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

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38.6 TABLES

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(4) Assessment Criteria

The following criteria shall be used when assessing whether a specified waterbody is in attainment of the specified standard.

(a) Upper South Platte segment 6b: Assessment Thresholds

chlorophyll = 11.2 µg/l, summer average, 1 in 5 year allowable exceedance frequency
phosphorus = 0.035 mg/l, summer average, 1 in 5 year allowable exceedance frequency.

(b) Upper South Platte segment 16h: Selenium Assessment Locations

- Toll Gate Creek (TG6): Downstream of the confluence of East and West Toll Gate Creeks, at 6th Avenue near the gage station.

- East Toll Gate Creek (ET1): Upstream of the confluence with West Toll Gate Creek, at Chambers Road and 1st Avenue.

- West Toll Gate Creek (WT1): Upstream of the confluence with East Toll Gate Creek, at 2nd Avenue.

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STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 3	Desig	Classification	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
Stream Segment Description			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS µg/l			
BASIN: **UPPER SOUTH PLATTE RIVER**									
5c. Mainstem of Gooseberry Gulch and all tributaries from source to confluence with Elk Creek.	UP	Aq Life Cold 2 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E. Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 $S0_4$=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modification: NH_3(ac/ch)=Existing Quality(Type iii). Expiration date of 12/31/2010.
6b. Chatfield Reservoir.		Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=200/100ml E. Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 $S0_4$=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Mean total phosphorous ~~P=0.027~~ P=0.030 mg/L and mean chlorophyll = 10 µg/l measured through the collection of samples that are representative of the mixed layer during summer months (July, August, September) and with an allowable exceedance frequency of once in five years. ~~throughout the water column in Chatfield Reservoir only for months of July, August and September.~~See section 38.6(4) for assessment thresholds.
16a. Mainstem of Sand Creek from the confluence of Murphy and Coal Creek in Arapahoe County to the confluence with the South Platte River.	UP	Aq Life Warm 2 Recreation 1a Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E. Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.5	As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS*	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Tot) Ni(ac/ch)=TVS	Se(ac)=TVS Se(ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modifications: Se(ch)= ~~19.3 µg/l~~current condition ~~Se(ac)=no acute standard.~~ type iii Expiration date of ~~2/28/10~~12/31/2014. NH_3(ac/ch)=TVS(old) (Type I). Expiration date of 12/31/2011. *Cu (ac/ch) = TVS *2.6 below the Sand Creek Water Reuse Facility outfall.
16c. All tributaries to the South Platte River, including all lakes, reservoirs and 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, 16b, 16d, 16e, 16f, 16g, 16h,17a, 17b, and 17c.	UP	Aq Life Warm 2 Recreation 1a Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E. Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.5	As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Tot) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Fish Ingestion Organics ~~Temporary modifications:~~ ~~East & West Toll Gate Creeks, Toll Gate Creek~~ ~~Se(ch)=18µg/l(dis),~~ ~~Se(ac)=no acute standard.~~ ~~type iii~~ ~~Expiration date of 2/28/10.~~ NH_3(ac/ch)=TVS(old) (Type i). Expiration date of 12/31/2011.

STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 3	Desig	Classification	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
Stream Segment Description			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS µg/l			
BASIN: **UPPER SOUTH PLATTE RIVER**									
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.	UP	Aq Life Warm 2 Recreation 1a Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E. Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.5	As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Tot) Ni(ac/ch)=TVS	Ag(ac/ch)=TVS Zn(ac/ch)=TVS West Toll Gate Creek Se(ch)=50.6 Se(ac)=119.2 East Toll Gate Creek Se(ch)=14.3 Se(ac)= 15.9 Toll Gate Creek Se(ch)=26.5 Se(ac)=29.5	Fish Ingestion Organics See section 38.6(4) for selenium assessment locations.
BASIN**: CLEAR CREEK**									
1. Mainstem of Clear Creek, including all tributaries, lakes, reservoirs and wetlands, from the source to the I-70 bridge above Silver Plume.	9/30/00 Baseline does not apply	Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
2. Mainstem of Clear Creek, including all tributaries, lakes, reservoirs and wetlands, from the I-70 bridge above Silver Plume to the Argo Tunnel discharge, except for specific listings in Segments 3 through 10.	9/30/00 Baseline does not apply	Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli-=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 SO_4=WS NO_3=10 Cl=250	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS	Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac)=TVS Zn(ch)=200	Temporary modifications: Cu(ch)=~~8.1~~ 7.4 µg/l (dis), ~~Mn(ch)=106 µg/l (dis),~~ Zn(ch)=~~257~~254 µg/l (dis), type iii Expiration date of 7/01/~~09~~ 2014.
3a. Mainstem of South Clear Creek, including all tributaries, lakes, reservoirs and wetlands, from the source to the confluence with Clear Creek, except for the specific listing in 3b and 19.	9/30/00 Baseline does not apply	Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis)	Hg(ch)=0.01(Tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	~~Temporary modification:~~ ~~Zn(ch)=100 µg/l (dis).~~ ~~type iii~~ ~~Expiration date of 7/01/09.~~
3b. Mainstem of Leavenworth Creek from source to confluence with South Clear Creek.	9/30/00 Baseline does not apply	Aq Life Cold 2 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	~~Temporary modifications:~~ ~~Pb(ch)=l.7 µg/l (dis);~~ ~~Zn(ch)=220 µg/l (dis).~~ ~~Expiration date of 2/28/10.~~
4. Mainstem of West Clear Creek from the source to the confluence with Woods Creek.	9/30/00 Baseline does not apply	Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
6. All tributaries to West Clear Creek, including all lakes, reservoirs and wetlands, from the source to the confluence with Clear Creek, except for specific listings in Segments 7 and 8.	9/30/00 Baseline does not apply	Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
9a. Mainstem to the Fall River, including all tributaries, lakes, reservoirs and wetlands, from the source to the confluence with Clear Creek.	9/30/00 Baseline does not apply	Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modification: Cu(ch)=~~11~~ 9.6 µg/l (dis), type iii Expiration date of 7/01/~~09~~14.

STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 3	Desig	Classification	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
Stream Segment Description			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS µg/l			
BASIN: **CLEAR CREEK**									
9b. Mainstem of Trail Creek, including all tributaries, lakes, reservoirs, and wetlands from the source to the confluence with Clear Creek.	9/30/00 Baseline does not apply	Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O.=6.0 mg/l D.O.(sp)=7.0 mg/l pH=6.5-9.0 F.Coli-=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 SO_4=WS NO_3=10 Cl=250	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot) Ni(ac/ch)=TVS Se(ac/ch)=TVS	Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac)=TVS Zn(ch)=200	~~Temporary modifications: Cd(ch)=4.6 µg/l, Cu(ch)=148 µg/l, Pb(ch)=7.6 µg/l l, Mn(ch)=548, Zn(ch)=1068 µg/l., type iii Expiration date of 7/01/09.~~
10. Mainstem of Chicago Creek, including all tributaries, lakes, reservoirs and wetlands, from the source to the confluence with Clear Creek, except for specific listings in Segment 19.	9/30/00 Baseline does not apply	Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
11. Mainstem of Clear Creek from the Argo Tunnel discharge to the Farmers Highline Canal diversion in Golden, Colorado.	UP	Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ch)=17	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ch)=300	Temporary modification: Zn(ch)=~~339~~325 µg/l (dis), ~~Mn(ch)=861 µg/l (dis),~~ type iii Expiration date of 7/01/~~09~~ 2014.
13a. Mainstem of North Clear Creek and Four Mile Gulch including all tributaries, lakes, reservoirs and wetlands from their sources to the lowest water supply intake located in each stream and Chase Gulch including all tributaries, lakes, reservoirs and wetlands from its source to the confluence with North Clear Creek.	9/30/00 Baseline does not apply	Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O. = 6.0 mg/l D.O.(sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS	Cu(ac/ch)=TVS Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	
13b. Mainstem of North Clear Creek including all tributaries, lakes, reservoirs and wetlands from the source to the confluence with Clear Creek, except for the specific listings in segment 13a.	UP	Aq Life Cold 2 Recreation 1a Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05	As(ac)=100(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS	Cu(ch)=64 Fe(ch)=5400(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ch)=740	Temporary modifications: Cd(ch)=~~6.04~~7 µg/l (dis), Mn(ch)=~~5,293~~3841 µg/l (dis), Zn(ch)=~~1,864~~1582 µg/l (dis), Fe(trec)=7941 type iii Expiration date of 7/01/~~09~~2014.
BASIN: **BIG DRY CREEK**									
5. Mainstems of North and South Walnut Creek, including all tributaries, lakes, reservoirs and wetlands, from their sources to the outlets of ponds A-4 and B-5, on Walnut Creek, and Pond C-2 on Woman Creek. All three ponds are located on Rocky Flats property.	UP	Aq Life Warm 2 Recreation 2 Water Supply Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=2000/100ml E.Coli=630/100ml	Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.5 NO_3=10	As(ac)=50(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS Be(ch)=4	See attached Tables 2 and 3 for additional standards and temporary modifications for seg 5. Goal qualifier for all use classifications, expires 12/31/09.
BASIN: **BOULDER CREEK**									
9. Mainstem of Boulder Creek from a point immediately above the confluence with South Boulder Creek to the confluence with Coal Creek.		Aq Life Warm 1 Recreation 1a Water Supply Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.5 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac/ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS Fe(ch)=WS(dis)	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modifications: type (iii) Cu (ac/ch)=Current Condition. Expiration date of 12/31/2009. NH_3(ac/ch)=TVS(old) (Type i). Expiration date of 12/31/2011

STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS

REGION: 3	Desig	Classification	NUMERIC STANDARDS						TEMPORARY MODIFICATIONS AND QUALIFIERS
Stream Segment Description			PHYSICAL and BIOLOGICAL	INORGANIC mg/l		METALS µg/l			
BASIN: **ST. VRAIN CREEK**									
6. All tributaries to St. Vrain Creek, including lakes, reservoirs and 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 and 5.	UP	Aq Life Warm 2 Recreation 1a Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.5	As(ch)=100 Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Temporary modifications: Se(ch)=6.6µg/l (dis). type iii Expiration date of 2/28/10. NH_3(ac/ch)=TVS(old) (Type i). Expiration date of 12/31/2011
BASIN: **BIG THOMPSON RIVER**									
2. Mainstem of the Big Thompson River, including all tributaries, lakes, reservoirs, 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.		Aq Life Cold 1 Recreation 1a Water Supply Agriculture	D.O. = 6.0 mg/l D.O. (sp)=7.0 mg/l pH = 6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.05 NO_3=10 Cl=250 SO_4=WS	As(ac)=50(Trec) Cd(ac)=TVS(tr) Cd(ch)=TVS CrIII(ac)=50(Trec) CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=WS(dis) Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Mn(ch)=WS(dis) Hg(ch)=0.01(Tot)	Ni(ac/ch)=TVS Se(ac/ch)=TVS Ag(ac)=TVS Ag(ch)=TVS(tr) Zn(ac/ch)=TVS	Temporary modifications: D.O., *E. coli*, NH_3, NO_3, B, Cd, Cu, Pb, Hg, Ni, Se, Ag, Zn = existing quality. Wapiti Meadow wetlands at the toe of Lake Estes Dam type iii Expiration date of 12/31/2009
4b. Mainstem of the Big Thompson from the Greeley-Loveland Canal diversion to County Road 11H.	UP	Aq Life Warm 2 Agriculture 5/1 – 10/15 Recreation 1a 10/16 – 4/30 Recreation 2	D.O. = 5.0 mg/l pH = 6.5-9.0 5/1 – 10/15 F.Coli=200/100ml E.Coli=126/100ml 10/16 – 4/30 F.Coli=2000/100ml E.Coli=630/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=0.5	As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Tot) Ni(ac/ch)=TVS	Se(ac/ch)-TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Fish Ingestion Organics Temporary modification: Se(ch)=5.5µg/l (dis). type iii Expiration date of 2/28/10
BASIN: **CACHE LA POUDRE RIVER**									
11. Mainstem of the Cache La Poudre River from Shields Street in Ft. Collins to a point immediately above the confluence with Boxelder Creek.	UP	Aq Life Warm 2 Recreation 1a Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=2.7	As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Tot) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Nitrite as a 30 day average. Fish Ingestion Organics Temporary Modifications: type (iii) Cu (ac/ch)=Current Condition. Expiration date of 12/31/2009. NH_3(ac/ch)=TVS(old) (Type i). Expiration date of 12/31/2011.
12. Mainstem of the Cache La Poudre River from a point immediately above the confluence with Boxelder Creek to the confluence with the South Platte River.	UP	Aq Life Warm 2 Recreation 1a Agriculture	D.O.=5.0 mg/l pH=6.5-9.0 F.Coli=200/100ml E.Coli=126/100ml	NH_3(ac/ch)=TVS Cl_2(ac)=0.019 Cl_2(ch)=0.011 CN=0.005	S=0.002 B=0.75 NO_2=2.7	As(ch)=100(Trec) Cd(ac/ch)=TVS CrIII(ac/ch)=TVS CrVI(ac/ch)=TVS Cu(ac/ch)=TVS	Fe(ch)=1000(Trec) Pb(ac/ch)=TVS Mn(ac/ch)=TVS Hg(ch)=0.01(Tot) Ni(ac/ch)=TVS	Se(ac/ch)=TVS Ag(ac/ch)=TVS Zn(ac/ch)=TVS	Nitrite as a 30 day average. Fish Ingestion Organics Temporary modifications: type (iii) Cu (ac/ch)=Current Condition. Expiration date of 12/31/2009. NH_3(ac/ch)=TVS(old) (Type i). Expiration date of 12/31/2011.

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	~~7~~	~~11~~
Gross Beta	9	12	~~8~~	~~19~~
Plutonium	.03	.03	0.15** ***	0.15** ***
Americium	.03	.03	0.15** ***	0.15** ***
Tritium	500	500	500	500
Uranium	3	4	~~11~~16.8 µg/l	~~10~~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).

38.69 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: NOVEMBER 10, 2008 RULEMAKING FOR UPPER SOUTH PLATTE SEGMENT 6b; EFFECTIVE MARCH 30, 2009

The provisions of C.R S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

BASIS AND PURPOSE

The Commission revised the site-specific phosphorus standard and changed the chlorophyll goal to a standard for Chatfield Reservoir (Upper South Platte segment 6b) and revised the Chatfield Reservoir Control Regulation (Regulation No 73) to be consistent with these revised standards.

Current Review: The Commission directed the Division to undertake a technical review of the scientific basis for the Chatfield Reservoir phosphorus standard for the following reasons:

A. The phosphorus standard has been exceeded several times in the last decade, while the associated chlorophyll goal has not. The incongruity suggests that the original basis for linking chlorophyll and phosphorus concentrations in the lake should be revisited.

B. The protocol for computing the average phosphorus concentration, which determines attainment of the phosphorus standard, needs to be clarified. The evolution of sampling protocols for Chatfield Reservoir may have inadvertently created a bias in the average phosphorus concentration, with the potential to make it inconsistent with the original intent of the standard.

C. A review commissioned by the Basin Authority in 2005 identified concerns about the TMAL and the underlying assumptions. Based in part on this review, the Commission directed the Division and the Authority “to examine the TMAL and its underlying assumptions.”

