COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

WATER QUALITY CONTROL COMMISSION

5 CCR 1002-34

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

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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. (See Regulation No. 31 section 31.14). It is intended that these and all other stream classifications and numeric standards be used in conjunction with and be an integral part of Regulation No. 31 Basic Standards and Methodologies for Surface Water.

34.3 INTRODUCTION

These regulations and tables present the classifications and numeric standards assigned to stream segments listed in the attached tables (See section 34.6(4)). As additional stream segments are classified and numeric standards for designated parameters are assigned for this drainage system, they will be added to or replace the numeric standards in the tables in section 34.6(4). Any additions or revisions of classifications or numeric standards can be accomplished only after public hearing by the Commission and proper consideration of evidence and testimony as specified by the statute and the "basic regulations".

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 and metal standards found at 31.16 Table III. The column in the tables headed "Water + Fish" are presumptively applied to all aquatic life class 1 streams which also have a water supply classification, and are applied to aquatic life class 2 streams which also have a water supply classification, on a case-by-case basis as shown in the Tables 34.6(4). The column in the tables at 31.11 and 31.16 Table III headed "Fish Ingestion" is presumptively applied to all aquatic life class 1 streams which do not have a water supply classification, and are applied to aquatic life class 2 streams which do not have a water supply classification, on a case-by-case basis as shown in Tables 34.6(4).

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

(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 Ute Mountain Ute Indian tribe's application 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 Tables 34.6(4).

34.6 TABLES

(1) Introduction

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

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

(2) Abbreviations:

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

ac	=	acute (1-day)
Ag	=	silver
Al	=	aluminum
As	=	arsenic
B	=	boron
Ba	=	barium
Be	=	beryllium
Cd	=	cadmium
^{o}C	=	degrees Celsius
ch	=	chronic (30-day)
Cl	=	chloride
CL	=	cold lake temperature tier
CLL	=	cold large lake temperature tier
Cl2	=	residual chlorine
CN	=	free cyanide
CrIII	=	trivalent chromium
CrVI	=	hexavalent chromium
CS-I	=	cold stream temperature tier one
CS-II	=	cold stream temperature tier two
Cu	=	copper
dis	=	dissolved
D.O.	=	dissolved oxygen
DM	=	daily maximum temperature
E.coli	=	escherichia coli
F	=	fluoride
Fe	=	iron
Hg	=	mercury
mg/l	=	milligrams per liter
ml	=	milliliters
Mn	=	manganese
Mo	=	molybdenum
MWAT	=	maximum weekly average temperature
NH_3	=	ammonia as N(nitrogen)
Ni	=	nickel
NO_2	=	nitrite as N (nitrogen)
NO_3	=	nitrate as N (nitrogen)
OW	=	outstanding waters
P	=	phosphorus
Pb	=	lead
S	=	sulfide as undissociated H2S (hydrogen sulfide)
Sb	=	antimony
Se	=	selenium
SO_4	=	sulfate

sp	=	spawning
T	=	temperature
Tl	=	thallium
tr	=	trout
Trec	=	total recoverable
TVS	=	table value standard
U	=	uranium
µg/l	=	micrograms per liter
UP	=	use-protected
WAT	=	weekly average temperature
WS	=	water supply
WS-II	=	warm stream temperature tier two
WS-III	=	warm stream temperature tier three
WL	=	warm lake temperature tier
Zn	=	zinc

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

Fe(ch)	=	WS(dis)
Mn(ch)	=	WS(dis)
SO_4	=	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	=	50µg/l (dissolved)
SO_4	=	250 mg/l

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

(c) As used in the Temporary Modifications and Qualifiers column of the tables in 34.6(4), the term "type A" refers to a Temporary Modification adopted pursuant to subsection 31.7(3)(a)(ii)(A) of the Basin Standards and Methodologies for Surface Water (i.e., "there is significant uncertainty regarding the water quality standard necessary to protect current and/or future use"). As used in the Temporary Modifications and Qualifiers column of the tables in 34.6(4), the term "type B" refers to a Temporary Modification adopted pursuant to subsection 31.7(3)(a)(ii)(B) of the Basin Standards and Methodologies for Surface Water (i.e., "there is significant uncertainty regarding the extent to which existing quality is the result of natural or irreversible human-induced conditions"). As used in the Temporary Modifications and Qualifiers column of the tables in 34.6(4), the term "type C" refers to a Temporary Modification adopted pursuant to subsection 31.7(3)(a)(ii)(C) of the Basin Standards and Methodologies for Surface Water (i.e., "there is significant uncertainty regarding the timing of implementing attainable source controls or treatment").

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

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

(ii) For discharges existing on or before 6/1/2013, the temporary modification is: As(ch)=current condition, expiring on 12/31/2021.

(iii) For new or increased discharges commencing on or after 6/1/2013, the temporary modification is: As(ch)=0.02-3.0 µg/l (Trec), expiring on 12/31/2021.

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

TABLE VALUE STANDARDS

(Concentrations in ug/l unless noted)

PARAMETER[1]	TABLE VALUE STANDARDS[2][3]
Aluminum (Trec)	Acute = $e^{(1.3695[\ln(hardness)]+1.8308)}$ pH equal to or greater than 7.0 Chronic=$e^{(1.3695[\ln(hardness)]-0.1158)}$ pH less than 7.0 Chronic= $e^{(1.3695[\ln(hardness)]-0.1158)}$ or 87, whichever is less

Ammonia[4]	Cold Water = (mg/l as N)Total $acute = \frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}}$ $chronic = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * MIN\left(2.85, 1.45 * 10^{0.028(25-T)}\right)$ Warm Water = (mg/l as N)Total $acute = \frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}$ $chronic\ (Apr1-Aug31) = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * MIN\left(2.85, 1.45 * 10^{0.028(25-T)}\right)$ $chronic\ (Sep1-Mar31) = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * 1.45 * 10^{0.028*(25-MAX(T,\ 7))}$
NH_3 = old TVS	Cold Water Acute = 0.43/FT/FPH/2[4 old] in mg/l (N) Warm Water Acute = 0.62/FT/FPH/2[4 old] in mg/ (N)
Cadmium	Acute = (1.136672-[ln(hardness)x(0.041838)])x$e^{0.9151[\ln(hardness)]-3.1485}$ Acute(Trout) = (1.136672-[ln(hardness)x(0.041838)])x$e^{0.9151[\ln(hardness)]-3.6236}$ Chronic = (1.101672-[ln(hardness)x(0.041838)]$e^{0.7998[\ln(hardness)]-4.4451}$
Chromium III[5]	Acute = $e^{(0.819[\ln(hardness)]+2.5736)}$ Chronic= $e^{(0.819[\ln(hardness)]+0.5340)}$
Chromium VI[5]	Acute = 16 Chronic = 11
Copper	Acute = $e^{(0.9422[\ln(hardness)]-1.7408)}$ Chronic = $e^{(0.8545[\ln(hardness)]-1.7428)}$
Lead	Acute = (1.46203-[ln(hardness)*(0.145712)])*$e^{(1.273[\ln(hardness)]-1.46)}$ Chronic = (1.46203-[ln(hardness)*(0.145712)])*$e^{(1.273[\ln(hardness)]-4.705)}$
Manganese	Acute = $e^{(0.3331[\ln(hardness)]+6.4676)}$

	Chronic = $e^{(0.3331\ [\ln(hardness)]+5.8743)}$
Nickel	Acute = $e^{(0.846[\ln(hardness)]+2.253)}$ Chronic = $e^{(0.846[\ln(hardness)]+0.0554)}$
Selenium[6]	Acute = 18.4 Chronic = 4.6
Silver	Acute = ½$e^{(1.72[\ln(hardness)]-6.52)}$ Chronic = $e^{(1.72[\ln(hardness)]-9.06)}$ Chronic(Trout) = $e^{(1.72[\ln(hardness)]-10.51)}$

Temperature

TEMPERATURE TIER	TIER CODE	SPECIES EXPECTED TO BE PRESENT	APPLICABLE MONTHS	TEMPERATURE STANDARD (°C)	
				MWAT	DM
Cold Stream Tier 1	CS-I	brook trout, cutthroat trout	June – Sept.	17.0	21.7
			Oct. – May	9.0	13.0
Cold Stream Tier 2	CS-II	all other cold-water species	April – Oct.	18.3	23.9
			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	23.8
			Jan. – March	9.0	13.0
Warm Stream Tier 2	WS-II	brook stickleback, central stoneroller, creek chub, longnose dace, Northern redbelly dace, finescale dace, razorback sucker, white sucker	March – Nov.	27.5	28.6
			Dec. – Feb.	13.8	14.3
Warm Stream Tier 3	WS-III	all other warm-water species	March – Nov.	28.7	31.8
			Dec. – Feb.	14.3	15.9
Warm Lakes	WL	black crappie, bluegill, common carp, gizzard shad, golden shiner, largemouth bass, Northern pike, pumpkinseed, sauger, smallmouth bass, spottail shiner, striped bass, tiger muskellunge, walleye, wiper, white bass, white crappie, yellow perch	April – Dec.	26.3	29.5
			Jan. – March	13.2	14.8

Uranium	Acute = $e^{(1.1021[\ln(hardness)]+2.7088)}$ Chronic = $e^{(1.1021[\ln(hardness)]+2.2382)}$
Zinc	Acute = $0.978 * e^{(0.9094[\ln(hardness)]+0.9095)}$ Chronic = $0.986 * e^{(0.9094[\ln(hardness)]+0.6235)}$ if hardness less than 102 mg/l $CaCO_3$ Chronic (sculpin) = $e^{(2.140[\ln(hardness)]-5.084)}$

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

Where TCAP is $\leq T \leq 30$

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

Where 0 is $\leq T \leq TCAP$

TCAP = 20° C cold water aquatic life species present

TCAP = 25° C cold water aquatic life species absent

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

$FPH = \frac{1 + 10^{(7.4-pH)}}{1.25}$; Where $6.5 \leq pH \leq 8$

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

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

T means temperature measured in degrees celsius.

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

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

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

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

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

[INSERT TABLES]

34.7 – 34.14 RESERVED

34.15 STATEMENT OF BASIS AND PURPOSE

I. Introduction

These stream classifications and water quality standards for State Waters of the San Juan River Basin including all tributaries and standing bodies of water and the Dolores River Basin including all tributaries and standing bodies of water south of the northern Dolores County line in all or parts of Archuleta, Conejos, Dolores, Hinsdale, La Plata, Mineral, Montezuma, Rio Grande and San Juan Counties implement requirements of the Colorado Water Quality Control Act C.R.S. 1973, 25-8-101 et seq. (Cum. Supp. 1981). They also represent the implementation of the Commission's Regulations Establishing Basic Standards and an Antidegradation Standard and Establishing a System for Classifying State Waters, for Assigning Standards, and for Granting Temporary Modifications (the "Basic Regulations)

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

Public participation was a significant factor in the development of these regulations. A lengthy record was built through public hearings held on May 14, 1981. A total of 10 entities requested and were granted party status by the Commission in accordance with C.R.S. 1973, 24-4-101 et seq. (Cum. Supp. 1980). A supplementary public rulemaking hearing was held September 15, 1981, restricted to those issues raised by the changes in the Act contained in Senate Bill 10 (1981). Such issues included but were not limited to: "The economic reasonableness" evaluation required by 25-8-102(5), the effect on water rights as required by 25-8-104; and the new considerations for the adoption of water quality standards required by 25-8-204 C.R.S. 1973, as amended. The record established in these hearings forms the basis for the classifications and standards adopted.

II. General Considerations

1. These regulations are not adopted as control regulations. Stream classifications and water quality standards are specifically distinguished from control regulations in the Water Quality Control Act, and they need not be adopted as control regulations pursuant to the statutory scheme.

2. The Commission has been requested in public hearings to rule on the applicability of these and other regulations to the operation of water diversion facilities, dams, transport systems, and the consequent withdrawal, impoundment, non-release and release of water for the exercise of water rights. The Commission has determined that any such broad ruling is inappropriate in the context of the present regulations. The request does not raise specific questions as to proposed classifications and standards. However, the Commission has taken into account the fact that some issues are unresolved in adopting classifications and standards. On January 5, 1981, the Commission adopted a policy statement on quality/quantity issues that addresses a number of these concerns. Finally, the Commission has adopted these regulations in compliance with the

requirements of the Water Quality Control Act that have bearing on these issues (See e.g.) sections 102, 104, and 503(5).

III. Definition of Stream Segments

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

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

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

IV. Use Classifications - Generally

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

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

   One exception to the procedure just described is for whole body contact recreation (class 1). If an active domestic waste discharge was located on the segment in question, class 1 recreation was not recommended regardless of the ambient quality, unless there was information to show that the segment was actually used for swimming. This policy was established by the WQCC in order to avoid penalizing a discharger for protecting a use which is not in place and to limit possible harm to aquatic life due to chlorine residuals.

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

3. In all cases the basic regulation has been followed, in that an upstream use cannot threaten or degrade a downstream use. Accordingly, upstream segments of a stream are generally the same as, or higher in classification than, downstream segments. In a few cases, tributaries are classified at lower classifications than mainstems, where flow from tributaries does not threaten the quality of mainstem waters and where the evidence indicates that lower classification for the tributaries is appropriate.

4. There have been no "High Quality Class 1" designations assigned in this basin.

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

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

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

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

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

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

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

7. <u>Qualifiers - Seasonal and Intermittent</u>

   These qualifiers have been used to more fully describe characteristics of certain stream segments.

8. <u>Recreation - Class 1 and Class 2</u>

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

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

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

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

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

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

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

9. Water Supply Classification

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

V. Water Quality Standards - Generally

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

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

Numeric standards have been assigned for the full range of parameters to a number of segments where little or not data existed specific to the segment. In these cases, there was reason to believe that the classified uses were in place or could be reasonably expected, and that the ambient water quality was as good as or better than the numeric standards assigned.

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

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

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

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

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

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

6. In many cases, instream ambient water quality provides the basis for the water quality standards (See 7 below). In those cases where the classified uses presently exist or have a reasonable potential to exist despite the fact that instream data reflects ambient conditions of lower water quality than the table values, instream values have been used. In these cases, the evidence indicates that instream values are adequate to protect the uses. In those cases where temporary modifications are appropriate, instream values are generally reflected in the temporary modification and table values are reflected in the corresponding water quality standard. (Goals are established for the appropriate classification affected by the parameter).

   Cases in which water quality standards reflect these instream values usually involve the metal parameters. On many stream segments elevated levels of metals are present due to natural or unknown causes, as well as mine seepage from inactive or abandoned mines. These sources are difficult to identify and impractical or impossible to control. The classified aquatic life uses

may be impacted and/or may have adjusted to the conditions. In either case, the water quality standards are deemed sufficient to protect the uses that are present.

7. The Commission rejected the proposal to assign only "temporary" standards pending additional data collection to verify or modify values assigned. Concerned parties concurred that triennial review will lead to updating of standards as necessary. Furthermore, limited financial resources will be focused upon streams with permitted discharges.

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

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

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

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

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

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

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

11. The dissolved oxygen standard is intended to apply to the epilimnion and metalimnion strata of lakes and reservoirs. Respiration by aerobic micro-organisms as organic matter is consumed is

the primary cause of a natural decrease in dissolved oxygen and anaerobic conditions in the hypolimnion. Therefore, this stratum is exempt from the dissolved oxygen standard.

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

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

14. Hardness/Alkalinity

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

VI. Water Quality Standards for Unionized Ammonia

On some Class 2 Warm Water Aquatic Life streams containing similar aquatic life communities to those found in the plains streams of the South Platte & Arkansas Basins, .1 mg/l ammonia was selected as being appropriate to protect such aquatic life.

These streams generally contain both lesser numbers and types of species than those inhabiting class 1 streams due to physical habitat characteristics, flow or irreversible water quality characteristics. The Commission felt that the incremental expense to meet a 0.06 mg/l unionized ammonia standard for present or potential dischargers along these streams cannot be justified. Low flow, in these segments is often intermittent or highly impacted by diversions.

Specifically, the Commission has relaxed unionized ammonia standards to .1 mg/l or greater on such streams for the following reasons:

1. limited nature of the aquatic life present;

2. limited recreational value of species present;

3. habitat limitations, primarily flow and streambed characteristics, that impose significant limitations on the nature of aquatic life, even if ammonia reductions were attained;

4. rapid dissipation of ammonia in streams, reducing the impact of such discharges downstream; and

5. economic costs of ammonia removal, especially where such costs would fall primarily on publicly-owned treatment works, and while the availability of construction grant funds is questionable.

