

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Commission

REGULATION NO. 34 - CLASSIFICATIONS AND NUMERIC STANDARDS FOR SAN JUAN RIVER AND DOLORES RIVER BASINS

5 CCR 1002-34

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

34.1 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.

34.2 PURPOSE

These regulations establish classifications and numeric standards for the San Juan and the Dolores River Basins, including all tributaries and standing bodies of water south of the northern Dolores County lines, as indicated in section 34.6. The classifications identify the actual beneficial uses of the water. The numeric standards are assigned to determine the allowable concentrations of various parameters. Discharge permits will be issued by the Water Quality Control Division to comply with basic, narrative, and numeric standards and control regulations so that all discharges to waters of the state protect the classified uses. 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.

34.3 INTRODUCTION

These regulations and tables present the classifications and numeric standards assigned to stream segments listed in the attached tables (See Appendix 34-1). 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 34-1. 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".

34.4 DEFINITIONS

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

34.5 BASIC STANDARDS

(1) Temperature

All waters of the San Juan/Dolores 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 Table B and metal standards found at 31.16 Table III. The column in the tables headed "Water + Fish" are presumptively applied to all aquatic life class 1 streams which also have a water supply classification, and are applied to aquatic life class 2 streams which also have a water supply classification, on a case-by-case basis as shown in the Appendix 34-1. The column in the tables at 31.11 and 31.16 Table III headed "Fish Ingestion" is presumptively applied to all aquatic life class 1 streams which do not have a water supply classification, and are applied to aquatic life class 2 streams which do not have a water supply classification, on a case-by-case basis as shown in Appendix 34-1.

(3) Uranium

- (a) All waters of the San Juan/Dolores 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) Indian Reservations

Some of the waterbodies in the San Juan/Dolores River Basin cross boundaries of Indian Reservations of the Southern Ute and Ute Mountain Ute Tribes. The Commission has included water quality classifications and standards on lands within the boundaries of these reservations in order to avoid a gap in the classifications and standards adopted for the river basins in question. ~~The Southern Ute Indian tribe has not yet been granted authority by EPA to conduct their own water quality program, and~~ EPA has granted the Southern Ute and Ute Mountain Ute Indian tribe's applications for treatment as a state with respect to adoption of water quality standards. The Commission intends that the classifications and standards that it is adopting apply to the lands in question only to the extent that the state has jurisdiction and is not attempting to resolve that jurisdictional issue here. Segments within Reservation boundaries are noted in the segment description and ~~last column of Appendix 34-1 (Tables 34.6(4)).~~

(5) Nutrients

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

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

Segment	Permittee	Facility name	Permit No.
COSJSJ05	San Juan River Village Metro	San Juan River Village Metro WWTF	COG588013
COSJSJ06a	High Country Lodge LLC	High Country Lodge	COG588002
COSJSJ06b	Pagosa Springs Sanitation District	Pagosa Springs San District WWTF	CO0022845
COSJPI06d	Pagosa Area Water and San Dist	Vista WWTF	CO0031755
COSJPN02a	Bayfield Town of	Bayfield Town of	CO0048291
COSJPN02a	Five Branches Camper Park	Five Branches Camper Park	COG588054
COSJPN02a	Forest Lake Metro Dist	Forest Lakes Metro District	CO0048160
COSJPN02a	Pine River Camp LLC	Kanakuk Colorado Youth Camp	COG588059
COSJPN04a	Lipslea Enterprises LLC	Vallecito Resort	COG588026
COSJAF03b	Silverton Town of	Silverton Town of WWTF	CO0020311
COSJAF04b	Herrick Durango Land Co LLC	Durango North Ponderosa KOA	COG588020
COSJAF05a	Hermosa Sanitation District	Hermosa Sanitation District	COG588010
COSJAF05a	Durango City of	Durango City of	CO0024082
COSJAF05a	South Durango Sanitation District	South Durango SD WWTF	COG588057
COSJAF10a	Edgemont Ranch Metro Dist	Edgemont Ranch Metro District WWTF	CO0040266
COSJAF10b	Forest Groves Estates	Forest Groves Estates WWTP	COG588030
COSJAF11b	Durango La Plata County Airport	Durango/La Plata County Airport	CO0047457
COSJAF12a	Grizzly Peak Water Sales&Distribution LLC	Cascade Village WWTF	CO0039691
COSJAF12a	Purgatory Metropolitan District	Purgatory Metropolitan Dist	COG589010
COSJAF13c	Durango West Metro Dist #2	Durango West Metro Dist #2 WWTF	COG589115
COSJAF13d	Narrow Gauge MHP	Narrow Gauge MHP	COG589077
COSJAF14b	MacArthur Apartments LLC	Lightner Creek Campground	CO0026468
COSJLP05	Mancos Town of	Mancos Town of	CO0021687
COSJLP05a	Upper Valley Sanitation	Upper Valley Sanitation Dist.	CO0047147
COSJLP07a	Cortez Sanitation District	Southwest WWTF	CO0027545
COSJLP07a	Vista Verde Village LLC	Vista Verde Village	CO0037702
COSJLP08	Elegant Hills Park and Estates LLC	Lakeside WWTF	COG589098
COSJLP09	Lee Mobile Home Park	Lee Mobile Home Park	COG589070
COSJLP010	Dove Creek Town of	Dove Creek WWTF	COG589079
COSJDO04a	Fort Beyhan LLC	Dolores River RV Park and Cabins	COG588071
COSJDO04a	Dolores Town of	Dolores WWTF	CO0040509

Prior to May 31, 2022:

- For segments located entirely above these facilities, nutrient standards apply to the entire segment.
- For segments with portions downstream of these facilities, *nutrient standards only apply above these facilities*. A note was added to the total phosphorus and chlorophyll *a* standards in these segments. The note references the table of qualified facilities at 34.5(5).
- 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.

34.6 TABLES

(1) Introduction

The numeric standards for various parameters in this regulation and in the tables in Appendix 34-1 were assigned by the Commission after a careful analysis of the data presented on actual stream conditions and on actual and potential water uses. For each parameter listed in the tables in Appendix 34-1, only the most stringent standard is shown. Additional, less stringent standards may apply to protect additional uses and can be found in the tables in Regulation No. 31.

