



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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**SEP 14 2016**

Ref: 8EPR-EP

Ms. Lauren Evans, Chair  
Water Quality Control Commission  
4300 Cherry Creek Drive South  
Denver, Colorado 80222-1530

Re: Revisions to Regulation #32 and #36

Dear Ms. Evans:

The U.S. Environmental Protection Agency Region 8 has completed its review of certain revisions to water quality standards (WQS) adopted by Colorado's Water Quality Control Commission (Commission). The revisions addressed in today's action were adopted August 12, 2013, with an effective date of December 31, 2013. The submission letter included an Opinion of the Attorney General certifying that the standards were duly adopted pursuant to State law. Receipt of the revised standards on August 29, 2013 initiated the EPA's review pursuant to Clean Water Act (CWA) § 303(c). The EPA has completed its review, and this letter is to notify you of our action.

The revisions include changes to the water quality standards for the Arkansas River Basin (Regulation #32) and the Rio Grande Basin (Regulation #36).

**Clean Water Act Review Requirements**

The CWA § 303(c)(2), requires States and authorized Indian Tribes<sup>1</sup> to submit new or revised WQS to the EPA for review. The EPA is required to review and approve, or disapprove, the submitted standards. Pursuant to CWA § 303(c)(3), if the EPA determines that any standard is not consistent with the applicable requirements of the Act, the Agency shall, not later than the ninetieth day after the date of submission, notify the State or authorized Tribe and specify the changes to meet the requirements. If such changes are not adopted by the State or authorized Tribe within ninety days after the date of notification, the EPA is to propose and promulgate such standard pursuant to CWA § 303(c)(4). The Region's goal has been, and will continue to be, to work closely with States and authorized Tribes throughout the standards revision process so that submitted revisions can be approved by the EPA. Pursuant to the EPA's Alaska Rule (40 CFR § 131.21(c)), new or revised state standards submitted to the EPA after May 30, 2000, are not effective for CWA purposes until approved by the EPA.

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<sup>1</sup> CWA § 518(e) specifically authorizes EPA to treat eligible Indian tribes in the same manner as states for purposes of CWA § 303. See also 40 CFR § 131.8.

## **Today's Action**

We are pleased to inform you that today, with the exception of certain revisions where the EPA is taking no action, the EPA is approving the changes to Regulation #32 and #36 adopted on August 12, 2013. EPA is not acting on the ambient-based selenium standards for Golf Course Wash and Turkey Creek, the total phosphorus (TP) standards assigned to rivers/streams, and the TP standards assigned to lakes/reservoirs that have a warm water aquatic life use classification. All other WQS revisions are approved. The rationale for the EPA's approval action is discussed in detail in the enclosures.

## **Endangered Species Act Requirements**

The EPA's approval of Colorado's WQS is considered a federal action which may be subject to the Section 7(a)(2) consultation requirements of the Endangered Species Act (ESA). Section 7(a)(2) of the ESA states that "each federal agency ... shall ...insure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined to be critical..." The EPA has initiated consultation under ESA Section 7(a)(2) with the U.S. Fish and Wildlife Service (Service) regarding our approval of the new or revised WQS. The EPA also has a CWA obligation, as a separate matter, to complete its WQS action. Therefore, in acting on the state's WQS today, EPA is completing its CWA § 303(c) responsibilities. However, because ESA consultation on the EPA's approval of these standards is ongoing, the EPA's approval is made subject to the outcome of the ESA consultation process. Should the consultation process with the Service identify information regarding impacts on listed species or designated critical habitat that supports amending the EPA's approval, the EPA will, as appropriate, revisit and amend its approval decision for those new or revised WQS.

## **Indian Country**

The WQS approvals in today's letter apply only to water bodies in the state of Colorado, and do not apply to waters that are within Indian country, as defined in 18 U.S.C. § 1151. Today's letter is not intended as an action to approve or disapprove water quality standards applying to waters within Indian country. The EPA, or authorized Indian tribes, as appropriate, will retain responsibilities for water quality standards for waters within Indian country.

**Conclusion**

We thank the Commission for its efforts to improve the water quality standards that protect the waters of Colorado. Questions regarding this action may be directed to David Moon at (303) 312-6833.

