

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

**5 CCR 1002-93**

**REGULATION #93**

**COLORADO'S SECTION 303(D) LIST OF IMPAIRED WATERS AND MONITORING  
AND EVALUATION LIST**

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# DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

## WATER QUALITY CONTROL COMMISSION

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#### COLORADO'S SECTION 303(D) LIST OF IMPAIRED WATERS AND MONITORING AND EVALUATION LIST

##### 93.1 Authority

These regulations are promulgated pursuant to section 25-8-101 et seq C.R.S. as amended, and in particular, 25-8-202 (1) (a), (b), (i), (2) and (6); 25-8-203 and 25-8-204.

##### 93.2 Purpose

This regulation establishes Colorado's List of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads ("TMDLs") and Colorado's Monitoring and Evaluation List.

- (1) The list of Water-Quality-Limited Segments Requiring TMDLs fulfills requirements of section 303(d) of the federal Clean Water Act which requires that states submit to the U.S. Environmental Protection Agency a list of those waters for which technology-based effluent limitations and other required controls are not stringent enough to implement water quality standards.
- (2) Colorado's Monitoring and Evaluation List identifies water bodies where there is reason to suspect water quality problems, but there is also uncertainty regarding one or more factors, such as the representative nature of the data. Water bodies that are impaired, but it is unclear whether the cause of impairment is attributable to pollutants as opposed to pollution, are also placed on the Monitoring and Evaluation List. This Monitoring and Evaluation list is a state-only document that is not subject to EPA approval.

##### 93.3 Water Bodies Requiring TMDLs or Identified for Monitoring and Evaluation

Only those segments where a Clean Water Section 303(d) Impairment has been determined require TMDLs. For these segments, TMDLs are only required for those parameters that are identified as impairments. Listings marked with an asterisk (\*) are carryover from the 1998 303(d) List. Consequently they are all high priority.

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COAR	Arkansas River Basin				

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COARFO01a	Fountain Creek and tributaries above Monument Creek	all		<i>E. coli</i>	H
COARFO02a	Fountain Creek, Monument Creek to Hwy 47	all	Fe(Trec)	<i>E. coli</i>	H
COARFO02b	Fountain Creek from Hwy 47 to the Arkansas River	all		<i>E. coli</i> (May-October)	H
COARFO04	All tribs to Fountain Creek, which are not on National Forest or Air Force Academy Land	all		<i>E. coli</i>	H
COARFO04	All tribs to Fountain Creek, which are not on National Forest or Air Force Academy Land	Sand Creek	Aquatic Life		
COARFO06	Monument Creek from National Forest to Fountain Creek	All (for <i>E. coli</i> )		<i>E. coli</i> (May-October)	H
COARFO07a	Pikeview Reservoir, Willow Springs Ponds #1 and #2	Willow Springs Ponds #1 & #2		Aquatic Life Use (PCE FCA)	M
COARLA01a	Arkansas River, Fountain Creek to Colorado Canal headgate	all		Se, SO <sub>4</sub>	L
COARLA01b	Arkansas River, Colorado Canal headgate to John Martin Reservoir	all		Se	L
COARLA01c	Arkansas River, John Martin Reservoir to stateline	all		Se, U	L
COARLA04	Apishapa River, Timpas Creek, Lorencito Canyon	Apishapa River, Timpas Creek		Se	L
COARLA04	Apishapa River, Timpas Creek, Lorencito Canyon	Timpas Creek		Fe(Trec)	H