Numeric standards are not assigned for all parameters listed in the tables in 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 the tables in Appendix 34-1:

ac	=	acute (1-day)
<u>AEL</u>	=	<u>alternative effluent limit</u>
°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
DM	=	daily maximum temperature
D.O.	=	dissolved oxygen
DUWS	=	direct use water supply
<i>E. coli</i>	=	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
T	=	total recoverable
tr	=	trout
TVS	=	table value standard
µg/L	=	micrograms per liter

UP	=	use-protected
WL	=	warm lake temperature tier
WS	=	water supply
WS-II	=	warm stream temperature tier two
WS-III	=	warm stream temperature tier three

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

Iron (chronic)	=	WS
Manganese (chronic)	=	WS
Sulfate (chronic)	=	WS

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

- (i) existing quality as of January 1, 2000; or
- (ii) Iron = 300 µg/L (dissolved)
Manganese = 50 µg/L (dissolved)
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 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 Other column in Appendix 34-1 tables 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 (total recoverable), 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 34-1, 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)**

PARAMETER ⁽¹⁾	TABLE VALUE STANDARDS ⁽²⁾⁽³⁾
Aluminum(T)	Acute = $e^{(1.3695 \ln(\text{hardness}) + 1.8308)}$ pH equal to or greater than 7.0 Chronic = $e^{(1.3695 \ln(\text{hardness}) - 0.1158)}$ pH less than 7.0 Chronic = $e^{(1.3695 \ln(\text{hardness}) - 0.1158)}$ or 87, whichever is less
Ammonia ⁽⁴⁾	Cold Water = (mg/L as N) Total $acute = \frac{0.275}{1 + 10^{7.204 - pH}} + \frac{39.0}{1 + 10^{pH - 7.204}}$ $chronic = \left(\frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * MIN(2.85, 1.45 * 10^{0.028(25 - T)})$ Warm Water = (mg/L as N) Total $acute = \frac{0.411}{1 + 10^{7.204 - pH}} + \frac{58.4}{1 + 10^{pH - 7.204}}$ $chronic (Apr1 - Aug31) = \left(\frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * MIN(2.85, 1.45 * 10^{0.028(25 - T)})$ $chronic (Sep1 - Mar31) = \left(\frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right) * 1.45 * 10^{0.028(25 - MAX(T, 7))}$
Cadmium	Acute(warm) ⁽⁵⁾ = $(1.136672 - (\ln(\text{hardness}) * 0.041838)) * e^{(0.9789 \ln(\text{hardness}) - 3.443)}$ Acute(cold) ⁽⁵⁾ = $(1.136672 - (\ln(\text{hardness}) * 0.041838)) * e^{(0.9789 \ln(\text{hardness}) - 3.866)}$ Chronic = $(1.101672 - (\ln(\text{hardness}) * 0.041838)) * e^{(0.7977 \ln(\text{hardness}) - 3.909)}$
Chromium III ⁽⁶⁾	Acute = $e^{(0.819 \ln(\text{hardness}) + 2.5736)}$ Chronic = $e^{(0.819 \ln(\text{hardness}) + 0.5340)}$
Chromium VI ⁽⁶⁾	Acute = 16 Chronic = 11
Copper	Acute = $e^{(0.9422 \ln(\text{hardness}) - 1.7408)}$ Chronic = $e^{(0.8545 \ln(\text{hardness}) - 1.7428)}$
Lead	Acute = $(1.46203 - (\ln(\text{hardness}) * 0.145712)) * e^{(1.273 \ln(\text{hardness}) - 1.46)}$ Chronic = $(1.46203 - (\ln(\text{hardness}) * 0.145712)) * e^{(1.273 \ln(\text{hardness}) - 4.705)}$
Manganese	Acute = $e^{(0.3331 \ln(\text{hardness}) + 6.4676)}$ Chronic = $e^{(0.3331 \ln(\text{hardness}) + 5.8743)}$
Nickel	Acute = $e^{(0.846 \ln(\text{hardness}) + 2.253)}$ Chronic = $e^{(0.846 \ln(\text{hardness}) + 0.0554)}$
Selenium ⁽⁷⁾	Acute = 18.4 Chronic = 4.6
Silver	Acute = $0.5 * e^{(1.72 \ln(\text{hardness}) - 6.52)}$ Chronic = $e^{(1.72 \ln(\text{hardness}) - 9.06)}$ Chronic(Trout) = $e^{(1.72 \ln(\text{hardness}) - 10.51)}$

Temperature	TEMPERATURE TIER	TIER CODE	SPECIES EXPECTED TO BE PRESENT	APPLICABLE MONTHS	TEMPERATURE STANDARD (°C)	
					MWAT	DM
Temperature	Cold Stream Tier I	CS-I	brook trout, cutthroat trout	June – Sept.	17.0	21.7
				Oct. – May	9.0	13.0
	Cold Stream Tier II	CS-II	all other cold-water species	April – Oct.	18.3	24.3
				Nov. – March	9.0	13.0
	Cold Lakes	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 Lakes (>100 acres surface area)	CLL	rainbow trout, brown trout, lake trout	April – Dec.	18.3	24.2
				Jan. – March	9.0	13.0
	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	black crappie, bluegill, common carp, gizzard shad, golden shiner, largemouth bass, northern pike, pumpkinseed, sauger, smallmouth bass, spottail shiner, stonecat, striped bass, tiger muskellunge, walleye, wiper, white bass, white crappie, yellow perch	April – Dec.	26.2	29.3	
			Jan. – March	13.1	24.1	
Uranium	Acute = $e^{(1.1021 \cdot \ln(\text{hardness}) + 2.7088)}$ Chronic = $e^{(1.1021 \cdot \ln(\text{hardness}) + 2.2382)}$					
Zinc	Acute = $0.978 \cdot e^{(0.9094 \cdot \ln(\text{hardness}) + 0.9095)}$ Chronic = $0.986 \cdot e^{(0.9094 \cdot \ln(\text{hardness}) + 0.6235)}$ Where hardness is less than 102 mg/L CaCO ³ and mottled sculpin are expected to be present: Chronic (sculpin) = $e^{(2.140 \cdot \ln(\text{hardness}) - 5.084)}$					

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, except for aluminum for which hardness shall be no greater than 220 mg/L. The hardness values used in calculating the appropriate metal standard should be based on the lower 95 per cent confidence limit of the mean hardness value at the periodic low flow criteria as determined from a regression analysis of site-specific data. Where insufficient site-specific data exists to define the mean hardness value at the periodic low flow criteria, representative regional data shall be used to perform the regression analysis. Where a regression analysis is not appropriate, a site-specific method should be used. In calculating a hardness value, regression analyses should not be extrapolated past the point that data exist.

