all forms of mercury. The addition of the Total Recoverable notation does not represent a change in current Colorado policy or procedures.

**M. Correction of Typographical and Other Errors and Segmentation Clarification**

The following edits were made to segment descriptions to improve clarity and correct typographical errors:

- The formatting of the tables in Appendix 37-1 was modified to include only parameters that have been adopted in a majority of segments. The tables include rows for physical and biological, inorganic and metals for all parameters which the commission commonly adopts into segments. In segments where there is no numeric standard for a commonly adopted parameter, a blank row for that parameter is included to show the commission's site-specific decision not to adopt a numeric standard for that parameter. The commission removed beryllium and aluminum from all segments where no standard has been adopted, because these parameters have only been adopted on a site-specific basis, rather than basin-wide.

- An acronym list was added to the front of Appendix 37-1 to improve the clarity and usability of the tables.

- Information was added at 37.6(5) specifying that the ammonia, nitrate, and nitrate standards are to be reported as nitrogen. This is consistent with the description of the standards as they are included in Table II of Regulation No. 31.

- The segment descriptions in Appendix 37-1 were reviewed, and minor revisions were made to several segments to correct grammar, punctuation, and typos. The purpose of these changes was to improve clarity and consistency of the segment descriptions.

- Revisions were made to the sentence structure of these segments. The purpose of these changes was to improve clarity and consistency of the segment descriptions.

  Lower Yampa/Green River: 3a, 3c, 6, 9, 12a, 17a, 17b, 20, 22b, 23, 25, 26, 29, 32
  White River: 4a, 6, 9a, 9b, 10a, 13a, 15, 20, 27
  Lower Colorado River: 4a, 5, 9b, 12b, 13a, 14a, 16, 17a, 17b, 19

- Coordinates were added to several segment descriptions to facilitate location of segment boundaries.

  White River: 13d
  Lower Colorado River: 4b, 17a, 17b

- Lower Yampa/Green River Segment 3b: The effective date (12/31/2019) for the table value standards for several parameters was deleted from the ‘Other’ column. The standards will be effective on the effective date of this regulation.

- Lower Yampa/Green River Segment 12b: The arsenic standard was corrected from 0.02 µg/L to 7.6 µg/L to reflect the lack of a Water Supply use on this segment.
- Lower Yampa/Green River Segment 13a: The segment description was modified to reflect hydrology. The modification did not change the segment boundary.
- Lower Yampa/Green River Segment 13b: The segment description was modified to reflect hydrology. The modification did not change the segment boundary.
- Lower Yampa/Green River Segment 22d: The mercury standard was corrected from 2.0(T) to 0.01(T).
- Lower Yampa/Green River Segment 28: The extra decimal point in the mercury standard was deleted to provide clarity.
- White River Segment 4b: The segment description was modified for clarity.
- White River Segment 16a: Unnecessary exclusions were removed from the segment description.
- White River Segment 16b: Segment exclusions were modified to reflect resegmentation.
- White River Segment 20: Exclusions were updated in the segment description.
- White River Segment 25: Existing site-specific temperature standards were reformatted in the tables to provide clarity and consistency.
- Lower Colorado Segment 4a: Exclusions were modified to reflect resegmentation.
- Lower Colorado Segment 11b: The dissolved oxygen standard was corrected to 5.0 mg/L to reflect the Cold 2 Aquatic Life use.
- Lower Colorado Segment 11c: The arsenic standard was corrected to indicate that it is measured as total.
- Lower Colorado Segment 16: Exclusions were updated in the segment description.
- Lower Colorado segments 15c, 15d, 16, 18 and 20: Existing site-specific temperature standards were reformatted in the tables to provide clarity and consistency.
- Lower Colorado Segment 18: The dates for the site-specific temperature standards were corrected to include the month of October.

### 37.41 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 9, 2019 RULEMAKING; FINAL ACTION JANUARY 13, 2020; EFFECTIVE DATE JUNE 30, 2020

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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the commission reviewed the status of temporary modifications scheduled to expire before December 31, 2021 to determine whether the temporary modifications should be modified, eliminated, or extended.

For the temporary modifications set to expire after the effective date of this hearing, the commission reviewed progress toward resolving the uncertainty in the underlying standard and/or the extent to which conditions are a result of natural or anthropogenic conditions, and evaluated whether the temporary modifications were still necessary.

**A. Temporary Modifications for Standards Other than Arsenic**

The commission took no action on the following temporary modification:

> Lower Colorado Segment 4e (COLCLC04e): temporary modification of the acute and chronic copper standards (expires 6/30/2021). Tri-State Generation and Transmission Association, Inc. continues to make progress to resolve the uncertainty and is working to develop a proposal for site-specific copper standards in the December 2020 temporary modifications rulemaking hearing. The commission made no change to the expiration date, as the original time allotment was deemed adequate to resolve the uncertainty.

**B. Temporary Modification Updates – Arsenic**

The temporary modification of the chronic arsenic standard, which applies to numerous segments with a standard of 0.02 µg/l to protect the Water + Fish use, was extended from 12/31/2021 to 12/31/2024. No changes were made to the temporary modification operative values at 37.6(2)(c). For discharges existing on or before 6/1/2013, the temporary modification remains at As(ch)=current condition and numeric effluent limits will be developed by the division using the division's implementation method (WQCD Exhibit L). For new or increased discharges that commence on or after 6/1/2013, the temporary modification remains at 0.02–3.0 µg/L (total recoverable). The extension provides time to resolve the uncertainty in the underlying standard for arsenic to protect human health. Significant uncertainty remains regarding the appropriate standard to protect the use and the extent to which ambient levels of arsenic are the result of natural or irreversible conditions. In addition, there is widespread instream non-attainment of the underlying standard and predicted or demonstrated compliance problems with permit limits based on the underlying standard, as demonstrated in the division’s Prehearing Statement.

It is anticipated that the uncertainty regarding the appropriate underlying standard for arsenic to protect human health will be resolved by June 2024, with the adoption of new statewide arsenic use-based standards. The division presented (WQCD Exhibit E) a detailed plan to resolve the multifaceted uncertainty for arsenic. The plan includes conducting a field study to investigate the proportion of inorganic (versus total) arsenic in the tissue of fish collected from Colorado waters, deriving a bioaccumulation or bioconcentration factor for arsenic, appropriate for use in Colorado, and characterizing ambient levels of arsenic in surface waters and groundwater statewide. As discussed below, the division will also be gathering, through permit requirements, targeted data from facilities benefiting from the arsenic temporary modification (WQCD Exhibit D). These data will help the division to better understand the contribution of arsenic in effluent from permitted facilities to ambient levels of arsenic in Colorado waters and will inform the extent to which ambient levels of arsenic are the result of natural or irreversible conditions.

Effluent arsenic concentration data from facilities throughout the state demonstrate that many facilities will likely have issues meeting effluent limits based on the anticipated revised arsenic water quality standard to protect human health. As a result, there is a widespread need to make progress to understand sources of arsenic and options for source control and treatment. To ensure such progress is made, when implementing the "current condition" temporary modification in permits, the division will include additional permit Terms and Conditions, which may include requirements for additional monitoring, source identification, and characterization of source control and treatment options for reducing arsenic concentrations in effluent (WQCD Exhibit D). Under the duration of the temporary modification, facilities would not be required to implement facility improvements to meet a specified effluent limit; however, facilities may be required to evaluate arsenic source control and treatment options for their facility. For purposes of evaluating options to reduce arsenic concentrations in effluent, the arsenic treatment removal recognized in the 2013 Arsenic Rulemaking (3 µg/L) can be used as a point of reference until the uncertainty in the underlying standard is resolved. Implementation guidance for these requirements was included in WQCD Exhibit D. These requirements are reasonable and would not cause undue economic burden for facilities, but will ensure that progress is being made toward future attainment of the underlying standards and protection of the classified uses. Implementation of these requirements would function to increase the amount of time facilities would have for long-term planning and encourage data collection that would facilitate implementation of the most appropriate source reduction and treatment options and selection of the most appropriate regulatory pathways once the new underlying standard is adopted for arsenic.