6. Biosurveys with support from a bioassay conducted on fathead minnows performed in the Cache la Poudre River, show that a .1 mg/l standard is appropriate to protect existing biota in the stream. The results of these studies may be reasonably extrapolated to similar plains streams; i.e., those streams that demonstrate similar chemical, physical, and biological characteristics.

   Not all warmwater streams are comparable in terms of flow habitat, and types and numbers of species of aquatic life. Therefore, some variations in an appropriate ammonia standard must be tolerated, with the objective of protecting existing aquatic life.

The Commission found this approach preferable to totally removing the aquatic life classification from impacted or marginal aquatic life streams.

VII. Water Quality Standards for Uranium

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

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

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

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

VIII. Water Quality Standards for Cyanide

The Commission acknowledges that total cyanide is to be used in State Discharge permits until a method is authorized by EPA for measuring free cyanide, even though free cyanide is the parameter of concern. While cyanide has received special treatment in cases discussed in the segment - by - segment section which follows, a free cyanide standard based on Table Values has been established for most segments.

IX. Linkage of classifications and Standards

The Commission holds that the classifications which it adopts and the standards it assigns to them are linked. Disapproval by EPA of the standards may require reexamination by the Commission of the appropriateness of its original classification.

The reason for the linkage is that the Commission recognizes that there is a wide variability in the types of aquatic life in Colorado streams which require different levels of protection. Therefore, the numbers were chosen in some cases on a site specific basis to protect the species existing in that segment. If any reclassification is deemed a downgrading, then it will be based upon the grounds that the original classification was in error.

X. Economic Reasonableness

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

XI. Classifications and Standards - Special Cases

1. Page 1, Segment 2 - San Juan River in Archuleta County (proposed as page 1, segment 2)

At issue was the recommendation contained in the Regional Water Quality Management "208" Plan that flow deficiencies and silt attributable to the San Juan - Chama diversion limited use of the segment to agriculture. Although both warm and cold water species, including trout, were

observed in the segment, the Commission found from the evidence that there was perennial flow sufficient to support the aquatic life use proposed.

In view of controversy in the testimony concerning flow, the Commission considered the recommendation in the "208 Plan, yet classified the aquatic life use as class 1, cold water because other testimony indicated that recorded stream flows were ample to support aquatic life.

2. Page 2, Segment 8

This segment was incorporated into segment 5 of page 1.

3. Page 2, Segment 10

The "208" Plan was relied on by the Commission and no other evidence on this segment was presented.

4. Page 3, Segment 3 - Piedra River

The Commission retained the cold water aquatic life class 1 classification after finding that although one small portion of the segment may be intermittent, due to diversion, it quickly remakes itself and the intermittent portion is very small compared with the total length of the segment. The Commission also notes that it's decision will have no impact on any discharger.

5. Page 4, Segment 2(a) and 2(b) Los Pinos River (proposed as page 4, segment 2)

The resegmentation recommended by the Division is consistent with segmentation described in the Regional (208) Plan.

6. Page 6, Segment 2 - Animas and Florida Rivers

This is a large segment, exhibiting many water quality variables throughout its length. Although there is some evidence of insect life at points in the segment, the evidence regarding the presence of aquatic life is contradictory, and there is no evidence of fish life being present. In the absence of sufficient data to support the classification of any portion of this segment for aquatic life, the current status is being retained and no aquatic life, the current status is being retained and no aquatic life use is assigned. The Commission expects further information to be developed through studies sponsored by the Standard Metals Corporation and the Division.

The Commission declined to assign an agricultural classification to the segment due to the absence in the record of any evidence of an agricultural use in the segment.

7. Page 6, Segment 6

Since Cement Creek and its tributaries are degraded by abandoned mine drainage and past discharges, the Commission did not assign aquatic and agricultural classifications to the segment as had been proposed. The segment does not currently have an aquatic life classifications, and thus the status quo is maintained. The Commission placed recreation in the class 2 category as the basic use and found no agricultural use to be in place.

8. Page 7, Segment 7

The Woodling Study indicates that Mineral Creek from its source to its confluence with South Mineral Creek is highly toxic due to mineralization and there is not a likelihood that the sources of that toxicity will be corrected in 20 years. However the Commission concluded that there was likely to be aquatic life in that portion of Mineral Creek from below South Fork to Silverton. By

changing the stream segment description such that it covers the mainstem of Mineral Creek including all tributaries from the source to a point immediately above the confluence with South Mineral Creek, the Commission was enabled to preserve the aquatic life classification on South Mineral Creek and the remaining portion of Mineral Creek into Silverton.

9. Page 8, Segment 12(a) and 12(b) (proposed as page 6, segment 12)

Lemon Reservoir was resegmented as 12(a) for the purposes of classifying it Recreation Class 1 in recognition of known use appropriate to that classification.

10. Page 8, Segment 13(a) and 13(b)

Segment 13 included Junction Creek. The Resegmentation was to separate Junction Creek as 13(a) so that different standards could be assigned to it to protect its sue as a water supply for a fish hatchery. The Commission felt that the testimony supported: (a) classification of the stream for cold water aquatic life class 2 because of poor habitat and low flow conditions; and (b) assignment of numeric standards to protect the fish hatchery. The Commission felt that the use was in place and that the assignment of these standards was economically reasonable. It does not appear that discharges from trailer parks into this segment adversely impact this use. There was insufficient evidence in the record for the Commission to conclude that there would be any economic impact on such dischargers.

11. Page 8, Segment 15

Testimony was received by the Commission from the Purgatory Water and Sanitation District that the water supply classification was not applicable below the reservoir. The Commission concurred and determined that there should be no more than a class 2 aquatic life classification for this segment because of its intermittent flow and poor habitat characteristics. It was recommended that recreation class 2, agriculture and water supply be designated for the protection of the reach above the reservoir. Despite opposition to the water supply classification by Purgatory Water and Sanitation District based upon the absence of such use below Duncan Reservoir, the Commission finds that the presence of this use at other locations justifies the classification. This should not impact the District because the numeric standards for protection of the use are less stringent than those for protection of aquatic life and should be met by the discharger without additional treatment facilities.

12. Page 11, Segment 3 - Dolores River in Dolores County

Even though the regional "208" Plan recommended that the segment be classified for a water supply use, the Commission received no testimony that there was such use in the segment. Because of high levels of manganese and the lack of evidence of in place water supply use, the Commission did not so classify the segment. Anaconda Corporation proposed numeric standards for silver and mercury. The Division recommended to the Commission that it not utilize the Anaconda proposals for those constituents because they were based on limited data, unusually high values, and questionable analytical techniques. It had not been documented that the levels of those constituents proposed by Anaconda had been routinely found in the stream. Due to this lack of certainty with respect to these metals values, the Commission did not choose to use the Anaconda data on mercury an silver.

34.16 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE:

The provisions of 25—8-202(1)(a)(b) and (2); and 25-8-204 C.R.S. provide the specific statutory authority for the numeric standards that were adopted.

The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statements of basis and purpose and fiscal impact.

BASIS AND PURPOSE - SAN JUAN AND DOLORES RIVER BASINS

The basis and purpose for the changes by segment is as follows:

Segment 6, Piedra River -This segment contains the lakes listed for inclusion in the proposed Segment 7. In order to separate these lakes from this segment, the description must be changed.

Segment 7, Piedra River -The lakes listed are all fisheries and a majority of them are used for sport fishing. Their present inclusion in Segment 6 does not represent their actual use, i.e., Class 1 Aquatic Life, or provide standards to protect this use. The Commission has classified all reservoirs in Segment 7 as Warm Water Class 1 instead of Cold Water Class 1 on the basis that: 1) all reservoirs are already heavily managed, including aeration; 2) trout have been introduced into the reservoirs and do not occur naturally; and 3) at least temperature excursions above that require for cold water classification occur.

The Commission notes that the data base supporting this change in classification to warm water Class 1 is not extensive and further water quality monitoring is encouraged.

Segment 15, Animas River - Studies conducted by the Water Quality Control Division indicate that both Goulding Creek and Nary Draw are intermittent streams more appropriately classified under Segment 15 than under Segment 12a. The change in the description of Segment 15 will accomplish this and provide adequate protection of the uses.

Segment 8, La Plata River, Mancos- River, McElmo Creek, and San Juan River -The change in description to include Dolores County will include those streams which are unclassified under the existing description.

Change in basin description at top of pages 9 and 10 of the Tables -Change is needed to accurately reflect the streams included in this section with the change in description of Segment 8.

34.17 BASIS AND PURPOSE:

At the triennial review of the San Juan and Dolores River Basins in May, 1985, the Water Quality Control Division pointed out that the Division had recently (April, 1985) granted a variance to the limitation for cadmium in Anaconda Company's Rizo Mine discharge permit. The underlying stream concentration which was used to support the variance was 0.002 mg/l, and was based upon an $\bar{x}$+s calculation of fifteen cadmium data points above the St. Louis ponds discharge collected in 1981. The rationale for the variance anticipated the establishment of a revised cadmium standard through the established standards setting procedure of the Water Quality Control Commission, and noted that subsequent to that procedure, an amended discharge elimination in Anaconda's discharge permit would be written.

This amendment initiates the standards setting process envisioned when the cadmium variance was granted to Anaconda with the expectation that the variance will expire upon adoption of a new standard.

The revision of the cadmium standard from 0.0004 mg/l to 0.0012 mg/l is based upon a review of data supplied by Anaconda at stations D2 and D3 above the discharge point on the Dolores River. Consideration was also given to the existing table value for cadmium at the ambient hardness levels in the river, and the draft position on cadmium is being considered by the Basic Standards Task Force.

34.18 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE; AUGUST, 1989 HEARING ON MULTIPLE SEGMENTS

The provisions of 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; 25-8-207 and 25-8-402 C.R.S. provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted, in compliance with 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE:

First, the Commission has adopted new introductory language for the tables, in section 3.4.6(2). The purpose of this language is to explain the new references to "table value standards" (TVS) that are contained in the Tables. The other changes considered and adopted are addressed below.

A. Jurisdiction on Tribal Lands

On the issue of classifying and setting standards on tribal lands, the Commission was advised to classify and set standards as they would for waters on non-tribal lands with the understanding that the Commission is not attempting to assert jurisdiction or to usurp the authority of the tribe to classify and set standards for waters within the boundaries of the reservation.

B. Table Value Standards for Metals

San Juan, Segment 7;
Los Pinos, Segment 4;
Animas, Segment 5;
Dolores, Segments 5 and 7.

Numerical standards for metals for these segments have in most instances previously been based on table values contained in Table III of the Basic Standards and Methodologies for Surface Water. Table III has been substantially revised, effective September 30, 1988. A few of these segments had no new data to indicate that new table value standards are not appropriate. There are also some of these segments whose previous standards were based in part on ambient quality, since their quality did not meet old table values based on alkalinity ranges. However, these segments generally have much higher hardness than alkalinity, and the new table values (based on hardness-dependent equations) are now appropriate as standards.

C. New High Quality 2 Designations

San Juan, Segments 1, 5, and 9;
Piedra, Segments 3 and 5;
Los Pinos, Segment 2a;
Animas, Segments 8a, 10, 11, 12a, 12b, and 14;
La Plata, Segments 1 and 4;
Dolores, Segments 4 and 10.

From the information available, it appears that the existing quality of these segments meets or exceeds the quality specified by the revised criteria in Table III, and new acute and chronic table value standards based thereon have therefore been adopted.

Second, in addition to these standards changes, the use classifications have been revised where necessary so that each of these segments has the following classifications:

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

D. Existing High Quality 2 Segments; New Classifications and Standards

San Juan, Segment 4;
Piedra, Segments 1 and 2;
Los Pinos, Segment 1;
Animas and Florida, Segment 1;
Dolores, Segment 1.

These segments were already described as High Quality Class 2, as all are wilderness and wild and scenic rivers. Available information indicates that the parallel new High Quality 2 designation continues to be appropriate for each, along with new table value numeric standards and equations for cold water aquatic life classifications, i.e., acute (trout) for cadmium and zinc and chronic (trout) for silver.

The following use classifications, and associated table value standards, have been adopted for these segments:

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

E. Existing High Quality 2 Segments; New Classifications and Standards

San Juan, Segments 3, 10, and 11;
Piedra, Segment 6;
Los Pinos, Segment 6;
Animas and Florida, Segments 3, 4, 9, 13b, and 15;
La Plata, Mancos, McElmo, and San Juan, Segments 2, 3, 5, 6, 7, and 8;
Dolores, Segment 9 and 11.

These segments all qualify for a Use-Protected designation based either on their present classifications or the existing standards contain three or more of the following metals parameters whose concentrations, based on total recoverable metals, indicate they may be worse than that specified in Table III for the protection of aquatic life class 1 use: cadmium, copper, iron, lead, or zinc.

F. New Use-Protected Designation; Table Value Standards

Piedra, Segment 7;
Animas and Florida, Segment 13a.

These segments qualify for a Use-Protected designation based upon their classification. Previous standards were based on table values and no new data was presented to indicate new table value standards are not appropriate.

For these segments, acute and chronic table value standards have been adopted for arsenic, cadmium, chromium (III and IV), copper, iron, lead, manganese, mercury, nickel, selenium, silver, and zinc.

G. Revised Recreation Classification

San Juan, Segments 2 and 6;
Piedra, Segment 4;
Los Pinos, Segment 2b;
La Plata, Segment 9

The recreation classification on these segments has been upgraded from Class 2 to Class 1 (whole body immersion is likely) because the stream sampling data indicate that the fecal coliform standard 200/100 ml is not being exceeded, and conditions are normally considered suitable for swimming or intentional whole body contact. This action was taken in response to a concern raised by the EPA regarding segments not attaining "fishable/swimmable" uses.

H. Other Revisions

1. Los Pinos, Segments 3 and 5.

   Based on stream sampling data for Segment 3, table value standards were established as were ambient standards for cadmium and lead. For Segment 5, ambient standards for cadmium and lead were added; table value standards were added for the remaining metals.

2. San Juan, Segment 9 (Four Corners Area)

   Table Value Standards for metals have been adopted for this segment with the exception of total recoverable iron whose 50 percentile value is 2200 ug/l. In addition, the recreation classification has been changed from Class 2 to Class 1 with a fecal coliform standard of 200/100 ml.

34.19 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE; FEBRUARY, 1990 EMERGENCY RULEMAKING HEARING

The provisions of 25-8-208 and 25-8-402 C.R.S. provide the specific statutory authority for action on these regulatory amendments.

BASIS AND PURPOSE:

The Commission held this emergency rulemaking hearing to readopt the classifications and numeric standards for the San Juan River and Dolores River Basins to correct errors in the original filing. The affected regulation was amended on November 7, 1989 and was filed within the required timeframes with the Secretary of State's Office and the Office of Legislative Legal Services. The Commission learned shortly after the filings that three (3) pages had been inadvertently left out of the regulation, and that a typographical error appeared throughout the classification and standards tables that are part of the regulation. The Commission office was able to correct the errors with a replacement filing with the Secretary of State's Office so that the regulation published in the CCR (Colorado Code of Regulation) correctly reflects the Commission's actions.

The Office of Legislative Legal Services notified the Commission that it could not accept the corrected materials as they had not been submitted within the 20 day timeframe called for in section 24-4-103 (8) (d), C.R.S. of the "State Administrative Procedure Act". It was suggested that the Commission needed to repromulgate the rules that contained the errors submitted in November, 1989 and resubmit them.

The Commission elected to proceed on an emergency rulemaking basis to avoid any confusion that could result due to the fact that the two filings are currently not the same. Therefore, the Commission adopted the corrected version of the regulation at an emergency rulemaking hearing on February 6, 1990. Final action on the readoption is scheduled for June 5, 1990.

34.20 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE; JUNE, 1990 RULEMAKING HEARING

The provisions of 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; 25-8-207 and 25-8-402 C.R.S. provide the specific statutory authority for action on these regulatory amendments.

BASIS AND PURPOSE:

The Commission held this rulemaking hearing to make permanent the emergency hearing that was held in February, 1990 to readopt the classifications and numeric standards for the San Juan River and Dolores River Basins to correct errors in the original filing. The affected regulation was amended on November 7, 1989 and was filed within the required timeframes with the Secretary of State's Office and the Office of Legislative Legal Services. The Commission learned shortly after the filings that three (3) pages had been inadvertently left out of the regulation, and that a typographical error appeared throughout the classification and standards tables that are part of the regulation. The Commission office was able to correct the errors with a replacement filing with the Secretary of State's Office so that the regulation published in the CCR (Colorado Code of Regulation) correctly reflects the Commission's actions.