- (3) Both acute and chronic numbers adopted as stream standards are levels not to be exceeded more than once every three years on the average.
 - (4) 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. The "T" in the chronic equations stands for temperature.
 - (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 stable forms of chromium in a waterbody have been characterized and shown not to be predominantly chromium VI, data reported as the measurement of all valence states of chromium combined should be treated as chromium VI. In addition, in no case can the sum of the concentrations of chromium III and chromium VI or data reported as the measurement of all valence states of chromium combined exceed the water supply standards of 50 µg/L 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.
- (4) Discharger-s Specific Variances
- (a) Animas and Florida River Segment 13c (COSJAF13c):

Discharger-~~S~~specific Variance, Durango West Metro Dist. #2 (COG589115),~~;~~ Adopted 8/11/2014.

~~Ammonia (acute/chronic): AEL=-25 mg/L (starting 1/1/2017);
Ammonia (acute/chronic): AEL=-15 mg/L (starting 1/1/2019).
Expiration Date: 12/31/2024. The first number is the underlying standard previously adopted by the Commission for the segment and represents the long term goal for the waterbody. The first number will be used for assessing attainment for the waterbody and for the development of effluent limitations. The second number is the Commission's determination of the effluent concentration with the highest degree of protection of the classified use that is feasible for Durango West Metro District. Control requirements, such as discharge permit effluent limitations, shall be established using the first number 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 during the term of the DSV for the named dischargers.~~
 - (b) La Plata Segment 7a (COSJLP07a):

Discharger-~~s~~Specific Variance, Vista Verde Village, LLC (CO0037702),~~;~~ Adopted 12/14/2020.

~~Ammonia (acute/chronic): AEL=-TVS:14 mg/L (5/1-10/31) from May—October;
Ammonia (acute/chronic): AEL=-TVS:24 mg/L (11/1-4/30) from November—April.
Expiration date: 6/30/2031. Effluent concentrations shall not exceed the current condition.~~

(c) La Plata Segment 10 (COSJLP10):

Discharger-specific Variance, Town of Dove Creek (COG589079), Adopted 12/14/2020.

Ammonia (acute/chronic): ~~AEL=TVS:10 mg/L -(6/1-10/31)from June—October;~~

~~Ammonia (acute/chronic): AEL=TVS:20 mg/L (11/1-5/31)from November—May.~~

Expiration date: 6/30/2025. Effluent concentrations shall not exceed the current condition.

(5) Stream Classifications and Water Quality Standards Tables

The stream classifications and water quality standards tables in Appendix 34-1 are incorporated herein by reference.

The following is information regarding duration and measured form of standards in Appendix 34-1:

- (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. For total phosphorus, stream standards are expressed as an annual median and for lakes standards as a summer (July 1 - September 30) average in the mixed layer. For chlorophyll a, stream standards are expressed as a maximum of attached algae and lakes standards as a summer (July 1 - September 30) average in the mixed layer. For additional assessment details, see tables at Regulation 31.17(b) and (d).
- (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.

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

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

- (a) San Juan Segment 6b: Temperature Assessment Locations
 - Mill Creek at 119 Road: 37.245588, -107.004398
 - San Juan River below Pagosa Springs: 37.25171, -107.01037
- (b) San Juan Segment 6c: Temperature Assessment Location
 - Above Taylor Canyon: 37.172002, -107.035838

- (c) San Juan Segment 6d: Temperature Assessment Location
 - Above Rio Blanco: 37.121112, -107.044364
- (d) San Juan Segment 6e: Temperature Assessment Location
 - Above Navajo River: 37.04672, -107.1404
- (e) San Juan Segment 6f: Temperature Assessment Location
 - Above Navajo Reservoir: 37.01456, -107.30516
- (f) San Juan Segment 11c: Temperature Assessment Location
 - McCabe Creek at 400 Road: 37.265722,-107.013905
- (g) Piedra Segment 4a: Temperature Assessment Locations
 - Piedra River at Highway 160: 37.224016, -107.342255
 - Devil Creek at ~~Highway 160: 37.211038, -107.297370~~ State Wildlife Area: 37.172523, -107.295287
- (h) Piedra Segment 4b: Temperature Assessment Location
 - Piedra River at SUIT boundary: 37.141004, -107.355045
- (i) Piedra Segment 4c: Temperature Assessment Location
 - Piedra River below Stollsteimer Creek: 37.112804, -107.38508
- (j) Site-specific Standards for Animas River Segments 3a, 4a, and 9:

Segment 3a (COSJAF03a):

	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>
<u>Acute Standards</u>												
<u>Zn</u>	<u>720</u>	<u>780</u>	<u>1060</u>	<u>1200</u>	<u>760</u>	<u>410</u>	<u>280</u>	<u>340</u>	<u>380</u>	<u>440</u>	<u>510</u>	<u>590</u>
<u>Chronic Standards</u>												
<u>Mn</u>	<u>TVS</u>	<u>TVS</u>	<u>2571</u>	<u>2179</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>
<u>Zn</u>	<u>720</u>	<u>780</u>	<u>1060</u>	<u>1200</u>	<u>760</u>	<u>410</u>	<u>280</u>	<u>340</u>	<u>380</u>	<u>440</u>	<u>510</u>	<u>590</u>

Segment 4a (COSJAF04a):

	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>
<u>Acute Standards</u>												
<u>Al(T)</u>	<u>3100</u>	<u>3550</u>	<u>2800</u>	<u>2020</u>	<u>1010</u>	<u>740</u>	<u>700</u>	<u>1360</u>	<u>1490</u>	<u>1610</u>	<u>2280</u>	<u>2570</u>
<u>Zn</u>	<u>460</u>	<u>520</u>	<u>620</u>	<u>570</u>	<u>430</u>	<u>250</u>	<u>170</u>	<u>240</u>	<u>290</u>	<u>340</u>	<u>380</u>	<u>420</u>
<u>Chronic Standards</u>												
<u>pH</u>	<u>5.9-9.0</u>	<u>5.7-9.0</u>	<u>6.2-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>5.9-9.0</u>
<u>Al(T)</u>	<u>3100</u>	<u>3550</u>	<u>2800</u>	<u>2020</u>	<u>1010</u>	<u>740</u>	<u>700</u>	<u>1360</u>	<u>1490</u>	<u>1610</u>	<u>2280</u>	<u>2570</u>
<u>Fe(T)</u>	<u>3473</u>	<u>2961</u>	<u>3776</u>	<u>3404</u>	<u>2015</u>	<u>1220</u>	<u>1286</u>	<u>1830</u>	<u>1623</u>	<u>2258</u>	<u>2631</u>	<u>3511</u>

