

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

5 CCR 1002-38

**REGULATION NO. 38
CLASSIFICATIONS AND NUMERIC STANDARDS
FOR
SOUTH PLATTE RIVER BASIN, LARAMIE RIVER BASIN
REPUBLICAN RIVER BASIN, SMOKY HILL RIVER BASIN**

**APPENDIX 38-1
Stream Classifications and Water Quality Standards Tables**

Effective 06/30/2019

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Upper South Platte River Basin

10a. Mainstems of East Plum Creek, West Plum Creek, and Plum Creek from the boundary of National Forest lands to Chatfield Reservoir, mainstems of Stark Creek and Gove Creek from the boundary of National Forest lands to their confluence.							
COSPUS10A	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT			
Reviewable	Aq Life Warm 1	Temperature °C	WS-I	WS-I	Aluminum	acute	chronic
	Recreation E		acute	chronic	Arsenic	340	---
	Water Supply	D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02
Qualifiers:		pH	6.5 - 9.0	---	Beryllium	---	---
Other:		chlorophyll a (mg/m ²)	---	150*	Cadmium	TVS	TVS
Temporary Modification(s):		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
Arsenic(chronic) = hybrid		Inorganic (mg/L)			Chromium III	---	TVS
Expiration Date of 12/31/2021			acute	chronic	Chromium III(T)	50	---
temperature(DM/MWAT) = current condition*	12/1 - 2/29	Ammonia	TVS	TVS	Chromium VI	TVS	TVS
Expiration Date of 12/31/2020		Boron	---	0.75	Copper	TVS	TVS
*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4).		Chloride	---	250	Iron	---	WS
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).		Chlorine	0.019	0.011	Iron(T)	---	1000
*TempMod: temperature(12/1 - 2/29) = East Plum Creek and Plum Creek below the PCWRA discharge.		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	0.17*	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
					Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	---	---
					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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Upper South Platte River Basin

15. Mainstem of the South Platte River from the Burlington Ditch diversion in Denver, Colorado, to a point immediately below the confluence with Big Dry Creek.						
COSPUS15	Classifications	Physical and Biological			Metals (ug/L)	
Designation	Agriculture	DM	MWAT	acute	chronic	
UP	Aq Life Warm 2	WS-I	WS-I	---	---	Aluminum
	Recreation E	acute	chronic	340	---	Arsenic
	Water Supply	varies*	varies*	---	0.02-10 ^A	Arsenic(T)
Qualifiers:		pH	6.0-9.0*	---*	---	---
Other:		pH	6.5 - 9.0	---	TVS	TVS
Temporary Modification(s): Chloride(chronic) = current condition Sulfate(chronic) = current condition temperature(DM/MWAT) = current condition Expiration Date of 12/31/2020 Discharger Specific Variance(s): Selenium(acute) = TVS: no limit Selenium(chronic) = TVS: 24 µg/L Expiration Date of 12/31/2023 *Ammonia(acute) = See attached table for site-specific standards. *Ammonia(chronic) = See attached table for site-specific standards. *Copper(acute) = Copper BLM-based FMB Cu FMB(ac)=35.1 ug/l Downstream of the Metro Hite WWTF outfall. *Copper(chronic) = Copper BLM-based FMB Cu FMB(ch)= 23.5 ug/l Downstream of the Metro Hite WWTF outfall. *Copper(chronic) = Copper BLM-based FMB Cu FMB(ac)=35.1 ug/l Downstream of the Metro Hite WWTF outfall. *D.O. (mg/L)(acute) = See attached table for site-specific standards. *D.O. (mg/L)(chronic) = See attached table for site-specific standards. *pH(acute) = 6.0 - 9.0 from 64th Ave. downstream 2 miles *pH(chronic) = 6.0 - 9.0 from 64th Ave. downstream 2 miles *Variance: Selenium = see 38.6(6) for details.		chlorophyll a (mg/m ²)	---	---	5.0	---
		E. Coli (per 100 mL)	---	126	---	TVS
		Inorganic (mg/L)			50	---
		acute	chronic	TVS	TVS	TVS
		Ammonia	TVS*	TVS*	---	TVS*
		Boron	---	0.75	---	WS
		Chloride	---	250	---	1000
		Chlorine	0.019	0.011	TVS	TVS
		Cyanide	0.005	---	50	---
		Nitrate	10	---	TVS	TVS/400
		Nitrite	---	1.0	---	0.01(t)
		Phosphorus	---	---	---	150
		Sulfate	---	WS	TVS	TVS
		Sulfide	---	0.002	---	100
					TVS	TVS
					TVS	TVS
					---	---
					TVS	TVS

16a. Mainstem of Sand Creek from the confluence of Murphy and Coal Creek in Arapahoe County to the confluence with the Toll Gate Creek.						
COSPUS16A	Classifications	Physical and Biological			Metals (ug/L)	
Designation	Agriculture	DM	MWAT	acute	chronic	
Reviewable	Aq Life Warm 2	WS-II	WS-II	---	---	Aluminum
	Recreation E	acute	chronic	340	---	Arsenic
Qualifiers:		D.O. (mg/L)	---	5.0	---	100
Other:		pH	6.5 - 9.0	---	---	---
Temporary Modification(s): Chloride(chronic) = current condition Sulfate(chronic) = current condition temperature(DM/MWAT) = current condition Expiration Date of 12/31/2020 Discharger Specific Variance(s): Selenium(acute) = TVS: no limit Selenium(chronic) = TVS: 24 µg/L Expiration Date of 12/31/2023 *Ammonia(acute) = See attached table for site-specific standards. *Ammonia(chronic) = See attached table for site-specific standards. *Copper(acute) = Copper BLM-based FMB Cu FMB(ac)=35.1 ug/l Downstream of the Metro Hite WWTF outfall. *Copper(chronic) = Copper BLM-based FMB Cu FMB(ch)= 23.5 ug/l Downstream of the Metro Hite WWTF outfall. *Copper(chronic) = Copper BLM-based FMB Cu FMB(ac)=35.1 ug/l Downstream of the Metro Hite WWTF outfall. *D.O. (mg/L)(acute) = See attached table for site-specific standards. *D.O. (mg/L)(chronic) = See attached table for site-specific standards. *pH(acute) = 6.0 - 9.0 from 64th Ave. downstream 2 miles *pH(chronic) = 6.0 - 9.0 from 64th Ave. downstream 2 miles *Variance: Selenium = see 38.6(6) for details.		chlorophyll a (mg/m ²)	---	---	TVS	TVS
		E. Coli (per 100 mL)	---	126	TVS	TVS
		Inorganic (mg/L)			---	100
		acute	chronic	TVS	TVS	TVS
		Ammonia	TVS	TVS	TVS	TVS
		Boron	---	0.75	---	1000
		Chloride	---	---	TVS	TVS
		Chlorine	0.019	0.011	TVS	TVS
		Cyanide	0.005	---	---	0.01(t)
		Nitrate	100	---	---	150
		Nitrite	---	0.5	TVS	TVS
		Phosphorus	---	---	TVS	TVS
		Sulfate	---	---	TVS	TVS
		Sulfide	---	0.002	---	---
					---	---
					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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Upper South Platte River Basin