**C. Implementation of Current Condition Temporary Modifications into Permits**

Several parties to the hearing raised concerns regarding the implementation of current condition temporary modifications into permits, as described in WQCD Exhibit L. The commission was persuaded that the division has existing legal authority to proceed with implementation of these temporary modifications in the absence of a rule or policy addressing this specifically. However, the commission believes it would be beneficial to develop a policy, and therefore requested that the division work toward developing a division policy about how the division will proceed with implementing current condition temporary modifications into permits. The commission requested that the division report back to the commission next year, potentially as part of the division's annual update to the commission regarding the 10-Year Water Quality Roadmap, regarding what the division believes is a reasonable timeline and process for developing such a policy. The commission encouraged the division to continue with its current efforts at transparency and implementation of current condition temporary modifications consistent with the evidence presented in the rulemaking, including Exhibit L, into permits prior to the development of a policy.

**37.42 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 9, 2019 RULEMAKING; FINAL ACTION JANUARY 13, 2020; EFFECTIVE DATE JUNE 30, 2020**

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**

Cadmium is a naturally-occurring element frequently found alongside other metals, and numerous treatment techniques are available to remove cadmium from wastewater. Cadmium has both acute and chronic effects on aquatic life, and can negatively impact survival, growth, reproduction, immune and endocrine systems, development, and behavior.

The commission revised the hardness-based cadmium table value standards to protect the Aquatic Life use. The updated standards incorporate toxicity data that have become available since the cadmium standards were last updated in the 2005 Regulation No. 31 rulemaking hearing. The updated standards are based on the United States Environmental Protection Agency's (EPA) "Aquatic Life Ambient Water Quality Criteria – 2016" and toxicity data that have become available since EPA's recommended criteria were released in 2016.

The updated standards include two acute equations (acute(cold) and acute(warm)) and one chronic equation. The acute(cold) and chronic equations are the same as the acute and chronic criteria recommended by EPA in 2016. The acute(cold) equation, which is lowered to protect trout, is protective of trout and other sensitive cold water species and applies in segments classified as Aquatic Life Cold Class 1 or 2. The acute(warm) equation, which is not lowered to protect trout, is protective of warm water species and applies in segments classified as Aquatic Life Warm Class 1 or 2. The chronic equation is protective of both cold and warm water aquatic life and applies in segments classified as either Aquatic Life Cold Class 1 or 2 or Aquatic Life Warm Class 1 or 2.

Compared to the previous cadmium table value standards, the updated standards are generally less stringent. The acute(cold) standard is less stringent than the previous acute(trout) standard when water hardness is greater than 45 mg/L $CaCO_3$. The acute(warm) equation is less stringent than the previous acute standard when water hardness is greater than 101 mg/L $CaCO_3$. The updated chronic equation is less stringent than the previous chronic standard at all water hardness values.

In the past, Colorado has had separate acute equations for waters with trout and waters without trout. The updated standards include separate acute equations for cold waters (both with and without trout) and warm waters. This change in approach is due to the addition of toxicity data showing that sculpin, which inhabit cold waters, are also sensitive to cadmium. To ensure protection of sculpin and other sensitive cold water aquatic life in waters where trout are absent, the acute(cold) equation applies to all cold waters. As a result, the acute trout (tr) qualifier for cadmium is no longer needed on select cold water segments and was deleted from all segments where it had applied.

During the 2019 basin review, the commission adopted EPA's 2016 recommended criteria as site-specific standards in select cold water segments. The updated table value standards for cold waters are the same as EPA's 2016 recommended criteria. Therefore, to reflect the commission's state-wide adoption of the updated table value standards, the cadmium "SSE" were replaced with "TVS" on the following segments:

Lower Colorado: 4e (chronic only)

### 37.43 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 14, 2020 RULEMAKING; FINAL ACTION FEBRUARY 8, 2021; EFFECTIVE DATE JUNE 30, 2021

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**

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the commission reviewed the status of temporary modifications scheduled to expire before December 31, 2022 to determine whether the temporary modification should be modified, eliminated, or extended.

Lower Colorado River Segment 4e (COLCLC04e) and Segment 4f (COLCLC04f): The commission extended the existing "current conditions" temporary modifications for acute and chronic copper on Segment 4e (from 6/30/2021 to 6/30/2023) and adopted new "current conditions" temporary modifications for acute and chronic copper on downstream Segment 4f. The expiration date for the temporary modifications was set at 6/30/2023 to target resolution of the uncertainty that is the basis for the temporary modifications on segments 4e and 4f in the December 2022 Temporary Modifications Hearing.

For Segment 4e, Tri-State Generation and Transmission Association, Inc. (Tri-State) provided an update to the commission regarding progress being made in implementing the existing plan to resolve uncertainty (PTRU) and demonstrating the ongoing need for the temporary modifications for acute and chronic copper. Tri-State has continued to make progress to resolve uncertainty, including collection of data to enable calculation of site-specific copper standards using the Biotic Ligand Model (BLM), but to date has only collected 23 of the 24 samples required by division BLM guidance. Tri-State demonstrated that there continues to be a water quality-based effluent limit (WQBEL) compliance problem and instream non-attainment of copper standards on Segment 4e (Tri-State Exhibits 9 and 10). The commission determined that the temporary modifications continue to be justified, as additional time is needed to resolve the uncertainty regarding the appropriate copper standards and complete an alternatives analysis to determine the extent to which copper in the discharge can be controlled.

In August 2020, a final renewal permit was issued by the division for the Rifle Station and included updated WQBELs to reflect copper standards in the downstream Segment 4f. This application of Segment 4f standards in Tri-State's discharge permit has resulted in a new WQBEL compliance problem and the need for copper temporary modifications on Segment 4f. Instream copper data are not available for Segment 4f to assess attainment of the underlying standards at this time, so Tri-State's proposal was based on predicted instream non-attainment; however, Tri-State plans to collect instream copper data in Segment 4f beginning in January 2021 (Tri-State Exhibit 12) with the intent to collect 24 data points over two years to enable calculation of criteria-based site-specific copper standards using the BLM. Based on this information, the commission determined that acute and chronic temporary modifications for copper on Segment 4f are justified based on predicted instream non-attainment, uncertainty regarding the underlying standard, and demonstrated WQBEL compliance problems.

Tri-State supported the proposal for the extended and new temporary modifications on segments 4e and 4f, respectively, by committing to a new PTRU (Tri-State Exhibit 12). In addition to detailing steps to resolve the uncertainty in the copper standard, the updated PTRU includes completion of an alternatives analysis by 2022 to resolve the uncertainty regarding the extent that copper in Rifle Station's effluent can be controlled. In addition, the PTRU includes a flow study to determine the connectivity of segments 4e and 4f. Information collected as part of the PTRU will eliminate the need for the temporary modifications by 6/30/2023.

The operative value of the temporary modifications for Segment 4e is the narrative "current conditions." In the 2019 basin hearing, the commission established baseline values to characterize "status quo" in the effluent and instream in Segment 4e (37.40(K)). A typo in the period of record used to establish the effluent status quo was identified in the previous Statement of Basis and Purpose language at 37.40(K) and has been corrected. In future reviews of these temporary modifications, the commission will use the following values to compare to the most recent five years of data to determine if water quality is maintained and ensure that the existing uses are protected. These values are for use by the commission in future reviews of the temporary modification and are not intended to direct implementation of "current condition" temporary modifications in permits:

1) effluent potentially dissolved copper = 277 µg/L (based on the maximum 30-day average of data from 2/2014-2/2019)

2) instream dissolved copper = 117 µg/L and 143 µg/L (based on the 85th and 95th percentiles, respectively, of data from 11/2015-4/2019 at site DC-1).