<u>Zn</u>	<u>460</u>	<u>520</u>	<u>620</u>	<u>570</u>	<u>430</u>	<u>250</u>	<u>170</u>	<u>240</u>	<u>290</u>	<u>340</u>	<u>380</u>	<u>420</u>
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Segment 9 (COSJAF09):

	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG</u>	<u>SEPT</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>
<u>Acute Standards</u>												
<u>Al(T)</u>	<u>4680</u>	<u>4950</u>	<u>4560</u>	<u>3800</u>	<u>1390</u>	<u>1350</u>	<u>1290</u>	<u>2040</u>	<u>2570</u>	<u>2680</u>	<u>3450</u>	<u>4050</u>
<u>Chronic Standards</u>												
<u>pH</u>	<u>4.9-9.0</u>	<u>4.8-9.0</u>	<u>4.9-9.0</u>	<u>5.9-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.5-9.0</u>	<u>6.2-9.0</u>	<u>5.4-9.0</u>
<u>Al(T)</u>	<u>4680</u>	<u>4950</u>	<u>4560</u>	<u>3800</u>	<u>1390</u>	<u>1350</u>	<u>1290</u>	<u>2040</u>	<u>2570</u>	<u>2680</u>	<u>3450</u>	<u>4050</u>
<u>Cu</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>18</u>	<u>20</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>
<u>Fe(T)</u>	<u>3420</u>	<u>3800</u>	<u>4370</u>	<u>3370</u>	<u>3150</u>	<u>2210</u>	<u>2275</u>	<u>2280</u>	<u>3020</u>	<u>3580</u>	<u>3620</u>	<u>3490</u>
<u>Zn</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>230</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>	<u>TVS</u>

34.7 – 34.14 RESERVED

34.55 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JUNE 13-14, 2022 RULEMAKING; FINAL ACTION AUGUST 8, 2022; EFFECTIVE DATE SEPTEMBER 30, 2022

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 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:

San Juan segments 4 and 5 (COSJSJ04 and COSJSJ05): Portions of Fall Creek (from its source to the irrigation diversion just upstream from the confluence with Wolf Creek), Wolf Creek (from the boundary of the Weminuche Wilderness area to the confluence with Fall Creek), and Quartz Creek (from the boundary of the South San Juan Wilderness area to the boundary of the San Juan National Forest), including their tributaries and wetlands, were moved from Segment 5 to Segment 4. The move facilitated changing the antidegradation designation of these waterbodies from Reviewable to Outstanding Waters. As part of this change, Segment 5 was revised to exclude listings in Segment 4.

Animas and Florida segments 1, 6, 12a, and 12c (COSJAF01, COSJAF06, COSJAF012a, and COSJAF12c): To facilitate changing the antidegradation designation from Reviewable to Outstanding Waters on several waterbodies previously included in segments 6 and 12a, multiple segment descriptions were modified, as discussed in more detail below.

Bear Creek and a portion of Boulder Creek (from its source to the downstream public land boundary), including their tributaries and wetlands, were moved from Segment 6 to Segment 12c. The move facilitated changing the antidegradation designation of these waterbodies from Reviewable to Outstanding Waters. As part of this change, Segment 6 was revised to exclude listings in Segment 12c.

The mainstem of Cascade Creek, including tributaries and wetlands, from its source to the Tacoma diversion was also moved to Segment 12c from Segment 12a to facilitate changing the antidegradation designation of this waterbody from Reviewable to Outstanding Waters. The description for Segment 12a already contains an exclusion for Segment 12c, so no changes to the description for Segment 12a were needed to accommodate this segmentation change.

Grasshopper Creek and Lime Creek, including their tributaries and wetlands, were moved from Segment 12a to Segment 1. The move facilitated changing the antidegradation designation of these waterbodies from Reviewable to Outstanding Waters. As part of this change, the description for Segment 12a was revised to exclude listings in Segment 1.

Animas Florida Segments 8a and 8b (COSJAF08a and COSJAF08b): Segment 8 was split into segments 8a and 8b to facilitate changes to the Aquatic Life use classification and standards for a portion of Mineral Creek. The original reaches in Segment 8 were retained in Segment 8a, with the exception of the portion of Mineral Creek from a point immediately below the confluence with

Mill Creek to a point immediately above the confluence with Middle Fork of Mineral Creek, which was moved to new Segment 8b. As part of this change, exceptions for Segments 8a and 8b were also added to the segment description of Segment 6.

Dolores segments 1, 2, 5a, 5b, 6, and 7 (COSJDO01, COSJDO02, COSJDO05a, COSJDO06, and COSJDO07): To facilitate changing the antidegradation designation from Reviewable to Outstanding Waters on several waterbodies previously included in segments 2, 5a, 6, and 7, multiple segment descriptions were modified, as discussed in more detail below.

A portion of the mainstem of the Dolores River, including tributaries and wetlands, from its source to below the confluence with Snow Spur Creek, was moved from Segment 2 to Segment 5b. Inclusion of "Mainstem of the Dolores River, including tributaries and wetlands, from the source to a point immediately below the confluence with Snow Spur Creek, except for the listings in Segment 1" in Segment 5b also facilitates the move of Snow Spur Creek from Segment 5a to Segment 5b. These changes were made to facilitate changing the antidegradation designation of these waterbodies from Reviewable to Outstanding Waters.

Portions of Bear, Priest, Wildcat, and Stoner Creek, including tributaries and wetlands, from their sources to the downstream San Juan National Forest boundary, were also moved from Segment 5a to Segment 5b to facilitate changing the antidegradation designation of these waterbodies from Reviewable to Outstanding Waters. The description for Segment 5a already contains an exclusion for Segment 5b, so no changes to the description for Segment 5a were needed to accommodate this segmentation change.