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COARLA05b	Trinidad Reservoir, Long Canyon Reservoir, and Lake Dorothey	Trinidad Reservoir		Aquatic Life Use (Hg Fish Tissue), D.O. (Temperature)	H
COARLA07	Purgatoire River, I-25 to Arkansas River	all	Sediment	Se	L
COARLA09a	Mainstem of Adobe Creek and Gageby Creek...	all		Se	L
COARLA09a	Mainstem of Adobe Creek and Gageby Creek...	Horse Creek		Fe(Trec)	H
COARLA09a	Mainstem of Adobe Creek and Gageby Creek...	Adobe Creek		<i>E. coli</i>	H
COARLA09b	Apache Creek, Breckenridge Creek, Little Horse Creek, Bob Creek, Wildhorse Creek, Wolf Creek, Big Sandy Creek	all		Se	L
COARLA09c	Rule Creek, Muddy Creek, Caddoa Creek, Clay Creek, Cat Creek...	As specified to right	Zn (Rule Creek)	Fe(Trec), Se (Chicosa Creek)	L
COARLA10	Two Buttes Res., Two Buttes Pond, Hasty Lake, Holbrook Res., Burchfield Lake, Nee-Skah (Queens) Res., Adobe Creek Res., Neeso Pah Res., Nee Nosha Res., Nee Gronda Res.	Adobe Creek Res., Nee Gronda Res		Se	L
COARLA11	John Martin Reservoir	all		Se	L
COARLA12	Lake Henry, Lake Meredith	all		Se	L
COARMA04a	Wildhorse Creek	all	NO <sub>2</sub>	<i>E. coli</i> , Se	H/L

<b>WBID</b>	<b>Segment Description</b>	<b>Portion</b>	<b>Colorado's Monitoring &amp; Evaluation Parameter(s)</b>	<b>Clean Water Act Section 303(d) Impairment</b>	<b>303(d) Priority</b>
COARMA06	St. Charles River and tributaries, CF&I diversion to Arkansas River	all	U	Se	L
COARMA07	Greenhorn Creek, including all tributaries, from source to Greenhorn Highline Diversion Dam; Graneros Creek; North Muddy Creek	all	Cu, Zn		
COARMA09	Greenhorn Creek, including tributaries, from Greenhorn Highline Diversion Dam to the St. Charles River	all	Se		
COARMA10	Sixmile Creek	all		Fe(Trec), Se	L
COARMA12	Huerfano River, from Muddy Creek to the Arkansas River	all		Se	L
COARMA14	Cucharas River, from Walsenburg PWS diversion to the outlet of Cucharas Reservoir	all		Se	L
COARMA16	Huajatolla Reservoir, Diagre Reservoir, Walsenburg Lower Town Lake, Horseshoe Lake and Martin Lake (Ohem Lake)	Horseshoe Lake		Aquatic Life Use (Hg Fish Tissue)	H
COARMA18a	Boggs Creek	all		Se, Zn, U	H
COARUA05	All tributaries to the Arkansas River from the source to immediately below the confluence with Browns Creek	Lake Fork below Sugarloaf Dam to the confluence with the Arkansas River	Aquatic Life		
COARUA08b	Iowa Gulch from ASARCO water supply intake to Paddock #1 Ditch (Iowa Ditch)	all		Cd, Pb, Zn	M

<b>WBID</b>	<b>Segment Description</b>	<b>Portion</b>	<b>Colorado's Monitoring &amp; Evaluation Parameter(s)</b>	<b>Clean Water Act Section 303(d) Impairment</b>	<b>303(d) Priority</b>
COARUA10	Mainstem of Lake Creek and all tributaries, lakes and reservoirs from source to Arkansas River (including Twin Lakes Reservoir)	all, excluding Twin Lakes Reservoir		pH, D.O.	H
COARUA10	Mainstem of Lake Creek and all tributaries, lakes and reservoirs from source to Arkansas River (including Twin Lakes Reservoir)	Twin Lake West		Cu	H
COARUA14b	Tributaries to the Arkansas River, from Pueblo Reservoir to Colorado Canal headgate	Teller Reservoir	Aquatic Life Use (Hg Fish Tissue)		
COARUA15	Grape Creek including De Weese Res., Texas, Badger, Hayden, Hamilton, Stout and Big Cottonwood Creeks, Newland Creek	De Weese Reservoir		D.O.	H
COARUA20	Fourmile Creek and tributaries, Cripple Creek to Arkansas River	North Fork Wilson Creek below Independence Mine		As	
COARUA21a	Mainstem of Cripple Creek from the source to a point 1.5 miles upstream of the confluence with Fourmile Creek.	all		Aquatic Life (provisional)	L
COARUA27	Mainstem of Eightmile Creek, including all tributaries, wetlands, lake and reservoirs, from the source to the mouth of Phantom Canyon; Brush Hollow Reservoir	Brush Hollow Reservoir		Aquatic Life Use (Hg Fish Tissue), D.O.	H
<b>COGU</b>	<b>Gunnison River Basin</b>				