Use of the ambient standards assessment methodology to compare the baseline period water quality to current water quality (11/2015-9/2020) indicates that the lower confidence limit of the effluent water quality and the 85th and 95th percentiles of instream water quality is not currently higher than the baseline. Based on this information, the commission finds “status quo” is currently being preserved instream and in effluent.

The operative value of the temporary modifications for Segment 4f is also the narrative “current conditions”. In future reviews of these temporary modifications, the commission will use the following value to compare to the most recent five years of representative effluent data to determine if effluent quality is maintained and ensure that the existing uses are protected. This value is for use by the commission in future reviews of the temporary modification and is not intended to direct implementation of "current condition" temporary modifications in permits:

1) effluent potentially dissolved copper = 277 µg/L (based on the maximum 30-day average of data from 2/2014-2/2019)

While there are sufficient data to represent the maximum 30-day average potentially dissolved copper effluent concentration, water quality data are not yet available from which to characterize the current conditions with 85th and 95th percentiles instream in Segment 4f. Data to characterize the status quo of the waterbody will be collected as part of the PTRU and it is the commission's expectation that representative numeric values to represent instream status quo will be determined as soon as possible for the commission's use in future reviews of this temporary modification.

# COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

# WATER QUALITY CONTROL COMMISSION

**5 CCR 1002-37**

**REGULATION NO. 37**
**CLASSIFICATIONS AND NUMERIC STANDARDS**
**FOR**
**LOWER COLORADO RIVER BASIN**

## APPENDIX 37-1
## Stream Classifications and Water Quality Standards Tables

Effective 06/30/2021

## Abbreviations and Acroynms

| | | |
|---|---|---|
| Aq | = | Aquatic |
| °C | = | degrees Celsius |
| CL | = | cold lake temperature tier |
| CLL | = | cold large lake temperature tier |
| CS-I | = | cold stream temperature tier one |
| CS-II | = | cold stream temperature tier two |
| D.O. | = | dissolved oxygen |
| DM | = | daily maximum temperature |
| DUWS | = | direct use water supply |
| E. coli | = | *Escherichia coli* |
| mg/L | = | milligrams per liter |
| $mg/m^2$ | = | milligrams per square meter |
| mL | = | milliliter |
| MWAT | = | maximum weekly average temperature |
| OW | = | outstanding waters |
| sc | = | sculpin |
| SSE | = | site-specific equation |
| T | = | total recoverable |
| t | = | total |
| tr | = | trout |
| TVS | = | table value standard |
| µg/L | = | micrograms per liter |
| UP | = | use-protected |
| WS | = | water supply |
| WS-I | = | warm stream temperature tier one |
| WS-II | = | warm stream temperature tier two |
| WS-III | = | warm stream temperature tier three |
| WL | = | warm lake temperature tier |

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

1. Deleted.

| COLCLY01 | Classifications |
|---|---|
| **Designation** | |
| **Qualifiers:** | |
| **Other:** | |

| Physical and Biological | DM | MWAT |
|---|---|---|
| | | |

| | acute | chronic |
|---|---|---|
| | | |

| Inorganic (mg/L) | | |
|---|---|---|
| | **acute** | **chronic** |
| | | |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| | | |

2. Mainstem of the Yampa River from a point immediately below the confluence with Elkhead Creek to the confluence with the Green River.

| COLCLY02 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |
| **Qualifiers:** | |
| **Other:** | |

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | --- |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

3a. All tributaries to the Yampa River, including all wetlands, from a point immediately below the confluence with Elkhead Creek to a point immediately below the confluence with the Little Snake River, except for listings in Segments 3b through 15, 17a, 17b and 18.

| COLCLY03A | Classifications |
|---|---|
| **Designation** | Agriculture |
| UP | Aq Life Warm 2 |
| | Water Supply |
| | Recreation P |

**Qualifiers:**

**Water + Fish Standards Apply**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Beryllium(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

3b. Mainstems of Upper Johnson Gulch from its source to confluence with Pyeatt Gulch at CO 107. Mainstems of Pyeatt Gulch, Ute Gulch, Castor Gulch, No Name Gulch, Flume Gulch, Buzzard Gulch, Coyote Gulch, Deal Gulch, Horse Gulch (BOTH), Elk Gulch, Jeffway Gulch, and Deacon Gulch, including all tributaries from their sources to their mouths.

| COLCLY03B | Classifications |
|---|---|
| **Designation** | Agriculture |
| UP | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Beryllium(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

3c. Mainstem of Milk Creek, including all tributaries and wetlands, from Thornburgh (County Rd 15) to the confluence with the Yampa River, except for listings in Segment 3b and 3e.

| COLCLY03C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

3d. Mainstems of Temple Gulch and Morgan Gulch from their sources to their confluences with the Yampa River.

| COLCLY03D | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

3e. Mainstem of Good Spring Creek and its tributaries above Wilson Reservoir.

| COLCLY03E | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

3f. Big Gulch.

| COLCLY03F | Classifications |
|---|---|
| **Designation** | Recreation E |
| Reviewable | Agriculture |
| | Aq Life Warm 2 |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Beryllium(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

3g. Mainstems of Ben Morgan Creek, Boxelder Gulch, Collom Gulch, Hale Gulch and Jubb Creek, including all tributaries from their sources to their mouths, except for listings in Segment 3j.

| COLCLY03G | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Iron(T)(chronic) = See section 37.6(4) for standards and assessment locations for Collom Gulch from the source to the diversion structure at 40.333977, -107.860833.

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Beryllium(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Iron(T) | --- | varies* |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

3h. Lay Creek from the source to the confluence with the Yampa River.

| COLCLY03H | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

3i. Lower Johnson Gulch from the confluence with Pyeatt Gulch at CO 107 to the confluence with the Yampa River.

| COLCLY03I | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

3j. Mainstem of Little Collom Gulch from the source to the confluence with Collom Gulch.

| COLCLY03J | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | --- | --- |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | --- | --- |
| Cyanide | 0.2 | --- |
| Nitrate | 100 | --- |
| Nitrite | 10 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | --- |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic(T) | --- | 100 |
| Beryllium(T) | --- | 100 |
| Cadmium(T) | --- | 10 |
| Chromium III(T) | --- | 100 |
| Chromium VI(T) | --- | 100 |
| Copper(T) | --- | 200 |
| Iron | --- | --- |
| Lead(T) | --- | 100 |
| Manganese(T) | --- | 200 |
| Mercury | --- | --- |
| Molybdenum(T) | --- | 150 |
| Nickel(T) | --- | 200 |
| Selenium(T) | --- | 20 |
| Silver | --- | --- |
| Uranium | varies* | varies* |
| Zinc(T) | --- | 2000 |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

4. North and South Fork of Fortification Creek, including all wetlands and tributaries, from their sources to their confluence. Little Cottonwood Creek, including all tributaries and wetlands from the source to the confluence with Fortification Creek.

| COLCLY04 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS/TVS(sc) |

5. Mainstem of Fortification Creek from the confluence of the North Fork and South Fork to the confluence with the Yampa River.

| COLCLY05 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

6. All tributaries to Fortification Creek, including all wetlands, from the confluence of the North and South Forks to the confluence with the Yampa River, except for listings in Segments 4 and 7.

| COLCLY06 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.05 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

7. Mainstem of Little Bear Creek, including all tributaries and wetlands, from the source to the confluence with Dry Fork.

| COLCLY07 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS/TVS(sc) |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

8. Mainstem of the East Fork of the Williams Fork River, including all tributaries and wetlands which are within the boundaries of the Flat Tops Wilderness Area.