The Office of Legislative Legal Services notified the Commission that it could not accept the corrected materials as they had not been submitted within the 20 day timeframe called for in section 24-4-103 (8) (d), C.R.S. of the "State Administrative Procedure Act". It was suggested that the Commission needed to repromulgate the rules that contained the errors submitted in November, 1989 and resubmit them.

The Commission elected to proceed on an emergency rulemaking basis to avoid any confusion that could result due to the fact that the two filings are currently not the same. Therefore, the Commission adopted the corrected version of the regulation at an emergency rulemaking hearing on February 6, 1990.

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

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

BASIS AND PURPOSE:

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

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

1. The glossary of abbreviations and symbols were out of date and have been replaced by an updated version in section 3.4.6(2).

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

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

4. The addition of acute un-ionized ammonia is meant to bring a consistency with all other standards that have both the acute and chronic values listed. The change in the chlorine standard is based

on the adoption of new acute and chronic chlorine criteria in the Basic Standards in October, 1991.

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

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

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

BASIS AND PURPOSE:

On November 30, 1991, revisions to "The Basic Standards and Methodologies for Surface Water" 3.10 (5 CCR 1002-8), became effective. As part of the revisions, the averaging period for the selenium criterion to be applied as a standard to a drinking water supply classification was changed from a 1-day to a 30-day duration. The site-specific standards for selenium on drinking water supply segments were to be changed at the time of rulemaking for the particular basin. Only one river basin, the South Platte, has gone through basin-wide rulemaking since these revisions to the "Basic Standards". Through an oversight, the selenium standards was not addressed in the rulemaking for this basin and has since become an issue in a wasteload allocation being developed for segments 15 and 16 of the South Platte. Agreement on the wasteloads for selenium is dependent upon a 30-day averaging period for selenium limits in the effected parties permits. Therefore, the parties requested that a rulemaking hearing be held for the South Platte Basin to address changing the designation of the 10 ug/l selenium standard on all water supply segments from a 1-day to a 30-day standard. The Water Quality Control Division, foreseeing the possibility of a selenium issue arising elsewhere in the state, made a counter proposal to have one hearing to change the designation for the selenium standard on all water supply segments statewide. The Commission and the parties concerned with South Platte segments 15 and 16 agreed that this would be the most judicious way to address the issue.

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

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

34.23 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE; SEPTEMBER 12, 1994 HEARING:

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

BASIS AND PURPOSE

A. BACKGROUND

Between 1991 and 1993 the Water Quality Control Division, in cooperation with several federal, state, local and private interests conducted an intensive water quality investigation of the Animas

River and its tributaries from Elk Creek to the headwaters. The objectives of the study were to characterize the current chemical, biological, and physical conditions of the Animas River and selected tributaries above Elk Creek and to quantify the areas of highest metal loadings and determine the potential for water quality improvement sufficient to allow naturally reproducing trout populations; and to prioritize sites for remedial projects based on relative loading, environmental impact, feasibility, cost, and benefits.

The water quality of this area is extensively impacted by heavy metals which are attributed to both natural and anthropogenic factors. The results of the investigation have been used to identify the beneficial uses and water quality that are currently being achieved or that may reasonably be achieved within a twenty year period through restoration of disturbed sites.

B. OVERVIEW

The starting point for the Commission's analysis is a conclusion that appears to be shared by most, if not all, of the participants in this rulemaking proceeding: current water quality in the Animas River Basin can and should be improved. For example, quoting from the Statement of the Animas River Stakeholders' Group:

All stakeholders agree that current water quality can and should be protected from any further degradation; all agree that there are opportunities to make improvements, and that improvement is desirable even if it were not mandated; all agree that the task before us now is to identify the sources of significant human-caused loadings and find ways to remediate them.

Beyond this starting point, there was considerable debate in the hearing, and among Commission members in its initial deliberations, regarding the most appropriate and constructive way to encourage and stimulate the desired water quality improvement. One perspective offered was that the Commission should adopt underlying numerical and narrative standards for the critical segments in question that would establish goals for water quality improvement, tempered by temporary modifications that recognize current water quality. An alternative perspective suggested that adopting such goals as legally effective standards before the feasibility of specific clean-up projects had been determined-and the achievable improvement quantified-may hinder the cooperative, community-based effort that has been evolving to identify, prioritize and acquire funding for remediation projects.

Following extensive discussion and debate, the Commission has decided to adopt a hybrid result that consists of two components. First, the set of proposals advanced by the Water Quality Control Division staff, based on the promulgation of underlying goal-based numerical and narrative standards for the critical segments, is adopted by the Commission with a three-year delayed effective date. The Commission finds that the evidence submitted in the hearing provides a sound scientific basis for the adoption of the Division's proposal, with the caveat that three-year temporary modifications almost certainly will not provide an adequate period in which to achieve water quality improvement that will attain the underlying standards. The issue of temporary modifications is discussed further below.

The second component of the action being taken by the Commission is the adoption of ambient quality-based standards that will be in place for the critical segments until the effective date of the goal-based standards described above. The purpose of taking this step, as opposed to adopting the goal-based standards with an immediate effective date, is to encourage the cooperative, community-based effort toward water quality improvement that has begun in the basin, unencumbered by the potential implications of the goal-based standards being in effect. This action is an experiment, intended to assess the ability of a cooperative process to achieve meaningful progress toward water quality improvement without the underlying improvement goal being reflected in currently effective, legally binding water quality standards.

If substantial progress toward water quality improvement-through the identification, prioritization and implementation of remediation projects-is achieved within the next three years, and if it appears three years from now that the lack of legal effectiveness of the goal-based standards will provide the best stimulus for further progress, further delay in the effective date of the goal-based standards can be considered by the Commission at that time. Of course, such progress could also demonstrate that the identified goals are achievable, or that they should be refined in some manner.

If, however, substantial and diligent progress toward water quality improvement is not achieved over the next three years, it is the intent of the Commission that the goal-based standards should and will be allowed to go into effect at that time to stimulate further progress. In a new rulemaking hearing, the burden should be on those that have argued that clean-up will be more successful with a cooperative effort working toward a goal, without that goal being reflected in currently effective water quality standards, to demonstrate the success of this experiment.

The Water Quality Control Commission expects that the cooperative effort will be successful and is attempting by this action to send that message to all stakeholders. To those concerned about the potential impacts on property owners of goal-based standards being in effect, the message is that the Commission wants to encourage this locally-driven, cooperative watershed improvement initiative by demonstrating as much flexibility as possible. To federal agencies or others with potential resources to devote to water quality improvement efforts, the message is that working toward such improvement in this basin is an extremely high priority for the State of Colorado. To the Water Quality Control Division and those that supported their proposal in this rulemaking proceeding, the message is that the Commission has been persuaded-based on the unprecedented level of monitoring and analysis that has occurred in this basin-that a sound scientific justification has been provided for the adoption of goal-based water quality standards, and that these standards should be allowed to go into effect unless it is demonstrated that the pending experiment in cooperative watershed management can succeed without this legal impetus. To all of the residents of the Animas River Basin, the message is that the Commission is concerned about water quality in your basin and is willing to work with you to explore whatever options appear most likely to facilitate progress toward water quality improvement in the least disruptive and most expeditious manner.

In summary, the Commission's action in revising the Animas River Basin water quality classifications and standards should in no way be interpreted as a sanctioning of the status quo. To repeat, current water quality in the Animas River Basin can and should be improved. The purpose of the Commission's action is to establish a clear goal of attaining such improvement, while providing regulatory flexibility intended to encourage cooperative efforts toward such improvement.

C. IMPLICATIONS OF THE HYBRID ACTION

Because of the unorthodox nature of the hybrid action being taken, the Commission believes that it may be important to clarify its understanding regarding the implications of this action for various activities or decisions that will need to be undertaken by others during the next three years.

For any existing point source discharge permit that may come up for renewal during the next three years, or for any new wastewater discharge permit issued during this period, the Commission intends that the permit would be written based on the ambient quality-based standards then in effect, along with other applicable effluent quality restrictions. The Commission also understands that ambient quality-based standards would require the continuation of current treatment levels for permit renewals, to assure that further degradation of water quality does not occur.

To the extent that general or individual storm water permits may be required for some sites in the basin, the Commission understands that the water quality standards now being adopted are not

likely to affect the content of the first round of any such permits, which are anticipated to be based principally on the implementation of best management practices (BMPs). Such initial BMPs are not likely to be significantly different whether they are deemed to be technology-based or water quality-based.

Finally, as discussed above, the Commission intends this action to provide a clear message to other agencies, entities and persons involved with potential nonpoint source clean-up projects that the Animas River Basin is in fact a high priority for such efforts. The delayed effective date for goal-based standards should not be interpreted to in any way lessen the priority of this basin; rather, as discussed above, this hybrid action is intended to provide flexibility for the cooperative, community-based efforts toward clean-up while at the same time clarifying that improvement is the goal.

D. DELAYED CLASSIFICATIONS AND STANDARDS

This portion of this statement describes the basis for the goal-based standards that are scheduled to go into effect three years after the effective date of this action.

The upper Animas water quality study found that the Animas River and several tributaries above Maggie Gulch (segment 2), the Animas River from Cement Creek to Mineral Creek (segment 3b), Cement Creek and its tributaries (segment 7), and Mineral Creek above the confluence with South Mineral Creek (segment 8) do not support diverse forms of aquatic life owing to poor water quality and limited physical habitat. The imposition of effluent limits required under the Federal Act for point sources and cost-effective and reasonable best management practices (BMP's) for nonpoint sources are not likely to lead to the establishment of aquatic life in these segments. Additionally, federal regulation (40 C.F.R. 131.10) allows excluding an aquatic life classification where naturally occurring pollutant concentrations prevent the attainment of the use and/or human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place. Therefore, an aquatic life classification is not being adopted for these segments. Downstream use classifications, however, depend on maintaining or improving the water quality in these segments. The Commission has therefore, determined that narrative standards for metals based on the application of BMP's to nonpoint sources and the continuation of current treatment levels for existing point sources for these segments establish an appropriate goal for water quality in these segments. Narrative (and for zinc in segment 3b, numerical) temporary modifications have been adopted based on current ambient quality in these segments, to assure no additional degradation of downstream segments.

The Commission recognizes that even with aggressive clean-up efforts, it may take many years to achieve in-stream quality that attains the underlying goal-based standards. Three-year temporary modifications are being adopted in an attempt to avoid conflict with the current EPA policy that temporary modifications are variances that can not be extend for longer than three years without being readopted. The Commission anticipates that many, if not all, of the temporary modifications being adopted in this proceeding will need to be extended beyond three years to attain the underlying standards, even considering the delayed effective date of that portion of the action that includes temporary modifications.

The Commission has further determined that the Animas River between Maggie Gulch and Cement Creek (segment 3a) supports a population of brook trout that appears to be naturally reproducing in that it consists of multiple age classes. The segment also contains a diversity of macrobenthos and possesses physical habitat similar to other streams in the Southern Rocky Mountain ecoregion. Although the concentration of several metals, especially cadmium and zinc, are higher than what is required to protect the most sensitive aquatic life species, they are lower than the chronic toxic criteria for brook trout. Therefore a cold water aquatic life class 1 classification is being established to protect the resident aquatic life found in this segment. Ambient standards for cadmium and zinc are adopted to ensure that downstream use

classifications and standards are not jeopardized. The imposition of effluent limits required under the Federal Act for point sources and cost- effective and reasonable best management practices for nonpoint sources are not likely to lead to the establishment of the most sensitive aquatic life species in this segment. However, consistent with its prior practice, the Commission has determined that the most sensitive species need not be present to find that a segment is "capable of sustaining a wide variety of cold water biota, including sensitive species", warranting a cold water class 1 classification. Section 3.1.7(1)(b)(ii) authorizes ambient standards where natural or irreversible man-induced ambient levels are higher than TVS but are adequate to protect the classified uses.

Mineral Creek between South Mineral Creek and the Animas River, renumbered segment 9b, was already classified aquatic life cold water class 1, with total recoverable table value standards. The upper Animas water quality study showed that pH, aluminum, copper, iron, and zinc greatly exceed TVS in this segment and that both fish and macroinvertebrates are absent from the segment. The physical habitat assessment, however, found it comparable to other habitats within the Southern Rocky Mountain ecoregion. Because most of the aluminum, copper, iron, and zinc are contributed from two areas, there may be a potential to reduce loading from either or both of these areas. The Commission chose not to remove the aquatic life classification until it has been demonstrated that sources cannot be remedied within a twenty year period or would cause more environmental damage than to leave it in place. The Commission adopted TVS for segment 9b, together with temporary modifications for aluminum, copper, iron, and zinc based on ambient quality until the feasibility of remediation has been established. A use-protected designation has been added to this segment based on four key parameters with existing quality worse than table values.

The Animas River between Mineral Creek and Elk Creek, renumbered segment 4a, has not previously had an aquatic life classification. The upper Animas water quality study found that the water quality below Mineral Creek is suitable for brook trout and has physical habitat similar to other aquatic life streams in the Southern Rocky Mountain ecoregion. Some improvement in water quality from Cement Creek, Mineral Creek, and/or the Upper Animas may enable the water quality of the segment to support brown trout. However, the imposition of effluent limits required under the Federal Act for point sources and cost-effective and reasonable best management practices for nonpoint sources are not likely to lead to the establishment of aquatic life uses including the most sensitive species in this segment. The Commission adopted the aquatic life cold class 1 classification as a goal and TVS for this segment, except for the zinc standard which is based on the chronic toxic criterion for brown trout. Consistent with its prior practice, the Commission has determined that the most sensitive species need not be present or attainable to find that a segment is or may become "capable of sustaining a wide variety of cold water biota, including sensitive species", warranting a cold water class 1 classification. A temporary modification for zinc, based on the ambient quality, has been adopted until the feasibility for load reduction has been established.

E. AMBIENT QUALITY-BASED STANDARDS

This portion of this statement describes the basis for the ambient quality-based standards that are adopted for the three-year period starting with the effective date of this action.

For segments 2, 3b, 7 and 8, the Commission has adopted a narrative standard based on existing ambient quality for all metals to be applicable for the next three years. For segments 4a, 4b, and 9b, for this same time period the Commission has adopted ambient-quality based numerical standards for specific metals for which ambient quality currently is higher (worse than) table values. These standards are intended to protect the aquatic life that is currently in place in these segments until the goal-based standards go into effect. As discussed above, the primary basis for adopting these numerical and narrative ambient quality-based standards is to provide maximum regulatory flexibility to encourage the cooperative, community-based effort toward clean-up to proceed. This approach provides time in which additional information can be

developed regarding the feasibility of specific remedial efforts that will result in water quality improvement.

Having ambient standards in place for the next three years means that any point source permits issued or renewed during this period will be based on those ambient standards, along with other applicable effluent quality restrictions, rather than being based on the more stringent goal-based standards. At the same time, the ambient standards should help assure that no additional degradation in water quality occurs for these segments in the next three years while clean-up actions are being examined and initiated.

For segment 4a, the aquatic life cold class 2 classification and the use-protected designation proposed by Sunnyside have been adopted for the next three years, since this classification and designation appear to be more consistent with the ambient standards applicable during that period. As discussed above, at the end of three years the use-protected designation would expire and the aquatic life classification would become cold water class 1.

For segment 9b, the currently applicable class 1 aquatic life classification has been left in place, even though ambient standards proposed by Sunnyside have been adopted for the next three years. The Commission believes that a downgrading of the classification of this segment is premature, pending additional analysis of clean-up opportunities. As noted above, the use-protected designation proposed by the Division and several parties has also been adopted.

F. OTHER ISSUES

The above discussion, like the evidence submitted at the hearing, focuses principally on appropriate aquatic life classifications and associated water quality standards. In this hearing the Commission also added an agriculture classification to segments 2, 3a, and 7, based on evidence regarding the presence of grazing. In addition, the Commission changed the recreation classification from class 2 to class 1 for segments 4a, 4b, 5a, and 5b, based on evidence regarding the presence of primary contact recreation. Finally, fecal coliform standards for segments 2 and 3a were changed from 2,000 to 200/ml, to provide additional protection that better reflects current ambient conditions. There are no affected point sources on these segments.

