

**Bear Creek Basin**

Segment WBID: COSPBE01a

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

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 1  
Recreation E  
Water Supply  
Agriculture

**Proposed Changes 2015:**

- Add a chlorophyll a standard of 150 mg/m<sup>2</sup>
- Add a phosphorus standard of 110 µg/L (tot)
- Add Footnote C to chlorophyll and phosphorus standards
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L

Category	
303(d)	Temperature (Mainstem from outlet of Evergreen Lake to Kerr/Swede Gulch)
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	As(ch)=hybrid, exp. 12/31/21
UAAs	None
Qualifiers	None
Other	None

**Rationale for Changes 2015:**

A chlorophyll a standard is proposed to protect the Recreation use and a phosphorus standard is proposed to protect the Aquatic Life use (WQCD Exhibit C). The Division proposes to add Footnote C to chlorophyll and phosphorus standards to specify that standards are only applicable above facilities listed in 38.5(4).

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment's streams: brook trout (CS-I), cutthroat trout (CS-I), brown trout (CS-II), rainbow trout (CS-II), longnose sucker (CS-II), longnose dace (WS-II), and white sucker (WS-II). Brook trout and cutthroat trout comprised nearly 100% of the fish assemblage in surveys above 8,000 ft (1995, 2000). The macroinvertebrate data for this segment are summarized in the table below.



Macroinvertebrate Data - COSPBE01a						
Station #	Station Name	Date	MMI	HBI	SDI	Bio
5764	Bear Creek at Key of the Green GC	10/5/2005	46.0	4.30	3.25	1
5764	Bear Creek at Key of the Green GC	9/5/2006	41.8	5.39	2.19	1
5764	Bear Creek at Key of the Green GC	9/17/2007	42.2	4.27	3.35	1
5764	Bear Creek at Key of the Green GC	9/22/2008	38.6	4.69	3.45	1
5764	Bear Creek at Key of the Green GC	9/15/2009	56.5	5.02	3.19	1
5764	Bear Creek at Key of the Green GC	9/20/2010	36.8	4.73	2.52	1
5764	Bear Creek at Key of the Green GC	9/19/2011	45.3	4.97	3.51	1
5764	Bear Creek at Key of the Green GC	9/14/2012	46.9	4.42	3.87	1
5765	Bear Creek d/s Vance Cr.	4/22/2003	78.7	4.31	3.45	1
5768	Bear Creek at Dick Williams Ranch	9/17/2007	60.3	3.82	3.27	1
5768A	Bear Creek at Singing River Ranch	9/22/2008	77.4	4.11	2.50	1
5768A	Bear Creek at Singing River Ranch	9/15/2009	77.2	3.03	3.24	1
5768A	Bear Creek at Singing River Ranch	9/20/2010	71.2	2.88	3.29	1
5768B	Bear Creek on the Bear Tracks trail in Mount Evans Wilderness	9/19/2011	55.5	4.56	3.29	2
5768C	Bear Creek at boundary Mt. Evan Wilderness	9/14/2012	72.5	3.69	3.70	1

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:**

- 210020, Singing River Ranch

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:**

- CO0035971, Singin' River Ranch WWTP
- CO0022951, Genesee Water & Sanitation District
- CO0030856, Bear Creek Cabins
- COG641069, Genesee Water & Sanitation District
- There could be additional water supply intakes or alluvial wells in this segment

**Water Quality:** Water quality data for this segment are available upon request and will be available for assessment in the upcoming 303(d) listing cycle.



Segment WBID: COSPBE01b

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

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 2  
Recreation E  
Water Supply  
Agriculture

Proposed Changes 2015:

- Remove the chloride standard
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L
- Propose chronic arsenic Temporary Modification

Important Considerations - COSPBE01b	
Category	
303(d)	<i>E. coli</i> , May-October (Below Kipling Pkwy)
M&E	Aquatic Life (Below Kipling Pkwy)
TMDL	None
Site Sp. Stds	Temperature, Apr-Oct T <sub>(WAT)</sub> = 19.3°C
Temp. Mods	As(ch)=hybrid, exp. 12/31/21
UAAs	None
Qualifiers	Water + Fish
Other	None

Rationale for Changes 2015:

The Division proposes to remove the chloride standard, because the Water Supply use is not applied to this segment.

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

Since there is a chronic arsenic standard of 0.02 µg/L and a permitted discharger with a predicted water quality-based effluent limit compliance problem, the Division proposes to add a temporary modification with an expiration date of 12/31/21 to remain consistent with the Commission's decisions regarding arsenic at Regulation 38.79.

**Aquatic Life:** CPW data indicate the following species in the segment's streams: brown trout (CS-II), rainbow trout (CS-II), creek chub (WS-II), fathead minnow, Iowa darter (Species of Concern), longnose sucker (CS-II), longnose dace (WS-II), sand shiner, green sunfish, and white sucker (WS-II).