Sincerely,

A handwritten signature in black ink that reads "Martin Hestmark". The signature is fluid and cursive, with the first name "Martin" and last name "Hestmark" clearly legible.

Martin Hestmark  
Assistant Regional Administrator  
Office of Ecosystems Protection  
and Remediation

Enclosures (2)

**ENCLOSURE 1**  
**RATIONALE FOR EPA’S ACTION ON THE REVISIONS TO REGULATION #32**  
**ADOPTED AUGUST 12, 2013**

With the exception of certain revisions where the EPA is taking no action, the Region is approving the changes to Regulation #32 adopted on August 12, 2013. This enclosure addresses only the changes to Classifications and Numeric Standards for Arkansas River Basin, Regulation #32 (5 CCR 1002-32). The discussion below summarizes the revisions adopted by the Water Quality Control Commission (Commission) and the rationale for the EPA’s action.

Revisions were adopted as a result of the triennial review of the use classifications and numeric standards assigned to individual segments. The review process included incorporating revisions to the *Basic Standards and Methodologies for Surface Water* (Regulation #31) that were adopted by the Commission in 2010. For example, the Commission adopted revisions to:

- recreation classifications and standards,
- water supply classifications and health-based standards,
- agriculture classifications and standards,
- aquatic life classifications,
- aquatic life-based numeric standards, and
- temporary modifications.

In reviewing the changes to Colorado’s water quality standards, the EPA read and carefully considered all documents and information submitted to the Commission during the State’s rulemaking process, including but not limited to the proponent’s pre-hearing statements and exhibits, responsive pre-hearing statements and exhibits, rebuttal statements and exhibits, sur-rebuttal statements and exhibits, and public comments.

**STANDARDS APPROVED WITHOUT CONDITION**

All water quality standards revisions in this category are approved without condition. The basis for the EPA’s approval action is that the revisions are consistent with the requirements of the Clean Water Act and the EPA’s implementing regulation.

Revisions to Recreation Classifications and Standards

Several changes to recreation classifications and standards were adopted based on review of site data. A more stringent Recreation E (existing primary contact) classification was assigned to Middle Arkansas segment 2, Fountain Creek segment 7a, portions of Lower Arkansas segments 2a and 3b, and portions of Cimarron segment 1. Along with the upgraded use classification, the *E. coli* table value criterion in Regulation #31 for Recreation E streams (126 per 100 ml as a geometric mean) was also assigned to these segments. For Middle Arkansas segment 4f, the previously-assigned Recreation E classification

was downgraded to Recreation P (potential for primary contact), because of the dry conditions observed throughout the segment (a portion of Black Squirrel Creek).

Recreation-based chlorophyll-a standards equal to the interim value (150 mg/m<sup>2</sup>) were assigned to Upper Arkansas segments 1a, 1b, 2a, 5, 7, 8a, 8b, 9, 10, 11, 12a, 12b, 13, 14a-d, 15, 16a-c, 17a-c, 18, 19, 20a, 21a, 23, 24, 25, 26, and 27; Middle Arkansas segments 1, 4a-g, 5a-b, 6a, 7a-b, 9, 10, 11a-b, 12, 13a-b, 14, 17, and 18a-b; Fountain Creek segments 1a-b, 3a-b, 4, and 6; Lower Arkansas segments 2b, 3a, 3c, 4a-b, 5a-c, 6a-b, 8, and 9a-b; and Cimarron segment 2. The interim value at 31.17(d) was approved by EPA on July 14, 2016.

The revisions to recreation classifications and standards are consistent with the EPA’s water quality standards regulation at 40 CFR §§ 131.10 and 131.11.

#### Revisions to Water Supply Use Classifications and Health-Based Standards

Changes to water supply use classifications and the associated numeric standards were adopted including, for example, the addition of a water supply use classification and numeric standards to Upper Arkansas segments 2c and 14b, Fountain Creek segment 4, and Lower Arkansas segments 2a, 4a, 9a, and 9b. The new water supply standards will enhance source water protection efforts in these watersheds. Numeric water supply standards (i.e., for additional parameters) were applied to Upper Arkansas segment 19 and Fountain Creek segment 7a (to fill gaps where a full set had not been applied previously). Updates were adopted to the basic standards for uranium in 32.5(3). The Water Supply classification was removed from Upper Arkansas segment 20a and 23 based on site data.

