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 06/30/2016

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

1a. Mainstem of the South Platte River from the source of the South and Middle Forks to the inlet of Cheesman Reservoir.

COSPUS01A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).
*Temperature = summer criteria apply from 4/1-10/31

Physical and Biological	DM	MWAT
Temperature °C	CS-I*	CS-I*
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

1b. All tributaries to the South Platte River, including wetlands within the Lost Creek and Mt. Evans Wilderness Areas.

COSPUS01B	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Upper South Platte River Basin

2a. All tributaries to the South Platte River system, including all wetlands from the headwaters of the South and Middle Forks to a point immediately below the confluence with Tarryall Creek except for specific listings in Segment 1b, 2b and 2c.

COSPUS02A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

2b. Mainstem of Mosquito Creek from the confluence with South Mosquito Creek to its confluence with the Middle Fork of the South Platte River.

COSPUS02B	Classifications
Designation	Agriculture
UP	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	---	220

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

2c. South Mosquito Creek from the source to confluence with Mosquito Creek and No Name Creek from the source to the confluence with South Mosquito Creek.

COSPUS02C	Classifications
Designation	Agriculture
UP	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	---	280

3. All tributaries to the South Platte River, including all wetlands from a point immediately below the confluence with Tarryall Creek to a point immediately above the confluence with the North Fork of the South Platte River, except for specific listings in Segment 1b.

COSPUS03	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Ammonia(ac/ch) = current condition*
Expiration Date of 12/31/2017
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

*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).
*TempMod: Ammonia = below the Florissant Wastewater Treatment Facility outfall.

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Upper South Platte River Basin

4. Mainstem of the North Fork of the South Platte River, including all tributaries and wetlands from the source to the confluence with the South Platte River, except for specific listings in Segments 1b, 5a, 5b, and 5c.

COSPUS04	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological

	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

5a. Mainstem of Geneva Creek from the source to the confluence with Scott Gomer Creek.

COSPUS05A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E

Qualifiers:

Other:

Physical and Biological

	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	3.5-9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	---	2(T)
Chromium III	---	100(T)
Chromium VI	---	25(T)
Copper	---	18
Iron	---	1200(T)
Lead	---	4(T)
Manganese	---	530
Mercury	---	0.05(T)
Molybdenum	---	150(T)
Nickel	---	50(T)
Selenium	---	4.6(T)
Silver	---	1(T)
Uranium	---	---
Zinc	---	190

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

5b. Mainstem of Geneva Creek from the confluence with Scott Gomer Creek to the confluence with the North Fork of the South Platte River; all tributaries of Geneva Creek including wetlands from source to confluence with the North Fork of the South Platte River.

COSPUS05B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

5c. Mainstem of Gooseberry Gulch and all tributaries from source to Sunset Trail.

COSPUS05C	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation U
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

5d. Mainstem of Gooseberry Gulch and all tributaries from Sunset Trail to confluence with Elk Creek.

COSPUS05D	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation U
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

6a. Mainstem of the South Platte River from the outlet of Cheesman Reservoir to the inlet of Chatfield Reservoir.

COSPUS06A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	---	TVS
Manganese	TVS	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Upper South Platte River Basin

6b. Chatfield Reservoir

COSPUS06B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = measured through samples that are representative of the mixed layer during July-Sept, with an allowable exceedance frequency of 1in 5 yrs. See section 38.6(4) for assessment thresholds.
*Phosphorus(chronic) = See section 38.6(4) for assessment thresholds.

Physical and Biological

		DM	MWAT
Temperature °C	1/1 - 3/31	CLL	CLL
Temperature °C	4/1 - 12/31	CLL	23.5

	acute	chronic
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L) 7/1 - 9/30	---	10*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.03*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

6c. Deleted.

COSPUS06C	Classifications
Designation	

Qualifiers:

Other:

Physical and Biological

DM	MWAT

acute	chronic

Inorganic (mg/L)

acute	chronic

Metals (ug/L)

acute	chronic

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

7. All tributaries to the South Platte River, including all wetlands from a point immediately below the confluence with the North Fork of the South Platte River to the outlet of Chatfield Reservoir except for specific listings in Segments 8, 9, 10, 11, 12, and 13.

COSPUS07	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

8. Mainstems of East and West Plum Creek from the source to the boundary of National Forest lands, including all tributaries and wetlands within the Plum Creek drainage which are on National Forest Lands, except for the specific listing in Segment 9.

COSPUS08	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Upper South Platte River Basin

9. Mainstem of Bear Creek, including all tributaries and wetlands from the source to the inlet of Perry Park Reservoir, a.k.a. Waucondah Reservoir (Douglas County).

COSPUS09	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

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
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Copper(ac/ch) = current condition*
Expiration Date of 12/31/2018

Manganese(chronic) = current condition*
Expiration Date of 6/30/2019

temperature(DM/MWAT) = current condition* 12/1 - 2/29
Expiration Date of 12/31/2020

*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).
*TempMod: Copper = East Plum Creek and Plum Creek below the PCWRA discharge.
*TempMod: Manganese = applies to the manganese WS standard.
*TempMod: temperature(12/1 - 2/29) = East Plum Creek and Plum Creek below the PCWRA discharge.

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

10b. Deleted.

COSPUS10B	Classifications
Designation	
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT

	acute	chronic

Inorganic (mg/L)	acute	chronic

Metals (ug/L)	acute	chronic

11a. All tributaries to the East Plum Creek system, including all wetlands which are not on national forest lands.

COSPUS11A	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

11b. All tributaries to the West Plum Creek system, including all wetlands, which are not on national forest lands, except for specific listings in Segments 9 and 12.

COSPUS11B	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

12. Mainstem of Garber Creek and Jackson Creek from the boundary of National Forest lands to the confluence with West Plum Creek; mainstem of Bear Creek from the outlet of Perry Park Reservoir, a.k.a. Waucondah Reservoir, to the confluence with West Plum Creek.

COSPUS12	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

13. Mainstem of Deer Creek, including the North and South Forks, from the source to Chatfield Reservoir.

COSPUS13	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	---	TVS
Nickel	TVS	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

14. Mainstem of the South Platte River from the outlet of Chatfield Reservoir to the Burlington Ditch diversion in Denver, Colorado.

COSPUS14	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021
Chloride(chronic) = current condition
temperature(DM/MWAT) = current condition 12/1 - 2/13
Expiration Date of 12/31/2020

*Copper(acute) = Copper BLM-based FMB Cu FMB(ac)=31.5 ug/l downstream of Marcy Gulch.
*Copper(chronic) = Copper BLM-based FMB Cu FMB(ch)=20.8 ug/l downstream of Marcy Gulch.
*Temperature = summer criteria apply from 2/14 - 11/30

Physical and Biological	DM	MWAT
Temperature °C	WS-I*	WS-I*
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	---	TVS*
Copper	TVS*	---
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	190
Manganese	---	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Chloride(chronic) = current condition

Sulfate(chronic) = current condition

temperature(DM/MWAT) = current condition

Expiration Date of 12/31/2020

*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.
*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

Physical and Biological

	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	varies*	varies*
pH	6.0-9.0*	---
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS*	TVS*
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	1.0
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	---	TVS*
Copper	TVS*	---
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	400
Manganese	---	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	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
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

Physical and Biological

	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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

16b. Aurora Reservoir.

COSPUS16B	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply
	DUWS

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	---	TVS
Manganese	TVS	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

16c. All tributaries to the South Platte River, including all wetlands, from the outlet of Chatfield Reservoir, to a point immediately below the confluence with Big Dry Creek, except for specific listings in the subbasins of the South Platte River, and in Segments 16a, 16d, 16e, 16f, 16g, 16h, 16i, 16j, and 16k.

COSPUS16C	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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

16d. Second Creek from the source to the O'Brian Canal.

COSPUS16D	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

*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).
*D.O. (mg/L)(chronic) = 15th percentile of D.O. measurements collected between 6:30 a.m. and 6:30 p.m.

Physical and Biological	DM	MWAT
Temperature °C	WS-III	WS-III
	acute	**chronic**
D.O. (mg/L)	---	3.3*
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

16e. Third Creek from the source to the O'Brian Canal.

COSPUS16E	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

*D.O. (mg/L)(chronic) = 15th percentile of D.O. measurements collected between 6:30 a.m. and 6:30 p.m.

Physical and Biological	DM	MWAT
Temperature °C	WS-III	WS-III
	acute	**chronic**
D.O. (mg/L)	---	4.0*
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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

16f. Barr Lake Tributary from the source to the Denver Hudson Canal.

COSPUS16F	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

*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).
*D.O. (mg/L)(chronic) = When water is present, D.O. concentrations shall be maintained at levels that protect classified uses.

Physical and Biological	DM	MWAT
Temperature °C	WS-III	WS-III
	acute	**chronic**
D.O. (mg/L)	---	narrative*
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

16g. Marcy Gulch, including all wetlands from the source to the confluence with the South Platte.

COSPUS16G	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

Temporary Modification(s):
temperature(DM/MWAT) = current condition* 12/1 - 2/29
Expiration Date of 12/31/2020

*Copper(acute) = Copper BLM-based FMB Cu FMB(ac)=67.1 ug/l below the Centennial WWTF.
*Copper(chronic) = Copper BLM-based FMB Cu FMB(ch)=43.3 ug/l below the Centennial WWTF.
*Selenium(acute) = See section 38.6(4)(b) for assessment locations.
*Selenium(chronic) = See section 38.6(4)(b) for assessment locations.
*TempMod: temperature(12/1 - 2/29) = downstream of Centennial WWTF

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	---	TVS*
Copper	TVS*	---
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	---
Nickel	TVS	TVS
Selenium	21*	13*
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

16h. Mainstem of West Toll Gate Creek, including all tributaries and wetlands, upstream of the confluence with East Toll Gate Creek. Mainstem of East Toll Gate Creek, including all tributaries and wetlands, upstream of the confluence with West Toll Gate Creek. Mainstem of Toll Gate Creek, downstream of the confluence of East and West Toll Gate Creeks, to the confluence with Sand Creek.