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COGULG02	Gunnison River, Uncompahgre River to Colorado River	all	Sediment	<i>E. coli</i>	H
COGULG03	All tributaries to the Gunnison River which are on national forest lands from the outlet of Crystal Reservoir to the confluence with the Colorado River,	Eggleston Reservoir	pH, Zn,	Fe(Trec)	H
COGULG04a	Tributaries to Gunnison River, Crystal Reservoir to Colorado River	Callow Creek	SO <sub>4</sub> , <i>E. coli</i>		
COGULG04a	Tributaries to Gunnison River, Crystal Reservoir to Colorado River	Cummings Gulch	SO <sub>4</sub>		
COGULG04a	Tributaries to Gunnison River, Crystal Reservoir to Colorado River	Whitewater Creek from below Brandon Ditch to confluence with Gunnison River		SO <sub>4</sub> , Mn (WS)	L
COGULG04a	Tributaries to Gunnison River, Crystal Reservoir to Colorado River	Wells Gulch	pH		
COGULG04a	Tributaries to Gunnison River, Crystal Reservoir to Colorado River	Peach Valley Creek	Fe(Trec), SO <sub>4</sub>		
COGULG04b	All lakes and reservoirs tributary to the Gunnison River and not on national forest lands from the outlet of Crystal Reservoir to the Colorado River	Kannah Creek	SO <sub>4</sub>		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COGULG04b	All lakes and reservoirs tributary to the Gunnison River and not on national forest lands from the outlet of Crystal Reservoir to the Colorado River	Jatz Bottomlands	Se		
COGULG07	Surface, Ward, Tongue, Youngs, and Kiser Creeks not on USFS land	Tongue Creek		Se, Fe(Trec)	M
COGULG07	Surface, Ward, Tongue, Youngs, and Kiser Creeks not on USFS land	Ward Creek	Se		
COGULG07	Surface, Ward, Tongue, Youngs, and Kiser Creeks not on USFS land	Surface Creek	Pb		
COGULG09	Fruitgrowers Reservoir	all		D.O.	H
COGULG11a	Tributaries to the Smith Fork	Lunch Creek	sediment		
COGULG12	All tributaries to the Smith Fork which are not on national forest lands	Muddy Creek	<i>E. coli</i>		
COGULG13	Crawford Reservoir	all		D.O. (Temperature)	H
COGUNF04	All tributaries to the North Fork of the Gunnison River Muddy Creek to Coal Creek; all tributaries to the North Fork of the Gunnison including the Grand Mesa Lakes which are on national forest lands	East Muddy Creek	Pb, Se	Fe(Trec)	H