Brown trout (CS-II) and rainbow trout (CS-II) were captured in small numbers in 1990 and, in 2004, these species dominated the total catch, in terms of abundance near the upstream boundary of Bear Creek Lake Park.

The macroinvertebrate data for this segment are summarized in the table below.

Macroinvertebrate Data - COSPBE01b						
Station #	Station Name	Date	MMI	HBI	SDI	Bio
5756a	Bear Creek above Skunk Hollow @ footbridge	6/15/2006	58.5	6.54	3.71	1
5756a	Bear Creek above Skunk Hollow @ footbridge	6/3/2010	55.1	6.56	2.82	1
5756b	Bear Creek at USGS gage (at State Park)	3/4/2004	45.5	4.79	2.45	1
5756b	Bear Creek at USGS gage (at State Park)	6/11/2004	34.3	4.65	2.48	1
CU-BCIN	Bear Creek at Bear Creek Reservoir	10/21/2004	45.3	6.67	3.02	1

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:**

- 130030, Evergreen Metropolitan District
- 130035, Genesee W&SD
- 130085, Town of Morrison
- 230141, Bear Creek Lake Park
- There could be additional water supply intakes or alluvial wells in this segment

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:**

- CO0031429, Evergreen Metropolitan District
- COG640002, Town of Morrison
- CO0041432, Town of Morrison

**Water Quality:** Water quality data for this segment are available upon request and will be available for assessment in the upcoming 303(d) listing cycle.

Segment WBID: COSPBE01c

1c. Bear Creek Reservoir.

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 1  
Recreation E  
Water Supply  
Agriculture

Proposed Changes 2015:

- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L
- Add a chronic TVS chromium III standard
- Revise site-specific nutrient standards
- Extend expiration date of nutrient Temporary Modifications

Rationale for Changes 2015:

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

A chronic chromium III TVS standard is proposed since the acute Water Supply standard is not protective of the Aquatic Life use at low hardness.

The Division has proposed revised site-specific nutrient standards for chlorophyll a and total phosphorus in response to US EPA's disapproval of the Commission's 2009 action. The purpose for the proposed standards remains consistent with the Commission's original goal of shifting the trophic condition to the mesotrophic-eutrophic boundary. The proposed numeric values for chlorophyll and phosphorus have changed because the data set has been expanded by several years and an improved methodology has been applied. The proposed standards were developed using only data from Bear Creek Reservoir. Because the proposed standards represent a goal that is not presently attained, there is uncertainty about when, or if, attainment is possible. In order to provide time to resolve the uncertainty, the Division proposes to extend the expiration date on the current Temporary Modification for this segment from 12/31/2015 to 12/31/2020. The technical basis for the proposed standards and the justification for the temporary modification is provided in WQCD Exhibit 38.2.

The site-specific nutrient standards for chlorophyll a and total phosphorus have been revised in

Important Considerations - COSPBE01c	
Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	<p>Temperature, Apr-Oct <math>T_{(WAT)} = 22.3^{\circ}C</math></p> <p>Mean chlorophyll=<del>40</del>12.2 µg/l and mean total phosphorus=<del>3222</del> µg/l 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.</p> <p>Control Regulation No. 73 was adopted to ensure attainment of the site-specific nutrient criteria.</p>
Temp. Mods	<p>Chlorophyll and total phosphorus equal to existing conditions (Type iii), exp 12/31/<del>15</del>20</p> <p>As(ch)=hybrid, exp. 12/31/21</p>
UAAs	Temperature, 2009, WQCD
Qualifiers	None
Other	None



response to US EPA's disapproval of the Commission's 2009 action. The purpose for the revised standards remains consistent with the Commission's original goal of shifting the trophic condition to the mesotrophic-eutrophic boundary. The numeric values for chlorophyll and phosphorus have changed because the data set has been expanded by several years and an improved methodology has been applied. The proposed standards were developed using only data from Bear Creek Reservoir. Because the proposed standards represent a goal that is not presently attained, there is uncertainty about when, or if, attainment is possible. In order to provide time to resolve the uncertainty, the Division proposes to extend the expiration date on the current Temporary Modification for this segment from 12/31/2015 to 12/31/2020. The technical basis for the proposed standards and the justification for the temporary modification are provided in WQCD Exhibit 38-3.

**Aquatic Life:** CPW data indicate the following species in the segment's lakes: brook trout (CL), brown trout (CL), rainbow trout (CL), bluegill (WL), black bullhead, common carp (WL), creek chub (WS-II), fathead minnow, gizzard shad (WL), johnny darter, largemouth bass (WL), longnose sucker (CS-II), saugeye (WL), smallmouth bass (WL), green sunfish, spottail shiner (WL), tiger muskie (WL), walleye (WL), white sucker (WS-II), and yellow perch (WL).