Portions of Slate Creek and Coal Creek, including tributaries and wetlands, from the boundary of the Lizard Head Wilderness Area to their confluences with the Dolores River, were moved from Segments 6 and 7, respectively, to Segment 1 to facilitate changing the antidegradation designation of these waterbodies from Reviewable to Outstanding Waters. This move resulted in the deletion of Segment 7, which previously contained only the portion of Coal Creek that was moved to Segment 1.

B. Temporary Modifications

Pursuant to the requirements in the Basic Standards (at 31.7(3)), all existing temporary modifications were examined to determine whether they should be deleted, modified, extended, or left unchanged.

1. Temporary Modifications for Standards Other than Arsenic

The commission allowed to expire on 12/31/2022 temporary modifications on the following segments:

Animas and Florida River: 3b (COSJAF03b; acute and chronic copper), 4a (COSJAF04a; acute and chronic copper)

The Town of Silverton expects to be able to complete repairs to its collections system and minor treatment facility improvements in 2022 and 2023, which the town anticipates will allow it to come into compliance with its copper WQBELs. This will also resolve the uncertainty pertaining to the extent to which the town's effluent contributions to the ambient copper concentrations are reversible. Therefore, these temporary modifications are no longer justified.

2. Temporary Modifications for Arsenic

To remain consistent with the commission's decisions regarding arsenic in section 35.47, all existing temporary modifications for arsenic of "As(ch)=hybrid" (expiration date of 12/31/24), with the exception of those listed below, were retained.

The division submitted a plan to resolve uncertainty in the 2019 Temporary Modifications rulemaking. The division plans to propose revised standards for arsenic as soon as possible following updated toxicological information from EPA's Integrated Risk Information System (IRIS) and completion of ongoing studies to better understand arsenic conditions in Colorado. Furthermore, per the conditions of the revised and extended temporary modification at 35.6(2)(c) (effective 6/30/2020 and expires 12/31/2024), and based on the widespread need to make progress to understand sources of arsenic and set forth processes for lowering arsenic in discharges, additional permit Terms and Conditions (T&Cs) are being implemented for facilities benefitting from the "current condition" temporary modification. These T&Cs may include requirements for additional monitoring, source identification, and characterization of source control and treatment options for reducing arsenic concentrations in effluent. The commission recognizes the need to resolve the uncertainty in the arsenic standards and ensure that human health is adequately protected.

Where evidence indicated the requirements to qualify for a temporary modification were not met, temporary modifications were deleted. The commission deleted chronic arsenic temporary modifications (expiring 12/31/2024) on several segments due to a lack of evidence of a demonstrated or predicted water quality-based effluent limit compliance problem for these segments. These segments have all been designated as Outstanding Waters, have no CDPS permitted dischargers with WQBELs for arsenic, and are headwaters (i.e., no dischargers on upstream segments, who may receive WQBELs based on protection of downstream uses). Temporary modifications for arsenic were deleted from the following segments:

San Juan River: 4 (COSJSJ04)
Piedra River: 1 (COSJPI01)
Los Pinos River: 1 (COSJPN01)
Dolores River: 1 and 5b (COSJDO01 and COSJDO05b)

C. Site-specific Standards

Site-specific criteria-based standards are adopted where alternate criteria are shown to be protective of the classified uses. Site-specific ambient-based standards are adopted where natural or irreversible human-induced conditions result in pollutant concentrations that exceed table value standards. Feasibility-based ambient standards are adopted where water quality can be improved, but not to the level required by the current numeric standard. Information is currently being gathered to better understand the basis of all existing site-specific standards and determine what information is needed to review each standard in future basin reviews. The commission made no revisions to any site-specific standards at this time.

D. Discharger-specific Variances

The commission reviewed the basis, available information, and progress toward achieving the alternative effluent limits (AELs) and implementing Pollutant Minimization Programs (PMPs) for the three discharger-specific variances (DSVs) in Regulation No. 34.

Animas and Florida River Segment13c (COSJAF13c): There is currently a DSV for acute and chronic ammonia, which applies to Durango West Metro District #2 (expires 12/31/2024). The original PMP for Durango West was included in the division's Exhibit 4 (Table 7) in the August 2014 Regulation No. 34 DSV rulemaking hearing. The commission revised the PMP and the amended PMP is included in the division's Prehearing Statement (page 7).

La Plata River Segment 7a (COSJLP07a): There is currently a DSV for acute and chronic ammonia, which applies to Vista Verde Village, LLC (expires 6/30/2031). The PMP for Vista Verde Village was included in the division's Rebuttal Exhibit A-7 in the December 2020 Regulation No. 34 DSV rulemaking hearing.

La Plata River Segment 10 (COSJLP10): There is currently a DSV for acute and chronic ammonia, which applies to the Town of Dove Creek (expires 6/30/2025). The PMP for the Town of Dove Creek was included in the division's Rebuttal Exhibit B-7 in the December 2020 Regulation No. 34 DSV rulemaking hearing.

The commission determined that these dischargers continue to make progress on the plans set forth in their PMPs as part of their DSVs and that the adopted AELs continue to represent the highest attainable water quality that is feasible for these dischargers to achieve. Therefore, the commission determined that the DSVs are still appropriate and do not require revision at this time. The commission expects that the dischargers will submit annual reports to the division describing the progress made on PMP implementation until the end of the DSVs.

The commission added details to Section 34.6(4) for the Durango West DSV, including notation of the interim (25 mg/L [starting 1/1/2017]) and final (15 mg/L [starting 1/1/2019]) ammonia (acute/chronic) AELs, as well as the adoption and expiration dates of the DSV.

The commission adopted non-substantive revisions to the format of these DSVs in Section 34.6(4) and the Appendix 34-1 tables to provide clarity and consistency. General DSV implementation information previously noted for the Durango West DSV was removed because it was not unique to that particular DSV and general implementation guidance for DSVs can be found in Regulation No. 31 at 31.7(4). In addition, the acronym "AEL" was defined at 34.6(2)(a).

E. Aquatic Life Use Classifications and Standards

Animas Florida Segment 8b (COSJAF08b): Based on evidence provided by the Bonita Peak Community Advisory Group (CAG), an Aquatic Life Cold 1 use classification and standards were added to new Segment 8b (COSJAF08b). Over the last twenty-five years, remediation of historical mine sites in the upper reaches of Mineral Creek has substantially improved water quality in the drainage to such a degree that a portion of Mineral Creek (new Segment 8b) now supports aquatic life, including brook trout and macroinvertebrate communities that are better than the Multi-Metric Index attainment thresholds presented in WQCC Policy 10-1. As such, new Segment 8b is capable of supporting a wide variety of biota, including sensitive species.

