

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

**5 CCR 1002-32**

**REGULATION NO. 32  
CLASSIFICATIONS AND NUMERIC STANDARDS  
FOR  
ARKANSAS RIVER BASIN**

**APPENDIX 32-1  
Stream Classifications and Water Quality Standards Tables**

Effective 06/30/2019

# REGULATION #32 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

## Upper Arkansas River Basin

8a. Mainstem of Iowa Gulch from the source to the historic upper ASARCO water supply intake at 39.224327, -106.223432.

COARUA08A	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Cold 2	Temperature °C	CS-II	CS-II	Arsenic	340	---
	Recreation E		acute	chronic	Arsenic(T)	---	0.02-10 <sup>A</sup>
Qualifiers:	Water Supply	D.O. (mg/L)	---	6.0	Cadmium	TVS(tr)	TVS
		D.O. (spawning)	---	7.0	Cadmium(T)	5.0	---
Other:	*Uranium(acute) = See 32.5(3) for details. *Uranium(chronic) = See 32.5(3) for details.	pH	6.5 - 9.0	---	Chromium III	---	TVS
		chlorophyll a (mg/m <sup>2</sup> )	---	150	Chromium III(T)	50	---
		E. Coli (per 100 mL)	---	126	Chromium VI	TVS	TVS
		<b>Inorganic (mg/L)</b>			Copper	TVS	TVS
					Iron	---	WS
					Iron(T)	---	1000
					Lead	TVS	TVS
		Ammonia	TVS	TVS	Lead(T)	50	---
		Boron	---	0.75	Manganese	TVS	TVS/WS
		Chloride	---	250	Mercury(T)	---	0.01
		Chlorine	0.019	0.011	Molybdenum(T)	---	150
		Cyanide	0.005	---	Nickel	TVS	TVS
		Nitrate	10	---	Nickel(T)	---	100
		Nitrite	0.05	---	Selenium	TVS	TVS
		Phosphorus	---	0.11	Silver	TVS	TVS(tr)
Sulfate	---	WS	Uranium	varies*	varies*		
Sulfide	---	0.002	Zinc	TVS	TVS		

8b. Mainstem of Iowa Gulch from a point immediately below the historic upper ASARCO water supply intake at 39.224327, -106.223432 to a point immediately below the headgate of the Paddock #1 Ditch (Iowa Ditch).

COARUA08B	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	---
	Recreation E		acute	chronic	Arsenic(T)	---	100
Qualifiers:		D.O. (mg/L)	---	6.0	Cadmium	SSE*	TVS
		D.O. (spawning)	---	7.0	Chromium III	TVS	TVS
Other:	Temporary Modification(s): Cadmium(chronic) = 1.2 Zinc(chronic) = 325 Zinc(acute) = 593 Expiration Date of 6/30/2020  *Cadmium(acute) = $(1.136672 - [\ln(\text{hardness}) * 0.041838] * e^{(0.9789 * \ln(\text{hardness}) - 3.5146)})$ *Uranium(acute) = See 32.5(3) for details. *Uranium(chronic) = See 32.5(3) for details.	pH	6.5 - 9.0	---	Chromium III(T)	---	100
		chlorophyll a (mg/m <sup>2</sup> )	---	150	Chromium VI	TVS	TVS
		E. Coli (per 100 mL)	---	126	Copper	TVS	TVS
		<b>Inorganic (mg/L)</b>			Iron(T)	---	1000
					Lead	TVS	TVS
					Manganese	TVS	TVS
		Ammonia	TVS	TVS	Mercury(T)	---	0.01
		Boron	---	0.75	Molybdenum(T)	---	150
		Chloride	---	---	Nickel	TVS	TVS
		Chlorine	0.019	0.011	Selenium	TVS	TVS
		Cyanide	---	---	Silver	TVS	TVS(tr)
		Nitrate	100	---	Uranium	varies*	varies*
		Nitrite	0.05	---	Zinc	TVS	TVS
		Phosphorus	---	0.11			
		Sulfate	---	---			
Sulfide	---	0.002					

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 32.6 for details on TVS, TVS(tr), WS, temperature standards.