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:** There are no currently identified permitted point sources that discharge to this segment.

**Water Quality:** Water quality data for this segment are available upon request and will be available for assessment in the upcoming 303(d) listing cycle.

Segment WBID: COSPBE01d

1d. Evergreen Lake.

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 1  
 Recreation E  
 Water Supply  
 Agriculture  
DUWS

Proposed Changes 2015:

- Add a Direct Use Water Supply use classification and standards
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L

Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	None
UAAs	None
Qualifiers	None
Other	None

Rationale for Changes 2015:

A Direct Use Water Supply use sub-classification is proposed because the Evergreen Metropolitan District has a plant intake location in Evergreen Lake or a man-made conveyance from Evergreen Lake that is used regularly to provide raw water directly to a water treatment plant that treats and disinfects raw water (WQCD Exhibit C).

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment's lakes: brown trout (CL), cutthroat trout (CL), rainbow trout (CL), Iowa darter (Species of Concern), johnny darter, longnose sucker, tiger muskie (WL), and white sucker.

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:** There are no currently identified permitted point sources that discharge to this segment.

**Water Quality:** The Division has no water quality data for this segment for the period of record.



Segment WBID: COSPBE01e

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

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 1  
Recreation E  
Water Supply  
Agriculture

Proposed Changes 2015:

- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L

Important Considerations - COSPBE01e	
Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	Temperature, Apr-Oct $T_{(WAT)} = 19.3^{\circ}\text{C}$
Temp. Mods	As(ch)=hybrid, exp. 12/31/21
UAAs	None
Qualifiers	None
Other	None

Rationale for Changes 2015:

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment's streams: brook trout (CS-I), brown trout (CS-II), cutbow trout, rainbow trout (CS-II), central stoneroller (WS-II), common carp, creek chub (WS-II), fathead minnow, longnose sucker (CS-II), longnose dace (WS-II), orangespotted sunfish, red shiner, saugeye, sand shiner, suckermouth minnow (State Endangered), tiger muskie, and white sucker (WS-II).

Brown trout (CS-II), rainbow trout (CS-II), longnose sucker (CS-II), and longnose dace (WS-II) comprise most of the catch, with other species comprising a small proportion of the total catch, in terms of abundance. The macroinvertebrate data for this segment are summarized in the table below.

Macroinvertebrate Data - COSPBE01e						
Station #	Station Name	Date	MMI	HBI	SDI	Bio
122	Bear Creek above Morrison Park	10/5/2005	71.4	3.96	3.52	1
122	Bear Creek above Morrison Park	9/5/2006	56.7	5.00	2.17	1
122	Bear Creek above Morrison Park	9/17/2007	67.6	4.22	3.36	1
122	Bear Creek above Morrison Park	9/22/2008	72.5	3.39	3.39	1
122	Bear Creek above Morrison Park	9/15/2009	73.1	3.53	3.92	1
122	Bear Creek above Morrison Park	9/20/2010	80.5	3.30	3.44	1
122	Bear Creek above Morrison Park	9/19/2011	74.5	3.81	3.39	1
122	Bear Creek above Morrison Park	9/13/2012	72.9	4.24	3.84	1
5762	Bear Creek below Evergreen	3/11/2004	43.1	3.71	1.83	1
5762	Bear Creek below Evergreen	10/5/2005	48.8	2.55	4.16	1