Based on water quality and biological data and information presented in this hearing (CAG Prehearing Statement Exhibits D, E, and G1-G4 and Rebuttal Exhibits S, T, U, and V), the commission resegmented Segment 8 into 8a (COSJAF08a) and 8b (COSJAF08b). New Segment 8b contains the portion of Mineral Creek from below Mill Creek to above the Middle Fork of Mineral Creek. The rest of the segment was retained in Segment 8a, for which the use classifications and water quality standards remain unchanged from the parent Segment 8.

For Segment 8b, the commission adopted an Aquatic Life Cold 1 use per 31.13(1)(c), and in accordance with 31.7(1)(b), table value water quality standards to protect the Aquatic Life use. Thallium standards to protect the Fish Ingestion and Aquatic Life uses, which are adopted on a site-specific basis, were also adopted on Segment 8b due to the documented presence of this Clean Water Act Section 307 priority pollutant in the segment. The commission declined to adopt aluminum standards to protect aquatic life on Segment 8b at this time. As discussed at 34.55(G), EPA released updated 304(a) Aquatic Life criteria for aluminum in 2018, but has not released finalized implementation guidance. Studies are currently underway 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.

The commission acknowledges that the table value standards for chronic and acute copper, chronic lead, chronic cadmium, and chronic and acute zinc are not currently attained during spring runoff (April-June), and that the chronic and acute zinc table value standards may not be attainable throughout the year. The commission also acknowledges that information suggests that some portion of the concentrations for these parameters may be natural or infeasible to clean up to the level of table value standards. However, at this time, the comprehensive analysis and review required at 31.7(1)(b)(ii) to develop ambient quality-

based site-specific standards is not available. Therefore, the commission adopted table value standards to protect the Aquatic Life Cold 1 use classification and the highest attainable use, as per 31.6, 31.7(1)(b), and 31.13(1)(c).

There are no practical implications of the new table value standards for permitted facilities, because no permitted discharges exist within or upstream of Segment 8b. Though the segment would be subject to review for 303d listing, when developing future priorities for development of total maximum daily loads (TMDLs), the division will consider 1) the significant water quality improvement achieved to date and the completed restoration work in this watershed and 2) progress toward the development of site-specific standards, to ensure that division and stakeholder resources are expended appropriately. Finally, this action is not expected to restrict options for future Superfund remedial actions, based on the flexibilities afforded at 31.11(5) and under CERCLA (e.g., CERCLA Section 121(d)(4)) to consider site-specific conditions, as appropriate. It is the commission's understanding that interested parties and stakeholders, including EPA Superfund staff, the Colorado Hazardous Materials and Waste Management Division, and the CAG, will continue to evaluate the appropriateness and necessity of developing site-specific standards for this segment. If sufficient information becomes available to support feasibility-based ambient standards or site-specific criteria-based standards (per 31.7(1)(b)(ii) or 31.7(1)(b)(iii), respectively), adoption of site-specific standards for this segment may be considered by the commission.

It is not the commission's intention for the table value standards to drive cleanup measures of sources of water for the ecologically-rare Chattanooga iron fens alongside of Segment 8b (CAG Prehearing Statement Exhibit P), without consideration of how cleanup may affect the fens. One of those sources is discharge from an abandoned mine, commonly known as the Ferrocrete Mine (37.86810827, -107.7266958), that is not a major source of copper, lead, cadmium, and zinc to the segment. This mine has not been designated as part of Bonita Peak Mining District Superfund Site.

F. Standards to Protect the Aquatic Life, Recreation, Water Supply, and Agriculture Uses

The commission reviewed the standards applied to each segment to determine if the standards are consistent with the uses. Some segments assigned an Aquatic Life, Recreation, Water Supply, and/or Agriculture use classification were missing one or more standards to protect that use. The commission adopted the missing standards for the following segments:

Piedra River 6a (COSJPI06a): chronic iron and manganese standards to protect the Water Supply Use, which were inadvertently deleted in 2017, were adopted back onto this segment.
Los Pinos River 7a (COSJPN07a): chronic arsenic standard of 7.6 µg/L was changed to 0.02-10 µg/L to protect the Water Supply Use adopted on this segment in 2017.

G. Other Standards to Protect Aquatic Life and Recreation Uses

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.

EPA has also released updated criteria or guidance for several other parameters, including copper (Aquatic Life), *E. coli* (Recreation), cyanotoxins (Recreation), and the human health risk exposure assumptions. However, the division does not recommend adopting EPA's recommendations for these parameters at this time, as these items are not included on the division's 10-year water quality roadmap.

H. Antidegradation Designations: Outstanding Waters

The commission designated several segments or waterbodies as Outstanding Waters based on evidence provided by the Southwest Colorado Outstanding Waters Coalition (SCOWC) that satisfied the criteria for Outstanding Waters designation set forth in Section 31.8(2)(a). The SCOWC is a diverse coalition

comprising American Rivers, American Whitewater, Conservation Colorado, High Country Conservation Advocates, San Juan Citizens Alliance, The Pew Charitable Trusts, Trout Unlimited/Colorado Trout Unlimited/Dolores River Anglers, and Western Resource Advocates, which have a common goal of safeguarding clean water in Colorado.

Specifically, evidence demonstrated the following conditions were met: 1. existing water quality for the 12 parameters specified at 31.8(2)(a)(i) is equal to or better than necessary to protect uses; 2. the waterbody is considered an outstanding natural resource (i.e. State Gold Medal Trout Fishery, a National Park, National Monument, National Wildlife Refuge, or a designated Wilderness Area, or is part of a designated wild river under the Federal Wild and Scenic Rivers Act, or has exceptional recreational or ecological significance and has not been substantially impacted by human activities) (31.8(2)(a)(ii)); and, 3. the waterbody needs protection in addition to the protections provided by uses, standards, and a Reviewable designation (31.8(2)(a)(iii)).

To further support the proposal, the SCOWC and stakeholders also provided information that demonstrates these waterbodies have important short- and long-term recreational and ecological value for the local communities. In addition, through the widespread outreach effort to interested and/or potentially impacted stakeholders conducted by the SCOWC, the commission determined that stakeholders supported the Outstanding Waters designations or, at a minimum, did not oppose the Outstanding Waters designations.