16f. Barr Lake Tributary from the source to the Denver Hudson Canal.						
COSPUS16F	Classifications	Physical and Biological			Metals (ug/L)	
Designation	Agriculture		DM	MWAT		
UP	Aq Life Warm 2	Temperature °C	WS-III	WS-III	Aluminum	---
	Recreation E		acute	chronic	Arsenic	340
Qualifiers:		D.O. (mg/L)	---	narrative*	Arsenic(T)	---
Other:		pH	6.5 - 9.0	---	Beryllium	---
		chlorophyll a (mg/m ²)	---	150*	Cadmium	TVS
		E. Coli (per 100 mL)	---	126	Chromium III	TVS
		Inorganic (mg/L)			Chromium III(T)	---
			acute	chronic	Chromium VI	TVS
		Ammonia	TVS	TVS	Copper	TVS
		Boron	---	0.75	Iron(T)	---
		Chloride	---	---	Lead	TVS
		Chlorine	0.019	0.011	Manganese	TVS
		Cyanide	0.005	---	Mercury	---
		Nitrate	100	---	Molybdenum(T)	---
		Nitrite	---	0.5	Nickel	TVS
		Phosphorus	---	0.17*	Selenium	TVS
		Sulfate	---	---	Silver	TVS
		Sulfide	---	0.002	Uranium	---
					Zinc	TVS

16g. Marcy Gulch, including all wetlands from the source to the confluence with the South Platte.						
COSPUS16G	Classifications	Physical and Biological			Metals (ug/L)	
Designation	Agriculture		DM	MWAT		
UP	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---
	Recreation E		acute	chronic	Arsenic	340
Qualifiers:		D.O. (mg/L)	---	5.0	Arsenic(T)	---
Other:		pH	6.5 - 9.0	---	Beryllium	---
		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS
		E. Coli (per 100 mL)	---	126	Chromium III	TVS
		Inorganic (mg/L)			Chromium III(T)	---
			acute	chronic	Chromium VI	TVS
		Ammonia	TVS	TVS	Copper	---
		Boron	---	0.75	Copper	TVS*
		Chloride	---	---	Iron(T)	---
		Chlorine	0.019	0.011	Lead	TVS
		Cyanide	0.005	---	Manganese	TVS
		Nitrate	100	---	Mercury	---
		Nitrite	---	0.5	Molybdenum(T)	---
		Phosphorus	---	---	Nickel	TVS
		Sulfate	---	---	Selenium	21*
		Sulfide	---	0.002	Silver	TVS
					Uranium	---
					Zinc	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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Cherry Creek Basin

1. Mainstem of Cherry Creek from the source of East and West Cherry Creek to the inlet of Cherry Creek Reservoir.							
COSPCH01	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT	acute		chronic	
Reviewable	Aq Life Warm 2 Recreation E Water Supply	Temperature °C	WS-II WS-II	Aluminum	---	---	
Qualifiers:		acute	chronic	Arsenic	340	---	
		D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02-10 ^A
Other:	*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4). *Phosphorus(chronic) = effective 12/31/2020. Applies only above the facilities listed at 38.5(4).	pH	6.5 - 9.0	---	Beryllium	---	
		chlorophyll a (mg/m ²)	---	150*	Cadmium	TVS	TVS
		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	
		Inorganic (mg/L)			Chromium III	---	TVS
		acute	chronic	Chromium III(T)	50	---	
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	0.17*	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
					Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	---	---
					Zinc	TVS	TVS
2. Cherry Creek Reservoir.							
COSPCH02	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT	acute		chronic	
Reviewable	Aq Life Warm 1 Recreation E Water Supply	Temperature °C	WL WL	Aluminum	---	---	
Qualifiers:		acute	chronic	Arsenic	340	---	
		D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02
Other:	Temporary Modification(s): Arsenic(chronic) = hybrid Expiration Date of 12/31/2021 *chlorophyll a (ug/L)(chronic) = Season mean concentration measured in the upper three meters of the water column for the months of July through September with an exceedance frequency of once in five years.	pH	6.5 - 9.0	---	Beryllium	---	
		chlorophyll a (ug/L)	7/1 - 9/30	---	18*	Cadmium	TVS
		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	
		Inorganic (mg/L)			Chromium III	---	TVS
		acute	chronic	Chromium III(T)	50	---	
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	---	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
					Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	---	---
					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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Cherry Creek Basin

3. Mainstem of Cherry Creek from the outlet of Cherry Creek Reservoir to the confluence with the South Platte River.							
COSPCH03	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT	acute	chronic		
Reviewable	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
	Water Supply	D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02-10 ^A
Qualifiers:		pH	6.5 - 9.0	---	Beryllium	---	---
Other:		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS	TVS
		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
		Inorganic (mg/L)			Chromium III	---	TVS
		acute	chronic	Chromium III(T)	50	---	
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	---	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
					Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	---	---
					Zinc	TVS	TVS

4a. All tributaries to Cherry Creek, including all wetlands, from the source of East and West Cherry Creeks to the confluence with the South Platte River except for specific listings in Segment 4b.