COSPUS16H	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E

Qualifiers:

Fish Ingestion Standards

Other:

*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).
*Selenium(acute) = See section 38.6(4)(b) for selenium standards and assessment locations.
*Selenium(chronic) = See section 38.6(4)(b) for selenium standards and assessment locations.

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	varies*	varies*
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

16i. Mainstem of Sand Creek from the confluence with Toll Gate Creek to the confluence with the South Platte River.

COSPUS16I	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E

Qualifiers:

Fish Ingestion Standards

Other:

*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).
*Mercury(chronic) = 0.026 below Brighton Blvd, see section 38.6(4)(f) for mercury assessment locations
*Selenium(acute) = See section 38.6(4)(f) for selenium standards and assessment locations.
*Selenium(chronic) = See section 38.6(4)(f) for selenium standards and assessment locations.

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Mercury	---	0.01(t)
Mercury	---	0.026(t)*
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	---	varies*
Selenium	varies*	---
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

16j. Lee Gulch, Little's Creek, Big Dry Creek (Douglas and Arapahoe Counties), and Little Dry Creek, including all wetlands from the source to the confluence with the South Platte.

COSPUS16J	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

*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).
*Selenium(acute) = See section 38.6(4)(h) for selenium standards and assessment locations.
*Selenium(chronic) = See section 38.6(4)(h) for selenium standards and assessment locations.

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	varies*	varies*
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

16k. Mainstem of Lakewood Gulch from the source to the confluence with the South Platte.

COSPUS16K	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E

Qualifiers:

Other:

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	---
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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

17a. Washington Park Lakes, City Park Lakes, Rocky Mountain Lake, Berkely Lake.

COSPUS17A	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	chronic
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

17b. Sloan's Lake.

COSPUS17B	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	chronic
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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

17c. Bowles Lake, a.k.a. Patrick Reservoir or Bow Mar Lake.

COSPUS17C	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	TVS	TVS
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

18. Lakes and reservoirs within the boundaries of the Lost Creek and Mt. Evans Wilderness areas.

COSPUS18	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Upper South Platte River Basin

19. Lakes and reservoirs in the South Platte River system from headwaters to Chatfield Reservoir, except for specific listings in Segment 18. Includes Antero, Spinney Mountain, Elevenmile, Cheesman, and Strontia Springs.

COSPUS19	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Classification: DUWS applies to Strontia Springs only.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Temperature(3/1 - 12/31) = Platte Canyon Res (MWAT=25.0)
*Temperature(4/1 - 12/31) = Antero Reservoir (MWAT=19.6)
*Temperature(4/1 - 12/31) = Elevenmile Reservoir (MWAT=19.8)
*Temperature(4/1 - 12/31) = Spinney Mt Reservoir (MWAT=20.2)
*Temperature(4/1 - 12/31) = Cheesman Reservoir (MWAT=21.9)
*Temperature(4/1 - 12/31) = Strontia Springs Res (MWAT=22.6)

Physical and Biological

		DM	MWAT
Temperature °C	3/1 - 12/31	CLL*	25.0*
Temperature °C	4/1 - 12/31	CLL*	19.6*
Temperature °C	4/1 - 12/31	CLL*	19.8* B
Temperature °C	4/1 - 12/31	CLL*	20.2*
Temperature °C	4/1 - 12/31	CLL*	21.9*
Temperature °C	4/1 - 12/31	CLL*	22.6*
Temperature °C		CL,CLL	CL,CLL
		acute	**chronic**
D.O. (mg/L)		---	6.0
D.O. (spawning)		---	7.0
pH		6.5 - 9.0	---
chlorophyll a (ug/L)		---	8*
E. Coli (per 100 mL)		---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Upper South Platte River Basin

20. Lakes and reservoirs in the Plum Creek system within National Forest boundaries; and lakes and reservoirs in the Bear Creek drainage between the National Forest boundary and to the inlet of Perry Park Reservoir, a.k.a. Waucondah Reservoir (Douglas County).

COSPUS20	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Upper South Platte River Basin

21. Lakes and reservoirs in the Plum Creek system except for specific listings in Segment 20.

COSPUS21	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Other:

*Classification: DUWS applies to Aurora Rampart only.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

22a. Lakes and reservoirs in watersheds tributary to the South Platte River from the outlet of Chatfield Reservoir to a point immediately below the confluence with Big Dry Creek, except for specific listings in the subbasins of the South Platte River, and in Segments 16b, 17a, 17b, 17c, 22b, and 23.

COSPUS22A	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Fish Ingestion Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*Classification: DUWS applies to McLellan and Quincy only.
*Molybdenum(chronic) = 210 ug/L for McLellan Reservoir

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Molybdenum	---	210(T)*
Nickel	TVS	TVS
Nickel	---	100(T)
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

22b. Lakes and reservoirs located in the Rocky Mountain Arsenal National Wildlife Refuge

COSPUS22B	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

23. Lakes and reservoirs in watersheds tributary to the Upper South Platte River and within the City and County of Denver, except for specific listings in the other subbasins of the South Platte River and in Segments 17a and 17b..

COSPUS23	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E

Qualifiers:

Fish Ingestion Standards

Other:

*See section 38.7 (Marston Forebay).

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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.

UPPER SOUTH PLATTE RIVER SEGMENT 15

Site-Specific Minimum Dissolved Oxygen and Ammonia Standards

UNDERLYING STANDARDS

Dissolved Oxygen

Early Life Stage Protection Period (April 1 through July 31)

1-Day[1,5,6]	3.0 mg/L (acute)
7-Day Average [1.2.,4]	5.0 mg/L

Older Life Stage Protection Period (August 1 through March 31)

1-Day [1,5]	2.0 mg/L (acute)
7-Day Mean of Minimums[1,3]	2.5 mg/L
30-Day Average [1.2.]	4.5 mg/L

TEMPORARY MODIFICATION

During the period until October 31, 2001, the Segment 15 dissolved oxygen standards from 88th Avenue north to the end of the Segment shall be the currently existing ambient conditions as monitored in 1992, 1993, and 1994 by the Division and by the Metro District. Beginning November 1, 2001, the standards shall apply to all sections of Segment 15 south of the Brighton Ditch diversion. The standards north of the Brighton Ditch diversion shall continue to be the ambient conditions existing in 1992, 1993, and 1994. Beginning November 1, 2004, the standards shall apply to all sections of Segment 15.

Refer to Section 38(6)(4)(c) for Dissolved Oxygen assessment locations.

Footnotes

1. For the purposes of determining compliance with the standards, dissolved oxygen measurements shall only be taken in the flowing portion of the stream at mid-depth, and at least six inches above the bottom of the channel. All sampling protocols and test procedures shall be in accordance with procedures and protocols approved by the Division.

2. A minimum of four independent daily means must be used to calculate the average for the 7-Day Average standard. A minimum of eight independent daily means must be used to calculate the average for the 30-Day Average standard. The four days and the eight days must be representative of the 7-Day and the 30-Day periods respectively. The daily means shall be the mean of the daily high and low values. In calculating the mean values, the dissolved oxygen saturation value shall be used in place of any dissolved oxygen measurements which exceed saturation.

3. The 7-Day Mean minimum is the average of the daily minimums measured at the location on each day during any 7-Day period.

4 North of the Lupton Bottoms Ditch diversion, the ELS 7-Day average standards for the period July 1 – June 31 shall be 4.6 mg/L.

5. During a 24 hour day dissolved oxygen levels are likely to be lower during the nighttime when there is no photosynthesis. The dissolved oxygen levels should not drop below the acute standard (ELS acute standard of 3.0 mg/L or the OLS standards of 2.0 mg/L). However, if during the ELS period multiple measurements are below 3.0 mg/L during the same nighttime period, the multiple measurements shall be considered a single exceedance of the acute standard. For measurements below 2.0 mg/L during either the ELS or the OLS periods, each hourly measurement below 2.0 mg/L shall be considered an exceedance of the acute standards.

6. In July, the dissolved oxygen level in Segment 15 may be lower than the 3.0 mg/L acute standard for up to 14 exceedances in any one year and up to a total of 21 exceedances in three years before there is a determination that the acute dissolved oxygen standards is not being met. Exceedances shall be counted as described in Footnote 5.

Ammonia:

Early Life Stage Protection Period (April 1 through July 31)

Ammonia — Warm Water = (mg/l as N)Total

$$acute = \frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}$$

$$chronic\ (Apr1-July31) = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * MIN\left(2.85,\ 1.45*10^{0.028(25-T)}\right)$$

$$chronic\ (Aug1-Mar31) = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * 1.45*10^{0.028*(25-MAX(T,\ 7))}$$

NH_3 = old TVS — Warm Water Acute = 0.62/FT/FPH/2[(4 old)] in mg/ (N)

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
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Copper(ac/ch) = current condition*

Expiration Date of 12/31/2020

*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).
*TempMod: Copper = below the PWSD WWTF outfall.

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

2. Cherry Creek Reservoir.

COSPCH02	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*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.

Physical and Biological		DM	MWAT
Temperature °C		WL	WL
		acute	**chronic**
D.O. (mg/L)		---	5.0
pH		6.5 - 9.0	---
chlorophyll a (ug/L)	7/1 - 9/30	---	18*
E. Coli (per 100 mL)		---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

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).

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

4b. Cottonwood Creek, including all tributaries and wetlands, from the source to Cherry Creek Reservoir.

COSPCH04B	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

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).
*Selenium(acute) = See section 38.6(4)(i) for selenium standards and assessment locations.
*Selenium(chronic) = See section 38.6(4)(i) for selenium standards and assessment locations.

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	varies*	varies*
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

5. Lakes and reservoirs in the Cherry Creek system from the source of East and West Cherry Creeks to the confluence with the South Platte River, except for specific listings in Segments 2 and 6.

COSPCH05	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	20*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.083*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

6. Lakes and reservoirs in watersheds tributary to Cherry Creek within the City and County of Denver.

COSPCH06	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E

Qualifiers:

Fish Ingestion Standards

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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

1a. Mainstem of Bear Creek from the boundary of the Mt. Evans Wilderness area to the inlet of Evergreen Lake.

COSPBE01A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological

	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

1b. Mainstem of Bear Creek from Harriman Ditch to the inlet of Bear Creek Reservoir.