The Reviewable designation was upgraded to Outstanding Waters on the following segments or waterbodies:

- Fall Creek, including its tributaries and wetlands, from its source to the irrigation diversion just upstream from the confluence with Wolf Creek
- Wolf Creek, including its tributaries and wetlands, from the boundary of the Weminuche Wilderness to the confluence with Fall Creek
- Quartz Creek, including its tributaries and wetlands, from the boundary of the South San Juan Wilderness to the boundary of the San Juan National Forest
- Bear Creek (Animas), including its tributaries and wetlands
- Boulder Creek, including its tributaries and wetlands, from its source to the downstream public land boundary
- Cascade Creek, including its tributaries and wetlands, from its source to the Tacoma diversion
- Grasshopper Creek, including its tributaries and wetlands
- Lime Creek, including its tributaries and wetlands
- Dolores River, including its tributaries and wetlands, from its source to below Snow Spur Creek
- Snow Spur Creek, including its tributaries and wetlands
- Bear Creek (Dolores), including tributaries and wetlands, from its source to the downstream San Juan National Forest boundary
- Priest Creek, including tributaries and wetlands, from its source to the downstream San Juan National Forest boundary
- Wildcat Creek, including tributaries and wetlands, from its source to the downstream San Juan National Forest boundary
- Stoner Creek, including tributaries and wetlands, from its source to the downstream San Juan National Forest boundary
- Slate Creek, including tributaries and wetlands, below the Lizard Head Wilderness to the Dolores River
- Coal Creek, including tributaries and wetlands, below the Lizard Head Wilderness Area to the Dolores River

To meet the first requirement at 31.8(2)(a)(i), the SCOWC provided data (SCOWC Rebuttal Appendix 6) demonstrating that water quality in all of these waterbodies is equal to or better than the standards necessary to protect the uses for the 12 parameters specified at 31.8(2)(a)(i).

To meet the second requirement at 31.8(2)(a)(ii), the SCOWC provided evidence that each of these waterbodies is considered an outstanding natural resource. Where waterbodies were determined to be outstanding natural resources because they have exceptional recreational or ecological significance, per 31.8(2)(a)(ii)(B), the waters were shown to not be substantially impacted by human activities.

Several types of evidence were used to demonstrate that a waterbody is an outstanding natural resource because it has exceptional ecological significance, including information about fish populations, aquatic-dependent wildlife, the macroinvertebrate community, and/or the aquatic-dependent plant community.

- Fish: In addition to the evidence provided by the SCOWC, the commission relied on the expertise of Colorado Parks and Wildlife (CPW) staff for determining which waterbodies had fish populations with exceptional ecological significance. In general, CPW found a fish population to be exceptional if it supported a conservation population of cutthroat trout. Cutthroat trout are the only native trout to Colorado and conservation populations of this species are critical to reestablishing pure cutthroat populations in the state. Conservation populations of cutthroat trout are: 1. genetically unaltered and 2. not likely to be extirpated by collocated populations of brook, rainbow, and/or brown trout.
- Aquatic-dependent wildlife: Waterbodies supporting federally- or state-listed threatened or endangered species, such boreal toads, were found to have exceptional ecological significance.
- Macroinvertebrates: Waterbodies supporting benthic macroinvertebrate communities that were "high-scoring" per WQCC Policy 10-1 were found to have exceptional ecological significance.
- Aquatic-dependent plants: Waterbodies that support aquatic-dependent/riparian plant communities identified as "high", "very high", or "extremely high" biodiversity by the Colorado Natural Heritage Program were found to have exceptional ecological significance.

Additionally, as discussed below, some waterbodies supported some combination of exceptional fish, macroinvertebrates, and plants and/or exhibited exceptional recreational significance. The evidence used to meet the requirement at 31.8(2)(a)(ii) for each waterbody is summarized below.

San Juan Segment 4 (COSJSJ04): The SCOWC demonstrated that Fall Creek and Wolf Creek have exceptional ecological value because they support San Juan lineage cutthroat trout and high-scoring benthic macroinvertebrate communities.

The SCOWC demonstrated that Quartz Creek, whose headwaters originate in the South San Juan Wilderness Area, is ecologically exceptional because it supports high-scoring benthic macroinvertebrate communities and riparian plant species that are considered to be of "High Biodiversity Significance", based on the Colorado Natural Heritage Program (CNHP) Potential Conservation Area (PCA) report for Quartz Creek. Quartz Creek is also recreationally important because it is a priority for the San Juan National Forest's fisheries management program, providing unmatched cutthroat trout fishing (mixed lineage) in a pristine backcountry setting.

Animas and Florida segments 1 and 12c (COSJAF01 and COSJAF12c): The SCOWC demonstrated that Bear Creek (Animas) and Grasshopper Creek have exceptional ecological value because they support populations of Blue lineage (Colorado River) cutthroat trout. In addition, the Grasshopper Creek headwaters originate in the Weminuche Wilderness Area. While not directly relevant for an Outstanding Waters designation, Bear Creek and Boulder Creek, discussed below, are also some of the primary drinking water sources for the Town of Silverton.

The SCOWC demonstrated that Boulder Creek and upper Cascade Creek have exceptional ecological value because they support high-scoring benthic macroinvertebrate communities. Upper Cascade Creek provides important habitat for aquatic-dependent bird species, such as the

American Dipper, and nesting sites have become priority study areas for the Durango-based American Dipper Project.

The SCOWC demonstrated that Lime Creek has exceptional ecological value because it supports riparian plant species that are considered to be of “High Biodiversity Significance”, based on the Colorado Natural Heritage Program (CNHP) Potential Conservation Area (PCA) report for Lime Creek. In addition, Lime Creek flows along the western boundary of the Weminuche Wilderness Area.

Dolores segments 1 and 5b (COSJDO01 and COSJDO05b): The SCOWC demonstrated that a portion of the mainstem of the Dolores River (from its source to below the confluence with Snow Spur Creek) and Snow Spur Creek have exceptional ecological value because they support riparian and wetland plant species that are considered to be of “High Biodiversity Significance”, based on the Colorado Natural Heritage Program (CNHP) Potential Conservation Area (PCA) report for Dolores River at Snow Spur.