A Direct Use Water Supply (DUWS) sub-classification and the associated numeric chlorophyll-a standard (5 µg/L) were adopted for Middle Arkansas segment 20 (Pueblo Reservoir) to enhance source water protection and reduce the human health risks from disinfection byproducts in treated drinking water. A DUWS sub-classification (without the associated numeric chlorophyll-a standard) was adopted for Upper Arkansas segment 38, Middle Arkansas segment 23 and 26, Fountain Creek segments 9 and 10, and Lower Arkansas segment 15. The DUWS sub-classification (Regulation 31.13(1)(d)(i)) and the chlorophyll-a interim value (Regulation 31.17(d)) were approved by EPA on July 14, 2016.

The revisions to water supply use classifications and health-based standards are consistent with the EPA’s water quality standards regulation at 40 CFR §§ 131.10 and 131.11.

#### Revisions to Agriculture Use Classifications and Standards

Various changes were adopted, including the application of agriculture-based numeric standards for boron, chromium (III), molybdenum, and nitrate to various segments. For Lower Arkansas segments 4b, 5a, 5b and 6a, a relaxed site-specific standard equal to 4 mg/L boron was adopted because only boron-tolerant crops are grown in the area (alfalfa and other pasture grass and hay species). For Lower Arkansas segments 5c and 6b, a relaxed site-specific standard equal to 2 mg/L boron was adopted to protect surface water for vegetable garden irrigation and similar uses, should they occur in the future.

The revisions to agriculture use classifications and standards are consistent with the EPA’s water quality standards regulation at 40 CFR §§ 131.10 and 131.11. We suggest revisiting the site-specific, agriculture-based boron standards in future triennial reviews (e.g., to determine whether there is new information regarding irrigated crops and soil chemistry in the area).

#### **STANDARDS APPROVED SUBJECT TO ESA CONSULTATION**

All water quality standards revisions in this category are approved, subject to the completion of ESA consultation. The basis for the EPA’s approval action is that the revisions are consistent with the requirements of the Clean Water Act and the EPA’s implementing regulation.

##### Revisions to Aquatic Life Classifications

Various changes to aquatic life use classifications were adopted. The aquatic life use classification was upgraded for all or a portion of: Upper Arkansas segments 14c (Cold 2 to Cold 1) and 15 (Cold 2 to Cold 1); Fountain Creek segment 3b (Warm 2 to Cold 1); Middle Arkansas segments 1 (Warm 2 to Cold 1), 4b (Warm 2 to Warm 1), 11a (Warm 2 to Cold 1), 11b (Warm 2 to Cold 1), and 17 (Warm 2 to Cold 1); Lower Arkansas segments 2a (Warm 2 to Warm 1), 9a (Warm 2 to Cold 1), and 9b (Warm 2 to Cold 1); and Cimarron segment 2 (Warm 2 to Warm 1).

A use attainability analysis supported adoption of less-stringent aquatic life use classifications for: Upper Arkansas segments 4b (Cold 1 to Warm 1), 23 (Cold 1 to Cold 2), and 40 (Cold 1 to Warm 1); Middle Arkansas segment 4f (Warm 1 to Warm 2); and Fountain Creek segments 5 (Cold 2 to Warm 1) and 11 (Warm 1 to Warm 2).

The revisions to aquatic life classifications are consistent with the EPA’s water quality standards regulation at 40 CFR § 131.10.

##### Revisions to Numeric Standards for the Protection of Aquatic Life Classifications

Various changes to aquatic life-based numeric standards were adopted, including revisions associated with the use classification changes discussed above. Revisions were also adopted to achieve consistency with the changes to Regulation #31 table value standards adopted by the Commission in 2010 and approved by the EPA (August 4, 2011 action letter), including updates to the table values for aluminum, temperature, and zinc.

The revisions included addition of chronic standards for chromium (III) to several segments lacking such standards, and application, for the first time, of daily maximum (DM) and maximum weekly average (MWAT) standards for temperature (table values) to most individual segments.

Ambient-based temperature standards were adopted for several segments (Table 2) based on site data. Temperature standards were not applied to segments which do not have an aquatic life use classification.