COSPBE01B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Physical and Biological

		DM	MWAT
Temperature °C	11/1 - 3/31	CS-II	CS-II
Temperature °C	4/1 - 10/31	CS-II	19.3
		acute	**chronic**
D.O. (mg/L)		---	6.0
D.O. (spawning)		---	7.0
pH		6.5 - 9.0	---
chlorophyll a (mg/m^2)		---	---
E. Coli (per 100 mL)		---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Bear Creek Basin

1c. Bear Creek Reservoir.

COSPBE01C	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

chlorophyll a (ug/L)(chronic) = current condition

Phosphorus(chronic) = current condition

Expiration Date of 12/31/2020

*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.

Physical and Biological

		DM	MWAT
Temperature °C	1/1 - 3/31	CLL	CLL
Temperature °C	4/1 - 12/31	CLL	23.3

		acute	chronic
D.O. (mg/L)		---	6.0
D.O. (spawning)		---	7.0
pH		6.5 - 9.0	---
chlorophyll a (ug/L)	7/1 - 9/30	---	12.2*
E. Coli (per 100 mL)		---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	7/1 - 9/30	---	22.2*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Bear Creek Basin

1d. Evergreen Lake.

COSPBE01D	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply
	DUWS
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	CLL	CLL

	acute	chronic
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Bear Creek Basin

1e. Mainstem of Bear Creek from the outlet of Evergreen Lake to the Harriman Ditch.

COSPBE01E	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological

		DM	MWAT
Temperature °C	11/1 - 3/31	CS-II	CS-II
Temperature °C	4/1 - 10/31	CS-II	19.3

	acute	chronic
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

2. Mainstem of Bear Creek from the outlet of Bear Creek Reservoir to the confluence with the South Platte River.

COSPBE02	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological

	DM	MWAT
Temperature °C	WS-II	WS-II

	acute	chronic
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

3. All tributaries to Bear Creek, including all wetlands, from the source to the outlet of Evergreen Lake. Except for specific listings in Segment 7.

COSPBE03	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	---	TVS
Nickel	TVS	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

4a. All tributaries to Bear Creek, including all wetlands, from the outlet of Evergreen Lake to the confluence with the South Platte River, except for specific listings in Segments 5, 6a, and 6b.

COSPBE04A	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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.

4b. Deleted.

COSPBE04B	Classifications	Physical and Biological		Metals (ug/L)	
Designation		DM	MWAT	acute	chronic
Qualifiers:		acute	chronic		
Other:					
		Inorganic (mg/L)			
		acute	chronic		

4c. Deleted.

COSPBE04C	Classifications	Physical and Biological		Metals (ug/L)	
Designation		DM	MWAT	acute	chronic
Qualifiers:		acute	chronic		
Other:					
		Inorganic (mg/L)			
		acute	chronic		

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

5. Swede, Kerr, Sawmill, Troublesome, and Cold Springs Gulches, and mainstem of Cub Creek from the source to the confluence with Bear Creek.

COSPBE05	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

6a. Turkey Creek system, including all tributaries and wetlands, from the source to the inlet of Bear Creek Reservoir, except for specific listings in Segment 6b.

COSPBE06A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Bear Creek Basin

6b. Mainstem of North Turkey Creek, from the source to the confluence with Turkey Creek.

COSPBE06B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

7. Mainstem and all tributaries to Bear Creek, including wetlands, within the Mt. Evans Wilderness Area.

COSPBE07	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*Phosphorus(chronic) = effective 12/31/2020

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Bear Creek Basin

8. Lakes and reservoirs in the Bear Creek system from the sources to the boundary of the Mt. Evans Wilderness area.

COSPBE08	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

9. Lakes and reservoirs in the Bear Creek system from the boundary of the Mt. Evans Wilderness area to the inlet of Evergreen Lake; includes Summit Lake.

COSPBE09	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Bear Creek Basin

10. Lakes and reservoirs in drainages of Swede Gulch, Sawmill Gulch, Troublesome Gulch, and Cold Springs Gulch from source to confluence with Bear Creek.

COSPBE10	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

11. Lakes and reservoirs in the Bear Creek system from the outlet of Evergreen Lake to the confluence with the South Platte River, except as specified in Segments 1c, 10, and 12; includes Soda Lakes.

COSPBE11	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

12. Lakes and reservoirs in the Turkey Creek system from the source to the inlet of Bear Creek Reservoir.

COSPBE12	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

1. Mainstem of Clear Creek, including all tributaries and wetlands, from the source to the I-70 bridge above Silver Plume.

COSPCL01	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

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
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Zinc(chronic) = 353

Zinc(acute) = 586

Expiration Date of 7/1/2020

*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).

*Zinc(acute) = 0.978e^(0.8537[In(hardness)]+1.9467)

*Zinc(chronic) = 0.986e^(0.8537[In(hardness)]+1.8032)

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

2b. Mainstem of Clear Creek, including all tributaries and wetlands, from the confluence with West Fork Clear Creek to a point just below the confluence with Mill Creek, except for specific listings in Segments 4 through 8.

COSPCL02B	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

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
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Cadmium(chronic) = current condition

Copper(chronic) = current condition

Expiration Date of 7/1/2020

*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).

*Zinc(acute) = 0.978e^(0.8537[ln(hardness)]+1.9467)

*Zinc(chronic) = 0.986e^(0.8537[ln(hardness)]+1.8032)

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

3a. Mainstem of South Clear Creek, including all tributaries and wetlands, from the source to the confluence with Clear Creek, except for the specific listings in Segments 3b and 19.

COSPCL03A	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*Designation: 9/30/00 Baseline does not apply

*Zinc(acute) = 0.978e^(0.8537[ln(hardness)]+1.9467)

*Zinc(chronic) = 0.986e^(0.8537[ln(hardness)]+1.8032)

Physical and Biological

	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

3b. Mainstem of Leavenworth Creek from source to confluence with South Clear Creek.

COSPCL03B	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:

Other:

*Designation: 9/30/00 Baseline does not apply

*Zinc(acute) = 0.978e^(0.8537[ln(hardness)]+1.9467)

*Zinc(chronic) = 0.986e^(0.8537[ln(hardness)]+1.8032)

Physical and Biological

	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Arsenic	50(T)	---
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

4. Mainstem of West Fork Clear Creek from the source to the confluence with Woods Creek.

COSPCL04	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*Designation: 9/30/00 Baseline does not apply

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	210(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

5. Mainstem of West Fork Clear Creek from the confluence with Woods Creek to the confluence with Clear Creek.

COSPCL05	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).
*Manganese(chronic) = 393 ug/L at the mouth of West Fork, see section 38.6(4)(j) for manganese assessment locations.
*Manganese(chronic) = 1480 ug/L below Woods Creek, see section 38.6(4)(j) for manganese assessment locations.
*Zinc(acute) = e^(0.8404[ln(hardness)]+1.8810)
*Zinc(chronic) = e^(08404[ln(hardness)]+1.5127)

Physical and Biological

	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	---	393*
Manganese	---	1480*
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	210(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

6. All tributaries to West Fork Clear Creek, including all wetlands, from the source to the confluence with Clear Creek, except for specific listings in Segments 7 and 8.

COSPCL06	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*Designation: 9/30/00 Baseline does not apply

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

7a. Mainstem of Woods Creek from the outlet of Upper Urad Reservoir to the confluence with West Fork Clear Creek.

COSPCL07A	Classifications
Designation	Aq Life Cold 2
UP	Recreation N

Qualifiers:

Other:

Temporary Modification(s):

Cadmium(chronic) = current condition

Copper(ac/ch) = current condition

Iron(chronic) = current condition

Lead(chronic) = current condition

Mercury(chronic) = current condition

Nickel(chronic) = current condition

Silver(chronic) = current condition

temperature(DM/MWAT) = current condition 10/1 - 11/30

temperature(DM/MWAT) = current condition 4/1 - 5/31

Zinc(ac/ch) = current condition

Expiration Date of 6/30/2023

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	---
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	---	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	150
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Chromium III	TVS	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	---
Nickel	TVS	TVS
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

7b. Lower Urad Reservoir

COSPCL07B	Classifications
Designation	Aq Life Cold 2
UP	Recreation N

Qualifiers:

Other:

Temporary Modification(s):

Cadmium(chronic) = current condition

Copper(ac/ch) = current condition

Iron(chronic) = current condition

Lead(chronic) = current condition

Mercury(chronic) = current condition

Nickel(chronic) = current condition

Silver(chronic) = current condition

temperature(DM/MWAT) = current condition 10/1 - 11/30

temperature(DM/MWAT) = current condition 4/1 - 5/31

Zinc(ac/ch) = current condition

Expiration Date of 6/30/2023

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	630

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	---
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	---	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	150
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Chromium III	TVS	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	---
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

8. Mainstem of Lion Creek from the source to the confluence with West Fork Clear Creek.

COSPCL08	Classifications
Designation	Aq Life Cold 2
UP	Recreation E

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	3.0-9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	---	---
Boron	---	---
Chloride	---	---
Chlorine	---	---
Cyanide	---	---
Nitrate	---	---
Nitrite	---	---
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	---

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	---	---
Beryllium	---	---
Cadmium	---	---
Chromium III	---	---
Chromium VI	---	---
Copper	---	---
Iron	---	---
Lead	---	---
Manganese	---	---
Mercury	---	---
Molybdenum	---	---
Nickel	---	---
Selenium	---	---
Silver	---	---
Uranium	---	---
Zinc	---	---

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

9a. Mainstem of Fall River, including all tributaries and wetlands, from the source to the confluence with Clear Creek.

COSPCL09A	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

9b. Mainstem of Trail Creek, including all tributaries and wetlands from the source to the confluence with Clear Creek.

COSPCL09B	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*Designation: 9/30/00 Baseline does not apply

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	200

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
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Designation	Agriculture
UP	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

temperature(DM/MWAT) = current condition*

Expiration Date of 6/30/2019

*Zinc(acute) = 0.978e^(0.8537[ln(hardness)]+1.9467)

*Zinc(chronic) = 0.986e^(0.8537[ln(hardness)]+1.8032)

*TempMod: temperature = from a point just downstream of the US 6 Bridge to the Farmers Highline Canal diversion in Golden, Colorado.