COSPCH04A	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT	acute	chronic		
UP	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
	Water Supply	D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02-10 ^A
Qualifiers:		pH	6.5 - 9.0	---	Beryllium	---	---
Other:		chlorophyll a (mg/m ²)	---	150*	Cadmium	TVS	TVS
		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
		Inorganic (mg/L)			Chromium III	---	TVS
		acute	chronic	Chromium III(T)	50	---	
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Lead	TVS	TVS
		Cyanide	0.005	---	Lead(T)	50	---
		Nitrate	10	---	Manganese	TVS	TVS/WS
		Nitrite	---	0.5	Mercury	---	0.01(t)
		Phosphorus	---	0.17*	Molybdenum(T)	---	150
		Sulfate	---	WS	Nickel	TVS	TVS
		Sulfide	---	0.002	Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	---	---
					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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Bear Creek Basin

1c. Bear Creek Reservoir.								
COSPBE01C	Classifications	Physical and Biological			Metals (ug/L)			
Designation	Agriculture		DM	MWAT		acute	chronic	
Reviewable	Aq Life Cold 1	Temperature °C	1/1 - 3/31	CLL	CLL	Aluminum	---	---
	Recreation E	Temperature °C	4/1 - 12/31	CLL	23.3	Arsenic	340	---
	Water Supply					Arsenic(T)	---	0.02
Qualifiers:			acute	chronic				
Other:		D.O. (mg/L)	---	6.0		Beryllium	---	---
Temporary Modification(s):		D.O. (spawning)	---	7.0		Cadmium	TVS(tr)	TVS
Arsenic(chronic) = hybrid		pH	6.5 - 9.0	---		Cadmium(T)	5.0	---
Expiration Date of 12/31/2021		chlorophyll a (ug/L)	7/1 - 9/30	---	12.2*	Chromium III	---	TVS
chlorophyll a (ug/L)(chronic) = current condition		E. Coli (per 100 mL)	---	---	126	Chromium III(T)	50	---
Phosphorus(chronic) = current condition		Inorganic (mg/L)				Chromium VI	TVS	TVS
Expiration Date of 12/31/2020			acute	chronic		Copper	TVS	TVS
*chlorophyll a (ug/L)(chronic) = mean concentration measured through collection of samples that are representative of the mixed layer during summer months (July, August, September) and with an exceedance frequency of once in five years. *Phosphorus(chronic) = mean concentration measured through collection of samples that are representative of the mixed layer during summer months (July, August, September) and with an exceedance frequency of once in five years.		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	---	0.01(t)
		Nitrite	---	0.05		Molybdenum(T)	---	150
		Phosphorus	7/1 - 9/30	---	22.2*	Nickel	TVS	TVS
		Sulfate	---	---	WS	Nickel(T)	---	100
		Sulfide	---	0.002		Selenium	TVS	TVS
						Silver	TVS	TVS(tr)
						Uranium	---	---
						Zinc	TVS	TVS

1d. Evergreen Lake.								
COSPBE01D	Classifications	Physical and Biological			Metals (ug/L)			
Designation	Agriculture		DM	MWAT		acute	chronic	
Reviewable	Aq Life Cold 1	Temperature °C		CLL	CLL	Aluminum	---	---
	Recreation E					Arsenic	340	---
	Water Supply					Arsenic(T)	---	0.02
DUWS		D.O. (mg/L)	---	6.0		Beryllium	---	---
		D.O. (spawning)	---	7.0		Cadmium	TVS(tr)	TVS
		pH	6.5 - 9.0	---		Cadmium(T)	5.0	---
Qualifiers:		chlorophyll a (ug/L)	---	---		Chromium III	---	TVS
Other:		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)	---	1000
		Chloride	---	250		Lead	TVS	TVS
		Chlorine	0.019	0.011		Lead(T)	50	---
		Cyanide	0.005	---		Manganese	TVS	TVS/WS
		Nitrate	10	---		Mercury	---	0.01(t)
		Nitrite	---	0.05		Molybdenum(T)	---	150
		Phosphorus	---	---		Nickel	TVS	TVS
		Sulfate	---	---	WS	Nickel(T)	---	100
		Sulfide	---	0.002		Selenium	TVS	TVS
						Silver	TVS	TVS(tr)
						Uranium	---	---
						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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Clear Creek Basin

2a. Mainstem of Clear Creek, including all tributaries and wetlands, from the I-70 bridge above Silver Plume to a point just above the confluence with West Fork Clear Creek, except for specific listings in Segments 3a and 3b.						
COSPCL02A	Classifications	Physical and Biological			Metals (ug/L)	
Designation	Agriculture	DM	MWAT	acute chronic		
Reviewable*	Aq Life Cold 1	Temperature °C	CS-I	CS-I	Aluminum	---
	Recreation E	acute	chronic	Arsenic	340	---
	Water Supply	D.O. (mg/L)	---	6.0	Arsenic(T)	---
Qualifiers:		D.O. (spawning)	---	7.0	Beryllium	---
Other:		pH	6.5 - 9.0	---	Cadmium	TVS(tr)
Temporary Modification(s):		chlorophyll a (mg/m ²)	---	150*	Cadmium(T)	5.0
Arsenic(chronic) = hybrid		E. Coli (per 100 mL)	---	126	Chromium III	---
Expiration Date of 12/31/2021		Inorganic (mg/L)			Chromium III(T)	50
Zinc(chronic) = 353		acute	chronic	Chromium VI	TVS	TVS
Zinc(acute) = 586		Ammonia	TVS	TVS	Copper	TVS
Expiration Date of 7/1/2020		Boron	---	0.75	Iron	---
*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4).		Chloride	---	250	Iron(T)	---
*Designation: 9/30/00 Baseline does not apply		Chlorine	0.019	0.011	Lead	TVS
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).		Cyanide	0.005	---	Lead(T)	50
*Zinc(acute) = 0.978e [∧] (0.8537[ln(hardness)]+1.9467)		Nitrate	10	---	Manganese	TVS
*Zinc(chronic) = 0.986e [∧] (0.8537[ln(hardness)]+1.8032)		Nitrite	---	0.05	Mercury	---
Zinc(chronic) = 0.978e [∧] (0.8537[ln(hardness)]+1.9467)		Phosphorus	---	0.11	Molybdenum(T)	---
		Sulfate	---	WS	Nickel	TVS
		Sulfide	---	0.002	Nickel(T)	---
					Selenium	TVS
					Silver	TVS
					Uranium	---
					Zinc	---
					Zinc	SSE*
					Zinc	SSE*