| COLCLY08 | Classifications |
|---|---|
| **Designation** | Agriculture |
| OW | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

9. Mainstems of the East and South Forks of the Williams Fork River, including all wetlands and tributaries, which are within the boundary of Routt National Forest, except for listings in Segment 8 and 12c.

| COLCLY09 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

10. Mainstem of the East Fork of the Williams Fork River including all tributaries and wetlands, from the boundary of Routt National Forest to the confluence with the South Fork of the Williams Fork River.

| COLCLY10 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS/TVS(sc) |

11. Deleted.

| COLCLY11 | Classifications |
|---|---|
| **Designation** | |
| **Qualifiers:** | |
| **Other:** | |

| Physical and Biological | DM | MWAT |
|---|---|---|
| | | |
| | **acute** | **chronic** |
| | | |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| | | |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| | | |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

12a. Mainstem of the South Fork of the Williams Fork River and Beaver Creek, including all tributaries and wetlands, from the boundary of Routt National Forest to their mouths. Milk Creek, including all tributaries and wetlands, from the source to a point just below the confluence with Clear Creek. Morapos Creek, including all wetlands and tributaries, from the source to the confluence with the Williams Fork River.

| COLCLY12A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

12b. Milk Creek, including all tributaries and wetlands, from a point just below the confluence with Clear Creek to Thornburgh (County Rd 15).

| COLCLY12B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

12c. Mainstem of Beaver Creek, including all wetlands and tributaries, which are within the Routt National Forest.

| COLCLY12C | Classifications |
|---|---|
| **Designation** | Agriculture |
| OW | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

13a. Mainstem of the Williams Fork River from the confluence of the East Fork and South Fork to below the confluence with Morapos Creek.

| COLCLY13A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

13b. Mainstem of the Williams Fork River from below the confluence of Morapos Creek to the confluence with the Yampa River.

| COLCLY13B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

14. Deleted.

| COLCLY14 | Classifications |
|---|---|
| **Designation** | |

**Qualifiers:**

**Other:**

| Physical and Biological | DM | MWAT |
|---|---|---|
| | | |
| | **acute** | **chronic** |
| | | |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| | | |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| | | |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

15. Those portions of the Little Snake River which are in Colorado, from its first crossing of the Colorado/Wyoming border to a point immediately above the confluence with Powder Wash (Moffatt County).

| COLCLY15 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS/TVS(sc) |

16. Mainstem of the Little Snake River from a point immediately above the confluence with Powder Wash to the confluence with the Yampa River.

| COLCLY16 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**
**Water + Fish Standards Apply**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 4400 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

17a. All tributaries to the Little Snake River from its first crossing of the Colorado/Wyoming border to a point immediately below the confluence with Fourmile Creek, except for the listings in Segment 18.

| COLCLY17A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

17b. All tributaries to the Little Snake River from a point immediately below the confluence with Fourmile Creek to the confluence with the Yampa River, except for the listing in Segment 17c.

| COLCLY17B | Classifications |
|---|---|
| **Designation** | Agriculture |
| UP | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Beryllium(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | --- |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

17c. Scandinavian Gulch from the source to the confluence with the Little Snake River.

| COLCLY17C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.05 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

18. Mainstem of Slater Creek, including all tributaries and wetlands, from the source to a point just below the confluence with Second Creek. The mainstems of Fourmile and Willow Creeks, including all tributaries and wetlands, from their sources to the boundary of the Routt National Forest.

| COLCLY18 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS/TVS(sc) |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

19a. Mainstem of the Green River within Colorado (Moffat County) from its entry at the Utah/Colorado border to a point just above the confluence with the Yampa River.

| COLCLY19A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

19b. Mainstem of the Green River within Colorado (Moffat County) from a point just above the confluence with the Yampa River to its exit at the Utah/Colorado border.

| COLCLY19B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

20. All tributaries to the Green River in Colorado, including all wetlands, except for the specific listings in Segments 21and 22a - 22d. All tributaries to the Yampa River from a point immediately below the confluence with the Little Snake River to the confluence with the Green River, except for listings in segments 15 through 18.

| COLCLY20 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation E |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Beryllium(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

21. Mainstem of Beaver Creek, including all tributaries and wetlands, from the source to the confluence with the Green River within Colorado.

| COLCLY21 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

22a. Mainstem of Vermillion Creek, including all tributaries and wetlands, from the Colorado/Wyoming border to a point just below the confluence with Talamantes Creek.

| COLCLY22A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

22b. Vermillion Creek, including all tributaries and wetlands, from a point just below the confluence with Talamantes Creek to the confluence with the Green River, except for the listing in segment 22c.

| COLCLY22B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

22c. Mainstem of Vermillion Creek from HWY 318 to the confluence with the Green River.

| COLCLY22C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

22d. Conway Draw

| COLCLY22D | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Beryllium(T) | --- | 4.0 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

23. All lakes and reservoirs tributary to the Yampa River, from a point just below the confluence with Elkhead Creek to a point just below the confluence with the Little Snake River except for listings in segments 24-32. This segment includes Martin Cull Reservoir, and OVO Reservoir.

| COLCLY23 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation U |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WL | WL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 20* |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.083* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

24. Freeman Reservoir and Aldrich Lakes.

| COLCLY24 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

25. All lakes and reservoirs tributary to Fortification Creek from the source to the confluence of the North and South Forks. All lakes and reservoirs tributary to Little Cottonwood Creek from the source to the confluence with Fortification Creek, except for listings in segment 24. All lakes and reservoirs tributary to Little Bear Creek from the source to the confluence with the Dry Fork.

| COLCLY25 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation U |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

26. All lakes and reservoirs tributary to Fortification Creek, including Ralph White Lake, except for listings in segments 24 and 25.

| COLCLY26 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation U |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WL | WL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 20* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.083* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

27. All lakes and reservoirs tributary to Milk Creek from Thornburgh (County Rd 15) to the confluence with the Yampa River, including Wilson Reservoir.

| COLCLY27 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation U |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WL | WL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 20* |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.083* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

28. All lakes and reservoirs tributary to the East Fork of the Williams Fork River, within the boundaries of the Flat Tops Wilderness Area.

| COLCLY28 | Classifications |
|---|---|
| **Designation** | Agriculture |
| OW | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

29. All lakes and reservoirs tributary to the East and South Forks of the Williams Fork River, and lakes and reservoirs tributary to the mainstem of the Williams Fork River, from the source to the Highway 13/789 bridge at Hamilton, except for listings in segment 28.

| COLCLY29 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

30. All lakes and reservoirs tributary to Milk Creek from the source to Thornburgh (County Rd 15). All lakes and reservoirs tributary to Morapos Creek from the source to the confluence with the Williams Fork River.

| COLCLY30 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation U |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

31. All lakes and reservoirs tributary to Slater Creek, from the source to a point just below the confluence with Second Creek, including Slater Creek Lake. All lakes and reservoirs tributary to Fourmile and Willow Creeks from their sources to the boundary of the Routt National Forest.

| COLCLY31 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation U |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

32. All lakes and reservoirs tributary to the Yampa River from a point just below the confluence with the Little Snake River to the confluence with the Green River. All lakes and reservoirs tributary to the Green River in Colorado, including Hog Lake, except for listings in segment 33.

| COLCLY32 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | WL | WL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 20* |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.083* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Yampa/Green River

33. All lakes and reservoirs tributary to Beaver Creek from the source to the confluence with the Green River. All lakes and reservoirs tributary to Vermillion Creek from the Colorado/Wyoming border to a point just below the confluence with Talamantes Creek.

| COLCLY33 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation U |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

1. All tributaries to the White River, including all wetlands, which are within the boundaries of the Flat Tops Wilderness Area.

| COLCWH01 | Classifications |
|---|---|
| **Designation** | Agriculture |
| OW | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS/TVS(sc) |