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	---	17
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

12a. All tributaries to Clear Creek, including all wetlands, from the Argo Tunnel discharge to the Farmers Highline Canal diversion in Golden, Colorado, except for specific listings in Segments 12b, 13a and 13b.

COSPCL12A	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:

Other:

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

12b. Beaver Brook from the source to Highway 40.

COSPCL12B	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*Designation: 9/30/00 Baseline does not apply

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

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
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*Designation: 9/30/00 Baseline does not apply

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Designation	Agriculture
UP	Aq Life Cold 2
	Recreation E

Qualifiers:

Other:

Temporary Modification(s):

Cadmium(chronic) = 4.7

Expiration Date of 12/31/2018

temperature(DM/MWAT) = current condition

Expiration Date of 12/31/2020

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	---	64
Iron	---	5400(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
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
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation N
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

temperature(DM/MWAT) = current condition

Expiration Date of 6/30/2019

*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.

Physical and Biological

	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	244
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
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
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

temperature(DM/MWAT) = current condition

Expiration Date of 6/30/2019

*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.

Physical and Biological

	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	244
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
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
Designation	Agriculture
Reviewable	Aq Life Warm 1*
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

temperature(DM/MWAT) = current condition

Expiration Date of 6/30/2019

*Classification: Aquatic life warm 1 goal qualifier.

*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.

Physical and Biological

	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological

	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Clear Creek Basin

16b. All tributaries to Clear Creek from the Farmers Highline Canal diversion in Golden, Colorado to the confluence with the South Platte River, except for specific listings in Segments 16a, 17a, 17b, 18a and 18b.

COSPCL16B	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

17a. Arvada Reservoir.

COSPCL17A	Classifications
Designation	Agriculture
UP	Aq Life Cold 2
	Recreation E
	Water Supply
	DUWS
Qualifiers:	
Water + Fish Standards	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	CLL	CLL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

17b. Mainstem of Ralston Creek, including all tributaries and wetlands, from the source to the inlet of Arvada Reservoir.

COSPCL17B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation U
	Water Supply

Qualifiers:
Water + Fish Standards

Other:
Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

18a. Mainstem of Ralston Creek, including all tributaries and wetlands, from the outlet of Arvada Reservoir to the confluence with Clear Creek.

COSPCL18A	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Clear Creek Basin

18b. Mainstem of Leyden Creek and Van Bibber Creek from their source to their confluence with Ralston Creek. Mainstem of Little Dry Creek from its source to its confluence with Clear Creek.

COSPCL18B	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	chronic
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

19. All tributaries to Clear Creek, including wetlands, within the Mt. Evans Wilderness Area.

COSPCL19	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	chronic
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	250
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

20. Lakes and reservoirs in the Clear Creek system that are within the boundary of the Mt. Evans Wilderness Area.

COSPCL20	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	250
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

21. Lakes and reservoirs in the Clear Creek system from sources to the Farmer's Highline Canal diversion in Golden, CO, except as specified in Segments 7, 20, 22 and 25. Upper Long Lake.

COSPCL21	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Designation: 9/30/00 Baseline does not apply
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

22. Lakes and reservoirs in the North Clear Creek drainage from a point just below the confluence with Chase Gulch to the confluence with Clear Creek.

COSPCL22	Classifications
Designation	Agriculture
Reviewable*	Aq Life Cold 1
	Recreation E

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Designation: 9/30/00 Baseline does not apply
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

23. Ralston Reservoir

COSPCL23	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation U
	Water Supply
	DUWS

Qualifiers:
Water + Fish Standards

Other:

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CLL	CLL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

24. Lakes and reservoirs in the Clear Creek system from the Farmers Highline Canal diversion in Golden, Colorado to the confluence with the South Platte River, except for specific listings in Segments 17a, 21 and 23.

COSPCL24	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation U
	Water Supply
	DUWS*

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Classification: DUWS applies to Maple Grove Reservoir only.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological

	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	20*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.083*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

25. Guanella Reservoir (near Town of Empire, 39.758,-105.700)

COSPCL25	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological

	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	---
Nickel	TVS	TVS
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
Big Dry Creek Basin

1. Mainstem of Big Dry Creek, including all tributaries and wetlands, from the source to the confluence with the South Platte River, except for specific listing in Segments 4a, 4b, 5 and 6.

COSPBD01	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation P

Qualifiers:

Other:

*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).
*Selenium(acute) = 19.1 ug/L from 11/1 - 3/31 TVS from 4/1 - 10/31.
Refer to Section 38.6(4)(d).
*Selenium(chronic) = 15 ug/L from 11/1 - 3/31 7.4 ug/L from 4/1 - 10/31.
Refer to Section 38.6(4)(d).

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	205
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	4.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	100(T)
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	---	varies*
Selenium	varies*	---
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

2. Standley Lake.

COSPBD02	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply
	DUWS

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = The trophic status of Standley Lake shall be maintained as mesotrophic as measured by a combination of common indicator parameters such as total phosphorus, chlorophyll a, secchi depth, and dissolved oxygen. Refer to Section 38.6(4)(e).
*Uranium(chronic) = 3(t) Picocuries/Liter. See attached table 2 for additional standards for segment 2.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	4.0*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	4.0
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	3(t)*
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 Dry Creek Basin

3. Great Western Reservoir.

COSPBD03	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation N
	Water Supply

Qualifiers:

Other:

*Uranium(chronic) = 4(t) Picocuries/Liter. See attached table 2 for additional standards for segment 3.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	630
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	2.7
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	100(T)
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	4(t)*
Zinc	TVS	TVS

4a. Mainstem and all tributaries to Woman and Walnut Creeks from sources to Standley Lake and Great Western Reservoir except for specific listings in Segments 4b and 5.

COSPBD04A	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

*Uranium(chronic) = See attached table 2 for additional standards for segment 4a.

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	4.0
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	16.8(t)*
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 Dry Creek Basin

4b. North and South Walnut Creek and Walnut Creek, from the eastern edge of the Central Operable Unit on Rocky Flats Property to Indiana Street and North Walnut Creek from its source to the western edge of the Central Operable Unit.

COSPBD04B	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation P
	Water Supply

Qualifiers:

Other:

*Uranium(chronic) = See attached table 2 for additional standards for segment 4b.

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	205
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	---	---
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	4.0
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	16.8(t)*
Zinc	TVS	TVS

5. North Walnut Creek from the western edge of the Central Operable Unit and South Walnut Creek from its source, including all tributaries, lakes, reservoirs and wetlands, to the eastern boundary of the Central Operable Unit and Pond C-2 on Woman Creek.

COSPBD05	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation N
	Water Supply

Qualifiers:

Other:

*Uranium(chronic) = See attached table 2 for additional standards for segment 5.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	---	---
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	4.0
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	16.8(t)*
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 Dry Creek Basin

6. Upper Big Dry Creek and South Upper Big Dry Creek, from their source to Standley Lake.

COSPBD06	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation N
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

7. Lakes and reservoirs in the Big Dry Creek system from the source to the confluence with the South Platte River, except for specific listings in Segments 2, 3, and 5.

COSPBD07	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation P
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	20*
E. Coli (per 100 mL)	---	205
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.083*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	100(T)
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

1. All tributaries to Boulder Creek, including all wetlands, within the Indian Peaks and James Peak Wilderness Areas.

COSPBO01	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

2a. Mainstem of Boulder Creek, including all tributaries and wetlands, from the boundary of the Indian Peaks Wilderness Area to a point immediately below the confluence with North Boulder Creek, except for the specific listings in Segment 3.

COSPBO02A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Boulder Creek Basin

2b. Mainstem of Boulder Creek, including all tributaries and wetlands, from a point immediately below the confluence with North Boulder Creek to a point immediately above the confluence with South Boulder Creek.

COSPBO02B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

3. Mainstem of Middle Boulder Creek, including all tributaries and wetlands, from the source to the outlet of Barker Reservoir, except for specific listings in Segment 1.

COSPBO03	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Boulder Creek Basin

4a. Mainstem of South Boulder Creek, including all tributaries and wetlands, from the source to the outlet of Gross Reservoir except for specific listings in Segment 1.

COSPBO04A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	100(T)
Nickel	---	TVS
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

4b. Mainstem of South Boulder Creek, including all tributaries and wetlands, from the outlet of Gross Reservoir to South Boulder Road, except for specific listings in Segments 4c and 4d.

COSPBO04B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Boulder Creek Basin

4c. Mainstem of Cowdrey Drainage from the source below Cowdrey Reservoir #2 to the Davidson Ditch.

COSPBO04C	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

4d. Mainstem of Cowdrey Drainage from immediately downstream of the Davidson Ditch to the confluence with South Boulder Creek.

COSPBO04D	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

5. Mainstem of South Boulder Creek from South Boulder Road to the confluence with Boulder Creek.

COSPBO05	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

6. Mainstem of Coal Creek, including all tributaries and wetlands, from the source to Highway 93.

COSPBO06	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Boulder Creek Basin

7a. Mainstem of Coal Creek from Highway 93 to Highway 36 (Boulder Turnpike).

COSPBO07A	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

7b. Mainstem of Coal Creek from Highway 36 to the confluence with Boulder Creek.

COSPBO07B	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

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
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

Temporary Modification(s):

Selenium(chronic) = current condition

Expiration Date of 12/31/2020

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Iron	---	---
Lead	TVS	TVS
Manganese	TVS	TVS
Manganese	---	---
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
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
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

temperature(DM/MWAT) = current condition 12/1 - 2/29

Expiration Date of 12/31/2020

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

10. Mainstem of Boulder Creek from the confluence with Coal Creek to the confluence with St. Vrain Creek.

COSPBO10	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

11. All tributaries to Boulder Creek, including all wetlands from a point immediately above the confluence with South Boulder Creek to the confluence with St. Vrain Creek, except for specific listings in Segments 5, 7a and 7b.

COSPBO11	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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.