<b>Table 1</b> <b>Ambient-Based Temperature Standards</b>	
<b>Segment</b>	<b>Description</b>
Upper Arkansas 4a	Cold Stream Tier II standards were applied to the Arkansas River from the Chaffee County/Fremont County line to the Highway 115 bridge, except that an ambient-based summer DM (24.8 °C) and MWAT (22.1 °C) standard were applied
Upper Arkansas 14c	Cold Stream Tier I standards were applied to North and South Hardscrabble Creeks, except that an ambient-based summer DM was applied (22.1 °C) instead of the DM table value (21.7 °C)
Upper Arkansas 20a	Ambient-based summer (DM = 27.1 °C, MWAT = 21 °C, March - Oct) and winter (DM = 14.2 °C, MWAT = 9.7 °C, Nov - Feb) standards were applied to the middle portion of Fourmile Creek.
Upper Arkansas 20b	Ambient-based summer (DM = 28.1 °C, MWAT = 22.0 °C, March - Oct) and winter (DM = 13.0 °C, MWAT = 9.4 °C, Nov - Feb) standards were applied to the lower portion of Fourmile Creek.
Upper Arkansas 35	Cold Large Lake table values were applied to DeWeese Reservoir, except that an ambient-based summer MWAT standard (21.3 °C) was applied instead of the table value (18.3 °C)
Middle Arkansas 20	Cold Large Lake table values were applied to Pueblo Reservoir, except that an ambient-based summer MWAT standard (23.6 °C) was applied instead of the table value (18.3 °C)
Middle Arkansas 26	Cold Large Lake table values were applied to Horseshoe Lake, except that an ambient-based MWAT standard (18.8 °C) was applied instead of the table value (18.3 °C)
	Cold Large Lake table values were applied to Martin Lake, except that an ambient-based summer MWAT standard (21.7 °C) was applied instead of the table value (18.3 °C)
Lower Arkansas 1a	Warm Stream Tier II standards were applied to the Arkansas River from Fountain Creek to the Colorado Canal Headgate near Avondale, except that an ambient-based DM (21.5 °C) and MWAT (20.7 °C) was applied for the month of December.

Chlorophyll-a standards (equal to the interim value in Regulation #31) for protection of lakes and reservoirs with (cold or warm water) aquatic life and recreation use classifications were adopted for Upper Arkansas segments 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, and 40; Middle Arkansas segments 19, 21, 22, 23, 24, 25, 26, and 27; Fountain Creek segments 7b, 8, 9, 10, and 11; Lower Arkansas segments 14, 15, 16, 17, 18, and 19; and Cimarron segment 3. The chlorophyll-a interim values at 31.17(d) were approved by EPA on July 14, 2016.

Total phosphorus (TP) standards (equal to the interim value in Regulation #31) for protection of lakes/reservoirs with a cold water aquatic life use classification were adopted for Upper Arkansas segments 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, and 39; Middle Arkansas segments 19, 22, 23, 24, 25, 26, and 27; Fountain Creek segments 8, 9, and 10; and Lower Arkansas segments 14, 15, 16, 17, and

18. The TP interim values for lakes and reservoirs at Regulation 31.17(b) were approved by EPA on July 14, 2016.

Ambient-based standards were replaced by the more stringent table value standards, thereby enhancing aquatic life protections for Upper Arkansas segment 1b (zinc) and 11 (iron), Fountain Creek segment 6 (sulfate and iron), and Lower Arkansas segment 4a (iron), 4b (iron) and 11 (manganese).

New or revised ambient-based standards were adopted for a number of segments based on evidence that the standards reflect naturally-occurring or irreversible human-induced water quality conditions (31.7(1)(1)(b)(ii)). Such standards were adopted for Upper Arkansas segment 10 (copper); Middle Arkansas segments 3 (selenium), 4a (selenium), 4g (selenium), and 6b (selenium); Fountain Creek segments 2a (selenium) and 2b (selenium); and Lower Arkansas segment 1c (manganese). In general, these revisions were supported by evidence demonstrating that existing conditions are a result of natural or irreversible man-induced water quality levels, but such levels are adequate to protect classified uses. The Region notes that the Commission recently adopted fine-tuning changes to the ambient-based standards authorizing provision in Regulation 31 (e.g., clarifications regarding supporting information and data that are to be submitted). EPA recommends revisiting ambient-based standards during each basinwide water quality standards review to consider any new information regarding the feasibility of reducing pollutant loadings, and will expect that future new/revised ambient-based standards will address the new requirements.