Macroinvertebrate Data - COSPBE01e						
Station #	Station Name	Date	MMI	HBI	SDI	Bio
5762	Bear Creek below Evergreen	9/5/2006	57.2	5.50	3.14	1
5762	Bear Creek below Evergreen	9/17/2007	55.3	4.88	2.90	1
5762	Bear Creek below Evergreen	9/22/2008	49.8	4.17	3.09	1
5762	Bear Creek below Evergreen	9/15/2009	55.4	4.57	2.83	1
5762	Bear Creek below Evergreen	9/20/2010	39.1	3.76	3.21	1
5762	Bear Creek below Evergreen	9/19/2011	51.1	4.35	3.69	1
5762	Bear Creek below Evergreen	9/13/2012	44.3	4.92	3.85	1
5763	Bear Creek at Little Bear	10/5/2005	55.9	4.41	3.84	1
5763	Bear Creek at Little Bear	9/5/2006	50.6	3.98	2.12	1
5763	Bear Creek at Little Bear	9/17/2007	40.3	4.98	3.17	1
5763	Bear Creek at Little Bear	9/22/2008	43.2	4.94	3.11	1
5763	Bear Creek at Little Bear	9/15/2009	52.3	5.03	2.58	1
5763	Bear Creek at Little Bear	9/20/2010	56.6	4.94	3.58	1
5763	Bear Creek at Little Bear	9/19/2011	42.9	5.99	3.37	1
5763	Bear Creek at Little Bear	9/13/2012	40.0	4.61	2.48	1
5767	Bear Creek at Morrison Park abv Union Ave	5/29/2003	30.6	5.58	2.66	1
122a	Bear Creek at Lair of the Bear Park	10/5/2005	47.0	3.16	3.20	1
122a	Bear Creek at Lair of the Bear Park	9/5/2006	68.6	5.99	0.60	1
122a	Bear Creek at Lair of the Bear Park	9/17/2007	54.8	5.96	1.99	1
122a	Bear Creek at Lair of the Bear Park	9/22/2008	43.3	2.35	3.99	1
122a	Bear Creek at Lair of the Bear Park	9/15/2009	48.9	3.40	3.26	1
122a	Bear Creek at Lair of the Bear Park	9/20/2010	62.2	3.02	3.42	1
122a	Bear Creek at Lair of the Bear Park	9/19/2011	53.4	3.93	3.54	1
122a	Bear Creek at Lair of the Bear Park	9/13/2012	51.3	4.25	3.52	1
122b	Bear Creek at O'Fallon Park	10/5/2005	53.8	3.87	3.64	1
122b	Bear Creek at O'Fallon Park	9/5/2006	39.2	3.26	3.16	1
122b	Bear Creek at O'Fallon Park	9/17/2007	55.9	5.88	2.40	1
122b	Bear Creek at O'Fallon Park	9/22/2008	55.8	3.53	2.94	1
122b	Bear Creek at O'Fallon Park	9/15/2009	53.6	3.70	3.43	1
122b	Bear Creek at O'Fallon Park	9/20/2010	57.7	4.05	3.40	1
122b	Bear Creek at O'Fallon Park	9/19/2011	45.5	3.35	3.45	1
122b	Bear Creek at O'Fallon Park	9/13/2012	49.9	4.59	3.36	1
122C	Bear Creek at Baker Bridge (Idledale)	9/5/2006	65.8	3.71	3.56	1
122C	Bear Creek at Baker Bridge (Idledale)	9/17/2007	59.7	4.55	3.21	1
122C	Bear Creek at Baker Bridge (Idledale)	9/22/2008	66.3	5.39	2.88	1
122C	Bear Creek at Baker Bridge (Idledale)	9/15/2009	58.7	3.66	3.63	1
122C	Bear Creek at Baker Bridge (Idledale)	9/20/2010	69.8	2.52	3.35	1
122C	Bear Creek at Baker Bridge (Idledale)	9/19/2011	57.1	4.36	3.29	1



Macroinvertebrate Data - COSPBE01e						
Station #	Station Name	Date	MMI	HBI	SDI	Bio
122C	Bear Creek at Baker Bridge (Idledale)	9/13/2012	68.0	4.60	3.97	1
122f	Bear Creek upstream of WWTP effluent	6/11/2004	49.9	4.66	3.70	2
RW-716	Bear Creek above Morrison Gauge	11/13/2003	39.9	5.14	3.03	1
RW-716	Bear Creek above Morrison Gauge	10/16/2004	64.1	5.02	3.63	1

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:**

- CO0023841, Kittredge San & Water District
- CO0030856, Bear Creek Cabins
- CO0031429, Evergreen Metropolitan Dist WWTF

**Water Quality:** Water quality data for this segment are available upon request and will be available for assessment in the upcoming 303(d) listing cycle.



Segment WBID: COSPBE02

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

Designation: None (Reviewable)

Classifications: Aquatic Life Warm 1  
Recreation E  
Water Supply  
Agriculture

Proposed Changes 2015:

- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic TVS chromium III standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L

Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	
Temp. Mods	As(ch)=hybrid, exp. 12/31/21
UAAs	None
Qualifiers	None
Other	None

Rationale for Changes 2015:

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A chronic chromium III TVS standard is proposed since the acute Water Supply standard is not protective of the Aquatic Life use at low hardness.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment's streams: brook trout (CS-I), brown trout (CS-II), rainbow trout (CS-II), black bullhead, bluegill, brook stickleback (WS-II), common carp, creek chub (WS-II), fathead minnow, golden shiner, green sunfish, Iowa darter (Species of Concern), johnny darter (WS-I), largemouth bass, longnose sucker (CS-II), longnose dace (WS-II), plains top minnow, sand shiner, smallmouth bass, tiger muskie, white crappie, and white sucker (WS-II). The macroinvertebrate data for this segment are summarized in the table below.