The technical review showed:

A. Current Condition: Chatfield Reservoir presently has good water quality and uses are being attained. The Commission believes that good conditions have been maintained by having implemented effective phosphorus control strategies through adoption of Control Regulation No. 73. The data record amassed through more than 20 years of water quality monitoring shows that trophic condition has remained stable, and it provides a comprehensive basis for assessing the variability in those characteristics (chlorophyll and phosphorus) of trophic condition that are recommended as standards.

B. Characterizing Chlorophyll: Typical summer average chlorophyll is about 6 µg/l, and there has been no trend for increasing concentration over the 26-year period of study. Concentrations vary from year to year, but have exceeded 10 µg/l only 5 times in 24 years, and only twice since 1990.

C. Role of Phosphorus: The Commission believes that eutrophication of Chatfield Reservoir has been averted through the control of phosphorus loads from the watershed. Adoption of the control regulation made this possible by imposing concentration limits on point source discharges and by facilitating implementation of nonpoint source management. There has been no trend for increasing phosphorus in Plum Creek, where most of the development has occurred. Domestic dischargers are to be commended for their role in making this effort a success.

D. Characterizing Phosphorus: Typical summertime concentrations of phosphorus have been about 0.020 mg/L, and there has been no trend for increasing phosphorus in the lake. Summer median concentrations have exceeded 0.030 mg/L in only 3 of 24 years. It is appropriate to maintain

phosphorus as a standard, rather than a goal, because of its importance in characterizing trophic condition, and because it is the direct link to the control regulation.

E. Old Relationship Between Chlorophyll and Phosphorus: The existing phosphorus standard is not consistent with the existing chlorophyll goal. Phosphorus concentrations at or below the level of the standard have yielded chlorophyll much lower than the goal. The mismatch is the result of relying entirely on one year of data and assuming that all variation in chlorophyll is explained completely by the phosphorus concentration in the reservoir.

F. Defining a New Chlorophyll-Phosphorus Linkage: The conventional regression approach used in the Clean Lakes Study to link chlorophyll and phosphorus in the context of trophic condition has shown its weaknesses. The Division believes a better linkage is based on the simple ratio of chlorophyll to phosphorus, which records the net responsiveness of the resident algal community to the amount of phosphorus present in the lake. It is a "net" value because it reflects the balance of growth (nutrients, light, temperature) and loss (grazing, washout, settling) processes. The measured ratios offer an empirical basis for defining expectations for chlorophyll given the available phosphorus.

G. Allowable Frequency of Exceedance: The original nutrient criteria (phosphorus standard and chlorophyll goal) did not specify the frequency with which exceedances would be allowed. There is no general precedent for nutrient criteria, which are assessed once a year on the basis of a seasonal average, but the Division believes that one exceedance is allowable in five years.

H. Sampling Requirements: A more complete definition of sampling protocols is needed to clarify the basis for assessing attainment of these site-specific standards in the future.

Revised Water Quality Standards for Chatfield Reservoir: With the benefit of the lengthy historical record now available, the Commission believes it is appropriate to set chlorophyll and phosphorus standards consistent with the trophic condition that has been maintained. The Commission adopted a chlorophyll standard of 10 µg/l and a phosphorus standard of 0.030 mg/L to preserve the intended trophic condition and protect uses. Each standard is to be attained in four of five years.

Because the phosphorus and chlorophyll standards are defined as seasonal averages, some additional guidance is required concerning timing and location of samples to be used in calculating the average. Samples are to be collected at a site near the dam and should be representative of conditions in the mixed layer. Past monitoring has resulted in 6 samples during the summer months (July, August, and September); it is anticipated that the same level of effort will be applied in the future. For assessment, the average (arithmetic mean) is calculated for the summer samples in each year.