# REGULATION #32 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS Middle Arkansas River Basin

4b. Mainstem of Rock Creek, Salt Creek and Peck Creek from their sources to the confluence with the Arkansas River.							
COARMA04B	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
UP	Aq Life Warm 1 Recreation E	Temperature °C	WS-II	WS-II	Arsenic	340	---
			acute	chronic	Arsenic(T)	---	7.6
<b>Qualifiers:</b>		D.O. (mg/L)	---	5.0	Cadmium	TVS	TVS
<b>Other:</b>		pH	6.5 - 9.0	---	Chromium III	TVS	TVS
*Uranium(acute) = See 32.5(3) for details.		chlorophyll a (mg/m <sup>2</sup> )	---	150	Chromium III(T)	---	100
*Uranium(chronic) = See 32.5(3) for details.		E. Coli (per 100 mL)	---	126	Chromium VI	TVS	TVS
		Inorganic (mg/L)			Copper	TVS	TVS
			acute	chronic	Iron(T)	---	1000
		Ammonia	TVS	TVS	Lead	TVS	TVS
		Boron	---	0.75	Manganese	TVS	TVS
		Chloride	---	---	Mercury(T)	---	0.01
		Chlorine	0.019	0.011	Molybdenum(T)	---	150
		Cyanide	0.005	---	Nickel	TVS	TVS
		Nitrate	100	---	Selenium	TVS	TVS
		Nitrite	0.05	---	Silver	TVS	TVS
		Phosphorus	---	0.17	Uranium	varies*	varies*
		Sulfate	---	---	Zinc	TVS	TVS
		Sulfide	---	0.002			

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 32.6 for details on TVS, TVS(tr), WS, temperature standards.

# REGULATION #32 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

## Middle Arkansas River Basin

6a. Mainstem of the Saint Charles River from a point immediately above the CF&I diversion canal (38.045800, -104.802787) near Burnt Mill to a point immediately upstream of the confluence with Edson Arroyo.							
COARMA06A Classifications		Physical and Biological			Metals (ug/L)		
Designation		DM	MWAT	acute chronic			
UP	Agriculture						
	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Arsenic	340	---
	Recreation E		acute	chronic	Arsenic(T)	---	0.02-10 <sup>A</sup>
	Water Supply	D.O. (mg/L)	---	5.0	Cadmium	TVS	TVS
<b>Qualifiers:</b>		pH	6.5 - 9.0	---	Cadmium(T)	5.0	---
<b>Other:</b>		chlorophyll a (mg/m <sup>2</sup> )	---	150*	Chromium III	---	TVS
*chlorophyll a (mg/m <sup>2</sup> )(chronic) = applies only above the facilities listed at 32.5(4).		E. Coli (per 100 mL)	---	126	Chromium III(T)	50	---
*Phosphorus(chronic) = applies only above the facilities listed at 32.5(4).		<b>Inorganic (mg/L)</b>			Chromium VI	TVS	TVS
*Uranium(acute) = See 32.5(3) for details.			acute	chronic	Copper	TVS	TVS
*Uranium(chronic) = See 32.5(3) for details.		Ammonia	TVS	TVS	Iron	---	WS
		Boron	---	0.75	Iron(T)	---	1000
		Chloride	---	250	Lead	TVS	TVS
		Chlorine	0.019	0.011	Lead(T)	50	---
		Cyanide	0.005	---	Manganese	TVS	TVS/WS
		Nitrate	10	---	Mercury(T)	---	0.01
		Nitrite	0.05	---	Molybdenum(T)	---	150
		Phosphorus	---	0.17*	Nickel	TVS	TVS
		Sulfate	---	WS	Nickel(T)	---	100
		Sulfide	---	0.002	Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	varies*	varies*
					Zinc	TVS	TVS

  

6b. Mainstem of the Saint Charles River from the confluence with Edson Arroyo to the confluence with the Arkansas River.							
COARMA06B Classifications		Physical and Biological			Metals (ug/L)		
Designation		DM	MWAT	acute chronic			
UP	Agriculture						
	Aq Life Warm 2	Temperature °C	varies*	varies*	Arsenic	340	---
	Recreation E		acute	chronic	Arsenic(T)	---	0.02-10 <sup>A</sup>
	Water Supply	D.O. (mg/L)	---	5.0	Cadmium	TVS	TVS
<b>Qualifiers:</b>		pH	6.5 - 9.0	---	Cadmium(T)	5.0	---
<b>Other:</b>		chlorophyll a (mg/m <sup>2</sup> )	---	---	Chromium III	---	TVS
*Selenium(acute) = See selenium assessment location at 32.6(4).		E. Coli (per 100 mL)	---	126	Chromium III(T)	50	---
*Selenium(chronic) = See selenium assessment location at 32.6(4).		<b>Inorganic (mg/L)</b>			Chromium VI	TVS	TVS
*Uranium(acute) = See 32.5(3) for details.			acute	chronic	Copper	TVS	TVS
*Uranium(chronic) = See 32.5(3) for details.		Ammonia	TVS	TVS	Iron	---	WS
*Temperature =		Boron	---	0.75	Iron(T)	---	1000
DM=32.6 and MWAT=WS-II from 3/1-11/30		Chloride	---	250	Lead	TVS	TVS
DM=WS-II and MWAT=WS-II from 12/1-2/29		Chlorine	0.019	0.011	Lead(T)	50	---
		Cyanide	0.005	---	Manganese	TVS	TVS/WS
		Nitrate	10	---	Mercury(T)	---	0.01
		Nitrite	0.05	---	Molybdenum(T)	---	150
		Phosphorus	---	---	Nickel	TVS	TVS
		Sulfate	---	WS	Nickel(T)	---	100
		Sulfide	---	0.002	Selenium	173*	50*
					Silver	TVS	TVS
					Uranium	varies*	varies*
					Zinc	TVS	TVS

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 32.6 for details on TVS, TVS(tr), WS, temperature standards.