Station #	Station Name	Date	MMI	HBI	SDI	Bio
5751	Bear Creek at mouth	5/25/2006	31.5	6.16	2.71	1
5751	Bear Creek at mouth	9/19/2012	39.7	5.78	3.22	1
6711500	Bear Creek at mouth, at Sheridan, CO.	9/1/1993	56.6	5.57	4.31	1
RW-288	Bear Creek Kipling Pkwy	10/15/2005	58.2	4.95	2.74	1
RW-766	Bear Creek at Pierce St	3/13/2003	44.8	6.29	2.71	1
RW-766	Bear Creek at Pierce St	9/16/2004	41.9	4.82	3.04	1
RW-766	Bear Creek at Pierce St	1/8/2009	45.0	6.22	3.45	1
RW-766	Bear Creek Pierce St	10/3/2012	41.9	6.58	2.35	1



**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:**

- 103045, City of Englewood
- There could be additional water supply intakes or alluvial wells in this segment

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:** There are no currently identified permitted point sources that discharge to this segment.

**Water Quality:** Water quality data for this segment are available upon request and will be available for assessment in the upcoming 303(d) listing cycle.

Segment WBID: COSPBE03

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.

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 1  
 Recreation E  
 Water Supply  
 Agriculture

**Proposed Changes 2015:**

- Add a chlorophyll a standard of 150 mg/m<sup>2</sup>
- Add a phosphorus standard of 110 µg/L (tot)
- Add Footnote C to chlorophyll and phosphorus standards
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic total molybdenum standard of 150 µg/L

Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	As(ch)=hybrid, exp. 12/31/21
UAAs	None
Qualifiers	None
Other	None

**Rationale for Changes 2015:**

A chlorophyll a standard is proposed to protect the Recreation use and a phosphorus standard is proposed to protect the Aquatic Life use (WQCD Exhibit C). The Division proposes to add Footnote C to chlorophyll and phosphorus standards to specify that standards are only applicable above facilities listed in 38.5(4).

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment's streams: brook trout (CS-I), brown trout (CS-II), and rainbow trout (CS-II).

However, CDPW data derive from sites below 6,100 ft in elevation and may not reflect the fish assemblage expected in the segment's higher elevation tributaries. The macroinvertebrate data for this segment are summarized in the table below.

Station #	Station Name	Date	MMI	HBI	SDI	Bio
5760	Cub Creek at mouth	10/20/2003	64.8	3.42	2.89	1
5769	Vance Creek at mouth	4/22/2003	60.9	4.05	3.58	1
5760A	Cub Creek at Cub Creek Park	9/20/2010	55.5	2.08	2.23	1
5761A	Vance Creek above Corral Creek confluence	9/22/2008	73.1	3.36	3.57	2

**Recreation:** There are documented or potential Recreation E uses in this segment.



**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:**

- CO0030261, Antencio, Rubel & Betty.

**Water Quality:** The Division has no water quality data for this segment for the period of record.

Segment WBID: COSPBE04a

4a. All tributaries to Bear Creek, including all wetlands from a point immediately below the confluence with Cub Creek to the confluence with the South Platte River, except for specific listings in Segments 4b, 4c, 5, and 6.

Designation: None (Reviewable)

Classifications: Aquatic Life Warm 2  
 Recreation E  
 Water Supply  
 Agriculture

**Proposed Changes 2015:**

- Remove the chloride standard
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic TVS chromium III standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L
- Add chronic arsenic Temporary Modification

Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	<u>As(ch)=hybrid, exp. 12/31/21</u>
UAAs	None
Qualifiers	Water + Fish
Other	None

**Rationale for Changes 2015:**

The Division proposes to remove the chloride standard, because the Water Supply use is not applied to this segment.

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A chronic chromium III TVS standard is proposed since the acute Water Supply standard is not protective of the Aquatic Life use at low hardness.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

Since there is a chronic arsenic standard of 0.02 µg/L and a permitted discharger with a predicted water quality-based effluent limit compliance problem, the Division proposes to add a temporary modification with an expiration date of 12/31/21 to remain consistent with the Commission's decisions regarding arsenic at Regulation 38.79.

**Aquatic Life:** CPW data indicate the following species in the segment's streams: brook trout (CS-I), brown trout (CS-II), rainbow trout (CS-II), fathead minnow (WS-4), longnose sucker (CS-II), and longnose dace (WS-II). The macroinvertebrate data for this segment are summarized in the table below.



Macroinvertebrate Data - COSPBE04a						
Station #	Station Name	Date	MMI	HBI	SDI	Bio
5757A	Mount Vernon Creek at Matthews/Winters Park	8/15/2007	56.2	4.30	3.00	1
RW-728	Mount Vernon Creek at mouth	10/12/2012	30.3	7.10	2.65	1
WCOP03-R006	Mount Vernon Creek 100 meters from Hwy 40	7/30/2003	50.4	6.25	3.98	1

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** No water supply use has been identified for this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:**

- CO0040096, Conifer Sanitation Association
- CO0037044, Forest Hills Metropolitan District
- COG640069, Genesee Water & Sanitation District
- COG5000000 (Sand & Gravel) Permits: 1.