2. Deleted.

| COLCWH02 | Classifications |
|---|---|
| **Designation** | |

**Qualifiers:**

**Other:**

| Physical and Biological | DM | MWAT |
|---|---|---|
| | | |
| | **acute** | **chronic** |
| | | |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| | | |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| | | |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

3. Mainstem of the North Fork of the White River and mainstem of the White River from the Flat Tops Wilderness Area boundary to a point immediately above the confluence with Miller Creek.

| COLCWH03 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS/TVS(sc) |

4a. All tributaries to the North Fork White River, including all wetlands, from the Flat Tops Wilderness Area boundary to the confluence with the South Fork White River, except for listings in Segment 1 and 4b.

| COLCWH04A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

4b. Lost Creek, including tributaries and wetlands, from the source to the confluence with the North Fork White River. Snell Creek, including all wetlands and tributaries, from the source to the confluence with the North Fork White River.

| COLCWH04B | Classifications |
|---|---|
| **Designation** | Agriculture |
| OW | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

5. Deleted.

| COLCWH05 | Classifications |
|---|---|
| **Designation** | |

**Qualifiers:**

**Other:**

| Physical and Biological | DM | MWAT |
|---|---|---|
| | | |
| | **acute** | **chronic** |
| | | |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| | | |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| | | |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

6. Mainstem of the South Fork White River, including all tributaries and wetlands, that is not within the boundary of the Flat Tops Wilderness to the confluence with the North Fork White River.

| COLCWH06 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS/TVS(sc) |

7. Mainstem of the White River from a point immediately above the confluence with Miller Creek to a point immediately above the confluence with Piceance Creek.

| COLCWH07 | Classifications | |
|---|---|---|
| **Designation** | Agriculture | |
| Reviewable | Aq Life Cold 1 | |
| | Recreation E | 3/2 - 11/30 |
| | Recreation P | 12/1 - 3/1 |
| | Water Supply | |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*chlorophyll a (mg/m$^2$)(chronic) = applies only above the facilities listed at 37.5(4).

*Phosphorus(chronic) = applies only above the facilities listed at 37.5(4).

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | | DM | MWAT |
|---|---|---|---|
| Temperature °C | | CS-II | CS-II |
| | | **acute** | **chronic** |
| D.O. (mg/L) | | --- | 6.0 |
| D.O. (spawning) | | --- | 7.0 |
| pH | | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | | --- | 150* |
| E. Coli (per 100 mL) | 12/1 - 3/1 | --- | 205 |
| E. Coli (per 100 mL) | 3/2 - 11/30 | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

8. All tributaries to the White River, including all wetlands, from the confluence of the North and South Forks to a point immediately above the confluence with Piceance Creek, which are within the boundaries of White River National Forest.

| COLCWH08 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |
| **Qualifiers:** | |
| **Other:** | |
| *Uranium(acute) = See 37.5(3) for details. | |
| *Uranium(chronic) = See 37.5(3) for details. | |

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

9a. All tributaries to the White River, including all wetlands, from the confluence of the North and South Forks to a point immediately above the confluence with Flag Creek, which are not within the boundary of National Forest lands, except for listings in Segments 9c, 9d and 10b.

| COLCWH09A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation P |
| | Water Supply |
| **Qualifiers:** | |
| **Other:** | |
| *Uranium(acute) = See 37.5(3) for details. | |
| *Uranium(chronic) = See 37.5(3) for details. | |

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

9b. All tributaries to the White River, including wetlands, from a point immediately above the confluence with Flag Creek, to a point immediately above the confluence with Piceance Creek, which are not within the boundary of National Forest lands, except for listings in segments 9c and 9d.

| COLCWH09B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation P |
| | Water Supply |
| **Qualifiers:** | |
| **Other:** | |
| *Uranium(acute) = See 37.5(3) for details. | |
| *Uranium(chronic) = See 37.5(3) for details. | |

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

9c. Mainstems of Flag Creek, including all tributaries and wetlands, from the source to a point just below the confluence with the East Fork of Flag Creek.

| COLCWH09C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation E |
| | Water Supply |
| **Qualifiers:** | |
| **Other:** | |
| *Uranium(acute) = See 37.5(3) for details. | |
| *Uranium(chronic) = See 37.5(3) for details. | |

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

9d. Sulphur Creek, including all tributaries and wetlands, from the source to the confluence with the White River. Flag Creek, including all tributaries and wetlands, from a point just below the confluence with the East Fork of Flag Creek to the confluence with the White River.

| COLCWH09D | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Water + Fish Standards Apply**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

10a. All lakes and reservoirs tributary to the White River, from the confluence of the North and South Forks of the White River to a point immediately above the confluence of the White River and Piceance Creek, except listings in Segments 11, 25 and 27.

| COLCWH10A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

10b. Mainstem of Big Beaver Creek, Miller Creek, and North Elk Creek, including their tributaries and wetlands, from their boundary with National Forest lands to their confluences with the White River. Mainstem of Coal Creek, including all tributaries and wetlands, from the source to the confluence with the White River.

| COLCWH10B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

11. Rio Blanco Lake and Taylor Draw Reservoir (a.k.a. Kenney Reservoir).

| COLCWH11 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |
| | DUWS* |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

*Classification: Kenney Reservoir = DUWS

*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WL | WL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 20* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.083* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

12. Mainstem of the White River from a point immediately above the confluence with Piceance Creek to a point immediately above the confluence with Douglas Creek.

| COLCWH12 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | --- |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

13a. All tributaries to the White River, including all wetlands, from a point immediately below the confluence with Piceance Creek to a point immediately above the confluence with Douglas Creek, except for listings in Segments 13b through 20.

| COLCWH13A | Classifications |
|---|---|
| **Designation** | Agriculture |
| UP | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Beryllium(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

13b. Mainstem of Yellow Creek including all wetlands from the source to immediately below the confluence with Barcus Creek. All tributaries to Yellow Creek from the source to the White River, including wetlands.

| COLCWH13B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (mg/m$^2$)(chronic) = applies only above the facilities listed at 37.5(4).
*Phosphorus(chronic) = applies only above the facilities listed at 37.5(4).
*Selenium(chronic) = 5.7 ug/L for Corral Gulch.
6.0 ug/L for Greasewood Creek.
6.9 ug/L for Yellow Creek.
7.9 ug/L for Duck Creek.
TVS for all other tributaries.
See assessment locations at 37.6(4)
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150* |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 5.0 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | varies* |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

13c. Mainstem of Yellow Creek, including all wetlands from immediately below the confluence with Barcus Creek to the confluence with the White River.

| COLCWH13C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Fish Ingestion Standards Apply**

**Other:**

*Iron(T)(chronic) = See assessment location at 37.6(4)
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 5.0 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1625* |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

13d. Violett Springs Ponds (39.999928, -108.350489).

| COLCWH13D | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 5.0 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

14a. Mainstem of Piceance Creek from the source to a point just below the confluence with Hunter Creek.

| COLCWH14A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a ($mg/m^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

14b. Mainstem of Piceance Creek from a point just below the confluence with Hunter Creek to a point just below the confluence with Ryan Gulch.

| COLCWH14B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

15. Mainstem of Piceance Creek from a point just below the confluence with Ryan Gulch to the confluence with the White River. The Dry Fork of Piceance Creek, including all tributaries and wetlands, from a point just below the confluence with Little Reigan Gulch to the confluence with Piceance Creek, except for listings in Segment 18.

| COLCWH15 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Fish Ingestion Standards Apply**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

16a. All tributaries to Piceance Creek, including all wetlands, from the source to a point immediately below the confluence with Dry Thirteenmile Creek.

| COLCWH16A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

16b. All tributaries to Piceance Creek, including all wetlands, from a point immediately below the confluence with Dry Thirteenmile Creek to the confluence with the White River, except for listings in Segments 15, 17, 18a, 18b, 19 and 20.