34.24 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: MARCH 14, 1995 HEARING (San Juan and Dolores River Basins revisions)

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

BASIS AND PURPOSE

The Water Quality Control Division (Division) proposed that the Water Quality Control Commission consider the following changes to the Classifications and Numeric Standards for San Juan River and Dolores River Basins, 3.4.0. The basis and purpose for the changes are organized by topic.

A. Resegmentation

Several of the segments contained waters that crossed into or were on the Southern Ute and Ute Mountain Indian Reservations. Both tribes are in the process of developing classifications and standards for waters within their reservations and it was agreeable to both tribes that those segments should be bi-furcated to indicate which portions are on tribal lands and to ease their future removal from the state standards system when the tribes' standards are approved by the U. S. Environmental Protection Agency. The segments on the Southern Ute Reservation, at the

request of the Southern Ute Tribe, have been maintained at the classifications and standards in effect prior to this rulemaking hearing. The standards on some segments on the Ute Mountain Reservation, after discussion with tribal representatives, were changed to parallel the changes made by the state on the adjacent segments. These were all related to changes from total recoverable to dissolved metals standards where data indicated table value standards for metals were appropriate.

In addition to the bifurcation of segments, all segments, new and old, which delineate tributaries have added wetlands to their descriptions to clarify that all tributary wetlands have the same classifications and standards as the tributary streams, lakes and reservoirs.

The DOW identified several areas requiring resegmentation or changes to standards in order to protect fisheries. Therefore, the following changes were made. Mill Creek and Echo Canyon Reservoir were reassigned from San Juan segment 11 to San Juan segment 6a. Weber Canyon was reassigned from Mancos segment 6 to Mancos segment 5a. Summit Reservoir was reassigned from Dolores segment 11 to Dolores segment 4. Narraguinnep, Puett and Totten Reservoirs are reassigned from McElmo Creek segment 8 to McElmo Creek segment 11. According to new information, these waters support fisheries, fish consumption, and intensive recreation, and are suitable for domestic use. Therefore, this new segment 11 was assigned classifications of Recreation class 1, Aquatic Life Warm 1, Water Supply and Agriculture, with appropriate table value standards.

B. Segments Converted to Dissolved Metals Standards

There were several segments which still had metals standards based on the old total recoverable criteria. Review of metals data submitted to the hearing allowed the metal standards on the following segments to be appropriately converted from total recoverable to dissolved standards:

San Juan River segment 6a
Piedra River segment 4a
La Plata River segment 2a
Mancos River segments 5a and 5b
McElmo Creek segment 7
Dolores River segments 2, 3, 5, 6, and 9

C. Revision of Classifications or Standards to Meet the Fishable/Swimmable Goals of Clean Water Act

Several segments in the San Juan-Dolores river basins did not have use classifications which met the swimmable goals of the Clean Water Act. Consistent with strategies adopted by the Commission, these segments which are designated recreation class 2 and have no point source dischargers to the segment have had their fecal coliform standard set equal to 200/100 ml. These segments are:

La Plata River segment 2a
Dolores River segments 2, 3, 5, 6, 8, and 9

D. Manganese and Mercury Standards

On all segments classified for water supply and aquatic life uses, the total recoverable manganese standard of 1,000 ug/l was stricken. The aquatic life manganese criterion was changed in 1991 revisions to the Basic Standards from total recoverable to dissolved and on these segments a more stringent dissolved manganese water supply standard of 50 ug/l is in place.

Mercury standards designated as total recoverable (Trec) were changed to Total (tot). This change reflects the Basic Standards designation of total mercury as the appropriate form of mercury for final residual value (FRV) standards.

E. Deletion of Use-Protected Designation

One segment classified aquatic class 1, Piedra River segment 7, was found to have a use-protected designation which was based on prior basic standards requirements pertaining to waters classified as warmwater aquatic life class 1, recreation class 2. The designation was removed to conform to the requirements now in effect.

F. Water Supply Classifications and Standards

New data on several segments showed the water quality to be suitable for a water supply classification. The water supply classifications and standards were added to the following segments:

San Juan River segment 6a
Piedra River segment 4a
McElmo Creek segment 11

PARTIES TO THE MARCH, 1995 RULEMAKING HEARING

1. Pagosa Springs Sanitation District
2. Southwestern Water Conservation District
3. Southern Ute Indian Tribe
4. Pagosa Area Water and Sanitation District
5. Board of County Commissioners of San Juan County
6. U.S. Environmental Protection Agency's Region VIII Office
7. Colorado Division of Wildlife

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

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

BASIS AND PURPOSE

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

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

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

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

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

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

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

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

PARTIES TO THE PUBLIC RULEMAKING HEARING JUNE 12, 1995

1. Coors Brewing Company
2. The Silver Coalition
3. Cyprus Climax Metals Company

4. The City of Fort Collins
5. The City of Colorado Springs

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

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

BASIS AND PURPOSE

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

34.27 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; NOVEMBER, 1997 RULEMAKING

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

BASIS AND PURPOSE

In 1995, the Water Quality Control Commission adopted underlying goal-based numerical and narrative standards with temporary modifications for segments 2, 3b, 4a, 4b, 7, 8 and 9b of the Animas River Basin. The underlying goal-based standards were adopted with a three-year delayed effective date. In the interim, ambient quality-based standards were adopted for the critical segments to protect aquatic life currently in place in these segments. The critical segments did not meet the underlying goal based numeric standards, and it was not clear that the goal-based standards were in fact achievable within a 20-year period. Numeric standards were adopted in other segments of the river where supported by existing water quality. The overall purpose for adopting the underlying goal-based standards with temporary modifications was to encourage continuation of an existing community-based, cooperative watershed improvement initiative designed to improve water quality in the Animas River Basin unencumbered by the potential implications of the goal-based standards being in effect.

The Commission charged the Animas Stakeholders Group with the responsibility to determine the feasibility of specific clean-up projects, the quantification of achievable improvements and to identify, prioritize and acquire funding for remediation projects. Based on this work, the Commission expected that recommendations would be made for the permanent adoption of the underlying goal-based numeric standards or for alternative standards that would be achievable within a 20-year period. The Stakeholders have worked successfully toward accomplishment of this end. Significant progress has taken place in the basin in completion of feasibility studies, identification and prioritization of specific clean-up projects, initial funding for projects and on-the-ground remediation work in process. Evidence was submitted in the rulemaking regarding the work accomplished to date, additional work in progress or planned in the near future, and a schedule for the additional work planned during the next three years. Part of the planned work will be completed in conjunction with the U.S. Department of the Interior Abandoned Mined Land Initiative, which is designed to develop practical characterization and remediation methodologies for federal land managers and others to be used in a watershed management approach. The Animas Basin is one of two national pilot projects for this initiative. From this information, it is apparent that additional time is needed to finish studies to adequately characterize pollution sources,

quantify feasible remediation levels, and define habitat limitations along with the potential for aquatic life. Completion of this work is necessary to provide a comprehensive recommendation to the Commission for ultimate numeric/narrative standards.

In order to allow the ongoing community-based, cooperative watershed improvements initiative an opportunity to continue the promising effort that is currently underway, the Commission has decided that the delayed effective date of underlying goal-based standards (and associated temporary modifications) should be delayed for another three years, to March 2, 2001.

With this extension, the Commission has the following expectations for: (1) preparation by the Stakeholders of a use attainability analysis which proposes aquatic life uses which are potentially attainable, specifies the causes of water quality impairment, determines the sources which may be controlled, and provides an economic evaluation of such a proposal; (2) that the Stakeholders, in conjunction with the Division of Wildlife develop recommendations for an appropriate underlying standard for zinc for segment 4a, as part of the use attainability analysis; and (3) that the delay until March 2, 2001 approved by the Commission for the effective date of underlying standards is adequate for all study to be completed and appropriate standards to be established.

Finally, the Commission notes that the action taken here is a unique approach to the unique situation present in the Animas River Basin, including the presence of a cooperative, community-based effort with unusually broad participation. This action should not be viewed as a precedent for other site-specific hearings.

PARTIES TO THE RULEMAKING HEARING

1. Animas River Stakeholders Group
2. Colorado Division of Wildlife
3. Town of Silverton
4. Sunnyside Gold Corporation
5. The Silver Wing Company, Inc
6. Southwestern Water Conservation District of Colorado
7. Gold King Mines Corporation
8. US EPA Region VIII
9. Southern Ute Indian Tribe

34.28 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; NOVEMBER, 1998 RULEMAKING

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

BASIS AND PURPOSE

The Commission has recently approved a new schedule for triennial reviews of water quality classifications and standards for all river basins in Colorado. In this hearing the Commission has extended the expiration dates of temporary modifications [and, for the Animas Basin, the effective dates of underlying standards] without substantive review, so that the next substantive review of the temporary modifications can occur as part of the overall triennial review of water quality standards for the particular watershed. This will avoid the need for multiple individual hearings that would take staff resources away from implementation of the new triennial review schedule.

34.29 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; MAY, 2001 AND JULY, 2001 RULEMAKING

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

BASIS AND PURPOSE

I. Animas and Florida River Segments

The primary focus of this portion of the hearing was to revisit the aquatic life classifications and standards for streams in the Animas River Basin that have elevated levels of various metals. The water quality of this area is extensively impacted by heavy metals which are attributed to both natural and anthropogenic sources. Those impacts attributed to past human activities are largely the result of the extensive mining that has occurred in this basin over a period of several decades. It is evident that remediation of these impacts is a complex challenge that will require considerable time and effort.

Subsequent to the last major review of these streams, a use attainability analysis (UAA) was prepared by the Animas River Stakeholders Group (ARSG). Over the last several months, this UAA has provided the focal point for extensive discussions involving the Water Quality Control Division, the Colorado Division of Wildlife, U. S. EPA, the U.S. Forest Service, the U. S. Bureau of Land Management, and other participants in the stakeholders group. The Commission wishes to acknowledge and express its appreciation for this extensive collaborative effort. The Commission believes that the revised Animas River Basin classifications and standards adopted as a result of this hearing provide a major step forward in the long-term resolution of water quality issues in this basin. The Commission encourages all of those involved in this effort to continue to work cooperatively in furthering ARSG's mission of improving the water quality in the Animas River and its tributaries.

Upper Animas Segmentation

The Commission adopted several changes to the segmentation for streams in the Animas River Basin. The Commission changed descriptions for several segments to correct inaccuracies and to include tributaries previously left out of descriptions. The Commission changed the segment division between segments 4b and 5a to better reflect a natural division between the segments in terms of topography, geomorphology and land use patterns. The Commission also moved the dividing line between segments 4a and 4b upstream to Deer Park Creek, which is the first significant inflow of good quality water below the confluence with Mineral Creek. The streams formerly in segment 9a have been moved to segment 6, and the previous segment 9b renumbered as segment 9. Finally, recognizing the need for a new segment to cover a tributary to the Animas River not previously classified, the Commission created segment 3c to include Arrastra Gulch and applied site-specific standards as described below. Big Horn Creek and all tributaries on the west side of Mineral Creek above its confluence with South Mineral Creek except for a lower portion of Middle Fork of Mineral Creek and the mainstem of Mineral Creek (segment 8), were reclassified as part of segment 6.

Overview of Aquatic Life Classifications and Standards

The UAA focused primarily on identifying the achievable remediation and associated water quality for segments 3a, 4a, and 9b (now segment 9) of the Animas. Some of the metals standards previously adopted for these segments were disapproved by EPA in 1998. The UAA identified the water quality that would result from remediation of selected priority sites where metals loadings were determined to be anthropogenic and reversible. Based upon this analysis, and the associated biological evidence submitted, the Commission revised the aquatic life classifications for segment 9b (now segment 9) and for resegmented segment 4a. In addition, the Commission has specified aquatic life indicators in the “goal qualifier” column for these three segments. These indicators identify biological goals for future water quality in these segments.

Numerical standards for these three segments adopted at this time are based on the conclusions of the UAA regarding what remediation is achievable. In some cases, identified remediation goals are expected to attain Table Value Standards. In other cases, site-specific standards are adopted based on the UAA's projections of what water quality will be attained at specific gages in the three key segments as a result of anticipated remediation. Remediation potentials and limitations have been explored in great detail and the resulting site-specific standards are scientifically defensible, recognizing, however, that there is significant uncertainty as discussed below. The standards are reflective of ambitious cleanup goals estimated at a cost of 20 to 30 million dollars. The goals are particularly ambitious given foreseeable funding availability and liability restrictions that may detrimentally affect remediation activity (e.g. there remains a lack of a "Good Samaritan" provision in the federal Clean Water Act).

The Commission also notes that additional information appears to be needed to determine attainable/protective water quality conditions in this basin over the long term. There is more than the usual amount of uncertainty associated with the various proposals considered in this hearing. There is uncertainty associated with the remediation targets because there may be additional reversible anthropogenic sources which have not yet been identified or fully characterized. There is uncertainty associated with the biological targets, because for some parameters there is a lack of toxicity data for key species of concern. In view of these uncertainties, the Commission emphasizes the importance of ongoing monitoring efforts and future studies in the Animas Basin to resolve the important issues that have been identified. It is the Commission's expectation that these efforts will proceed and will lead to refinement in the remediation goals in the basin, and in the associated determination of attainable water quality classifications and standards, in the future triennial reviews. Again, the Commission wishes to commend the cooperative efforts and the substantial local initiative that have brought the analysis to this stage. The Commission strongly encourages continued cooperation as these challenges are addressed in the future.

Site-specific Aquatic Life Classifications and Standards

When segment 9b (now segment 9) was designated aquatic cold water class 1 in 1995, there was little or no data indicating that dissolved aluminum concentrations and total recoverable iron concentrations reached toxic levels because few or no winter water quality samples had been taken. Winter water quality samples taken since that time indicate dissolved aluminum concentrations almost three times the acute table value standard for aquatic life and total recoverable iron concentrations have been found to be four times the chronic table value standard for aquatic life. The Commission determined that the vast majority of sources of aluminum and iron are not associated with mining sites identified for remediation. In addition, the Commission heard testimony that no fish and few macroinvertebrates are found in segment 9b (now segment 9). Therefore, the Commission changed the use classification of cold water aquatic life class 1 to cold water aquatic life class 2 for segment 9b (now segment 9). Site-specific standards are applied for iron, aluminum, copper, and zinc based upon remediation goals presented by the ARSG.

The Commission determined that after remediation of identified priority loading sources, aluminum, iron, and copper concentrations will continue to exceed chronic table value standards for aquatic life during portions of the year in segment 4a. The Commission also determined that after remediation, zinc concentrations will continue to exceed acute and chronic table value standards for aquatic life year round. Based on this information, the Commission removed the use classification goal of cold water aquatic life class 1 from segment 4a and retained the use classification of cold water aquatic life class 2. Site-specific standards are applied for iron, aluminum and zinc based upon remediation goals presented by the ARSG.

In addition, the Commission recognized that there are few identified priority sources of cadmium, manganese, and zinc in or upstream of segment 3a. These constituents will continue to exceed aquatic life table value standards either year-round or during part of the year after remediation of the reversible sources. The UAA did not identify the large amount of metal loading entering segment 3a with any specific source. The Commission recognized the many unknowns and uncertainties in the analysis of source loadings in segment 3a. Therefore, the Commission applied site-specific standards based upon remediation goals to segment 3a for these constituents and encouraged the ARSG to continue their

characterization efforts to determine the unknown sources of loading. 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.

As noted above, the Commission has adopted a new segment 3c for Arrastra Gulch, with a cold water aquatic life class 2 classification. The existing ambient quality for copper and zinc exceed the acute table value standards, therefore, chronic ambient standards could not be adopted. Acute table value standards for copper and zinc were adopted along with temporary modifications set at existing ambient quality. This provides time for the ARSG to investigate Arrastra Gulch and prepare appropriate chronic standards at the next triennial review.

During the hearing, the Commission heard evidence that iron is a major driver in the chemical processes that lower pH. The Commission determined that because most iron sources are not associated with priority remediation sites in the Upper Animas Basin, for some segments and some portions of the year, pH levels are unlikely to reach table value standards for aquatic life with remediation of mine sites. Therefore, the Commission applied seasonal, site-specific pH standards to segments 4a and 9b (now segment 9).