**Water Quality:** Water quality data for this segment are available upon request and will be available for assessment in the upcoming 303(d) listing cycle.



**Segment WBID:** COSPBE04b Deleted previously.

**Segment WBID:** COSPBE04c Deleted previously.

Segment WBID: COSPBE05

5. Sawmill, Troublesome, and Cold Springs Gulches, and the Turkey Creek system, including all tributaries and wetlands from the source to the inlet of Bear Creek Reservoir, except for specific listings in Segment 6.

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 2  
 Recreation E  
 Water Supply  
 Agriculture

**Proposed Changes 2015:**

- Add a chlorophyll a standard of 150 mg/m<sup>2</sup>
- Add a phosphorus standard of 110 µg/L (tot)
- Add Footnote C to chlorophyll and phosphorus standards
- Remove acute standard for total residual chlorine
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic TVS chromium III standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L
- Add chronic arsenic Temporary Modification

Category	
303(d)	<i>E. coli</i> (Swede/Kerr Gulch)
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	<u>As(ch)=hybrid. exp.</u> <u>12/31/21</u>
UAAs	None
Qualifiers	Water + Fish
Other	None

**Rationale for Changes 2015:**

A chlorophyll a standard is proposed to protect the Recreation use and a phosphorus standard is proposed to protect the Aquatic Life use (WQCD Exhibit C). The Division proposes to add Footnote C to chlorophyll and phosphorus standards to specify that standards are only applicable above facilities listed in 38.5(4).

The Division proposes to remove the acute total residual chlorine standard because it does not apply to segments with a Class 2 Aquatic Life use classification (see Table II in Regulation No. 31).

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A chronic chromium III TVS standard is proposed since the acute Water Supply standard is not protective of the Aquatic Life use at low hardness.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

Since there is a chronic arsenic standard of 0.02 µg/L and a permitted discharger with a predicted water quality-based effluent limit compliance problem, the Division proposes to add a temporary modification with an expiration date of 12/31/21 to remain consistent with the Commission's decisions regarding arsenic at Regulation 38.79.

**Aquatic Life:** CPW data indicate the following species in the segment's streams: brook trout (CS-I), brown trout (CS-II), and rainbow trout (CS-II).



**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:**

- 130055, Idledale W&SD
- 130050, Buffalo Park Development
- 130065, Indian Hills Water District
- 230050, Red Rocks Park/City and County of Denver
- 230140, Bear Creek Reservoir State Park
- 230484, Lost & Found Boys Home
- 130052, Homestead WS
- There could be additional water supply intakes or alluvial wells in this segment

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:**

- CO0020915, West Jefferson County Metro District
- CO030261, Brook Forest Inn

**Water Quality:** Water quality data for this segment are available upon request and will be available for assessment in the upcoming 303(d) listing cycle.

Segment WBID: COSPBE06a

06a. 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.

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 2  
Recreation E  
Water Supply  
Agriculture

**Proposed Changes 2015:**

- Add a chlorophyll a standard of 150 mg/m<sup>2</sup>
- Add a phosphorus standard of 110 µg/L (tot)
- Add Footnote C to chlorophyll and phosphorus standards
- Remove acute standard for total residual chlorine
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic TVS chromium III standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L

Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	As(ch)=hybrid
UAAs	None
Qualifiers	Water + Fish
Other	None

**Rationale for Changes 2015:**

A chlorophyll a standard is proposed to protect the Recreation use and a phosphorus standard is proposed to protect the Aquatic Life use (WQCD Exhibit C). The Division proposes to add Footnote C to chlorophyll and phosphorus standards to specify that standards are only applicable above facilities listed in 38.5(4).

The Division proposes to remove the acute total residual chlorine standard because it does not apply to segments with a Class 2 Aquatic Life use classification (see Table II in Regulation No. 31).

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A chronic chromium III TVS standard is proposed since the acute Water Supply standard is not protective of the Aquatic Life use at low hardness.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment's streams: brook trout (CS-I), rainbow trout (CS-II), fathead minnow, Iowa darter (Species of Concern), longnose sucker (CS-II), longnose dace (WS-II), and white sucker (WS-II). The macroinvertebrate data for this segment are summarized in the table below.