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

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Clear Creek Basin

2c. Mainstem of Clear Creek, including all tributaries and wetlands, from a point just below the confluence with Mill Creek to a point just above the Argo Tunnel discharge, except for specific listings in Segments 9a, 9b, and 10.						
COSPCL02C	Classifications	Physical and Biological			Metals (ug/L)	
Designation	Agriculture	DM	MWAT	acute chronic		
Reviewable*	Aq Life Cold 1	Temperature °C	CS-I	CS-I	Aluminum	---
	Recreation E	acute	chronic	Arsenic	340	---
	Water Supply	D.O. (mg/L)	---	6.0	Arsenic(T)	---
Qualifiers:		D.O. (spawning)	---	7.0	Beryllium	---
Other:		pH	6.5 - 9.0	---	Cadmium	TVS(tr)
Temporary Modification(s):		chlorophyll a (mg/m ²)	---	150*	Cadmium(T)	5.0
Arsenic(chronic) = hybrid		E. Coli (per 100 mL)	---	126	Chromium III	---
Expiration Date of 12/31/2021		Inorganic (mg/L)			Chromium III(T)	50
Cadmium(chronic) = current condition		acute	chronic	Chromium VI	TVS	TVS
Copper(chronic) = current condition		Ammonia	TVS	TVS	Copper	TVS
Expiration Date of 7/1/2020		Boron	---	0.75	Iron	---
*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4).		Chloride	---	250	Iron(T)	---
*Designation: 9/30/00 Baseline does not apply		Chlorine	0.019	0.011	Lead	TVS
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).		Cyanide	0.005	---	Lead(T)	50
*Zinc(acute) = $0.978e^{(0.8537[\ln(\text{hardness})]+1.9467)}$		Nitrate	10	---	Manganese	TVS
*Zinc(chronic) = $0.986e^{(0.8537[\ln(\text{hardness})]+1.8032)}$		Nitrite	---	0.05	Mercury	---
Zinc(chronic) = $0.978e^{(0.8537[\ln(\text{hardness})]+1.9467)}$		Phosphorus	---	0.11	Molybdenum(T)	---
		Sulfate	---	WS	Nickel	TVS
		Sulfide	---	0.002	Nickel(T)	---
					Selenium	TVS
					Silver	TVS
					Uranium	---
					Zinc	---
					Zinc	SSE*
					Zinc	SSE*

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

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Clear Creek Basin

10. Mainstem of Chicago Creek, including all tributaries and wetlands, from the source to the confluence with Clear Creek, except for specific listings in Segment 19.						
COSPCL10	Classifications	Physical and Biological			Metals (ug/L)	
Designation	Agriculture	DM	MWAT	acute	chronic	
Reviewable*	Aq Life Cold 1 Recreation E Water Supply	CS-I	CS-I	---	---	---
		acute	chronic	340	---	---
Qualifiers:	D.O. (mg/L)	---	6.0	---	0.02	
	D.O. (spawning)	---	7.0	---	---	
Other:	pH	6.5 - 9.0	---	TVS(tr)	TVS	
Temporary Modification(s): Arsenic(chronic) = hybrid Expiration Date of 12/31/2021	chlorophyll a (mg/m ²)	---	150*	5.0	---	
	E. Coli (per 100 mL)	---	126	---	TVS	
	Inorganic (mg/L)			50	---	
		acute	chronic	TVS	TVS	
*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4). *Designation: 9/30/00 Baseline does not apply *Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).	Ammonia	TVS	TVS	TVS	TVS	
	Boron	---	0.75	---	WS	
	Chloride	---	250	---	1000	
	Chlorine	0.019	0.011	TVS	TVS	
	Cyanide	0.005	---	50	---	
	Nitrate	10	---	Manganese	TVS	TVS/WS
	Nitrite	---	0.05	Mercury	---	0.01(t)
	Phosphorus	---	0.11*	Molybdenum(T)	---	150
	Sulfate	---	WS	Nickel	TVS	TVS
	Sulfide	---	0.002	Nickel(T)	---	100
				Selenium	TVS	TVS
				Silver	TVS	TVS(tr)
				Uranium	---	---
				Zinc	TVS	TVS

11. Mainstem of Clear Creek from a point just above the Argo Tunnel discharge to the Farmers Highline Canal diversion in Golden, Colorado.						
COSPCL11	Classifications	Physical and Biological			Metals (ug/L)	
Designation	Agriculture	DM	MWAT	acute	chronic	
UP	Aq Life Cold 1 Recreation E Water Supply	CS-I	CS-I	---	---	---
		acute	chronic	340	---	---
Qualifiers:	D.O. (mg/L)	---	6.0	---	0.02	
	D.O. (spawning)	---	7.0	---	---	
Other:	pH	6.5 - 9.0	---	TVS(tr)	TVS	
Temporary Modification(s): Arsenic(chronic) = hybrid Expiration Date of 12/31/2021	chlorophyll a (mg/m ²)	---	---	5.0	---	
	E. Coli (per 100 mL)	---	126	---	TVS	
	Inorganic (mg/L)			50	---	
		acute	chronic	TVS	TVS	
*Zinc(acute) = 0.978e^(0.8537[ln(hardness)]+1.9467) *Zinc(chronic) = 0.986e^(0.8537[ln(hardness)]+1.8032)	Ammonia	TVS	TVS	---	17	
	Boron	---	0.75	---	WS	
	Chloride	---	250	---	1000	
	Chlorine	0.019	0.011	TVS	TVS	
	Cyanide	0.005	---	50	---	
	Nitrate	10	---	Manganese	TVS	TVS/WS
	Nitrite	---	0.05	Mercury	---	0.01(t)
	Phosphorus	---	---	Molybdenum(T)	---	150
	Sulfate	---	WS	Nickel	TVS	TVS
	Sulfide	---	0.002	Nickel(T)	---	100
				Selenium	TVS	TVS
				Silver	TVS	TVS(tr)
				Uranium	---	---
				Zinc	---	SSE*
				Zinc	SSE*	---