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COGUNF04	All tributaries to the North Fork of the Gunnison River Muddy Creek to Coal Creek; all tributaries to the North Fork of the Gunnison including the Grand Mesa Lakes which are on national forest lands	Muddy Creek	<i>E. coli</i> (May-Oct)		
COGUNF04	All tributaries to the North Fork of the Gunnison River Muddy Creek to Coal Creek; all tributaries to the North Fork of the Gunnison including the Grand Mesa Lakes which are on national forest lands	Island Reservoir	pH, Zn		
COGUNF06a	Tributaries to N. Fork of Gunnison River not on USFS property	Unnamed tributary to North Fork Gunnison River near Hotchkiss	Se		
COGUNF06a	Tributaries to the North Fork of the Gunnison not on USFS lands	Coal Gulch, Hawksnest Creek, Gribble Gulch	Fe(Trec)		
COGUNF06b	Bear Creek, Reynolds Creek, Bell Creek, McDonald Creek, Cottonwood Creek, Love Gulch, Cow Creek, Dever Creek, German Creek, Miller Creek, Stevens Gulch, Big Gulch, Stingley Gulch and Alum Gulch not on national forest lands from the source to the North Fork of the Gunnison River	Cottonwood Creek	Fe(Trec), Mn(WS), SO <sub>4</sub>		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COGUNF06b	Bear Creek, Reynolds Creek, Bell Creek, McDonald Creek, Cottonwood Creek, Love Gulch, Cow Creek, Dever Creek, German Creek, Miller Creek, Stevens Gulch, Big Gulch, Stingley Gulch and Alum Gulch not on national forest lands from the source to the North Fork of the Gunnison River	Alum Gulch	Fe(Trec)	SO <sub>4</sub>	M
COGUNF07	Paonia Reservoir	all	Zn		
COGUSM02	Tributaries to the San Miguel River from the source to Leopard Creek	Bear Creek	Pb	Cd, Zn(sc)	H
COGUSM02	Tributaries to the San Miguel River from the source to Leopard Creek	Cornet Creek	Pb		
COGUSM02	Tributaries to the San Miguel River from the source to Leopard Creek	Howard Fork above Swamp Canyon		pH, D.O.	H
COGUSM03b	Mainstem of the San Miguel River Marshall Creek to South Fork San Miguel River.	all	Pb		
COGUSM04a	Mainstem of the San Miguel River from the South Fork of the San Miguel to below the CC ditch.	From South Fork San Miguel to confluence with Leopard Creek	Pb		
COGUSM06a	Ingram Creek, source to San Miguel River	all	Mn, Cu		
COGUSM06b	Marshall Creek, source to San Miguel River	all	Cu		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COGUSM07a	Mainstem of Howard Fork and tributaries Swamp Gulch the South Fork of the San Miguel.	Chapman Creek	Fe(Trec)		
COGUSM07a	Mainstem of Howard Fork and tributaries Swamp Gulch the South Fork of the San Miguel.	Iron Bog Creek	pH, D.O.		
COGUSM08	Mainstem of South Fork of San Miguel River from the Howard and Lake Forks to the San Miguel River.	all	Mn(WS)		
COGUSM10	Mainstem of Naturita Creek from the Uncompahgre National Forest boundary to its confluence with the San Miguel River, and Gurley Reservoir; Tabeguache Creek from its source to the confluence with San Miguel River.	Naturita Creek	D.O., <i>E. coli</i>		
COGUSM11	West Fork of Naturita Creek, Miramonte Reservoir, the mainstem of Beaver, Horsefly and Saltado Creeks from the Uncompahgre National Forest boundary to their confluence with the San Miguel River.	Miramonte Reservoir		D.O. (Temperature)	H
COGUSM12	All tributaries to the San Miguel River from the confluence of Leopard Creek to the Dolores	Mesa Creek	Se		
COGUSM12	All tributaries to the San Miguel River from the confluence of Leopard Creek to the Dolores	Calamity Draw, Specie Creek	D.O.		

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COGUSM12	All tributaries to the San Miguel River from the confluence of Leopard Creek to the Dolores	Maverick Draw		Aquatic Life (provisional)	L
COGUUG04	Mainstem of the Taylor River from the source to the confluence with the Gunnison River	Taylor River	Pb		
COGUUG06b	Cement Creek and all its tributaries and all lakes, reservoirs, and wetlands in the East River Drainage tributary to Segment 6a.	Cement Creek		Aquatic Life (provisional)	L
COGUUG07	Slate River from source to Coal Creek	Below Oh-Be-Joyful Creek		Zn(sculpin)	H
COGUUG08	Slate River, Coal Creek to East River	all	Aquatic Life	Cd, Zn	H
COGUUG09	All tributaries to the Slate River	Coal Creek		As	H
COGUUG10	Oh-Be-Joyful Creek and tributaries from wilderness to Slate River	all		Cd, Cu, Pb, Zn	H
COGUUG10	Oh-Be-Joyful Creek and tributaries from wilderness to Slate River	Redwell Creek	pH		
COGUUG11	Coal Creek from Elk Creek to Crested Butte water supply intake, plus Elk Creek	Elk Creek		Cd, Pb, Zn, As	H
COGUUG11	Coal Creek from Elk Creek to Crested Butte water supply intake, plus Elk Creek	Coal Creek		Cd, Zn, As, Mn(WS)	H