Development of Assessment Thresholds: For Chatfield Reservoir, a distinction is made between the standard and an assessment threshold. The assessment threshold is designed to address the concern about the risk of incorrectly counting an exceedance when a high summer value is the result of natural variability, but does not indicate a substantive change in trophic condition. The approach is justified by the special nature of the pollutants (chlorophyll and phosphorus are not toxic) and the site-specific nature of the concern about false exceedances. Another reason for establishing an assessment threshold that is different than the standard is that the site-specific standard is derived from historical data, which creates the expectation that a number of exceedances will occur. Natural variability, especially for chlorophyll, is sufficient to produce much more uncertainty in the assessed value than in the standard, which was derived from the set of all summer averages. The Commission is establishing assessment thresholds for Chatfield Reservoir nutrient standards based on this unique combination of circumstances and does not intend this action to be a precedent for other standards and/or other segments. "Assessment thresholds" were developed by calculating the standard error of each summer average. A regression of the upper confidence limit on the average provides an equation that can be used to specify the upper confidence limit (90%) for any particular concentration (e.g., the standard). Assessment thresholds were added in section 38.6,(4) with a reference in the standards table "qualifier" column." The resulting assessment

thresholds were chlorophyll = 11.2 µg/l, summer average, 1 in 5 year allowable exceedance frequency and phosphorus = 0.035 mg/l, summer average, 1 in 5 year allowable exceedance frequency.

At the same time that this change was adopted in Regulation No. 38, the Commission adopted changes in the Control Regulation for Chatfield Reservoir (Regulation No. 73) that are consistent with the revised standard.

PARTIES TO THE RULEMAKING

1. Chatfield Watershed Association
2. Plum Creek Wastewater Authority
3. Colorado Division of Wildlife
4. Roxborough Water and Sanitation District
5. Dominion Water and Sanitation District
6. U. S. EPA
7. Denver Regional Council of Governments

38.70 STATEMENT OF BASIS SPECIFIC STATUTORY AUTHORITY AND PURPOSE: DECEMBER 2008 RULEMAKING REGARDING TEMPORARY MODIFICATIONS; EFFECTIVE MARCH 30, 2009

The provisions of C.R S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

BASIS AND PURPOSE

Pursuant to the requirements in the Basic Standards (at section 31.7(3)), the Commission reviewed the status of temporary modifications to determine whether the temporary modification should be modified, eliminated or extended.

Segments with no change to expiration dates:

Temporary modifications provide time for sand and gravel dischargers to work with the Division to determine the most appropriate way to make progress toward resolving non-attainment of underlying selenium standards. The Commission took no action on the expiration date for the following segments. The temporary modifications will expire on 2/28/10.

St Vrain segment 6: temporary modification for selenium
Big Thompson segment 4b: temporary modification for selenium.

Because parties are working to resolve uncertainty and are on schedule to address these segments at the regularly scheduled basin-wide rulemaking (June 2009), the Commission took no action on the expiration date for the temporary modifications for the following segments:

Upper So. Platte segment 5c: (temporary modifications for ammonia). The Mountain Water and Sanitation District presented evidence that they are making progress on their study of aquatic life classification and appropriate underlying standards and will make a proposal for the June 2009 rulemaking hearing.

Big Dry Creek segment 5: (temporary modifications for nitrate, nitrite, benzene, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethene, tetrachloroethylene, and trichloroethylene). The Department of Energy submitted evidence that progress is continuing and that the temporary modifications will be addressed in the June 2009 rulemaking hearing.

Boulder Creek, segment 9, Cache La Poudre segments 11 and 12: (temporary modification for copper). The City of Boulder (Boulder Creek) and the City of Fort Collins (Cache La Poudre) submitted evidence that they are making progress on their translator studies.

Big Thompson, segment 2, Wapiti Meadow: (temporary modification for dissolved oxygen, E coli, ammonia, nitrate, boron cadmium, copper, lead, mercury, nickel, selenium, silver and zinc). The Upper Thompson Sanitation District submitted evidence that they are making progress on developing site-specific standards for the wetland and will make a proposal for the June 2009 rulemaking hearing.