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

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Clear Creek Basin

13a. Mainstem of North Clear Creek, including all tributaries and wetlands, from its source to its confluence with Chase Gulch, and Four Mile Gulch, including all tributaries and wetlands, from their sources to their confluence with North Clear Creek and Eureka Gulch, including all tributaries and wetlands, from its source to its confluence with Gregory Gulch.							
COSPCL13A	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-I	CS-I	Aluminum	---	---
Qualifiers:			acute	chronic	Arsenic	340	---
Other:		D.O. (mg/L)	---	6.0	Arsenic(T)	---	0.02
Temporary Modification(s): Arsenic(chronic) = hybrid Expiration Date of 12/31/2021		D.O. (spawning)	---	7.0	Beryllium	---	---
*Designation: 9/30/00 Baseline does not apply		pH	6.5 - 9.0	---	Cadmium	TVS(tr)	TVS
		chlorophyll a (mg/m ²)	---	150	Cadmium(T)	5.0	---
		E. Coli (per 100 mL)	---	126	Chromium III	---	TVS
		Inorganic (mg/L)			Chromium III(T)	50	---
			acute	chronic	Chromium VI	TVS	TVS
		Ammonia	TVS	TVS	Copper	TVS	TVS
		Boron	---	0.75	Iron	---	WS
		Chloride	---	250	Iron(T)	---	1000
		Chlorine	0.019	0.011	Lead	TVS	TVS
		Cyanide	0.005	---	Lead(T)	50	---
		Nitrate	10	---	Manganese	TVS	TVS/WS
		Nitrite	---	0.05	Mercury	---	0.01(t)
		Phosphorus	---	0.11	Molybdenum(T)	---	150
		Sulfate	---	WS	Nickel	TVS	TVS
		Sulfide	---	0.002	Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS(tr)
					Uranium	---	---
					Zinc	TVS	TVS
13b. Mainstem of North Clear Creek including all tributaries and wetlands from a point just below the confluence with Chase Gulch to the confluence with Clear Creek, except for the specific listings in Segment 13a.							
COSPCL13B	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
UP	Aq Life Cold 2 Recreation E	Temperature °C	CS-I	CS-I	Aluminum	---	---
Qualifiers:			acute	chronic	Arsenic	340	---
Other:		D.O. (mg/L)	---	6.0	Arsenic(T)	---	100
Temporary Modification(s): temperature(DM/MWAT) = current condition Expiration Date of 12/31/2020		D.O. (spawning)	---	7.0	Beryllium	---	---
*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4). *Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).		pH	6.5 - 9.0	---	Cadmium	TVS(tr)	TVS
		chlorophyll a (mg/m ²)	---	150*	Chromium III	TVS	TVS
		E. Coli (per 100 mL)	---	126	Chromium III(T)	---	100
		Inorganic (mg/L)			Chromium VI	TVS	TVS
			acute	chronic	Copper	---	64
		Ammonia	TVS	TVS	Iron(T)	---	5400
		Boron	---	0.75	Lead	TVS	TVS
		Chloride	---	---	Manganese	TVS	TVS
		Chlorine	0.019	0.011	Mercury	---	0.01(t)
		Cyanide	0.005	---	Molybdenum(T)	---	150
		Nitrate	100	---	Nickel	TVS	TVS
		Nitrite	---	0.05	Selenium	TVS	TVS
		Phosphorus	---	0.11*	Silver	TVS	TVS(tr)
		Sulfate	---	---	Uranium	---	---
		Sulfide	---	0.002	Zinc	---	740

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

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Clear Creek Basin

14a. Mainstem of Clear Creek from the Farmers Highline Canal diversion in Golden, Colorado to the Denver Water conduit #16 crossing.							
COSPCL14A	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT	acute chronic			
UP	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation N	acute	chronic	Arsenic	340	---	---
Water Supply		D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02-10
		pH	6.5 - 9.0	---	Beryllium	---	---
Qualifiers:		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS	TVS
Other:		E. Coli (per 100 mL)	---	630	Cadmium(T)	5.0	---
		Inorganic (mg/L)			Chromium III	---	TVS
*Zinc(acute) = TVS x (times) the FWER (final water effect ratio). Expiration date of 12/31/20. *Zinc(chronic) = TVS x (times) the FWER (final water effect ratio). Expiration date of 12/31/20.		acute	chronic	Chromium III(T)	50	---	---
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	244
		Phosphorus	---	---	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
		Nickel(T)	---	100	Selenium	TVS	TVS
		Selenium	TVS	TVS	Silver	TVS	TVS
		Silver	TVS	TVS	Uranium	---	---
		Uranium	---	---	Zinc	TVSx1.57*	TVSx1.57*
		Zinc	TVSx1.57*	TVSx1.57*			

14b. Mainstem of Clear Creek from the Denver Water conduit #16 crossing to a point just below Youngfield Street in Wheat Ridge, Colorado.							
COSPCL14B	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT	acute chronic			
UP	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation E	acute	chronic	Arsenic	340	---	---
Water Supply		D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02
		pH	6.5 - 9.0	---	Beryllium	---	---
Qualifiers:		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS	TVS
Water + Fish Standards		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
		Inorganic (mg/L)			Chromium III	---	TVS
Other:		acute	chronic	Chromium III(T)	50	---	---
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
Temporary Modification(s): Arsenic(chronic) = hybrid Expiration Date of 12/31/2021		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
*Zinc(acute) = TVS x (times) the FWER (final water effect ratio). Expiration date of 12/31/20. *Zinc(chronic) = TVS x (times) the FWER (final water effect ratio). Expiration date of 12/31/20.		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	244
		Phosphorus	---	---	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
		Nickel(T)	---	100	Selenium	TVS	TVS
		Selenium	TVS	TVS	Silver	TVS	TVS
		Silver	TVS	TVS	Uranium	---	---
		Uranium	---	---	Zinc	TVSx1.57*	TVSx1.57*
		Zinc	TVSx1.57*	TVSx1.57*			

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

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Clear Creek Basin

15. Mainstem of Clear Creek from Youngfield Street in Wheat Ridge, Colorado, to the confluence with the South Platte River.							
COSPCL15	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT		acute	chronic	
Reviewable	Aq Life Warm 1*	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
Water Supply		D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02
		pH	6.5 - 9.0	---	Beryllium	---	---
Qualifiers:		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS	TVS
Other:		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
Temporary Modification(s):		Inorganic (mg/L)			Chromium III	---	TVS
Arsenic(chronic) = hybrid			acute	chronic	Chromium III(T)	50	---
Expiration Date of 12/31/2021		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
*Classification: Aquatic life warm 1 goal qualifier.		Boron	---	0.75	Copper	TVS	TVS
*Zinc(acute) = TVS x (times) the FWER (final water effect ratio).		Chloride	---	250	Iron	---	WS
Expiration date of 12/31/20.		Chlorine	0.019	0.011	Iron(T)	---	1000
*Zinc(chronic) = TVS x (times) the FWER (final water effect ratio).		Cyanide	0.005	---	Lead	TVS	TVS
Expiration date of 12/31/20.		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	---	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
					Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	---	---
					Zinc	TVSx1.57*	TVSx1.57*