The adopted standards will protect existing aquatic populations and should allow for significant increases in biological diversity, population size, and aquatic health. At this time, there is no assurance that other human-caused conditions or sources of pollution preventing the attainment of Table Value Standards and higher uses can be remedied, given current technologies and regulatory conditions; nor is there assurance that additional remediation will not be feasible in the future. Particularly in view of the uncertainty noted above, as these restrictions to further water quality improvements change it will be necessary to review additional remediation possibilities and to implement standards reflective of these possibilities at future triennial reviews.

Temporary modifications were reviewed and extended to December 31, 2006 for segments 2, 3b, 7, 8 and 9.

Other Classification and Standards Issues

The following resegmentation was adopted:

> Animas and Florida, Segment 11: Mainstem of Florida River was separated into Segments 11a and 11b to recognize the Southern Ute Indian Reservation boundary.
>
> Animas and Florida, Segments 13b and 13c: These segment descriptions were clarified to recognize the Southern Ute Indian Reservation boundary. This change in descriptions corrects the duplicate classification of these tributaries.
>
> Animas and Florida, Segments 15: Cascade Creek was deleted from the segment description. Cascade Creek now is included in Segment 12a which better reflects its cold water class 1 aquatic life use.

Animas/Florida segment 1 was designated outstanding waters (OW) due to its meeting the criteria in section 31.8(2)(a).

Ambient quality-based standards were removed from the following segments due to new data and/or changes to the Basic Standards which indicated ambient standards were no longer appropriate: segments 2, 3a, 3b, 4a, 4b, 7, 8, 9b.

"Fish Ingestion" and "Water + Fish Ingestion" standards for organic chemicals are discussed in section II.J. of this Statement of Basis and Purpose. For the Animas and Florida Rivers, Fish Ingestion standards

were adopted for segment 13a and Water + Fish Ingestion standards were adopted for segments 13b and 13c.

Animas/Florida River, segments 13b, 13c where investigation showed that aquatic life was present were upgraded with the addition of the full suite of inorganic standards to protect aquatic life.

Water supply classifications and associated standards were adopted for segments 11b, 13b and 13c.

Agriculture classifications are added to segment 4a and to the new segment 3c based on existing or potential grazing uses. In addition, numerical standards are adopted to protect the existing agriculture classifications for segments 2, 7, and 8. In each case, no manganese standard was adopted, because the conditions associated with that criterion are not present.

Recreation classifications were changed from class 2 to class 1a for segments 2, 3a, 3b, 6, 7, 8, 9a, 9b, 13a, 13b, 13c, and 15. For several of these segments, the Southwestern Water Conservation District submitted use attainability analyses proposing that a recreation class 2 classification be retained. However, these UAAs were submitted after the deadline for submission of such information for this hearing and generally lacked site-specific analysis of recreation uses on the segments addressed. Existing recreation class 1 classifications were changed to class 1a for segments 1, 4a, 4b, 5a, 5b, 10, 11a, 12a, 12b, and 14. A recreation class 1a classification was also adopted for new segment 11b.

The Commission notes that the last paragraph of section 31.6(2)(b) will apply to future changes to the recreation classifications where a proper showing is made through a use attainability analysis that a recreation class 2 classification is appropriate, without application of the other downgrading criteria in this section. Moreover, the Commission is relying in part on previous representations from EPA that completion of a use attainability analysis showing that a lower recreation classification is appropriate satisfies applicable downgrading criteria. Based on these factors, the Commission intends that in a future rulemaking hearing the test for adopting a recreation class 2 classification would be the same as if it had been considered in this hearing.

Based on evidence submitted by the Town of Silverton, the Commission established a seasonal recreation class 1a classification for segment 3b, for the period of May 15 through September 10 and recreation class 2 for the remainder of the year.

II. Other River Segments

A. Resegmentation

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

San Juan, Segment 8: This segment was created to recognize the portions of Navajo Reservoir that are on state lands.

San Juan, Segments 11 and 12: Tributaries to the San Juan River were separated out of Segments 11 and 12 to better identify the tributaries from Fourmile Creek to the Southern Ute Indian Reservation (11a) and from the Southern Ute Indian Reservation to the Colorado/New Mexico border (11b). All remaining tributaries to the San Juan River in Archuleta County were moved to Segments 12a and 12b. Segment 12b is within the Southern Ute Indian Reservation.

Los Pinos, Segment 6b: All remaining tributaries to the San Juan River in La Plata County were moved to Segments 7a and 7b. Those within the Southern Ute Indian Reservation are in Segment 7b.

La Plata, Segment 2b: The segment description was modified to only include the mainstem of the La Plata River. Wetlands, lakes and reservoirs to the La Plata River are now included in Segments 10a and 10b with their tributary systems.

La Plata, Segment 7: Mainstem of McElmo Creek was separated into Segments 7a and 7b to recognize the Ute Mountain Ute Indian Reservation boundaries. In addition, Yellowjacket Creek was added to Segment 7a from Segment 8 to better reflect its warm water class 1 aquatic life use.

La Plata, Segments 8 and 10: Tributaries to McElmo Creek were separated into Segments 8a and 8b to recognize the Ute Mountain Ute Indian Reservation boundaries.

La Plata, Segments 8 and 10: All remaining tributaries to the San Juan River in Dolores and Montezuma Counties were moved to Segments 10a and 10b. The portions within the Ute Mountain Ute Indian Reservation are included in Segment 10b.

Dolores, Segment 7: The segment description was changed to exclude the upper portion of Coal Creek which is located within the Lizard Head Wilderness Area.

B. Manganese

The aquatic life manganese criterion was initially changed in the 1997 revisions to the Basic Standards (5 CCR 1002-31) from a single chronic dissolved criterion to acute and chronic hardness-based equations. The equations were further modified in the 2000 revisions to the Basic Standards. The new manganese acute and chronic equations were added as table value standards in 34.6(3). As a result of the adoption of these new TVS, all segments classified for aquatic life use that had a chronic total recoverable manganese standard of 1,000 µg/L had the 1,000 standard stricken and replaced with Mn(ac/ch)=TVS.

C. Selenium

The regulation in 34.6 (3) listed the table value standards for selenium as Acute=135 µg/L and Chronic=17 µg/L. This was updated to reflect the existing acute and chronic criteria for selenium listed in the Basic Standards as Acute=18.4 µg/L and Chronic=4.6 µg/L which was adopted in 2000 by the Commission. This change means that all segments with standards for selenium given as TVS now have these lower acute and chronic standards. Because of this change, on all segments classified for a water supply use, the chronic total recoverable selenium of 10 µg/L was stricken and replaced with Se(ac/ch)=TVS.

D. Outstanding Waters Designations

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

San Juan River, Segment 4
Piedra River, Segment 1
Los Pinos River, Segment 1
Dolores River, Segment 1

E. Removal of Use Protected Designation

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

San Juan River, Segment 10
La Plata, Segments 5a, 5b, 6a and 6b.

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

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

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

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

F. Recreation Classifications/Fecal Coliform and E. Coli Standards

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

In a continuation of the Commission's efforts to comply with the requirements contained in the federal Clean Water Act that all waters of the nation should be suitable for recreation in and on the water (known as the "swimmable" goal), the Commission reviewed all Recreation Class 2

segments. In Colorado, the "swimmable" goal translates into Recreation Class 1a, with the 200/100 ml fecal coliform and 126/100 ml E. Coli standard, and Class 1b with the 325/100 ml fecal coliform and 205/100 ml E. coli standard. Class 1a indicates waters where primary contact uses have been documented or are presumed to be present. Class 1b indicates waters where no use attainability analysis has been performed demonstrating that a recreation class 2 classification is appropriate, but for which no existing primary contact uses have been documented following a reasonable level of inquiry. To maintain the existing Recreation Class 2 with the 2000/100 ml standard on a segment, a use attainability analysis must be conducted that shows that it is unlikely that a Recreation Class 1 activity could exist.

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

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

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

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

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

San Juan River, Segments: 10
Los Pinos River, Segments: 6a, 6b
Dolores River, Segments: 2, 3, 5, 6, 7, 8, 11

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

Piedra River, Segments: 6a, 6b

New segments created in this rulemaking where information was received that showed Recreation Class 1a uses are in place or are presumed to be present in at least a portion of the segment, are:

San Juan River, Segment: 8
Los Pinos River, Segments: 7a, 7b
La Plata River, Segments: 7b, 8a, 8b, 10a, 10b

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

San Juan River, Segments: 1, 2, 4, 5, 6a, 6b, 7, 9a, 9b
Piedra River, Segments: 1, 4a, 4b
Los Pinos River, Segments: 1, 2a, 2b, 3, 4a, 4b, 5
La Plata River, Segments: 1, 4, 7a, 9, 11
Dolores River, Segments: 1, 4, 10

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

San Juan Segments 3, 12a, 12b:	Class 1b, May 1 through October 31 Class 2, November 1 through April 30
San Juan Segments 11a, 11b:	Class 1a, May 1 through October 31 Class 2, November 1 through April 30
Piedra River, Segments 2, 3, 5:	Class 1a, May 1 through October 31 Class 2, November 1 through April 30
Piedra River, Segment 7:	Class 1a, March 1 through November 30 Class 2, December 1 through February 28
La Plata River, Segments 2a, 2b:	Class 1a, May 1 through October 31 Class 1b, November 1 through April 30
La Plata River, Segments 4, 5a, 5b:	Class 1a, May 1 through October 31 Class 2, November 1 through April 30
La Plata River, Segments 6a, 6b:	Class 1b, May 1 through October 31 Class 2, November 1 through April 30

Dolores River, Segment 9:	Class 1a, May 1 through October 31 Class 2, November 1 through April 30

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

La Plata River, Segments 3a, 3b

G. Aquatic Life Segments without Full Standards

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

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

San Juan River, Segments: 10, 11a, 11b
Piedra River, Segments: 6a, 6b
La Plata River, Segments: 3a, 3b, 6a, 6b, 8a, 8b
Dolores River, Segment 11

H. Ambient Quality-Based Standards

There are several segments in the San Juan Basin that contain standards based on existing ambient quality. Ambient standards are adopted where natural or irreversible man-induced conditions result in water quality levels higher (i.e. worse) than table value standards. EPA had requested that the Commission review the information that is the basis for these standards as well as any new information that would indicate whether they are still appropriate, need to be modified, or should be dropped. The Division reviewed the reason for the ambient standards and provided testimony that justified ambient standards being retained without adjustment on the following segments:

La Plata River, Segment 9

The Division reviewed the information about ambient water quality levels and provided testimony that justified revising the ambient standards on the following segments:

La Plata River, Segment 7a

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

Los Pinos River, Segment 5
Dolores River, Segment 9

I. Temporary Modifications

There were several segments which had temporary modifications that were reviewed, and decisions were made to delete or to extend them, either as is or with modification of the numeric limits.

A temporary modification was adopted for La Plata, Segment 4, for copper with an expiration date of 12/31/06. A temporary modification was also adopted for Dolores River, Segment 9, for zinc with an expiration date of 12/31/06.

J. Organic Chemical Standards

The organic chemical standards were updated to include changes adopted by the Commission in the 2000 revisions to the Basic Standards (see section 31.11 in Regulation No. 31). "Water + Fish" organic chemical standards are presumptively applied to all Aquatic Life Class 1 streams which also have a Water Supply classification, and are applied to Aquatic Life Class 2 streams which also have a Water Supply classification, on a case-by-case basis. The "Fish Ingestion" organic chemical standards are presumptively applied to all Aquatic Life Class 1 streams which do not have a Water Supply classification, and are applied to aquatic life class 2 streams which do not have a Water Supply classification, on a case-by-case basis. Existing site-specific applications of additional organics (as noted in the Qualifier column of Table 34.7) were modified to conform to this change.

Information was reviewed regarding Aquatic Life Class 2 segments that have fish that are presently being taken for human consumption or have fisheries that would indicate the potential for human consumption. That information showed that six additional segments had the potential for consumption of fish. These waterbodies were designated to receive the full protection of numeric Fish Ingestion or Water + Fish organic standards:

Fish Ingestion: La Plata 2a; Dolores 9
Water + Fish: Dolores 11

K. Water Supply Classification

These segments had the Water Supply classification added to them or are new segments with a water supply use. The associated water supply standards will now apply to segments:

San Juan River, Segments: 6b, 8
Piedra River, Segments: 4b, 6a, 6b
Dolores River, Segment 11

L. Modification of Water Supply Standards

Water supply standards were modified to conform to the changes made by the Commission in the 2000 revisions to the Basic Standards (see Regulation No. 31 at section 31.11(6)). The Commission modified the water supply standards for iron, manganese, and sulfate that are based on secondary drinking water standards (based on aesthetics as opposed to human-health risks). The numeric values in the tables were changed to Fe(ch) = WS (dis), Mn(ch) = WS (dis), and SO4 = WS. These abbreviations mean that for all surface waters with an actual water supply use, the less restrictive of the following two options shall apply as numerical standards, as discussed in the Basic Standards and Methodologies at section 31.11(6): either (i) existing quality as of January 1 2000; or (ii) Iron = 300 µg/L (dissolved); Manganese = 50 µg/L (dissolved); Sulfate = 250 mg/L (dissolved). For all surface waters with a "Water Supply" classification that are not in actual use as a water supply, no water supply standards are applied for iron, manganese or sulfate, unless the Commission determined as the result of a site-specific rulemaking hearing that such standards are appropriate.

M. Tribally-Owned Lands

Many of the waterbodies in the southern parts of these basins are located on tribally-owned lands specifically those of the Southern Ute Indian Tribe and the Ute Mountain Ute Indian Tribe.

Waters on tribally-owned lands are not regulated by the WQCC. Both Tribes are in the process of developing water quality standards for waters on their tribally-owned lands. The Commission has segmented the waterbodies which cross reservation boundaries. Water quality standards for waterbodies crossing reservation boundaries were reviewed by the Division in cooperation with Tribal representatives to ensure that the classified uses and numeric standards were consistent. The Commission included water quality classifications and standards on lands within the boundaries of these reservations in agreement with the Southern Ute and Ute Mountain Ute Indian Tribes in order to avoid a gap in the classifications and standards adopted for the river basins in question, since these Tribes have not yet been granted authority by EPA to conduct their own water quality program. Section 34.5 (4) was added to clarify this issue.

N. Agriculture Standards

Numeric standards to protect agriculture uses were adopted for the following segments:

San Juan, Segment: 3
Los Pinos, Segments: 6a, 6b

O. Other Site-Specific Revisions

The Commission corrected several typographical and spelling errors, clarified segment descriptions and made the following site-specific revisions:

La Plata, Segment 2a: The classification was changed from aquatic life warm 2 to cold 2 because information was presented that indicated the aquatic community includes trout species.

La Plata, Segment 7a: The classification was changed from aquatic life warm 2 to warm 1 and removed the Use Protection designation, because information was presented that indicated the aquatic community is diverse and includes DOW species of special concern.

PARTIES TO THE RULEMAKING HEARING

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

21. The Board of County Commissioners of the County of San Miguel
22. Mt. Crested Butte Water and Sanitation District
23. Colorado River Water Conservation District
24. Town of Cedaredge
25. The Board of County Commissioners of the County of Mesa
26. The Uncompahgre Valley Water Users Association
27. Umetco Minerals Corporation
28. The Colowyo Coal Company, L.P.
29. The Uncompahgre Valley Association
30. Town of Crested Butte
31. The City of Delta
32. Trapper Mining, Inc.
33. The Colowyo Coal Company, L.P.
34. The City of Grand Junction
35. Colorado River Water Conservation District
36. Yellow Jacket Water Conservation District
37. The Town of Meeker
38. The City of Fruita
39. Exxon Mobil Corporation
40. Shell Frontier Oil & Gas Inc.
41. The Board of County Commissioners of the County of Mesa
42. American Soda, LLP
43. The Rio Blanco Water Conservancy District
44. Colorado Division of Wildlife
45. The Northern Colorado Water Conservancy District and its Municipal Subdistrict
46. Upper Gunnison River Water Conservancy District
47. U.S. EPA Region
48. Ralph E. Clark III
49. U.S. Department of the Interior

34.30 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JULY, 2002 RULEMAKING

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

BASIS AND PURPOSE

As a result of major rulemaking hearings in May and July, 2001, the Commission adopted extensive revisions to the water quality designation, classifications and standards for the waters in this basin. Subsequent to the filing of the final action documents resulting from that rulemaking, minor error were identified in the published revisions. Errors in the water quality designation for San Juan segment 10, manganese standard for Animas River segment 4a, the segment description for Animas River segment 4b, and typographical errors for Animas River segments 9 and 12a were corrected in this rulemaking.