Upper Clear Creek basin: The Commission considered proposals regarding temporary modifications and underlying standards for Clear Creek segments 2, 3a, 3b, 6, 9a, 9b, 11 and 13b.

Manganese acute and chronic aquatic life standards were added to segments 2 and 9b.

The Commission declined to modify other underlying standards at this time and noted that it would be willing to revisit underlying standards in the June 2009 basin-wide hearing, including any proposals from the Upper Clear Creek Watershed Association.

Since there are no permitted dischargers, the Commission deleted the temporary modification, thereby allowing the underlying standards to go into effect for the following segments:

Clear Creek segments 3a, 3b, 6 and 9b.

The numeric temporary modifications for segments 2, 9b, 11 and 13b were revised to reflect current conditions. A new temporary modification of the iron standard was added for segment 13b. A ten year period of record was used in these cases because of the wider range of hydrologic conditions that is captured by this period. These type iii temporary modifications were set to expire on 12/31/2014 as follows:

Clear Creek segment 2: Cu= 7.4 µg/l, Zn= 254 µg/l
Clear Creek segment 9a: Cu= 9.6 µg/l
Clear Creek segment 11: Zn= 325 µg/l
Clear Creek segment 13b: Cd= 4.7 µg/l, Mn= 3841 µg/l, Zn= 1582 µg/l, Fe(trec)= 7941 µg/l.

Since considerable water quality improvement in this basin has been made since 2000, the Commission adopted an alternative baseline to be used for antidegradation review for the reviewable segments (segments 1, 2, 4, 3a, 3b, 6, 9a, 9b, 10 and 13a). A notation was added to the designation column of reviewable segments “9/30/00 baseline does not apply”. Pursuant to section 31.8(3)(c)(ii)(B) of the Basic Standards, the baseline will be determined at the time of the first new or increased water quality impact. This will ensure that the improved water quality will be used as the baseline.

Sand Creek, Upper So. Platte segment 16a: Suncor Energy, (U.S.A.), Inc. (Suncor) requested the Commission to extend the type iii temporary modification pursuant to section 31.7(3)(a) of the Basic Standards for selenium of segment 16a of the South Platte River (Sand Creek) to 12/31/2014. More time is needed to determine what criteria are necessary to protect the use in Segment 16a and how additional treatment will be provided.

The Commission extended the selenium temporary modifications and updated the underlying narrative standard with the notation of "current condition" rather than a numeric value. The Commission's intent of using the notation "current condition" is to preserve the status quo during the term of the temporary modification. Dischargers to this segment shall maintain the existing selenium water quality and loading

characteristics of their effluent, as reflected in current permits. The Commission does not intend the temporary modifications to apply to new facilities or in Preliminary Effluent Limitations.

Toll Gate, East and West Toll Gate Creeks, Upper So Platte segment 16h: The City of Aurora presented evidence that the natural or irreversible human-induced ambient water quality levels for selenium in Toll Gate Creek, East Toll Gate Creek, and West Toll Gate Creek at times exceed the relevant table value standard, and that an ambient quality-based standard, calculated in a manner consistent with Basic Standards requirements, is adequate to protect classified uses. The Commission accepts the City of Aurora's evidence as accurate. The Commission expressly finds that the natural or irreversible human-induced ambient water quality levels for selenium in Toll Gate Creek, East Toll Gate Creek, and West Toll Gate Creek exceed the relevant table value standard. Moreover, the proposed ambient quality based standard is adequate to protect classified uses and represents the highest reasonably attainable standard, based on analysis of available data that show elevated instream conditions are attributable to natural or irreversible human-induced conditions.