Site-specific copper standards (28.4 µg/L acute, 17.8 µg/L chronic) were adopted for a portion of Fountain Creek segment 6 based on a large compilation of site data (127 samples over 6 years). Since 2007, the EPA’s recommended water quality criteria for copper have been expressed as a function of the biotic ligand model (BLM). Accordingly, the site-specific standards were derived using BLM output and set equal to the fixed monitoring benchmark (FMB). The FMB method uses a probability-based analysis of an ambient dataset to identify a fixed ambient copper concentration associated with an exceedance frequency of once in three years. The supporting analysis submitted by the Tri-Lakes wastewater treatment facility concluded that “the FMB represents the most scientifically-robust method for deriving water quality criteria that are explicitly linked to the probability of empirical copper concentrations exceeding the criteria more than once in three years.” The portion of the segment affected by the copper revision extends from immediately above the Tri-Lakes wastewater treatment facility to the North Gate Boulevard Bridge (approximately 3 stream miles). Hardness-dependent table value criteria were retained for those portions of the segment upstream of Tri-Lakes’ discharge and downstream of the North Gate Boulevard Bridge.

The revisions to aquatic life-based numeric standards are consistent with the EPA’s water quality standards regulation at 40 CFR § 131.11.

#### Revisions to Temporary Modifications

The revisions to temporary modifications are summarized in Table 1. The revisions are consistent with Colorado’s temporary modification general policy in Regulation #31, Section 31.7(3). The EPA’s

regulation at 40 CFR § 131.13 provides that such general policies may be adopted at State discretion, and are subject to the EPA’s review and approval. Colorado’s general policy has been approved by the EPA on multiple occasions, and most recently on August 4, 2011.

<b>Reg</b>	<b>Deleted</b>	<b>New/Extended</b>
32	Upper Arkansas 2b, 3, 8a, and 12a	Upper Arkansas 8b (cadmium and zinc), and 8b (temperature)
	Middle Arkansas 4c, 6a, 6b, and 9	Middle Arkansas 4b (all parameters), 6b (temperature)
	Fountain 1a, 2a, 4, and 6	Lower Arkansas 1b (selenium), 3a, 3b, 4b, 5b, 6a, 6b, 15, 16, and 17 (all temperature)
	Lower Arkansas 1c, 5a, 5b, 6a, 6b, and 7	

#### **REVISIONS WHERE THE EPA IS TAKING NO ACTION**

- Selenium ambient-based standards (1,797 µg/L acute, 1,769 µg/L chronic) applied to Middle Arkansas segment 4e (Golf Course Wash);
- Selenium ambient-based standards (2,498 µg/L acute, 2,344 µg/L chronic) applied to Middle Arkansas segment 18b (Turkey Creek);
- All segment-specific total phosphorus (TP) numeric standards based on the interim value for river/stream segments with a cold water aquatic life classification (110 µg/L TP) or a warm water aquatic life classification (170 µg/L TP); and
- All segment-specific TP numeric standards based on the interim value for lake/reservoir segments with a warm water aquatic life classification (83 µg/L TP).

**ENCLOSURE 2**  
**RATIONALE FOR EPA’S ACTION ON THE REVISIONS TO REGULATION #36**  
**ADOPTED AUGUST 12, 2013**

With the exception of certain revisions where the EPA is taking no action, the Region is approving all changes to Regulation #36 adopted on August 12, 2013. This enclosure addresses only the changes to Classifications and Numeric Standards for the Rio Grande Basin, Regulation #36 (5 CCR 1002-36). The discussion below summarizes the revisions adopted by the Water Quality Control Commission (Commission) and the rationale for the EPA’s action.

Revisions were adopted as a result of the triennial review of the use classifications and numeric standards assigned to individual segments. The review process included incorporating revisions to the *Basic Standards and Methodologies for Surface Water* (Regulation #31) that were adopted by the Commission in 2010. For example, the Commission adopted revisions to:

- antidegradation designations,
- recreation classifications and standards,
- water supply classifications and health-based standards,
- agriculture classifications and standards,
- aquatic life classifications,
- aquatic life-based numeric standards, and
- temporary modifications.