16a. Mainstem of Lena Gulch including all tributaries and wetlands from its source to the inlet of Maple Grove Reservoir.							
COSPCL16A	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture	DM	MWAT		acute	chronic	
UP	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
Water Supply		D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02-10 ^A
		pH	6.5 - 9.0	---	Beryllium	---	---
Qualifiers:		chlorophyll a (mg/m ²)	---	150	Cadmium	TVS	TVS
Other:		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
		Inorganic (mg/L)			Chromium III	---	TVS
			acute	chronic	Chromium III(T)	50	---
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.05	Manganese	TVS	TVS/WS
		Phosphorus	---	0.17	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
					Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	---	---
					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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS Boulder Creek Basin

7a. Mainstem of Coal Creek from Highway 93 to Highway 36 (Boulder Turnpike).							
COSPBO07A	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT			
Reviewable	Aq Life Warm 1	Temperature °C	WS-II	WS-II	Aluminum	acute	chronic
	Recreation E		acute	chronic	Arsenic	340	---
	Water Supply	D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02
Qualifiers:		pH	6.5 - 9.0	---	Beryllium	---	---
Other:		chlorophyll a (mg/m ²)	---	150	Cadmium	TVS	TVS
Temporary Modification(s):		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
Arsenic(chronic) = hybrid		Inorganic (mg/L)			Chromium III	---	TVS
Expiration Date of 12/31/2021			acute	chronic	Chromium III(T)	50	---
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	0.17	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
			---	100	Nickel(T)	---	100
			---	TVS	Selenium	TVS	TVS
			---	TVS	Silver	TVS	TVS
			---	---	Uranium	---	---
			---	TVS	Zinc	TVS	TVS
7b. Mainstem of Coal Creek from Highway 36 to the confluence with Boulder Creek.							
COSPBO07B	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT			
Reviewable	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	acute	chronic
	Recreation E		acute	chronic	Arsenic	340	---
	Water Supply	D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02-10 ^A
Qualifiers:		pH	6.5 - 9.0	---	Beryllium	---	---
Other:		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS	TVS
Temporary Modification(s):		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
Arsenic(chronic) = hybrid		Inorganic (mg/L)			Chromium III	---	TVS
Expiration Date of 12/31/2021			acute	chronic	Chromium III(T)	50	---
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	---	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
			---	100	Nickel(T)	---	100
			---	TVS	Selenium	TVS	TVS
			---	TVS	Silver	TVS	TVS
			---	---	Uranium	---	---
			---	TVS	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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS Boulder Creek Basin

8. All tributaries to South Boulder Creek, including all wetlands from South Boulder Road to the confluence with Boulder Creek and all tributaries to Coal Creek, including all wetlands from Highway 93 to the confluence with Boulder Creek.

COSPBO08	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
UP	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
Qualifiers:		D.O. (mg/L)	---	5.0	Arsenic(T)	---	100
Other:		pH	6.5 - 9.0	---	Beryllium	---	---
*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4). *Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).		chlorophyll a (mg/m ²)	---	150*	Cadmium	TVS	TVS
		E. Coli (per 100 mL)	---	126	Chromium III	TVS	TVS
		Inorganic (mg/L)			Chromium III(T)	---	100
			acute	chronic	Chromium VI	TVS	TVS
		Ammonia	TVS	TVS	Copper	TVS	TVS
		Boron	---	0.75	Iron	---	---
		Chloride	---	---	Iron(T)	---	1000
		Chlorine	0.019	0.011	Lead	TVS	TVS
		Cyanide	0.005	---	Manganese	TVS	TVS
		Nitrate	100	---	Mercury	---	0.01(t)
		Nitrite	---	0.5	Molybdenum(T)	---	150
		Phosphorus	---	0.17*	Nickel	TVS	TVS
		Sulfate	---	---	Selenium	TVS	TVS
		Sulfide	---	0.002	Silver	TVS	TVS
					Uranium	---	---
			Zinc	TVS	TVS		

9. Mainstem of Boulder Creek from a point immediately above the confluence with South Boulder Creek to the confluence with Coal Creek.

COSPBO09	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 1	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
	Water Supply	D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02
Qualifiers:		pH	6.5 - 9.0	---	Beryllium	---	---
Other:		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS	TVS
Temporary Modification(s): Arsenic(chronic) = hybrid Expiration Date of 12/31/2021 temperature(DM/MWAT) = current condition Expiration Date of 12/31/2020		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
		Inorganic (mg/L)			Chromium III	---	TVS
			acute	chronic	Chromium III(T)	50	---
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	---	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
					Nickel(T)	---	100
					Selenium	TVS	TVS
			Silver	TVS	TVS		
			Uranium	---	---		
			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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

St. Vrain Creek Basin

6. All tributaries to St. Vrain Creek, including wetlands from Hygiene Road to the confluence with the South Platte River, except for specific listings in the Boulder Creek subbasin and in Segments 4a, 4b, 4c and 5.