Macroinvertebrate Data - COSPBE06a						
Station #	Station Name	Date	MMI	HBI	SDI	Bio
5823	Turkey Creek above reservoir	8/15/2007	68.2	4.25	3.17	1
CU-TCIN	Turkey Creek at Bear Creek Res	11/11/2004	54.7	5.05	3.90	1

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:**

- CO0000001, Aspen Park Metropolitan District
- CO0036129, Tiny Town

**Water Quality:** The Division has no water quality data for this segment for the period of record.



Segment WBID: CospBE06b

06b. Mainstem of North Turkey Creek, from the source to the confluence with Turkey Creek.

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 1  
 Recreation E  
 Water Supply  
 Agriculture

**Proposed Changes 2015:**

- Add a chronic TVS chromium III standard
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L
- Add chronic arsenic Temporary Modification

Important Considerations - CospBE06b	
Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	As(ch)=hybrid
UAAs	None
Qualifiers	None
Other	None

**Rationale for Changes 2015:**

A chronic chromium III TVS standard is proposed since the acute Water Supply standard is not protective of the Aquatic Life use at low hardness.

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

Since there is a chronic arsenic standard of 0.02 µg/L and a permitted discharger with a predicted water quality-based effluent limit compliance problem, the Division proposes to add a temporary modification with an expiration date of 12/31/21 to remain consistent with the Commission’s decisions regarding arsenic at Regulation 38.79.

**Aquatic Life:** CPW data indicate the following species in the segment’s streams: no data.

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** 230225 – Conifer High School. There could be additional water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:**

- CO0044644, Jefferson County School District-R-1

**Water Quality:** The Division has no water quality data for this segment for the period of record.



Segment WBID: CospBE07

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

Designation: Outstanding Waters

Classifications: Aquatic Life Cold 1  
Recreation E  
Water Supply  
Agriculture

Proposed Changes 2015:

- Add a chlorophyll a standard of 150 mg/m<sup>2</sup>
- Add a phosphorus standard of 110 µg/L (tot)
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L

Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	None
UAAs	None
Qualifiers	None
Other	None

Rationale for Changes 2015:

A chlorophyll a standard is proposed to protect the Recreation use and a phosphorus standard is proposed to protect the Aquatic Life use (WQCD Exhibit C).

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment’s streams: brook trout (CS-I).

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:** There are no currently identified permitted point sources that discharge to this segment.

**Water Quality:** The Division has no water quality data for this segment for the period of record.

Segment WBID: COSPBE08

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

Designation: Outstanding Waters

Classifications: Aquatic Life Cold 1  
Recreation E  
Water Supply  
Agriculture

Proposed Changes 2015:

- Add a chlorophyll a standard of 8 µg/L
- Add a phosphorus standard of 25 µg/L (tot)
- Add Footnote B to chlorophyll and phosphorus standards
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L

Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	None
UAAs	None
Qualifiers	None
Other	None

Rationale for Changes 2015:

A chlorophyll a and a phosphorus standard were proposed to protect the target trophic condition, a balance between the aquatic life and recreation uses (WQCD Exhibit C). The Division proposes to add Footnote B to chlorophyll and phosphorus standards to specify that standards are only applicable to lakes and reservoirs larger than 25 acres surface area.

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment's lakes: brook trout (CS-I), cutthroat trout (CS-I), cutbow trout, rainbow trout, and longnose sucker.

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:** There are no currently identified permitted point sources that discharge to this segment.

**Water Quality:** The Division has no water quality data for this segment for the period of record.



Segment WBID: COSPBE09

9. **Lakes and reservoirs in the Bear Creek system from the boundary of the Mt. Evans Wilderness area to a point immediately below the confluence with Cub Creek; includes Evergreen Lake-; includes Summit Lake.**

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 1  
 Recreation E  
 Water Supply  
 Agriculture

**Proposed Changes 2015:**

- Clarify the segment description
- Add a chlorophyll a standard of 8 µg/L
- Add a phosphorus standard of 25 µg/L (tot)
- Add Footnote B to chlorophyll and phosphorus standards
- Add Footnote C to chlorophyll and phosphorus standards
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L

Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	None
UAAs	None
Qualifiers	None
Other	None

**Rationale for Changes 2015:**

**The Division proposes to clarify the segment description by specifying the inclusion of Summit Lake.**

A chlorophyll a and a phosphorus standard were proposed to protect the target trophic condition, a balance between the aquatic life and recreation uses (WQCD Exhibit C). The Division proposes to add Footnote B to chlorophyll and phosphorus standards to specify that standards are only applicable to lakes and reservoirs larger than 25 acres surface area. The Division proposes to add Footnote C to chlorophyll and phosphorus standards to specify that standards are only applicable above facilities listed in 38.5(4).

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment's lakes: brook trout (CS-I), cutthroat trout (CS-I), cutbow trout, lake trout, rainbow trout, and longnose sucker.

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:** There are no currently identified permitted point sources that discharge to this segment.