In reviewing the changes to Colorado’s water quality standards, the EPA read and carefully considered all documents and information submitted to the Commission during the State’s rulemaking process, including but not limited to proponent’s pre-hearing statements and exhibits, responsive pre-hearing statements and exhibits, rebuttal statements and exhibits, sur-rebuttal statements and exhibits, and public comments.

**STANDARDS APPROVED WITHOUT CONDITION**

All water quality standards revisions in this category are approved without condition. The basis for the EPA’s approval action is that the revisions are consistent with the requirements of the Clean Water Act and the EPA’s implementing regulation.

Antidegradation Designations

Use Protected designations were removed from Alamosa segment 16 and Closed Basin segment 3, consistent with the upgrades to the aquatic life classifications (from Class 2 to Class 1). Removal of the Use Protected designations means these segments are now reviewable (i.e., a higher level of antidegradation protection was assigned). The revisions are consistent with Colorado’s antidegradation rule at 31.8 of the *Basic Standards and Methodologies for Surface Waters* (previously approved by the EPA) and the EPA’s water quality standards regulation at 40 CFR § 131.12.

### Revisions to Recreation Classifications and Standards

Recreation-based chlorophyll-a standards equal to the interim value (150 mg/m<sup>2</sup>) were adopted for Rio Grande segments 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 14, 16, 17, 19, 20a, 20b, 21a, 21b, 22, 23a, 23b, 24, 25, 26, 28, 29, 30, and 31; Alamosa segments 1, 2, 3a, 3b, 3c, 3d, 4a, 4b, 5, 6, 7, 9, 10, 11a, 11b, 12, 13, 14a, 14b, 15, 17a, 17b, 18, 19, 20, and 22; and Closed Basin segments 1, 2a, 2b, 2c, 3, 4, 5, 8, 9a, 9b, 10, 11, 12a, 12b, and 13.

The revisions are consistent with the EPA’s water quality standards regulation at 40 CFR §§ 131.10 and 131.11.

### Revisions to Water Supply Use Classifications and Health-Based Standards

Various changes to water supply use classifications and the associated numeric standards were adopted, including the application of a new water supply use classification and standards to Rio Grande segments 15 and 38 (in part, due to re-segmentation), Alamosa segments 11b, 21, and 30 (in part), and Closed Basin segment 16 (in part). The new water supply standards will enhance source water protection efforts in these watersheds. Fish ingestion-based human health numeric standards were assigned to Alamosa segment 8 (a Cold 2 aquatic life segment) based on the potential for human exposure via fish consumption. Updates were adopted to the water supply basic standards for uranium in 36.5(3). For several segments where a water supply use classification has not been assigned, numeric standards for protection of water supply uses were removed (Rio Grande segments 6, 14, 20a, 20b, 23a, 23b, 24, and 26, and Alamosa segments 3a-3d, 4b, 5, 8-10, 11a, and 22).

The revisions are consistent with the EPA’s water quality standards regulation at 40 CFR §§ 131.10 and 131.11.

### Revisions to Agriculture Use Classifications and Standards

The changes included the application of agriculture-based chromium (III), molybdenum, and nitrate standards to various segments.

The revisions are consistent with the EPA’s water quality standards regulation at 40 CFR §§ 131.10 and 131.11.

## **STANDARDS APPROVED SUBJECT TO ESA CONSULTATION**

All water quality standards revisions in this category are approved, subject to the completion of ESA consultation. The basis for the EPA’s approval action is that the revisions are consistent with the requirements of the Clean Water Act and the EPA’s implementing regulation.

### Revisions to Aquatic Life Classifications

Various changes to aquatic life use classifications were adopted. Upgraded (more stringent) use classifications were adopted for Rio Grande segments 6 (a Cold 1 classification was assigned to a portion of the segment that previously had no aquatic life classification), 7 (a Cold 2 classification was

assigned to a portion of the segment that previously had no aquatic life classification), 20a (a Cold 1 classification was assigned to a portion of the segment that previously had no aquatic life classification), and 38 (a portion of the segment was upgraded from Cold 2 to Cold 1); Alamosa segments 15 (Cold 2 to Cold 1) and 16 (Warm 2 to Warm 1); and Closed Basin segments 3 (Warm 2 to Warm 1), 17 (not included in any segment to Cold 1), and 18 (not included in any segment to Warm 2).