12. Deleted.

COSPBO12	Classifications
Designation	
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT

	acute	chronic

Inorganic (mg/L)	acute	chronic

Metals (ug/L)	acute	chronic

13. All lakes and reservoirs tributary to Boulder Creek that are within the boundary of the Indian Peaks and James Peak Wilderness Areas.

COSPBO13	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply
Qualifiers:	
Other:	

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Boulder Creek Basin

14. All lakes and reservoirs tributary to Boulder Creek from the source to a point immediately above the South Boulder Creek confluence, except as specified in Segment 13. This segment includes Barker and Lakewood Reservoir.

COSPBO14	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Classification: DUWS applies to Lakewood Reservoir only.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological

	DM	MWAT
Temperature °C	CL,CLL	CL,CLL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

15. All lakes and reservoirs tributary to South Boulder Creek from the source to Highway 93. All lakes and reservoirs tributary to Coal Creek from the source to Highway 93 except for specific listings in segments 13 and 18.

COSPBO15	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Classification: DUWS applies to Kossler Lake only.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological

	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Boulder Creek Basin

16. All lakes and reservoirs tributary to South Boulder Creek system from Highway 93 to the confluence with Boulder Creek. All lakes and reservoirs tributary to Coal Creek system from Highway 93 to the confluence with Boulder Creek.

COSPBO16	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

17. All lakes and reservoirs tributary to Boulder Creek from a point immediately below the confluence with South Boulder Creek to the confluence with St. Vrain Creek, except as specified in Segments 15 and 16.

COSPBO17	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Water + Fish Standards

Other:

*Classification: DUWS applies to Baseline, Marshall, Thomas and Waneka Reservoirs only.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

18. Gross Reservior.

COSPBO18	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological

		DM	MWAT
Temperature °C	1/1 - 3/31	CLL	CLL
Temperature °C	4/1 - 12/31	CLL	19.4

	acute	chronic
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
St. Vrain Creek Basin

1. All tributaries to St. Vrain Creek, including all wetlands, which are within the Indian Peaks Wilderness Area and Rocky Mountain National Park.

COSPSV01	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

2a. Mainstem of St. Vrain Creek, including all tributaries and wetlands, from the boundary of the Indian Peaks Wilderness Area and Rocky Mountain National Park to the eastern boundary of Roosevelt National Forest.

COSPSV02A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
St. Vrain Creek Basin

2b. Mainstem of St. Vrain Creek, including all tributaries and wetlands, from the eastern boundary of Roosevelt National Forest to Hygiene Road.

COSPSV02B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

3. Mainstem of St. Vrain Creek from Hygiene Road to the confluence with the South Platte River.

COSPSV03	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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

4a. Mainstem of Left Hand Creek, including all tributaries and wetlands, from the source to a point immediately below the confluence with James Creek, except for specific listings in Segment 4b.

COSPSV04A	Classifications
Designation	Agriculture
UP	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

4b. Mainstem of James Creek, including all tributaries and wetlands, from the source to the confluence with Left Hand Creek.

COSPSV04B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
St. Vrain Creek Basin

4c. Mainstem of Left Hand Creek, including all tributaries and wetlands, from a point immediately below the confluence with James Creek to Highway 36.

COSPSV04C	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

5. Mainstem of Left Hand Creek, including all tributaries and wetlands from Highway 36 to the confluence with St. Vrain Creek.

COSPSV05	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

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

COSPSV07	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*Classification: DUWS applies to Boulder, Spurgeon and Left Hand Valley Reservoirs only.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

8. All lakes and reservoirs tributary to St. Vrain Creek that are within the boundary of the Indian Peaks Wilderness Area and Rocky Mountain National Park.

COSPSV08	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

9. All lakes and reservoirs tributary to St. Vrain Creek from sources to Hygiene Road, including Button Rock Reservoir, except as specified in Segment 8.

COSPSV09	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CL,CLL	CL,CLL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
St. Vrain Creek Basin

10. All lakes and reservoirs tributary to Left Hand Creek from sources to Highway 36.

COSPSV10	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Classification: DUWS applies to Joder Reservoir only.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

11. Barbour Ponds.

COSPSV11	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

12. All lakes and reservoirs tributary to Left Hand Creek from Highway 36 to the confluence with St. Vrain Creek, except as specified in Segment 7.

COSPSV12	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:
Water + Fish Standards

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

13. All lakes and reservoirs tributary to St. Vrain Creek from Hygiene Road to the confluence with the South Platte River, except as specified in Segments 7, 10, 11 and 12.

COSPSV13	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Other:

*Classification: DUWS applies to Burch lake only.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Middle South Platte River Basin

1a. Mainstem of the South Platte River from a point immediately below the confluence with Big Dry Creek to the confluence with St. Vrain Creek.

COSPMS01A	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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
*Copper(chronic) = Copper BLM-based FMB Cu FMB(ch)= 23.5 ug/l
*D.O. (mg/L)(acute) = See attached table for site-specific standards.
*D.O. (mg/L)(chronic) = See attached table for site-specific standards.

Physical and Biological

	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	varies*	varies*
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS*	TVS*
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	---	23.5*
Copper	35.1*	---
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

1b. Mainstem of the South Platte River from a point immediately below the confluence with St. Vrain Creek to the Weld/Morgan County Line.

COSPMS01B	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Physical and Biological

	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Middle South Platte River Basin

2. Deleted.

COSPMS02	Classifications
Designation	
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT

	acute	chronic

Inorganic (mg/L)	acute	chronic

Metals (ug/L)	acute	chronic

3a. All tributaries to the South Platte River, including all wetlands, from a point immediately below the confluence with Big Dry Creek to the Weld/Morgan County line, except for specific listings in the subbasins of the South Platte River, and in Segments 3b, 5a, 5b, 5c, and 6.

COSPMS03A	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Middle South Platte River Basin

3b. Hayesmount Tributaries including the Upper Hayesmount Tributary from the source to the confluence with Box Elder Creek and the Lower Hayesmount Tributaries from the source to the Denver Hudson Canal.

COSPMS03B	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

*D.O. (mg/L)(chronic) = When water is present, D.O. concentrations shall be maintained at levels that protect classified uses.

Physical and Biological	DM	MWAT
Temperature °C	WS-III	WS-III
	acute	**chronic**
D.O. (mg/L)	---	narrative*
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

4. Barr Lake and Milton Reservoir.

COSPMS04	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Middle South Platte River Basin

5a. Mainstem of Lone Tree Creek from the source to the confluence with the South Platte River.

COSPMS05A	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation N
	Water Supply

Qualifiers:

Other:

*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

5b. Mainstem of Box Elder Creek from the confluence with Coyote Run to the Denver Hudson Canal.

COSPMS05B	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation N

Qualifiers:

Other:

*D.O. (mg/L)(chronic) = 15th percentile of D.O. measurements collected between 6:30 a.m. and 6:30 p.m.

Physical and Biological	DM	MWAT
Temperature °C	WS-III	WS-III
	acute	**chronic**
D.O. (mg/L)	---	4.7*
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	10
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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
Middle South Platte River Basin

5c. Mainstems of Crow Creek and Box Elder Creek from their sources to their confluences with the South Platte River, except for specific listings in Segment 5b.

COSPMS05C	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation N

Qualifiers:

Other:

*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

6. Lost Creek from the source to Interstate 76, including all its tributaries, stock ponds and wetlands.

COSPMS06	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation N

Qualifiers:

Other:

*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).

Physical and Biological	DM	MWAT
Temperature °C	WS-III	WS-III
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	---	---
Boron	---	0.75
Chloride	---	---
Chlorine	---	---
Cyanide	0.2	---
Nitrate	100	---
Nitrite	---	10
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	100(T)
Cadmium	---	10(T)
Chromium III	---	100(T)
Chromium VI	---	100(T)
Copper	---	200(T)
Iron	---	---
Lead	---	100(T)
Manganese	---	200(T)
Mercury	---	---
Molybdenum	---	150(T)
Nickel	---	200(T)
Selenium	---	20(T)
Silver	---	---
Uranium	---	---
Zinc	---	2000(T)

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
Middle South Platte River Basin

7. All lakes and reservoirs tributary to the South Platte River from a point immediately below the confluence with Big Dry Creek to the Weld/Morgan County line, except for specific listings in the subbasins of the South Platte River, and in Segment 4.

COSPMS07	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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.

Site-Specific Minimum Dissolved Oxygen and Ammonia Standards for Middle South Platte Segment 1a

Dissolved Oxygen:

STANDARDS
Early Life Stage Protection Period (April 1 through July 31)
1-Day[1.4,5] 3.0 mg/L (acute)
7-Day Average[1.2] 5.0 mg/L
Older Life Stage Protection Period (August 1 through March 31)
1-Day[1.4] 2.0 mg/L (acute)
7-Day Mean of Minimums[1.3.] 2.5 mg/L
30-Day Average[1.2.] 4.5 mg/L

Refer to Section 38(6)(4)(c) for Dissolved Oxygen assessment locations.

Footnotes

1. For the purpose of determining compliance with the standards, dissolved oxygen measurements shall only be taken in the flowing portion of the stream at mid-depth, and at least six inches above the bottom of the channel. All sampling protocols and test procedures shall be in accordance with procedures and protocols approved by the Division.

2. A minimum of four independent daily means must be used to calculate the average for the 7-Day Average standard. A minimum of eight independent daily means must be used to calculate the average for the 30-Day Average standard. The four days and the eight days must be representative of the 7-Day and the 30-Day periods respectively. The daily mean shall be the mean of the daily high and low values. In calculating the mean values, the dissolved oxygen saturation value shall be used in place of any dissolved oxygen measurements which exceed saturation.

3. The 7-Day Mean Minimum is the average of the daily minimums measured at a location on each day during any 7-Day period.

4. During a 24 hour day, dissolved oxygen levels are likely to be lower during the nighttime when there is no photosynthesis. The dissolved oxygen levels should not drop below the acute standard (ELS acute standard of 3.0 mg/L or the OLS standard of 2.0 mg/L). However, if during the ELS period multiple measurements are below 3.0 mg/L during the same nighttime period, the multiple measurements shall be considered a single exceedance of the acute standard. For measurements below 2.0 mg/L during either the ELS or the OLS periods, each hourly measurement below 2.0 mg/L shall be considered an exceedance of the acute standard.