**Water Quality:** The Division has no water quality data for this segment for the period of record.



Segment WBID: COSPBE10

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

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 2  
 Recreation E  
 Water Supply  
 Agriculture

Proposed Changes 2015:

- Remove acute standard for total residual chlorine
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic TVS chromium III standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L

Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	None
UAAs	None
Qualifiers	Water + Fish
Other	None

Rationale for Changes 2015:

The Division proposes to remove the acute total residual chlorine standard because it does not apply to segments with a Class 2 Aquatic Life use classification (see Table II in Regulation No. 31).

A chronic chromium III TVS standard is proposed since the acute Water Supply standard is not protective of the Aquatic Life use at low hardness.

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment's lakes: no data.

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:** There are no currently identified permitted point sources that discharge to this segment.

**Water Quality:** The Division has no water quality data for this segment for the period of record.



Segment WBID: COSPBE11

11. Lakes and reservoirs in the Bear Creek system from a point immediately below the confluence with Cub Creek to the confluence with the South Platte River, except as specified in Segments 1c and, -10, and 12; includes Soda Lakes.

Designation: None (Reviewable)

Classifications: Aquatic Life Warm 2  
 Recreation E  
 Water Supply  
 Agriculture

Proposed Changes 2015:

- Clarify the segment description
- Remove acute standard for total residual chlorine
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic TVS chromium III standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L
- Add chronic arsenic Temporary Modification

Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	As(ch)=hybrid, exp. 12/31/21
UAAs	Temperature, 2009, WQCD
Qualifiers	Water + Fish
Other	None

Rationale for Changes 2015:

The Division proposes to clarify the segment description by correcting the punctuation.

The Division proposes to remove the acute total residual chlorine standard because it does not apply to segments with a Class 2 Aquatic Life use classification (see Table II in Regulation No. 31).

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A chronic chromium III TVS standard is proposed since the acute Water Supply standard is not protective of the Aquatic Life use at low hardness.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

Since there is a chronic arsenic standard of 0.02 µg/L and a permitted discharger with a predicted water quality-based effluent limit compliance problem, the Division proposes to add a temporary modification with an expiration date of 12/31/21 to remain consistent with the Commission's decisions regarding arsenic at Regulation 38.79.

**Aquatic Life:** CPW data indicate the following species in the segment's lakes: black bullhead, black crappie (WL), bluegill (WL), channel catfish, common carp, green sunfish, largemouth bass (WL), pumpkinseed (WL), saugeye (WL), and white sucker.

Soda Lakes: brown trout, common carp, creek chub, fathead minnow, largemouth bass (WL), spottail shiner (WL), sauger (WL), white sucker, and yellow perch (WL).



**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:** There are no currently identified permitted point sources that discharge to this segment.

**Water Quality:** Water quality data for this segment are available upon request and will be available for assessment in the upcoming 303(d) listing cycle.

Segment WBID: COSPBE12

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

Designation: None (Reviewable)

Classifications: Aquatic Life Cold 2  
 Recreation E  
 Water Supply  
 Agriculture

Proposed Changes 2015:

- Remove acute standard for total residual chlorine
- Add an acute total recoverable cadmium standard, an acute total recoverable lead standard, and a chronic total recoverable nickel standard
- Add a chronic TVS chromium III standard
- Add a chronic total recoverable molybdenum standard of 150 µg/L

Important Considerations - COSPBE12	
Category	
303(d)	None
M&E	None
TMDL	None
Site Sp. Stds	None
Temp. Mods	None
UAAs	None
Qualifiers	Water + Fish
Other	None

Rationale for Changes 2015:

The Division proposes to remove the acute total residual chlorine standard because it does not apply to segments with a Class 2 Aquatic Life use classification (see Table II in Regulation No. 31).

The Division proposes to add standards for acute total recoverable cadmium of 5 µg/L, acute total recoverable lead of 50 µg/L, and chronic total recoverable nickel of 100 µg/L to protect the Water Supply use.

A chronic chromium III TVS standard is proposed since the acute Water Supply standard is not protective of the Aquatic Life use at low hardness.

A molybdenum standard based on default values for water and forage, and assuming no copper supplementation is proposed to protect the Agriculture use (WQCD Exhibit B). The chronic total recoverable molybdenum standard of 150 µg/L is protective of all life-stages of cattle (including lactating cows and growing heifers, steers and bulls) at all times of year.

**Aquatic Life:** CPW data indicate the following species in the segment's lakes: no data.

**Recreation:** There are documented or potential Recreation E uses in this segment.

**Water Supply:** There could be water supply intakes or alluvial wells in this segment.

**Agriculture:** Waters from this segment are used for livestock watering or crop irrigation.

**Point Sources:** There are no currently identified permitted point sources that discharge to this segment.

**Water Quality:** The Division has no water quality data for this segment for the period of record.