| COLCWH16B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

17. Stewart Gulch from the sources of the East, Middle, and West Forks to the confluence with Piceance Creek.

| COLCWH17 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation P |

**Qualifiers:**
**Fish Ingestion Standards Apply**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

18a. Willow and Hunter Creeks, including all tributaries and wetlands, from their sources to their confluences with Piceance Creek.

| COLCWH18A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

18b. Mainstem of the Dry Fork of Piceance Creek, including all tributaries and wetlands, from the source to a point just below the confluence with Little Reigan Gulch. Box D Gulch from its source to the confluence with the Dry Fork of Piceance Creek.

| COLCWH18B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

19. Mainstem of Fawn Creek from the source to the confluence with Black Sulphur Creek.

| COLCWH19 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

20. Mainstem of Black Sulphur Creek, including all tributaries and wetlands, from the source to the confluence with Piceance Creek, except for the listing in Segment 19.

| COLCWH20 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

21. Mainstem of the White River from a point immediately above the confluence with Douglas Creek to the Colorado/Utah border.

| COLCWH21 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | --- |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

22. All tributaries to the White River, including all wetlands, from a point immediately above the confluence with Douglas Creek to the Colorado/Utah border, except for specific listings in Segment 23.

| COLCWH22 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Beryllium(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

23. Mainstems of East Douglas Creek and West Douglas Creek, including all tributaries and wetlands, from their sources to their confluence.

| COLCWH23 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

24. All lakes and reservoirs tributary to the White River, which are within the boundaries of the Flat Tops Wilderness Area, including Trappers Lake.

| COLCWH24 | Classifications |
|---|---|
| **Designation** | Agriculture |
| OW | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

25. Lake Avery (a.k.a Big Beaver Reservoir).

| COLCWH25 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.
*Temperature =
DM=CLL and MWAT=CLL from 1/1-3/31
DM=CLL and MWAT=20.7 from 4/1-12/31

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | varies* | varies* [B] |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## White River

26. All lakes and reservoirs tributary to the North and South Forks of the White River, from the Flat Tops Wilderness Area boundary to the confluence with the North and South Forks of the White River.

| COLCWH26 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation U |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

27. All lakes and reservoirs tributary to the White River, from a point immediately above the confluence with Piceance Creek to the Colorado/Utah border, except for listings in segments 11 and 13d.

| COLCWH27 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation U |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | WL | WL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 20* |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.083* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

1. Mainstem of the Colorado River from the confluence with the Roaring Fork River to immediately below the confluence with Rifle Creek.

| COLCLC01 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.
*Temperature =
See 37.6(4) for temperature standards.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | varies* | varies* |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | --- |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

2a. Mainstem of the Colorado River from immediately below the confluence with Rifle Creek to immediately above the confluence of Rapid Creek.

| COLCLC02A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | --- |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

2b. Mainstem of the Colorado River from a point immediately above the confluence with Rapid Creek to immediately above the confluence of the Gunnison River.

| COLCLC02B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | --- |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

3. Mainstem of the Colorado River from immediately above the confluence of the Gunnison River to the Colorado-Utah state line.

| COLCLC03 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | --- |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

4a. All tributaries, including wetlands, to the Colorado River from the confluence with the Roaring Fork River to below the confluence with Parachute Creek except for listings in Segments 4b, 4c, 4d, 4e, 5, 6, 7a, 7b, 8, 9a, 9c, 10, 11a – c.

| COLCLC04A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation N |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 630 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

4b. South Canyon Hot Springs (39.552964, -107.414232).

| COLCLC04B | Classifications |
|---|---|
| **Designation** | Aq Life Warm 2 |
| Reviewable | Recreation E |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | --- |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | --- | --- |
| Nitrite | --- | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | --- |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

4c. The mainstem of South Canyon Creek from the South Canyon Hot Springs to the confluence with the Colorado River.

| COLCLC04C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*chlorophyll a (mg/m$^2$)(chronic) = applies only above the facilities listed at 37.5(4).

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150* |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

4d. The mainstem of Dry Hollow Creek, including all tributaries and wetlands, from the source to the confluence with the Colorado River.

| COLCLC04D | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

4e. Mainstem of Dry Creek, including all tributaries and wetlands, from the source to immediately above the Last Chance Ditch.

| COLCLC04E | Classifications |
|---|---|
| **Designation** | Agriculture |
| UP | Aq Life Cold 2 |
| | Recreation N |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Copper(ac/ch) = current conditions*

Expiration Date of 6/30/2023

*Phosphorus(chronic) = applies only above the facilities listed at 37.5(4).
*Iron(T)(chronic) = 3500(T) ug/L on unnamed tributary and 5900(T) ug/L on Dry Creek, see section 37.6(4)(c) for iron assessment locations.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.
*TempMod: Copper = Adopted 6/9/2008

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 630 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | varies* |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

4f. Mainstem of Dry Creek including all tributaries and wetlands from a point immediately above the Last Chance Ditch to the confluence with the Colorado River.

| COLCLC04F | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation N |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Copper(ac/ch) = current conditions*

Expiration Date of 6/30/2023

*Phosphorus(chronic) = applies only above the facilities listed at 37.5(4).
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.
*TempMod: Copper = Adopted 12/14/2020

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 630 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

5. All tributaries to the Colorado River, including wetlands, which are within the boundaries of White River National Forest, except for listings in Segments 9a, 9c, and 12c.

| COLCLC05 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

6. Mainstem of Oasis Creek including all tributaries and wetlands from the boundary of White River National Forest to the confluence with the Colorado River.

| COLCLC06 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

7a. Mainstem of Mitchell, Canyon, Elk, Garfield, Beaver, and Cache Creeks, including all tributaries and wetlands, from the boundary of the White River National Forest to their confluences with the Colorado River.

| COLCLC07A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*chlorophyll a (mg/m$^2$)(chronic) = applies only above the facilities listed at 37.5(4).
*Phosphorus(chronic) = applies only above the facilities listed at 37.5(4).

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

7b. Mainstem of Divide Creek, including all tributaries and wetlands, from the boundary of the White River National Forest to the confluence with the Colorado River.

| COLCLC07B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

8. Mainstem of Northwater and Trapper Creeks, including all tributaries and wetlands, from their sources to the confluence with the East Middle Fork of Parachute Creek. East Middle Fork of Parachute Creek, including all tributaries and wetlands, from the source to the confluence with the Middle Fork of Parachute Creek.

| COLCLC08 | Classifications |
|---|---|
| **Designation** | Agriculture |
| OW | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |
| **Qualifiers:** | |
| **Other:** | |
| *Uranium(acute) = See 37.5(3) for details. | |
| *Uranium(chronic) = See 37.5(3) for details. | |

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

9a. Middle Rifle Creek, including all tributaries and wetlands, from its source to the confluence with West Rifle Creek. East Rifle Creek, including all tributaries and wetlands, from the source to the boundary of the White River National Forest.

| COLCLC09A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Water Supply |
| | Recreation E |
| **Qualifiers:** | |
| **Other:** | |
| *Uranium(acute) = See 37.5(3) for details. | |
| *Uranium(chronic) = See 37.5(3) for details. | |

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

9b. All lakes and reservoirs tributary to the Colorado River from the confluence of the Colorado and the Roaring Fork River to a point immediately below the confluence of the Colorado River and Parachute Creek, and all lakes and reservoirs within the White River National Forest or the Grand Mesa National Forest, except for the listings in segment 20.

| COLCLC09B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

9c. Battlement Creek, including all tributaries and wetlands, from the source to the most downstream boundary of BLM lands.

| COLCLC09C | Classifications |
|---|---|
| **Designation** | Agriculture |
| OW | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a ($mg/m^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

