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 11/30/2022

Abbreviations and Acronyms

Aq °C Aquatic =

= degrees Celsius

CL cold lake temperature tier = CLL = cold large lake temperature tier CS-I cold stream temperature tier one CS-II = cold stream temperature tier two

dissolved oxygen D.O. =

DM daily maximum temperature DUWS = direct use water supply

E. coli = Escherichia coli EQ existing quality mg/L milligrams per liter

 $mg/m^2 =$ milligrams per square meter

mĹ

MWAT = maximum weekly average temperature

OW outstanding waters site-specific equation SSE = total recoverable Т =

t = total trout tr

TVS = table value standard μg/L = micrograms per liter ÜP = use-protected WS = water supply

WS-I = warm stream temperature tier one WS-II = warm stream temperature tier two WS-III = warm stream temperature tier three

WL warm lake temperature tier

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS Upper South Platte River Basin

15. Mainstem	of the South Platte River from the Burli	ington Ditch diversion in Denver, Cold	orado, to a poi	nt immediate	ly below the confluence with	Big Dry Creek.	
COSPUS15	Classifications	Physical and Biological			Metals (ug/L)		
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 1	Temperature °C	WS-I	WS-I	Arsenic	340	
	Recreation E		acute	chronic	Arsenic(T)		0.02
	Water Supply	D.O. (mg/L)	varies*	varies*	Cadmium	TVS	TVS
Qualifiers:		pН	6.0-9.0*		Cadmium(T)	5.0	
Other:		pH	6.5 - 9.0		Chromium III		TVS
Temporary Modification(s): Arsenic(chronic) = hybrid Expiration Date of 12/31/2024 Discharger Specific Variance(s):		chlorophyll a (mg/m²)			Chromium III(T)	50	
		E. coli (per 100 mL)		126	Chromium VI	TVS	TVS
					Copper		TVS*
		Inorganic (mg/L)			Copper	TVS*	
	te) = TVS: no limit		acute	chronic	Iron		ws
Selenium(chronic) = TVS: 24 μg/L		Ammonia	TVS*	TVS*	Iron(T)		1000
Expiration Date of 12/31/2023		Boron		0.75	Lead	TVS	TVS
*Ammonia(acute) = See section 38.6(4) for site- specific standards. *Ammonia(chronic) = See section 38.6(4) for site- specific standards. *Copper(acute) = Copper BLM-based FMB Cu FMB(ac)=26.4 ug/l		Chloride		250	Lead(T)	50	
		Chlorine	0.019	0.011	Manganese	TVS	TVS/400
		Cyanide	0.005		Mercury(T)		0.01
		Nitrate	10		Molybdenum(T)		150
	of the Metro Hite WWTF outfall. nic) = Copper BLM-based FMB	Nitrite	1.0		Nickel	TVS	TVS
Cu FMB(ch)=	18.0 ug/l	Phosphorus			Nickel(T)		100
	of the Metro Hite WWTF outfall.	Sulfate		WS	Selenium	TVS	TVS
*Uranium(acute) = See 38.5(3) for details. *Uranium(chronic) = See 38.5(3) for details.		Sulfide		0.002	Silver	TVS	TVS
D.O. (mg/L)(acute) = See section 38.6(4) for site-					Uranium	varies	varies*
specific standa *pH(acute) = 6 miles	chronic) = See section 38.6(4) for site-				Zinc	TVS	TVS