COSPSV06	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
UP	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
Qualifiers:		D.O. (mg/L)	---	5.0	Arsenic(T)	---	100
Other:		pH	6.5 - 9.0	---	Beryllium	---	---
Temporary Modification(s):		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS	TVS
Iron(chronic) = current condition		E. Coli (per 100 mL)	---	126	Chromium III	TVS	TVS
Manganese(ac/ch) = current condition		Inorganic (mg/L)			Chromium III(T)	---	100
Expiration Date of 12/31/2020			acute	chronic	Chromium VI	TVS	TVS
		Ammonia	TVS	TVS	Copper	TVS	TVS
		Boron	---	0.75	Iron(T)	---	1000
		Chloride	---	---	Lead	TVS	TVS
		Chlorine	0.019	0.011	Manganese	TVS	TVS
		Cyanide	0.005	---	Mercury	---	0.01(t)
		Nitrate	100	---	Molybdenum(T)	---	150
		Nitrite	---	0.5	Nickel	TVS	TVS
		Phosphorus	---	---	Selenium	TVS	TVS
		Sulfate	---	---	Silver	TVS	TVS
		Sulfide	---	0.002	Uranium	---	---
					Zinc	TVS	TVS

7. Boulder Reservoir, Coot Lake, Left Hand Valley Reservoir and Spurgeon Reservoir.

COSPSV07	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 1	Temperature °C	WL	WL	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
	Water Supply	D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02
	DUWS*	pH	6.5 - 9.0	---	Beryllium	---	---
Qualifiers:		chlorophyll a (ug/L)	---	---	Cadmium	TVS	TVS
Other:		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
Temporary Modification(s):		Inorganic (mg/L)			Chromium III	---	TVS
Arsenic(chronic) = hybrid			acute	chronic	Chromium III(T)	50	---
Expiration Date of 12/31/2021		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
Iron(chronic) = current condition		Boron	---	0.75	Copper	TVS	TVS
Manganese(ac/ch) = current condition		Chloride	---	250	Iron	---	WS
Expiration Date of 12/31/2020		Chlorine	0.019	0.011	Iron(T)	---	1000
*Classification: DUWS applies to Boulder, Spurgeon and Left Hand Valley Reservoirs only.		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	---	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
					Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	---	---
					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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS Big Thompson River Basin

4b. Mainstem of the Big Thompson from the Greeley-Loveland Canal diversion to County Road 11H.						
COSPBT04B	Classifications	Physical and Biological			Metals (ug/L)	
Designation	Agriculture	DM	MWAT			
Reviewable	Aq Life Warm 1	WS-I	WS-I	acute	chronic	
	Recreation E 5/1 - 10/15	Temperature °C	WS-I	WS-I	Aluminum	---
	Recreation N 10/16 - 4/30		acute	chronic	Arsenic	340
	Water Supply	D.O. (mg/L)	---	5.0	Arsenic(T)	---
		pH	6.5 - 9.0	---	Beryllium	---
Qualifiers:		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS
Other:		E. Coli (per 100 mL) 5/1 - 10/15	---	126	Cadmium(T)	5.0
Temporary Modification(s):		E. Coli (per 100 mL) 10/16 - 4/30	---	630	Chromium III	---
Arsenic(chronic) = hybrid					Chromium III(T)	50
Expiration Date of 12/31/2021					Chromium VI	TVS
					Copper	TVS
					Iron	---
					Iron(T)	---
					Lead	TVS
					Lead(T)	50
					Manganese	TVS
					Mercury	---
					Molybdenum(T)	---
					Nickel	TVS
					Nickel(T)	---
					Selenium	TVS
					Silver	TVS
					Uranium	---
					Zinc	TVS

4c. Mainstem of the Big Thompson from County Road 11H to I-25.						
COSPBT04C	Classifications	Physical and Biological			Metals (ug/L)	
Designation	Agriculture	DM	MWAT			
Reviewable	Aq Life Warm 2	WS-I	WS-I	acute	chronic	
	Recreation E 5/1 - 10/15	Temperature °C	WS-I	WS-I	Aluminum	---
	Recreation N 10/16 - 4/30		acute	chronic	Arsenic	340
		D.O. (mg/L)	---	5.0	Arsenic(T)	---
		pH	6.5 - 9.0	---	Beryllium	---
Qualifiers:		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS
Fish Ingestion Standards		E. Coli (per 100 mL) 5/1 - 10/15	---	126	Chromium III	TVS
Other:		E. Coli (per 100 mL) 10/16 - 4/30	---	630	Chromium III(T)	---
					Chromium VI	TVS
					Copper	TVS
					Iron(T)	---
					Lead	TVS
					Manganese	TVS
					Mercury	---
					Molybdenum(T)	---
					Nickel	TVS
					Selenium	TVS
					Silver	TVS
					Uranium	---
					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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS Big Thompson River Basin

9. Mainstem of the Little Thompson River from the Culver Ditch diversion to the confluence with the Big Thompson River.							
COSPBT09	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
Water Supply		D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02-10 ^A
		pH	6.5 - 9.0	---	Beryllium	---	---
Qualifiers:		chlorophyll a (mg/m ²)	---	150*	Cadmium	TVS	TVS
Other:		E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
Temporary Modification(s):		Inorganic (mg/L)			Chromium III	---	TVS
Selenium(chronic) = 12.3			acute	chronic	Chromium III(T)	50	---
Expiration Date of 12/31/2020		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4).		Boron	---	0.75	Copper	TVS	TVS
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	0.17*	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
					Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	---	---
					Zinc	TVS	TVS
10. All tributaries to the Little Thompson River, including all wetlands, from the Culver Ditch diversion to the confluence with the Big Thompson River.							
COSPBT10	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
UP	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
Water Supply		D.O. (mg/L)	---	5.0	Arsenic(T)	---	100
		pH	6.5 - 9.0	---	Beryllium	---	---
Qualifiers:		chlorophyll a (mg/m ²)	---	150*	Cadmium	TVS	TVS
Other:		E. Coli (per 100 mL)	---	126	Chromium III	TVS	TVS
Temporary Modification(s):		Inorganic (mg/L)			Chromium III(T)	---	100
Selenium(chronic) = 12.3			acute	chronic	Chromium VI	TVS	TVS
Expiration Date of 12/31/2020		Ammonia	TVS	TVS	Copper	TVS	TVS
*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4).		Boron	---	0.75	Iron(T)	---	1000
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).		Chloride	---	---	Lead	TVS	TVS
		Chlorine	0.019	0.011	Manganese	TVS	TVS
		Cyanide	0.005	---	Mercury	---	0.01(t)
		Nitrate	100	---	Molybdenum(T)	---	150
		Nitrite	---	0.5	Nickel	TVS	TVS
		Phosphorus	---	0.17*	Selenium	TVS	TVS
		Sulfate	---	---	Silver	TVS	TVS
		Sulfide	---	0.002	Uranium	---	---
					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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS Cache La Poudre River Basin