5. In July, the dissolved oxygen level in Segment 1a may be lower than the 3.0 mg/L acute standard for up to 14 exceedances in any one year and up to a total of 21 exceedances in three years before there is a determination that the acute dissolved oxygen standards is not being met. Exceedances shall be counted as described in Footnote 4.

Ammonia:

Early Life Stage Protection Period (April 1 through July 31)

Ammonia	Warm Water = (mg/l as N)Total

$$acute = \frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}$$

$$chronic\ \ (Apr1-July31) = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * MIN\left(2.85,\ 1.45*10^{0.028(25-T)}\right)$$

$$chronic\ (Aug1-Mar31) = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * 1.45*10^{0.028*(25-MAX(T,\ 7))}$$

NH_3 = old TVS

Warm Water Acute = 0.62/FT/FPH/2[(4 old)] in mg/ (N)

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

1. Mainstem of the Big Thompson River, including all tributaries and wetlands, within Rocky Mountain National Park, except for specific listings in Segment 2.

COSPBT01	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Big Thompson River Basin

2. Mainstem of the Big Thompson River, including all tributaries and wetlands from the boundary of Rocky Mountain National Park to the Home Supply Canal diversion, except for the specific listing in Segment 7; mainstem of Black Canyon Creek and Glacier Creek below Estes Park water treatment plant.

COSPBT02	Classifications
Designation	Agriculture
UP	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).
*Copper(acute) = 11 ug/L from immediately above the Upper Thompson Sanitation District's wastewater treatment plant outfall to the Home Supply Canal Diversion.
*Copper(chronic) = 7.5 ug/L from immediately above the Upper Thompson Sanitation District's wastewater treatment plant outfall to the Home Supply Canal Diversion.

Physical and Biological

	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	---	7.5*
Copper	11*	TVS
Copper	TVS	---
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Big Thompson River Basin

3. Mainstem of the Big Thompson River from the Home Supply Canal diversion to the Big Barnes Ditch diversion.

COSPBT03	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:
Water + Fish Standards

Other:
Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

4a. Mainstem of the Big Thompson from the Big Barnes Ditch diversion to the Greeley-Loveland Canal diversion.

COSPBT04A	Classifications	
Designation	Agriculture	
Reviewable	Aq Life Cold 1	
	Recreation E	5/1 - 10/15
	Recreation N	10/16 - 4/30
	Water Supply	

Qualifiers:

Other:
Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological		DM	MWAT
Temperature °C		CS-II	CS-II
		acute	**chronic**
D.O. (mg/L)		---	6.0
D.O. (spawning)		---	7.0
pH		6.5 - 9.0	---
chlorophyll a (mg/m^2)		---	---
E. Coli (per 100 mL)	5/1 - 10/15	---	126
E. Coli (per 100 mL)	10/16 - 4/30	---	630

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Big Thompson River Basin

4b. Mainstem of the Big Thompson from the Greeley-Loveland Canal diversion to County Road 11H.

COSPBT04B	Classifications	
Designation	Agriculture	
Reviewable	Aq Life Warm 1	
	Recreation E	5/1 - 10/15
	Recreation N	10/16 - 4/30
	Water Supply	

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021
Selenium(chronic) = current condition
Expiration Date of 12/31/2020

Physical and Biological		DM	MWAT
Temperature °C		WS-I	WS-I
		acute	**chronic**
D.O. (mg/L)		---	5.0
pH		6.5 - 9.0	---
chlorophyll a (mg/m^2)		---	---
E. Coli (per 100 mL)	5/1 - 10/15	---	126
E. Coli (per 100 mL)	10/16 - 4/30	---	630
Inorganic (mg/L)			
		acute	**chronic**
Ammonia		TVS	TVS
Boron		---	0.75
Chloride		---	250
Chlorine		0.019	0.011
Cyanide		0.005	---
Nitrate		10	---
Nitrite		---	0.5
Phosphorus		---	---
Sulfate		---	WS
Sulfide		---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

4c. Mainstem of the Big Thompson from County Road 11H to I-25.

COSPBT04C	Classifications	
Designation	Agriculture	
Reviewable	Aq Life Warm 2	
	Recreation E	5/1 - 10/15
	Recreation N	10/16 - 4/30

Qualifiers:
Fish Ingestion Standards

Other:

Physical and Biological		DM	MWAT
Temperature °C		WS-I	WS-I
		acute	**chronic**
D.O. (mg/L)		---	5.0
pH		6.5 - 9.0	---
chlorophyll a (mg/m^2)		---	---
E. Coli (per 100 mL)	5/1 - 10/15	---	126
E. Coli (per 100 mL)	10/16 - 4/30	---	630
Inorganic (mg/L)			
		acute	**chronic**
Ammonia		TVS	TVS
Boron		---	0.75
Chloride		---	---
Chlorine		0.019	0.011
Cyanide		0.005	---
Nitrate		100	---
Nitrite		---	0.5
Phosphorus		---	---
Sulfate		---	---
Sulfide		---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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

5. Mainstem of The Big Thompson River from I-25 to the confluence with the South Platte River.

COSPBT05	Classifications	
Designation	Agriculture	
Reviewable	Aq Life Warm 2	
	Recreation N	10/16 - 4/30
	Recreation P	5/1 - 10/15

Qualifiers:

Other:

Physical and Biological		DM	MWAT
Temperature °C		WS-I	WS-I
		acute	**chronic**
D.O. (mg/L)		---	5.0
pH		6.5 - 9.0	---
chlorophyll a (mg/m^2)		---	---
E. Coli (per 100 mL)	5/1 - 10/15	---	205
E. Coli (per 100 mL)	10/16 - 4/30	---	630

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

6. All tributaries to the Big Thompson River, including all wetlands, from the Home Supply Canal diversion to the confluence with the South Platte River.

COSPBT06	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:
Fish Ingestion Standards

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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

7. Mainstem of the North Fork of the Big Thompson River from the boundary of Rocky Mountain National Park to the confluence with the Big Thompson River; mainstem of Buckhorn Creek from the source to the confluence with the Big Thompson River.

COSPBT07	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

8. Mainstem of the Little Thompson River, including all tributaries and wetlands, from the source to the Culver Ditch diversion.

COSPBT08	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
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
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Selenium(chronic) = 12.3

Expiration Date of 12/31/2020

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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

11. Carter Lake.

COSPBT11	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply
	DUWS

Qualifiers:

Other:

Physical and Biological		DM	MWAT
Temperature °C	1/1 - 3/31	CLL	CLL
Temperature °C	4/1 - 12/31	CLL	22.7

	acute	chronic
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

12. Lake Loveland, Horseshoe Lake, Boyd Lake.

COSPBT12	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*Classification: DUWS Applies to Boyd and Loveland Lakes only.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL

	acute	chronic
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

13. Berthoud Reservoir, Johnstown Reservoir.

COSPBT13	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E
	Water Supply
	DUWS

Qualifiers:

Water + Fish Standards

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

14. Welch Reservoir, Lonetree Reservoir, Boedecker Lake, Lon Hagler Reservoir.

COSPBT14	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Other:

*Classification: DUWS applies to Lonetree Reservoir only.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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

15. All lakes and reservoirs tributary to the Big Thompson River within Rocky Mountain National Park.

COSPBT15	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

16. All lakes and reservoirs tributary to the Big Thompson River from the boundary of Rocky Mountain National Park to the Home Supply Canal diversion. This segment includes Lake Estes and St Mary's Lake.

COSPBT16	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply
	DUWS*
Qualifiers:	
Other:	
*Classification: DUWS applies to St.Mary's Lake only.	

Physical and Biological	DM	MWAT
Temperature °C	CL,CLL	CL,CLL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Big Thompson River Basin

17. All lakes and reservoirs tributary to the Big Thompson River from the Home Supply Canal diversion to the confluence with the South Platte River, except for specific listings in Segments 12 and 14.

COSPBT17	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply
Qualifiers:	
Water + Fish Standards	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

18. All lakes and reservoirs tributary to the Little Thompson River from the source to the Culver Ditch diversion.

COSPBT18	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Big Thompson River Basin

19. All lakes and reservoirs tributary to the Little Thompson River from the Culver Ditch diversion to the confluence with the Big Thompson River, except for specific listings in Segments 11 and 13.

COSPBT19	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Cache La Poudre River Basin

1. Mainstem of the Cache La Poudre River, and all tributaries and wetlands, within Rocky Mountain National Park and the Rawah, Neota, Comanche Peak, and Cache La Poudre Wilderness Areas.

COSPCP01	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

2a. Mainstem of the Cache La Poudre River, including all tributaries and wetlands, from the boundaries of Rocky Mountain National Park and the Rawah, Neota, Comanche Peak, and Cache La Poudre Wilderness Areas to a point immediately below the confluence with the South Fork Cache La Poudre River.

COSPCP02A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Cache La Poudre River Basin

2b. Mainstem of the Cache La Poudre River, including all tributaries and wetlands, from a point immediately below the confluence with the South Fork Cache La Poudre River to the Munroe Gravity Canal Headgate (also known as the North Poudre Supply Canal diversion).

COSPCP02B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

3. Deleted.

COSPCP03	Classifications
Designation	

Qualifiers:

Other:

Physical and Biological	DM	MWAT
	acute	**chronic**

Inorganic (mg/L)	acute	chronic

Metals (ug/L)	acute	chronic

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.

4. Deleted.

COSPCP04	Classifications	Physical and Biological		Metals (ug/L)	
Designation		DM	MWAT	acute	chronic
Qualifiers:		acute	chronic		
Other:					
		Inorganic (mg/L)			
		acute	chronic		

5. Deleted.

COSPCP05	Classifications	Physical and Biological		Metals (ug/L)	
Designation		DM	MWAT	acute	chronic
Qualifiers:		acute	chronic		
Other:					
		Inorganic (mg/L)			
		acute	chronic		

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

6. Mainstem of the North Fork of the Cache La Poudre River, including all tributaries and wetlands, from the source to the inlet of Halligan Reservoir.