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COGUUG12	Coal Creek and tributaries from Crested Butte water supply intake to Slate River	Coal Creek		Cd, Zn, Cu	H
COGUUG15	Tributaries to the Gunnison River from the confluence of the East and Taylor Rivers to the inlet of Blue Mesa Reservoir	S. Beaver Creek	Mn (WS), Fe (Dis), Fe(Trec),	Aquatic Life (provisional)	L
COGUUG16	Ohio Creek and tributaries source to Gunnison River	Ohio Creek	<i>E. coli</i>		
COGUUG17	Antelope Creek and tributaries source to Gunnison River	all	Mn (WS), <i>E. coli</i>		
COGUUG23	Mainstem of Cochetopa Creek and tributaries, from the source to a point immediately below the confluence with West Pass Creek	Stewart Creek	Fe(Trec)		
COGUUG23	Mainstem of Cochetopa Creek and tributaries, from the source to a point immediately below the confluence with West Pass Creek	Cochetopa Creek	Fe(Dis)		
COGUUG24	Mainstem of Cochetopa Creek from West Pass Creek to Tomichi Creek	Cochetopa Creek from Forest Road 3076/Co. Rd. 43 to the confluence with Tomichi Creek		Aquatic Life (provisional)	L

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COGUUG26	All tributaries, from the source, to those waters described in segment 25 including all lakes, reservoirs (including Silver Jack Reservoir), and wetlands, which are on Gunnison and Uncompahgre National Forest lands or which flow into or are present within Curecanti National Recreation Area	Blue Creek	Cu		
COGUUG29a	Lake Fork of the Gunnison River and tributaries from source to Blue Mesa Reservoir	Deadman Creek		pH, Cd, Cu, Mn, Zn, Se, Fe (Trec), Fe (Dis)	H
COGUUG29a	Mainstem of the Lake Fork of the Gunnison and tributaries from the source to Blue Mesa Reservoir	Lake Fork of the Gunnison River between Cooper and Silver Creek		Mn (WS), Aquatic Life (provisional)	H
COGUUG31	Palmetto Gulch	all	Cu, Ag		
COGUUG32	North Fork of Henson Creek and tributaries from source to Henson Creek	all		Mn (WS)	L
COGUUN02	Mainstem of the Uncompahgre River from the source at Como Lake to a point immediately above the confluence with Red Mountain Creek.	all	Pb	Mn (WS)	L
COGUUN03b	Ridgway Reservoir	all	Pb, Zn		
COGUUN04a	Uncompahgre River, HWY 90 to La Salle Road	all	sediment		

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COGUUN04b	Uncompahgre River, La Salle Road to Confluence Park	all	sediment		
COGUUN04c	Uncompahgre River, Confluence Park to Gunnison River	all	Sediment, Pb	Fe(Trec)	H
COGUUN06a	Mainstem of Red Mountain Creek from the source to immediately above the confluence with the East Fork of Red Mountain Creek.	all		Ag, Cu	M
COGUUN07	Gray Copper Gulch from source to Red Mountain Creek	all	Fe(Trec), pH	Cu	M
COGUUN08	Mineral Creek, source to Uncompahgre River	all	Cu, Zn		
COGUUN09	Canyon Creek, Imogene Creek, Sneffels Creek	Sneffels Creek		Cd, Zn	H
COGUUN09	Canyon Creek, Imogene Creek, Sneffels Creek	Canyon Creek	Pb		
COGUUN10	All tributaries to the Uncompahgre River from Dexter Creek to the South Canal	Alkali Creek	Se		
COGUUN11	Coal, Dallas, Cow, Billy, Onion, Beaton, Beaver and Pleasant Valley Creeks	Billy Creek, Onion Creek	Se		
COGUUN11	Coal, Dallas, Cow, Billy, Onion, Beaton, Beaver and Pleasant Valley Creeks	Deer Creek		Aquatic Life (provisional)	L

