

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

5 CCR 1002-36

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

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

Effective 06/30/2019

REGULATION #36 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS Rio Grande Basin

3. Mainstem of North Clear Creek from the outlet of Continental Reservoir to a point immediately above the confluence with Rito Hondo Creek.							
CORGRG03	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT	acute chronic			
Reviewable	Aq Life Cold 2 Recreation E	Temperature °C	CS-II	CS-II	Arsenic	340	---
Qualifiers:		acute	chronic	Arsenic(T)	---	7.6	
Fish Ingestion Standards Apply		D.O. (mg/L)	---	6.0	Cadmium	TVS(tr)	TVS
Other:		D.O. (spawning)	---	7.0	Chromium III	TVS	TVS
*Uranium(acute) = See 36.5(3) for details.		pH	6.5 - 9.0	---	Chromium III(T)	---	100
*Uranium(chronic) = See 36.5(3) for details.		chlorophyll a (mg/m ²)	---	150	Chromium VI	TVS	TVS
		E. Coli (per 100 mL)	---	126	Copper	TVS	TVS
		Inorganic (mg/L)			Iron(T)	---	1000
		acute	chronic	Lead	TVS	TVS	
		Ammonia	TVS	TVS	Manganese	TVS	TVS
		Boron	---	0.75	Mercury(T)	---	0.01
		Chloride	---	---	Molybdenum(T)	---	150
		Chlorine	0.019	0.011	Nickel	TVS	TVS
		Cyanide	0.005	---	Selenium	TVS	TVS
		Nitrate	100	---	Silver	TVS	TVS(tr)
		Nitrite	0.05	---	Uranium	varies*	varies*
		Phosphorus	---	0.11	Zinc	TVS	TVS
		Sulfate	---	---			
		Sulfide	---	0.002			
4a. Mainstem of the Rio Grande from a point immediately above the confluence with Willow Creek to a point immediately above the confluence with the South Fork Rio Grande.							
CORGRG04A	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT	acute chronic			
Reviewable	Aq Life Cold 1 Recreation E Water Supply	Temperature °C	CS-II	CS-II	Arsenic	340	---
Qualifiers:		acute	chronic	Arsenic(T)	---	0.02	
Other:		D.O. (mg/L)	---	6.0	Cadmium	TVS	varies*
Temporary Modification(s):		D.O. (spawning)	---	7.0	Cadmium(T)	5.0	---
Arsenic(chronic) = hybrid		pH	6.5 - 9.0	---	Chromium III	---	TVS
Expiration Date of 12/31/2021		chlorophyll a (mg/m ²)	---	---	Chromium III(T)	50	---
*Cadmium(chronic) = See 36.6(4) for site-specific standards and assessment locations.		E. Coli (per 100 mL)	---	126	Chromium VI	TVS	TVS
*Manganese(chronic) = See 36.6(4) for site-specific standards and assessment locations.		Inorganic (mg/L)			Copper	TVS	TVS
*Uranium(acute) = See 36.5(3) for details.		acute	chronic	Iron	---	WS	
*Uranium(chronic) = See 36.5(3) for details.		Ammonia	TVS	TVS	Iron(T)	---	1000
*Zinc(acute) = See 36.6(4) for site-specific standards and assessment locations.		Boron	---	0.75	Lead	TVS	TVS
*Zinc(chronic) = See 36.6(4) for site-specific standards and assessment locations.		Chloride	---	250	Lead(T)	50	---
		Chlorine	0.019	0.011	Manganese	TVS	varies*
		Cyanide	0.005	---	Mercury(T)	---	0.01
		Nitrate	10	---	Molybdenum(T)	---	150
		Nitrite	0.05	---	Nickel	TVS	TVS
		Phosphorus	---	---	Nickel(T)	---	100
		Sulfate	---	WS	Selenium	TVS	TVS
		Sulfide	---	0.002	Silver	TVS	TVS(tr)
					Uranium	varies*	varies*
					Zinc	varies*	varies*

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

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

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Rio Grande Basin

6. Mainstem of West Willow Creek from immediately above Deerhorn Creek to the Park Regent Mine dump (37.890445, -106.936868). East Willow Creek from the confluence with Whited Creek to the confluence with West Willow Creek.