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

15. Mainstern		eet in Wheat Ridge, Colorado, to the	COMMUNICE WITH THE	e South Platte	e River.		
COSPCL15	Classifications	Physical and				Metals (ug/L)	
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 1	Temperature °C	WS-II	WS-II	Arsenic	340	
	Recreation E		acute	chronic	Arsenic(T)		0.02
	Water Supply	D.O. (mg/L)		5.0	Cadmium	TVS	TVS
Qualifiers:		рН	6.5 - 9.0		Cadmium(T)	5.0	
Other:		chlorophyll a (mg/m²)			Chromium III		TVS
Temporary Modification(s): Arsenic(chronic) = hybrid		E. coli (per 100 mL)		126	Chromium III(T)	50	
		Inorgan	ic (mg/L)		Chromium VI	TVS	TVS
Expiration Date of 12/31/2024			acute	chronic	Copper	TVS	TVS
		Ammonia	TVS	TVS	Iron		WS
,	onic) = See 38.5(3) for details.	Boron		0.75	Iron(T)		1000
Oranium(Cin	offic) - See 30.3(3) for details.	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		WS	Nickel(T)		100
		Sulfide		0.002	Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium	varies*	varies*
					Zinc	TVS	TVS
		ries and wetlands from its source to		rove Reservo	oir.		
COSPCL16A	Classifications	Physical and	Biological			Metals (ug/L)	
Designation	Agriculture		DM				
UP	-		DM	MWAT		acute	chronic
UP	Aq Life Warm 2	Temperature °C	WS-II	MWAT WS-II	Arsenic	acute 340	
UP	Aq Life Warm 2 Recreation E	·			Arsenic Arsenic(T)		chronic 0.02-10 ^A
	Aq Life Warm 2	Temperature °C D.O. (mg/L)	WS-II	WS-II		340	
UP Qualifiers:	Aq Life Warm 2 Recreation E	D.O. (mg/L)	WS-II acute	WS-II chronic	Arsenic(T)	340 	 0.02-10 ^A
	Aq Life Warm 2 Recreation E	D.O. (mg/L)	WS-II acute	WS-II chronic 5.0	Arsenic(T) Cadmium	340 TVS	 0.02-10 ^A TVS
Qualifiers: Other:	Aq Life Warm 2 Recreation E Water Supply	D.O. (mg/L)	WS-II acute 6.5 - 9.0	WS-II chronic 5.0	Arsenic(T) Cadmium Cadmium(T)	340 TVS 5.0	 0.02-10 ^A TVS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL)	WS-II acute 6.5 - 9.0	WS-II chronic 5.0 150	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium III(T) Chromium VI	340 TVS 5.0 	 0.02-10 A TVS TVS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL)	WS-II acute 6.5 - 9.0 	WS-II chronic 5.0 150	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium III(T)	340 TVS 5.0 50	0.02-10 A TVS TVS TVS TVS TVS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL)	WS-II acute 6.5 - 9.0 ic (mg/L)	WS-II chronic 5.0 150 126	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium III(T) Chromium VI	340 TVS 5.0 50 TVS	0.02-10 A TVS TVS TVS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL)	WS-II acute 6.5 - 9.0 ic (mg/L) acute	WS-II chronic 5.0 150 126 chronic	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium III(T) Chromium VI Copper	340 TVS 5.0 50 TVS	0.02-10 A TVS TVS TVS TVS TVS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL) Inorgan	WS-II acute 6.5 - 9.0 ic (mg/L) acute TVS	WS-II chronic 5.0 150 126 chronic TVS	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium VI Chromium VI Copper Iron	340 TVS 5.0 50 TVS TVS	0.02-10 A TVS TVS TVS TVS TVS WS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL) Inorgan Ammonia Boron	WS-II acute 6.5 - 9.0 ic (mg/L) acute TVS	WS-II chronic 5.0 150 126 chronic TVS 0.75	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium III(T) Chromium VI Copper Iron Iron(T)	340 TVS 5.0 50 TVS TVS	0.02-10 A TVS TVS TVS TVS WS 1000