The revisions to aquatic life classifications are consistent with the EPA’s water quality standards regulation at 40 CFR § 131.10.

#### Revisions to Numeric Standards for the Protection of Aquatic Life Classifications

Various changes to aquatic life-based numeric standards were adopted, including revisions associated with the use classification changes discussed above. Revisions were also adopted to achieve consistency with changes to the Regulation #31 table value standards adopted by the Commission in 2010 and approved by the EPA (August 4, 2011 action letter), including updates to the table values for aluminum, temperature, and zinc.

The revisions included addition of chronic standards for chromium (III) to several segments lacking such standards, and application, for the first time, of daily maximum (DM) and maximum weekly average (MWAT) standards for temperature (table values) to most individual segments.

Ambient-based temperature standards were adopted for several segments (Table 3) based on site data. Temperature standards were not applied to segments which do not have an aquatic life use classification.

<b>Table 3 Ambient-Based Temperature Standards</b>	
<b>Segment</b>	<b>Description</b>
Rio Grande 20a	Ambient-based standards for summer (DM = 21.7 °C, MWAT = 17 °C, May - Sept), and winter (DM = 13.0 °C, MWAT = 9.0 °C, Oct - April) were assigned to the upper portion of Cat Creek.
Rio Grande 21b	Cold Stream Tier I standards were applied except that an ambient-based summer DM was applied (DM = 22.3 °C) instead of the table value (21.7 °C)
Rio Grande 23b	Ambient-based standards for summer (DM = 25.3 °C, MWAT = 19.0 °C, May - Sept), and winter (DM = 14.7 °C, MWAT = 9.0 °C, Oct - April) were assigned to the mainstem of the Sangre De Cristo Creek from Placer Creek to Highway 159.
Closed Basin 2c	Ambient-based standards for summer (DM = 26.5 °C, MWAT = 20.0 °C, April - Oct), and winter (DM = 13.0 °C, MWAT = 9.0 °C, Nov - Mar) were assigned to the mainstem of Carnero Creek
Closed Basin 19	An ambient-based summer MWAT (21.2 °C, April - Dec) was assigned to San Luis Lake. The Cold Large Lake winter MWAT (9 °C, Jan - Mar) was also assigned. Acute DM temperature standards were not assigned.

Updates were adopted to the site-specific aluminum standards for Alamosa segments 3a, 3b, 3c, 3d, and 8, based on additional site data that have become available. These revisions update the site-specific dissolved and total recoverable aluminum standards adopted by the Commission in 2007.

Chlorophyll-a numeric standards for protection of lakes and reservoirs with (cold or warm water) aquatic life and recreation use classifications were adopted for Rio Grande segments 32, 33, 34, 35, 36, 37, and 38; Alamosa segments 23, 24, 25, 26, 27, 28, 29, and 30; and Closed Basin segments 15, 16, 17, 18, 19, and 20.

Total phosphorus (TP) numeric standards for protection of lakes/reservoirs with a cold water aquatic life use classification were adopted for Rio Grande segments 32, 33, 34, 36, and 38; Alamosa segments 23, 24, 25, 26, 27, 28, and 30; and Closed Basin segments 15, 16, 17, 19, and 20.

The revisions to aquatic life numeric standards are consistent with the EPA’s water quality standards regulation at 40 CFR § 131.11.

#### Revisions to Temporary Modifications

The Commission extended the temporary modifications for Rio Grande segments 4a (cadmium, lead, and zinc) and 7 (cadmium, copper, lead, silver, zinc). The revisions are consistent with the temporary modification general policy in *Basic Standards and Methodologies for Surface Waters* (Regulation #31, Section 31.7(3)). The EPA’s regulation at 40 CFR § 131.13 provides that such general policies may be adopted at State discretion, and are subject to the EPA’s review and approval. The Colorado general policy has been approved by the EPA on multiple occasions, and most recently on August 4, 2011.

#### **REVISIONS WHERE THE EPA IS TAKING NO ACTION**

- All segment-specific total phosphorus (TP) numeric standards based on the interim value for river/stream segments with a cold water aquatic life classification (110 µg/L TP) or a warm water aquatic life classification (170 µg/L TP); and
- All segment-specific TP numeric standards based on the interim value for lake/reservoir segments with a warm water aquatic life classification (83 µg/L TP).