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

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

BASIS AND PURPOSE

In the process of digitally mapping the segments in the San Juan and Dolores River Basins, the Division discovered errors and inconsistencies between segment descriptions. To resolve these issues the Commission adopted changes in the following segment descriptions:

San Juan segment 8

Dolores segments 6 and 10

The Commission has also adopted the deletion of San Juan Segment 7.

34.32 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JUNE 12, 2006 RULEMAKING; ADOPTED AUGUST 14, 2006; EFFECTIVE JANUARY 1, 2007

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

BASIS AND PURPOSE

A. Waterbody Segmentation

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

Animas River Basin segment 12c was created for Hermosa Creek and tributaries above Long Hollow, except for the East Fork of Hermosa Creek. The East Fork of Hermosa Creek was excluded from this segment due to uncertainty of future development in this drainage by Durango Mountain Ski Resort.

La Plata River Basin segment 4b was created for Mancos Reservoir (a.k.a. Jackson Gulch Lake).

La Plata River Basin segment 6c was created for waters within Mesa Verde National Park. These waters were proposed as "outstanding waters."

La Plata River Basin segment 8c was created for the Unnamed Tributary to Ritter Draw.

Dolores River Basin segment 4b was created for McPhee Reservoir and Summit Reservoir.

B. Revised Aquatic Life Use Classifications

The Commission reviewed information regarding existing aquatic communities. There were no changes to the Aquatic Life Use Classifications in the San Juan Basin.

C. Recreation Classifications and Standards

As part of the Basic Standards hearing of 2005, recreation classifications were revised into four new classifications. The Commission reviewed the previous segment classifications (1a, 1b and 2) and determined the appropriate new classification based on classification criteria presented as part of the Basic Standards Hearing, use attainability analyses or other basis. In addition, during

the 2005 Basic Standards Hearing, the transition from the use of the fecal coliform standard to E. coli standard was completed. Fecal coliform criteria were deleted from the numeric standards.

Based on the information that showed existing primary contact recreation use is in place in at least a portion of the segment, the Commission changed the following segments from Recreation Class1a to Recreation Class E with a 126/100 ml E. coli standard:

San Juan River Basin segments: 1, 2, 4, 5, 6a, 6b, 8, 9a, 9b and 10

Piedra River Basin segments: 1, 4a and 4b

Los Pinos River Basin segments: 1, 2a, 2b, 3, 4a, 4b, 5, 6a, 6b, 7a, 7b

Animas River and Florida River Basin segments: 1, 2, 3a, 3c, 4a, 4b, 5a, 5b, 6, 7, 8, 9, 10, 11a, 11b, 12a, 12b, 13a, 13b, 13c, 14 and 15

La Plata River Basin segments: 7a, 7b, 8a, 8b, 9, 10a, 10b and 11

Dolores River Basin segments: 1, 2, 3, 4a, 5, 6, 7, 8, 10, and 11

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

Piedra River Basin segments: 6a and 6b
La Plata River Basin segment: 1

Based on review of existing Use Attainability Analyses showing that primary contact recreation is not attainable, the following segments were converted from Recreation Class 2 to Recreation Class N classification with 630/100 ml E. coli standard:

La Plata River Basin segments: 3a and 3b

The following segments with seasonal Recreation Class 1a/Recreation Class 2 classification were converted to Class E/Class N (some include changes to the seasons in parentheses):

San Juan River Basin segments: 11a and 11b

Piedra River Basin segments: 2, 3, (new seasons are Class E: April 1-Oct. 31, Class N: Nov. 1-March 31) 5 and 7

Animas River and Florida River Basin segment: 3b

La Plata River Basin segments: 2a, 4a, 5a and 5b

Dolores River Basin segment: 9

The following segments with seasonal Recreation Class 1a/Recreation Class 1b classification were converted to Class E/Class P (some include changes to the seasons in parentheses):

La Plata River Basin segment: 2b

The following segments with seasonal Recreation Class 2/Recreation Class 1b classification were converted to Class N/Class P:

San Juan River Basin segments: 3, 12a and 12b
La Plata River Basin segments 6a and 6b

D. Addition of Water Supply Use Classification and Standards

Based on review of information regarding the location of public water supplies, no additional WS classifications and standards were added to Regulation No. 34.

E Agriculture Standards

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

San Juan River Basin segments: 12a and 12b
Los Pinos River Basin segments: 7a and 7b
La Plata River Basin segments: 10a and 10b

F. Changes to Antidegradation Designation

Outstanding Waters Designation: Based on evidence that shows the water quality meets the requirements of 31.8(2)a, the OW designation was added to the following segments in Mesa Verde National Park: Segment COSJLP06c was created for waters within Mesa Verde National Park.

Based on evidence that shows the water quality meets the requirements of 31.8(2)(a), the OW designation was added to Hermosa Creek and its tributaries (except the East Fork of Hermosa Creek) above Long Hollow. A new segment, Segment COSJAF12c was created for these waters. The Commission understands that there are existing land uses, including grazing permits, in place in the watershed. The evidence demonstrates that these existing land uses are compatible with the Outstanding Water designation since the current high level of water quality has been attained with these uses in place. It is the Commission's intent that this OW designation should not be used to establish additional permit requirements for existing uses within this area.

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

Los Pinos River Basin segments: 6a, 6b, 7a and 7b
Animas River and Florida River Basin segments: 13a, 13b, 13c and 15
La Plata River Basin segment: 2a
Dolores River Basin segments: 9 and 11

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

San Juan River Basin segment: 3

G. Ambient Quality-Based Standards

There are several segments in the Basins that are assigned standards based on existing ambient water quality. Ambient standards are adopted where natural or irreversible man-induced conditions result in exceedances of table value standards. The Commission reviewed the information that is the basis for these standards as well as any new information that would indicate whether they are still appropriate, need to be modified, or should be dropped. The Commission did not adopt any changes to the ambient quality-based standards.

H. Aquatic Life Ammonia Standards

At the June 2005 Basic Standards rulemaking, the Commission adopted the 1999 Update of Ambient Water Quality Criteria for Ammonia (US EPA, Office of Water, EPA-822-R-99-014, December 1999) as the numeric ammonia criteria for Colorado. These new criteria are in the form of total ammonia rather than un-ionized ammonia. The Commission modified the ammonia equations in 34.6(3) and footnotes to conform to Regulation No. 31. In cases where dischargers need time beyond one permit term to assure compliance with new permit limits, temporary modifications have been adopted. These are listed below in the temporary modification section.

I. Aquatic Life Metals Standards

New Table Value Standards: As part of the Basic Standards hearing of 2005, new zinc and cadmium table values were adopted. The acute and chronic zinc and cadmium equations in 34.6(3) were modified to conform to Regulation No. 31.

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

San Juan River Basin segments: 5, 6a and 9a
Piedra River Basin segments: 2, 3, 4a and 5
Los Pinos River Basin segments: 2a and 4a
Animas River and Florida River Basin segment: 10
La Plata River Basin segments 1 and 2a
Dolores River Basin segments: 1, 2, 5, 7 and 11

J. Arsenic Standards

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

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

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

standards), water supply	
Class 1 aquatic life	As(ac) = 340, As(ch) = 7.6(trec)
Class 2 aquatic life (fish ingestion standards)	As(ac) = 340, As(ch) = 7.6(trec)
Class 2 aquatic life (no fish ingestion standards), agriculture	As(ac) = 340, As(ch) = 100 (trec)
Agriculture only	As(ch) = 100 (trec)
Water supply only	As(ch) = 0.02 - 10(trec)

K Uranium Standards

Uranium standards were not added for any segments in this basin.

L. Temporary Modifications

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

The following segments had temporary modifications that are being removed because there are no discharge permits on these segments. Non-attainment of underlying standards shall be addressed through listing and prioritization of TMDLs or through implementation of approved TMDLs:

La Plata River Basin segment 4a: (Cu)
Dolores River Basin segment 9: (Zn)

The following segments have new or extended temporary modifications. As specified in 61.8(2)(c)(iii) (the Permit Rules, Regulation No. 61), where a temporary modification has been adopted, limits in permits are to be set based on the temporary modification and the provision strictly limiting the loading from the facility does not apply. These temporary modifications will be subject to review and rulemaking for the two years before their scheduled expiration in order to track progress towards the full attainment of water body standards and uses.

San Juan River Basin segment 11a: Fe(ch)=1100 ug/l; expiration date 12/31/2011. This temporary modification is intended to allow Pagosa Area Water and Sanitation District (Snowball WTP) adequate time to assess any potential changes to its discharge permit. This need for this temporary modification will be reviewed in 2009 and 2010.

La Plata River Basin segment 3a: Fe(ch)=1920 ug/l; expiration date 12/31/2011. This temporary modification is intended to allow a discharger adequate time to assess any potential changes to its discharge permit. This need for this temporary modification will be reviewed in 2009 and 2010.

La Plata River Basin segment 5a: NH3 = old TVS, expiration date 12/31/2011; This temporary modification is intended to allow the dischargers such as the Town of Mancos adequate time to assess any potential facility changes that will be required to assure compliance with new ammonia limits. This temporary modification will be reviewed in 2009 and 2010.

La Plata River Basin segment 7a: NH3 = old TVS, expiration date 12/31/2011; This temporary modification is intended to allow the dischargers such as the City of Cortez adequate time to assess any potential facility changes that will be required to assure compliance with new ammonia limits. This temporary modification will be reviewed in 2009 and 2010.

La Plata River Basin segment 8a: NH3 = old TVS, expiration date 12/31/2011; Fe(ch)=1500 ug/l; expiration date 12/31/2011. These temporary modifications are intended to allow the dischargers such as the City of Cortez and Dove Creek adequate time to assess any potential facility changes that will be required to assure compliance with new ammonia limits. This temporary modification will be reviewed in 2009 and 2010.

La Plata River Basin segment 8c: NH3 = existing quality, expiration date 12/31/2013; This temporary modification is intended to allow Lee Mobile Home Park adequate time to assess any potential facility changes that will be required to assure compliance with new ammonia limits. This temporary modification will be reviewed in 2009 and 2010.

The Upper Animas River Basin is a historic mining region undergoing remedial efforts led by the Animas River Stakeholder Group. There are approved TMDLs for the basin that cover all segments and parameters that are in non-attainment of water quality standards. Due to historic mining there are numerous other point-source discharges to nine segments in the Upper Animas River Basin that are not currently permitted. The Commission decided to retain and update temporary modifications to the historic mining impacted segments to allow flexibility in remedial efforts.

Animas River Basin segment 2: Existing ambient quality for all metals. This temporary modification is intended to allow the TMDL directed remedial efforts adequate time to address non-attainment of standards. This need for this temporary modification will be reviewed in 2009 and 2010.

Animas River Basin segment 3a: Cd(ch)=3.0, Mn(ch)=3203, Zn(ch)=862. This temporary modification is intended to allow the TMDL directed remedial efforts adequate time to address non-attainment of standards. This need for this temporary modification will be reviewed in 2009 and 2010.

Animas River Basin segment 3b: Existing ambient quality for all metals. This temporary modification is intended to allow the TMDL directed remedial efforts adequate time to address non-attainment of standards. This need for this temporary modification will be reviewed in 2009 and 2010.

Animas River Basin segment 3c: Cu(ch)=6.6, Zn(ch)=184, no Cu, Zn acute. This temporary modification is intended to allow the TMDL directed remedial efforts adequate time to address non-attainment of standards. This need for this temporary modification will be reviewed in 2009 and 2010.

Animas River Basin segment 4a: Al(ch)=2523 (trec), Fe(ch)=4204 (trec), Zn(ch) = 730 ug/L, Cu(ch) = 20 ug/L; Cd(ch) = 2.5 u/L, pH= 5.3; expiration date 12/31/2011. This temporary modification is intended to allow the TMDL directed remedial efforts adequate time to address non-attainment of standards. This need for this temporary modification will be reviewed in 2009 and 2010.

Animas River Basin segment 4b: Zn(ch)=184. This temporary modification is intended to allow the TMDL directed remedial efforts adequate time to address non-attainment of standards. This need for this temporary modification will be reviewed in 2009 and 2010.

Animas River Basin segment 7: Existing ambient quality for all metals. This temporary modification is intended to allow the TMDL directed remedial efforts adequate time to address non-attainment of standards. This need for this temporary modification will be reviewed in 2009 and 2010.

Animas River Basin segment 8: Existing ambient quality for all metals. This temporary modification is intended to allow the TMDL directed remedial efforts adequate time to address non-attainment of standards. This need for this temporary modification will be reviewed in 2009 and 2010.

Animas River Basin segment 9: Al(ch)=3544(Trec), Cu(ch)=22, Fe(ch)=5023(Trec), Zn(ac/ch)=340. This temporary modification is intended to allow the TMDL directed remedial efforts adequate time to address non-attainment of standards. This need for this temporary modification will be reviewed in 2009 and 2010.

M. Other changes

The hearing of section 34.5(4) has changed to "Indian Reservations" as a more accurate description. In addition, the test of this section was revised to reflect EPA's approval of the Ute Mountain Utes' treatment as a state status for the adoption of water quality standards.

The Commission corrected several typographical and spelling errors, and clarified segment descriptions.

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

The segment description for Piedra segment 5 was changed to include "Williams Creek Reservoir."

The segment description for Dolores segment 5 was changed to include "Groundhog Reservoir."

Acute copper and zinc TVS were added to the table for Animas River segment 3c.

PARTIES TO THE RULEMAKING HEARING

1. San Juan Citizens Alliance
2. Tri-State Generation and Transmission Association
3. National Park Service
4. Mountain Coal Company
5. West Elk Mine
6. Homestake Mining Company of California
7. Umetco Minerals Corporation
8. Lee Mobile Home Park
9. The Southwest Mesa County Rural Services Public Improvement District
10. Animas River Stakeholders Group
11. Board of County Commissioners of the County of Gunnison, Colorado
12. The Town of Silverton
13. The Town of Cedaredge
14. The Town of Olathe
15. High Country Citizens Alliance
16. Upper Gunnison River Water Conservancy District
17. Colorado Trout Unlimited
18. The City of Grand Junction

19. Gunnison County Stockgrowers Association, Inc.
20. The Southwestern Water Conservation District
21. Vista Verde Village LLC
22. The Colorado Division of Wildlife
23. Nucla Sanitation District
24. Town of Naturita
25. The Pagosa Area Water and Sanitation District
26. The Boxelder Sanitation District
27. City of Ouray
28. Norwood Sanitation District
29. U.S. Environmental Protection Agency
30. Colorado River Water Conservation District

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

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

BASIS AND PURPOSE:

The Commission revised the basin-wide temperature standards as part of the 2007 rulemaking hearing. These changes clarify the numeric temperature standards that will be in effect until the basin-wide rulemaking hearing in June of 2011. At that time, the Commission intends to consider segment specific temperature standards for all segments with aquatic life uses.

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

The Commission also applied 18.2 ºC as an interim chronic standard to waters designated by the Colorado Wildlife Commission as "Gold Medal Fisheries". The Commission agrees that it is important to protect these fisheries that provide important recreational and tourism opportunities in the headwaters of Colorado. This standard is based on a criterion to protect rainbow trout. The Colorado Division of Wildlife presented evidence that rainbow trout thrive in Gold Medal fisheries because they are provided the necessary forage base and thermal conditions to maximize their consumption and growth. Because these thermal conditions also represent the upper temperature tolerance range for this species, it was determined that an interim standard of 20°C would not be adequate to protect these fisheries.