9d. Battlement Creek, including all tributaries and wetlands, from the most downstream boundary of BLM lands to the confluence with the Colorado River.

| COLCLC09D | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

10. West Rifle Creek, including all tributaries and wetlands, from the source to Rifle Gap Reservoir. East Rifle Creek, including all tributaries and wetlands, from the White River National Forest boundary to Rifle Gap Reservoir. Rifle Creek, including all tributaries and wetlands, from Rifle Gap Reservoir to the confluence with the Colorado River.

| COLCLC10 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

11a. Middle Fork Parachute Creek, including tributaries and wetlands, from the source to the confluence with East Fork Parachute Creek. West Fork Parachute Creek and East Fork Parachute Creek, including tributaries and wetlands, from the sources to their confluence into Parachute Creek (39.54898, -108.121829).

| COLCLC11A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

11b. All tributaries to Parachute Creek on the east side of Parachute Creek from the confluence of the East and West Forks of Parachute Creek to the confluence with the Colorado River.

| COLCLC11B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation N |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 630 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Beryllium(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

11c. Mainstem of Parachute Creek from the confluence of the West and East Forks to the confluence with the Colorado River. All tributaries and wetlands to Parachute Creek on the west side of Parachute Creek from the confluence of the East and West Forks to the confluence with the Colorado River.

| COLCLC11C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

12a. All tributaries to the Colorado River on the north side of the Colorado River from below Cottonwood Creek to the confluence with Parachute Creek except for listings in segments 9c and 9d.

| COLCLC12A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation N |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | --- |
| E. Coli (per 100 mL) | --- | 630 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 100 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

12b. All tributaries and wetlands to the Colorado River from a point immediately below the confluence of Parachute Creek to a point immediately below the confluence with Roan Creek, except for listings in segments 5, 12c, 14a, 14b and 14c.

| COLCLC12B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 2 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

12c. Wallace Creek, including all tributaries and wetlands, from the source to the confluence with the Colorado River.

| COLCLC12C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

13a. All tributaries to the Colorado River including wetlands, from a point immediately below the confluence of Roan Creek to the Colorado/Utah border, except for listings in Segments 13b through 19.

| COLCLC13A | Classifications |
|---|---|
| **Designation** | Agriculture |
| UP | Aq Life Warm 2 |
| | Water Supply |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

13b. All tributaries to the Colorado River, including wetlands, from the Government Highline Canal Diversion to a point immediately below Salt Creek, and downgradient from the Government Highline Canal, the Orchard Mesa Canal No. 2, Orchard Mesa Drain, Stub Ditch and the northeast Colorado National Monument boundary.

| COLCLC13B | Classifications |
|---|---|
| **Designation** | Agriculture |
| UP | Aq Life Warm 2 |
| | Recreation E |

**Qualifiers:**

**Fish Ingestion Standards Apply**

**Other:**

*chlorophyll a (mg/m$^2$)(chronic) = applies only above the facilities listed at 37.5(4).
*Phosphorus(chronic) = applies only above the facilities listed at 37.5(4).

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150* |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

13c. Walker Wildlife Area Ponds.

| COLCLC13C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WL | WL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 20* |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.083* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

13d. Deleted

| COLCLC13D | Classifications |
|---|---|
| **Designation** | |

**Qualifiers:**

**Other:**

| Physical and Biological | DM | MWAT |
|---|---|---|
| | | |
| | **acute** | **chronic** |
| | | |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| | | |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| | | |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

13e. All tributaries to the Colorado River, from Lewis Wash to the West Salt Creek drainage, from an elevation of 5,200 feet to the Government Highline Canal, excluding the mainstems of Big Salt Wash, East Salt Creek and West Salt Creek.

| COLCLC13E | Classifications |
|---|---|
| **Designation** | Agriculture |
| UP | Aq Life Warm 2 |
| | Recreation P |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | --- | --- |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | --- | --- |
| Cyanide | 0.2 | --- |
| Nitrate | 100 | --- |
| Nitrite | 10 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | --- |
| Sulfide | --- | --- |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic(T) | --- | 100 |
| Beryllium(T) | --- | 100 |
| Cadmium(T) | --- | 10 |
| Chromium III(T) | --- | 100 |
| Chromium VI(T) | --- | 100 |
| Copper(T) | --- | 200 |
| Iron | --- | --- |
| Lead(T) | --- | 100 |
| Manganese(T) | --- | 200 |
| Mercury(T) | --- | --- |
| Molybdenum(T) | --- | 150 |
| Nickel(T) | --- | 200 |
| Selenium(T) | --- | 20 |
| Silver | --- | --- |
| Uranium | varies* | varies* |
| Zinc(T) | --- | 2000 |

13f. Asbury Creek and Sand Wash from their sources to their confluences with the Colorado River.

| COLCLC13F | Classifications |
|---|---|
| **Designation** | Agriculture |
| UP | Aq Life Warm 2 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-III | WS-III |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.05 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02-10 [A] |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

14a. Mainstem of Roan Creek, including all wetlands and tributaries, from its source to a point immediately above the confluence with Clear Creek, except for the listing in segment 14b. Clear Creek, including all tributaries and wetlands, from the source to a point immediately below the confluence with Tom Creek.

| COLCLC14A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

14b. Clear Creek, including all tributaries and wetlands, from a point immediately below the confluence with Tom Creek to the confluence with Roan Creek. Roan Creek, including all tributaries and wetlands, from a point immediately above the confluence with Clear Creek to a point immediately below the confluence with Kimball Creek.

| COLCLC14B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

14c. Mainstem of Roan Creek, including all tributaries and wetlands, from a point immediately below the confluence with Kimball Creek to the confluence with the Colorado River.

| COLCLC14C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WS-II | WS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.17 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

15a. Mainstem of Plateau Creek from its source to the inlet of Vega Reservoir. All tributaries and wetlands to Plateau Creek from its source to a point immediately above the confluence with Buzzard Creek. Kimball Creek, Grove Creek, Big Creek, Cottonwood Creek, Bull Creek, Spring Creek, Coon Creek, and Mesa Creek, including all wetlands and tributaries, from their sources to their confluences with Plateau Creek. The mainstem of Buzzard Creek, including all tributaries and wetlands, within the Grand Mesa National Forest.

| COLCLC15A | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*chlorophyll a (mg/m$^2$)(chronic) = applies only above the facilities listed at 37.5(4).
*Phosphorus(chronic) = applies only above the facilities listed at 37.5(4).
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-I | CS-I |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150* |
| E. Coli (per 100 mL) | --- | 126 |
| **Inorganic (mg/L)** | | |
| | **acute** | **chronic** |
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

15b. All tributaries and wetlands to Buzzard Creek from the Grand Mesa National Forest boundary to the confluence with Plateau Creek.

| COLCLC15B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

15c. Mainstem of Plateau Creek from the outlet of Vega Reservoir to a point immediately below the confluence with Buzzard Creek.

| COLCLC15C | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*chlorophyll a (mg/m$^2$)(chronic) = applies only above the facilities listed at 37.5(4).
*Phosphorus(chronic) = applies only above the facilities listed at 37.5(4).
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.
*Temperature =
DM=15.7 and MWAT=11.2 from 10/1-10/31
DM=14.1 and MWAT=CS-II from 11/1-3/31
DM=27.3 and MWAT=21.6 from 4/1-9/30

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | varies* | varies* |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

15d. Mainstem of Buzzard Creek from the Grand Mesa National Forest boundary to its confluence with Plateau Creek.

| COLCLC15D | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

*Temperature =
DM=CS-II and MWAT=CS-II from 11/1-3/31
DM=25.1 and MWAT=18.9 from 4/1-10/31

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | varies* | varies* |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

16. Plateau Creek including all tributaries and wetlands, from a point immediately below the confluence with Buzzard Creek, to the confluence with the Colorado River, excluding listings in segments 5, 15a and 21.

| COLCLC16 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*chlorophyll a (mg/m$^2$)(chronic) = applies only above the facilities listed at 37.5(4).
*Phosphorus(chronic) = applies only above the facilities listed at 37.5(4).