COSPCP06	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

7. Mainstem of the North Fork of the Cache La Poudre River from the inlet of Halligan Reservoir to the confluence with the Cache La Poudre River, except for specific listings in Segment 20.

COSPCP07	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Cache La Poudre River Basin

8. All tributaries to the North Fork of the Cache La Poudre River, including all wetlands, from the inlet of Halligan Reservoir to the confluence with the Cache La Poudre River, except for specific listings in Segment 9.

COSPCP08	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

9. Mainstem of Rabbit Creek and Lone Pine Creek from the source to the confluence with the North Fork of the Cache La Poudre River.

COSPCP09	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Cache La Poudre River Basin

10a. Mainstem of the Cache La Poudre River from the Munroe Gravity Canal Headgate (also known as the North Poudre Supply Canal diversion) to a point immediately above the Larimer County Ditch diversion (40.657, -105.185).

COSPCP10A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

10b. Mainstem of the Cache La Poudre River from a point immediately above the Larimer County Ditch diversion (40.657, -105.185) to Shields Street in Ft. Collins, Colorado.

COSPCP10B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:
Water + Fish Standards

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
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
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E

Qualifiers:

Other:

Temporary Modification(s):
temperature(DM/MWAT) = current condition 12/1 - 2/29
Expiration Date of 12/31/2020

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	2.7
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

12. Mainstem of the Cache La Poudre River from a poin immediately above the confluence with Boxelder Creek to the confluence with the South Platte River.

COSPCP12	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E

Qualifiers:

Other:

Temporary Modification(s):
temperature(DM/MWAT) = current condition
Expiration Date of 12/31/2020

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	2.7
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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
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
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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	
Designation	Agriculture	
Reviewable	Aq Life Warm 2	
	Recreation N	9/16 - 5/14
	Recreation P	5/15 - 9/15

Qualifiers:

Other:

Temporary Modification(s):

Selenium(chronic) = current condition

Expiration Date of 12/31/2020

*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).

Physical and Biological		DM	MWAT
Temperature °C		WS-II	WS-II
		acute	**chronic**
D.O. (mg/L)		---	5.0
pH		6.5 - 9.0	---
chlorophyll a (mg/m^2)		---	150*
E. Coli (per 100 mL)	5/15 - 9/15	---	205
E. Coli (per 100 mL)	9/16 - 5/14	---	630
Inorganic (mg/L)			
		acute	**chronic**
Ammonia		TVS	TVS
Boron		---	0.75
Chloride		---	---
Chlorine		0.019	0.011
Cyanide		0.005	---
Nitrate		100	---
Nitrite		---	0.5
Phosphorus		---	0.17*
Sulfate		---	---
Sulfide		---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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
Cache La Poudre River Basin

13c. Mainstems of South Branch of Boxelder Creek, North Branch of Boxelder Creek, and Sand Creek from their sources to their confluences with the mainstem of Boxelder Creek.

COSPCP13C	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply
Qualifiers:	
Other:	

Physical and Biological		DM	MWAT
Temperature °C		CS-I	CS-I
		acute	**chronic**
D.O. (mg/L)		---	6.0
D.O. (spawning)		---	7.0
pH		6.5 - 9.0	---
chlorophyll a (mg/m^2)		---	150
E. Coli (per 100 mL)		---	126
Inorganic (mg/L)			
		acute	**chronic**
Ammonia		TVS	TVS
Boron		---	0.75
Chloride		---	250
Chlorine		0.019	0.011
Cyanide		0.005	---
Nitrate		10	---
Nitrite		---	0.05
Phosphorus		---	0.11
Sulfate		---	WS
Sulfide		---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

14. Horsetooth Reservoir.

COSPCP14	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply
	DUWS
Qualifiers:	
Other:	

Physical and Biological		DM	MWAT
Temperature °C	1/1 - 3/31	CLL	CLL
Temperature °C	4/1 - 12/31	CLL	22.8 [B]
		acute	**chronic**
D.O. (mg/L)		---	6.0
D.O. (spawning)		---	7.0
pH		6.5 - 9.0	---
chlorophyll a (ug/L)		---	---
E. Coli (per 100 mL)		---	126
Inorganic (mg/L)			
		acute	**chronic**
Ammonia		TVS	TVS
Boron		---	0.75
Chloride		---	250
Chlorine		0.019	0.011
Cyanide		0.005	---
Nitrate		10	---
Nitrite		---	0.05
Phosphorus		---	---
Sulfate		---	WS
Sulfide		---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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.

15. Watson Lake.

COSPCP15	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	---	TVS
Manganese	TVS	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

16. Reservoir #4 (T 9 N, R 68 W), Water Supply Reservoir #3 (T 8 N, R 68 W), Claymore Lake, College Lake, Dixon Reservoir, Robert Benson Lake, Black Hollow Reservoir, Seeley Lake.

COSPCP16	Classifications
Designation	Agriculture
UP	Aq Life Warm 1
	Recreation E

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	20*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.083*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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
Cache La Poudre River Basin

17. All lakes and reservoirs tributary to the Cache La Poudre River within Rocky Mountain National Park and the Rawah, Neota, Comanche Peak, and Cache La Poudre Wilderness Areas.

COSPCP17	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

18. All lakes and reservoirs tributary to the Cache La Poudre River from the boundaries of Rocky Mountain National Park, and the Rawah, Neota, Comanche Peak, and Cache La Poudre Wilderness Areas to the Munroe Gravity Canal/North Poudre Supply canal diversion.

COSPCP18	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL,CLL	CL,CLL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Cache La Poudre River Basin

19. All lakes and reservoirs tributary to the North Fork of the Cache La Poudre River from the source to the inlet of Halligan Reservoir.

COSPCP19	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological

	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

20. All lakes and reservoirs tributary to the North Fork of the Cache La Poudre River from the inlet of Halligan Reservoir to the confluence with the Cache La Poudre River. This segment includes Halligan Reservoir and Seaman Reservoir.

COSPCP20	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 2
	Recreation E
	Water Supply

Qualifiers:
Water + Fish Standards

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Temperature(4/1 - 12/31) = Seaman Reservoir

Physical and Biological

		DM	MWAT
Temperature °C	1/1 - 3/31	CL,CLL	CL,CLL
Temperature °C	4/1 - 12/31	CLL*	22.5*
		acute	**chronic**
D.O. (mg/L)		---	6.0
D.O. (spawning)		---	7.0
pH		6.5 - 9.0	---
chlorophyll a (ug/L)		---	8*
E. Coli (per 100 mL)		---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Cache La Poudre River Basin

21. All lakes and reservoirs tributary to the Cache La Poudre River from the Munroe Gravity Canal/North Poudre Supply canal diversion to the confluence with the South Platte River, except for specific listings in Segments 14, 15, 16, 19, 20 and 22.

COSPCP21	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply
	DUWS*

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Classification: DUWS applies to North Poudre Reservoir No. 3 only.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological

	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	20*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.083*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

22. Fossil Creek Reservoir.

COSPCP22	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

Physical and Biological

	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)

	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)

	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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
Laramie River Basin

1. All tributaries to the Laramie River, including all wetlands, which are within the Rawah Wilderness Area.

COSPLA01	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

2a. Mainstem of the Laramie River from the source to the National Forest boundary, and all tributaries and wetlands, from the source to the Colorado/Wyoming border, except for specific listings in Segment 1.

COSPLA02A	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-I	CS-I
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Laramie River Basin

2b. Mainstem of the Laramie River from the National Forest boundary to the Colorado/Wyoming border.

COSPLA02B	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

3. All lakes and reservoirs tributary to the Laramie River within the Rawah Wilderness Area.

COSPLA03	Classifications
Designation	Agriculture
OW	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Laramie River Basin

4. All lakes and reservoirs tributary to the Laramie River from the source to the Colorado/Wyoming border, except for specific listings in Segment 3.

COSPLA04	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	CL	CL
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	8*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.025*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Lower South Platte River Basin

1. Mainstem of the South Platte River from the Weld/Morgan County line to the Colorado/Nebraska border.

COSPLS01	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Water + Fish Standards

Other:

Temporary Modification(s):
Arsenic(chronic) = hybrid
Expiration Date of 12/31/2021

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

2a. All tributaries to the South Platte River, including all wetlands, from the Weld/Morgan County line to the Colorado/Nebraska border, except for the specific listings in Segment 2b.

COSPLS02A	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation P
	Water Supply

Qualifiers:

Other:

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	205
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	---	---
Boron	---	0.75
Chloride	---	250
Chlorine	---	---
Cyanide	0.2	---
Nitrate	10	---
Nitrite	---	1.0
Phosphorus	---	0.17*
Sulfate	---	WS
Sulfide	---	0.05

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	4.0(T)
Cadmium	5.0(T)	10(T)
Chromium III	50(T)	100(T)
Chromium VI	50(T)	100(T)
Copper	---	200(T)
Iron	---	WS
Lead	50(T)	100(T)
Manganese	---	WS
Mercury	---	---
Molybdenum	---	150(T)
Nickel	---	100(T)
Selenium	---	20(T)
Silver	100(T)	---
Uranium	---	---
Zinc	---	2000(T)

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
Lower South Platte River Basin

2b. All tributaries to the South Platte River, including all wetlands, north of the South Platte River and below 4,500 feet in elevation in Morgan County, north of the South Platte River in Washington County, north of the South Platte River and below 4,200 feet in elevation in Logan County, north of the South Platte River and below 3,700 feet in elevation in Sedgwick County, and the mainstems of Beaver Creek, Bijou Creek and Kiowa Creek from their sources to the confluence with the South Platte River, except for the portion of Beaver Creek from its source to the Fort Morgan Canal.

COSPLS02B	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation E

Qualifiers:

Other:

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-II	WS-II
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

3. Jackson Reservoir, Prewitt Reservoir, North Sterling Reservoir, Jumbo (Julesburg), Riverside Reservoir, Empire Reservoir, and Vancil Reservoir.