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

PARTIES TO THE RULEMAKING HEARING

1. The Temperature Group (City of Aurora, City of Boulder, Colorado Springs Utilities, Littleton/Englewood Wastewater Treatment, The Metro Wastewater Reclamation District, Colorado Mining Association, Colorado Rock Products Association, Tri-State Generation & Transmission Assn., Xcel Energy, Denver Water, Northern Colorado Water Conservancy District, Southeastern Colorado Water Conservancy District)
2. City of Grand Junction
3. City of Loveland
4. City of Pueblo

5. Metro Wastewater Reclamation District
6. City of Aurora
7. City of Boulder
8. Colorado River Water Conservation District
9. Colorado Wastewater Utility Council
10. Bear Creek Watershed Association
11. Chatfield Watershed Authority
12. Mountain Coal Company, L.L.C.
13. Northern Colorado Water Conservancy District
14. Colorado Rock Products Association
15. Littleton/Englewood Wastewater Treatment Plant
16. Northwest Colorado Council of Governments
17. Southeastern Colorado Water Conservancy District
18. Colorado Mining Association
19. Colorado Division of Wildlife
20. South Platte Coalition for Urban River Evaluation
21. City and County of Denver
22. City of Colorado Springs and Colorado Springs Utilities
23. City of Westminster
24. Board of Water Works of Pueblo
25. Coors Brewing Company
26. City and County of Broomfield
27. Centennial Water and Sanitation District
28. Plum Creek Wastewater Authority
29. Climax Molybdenum Company
30. Cripple Creek & Victor Gold Mining Company
31. Tri-State Generation and Transmission Association
32. Xcel Energy
33. Sky Ranch Metropolitan District No. 2
34. Parker Water and Sanitation District
35. CAM-Colorado and CAM Mining LLC
36. Aggregate Industries - WCR, Inc.
37. Grand County Water and Sanitation District #1, Winter Park Water and Sanitation District, Winter Park West Water and Sanitation District and Fraser Sanitation District
38. Trout Unlimited and Colorado Trout Unlimited
39. Colorado Contractors Association
40. United States Environmental Protection Agency, Region 8
41. Hot Springs Lodge and Pool
42. Denver Regional Council of Governments

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

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

BASIS AND PURPOSE

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

Ammonia: Temporary modifications of ammonia standards were reviewed.

Deleted: Ammonia temporary modifications were deleted on the following segments because in most cases permits had recently been reissued for dischargers on the segments. Compliance schedules in the permits are adequate to address any necessary treatment plant upgrade issues. In other cases, no permits now discharge to this segment.

La Plata, etc segments 5a and 8a

Modified: La Plata, etc. segment 7a: The chronic ammonia temporary modification was modified to clarify that the chronic standard's value is 0.06 mg/l, rather than just "TVS old." "Type iii" was added to identify that there is significant uncertainty regarding the appropriate underlying standard. The expiration date was extended to 12/31/2012 to allow time for additional study.

Other Parameters: Temporary modifications for other parameters were also reviewed.

Deleted: Temporary modification were deleted on the following segment because no permitted discharge has been identified that needs a temporary modification.

La Plata, etc segment 3a iron

Extension of expiration dates: The Commission has decided to delay the basin-wide review of water quality classifications and standards for this basin until June 2012, to accommodate an issue-specific rulemaking for nutrient criteria in June 2011. Consistent with that decision, the expiration dates of the temporary modifications on the following segments that are currently scheduled to expire on 12/31/2011 are extended to 12/31/2012. These will be reviewed again in the December 2010 and December 2011 Temporary Modification hearing.

San Juan segment 11a
Animas and Florida segments 2, 3a, 3b, 3c, 4a, 4b, 7, 8, and 9
La Plata, etc. segment 8a

The Commission would like to emphasize that its intent and expectation is that the issues that necessitated adoption of these temporary modifications should be resolved as soon as possible and in a manner that takes full advantage of the opportunities provided by the December 2010 and December 2011 reviews of temporary modifications. The Commission recognizes that it is important to resolve uncertainty regarding the underlying standards so that temporary modifications can be eliminated and any needed pollution controls can be put in place in a timely manner.

PARTIES TO THE RULEMAKING

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

34.35 STATEMENT OF BASIN SPECIFIC STATUTORY AUTHORITY AND PURPOSE, FEBRUARY 8, 2010 RULEMAKING REGARDING TEMPORARY MODIFICATION FOR RITTER DRAW, EFFECTIVE DATE JUNE 30, 2010

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

BASIS AND PURPOSE

The Commission added "Type iii" to the temporary modification of the ammonia standard for an unnamed tributary of Ritter Draw (La Plata River, Mancos River, McElmo Creek and San Juan River in Montezuma and Dolores County, segment 8c) in recognition that there is uncertainty regarding the appropriate underlying standard. A review of the hearing record shows that when this temporary modification was originally adopted (2006) testimony was presented that identified uncertainty regarding the aquatic life use. At that time, the type of temporary modification was not identified for each temporary modification. The Commission's current action is intended to recognize that time is needed to resolve the uncertainty about the appropriate standard before compliance is required.

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

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

BASIS AND PURPOSE

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

The type iii temporary modification of ammonia standards on La Plata segment 7a was reviewed. It will expire on 12/31/2012. It is anticipated that site-specific standards will be considered as part of the basin-wide review in June 2012.

Temporary modifications of metal standards in the Upper Animas Basin (Animas River segments 2, 3a, 3b, 3c, 4a, 4b, 7, 8 and 9) were reviewed. They will expire on 12/31/2012. It is anticipated that the Animas River Stakeholder Group will present a more comprehensive review as part of the basin-wide review in June 2012.

The temporary modifications of the iron standard on San Juan segment 11a and La Plata segment 8a were reviewed. They will expire on 12/31/2012. When originally adopted, time was allotted to allow dischargers time to assess potential changes to their discharge permits. It is anticipated that these will be addressed as part of the basin-wide review in June 2012.

PARTIES TO THE RULEMAKING HEARING

1. Paint Brush Hills Metropolitan District
2. Tri-State Generation and Transmission Association
3. Seneca Coal Company
4. Mountain Water and Sanitation District
5. City of Grand Junction
6. Colorado Division of Wildlife

7. City of Boulder
8. U. S. Environmental Protection Agency
9. City of Colorado Springs and Colorado Springs Utilities

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

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

BASIS AND PURPOSE

The Commission's decision to delay consideration of nutrient criteria until March 2012 resulted in cancelation of the December 2011 review of temporary modifications and a three-month delay of the Regulation #34 basin-wide review. Accordingly, the Commission considered the expiration dates of temporary modifications expiring on or before December 31, 2012 in a written comment rulemaking. The Commission extended the expiration dates of the following temporary modifications to March 31, 2013. They would be reviewed during the September 2012 basin-wide rulemaking hearing.

San Juan segment 11a (Fe)
Animas segment 2 (all metals)
Animas segment 3a (Cd, Mn, Zn)
Animas segment 3b (all metals)
Animas segment 3c (Cu, Zn)
Animas segment 4a (Al, Fe, Zn, Cu, Cd, pH)
Animas segment 4b (Zn)
Animas segment 7 (all metals)
Animas segment 8 (all metals)
Animas segment 9 (Al Cu, Fe, Zn)
La Plata etc, segment 7a (NH_3)
La Plata etc, segment 8a (Fe).

34.38 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; SEPTEMBER 10, 2012 RULEMAKING; FINAL ACTION NOVEMBER 5, 2012; EFFECTIVE DATE MARCH 30, 2013

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

BASIS AND PURPOSE:

A. Waterbody Segmentation

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

San Juan River segments: 1a, 3, 4, 5, 6a, 9a, 9b, 11a, 11b, 12a
Piedra River segments: 1, 5, 6a, 6b
Los Pinos River segments: 1, 4a, 6a, 6b
Animas and Florida River segments: 1, 3c, 6, 7, 8, 12a, 13b, 13c
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 1, 3a, 3b, 4a, 6a,

6b, 7a, 8a, 8b, 10a, 10b
Upper Dolores River segments: 1, 5a, 11

The following segments were created for lakes and reservoirs:

San Juan River segments: 13, 14, 15a, 15b, 16, 17, 18a, 18b, 19
Piedra River segments: 8, 9, 10, 11a, 11b
Los Pinos River segments: 8, 9, 10, 11a, 11b
Animas and Florida River segments: 16, 17, 18, 19, 20, 21, 22, 23, 24
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22
Upper Dolores River segments: 12, 13, 14, 15

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

San Juan River segment: 12b

Some existing stream segments were divided into two or more segments at the point where a change in temperature tiers occurred. The following segments were created or revised to facilitate adoption of the new temperature standards into individual segments:

San Juan River segments: 1a, 1b, 7, 8, 9a
Piedra River segments: 2a, 2b
Animas and Florida River segments: 10a, 10b, 14a, 14b
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 3a, 3c, 4a, 4c, 6a

The following segments were created or revised based upon water quality and/or aquatic life data which showed that streams should be resegmented or grouped with another segment for which there was similar water quality and designated uses:

San Juan River segments: 11b
Animas and Florida River segments: 12a, 12d, 13b, 13d, 14a
Dolores River segments 5a, 5b

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

San Juan River segments: 2, 5, 6a, 9a, 10, 11a, 11b, 12a
Piedra River segments: 4a, 5, 6a
Los Pinos River segments: 7a, 7b, 8
Animas and Florida River segments: 6, 12a, 13a, 13b, 15
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 4b, 7b, 10a, 10b
Upper Dolores River segment: 1

B. Revised Aquatic-Life Use Classifications and Standards

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

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

La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 2b, 5a, 5b
San Juan River segment: 11b (revised to include water bodies from the former segment 12b)

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

La Plata River, Mancos, River, McElmo Creek and San Juan River segment: 2a
Animas and Florida River segments: 12a, 12d

Fish Ingestion qualifiers were added to the following segments, based upon review of available data:

Piedra River segment 11a
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 14

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

La Plata River, Mancos, River, McElmo Creek and San Juan River segment: 2a

The following segment was upgraded from Warm 2 to Cold 1 based on biological data showing that the segments have cold-water species, or cold-water species are expected to be present:

La Plata River, Mancos, River, McElmo Creek and San Juan River segment: 3c

The following segments were designated as Aquatic Life Warm 2 or Cold 2, but lacked standards to fully support the Aquatic Life Use. Available data indicates that the Aquatic Life Use is attainable, and therefore the full suite of standards protective of aquatic life was added to the following segments:

San Juan River segments: 3, 12, 19
Los Pinos River segments: 6a, 6b, 11a, 11b
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 10a, 10b

Some new lake segments were split from stream segments with no Aquatic Life Use. These new lake segments were designated as Aquatic Life Cold 2, because the Aquatic Life UAAs did not include data from these lakes. The full suite of standards protective of aquatic life was added to the following segments:

Animas and Florida River segments: 19, 20

A Use Attainability Analysis was prepared to downgrade the following segment from Cold 1 to Warm 1:

San Juan River segment: 8

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

Animas and Florida River segment: 13d

C. Recreation Classifications and Standards

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

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

La Plata River, Mancos, River, McElmo Creek and San Juan River segment: 3c
La Plata River, Mancos, River, McElmo Creek and San Juan River segment: 14

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

Piedra River segment: 11a
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 1, 12

The following segment with year-round or seasonal Recreation N standards was upgraded to Recreation P:

La Plata River, Mancos, River, McElmo Creek and San Juan River segment: 13

D. Water Supply Use Classification and Standards

Based on review of information regarding the location of alluvial wells, where the evidence demonstrates a reasonable potential for a hydrological connection between the surface water and the wells, the Water Supply Use classification and standards were added to the following segments:

San Juan River segments: 10, 11a
Animas and Florida River segments: 9, 13a
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 2a, 2b, 3b, 4c, 5a, 8a
Upper Dolores River segment: 3

A Use Attainability Analysis was prepared to remove the Water Supply Use and standards from the following segment:

Animas and Florida River segment: 13d

E. Agriculture Standards

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

San Juan River segments: 11b, 18b
Los Pinos River segments: 7a, 7b
Animas and Florida River segment: 3a
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 6a, 6b, 6c, 7a, 7b, 8b, 8c, 9, 13, 14, 16, 17, 18, 19

Several segments with the Agriculture Use classification were missing a standard for nitrate. A nitrate standard of 100 mg/l was added to the following segments:

Los Pinos River segments: 7a, 7b
Animas and Florida River segments: 3a, 3c, 4a, 17, 19, 20
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 3a, 5b, 6a, 6b, 6c, 7a, 7b, 8b, 8c, 9, 13, 14, 16, 17, 18, 19, 20

Molybdenum: In 2010, the Commission adopted a new standard for molybdenum to protect cattle from the effects of molybdenosis. The table value adopted at that time was 300 ug/l, but included an assumption of 48 mg/day of copper supplementation to ameliorate the effects of molybdenosis. State and local experts on cattle nutrition indicated that copper supplementation in region is common, but is not

universal. Therefore, copper supplementation assumption was removed from the equation, which yields a standard of 160 ug/l. The Commission expects that this value may be revised when data on the copper and molybdenum content of local forage becomes available. The Commission also notes that in view of EPA disapproval of the 300 ug/l table value in the Basic Standards and Methodologies for Surface Water, the Commission intends to review this value during the next Basic Standards triennial review.

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

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

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

The assumed values for these equations are as follows:
[Cu] forage = 7 mg/kg, [Mo] forage = 0.5 mg/kg, forage intake = 6.8 kg/day, [Cu] water = 0.008 mg/L, [Mo] water = 0.375 mg/L, water intake = 54.6 L/day, Cu supplementation = 0 mg/day, Mo supplementation = 0 mg/day.

A molybdenum standard of 160 ug/l was adopted for all segments in Regulation 34 with an Agriculture Use classification; except for La Plata segment 6c, because grazing is not allowed within Mesa Verde National Park. No molybdenum standard was applied to Animas and Florida River segment 3b, because it does not have an Agriculture Use classification.

F. Changes to Antidegradation Designation

Outstanding Waters: Based on evidence that shows the water quality meets the requirements of section 31.8(2)(a), and on the presence of conservation populations of native cutthroat trout in all three streams, the Outstanding Waters designation was added to Rio Lado, Little Taylor Creek and Spring Creek (Dolores River segment 5b). The Commission has determined that the evidence demonstrates that the three criteria for an Outstanding Waters designation set forth in section 31.8(2)(a) are met for this proposal. The Commission also notes that the outreach undertaken by Trout Unlimited as proponent of this designation helps to demonstrate broad support for the conclusion that these waters constitute an outstanding natural resource and that the additional protection provided by this designation is appropriate.

The Commission understands that there are existing land uses, including grazing permits, in place in the watershed. The evidence demonstrates that these existing land uses are compatible with the Outstanding Waters designation, since the current high level of water quality has been attained with these uses in place. It is the Commission's intent that this Outstanding Waters designation 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.

Further, acknowledging that the adoption of the Outstanding Waters designation for identified segments is a discretionary undertaking by the Commission, with such designations not being subject to federal approval or disapproval, the Commission may, in the future, remove the Outstanding Waters designation from any such segment in accordance with the state substantive and procedural rules then in effect.

The Commission has not adopted the Outstanding Waters designations proposed by WildEarth Guardians for multiple segments. The Commission is not persuaded that the fact of being located within an area identified as a “roadless area” is sufficient to demonstrate that the waters in question constitute an outstanding natural resource. Moreover, the proponents did not provide adequate data to persuasively demonstrate the current quality of the waters in question. Finally, the Commission notes

that the proponents did not demonstrate a substantial level of public outreach that might have helped to demonstrate a consensus that the criteria in section 31.8(2)(a) are met.

Decoupling Cold 2 and UP: As part of the Basic Standards hearing of 2005, the Commission eliminated the direct linkage between Cold-Water Aquatic Life Class 2 and the Use-Protected designation. The Commission reviewed available water quality data for all Cold 2 segments that were Use-Protected to determine if that designation was still warranted. The following segment(s) are now Reviewable:

Animas and Florida River segments: 17, 19, 20

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

San Juan River segments: 11b (revised to include water bodies from the former segment 12b), 12

Other Changes to Antidegradation: The following segment was upgraded from "Warm 2" to "Warm 1" and the Antidegradation designation is now Reviewable:

La Plata River, Mancos, River, McElmo Creek and San Juan River segment: 2b

The following segment was upgraded from "Warm 2" to "Cold 1" and the antidegradation designation is now Reviewable:

La Plata River, Mancos, River, McElmo Creek and San Juan River segment: 3c

G. Ambient Quality-Based Standards

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

Animas and Florida River segments: 2, 3a, 3b, 4a, 7, 8, 9
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 7a, 9

No changes were made to the ambient quality-based standards for these segments.

A site-specific manganese standard of 255 ug/L was added to Dolores Segment 3. This value was calculated as the 85th percentile of available data from 1/1/1995 – 12/31/2012, and is expected to be representative of conditions on January 1, 2000, consistent with 31.11(6)).

H. Aquatic Life Metals Standards

New Table Value Standards: The zinc, zinc sculpin, and aluminum table values were revised in the 2010 Basic Standards hearing. The acute and chronic zinc, zinc sculpin, and aluminum equations in 34.6(3) were modified to conform to Regulation No. 31.