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL) Inorgan Ammonia Boron Chloride	WS-II acute 6.5 - 9.0 ic (mg/L) acute TVS	WS-II chronic 5.0 150 126 chronic TVS 0.75 250	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium VI Copper Iron Iron(T) Lead	340 TVS 5.0 50 TVS TVS TVS	0.02-10 A TVS TVS TVS TVS WS 1000 TVS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL) Inorgan Ammonia Boron Chloride Chlorine	WS-II acute 6.5 - 9.0 ic (mg/L) acute TVS 0.019	WS-II chronic 5.0 150 126 Chronic TVS 0.75 250 0.011	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium VI Copper Iron Iron(T) Lead Lead(T)	340 TVS 5.0 50 TVS TVS TVS 50	0.02-10 A TVS TVS TVS TVS WS 1000 TVS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL) Inorgan Ammonia Boron Chloride Chlorine Cyanide	WS-II acute 6.5 - 9.0 ic (mg/L) acute TVS 0.019 0.005	ws-II chronic 5.0 150 126 chronic TVS 0.75 250 0.011	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium VI Copper Iron Iron(T) Lead Lead(T) Manganese	340 TVS 5.0 50 TVS TVS TVS 50 TVS TVS 50 TVS	0.02-10 A TVS TVS TVS TVS WS 1000 TVS TVS/WS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL) Inorgan Ammonia Boron Chloride Chlorine Cyanide Nitrate	WS-II acute 6.5 - 9.0 ic (mg/L) acute TVS 0.019 0.005	Chronic 5.0 150 126 Chronic TVS 0.75 250 0.011	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium III(T) Chromium VI Copper Iron Iron(T) Lead Lead(T) Manganese Mercury(T)	340 TVS 5.0 50 TVS TVS TVS 50 TVS TVS 50 TVS	0.02-10 A TVS TVS TVS TVS WS 1000 TVS TVS/WS 0.01
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL) Inorgan Ammonia Boron Chloride Chlorine Cyanide Nitrate Nitrite	WS-II acute 6.5 - 9.0 ic (mg/L) acute TVS 0.019 0.005 10	WS-II chronic 5.0 150 126 Chronic TVS 0.75 250 0.011 0.05	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium VI Copper Iron Iron(T) Lead Lead(T) Manganese Mercury(T) Molybdenum(T)	340 TVS 5.0 50 TVS TVS TVS 50 TVS TVS 50 TVS	0.02-10 A TVS TVS TVS TVS WS 1000 TVS TVS/WS 0.01 150
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL) Inorgan Ammonia Boron Chloride Chlorine Cyanide Nitrate Nitrite Phosphorus	WS-II acute 6.5 - 9.0 ic (mg/L) acute TVS 0.019 0.005 10	WS-II chronic 5.0 150 126 Chronic TVS 0.75 250 0.011 0.05 0.17	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium III(T) Chromium VI Copper Iron Iron(T) Lead Lead(T) Manganese Mercury(T) Molybdenum(T) Nickel	340 TVS 5.0 50 TVS TVS TVS 50 TVS TVS 50 TVS TVS TVS	0.02-10 A TVS TVS TVS TVS WS 1000 TVS TVS/WS 0.01 150 TVS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL) Inorgan Ammonia Boron Chloride Chlorine Cyanide Nitrate Nitrite Phosphorus Sulfate	WS-II acute 6.5 - 9.0 ic (mg/L) acute TVS 0.019 0.005 10	Chronic 5.0 150 126 Chronic TVS 0.75 250 0.011 0.05 0.17 WS	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium III(T) Chromium VI Copper Iron Iron(T) Lead Lead(T) Manganese Mercury(T) Molybdenum(T) Nickel Nickel(T)	340 TVS 5.0 50 TVS TVS TVS 50 TVS TVS 50 TVS TVS TVS TVS	0.02-10 A TVS TVS TVS TVS WS 1000 TVS TVS/WS 0.01 150 TVS
Qualifiers: Other: *Uranium(acu	Aq Life Warm 2 Recreation E Water Supply tte) = See 38.5(3) for details.	D.O. (mg/L) pH chlorophyll a (mg/m²) E. coli (per 100 mL) Inorgan Ammonia Boron Chloride Chlorine Cyanide Nitrate Nitrite Phosphorus Sulfate	WS-II acute 6.5 - 9.0 ic (mg/L) acute TVS 0.019 0.005 10	Chronic 5.0 150 126 Chronic TVS 0.75 250 0.011 0.05 0.17 WS	Arsenic(T) Cadmium Cadmium(T) Chromium III Chromium III(T) Chromium VI Copper Iron Iron(T) Lead Lead(T) Manganese Mercury(T) Molybdenum(T) Nickel Nickel(T) Selenium	340 TVS 5.0 50 TVS TVS TVS 50 TVS 50 TVS TVS TVS TVS	0.02-10 A TVS TVS TVS TVS WS 1000 TVS TVS/WS 0.01 150 TVS 1000 TVS