11. Mainstem of the Cache La Poudre River from Shields Street in Ft. Collins to a point immediately above the confluence with Boxelder Creek.							
COSPCP11	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 1 Recreation E	Temperature °C	WS-I	WS-I	Aluminum	---	---
Qualifiers:			acute	chronic	Arsenic	340	---
Other:	Temporary Modification(s): temperature(DM/MWAT) = current condition Expiration Date of 12/31/2020	D.O. (mg/L)	---	5.0	Arsenic(T)	---	7.6
	12/1 - 2/29	pH	6.5 - 9.0		Beryllium	---	---
		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS	TVS
		E. Coli (per 100 mL)	---	126	Chromium III	TVS	TVS
		Inorganic (mg/L)			Chromium III(T)	---	100
			acute	chronic	Chromium VI	TVS	TVS
		Ammonia	TVS	TVS	Copper	TVS	TVS
		Boron	---	0.75	Iron(T)	---	1000
		Chloride	---	---	Lead	TVS	TVS
		Chlorine	0.019	0.011	Manganese	TVS	TVS
		Cyanide	0.005	---	Mercury	---	0.01(t)
		Nitrate	100	---	Molybdenum(T)	---	150
		Nitrite	---	2.7	Nickel	TVS	TVS
		Phosphorus	---	---	Selenium	TVS	TVS
		Sulfate	---	---	Silver	TVS	TVS
		Sulfide	---	0.002	Uranium	---	---
					Zinc	TVS	TVS
12. Mainstem of the Cache La Poudre River from a point immediately above the confluence with Boxelder Creek to the confluence with the South Platte River.							
COSPCP12	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 1 Recreation E	Temperature °C	WS-I	WS-I	Aluminum	---	---
Qualifiers:			acute	chronic	Arsenic	340	---
Other:	Temporary Modification(s): temperature(DM/MWAT) = current condition Expiration Date of 12/31/2020	D.O. (mg/L)	---	5.0	Arsenic(T)	---	7.6
		pH	6.5 - 9.0		Beryllium	---	---
		chlorophyll a (mg/m ²)	---	---	Cadmium	TVS	TVS
		E. Coli (per 100 mL)	---	126	Chromium III	TVS	TVS
		Inorganic (mg/L)			Chromium III(T)	---	100
			acute	chronic	Chromium VI	TVS	TVS
		Ammonia	TVS	TVS	Copper	TVS	TVS
		Boron	---	0.75	Iron(T)	---	1000
		Chloride	---	---	Lead	TVS	TVS
		Chlorine	0.019	0.011	Manganese	TVS	TVS
		Cyanide	0.005	---	Mercury	---	0.01(t)
		Nitrate	100	---	Molybdenum(T)	---	150
		Nitrite	---	2.7	Nickel	TVS	TVS
		Phosphorus	---	---	Selenium	TVS	TVS
		Sulfate	---	---	Silver	TVS	TVS
		Sulfide	---	0.002	Uranium	---	---
					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 38.6 for details on TVS, TVS(tr), WS, temperature standards.

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

Cache La Poudre River Basin

13a. All tributaries to the Cache La Poudre River, including all wetlands, from the Munroe Gravity Canal/North Poudre Supply canal diversion to the confluence with the South Platte River, except for specific listings in Segments 6, 7, 8, 13b and 13c.

COSPCP13A	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 2	Temperature °C	WS-I	WS-I	Aluminum	---	---
	Recreation E		acute	chronic	Arsenic	340	---
	Water Supply	D.O. (mg/L)	---	5.0	Arsenic(T)	---	0.02-10 ^A
Qualifiers:		pH	6.5 - 9.0	---	Beryllium	---	---
Other:		chlorophyll a (mg/m ²)	---	150*	Cadmium	TVS	TVS
	*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4).	E. Coli (per 100 mL)	---	126	Cadmium(T)	5.0	---
	*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).	Inorganic (mg/L)			Chromium III	---	TVS
			acute	chronic	Chromium III(T)	50	---
		Ammonia	TVS	TVS	Chromium VI	TVS	TVS
		Boron	---	0.75	Copper	TVS	TVS
		Chloride	---	250	Iron	---	WS
		Chlorine	0.019	0.011	Iron(T)	---	1000
		Cyanide	0.005	---	Lead	TVS	TVS
		Nitrate	10	---	Lead(T)	50	---
		Nitrite	---	0.5	Manganese	TVS	TVS/WS
		Phosphorus	---	0.17*	Mercury	---	0.01(t)
		Sulfate	---	WS	Molybdenum(T)	---	150
		Sulfide	---	0.002	Nickel	TVS	TVS
					Nickel(T)	---	100
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	---	---
					Zinc	TVS	TVS

13b. Mainstem of Boxelder Creek from its source to the confluence with the Cache La Poudre River.

COSPCP13B	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 2	Temperature °C	WS-II	WS-II	Aluminum	---	---
	Recreation N 9/16 - 5/14		acute	chronic	Arsenic	340	---
	Recreation P 5/15 - 9/15	D.O. (mg/L)	---	5.0	Arsenic(T)	---	100
Qualifiers:		pH	6.5 - 9.0	---	Beryllium	---	---
Other:		chlorophyll a (mg/m ²)	---	150*	Cadmium	TVS	TVS
	*chlorophyll a (mg/m ²)(chronic) = applies only above the facilities listed at 38.5(4).	E. Coli (per 100 mL) 5/15 - 9/15	---	205	Chromium III	TVS	TVS
	*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).	E. Coli (per 100 mL) 9/16 - 5/14	---	630	Chromium III(T)	---	100
		Inorganic (mg/L)			Chromium VI	TVS	TVS
			acute	chronic	Copper	TVS	TVS
		Ammonia	TVS	TVS	Iron(T)	---	1000
		Boron	---	0.75	Lead	TVS	TVS
		Chloride	---	---	Manganese	TVS	TVS
		Chlorine	0.019	0.011	Mercury	---	0.01(t)
		Cyanide	0.005	---	Molybdenum(T)	---	150
		Nitrate	100	---	Nickel	TVS	TVS
		Nitrite	---	0.5	Selenium	TVS	TVS
		Phosphorus	---	0.17*	Silver	TVS	TVS
		Sulfate	---	---	Uranium	---	---
		Sulfide	---	0.002	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 38.6 for details on TVS, TVS(tr), WS, temperature standards.