Site-Specific Zinc Standards for Mottled Sculpin: In low hardness situations (hardness below 102 mg/L), the zinc equation is not protective of mottled sculpin (*Cottus bairdi*), a native west-slope fish species. The Commission did not add a sculpin-specific zinc equation to any segment in Regulation 34.

The Commission deleted the zinc scuplin standards from the following new and revised lake segments, where mottled sculpin are not expected to be present:

San Juan River segments: 8, 17
Piedra River segments: 8, 10
Los Pinos River segment: 10
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 12, 13
Upper Dolores River segments: 12, 13, 14, 15

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

San Juan River segments: 1a, 1b, 2, 3, 4, 5, 6a, 6b, 7, 8, 9a, 9b, 10, 11a, 11b, 12, 13, 14, 15a, 15b, 16, 17, 18a, 18b, 19
Piedra River segments: 1, 2a, 2b, 3, 4a, 4b, 5, 6a, 6b, 7, 8 , 9, 10, 11a, 11b
Los Pinos River segments: 1, 2a, 2b, 3, 4a, 4b, 5, 8, 9, 10
Animas and Florida River segments: 1, 5a, 5b, 6, 10a, 10b, 11a, 11b, 12a, 12c, 12d, 13b, 13c, 14a, 15, 16, 21, 22, 23, 24
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 1, 3b, 4a, 4b, 11, 12, 15
Upper Dolores River segments: 1, 2, 3, 4a, 4b, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

The acute chromium III standard, CrIII(ac)=TVS was deleted from the following segments with Aquatic Life and Water Supply Use classifications that have the CrIII(ac)=50 ug/l standard:

San Juan River segment: 11a
Animas and Florida River segment: 4b
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 2a, 2b, 3b

Arsenic Standards: A review of arsenic standards showed that the acute standard for the protection of aquatic life was missing in some segments. An Acute Arsenic standard of 340 ug/l was added to the following segments:

Los Pinos River segments: 6a, 6b, 7a, 7b, 11a, 11b

I. Uranium Standards

At the 2010 Basic Standards rulemaking hearing, the Commission changed the Water Supply table value for uranium from 30 ug/L to a hyphenated standard of 16.8-30 ug/L. The Commission revised the language in 34.5(3)(c) to reflect the change to the basin-wide standard. A new section 34.5(3)(c)(i) was added to explain the hyphenated standard. Subsection 34.5(3)(d) was deleted because it was redundant with 34.5(3)(c).

J. Temporary Modifications

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

The following segments had Temporary Modifications that were not extended:

San Juan River segment: 11a
Animas and Florida River segments: 2, 3a, 3b, 3c, 4a, 4b, 7, 8, 9
La Plata River, Mancos, River, McElmo Creek and San Juan River segment: 8a

The following segments have new or extended "Type A" Temporary Modifications for ammonia:

Animas and Florida River segment: 13b
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 7a, 8c

Temporary Modifications were added or extended for existing discharges to these segments, based upon evidence that the dischargers could not meet water quality based effluent limits for ammonia. The Commission's intent is to preserve the status quo during the term of the Temporary Modification. Existing discharges to these segments shall continue to be authorized to discharge ammonia at their current permitted concentration and flow levels, including a "report only" value. The Division will work with the existing dischargers to determine whether the table value standard for ammonia is necessary to protect the Aquatic Life Uses of these segments. The uncertainty in the standard for each segment may be resolved through a site-specific standard or a discharger specific variance. The Commission does not intend that Temporary Modifications set at "current condition" will apply to new or expanded facilities. The progress on resolving the uncertainty with the ammonia standards will be reviewed in the annual Temporary Modification hearing in December 2013.

The following segment has a new "Type B" Temporary Modification:

Animas and Florida River segment: 3b

For Animas River Segment 3b, the Commission adopted a Type B Temporary Modification for copper, cadmium and zinc with a narrative value of "current condition", and an expiration date of December 31, 2017. The Commission's intent is to preserve the status quo during the term of the Temporary Modification. Existing discharges to Animas River Segment 3b shall continue to be authorized to discharge copper, cadmium and zinc at their current permitted concentration and flow levels, including a "report only" value. Historic mining impacts upstream from Silverton indicate that elevated levels of copper, cadmium and zinc in the Animas River may be due to irreversible human-induced conditions. Since remediation options are still be evaluated, and some improvement in water quality may be gained, it is not yet feasible to quantify the extent of irreversible impacts. The Commission does not intend that Temporary Modifications set at "current condition" will apply to new or expanded facilities. The progress on resolving the uncertainty with the cadmium, copper and zinc standards will be reviewed in the annual Temporary Modification hearing in December 2015.

K. Temperature

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

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

San Juan River segments: 1a, 4, 5, 7
Piedra River segments: 1, 2a, 3, 5
Los Pinos River segments: 1, 4a, 5
Animas and Florida River segments: 1, 3a, 3c, 4a, 4b, 6, 9, 10a, 12a, 12c, 12d, 13b, 14a, 15
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 1, 4a
Upper Dolores River segments: 1, 2, 3, 5a, 5b, 6, 7, 8, 9, 10, 11

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

San Juan River segments: 1b, 2, 6a, 6b, 9a, 9b, 10
Piedra River segments: 2b, 4a, 4b
Los Pinos River segments: 2a, 2b, 4b, 6a, 6b, 7a, 7b
Animas and Florida River segments: 5a, 5b, 10b, 11a, 11b, 13a, 13c, 14b
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 2a, 3c, 4c
Upper Dolores River segment: 4a

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

San Juan River segments: 3, 11a, 11b
Piedra River segment: 6a
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 2b, 3a, 3b, 5a, 5b, 6a, 6b, 7a, 7b, 8a, 8b, 9

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

San Juan River segment: 12a
Piedra River segment: 6b
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 6c, 8c, 10a, 10b

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

San Juan River segments: 13, 15a, 15b, 16, 17
Piedra River segments: 9, 10
Los Pinos River segments: 8, 10, 11a, 11b
Animas and Florida River segments: 16, 17, 18, 19, 20, 21, 23, 24
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 12, 15
Upper Dolores River segments: 12, 14, 15

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

Piedra River segment: 8
Los Pinos River segments: 3, 9
Animas and Florida River segments: 12b, 22
La Plata River, Mancos, River, McElmo Creek and San Juan River segment: 4b
Upper Dolores River segments: 4b, 13

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

San Juan River segments: 8, 14, 18a, 18b, 19
Piedra River segments: 7, 11a, 11b
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 11,13, 14, 16, 17, 18, 19, 20, 21, 22

A temperature standard was not adopted for several segments which do not have a designated Aquatic Life Use:

Animas and Florida River segments: 2, 3b, 7, 8, 13d

The Commission recognizes that in some cases there is uncertainty about the temperature standards adopted in this hearing. The uncertainty stems from a lack of data about temperature or the aquatic community or where there is a conflict between the lines of evidence. In particular, there was very limited data available for segments within the Southern Ute and Ute Mountain Indian Reservations. It is the

Commission's intent that the Division and interested parties work to resolve the uncertainty for the following segments:

San Juan River segments: 2, 6b, 9b, 11b, 15b, 18b
Piedra River segments: 4b, 6b, 11b
Los Pinos River segments: 2b, 4b, 6b, 7b, 11b
Animas and Florida River segments: 5b, 11b, 13c, 24
La Plata River, Mancos, River, McElmo Creek and San Juan River segments: 2b, 3b, 5b, 6b, 7b, 8b, 9, 10b, 14, 17, 20, 22

L. Other Site-Specific Revisions

La Plata River, Mancos, River, McElmo Creek and San Juan River 2b: The discrepancy between the Recreation Use season and the E. coli standard season was corrected. The fecal coliform standard was also deleted.

Upper Dolores River segment 11: The typographical error in the Agriculture designated use was corrected.

M. Tribally-Owned Lands

The Southern Ute Indian Tribe raised an issue with the wording of section 34.5(4). The Commission deleted the phrase "in agreement with the Southern Ute and Ute Mountain Ute Indian Tribes". This section was added in 2001 and referred to a verbal staff level agreement at that time.

PARTIES TO THE RULEMAKING HEARING

1. Trout Unlimited
2. WildEarth Guardians
3. National Park Service, Curecanti National Recreation Area
4. Mountain Coal Company
5. U.S. Energy Corp.
6. Climax Molybdenum Company
7. Gunnison County
8. Gunnison County Stockgrowers Association, Inc.
9. Homestake Mining Company of California
10. Colorado Parks and Wildlife
11. High Country Citizens' Alliance
12. Town of Crested Butte
13. Upper Gunnison River Water Conservancy District
14. Dolores Water Conservancy District
15. Town of Hotchkiss
16. Town of Olathe
17. Town of Silverton
18. Atlantic Richfield Company
19 City of Delta
20. Environmental Protection Agency
21 R Squared, Inc.
22. Wright Water Engineers, Inc.
23. San Juan Citizens Alliance
24. Colorado Sand and Gravel Association

34.39 FINDINGS IN SUPPORT OF ADOPTION OF EMERGENCY REVISIONS; MAY 13, 2013

The Commission adopted the corrections to the zinc table value equations as an emergency action, making the revisions effective immediately. If the Commission does not adopt revisions as an emergency, the effective date would be delayed and discharge permits with zinc limits may be issued incorrectly, which would result in an unnecessary adverse impact on the public. The Commission finds that these amount to exigent circumstances which warrant emergency adoption of these interim revisions to the relevant water quality standards. The Commission further finds that these emergency revisions are imperatively necessary to preserve public health and welfare and that compliance with the procedural requirements of section 24-4-2103, C.R.S., resulting in further delay would be contrary to the public interest.

The changes to the zinc equation are to be effective immediately upon adoption by the Commission, and continue in effect until the effective date of permanent regulations.

34.40 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; MAY 13, 2013 RULEMAKING; EFFECTIVE DATE SEPTEMBER 30, 2013

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

BASIS AND PURPOSE:

The Commission adopted revisions to Regulation #34 after a rulemaking hearing in September 2012. Changes to two table value criteria that were made in the 2010 Basic Standards hearing were inadvertently overlooked a the time the proposal for that rulemaking was developed: revisions to the zinc standard equations and temperature values for the Warm Stream tier 2 subclass. In today's action the Commission adopted the corrections to the table values for these parameters in section 34.6. The changes to the zinc equations were adopted as an emergency temporary action (see 34.39) and as a permanent action. Since this is the initial implementation of the new temperature standards in this basin it is not anticipated that the changes to the temperature table values will result in adverse impacts in any permitting action or to the public.

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

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

BASIS AND PURPOSE:

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

In this hearing, the Commission adopted temporary modifications for W+F chronic arsenic where a permitted discharger with a water quality–based effluent limit compliance problem exists. The adopted temporary modification is listed in the regulation tables as “As(ch)=hybrid”. An explanation of the temporary modification and its expected implementation into control requirements, such as Colorado Discharge Permit System (CDPS) effluent limitations, is described in 34.6(2)(d). The temporary modification was established by the Commission to allow for a temporarily less stringent application of the chronic arsenic standard in control requirements for both existing discharges and new or increased discharges.

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

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

The technologically feasible level of 3.0 µg/L for arsenic is based upon testimony heard by the Commission at the December 13, 2011 Emergency Revisions to Regulation #38. At the December 13, 2011 hearing, the Commission determined, as a practical manner, that 3.0 µg/L is the lowest level that is technologically achievable for common types of water treatment facilities. At the April 8, 2013 Rulemaking, the Commission heard testimony that concurred with the finding from December 13, 2011 that an initial reasonable lower limit of treatment technology for arsenic is 3.0 µg/L, pending further

investigation by the Division, dischargers and stakeholders. The Division intends to address the uncertainty of the W+F chronic arsenic standard with respect to a technologically feasible level of treatment through a continued workgroup process, and propose a revised W+F chronic arsenic standards as part of the 2016 Basic Standards Rulemaking Hearing

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

San Juan River 2
San Juan River 4
San Juan River 5
San Juan River 6a
Piedra River 1
Piedra River 2a
Piedra River 4b
Piedra River 5
Los Pinos River 1
Los Pinos River 2a
Los Pinos River 2b
Los Pinos River 4a
Los Pinos River 4b
Animas and Florida River 4b
Animas and Florida River 5a
Animas and Florida River 5b
Animas and Florida River 6
Animas and Florida River 10b
Animas and Florida River 11a
Animas and Florida River 11b
Animas and Florida River 12a
Animas and Florida River 13b
Animas and Florida River 13c
Animas and Florida River 14a
Animas and Florida River 14b
La Plata River, Mancos River, McElmo Creek, And San Juan River in Montezuma County and Dolores County 1
La Plata River, Mancos River, McElmo Creek, And San Juan River in Montezuma County and Dolores County 4a
Dolores River 8
Dolores River 11

PARTIES TO THE RULEMAKING HEARING

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

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

34.42 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE DECEMBER 9, 2013 RULEMAKING REGARDING TEMPORARY MODIFICATIONS; FINAL ACTION MARCH 11, 2014; EFFECTIVE DATE JUNE 30, 2014

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

BASIS AND PURPOSE

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

Temporary Modifications for ammonia on the following segments were reviewed:

Animas and Florida River segment: 13b
La Plata River, Mancos River, McElmo Creek, and San Juan River segments: 7a, 8c

Temporary Modifications were extended for existing discharges to these segments in 2012, based upon evidence that the dischargers could not meet water quality based effluent limits for ammonia. The uncertainty in the standard for each segment may be resolved through a site-specific standard or a discharger specific variance. The expiration dates were extended to 6/30/2015. The Division intends to have proposals ready to resolve the uncertainty with the ammonia standards for the annual Temporary Modification hearing in December 2014.

PARTIES TO THE RULEMAKING HEARING

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

34.43 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE AUGUST 11, 2014 RULEMAKING HEARING; FINAL ACTION AUGUST 11, 2014; EFFECTIVE DATE MARCH 1, 2015

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

BASIS AND PURPOSE

In 2010, the Commission adopted the discharger specific variance provisions at Regulation 31.7(4), which allow a temporary water quality standard to be adopted in cases where water quality based effluent limits are not feasible to achieve. A DSV is a hybrid standard that maintains the long-term water quality goal of fully protecting all designated uses, while temporarily authorizing an alternative effluent limit (AEL) to be developed for a specific pollutant and specific point source discharge where compliance with the water quality based effluent limit (WQBEL) is not feasible.

In reliance upon Durango West Metropolitan District #2's (DWMD's) commitment to implement upgrades and a continued maintenance program, the Commission adopted a DSV for Animas and Florida Segment 13b for ammonia that represents the highest degree of protection of the classified use that is feasible for DWMD. For ammonia, the monthly chronic total ammonia effluent limits for DWMD shall not be more restrictive than 15 mg/L prior to 12/31/2024. The Commission expects that DWMD will submit a progress report for the San Juan Basin Issues Formulation Hearing in November 2016 and expects that report to include information regarding whether there are any downstream domestic water supply wells that are impacted by the discharge.

PARTIES TO THE RULEMAKING HEARING

1. Durango West Metropolitan District #2
2. Colorado Parks and Wildlife
3. U.S. Environmental Protection Agency

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

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

BASIS AND PURPOSE

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the Commission reviewed the status of temporary modifications scheduled to expire before December 31, 2016, to determine whether the temporary modification should be modified, eliminated or extended. Temporary modifications of standards on 2 segments were reviewed.

Extension: The Commission extended the expiration date of ammonia temporary modifications on the following segments.

La Plata, etc. segments 7a and 8c

Temporary modifications of the ammonia standards for these segments, due to expire on 6/30/2015, were extended to 6/30/2016. The Division is working with small domestic dischargers on these segments to

explore the possibility of proposing discharger specific variances. Progress continues to be made to improve water treatment for these segments.

PARTIES TO THE RULEMAKING HEARING

1. Pioneer Natural Resources USA, Inc. and XTO Energy, Inc.
2. U.S. Energy Corp.
3. Plum Creek Water Reclamation Authority
4, Upper Clear Creek Watershed Association
5. Upper Thompson Sanitation District
6. Colorado Parks and Wildlife
7. U.S. Environmental Protection Agency
8. High Country Conservation Advocates
9. Metro Wastewater Reclamation District
10. Climax Molybdenum Company
11. Rio Grande Silver, Inc.
12. City of Pueblo
13. Tri-State Generation and Transmission, Inc.
14. Centennial Water and Sanitation District
15. Xcel Energy
16. MillerCoors
17. Seneca Coal Company
18. Peabody-Sage Creek Mining, LLC
19. City of Boulder