REGULATION #38 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS Middle South Platte River Basin

1a. Mainstem	of the South Platte River from a point i	mmediately below the confluence v	vith Big Dry Creek	to the conflu	ience with St. Vrain Cre	ek.	
COSPMS01A Classifications		Physical and B				Metals (ug/L)	
Designation	Agriculture		DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 1	Temperature °C	WS-I	WS-I	Arsenic	340	
	Recreation E		acute	chronic	Arsenic(T)		0.02
	Water Supply	D.O. (mg/L)	varies*	varies*	Cadmium	TVS	TVS
Qualifiers:		pH	6.5 - 9.0		Cadmium(T)	5.0	
Other:		chlorophyll a (mg/m²)			Chromium III		TVS
Temporary Modification(s):		E. coli (per 100 mL)		126	Chromium III(T)	50	
Arsenic(chronic) = hybrid		Inorganic	(mg/L)		Chromium VI	TVS	TVS
Expiration Date of 12/31/2024			acute	chronic	Copper		18.0*
Ammonia(acute) = See section 38.6(4) for site-		Ammonia	TVS	TVS*	Copper	26.4*	
specific stand		Boron		0.75	Iron		WS
*Ammonia(chi specific standa	ronic) = See section 38.6(4) for site-	Chloride		250	Iron(T)		1000
*Copper(acute	e) = Copper BLM-based FMB	Chlorine	0.019	0.011	Lead	TVS	TVS
Cu FMB(ac)=2 *Copper(chror	26.4 ug/l nic) = Copper BLM-based FMB	Cyanide	0.005		Lead(T)	50	
Cu FMB(ch)=		Nitrate	10		Manganese	TVS	TVS/WS
*Uranium(acu	te) = See 38.5(3) for details.	Nitrite		0.5	Mercury(T)		0.01
,	onic) = See 38.5(3) for details.	Phosphorus		0.5	Molybdenum(T)		150
*D.O. (mg/L)(a specific standa	acute) = See section 38.6(4) for site- ards.	•			Nickel	TVS	TVS
*D.O. (mg/L)(d	chronic) = See section 38.6(4) for site-	Sulfate		WS			
specific stand	ards.	Sulfide		0.002	Nickel(T)		100 T) (C
					Selenium	TVS	TVS
					Silver	TVS	TVS
					Uranium 	varies*	varies*
1h Mainatana	of the Couth Diette Diver from a point i	mmodiataly balayy the conflyance	with St. Vrain Grad	ole to the Male	Zinc	TVS	TVS
	of the South Platte River from a point i Classifications	Physical and B		ek to the vvei	d/Morgan County Line.	Metals (ug/L)	
Designation	Agriculture	i nysicai and b	DM	MWAT		acute	chronic
Reviewable	Ag Life Warm 1	Temperature °C	WS-I	WS-I	Arsenic	340	
Neviewable	Recreation E	Temperature C	acute	chronic			
	Water Supply	D.O. (mall.)			Arsenic(T)		0.02
Qualifiers:		D.O. (mg/L)	65.00	5.0	Cadmium	TVS	TVS
		pH	6.5 - 9.0		Cadmium(T)	5.0	T) (O
Other:		chlorophyll a (mg/m²)		400	Chromium III		TVS
Temporary M	lodification(s):	E. coli (per 100 mL)		126	Chromium III(T)	50	
Arsenic(chron		Inorganic			Chromium VI	TVS	TVS
Expiration Dat	te of 12/31/2024		acute	chronic	Copper	TVS	TVS
		Ammonia	TVS	TVS	Iron		WS
*Uranium(acu	te) = See 38.5(3) for details.						4000
•	onic) = See 38.5(3) for details.	Boron		0.75	Iron(T)		1000
•	, , ,	Boron Chloride		0.75 250	Lead	TVS	1000 TVS
•	, , ,						
•	, , ,	Chloride		250	Lead	TVS	TVS
•	, , ,	Chloride Chlorine	 0.019	250 0.011	Lead Lead(T)	TVS 50	TVS
•	, , ,	Chloride Chlorine Cyanide	 0.019 0.005	250 0.011 	Lead Lead(T) Manganese	TVS 50 TVS	TVS TVS/WS
•	, , ,	Chloride Chlorine Cyanide Nitrate	 0.019 0.005 10	250 0.011 	Lead Lead(T) Manganese Mercury(T)	TVS 50 TVS 	TVS TVS/WS 0.01
•	, , ,	Chloride Chlorine Cyanide Nitrate Nitrite	0.019 0.005 10	250 0.011 0.5	Lead Lead(T) Manganese Mercury(T) Molybdenum(T)	TVS 50 TVS 	TVS TVS/WS 0.01 150
•	, , ,	Chloride Chlorine Cyanide Nitrate Nitrite Phosphorus	0.019 0.005 10	250 0.011 0.5	Lead Lead(T) Manganese Mercury(T) Molybdenum(T) Nickel	TVS 50 TVS TVS	TVS TVS/WS 0.01 150 TVS
•	, , ,	Chloride Chlorine Cyanide Nitrate Nitrite Phosphorus Sulfate	 0.019 0.005 10 	250 0.011 0.5 WS	Lead Lead(T) Manganese Mercury(T) Molybdenum(T) Nickel Nickel(T)	TVS 50 TVS TVS	TVS TVS/WS 0.01 150 TVS 100
•	, , ,	Chloride Chlorine Cyanide Nitrate Nitrite Phosphorus Sulfate	 0.019 0.005 10 	250 0.011 0.5 WS	Lead Lead(T) Manganese Mercury(T) Molybdenum(T) Nickel Nickel(T) Selenium	TVS 50 TVS TVS TVS TVS	TVS TVS/WS 0.01 150 TVS 100 TVS