COSPLS03	Classifications
Designation	Agriculture
UP	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Temperature(4/1 - 12/31) = North Sterling Res. (MWAT=26.1)
*Temperature(4/1 - 12/31) = Jumbo Reservoir (MWAT=27)
*Temperature(4/1 - 12/31) = Jackson Reservoir (MWAT=28.1)

Physical and Biological		DM	MWAT
Temperature °C		WL	WL
Temperature °C	4/1 - 12/31	WL*	26.1*
Temperature °C	4/1 - 12/31	WL*	27*
Temperature °C	4/1 - 12/31	WL*	28.1*
		acute	**chronic**
D.O. (mg/L)		---	5.0
pH		6.5 - 9.0	---
chlorophyll a (ug/L)		---	20*
E. Coli (per 100 mL)		---	126
Inorganic (mg/L)			
		acute	**chronic**
Ammonia		TVS	TVS
Boron		---	0.75
Chloride		---	250
Chlorine		0.019	0.011
Cyanide		0.005	---
Nitrate		10	---
Nitrite		---	0.5
Phosphorus		---	0.083*
Sulfate		---	WS
Sulfide		---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Lower South Platte River Basin

4. All lakes and reservoirs tributary to the South Platte River from the Weld/Morgan County line to the Colorado/Nebraska border, except for specific listings in Segments 3 and 5.

COSPLS04	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation P
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	20*
E. Coli (per 100 mL)	---	205
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	---	---
Boron	---	0.75
Chloride	---	250
Chlorine	---	---
Cyanide	0.2	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.083*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	4.0(T)
Cadmium	5.0(T)	10(T)
Chromium III	50(T)	100(T)
Chromium VI	50(T)	100(T)
Copper	---	200(T)
Iron	---	WS
Iron	---	1000(T)
Lead	50(T)	100(T)
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	---	100(T)
Selenium	---	20(T)
Silver	100(T)	---
Uranium	---	---
Zinc	---	2000(T)

5. All lakes and reservoirs tributary to the South Platte River north of the South Platte River and below 4,500 feet in elevation in Morgan County, north of the South Platte River in Washington County, north of the South Platte River and below 4,200 feet in elevation in Logan County, north of the South Platte River and below 3,700 feet in elevation in Sedgwick County, and the mainstems of Beaver Creek, Bijou Creek and Kiowa Creek from their sources to the confluence with the South Platte River, except for those specific listings in Segment 3.

COSPLS05	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	20*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.083*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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
Republican River Basin

1. Mainstem of the South Fork of the Republican River from a point 23 miles above the Colorado-Kansas border (39.582154°, -102.350838°) to the Colorado-Kansas border.

COSPRE01	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

2. Deleted.

COSPRE02	Classifications
Designation	
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
	acute	**chronic**
Inorganic (mg/L)		
	acute	**chronic**

Metals (ug/L)	acute	chronic

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
Republican River Basin

3. Mainstem of the North Fork of the Republican River from the source to the Colorado/Nebraska border and the mainstem of Chief Creek.

COSPRE03	Classifications
Designation	Agriculture
Reviewable	Aq Life Cold 1
	Recreation E
	Water Supply

Qualifiers:

Other:

Temporary Modification(s):

Arsenic(chronic) = hybrid

Expiration Date of 12/31/2021

*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).

Physical and Biological	DM	MWAT
Temperature °C	CS-II	CS-II
	acute	**chronic**
D.O. (mg/L)	---	6.0
D.O. (spawning)	---	7.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.11*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS(tr)	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS(tr)
Uranium	---	---
Zinc	TVS	TVS

4. Mainstem of the Arikaree River from the confluence of the North and South Forks to the Colorado/Kansas border.

COSPRE04	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126

Inorganic (mg/L)	acute	chronic
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	---
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	100	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	---
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	7.6(T)
Beryllium	---	---
Cadmium	TVS	TVS
Chromium III	TVS	TVS
Chromium III	---	100(T)
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	1000(T)
Lead	TVS	TVS
Manganese	TVS	TVS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
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
Republican River Basin

5. Mainstem of Black Wolf Creek from the source to the confluence with the Arikaree River.

COSPRE05	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply
Qualifiers:	
Other:	

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	0.17
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
Selenium	TVS	TVS
Silver	TVS	TVS
Uranium	---	---
Zinc	TVS	TVS

6. All tributaries to the Republican River system in Colorado, including all wetlands, except for specific listings in Segments 1, 3, 4 and 5.

COSPRE06	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation P
Qualifiers:	
Other:	

*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).

Physical and Biological	DM	MWAT
Temperature °C	WS-I	WS-I
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	150*
E. Coli (per 100 mL)	---	205
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	---	---
Boron	---	0.75
Chloride	---	---
Chlorine	---	---
Cyanide	0.2	---
Nitrate	100	---
Nitrite	---	10
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	---

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	100(T)
Cadmium	---	10(T)
Chromium III	---	100(T)
Chromium VI	---	100(T)
Copper	---	200(T)
Iron	---	---
Lead	---	100(T)
Manganese	---	---
Mercury	---	---
Molybdenum	---	150(T)
Nickel	---	200(T)
Selenium	---	20(T)
Silver	---	---
Uranium	---	---
Zinc	---	2000(T)

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
Republican River Basin

7. Mainstem of the North Fork of the Smoky Hill River and mainstem of the Smoky Hill River, including all tributaries and wetlands, from the source to the Colorado/Kansas border.

COSPRE07	Classifications
Designation	Agriculture
UP	Aq Life Warm 2
	Recreation N

Qualifiers:

Other:

*Phosphorus(chronic) = applies only above the facilities listed at 38.5(4).

Physical and Biological	DM	MWAT
Temperature °C	WS-III	WS-III
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	630
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	---	---
Boron	---	0.75
Chloride	---	---
Chlorine	---	---
Cyanide	0.2	---
Nitrate	100	---
Nitrite	---	10
Phosphorus	---	0.17*
Sulfate	---	---
Sulfide	---	---

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	100(T)
Beryllium	---	100(T)
Cadmium	---	10(T)
Chromium III	---	100(T)
Chromium VI	---	100(T)
Copper	---	200(T)
Iron	---	---
Lead	---	100(T)
Manganese	---	---
Mercury	---	---
Molybdenum	---	150(T)
Nickel	---	200(T)
Selenium	---	20(T)
Silver	---	---
Uranium	---	---
Zinc	---	2000(T)

8. All lakes and reservoirs tributary to the Republican and Smoky Hill Rivers in Colorado, except for specific listings in Segment 9.

COSPRE08	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 2
	Recreation U
	Water Supply

Qualifiers:

Other:

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (mg/m^2)	---	---
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	---	---
Boron	---	0.75
Chloride	---	250
Chlorine	---	---
Cyanide	0.2	---
Nitrate	10	---
Nitrite	---	0.5
Phosphorus	---	---
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02-10(T) [A]
Beryllium	---	4.0(T)
Cadmium	5.0(T)	10(T)
Chromium III	50(T)	100(T)
Chromium VI	50(T)	100(T)
Copper	---	200(T)
Iron	---	WS
Iron	---	1000(T)
Lead	50(T)	100(T)
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	---	100(T)
Selenium	---	20(T)
Silver	100(T)	---
Uranium	---	---
Zinc	---	2000(T)

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
Republican River Basin

9. Bonny Reservoir, Stalker Lake.

COSPRE09	Classifications
Designation	Agriculture
Reviewable	Aq Life Warm 1
	Recreation E
	Water Supply

Qualifiers:

Other:

*chlorophyll a (ug/L)(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.
*Phosphorus(chronic) = applies only to lakes and reservoirs larger than 25 acres surface area.

Physical and Biological	DM	MWAT
Temperature °C	WL	WL
	acute	**chronic**
D.O. (mg/L)	---	5.0
pH	6.5 - 9.0	---
chlorophyll a (ug/L)	---	20*
E. Coli (per 100 mL)	---	126
Inorganic (mg/L)		
	acute	**chronic**
Ammonia	TVS	TVS
Boron	---	0.75
Chloride	---	250
Chlorine	0.019	0.011
Cyanide	0.005	---
Nitrate	10	---
Nitrite	---	0.05
Phosphorus	---	0.083*
Sulfate	---	WS
Sulfide	---	0.002

Metals (ug/L)	acute	chronic
Aluminum	---	---
Arsenic	340	0.02(T)
Beryllium	---	---
Cadmium	TVS	TVS
Cadmium	5.0(T)	---
Chromium III	50(T)	TVS
Chromium VI	TVS	TVS
Copper	TVS	TVS
Iron	---	WS
Iron	---	1000(T)
Lead	TVS	TVS
Lead	50(T)	---
Manganese	TVS	TVS
Manganese	---	WS
Mercury	---	0.01(t)
Molybdenum	---	150(T)
Nickel	TVS	TVS
Nickel	---	100(T)
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.

Table 2

SITE SPECIFIC RADIONUCLIDE STANDARDS*

(in Picocuries/Liter, except as noted)

The radionuclides listed below shall be maintained at the lowest practical level and in no case shall they be increased by any cause attributable to municipal, industrial, or agricultural practices to exceed the site specific numeric standards.

A. Ambient based site-specific standards:				
	Segment 2 Standley Lake	Segment 3 Great Western Reservoir	Segment 4a Segment 5 Woman Creek	Segment 4a Segment 4b Segment 5 Walnut Creek
Gross Alpha	6	5		
Gross Beta	9	12		
Plutonium	.03	.03	0.15** ***	0.15** ***
Americium	.03	.03	0.15** ***	0.15** ***
Tritium	500	500	500	500
Uranium	3	4	16.8 μg/l	16.8 μg/l
B. Other site-specific standard applicable to segments 2,3,4a, 4b, and 5.				
Curium	60	60	60	60
Neptunium	30	30	30	30

*Statewide standards also apply for radionuclides not listed above.
**0.15pCi/l Statewide Basic Standards.

***For plutonium and americium measurements in Segment 5 in Woman Creek and Segment 5 in Walnut Creek, attainment will be assessed based on the results of a 12-month flow-weighted rolling average concentration (computed monthly).

STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS – FOOTNOTES

A) Whenever a range of standards is listed and referenced to this footnote, the first number in the 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.

B) Assessment of adequate refuge shall rely on the Cold Large Lake table value temperature criterion and applicable dissolved oxygen standard rather than the site-specific temperature standard.