The SCOWC demonstrated that Bear Creek (Dolores) has exceptional ecological value because it supports riparian plant species that are considered to be of “Very High Biodiversity Significance”, based on the Colorado Natural Heritage Program (CNHP) Potential Conservation Area (PCA) report for Dolores River at Negro Draw, which is located at the confluence of Bear Creek and the Dolores River.

The SCOWC demonstrated that Priest, Wildcat, and Slate Creek have exceptional ecological value because they support populations of Green lineage (Colorado River) cutthroat trout. In addition, the Slate Creek headwaters originate in the Lizard Head Wilderness Area.

The SCOWC demonstrated that Stoner Creek has exceptional ecological value because it supports a population cutthroat trout like to be Green lineage (Colorado River) cutthroat trout.

The SCOWC demonstrated that Coal Creek has exceptional ecological value because it supports a population of Blue lineage (Colorado River) cutthroat trout. In addition, the Coal Creek headwaters originate in the Lizard Head Wilderness Area.

For all of these waterbodies, the SCOWC demonstrated that additional protection is needed due to preserve critical aquatic habitat, support downstream resiliency and ecosystem services, and provide recreational value. Potential threats to these waterbodies include climate change, drought, wildfire, and anthropogenic impacts from development and recreation.

The commission understands that there are existing land uses, including grazing permits, in place in many of these watersheds. The evidence demonstrates that these existing land uses are compatible with the Outstanding Waters designation, because the current high level of water quality has been attained with these uses in place. It is the commission's intent that these Outstanding Waters designations should not be the basis upon which federal, state or local agencies place more onerous or costly conditions upon permits or approvals existing at the time of the designation, or upon any renewals thereof.

I. Clarifications and Correction of Segmentation, Typographical, and Other Errors

The following edits were made to the regulation and Appendix 34-1 to improve clarity and correct typographical errors:

1. The commission updated the text at 34.5(4) to reflect that, in 2018, EPA granted the Southern Ute Indian tribe's applications for treatment as a state with respect to adoption of water quality standards.
2. The qualified discharger table at 34.5(5) was updated to accurately reflect the segment location of Vallecito Resort, Forest Groves Estates WWTP, Upper Valley Sanitation District, Dove Creek and

WWTF. In addition, the table was re-ordered by segment number (rather than alphabetically by discharger).

3. The commission added the adoption date (8/11/2014) of the Durango West Metropolitan District DSV (COSJAF13c) to 34.6(4).

4. The commission corrected the description of the temperature assessment location for COSJPI04a, Devil Creek at 34.6(6) to: Devil Creek at Highway 160: 37.211038, -107.297370.

5. Information regarding site-specific standards previously adopted for Animas River segments 3a, 4a, and 9 was moved from Appendix 34-1 to 34.6(6) and edited for clarity. It was clarified in the tables at 34.6(6) and in the Appendix 34-1 tables that the site-specific standards for iron pertain to the total recoverable (not dissolved) fraction.

6. To be consistent with other segment descriptions, wetlands were added to the descriptions of the following segments:

San Juan River: 5, 6b, 10, 11b, 11c

Piedra River: 3, 4a, 5a, 5b, 6c, 6d

Los Pinos River: 2c, 2d, 4, 5, 7a, 7b

Animas and Florida River: 6, 11c, 12a, 12c, 12d, 13a, 13b, 13c, 13d, 13e, 13f, 14a, 14b, 15

La Plata River: 3d, 3e, 4c, 5, 6a, 6b, 6c, 9

Dolores River: 5b, 6, 8, 9, 10a, 10b, 11a, 11c

7. The commission adopted the missing statement of “Southern Ute Indian Reservation” to the Appendix 34-1 table for COSJPN07a, to indicate that this segment is located within the Southern Ute Indian tribe’s reservation boundaries.

8. The segment descriptions in Appendix 34-1 were reviewed, and minor revisions were made to correct segment exclusions in the following segments:

a. The missing exclusion of listings in COSJPI04a was added to the description of COSJPI05b.

b. The exclusion of COSJPN02b (a mainstem portion of the Pinos River) was deleted from the all tributaries to the Pinos segment COSJPN07a.

c. The description of COSJAF06 was modified from “Mainstem of the Animas River from the source to the outlet of Denver Lake” to “All tributaries and wetlands to the Animas River from the source to the outlet of Denver Lake” because there is no mainstem above Denver Lake.

d. The description of the new segment COSJAF08a (parent segment COSJAF08) was modified for clarity and to align with typical segment description format.

e. The exclusion of COSJAF12b (Lemon Reservoir) was deleted from the streams segment COSJAF12a.

f. The missing exclusion of COSJAF22 (Electra Lake) was added to the description of COSJAF21. COSJAF21 was also corrected to clarify that the listings in Segment 12b are excluded from the lakes and reservoirs in Segment 21, which are tributary to the Florida River, not the Animas River.

g. The description of COSLP08 was corrected to update some of the exclusions to match updated segmentation (added 9 and deleted exclusions for 7b and 11).

h. The description of COSLP10 was corrected to update some of the exclusions to match updated segmentation (changed 8c to 9 and deleted exclusions for 10b and 11).

i. The missing exclusion of listings in COSJLP11 was added to the description of COSJLP19.

9. The aluminum standards for COSJAF04a, 5a, 5b, 5c, 5d, and 9 were clarified to show they are total recoverable “Aluminum(T)”. Aluminum standards for COSJAF05a, b, c, and d = TVS, which

is based on total recoverable "Aluminum(T)". Aluminum standards for COSJAF04a and 9 are site-specific aluminum standards. Per 34.29, these standards are also based on the total recoverable fraction.

"The aluminum standards for segments 3a, 4a and 9 have been specified as "total recoverable", since that sampling fraction correlates better with the principal aquatic life toxicity studies available than the dissolved fraction."

10. The dates for when the Recreation E Use applies to COSJPI07 were corrected to be consistent with the associated E. coli standards in the Appendix 34-1 tables.
11. The dates for when the CLL MWAT temperature standards for COSJDO04b apply were corrected.
12. The commission changed the depiction of the chronic manganese standards on Segments COSJDO10a and 10b from varies*, with * = WS, TVS and 50 ug/L to TVS/WS. TVS/WS is the standardized depiction in the Appendix tables for segments with Water Supply and Aquatic Life uses to account for the stipulations at 31.11(6) for protection of the Water Supply Use and protection of the Aquatic Life use via application of the TVS equations.
13. Other minor edits were made to improve clarity and consistency.