The Commission created a new segment, segment 16h, and adopted ambient quality-based site-specific standards for selenium applicable to Toll Gate Creek, East Toll Gate Creek, and West Toll Gate Creek in Segment 16h. The ambient quality-based standards are based on the 85th percentile (chronic) and the 95th percentile (acute) of the selenium data collected at three specific instream monitoring locations (TG6, ET1 and WT1). The instream attainment locations have been added to section 38.6(4). Percentiles are:

> Toll Gate Creek (TG6): 85th percentile = 26.5 µg/l chronic (dis), 95th percentile = 29.5 µg/l acute (dis).
>
> East Toll Gate Creek (ET1): 85th percentile = 14.3 µg/l chronic (dis), 95th percentile = 15.9 µg/l acute (dis).
>
> West Toll Gate Creek (WT1): 85th percentile = 50.6 µg/l chronic (dis), 95th percentile = 119.2 µg/l acute (dis).

The Commission removed the temporary modification currently in place for selenium in Toll Gate Creek, East Toll Gate Creek, and West Toll Gate Creek in Segment 16c, and added "16h" to the list of exceptions in the 16c segment description.

PARTIES TO THE RULEMAKING

1. Upper Clear Creek Watershed Association
2. City of Aurora
3. Suncor Energy (USA)
4. Tri-Lakes Wastewater Treatment Facility; Upper Monument Creek Regional Wastewater Treatment Facility; Security Sanitation District; and Fountain Sanitation District
5. Hazardous Materials and Waste Management Division and the U.S. Environmental Protection Agency's Superfund Remediation Programs
6. Colorado Division of Wildlife
7. City of Boulder
8. U.S. Department of Energy, Office of Legacy Management
9. City of Black Hawk and Black Hawk/Central City Sanitation District
10. City of La Junta
11. City of Fort Collins
12. Colorado Trout Unlimited
13. U.S. EPA
14. City of Colorado Springs and Colorado Springs Utilities

38.71 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: JANUARY 12, 2009 RULEMAKING; EFFECTIVE MARCH 30, 2009

The provisions of C.R.S. 25-8-202(1)(b) and (2); 25-8-204; and 25-8-402 provide the specific statutory authority for adoption of these regulatory amendments. The Commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

BASIS AND PURPOSE

The Commission considered revisions to Table 2 standards for uranium, gross alpha and gross beta for segments 4a, 4b, and 5 of Big Dry Creek.

The previous uranium standards (10 pCi/L for Walnut Creek and 11 pCi/L for Woman Creek) were set in 1996 based on the then current ambient conditions. Recently, post-closure surface water runoff has decreased and the relative contribution of uranium from groundwater has increased. However, the effects of this hydrologic change have not been quantified. In addition, increased treatment of the Solar Pond Plume area will result in a decrease in uranium from that source. Since there is continued uncertainty about the eventual equilibrium surface water uranium concentrations, the Commission decided that human health-based criteria were more appropriate than table value standards, new ambient-based standards or maintaining the current standards. The question of determining the "lowest practical level" will be left to the future when DOE completes a feasibility study of enhanced treatment of the Solar Pond Plume.

The Commission adopted a total uranium standard of 16.8 µg/L to protect human health since the goal for the Rocky Flats site has been to protect all uses. This concentration-based criterion was derived using a reference dose of 0.0006 mg/kg/day and a relative source contribution of 0.8 (see Policy 96-2, Equation 1-1). Based upon a conversion factor of 0.67 pCi/µg uranium, 16.8 µg/L equates to 11.3 pCi/L.

The gross alpha and gross beta standards were deleted. Gross alpha was removed because the site-specific standards for specific alpha-emitting radionuclides are adequate to protect water quality and designated uses. Gross beta was removed because beta emitters are not present at the site at levels above background.

PARTIES TO THE RULEMAKING

1. U.S. Department of Energy, Office of Legacy Management
2. City of Northglenn
3. City of Westminster
4. City and County of Broomfield
5. City of Thornton
6. U.S. EPA