# REGULATION #32 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

## Lower Arkansas River Basin

1a. Mainstem of the Arkansas River from a point immediately above the confluence with Fountain Creek to immediately above the Colorado Canal headgate near Avondale.							
COARLA01A	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture Aq Life Warm 2 Recreation E Water Supply	DM	MWAT	acute	chronic		
UP		varies*	varies*	Arsenic	340	---	
Qualifiers:		acute	chronic	Arsenic(T)	---	0.02-10 <sup>A</sup>	
Other:		D.O. (mg/L)	---	5.0	TVS	TVS	
Discharger Specific Variance(s): Selenium(acute) = 19.1 µg/L: narrative Selenium(chronic) = 14.1 µg/L: narrative Sulfate(chronic) = 329 mg/L: narrative Expiration Date of 12/31/2028  *Uranium(acute) = See 32.5(3) for details. *Uranium(chronic) = See 32.5(3) for details. *Temperature = DM=WS-II and MWAT=WS-II from 1/1-11/30 DM= 21.5 and MWAT=20.7 from 12/1-12/31 *Variance: Selenium = see 32.6(6)(c) for details on variance for City of Pueblo. *Variance: Sulfate = see 32.6(6)(c) for details on variance for City of Pueblo.		pH	6.5 - 9.0	---	Cadmium(T)	5.0	---
		chlorophyll a (mg/m <sup>2</sup> )	---	---	Chromium III	---	TVS
		E. Coli (per 100 mL)	---	126	Chromium III(T)	50	---
		Inorganic (mg/L)			Chromium VI	TVS	TVS
		acute	chronic	Copper	TVS	TVS	
		Ammonia	TVS	TVS	Iron	---	WS
		Boron	---	0.75	Iron(T)	---	2800
		Chloride	---	250	Lead	TVS	TVS
		Chlorine	0.019	0.011	Lead(T)	50	---
		Cyanide	0.005	---	Manganese	TVS	TVS/WS
		Nitrate	10	---	Mercury(T)	---	0.01
		Nitrite	0.5	---	Molybdenum(T)	---	150
		Phosphorus	---	---	Nickel	TVS	TVS
		Sulfate	---	329	Nickel(T)	---	100
		Sulfide	---	0.002	Selenium	19.1	14.1
				Silver	TVS	TVS	
				Uranium	varies*	varies*	
				Zinc	TVS	TVS	

  

1b. Mainstem of the Arkansas River from the Colorado Canal headgate to the inlet to John Martin Reservoir.							
COARLA01B	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture Aq Life Warm 2 Recreation E Water Supply	DM	MWAT	acute	chronic		
UP		WS-II	WS-II	Arsenic	340	---	
Qualifiers:		acute	chronic	Arsenic(T)	---	0.02	
Water + Fish Standards Apply		D.O. (mg/L)	---	5.0	TVS	TVS	
Other:		pH	6.5 - 9.0	---	Cadmium(T)	5.0	---
Temporary Modification(s): Arsenic(chronic) = hybrid Expiration Date of 12/31/2021  Discharger Specific Variance(s): Selenium(chronic) = See Section 32.6(6)(d)(ii) for details on variance for the City of Las Animas. Expiration Date of 12/31/2025  *Uranium(acute) = See 32.5(3) for details. *Uranium(chronic) = See 32.5(3) for details.		chlorophyll a (mg/m <sup>2</sup> )	---	---	Chromium III	---	TVS
		E. Coli (per 100 mL)	---	126	Chromium III(T)	50	---
		Inorganic (mg/L)			Chromium VI	TVS	TVS
		acute	chronic	Copper	TVS	TVS	
		Ammonia	TVS	TVS	Iron	---	WS
		Boron	---	0.75	Iron(T)	---	1950
		Chloride	---	250	Lead	TVS	TVS
		Chlorine	0.019	0.011	Lead(T)	50	---
		Cyanide	0.005	---	Manganese	TVS	TVS/WS
		Nitrate	10	---	Mercury(T)	---	0.01
		Nitrite	0.5	---	Molybdenum(T)	---	150
		Phosphorus	---	---	Nickel	TVS	TVS
		Sulfate	---	902	Nickel(T)	---	100
		Sulfide	---	0.002	Selenium	TVS	TVS

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 32.6 for details on TVS, TVS(tr), WS, temperature standards.