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

*Temperature =
DM=WS-II and MWAT=WS-II from 12/1-2/29
DM=31 and MWAT=WS-II from 3/1-11/30

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | varies* | varies* |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150* |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

17a. Rapid Creek, including all tributaries and wetlands, from its source to below the confluence with Cottonwood Creek (39.130512, -108.301028), including Kruzen Springs.

| COLCLC17A | Classifications |
|---|---|
| **Designation** | Agriculture |
| OW | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

17b. Rapid Creek, including all tributaries and wetlands, from below the confluence with Cottonwood Creek (39.130512, -108.301028) to the confluence with the Colorado River.

| COLCLC17B | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | CS-II | CS-II |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

18. Mainstem of Little Dolores River, including all tributaries and wetlands, from its source to immediately below the confluence with Hay Press Creek.

| COLCLC18 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation P |
| | Water Supply |

**Qualifiers:**

**Other:**

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2024

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

*Temperature =
DM=13.9 and MWAT=CS-I from 10/1-4/30
DM=24.4 and MWAT=CS-I from 5/1-9/30

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | varies* | varies* |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (mg/m$^2$) | --- | 150 |
| E. Coli (per 100 mL) | --- | 205 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.11 |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

19. All lakes and reservoirs tributary to the Colorado River from a point immediately below the confluence of the Colorado River and Parachute Creek to the Colorado-Utah border, except for listings in segments 9b, 13c, 20, and 21. This segment includes Highline Reservoir.

| COLCLC19 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Warm 1 |
| | Recreation E |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

*Uranium(acute) = See 37.5(3) for details.

*Uranium(chronic) = See 37.5(3) for details.

| Physical and Biological | DM | MWAT |
|---|---|---|
| Temperature °C | WL | WL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 5.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 20* |
| E. Coli (per 100 mL) | --- | 126 |

| Inorganic (mg/L) | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | --- |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 100 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.083* |
| Sulfate | --- | --- |
| Sulfide | --- | 0.002 |

| Metals (ug/L) | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 7.6 |
| Cadmium | TVS | TVS |
| Chromium III | TVS | TVS |
| Chromium III(T) | --- | 100 |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Manganese | TVS | TVS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Selenium | TVS | TVS |
| Silver | TVS | TVS |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

# REGULATION #37 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS
## Lower Colorado River

20. Rifle Gap Reservoir, Harvey Gap Reservoir, and Vega Reservoir.

| COLCLC20 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation E |
| | Water Supply |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.
*Temperature =
DM and MWAT=CLL from 1/1-3/31
Vega Reservoir
DM=CLL and MWAT=21.5 from 4/1-12/31
Rifle Gap Reservoir
DM=CLL and MWAT=23 from 4/1-12/31
All others
DM and MWAT=CLL from 4/1-12/31

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | varies* | varies* [B] |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

21. All lakes and reservoirs tributary to Roan Creek from the source to a point just below the confluence with Clear Creek. All lakes and reservoirs tributary to Rapid Creek from the source to the confluence with the Colorado River. All lakes and reservoirs tributary to the Little Dolores River from the source to a point immediately below the confluence with Hay Press Creek. All lakes and reservoirs tributary to Plateau Creek and within the Grand Mesa National Forest.

| COLCLC21 | Classifications |
|---|---|
| **Designation** | Agriculture |
| Reviewable | Aq Life Cold 1 |
| | Recreation U |
| | Water Supply |
| | DUWS* |

**Qualifiers:**

**Other:**

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Classification: Jerry Creek Reservoir Number 1 and Number 2 = DUWS, Palisade Cabin Reservoir = DUWS
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Uranium(acute) = See 37.5(3) for details.
*Uranium(chronic) = See 37.5(3) for details.

**Physical and Biological**

| | DM | MWAT |
|---|---|---|
| Temperature °C | CL | CL |
| | **acute** | **chronic** |
| D.O. (mg/L) | --- | 6.0 |
| D.O. (spawning) | --- | 7.0 |
| pH | 6.5 - 9.0 | --- |
| chlorophyll a (ug/L) | --- | 8* |
| E. Coli (per 100 mL) | --- | 126 |

**Inorganic (mg/L)**

| | acute | chronic |
|---|---|---|
| Ammonia | TVS | TVS |
| Boron | --- | 0.75 |
| Chloride | --- | 250 |
| Chlorine | 0.019 | 0.011 |
| Cyanide | 0.005 | --- |
| Nitrate | 10 | --- |
| Nitrite | 0.05 | --- |
| Phosphorus | --- | 0.025* |
| Sulfate | --- | WS |
| Sulfide | --- | 0.002 |

**Metals (ug/L)**

| | acute | chronic |
|---|---|---|
| Arsenic | 340 | --- |
| Arsenic(T) | --- | 0.02 |
| Cadmium | TVS | TVS |
| Cadmium(T) | 5.0 | --- |
| Chromium III | --- | TVS |
| Chromium III(T) | 50 | --- |
| Chromium VI | TVS | TVS |
| Copper | TVS | TVS |
| Iron | --- | WS |
| Iron(T) | --- | 1000 |
| Lead | TVS | TVS |
| Lead(T) | 50 | --- |
| Manganese | TVS | TVS/WS |
| Mercury(T) | --- | 0.01 |
| Molybdenum(T) | --- | 150 |
| Nickel | TVS | TVS |
| Nickel(T) | --- | 100 |
| Selenium | TVS | TVS |
| Silver | TVS | TVS(tr) |
| Uranium | varies* | varies* |
| Zinc | TVS | TVS |

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

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 37.6 for further details on applied standards.

## STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS – FOOTNOTES

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

(B) Assessment of adequate refuge shall rely on the Cold Large Lake table value temperature criterion and applicable dissolved oxygen standard rather than the site-specific temperature standard.

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**Editor's Notes**

**History**

Rules 37.5, 37.22 eff. 07/01/2007.
Rules 37.6, 37.23 eff. 09/01/2007.
Rules 37.6, 37.24 eff. 03/01/2008.
Rules 37.3, 37.5, 37.6, 37.25 eff. 01/01/2009.
Rules 37.6 (Tables 1-15), 37.26 eff. 06/30/2010.
Rules 37.6 (Tables 1-15), 37.27, 37.28 eff. 06/30/2011.
Rules 37.6 (Tables pgs. 10, 11, 13-14), 37.29 eff. 01/01/2012.
Rules 37.6 (Table pg. 11), 37.30 eff. 06/30/2013.
Rules 37.6 (2)(d), 37.6 (Tables pgs. 1-3, 6-7, 9-12, 14-15), 37.31 eff. 09/30/2013.
Rules 37.6, 37.32, Lower Colorado River segments 4e, 13b eff. 06/30/2014.
Rules 37.5-37.6, 37.33 eff. 12/31/2014.
Rules 37.6, 37.34, Lower Colorado River segment 4e eff. 06/30/2015.
Rules 37.5, 37.6, 37.35, Appendix 37-1 eff. 03/01/2016.
Rule 37.36 eff. 06/30/2016.
Rules 37.37, Appendix 37-1 eff. 06/30/2017.
Rules 37.6 (4) c), 37.38, Appendix 37-1 eff. 06/30/2018.
Rule 37.39, Appendix 37-1 eff. 06/30/2019.
Rules 37.2, 37.3, 37.5, 37.6, 37.40, Appendix 37-1 eff. 12/31/2019.
Rules 37.6, 37.41, 37.42, Appendix 37-1 eff. 06/30/2020.
Rules 37.43, Appendix 37-1 eff. 06/30/2021.