CORGRG06	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Aq Life Cold 1	DM	MWAT	acute	chronic		
Reviewable	Recreation E	Temperature °C	CS-I	CS-I	Arsenic	340	---
Qualifiers:		acute	chronic	Arsenic(T)	---	7.6	
Other:		D.O. (mg/L)	---	6.0	Cadmium	---	SSE*
		D.O. (spawning)	---	7.0	Cadmium	SSE*	---
		pH	6.5 - 9.0	---	Chromium III	TVS	TVS
		chlorophyll a (mg/m ²)	---	150	Chromium VI	TVS	TVS
		E. Coli (per 100 mL)	---	126	Copper	TVS	TVS
		Inorganic (mg/L)			Iron(T)	---	1000
		acute	chronic	Lead	TVS	TVS	
		Ammonia	TVS	TVS	Manganese	TVS	TVS
		Boron	---	---	Mercury(T)	---	0.01
		Chloride	---	---	Molybdenum(T)	---	---
		Chlorine	0.019	0.011	Nickel	TVS	TVS
		Cyanide	0.005	---	Selenium	TVS	TVS
		Nitrate	---	---	Silver	TVS	TVS(tr)
		Nitrite	0.05	---	Uranium	varies*	varies*
		Phosphorus	---	0.11	Zinc	TVS	TVS
		Sulfate	---	---			
		Sulfide	---	0.002			

*Cadmium(acute) = $e^{(0.9789 \cdot \ln(\text{hardness}) - 3.866)} \cdot (1.136672 - (\ln(\text{hardness}) \cdot 0.041838))$
 *Cadmium(chronic) = $e^{(0.7977 \cdot \ln(\text{hardness}) - 3.909)} \cdot (1.101672 - (\ln(\text{hardness}) \cdot 0.041838))$
 *Cadmium(chronic) = $e^{(0.9789 \cdot \ln(\text{hardness}) - 3.866)} \cdot (1.136672 - (\ln(\text{hardness}) \cdot 0.041838))$
 *Uranium(acute) = See 36.5(3) for details.
 *Uranium(chronic) = See 36.5(3) for details.

7. Mainstem of West Willow Creek from the Park Regent Mine dump (37.890445, -106.936868) to the confluence with East Willow Creek. Mainstem of Willow Creek, including all tributaries, from the confluence of East and West Willow Creeks to the confluence with the Rio Grande.

CORGRG07	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT	acute	chronic		
UP	Aq Life Cold 2	Temperature °C	CS-II	CS-II	Arsenic	340	---
Qualifiers:	Recreation E	acute	chronic	Arsenic(T)	---	100	
Other:		D.O. (mg/L)	---	6.0	Cadmium	varies*	varies*
		D.O. (spawning)	---	7.0	Chromium III	TVS	TVS
		pH	6.5 - 9.0	---	Chromium III(T)	---	100
		chlorophyll a (mg/m ²)	---	150*	Chromium VI	TVS	TVS
		E. Coli (per 100 mL)	---	126	Copper	varies*	varies*
		Inorganic (mg/L)			Iron(T)	---	1000
		acute	chronic	Lead	varies*	varies*	
		Ammonia	TVS	TVS	Manganese	varies*	varies*
		Boron	---	0.75	Mercury(T)	---	0.01
		Chloride	---	---	Molybdenum(T)	---	150
		Chlorine	0.019	0.011	Nickel	TVS	TVS
		Cyanide	0.005	---	Selenium	TVS	TVS
		Nitrate	100	---	Silver	TVS	TVS
		Nitrite	10	---	Uranium	varies*	varies*
		Phosphorus	---	0.11*	Zinc	varies*	varies*
		Sulfate	---	---			
		Sulfide	---	0.002			

*chlorophyll a (mg/m²)(chronic) = applies only above the facilities listed at 36.5(4).
 *Phosphorus(chronic) = applies only above the facilities listed at 36.5(4).
 *Cadmium(acute) = See 36.6(4) for site-specific standards and assessment locations.
 *Cadmium(chronic) = See 36.6(4) for site-specific standards and assessment locations.
 *Copper(acute) = See 36.6(4) for site-specific standards and assessment locations.
 *Copper(chronic) = See 36.6(4) for site-specific standards and assessment locations.
 *Lead(acute) = See 36.6(4) for site-specific standards and assessment locations.
 *Lead(chronic) = See 36.6(4) for site-specific standards and assessment locations.
 *Manganese(acute) = See 36.6(4) for site-specific standards and assessment locations.
 *Manganese(chronic) = See 36.6(4) for site-specific standards and assessment locations.
 *Uranium(acute) = See 36.5(3) for details.
 *Uranium(chronic) = See 36.5(3) for details.
 *Zinc(acute) = See 36.6(4) for site-specific standards and assessment locations.
 *Zinc(chronic) = See 36.6(4) for site-specific standards and assessment locations.

All metals are dissolved unless otherwise noted.
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D.O. = dissolved oxygen
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