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COGUUN11	Coal, Dallas, Cow, Billy, Onion, Beaton, Beaver and Pleasant Valley Creeks	Cow Creek	SO <sub>4</sub>		
COGUUN12	Tributaries to Uncompahgre River, South Canal to Gunnison River	Dry Creek, Loutzenhizer Arroyo		Fe(Trec)	H
COGUUN14	Sweitzer Lake	all		Se*	H
COGUUN15b	Dry Creek from East and West Forks to Coalbank Canyon Creek	Dry Creek Watershed	sediment		
COGULD02	Dolores River from Little Gypsum Valley bridge to Colorado/Utah border	all	<i>E. coli</i>	Fe(Trec)	H
COGULD03a	All tributaries to the Dolores River from the bridge at Bradfield Ranch to the Colorado/Utah border.	Disappointment Creek	Se, <i>E. coli</i>		
COGULD04	Mainstem of West Paradox Creek from the source to the confluence with the Dolores River. Mainstem and all tributaries to Blue Creek from the source to the confluence with the Dolores River.	West Paradox Creek	<i>E. coli</i> , Fe(Trec)		
COGULD05	Mainstem of West Creek from the source to the confluence with the Dolores River; Roc Creek; La Sal Creek and Mesa Creek from their sources to their confluences with Dolores River.	Roc Creek	<i>E. coli</i>	Cu, Fe(Trec)	H
<b>COLC</b>	<b>Lower Colorado River Basin</b>				

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COLCLC01	Colorado River, Roaring Fork River to Rifle Creek	all	sediment		
COLCLC02a	Colorado River, Rifle Creek to Rapid Creek	all	sediment		
COLCLC02b	Colorado River, Rapid Creek to Gunnison River	Humphrey Backwater area		Se	M
COLCLC02b	Colorado River, Rapid Creek to Gunnison River	all	Sediment		
COLCLC04a	Tributaries to Colorado River, Roaring Fork to Parachute Creek except for specific segments	all		Se	M
COLCLC04a	Tributaries to Colorado River, Roaring Fork to Parachute Creek Exc. specific segments	Alkali Creek	<i>E.coli</i> , Cu, Fe(Trec), Pb, Zn		
COLCLC04b	South Canyon Hot Springs	all	D.O., Pb		
COLCLC04c	South Canyon Creek	all	Cu, Se, <i>E. coli</i> (May-Oct)		
COLCLC10	East Rifle Creek, West Rifle Creek and Rifle Creek, including tributaries from Rifle Gap to the Colorado River	West Rifle Creek	Fe(Trec)		
COLCLC10	East Rifle Creek, West Rifle Creek and Rifle Creek, including tributaries from Rifle Gap to the Colorado River	all	<i>E.coli</i>	Se	L

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COLCLC13b	Tributaries to Colorado River from Government Highline Canal Diversion to Salt Creek	Salt Creek		sediment	L
COLCLC13b	Tributaries to Colorado River from Government Highline Canal Diversion to Salt Creek	all		Se	M
COLCLC13b	Tributaries to Colorado River from Government Highline Canal Diversion to Salt Creek	Adobe Creek, Leach Creek		<i>E.coli</i> , Fe(Trec)	H
COLCLC13b	Tributaries to Colorado River, Government Highline Canal to Salt Creek Exc. specific segments	Indian Wash	Fe(Trec)		
COLCLC13c	Walker Wildlife Area Ponds	all		Se	M
COLCLC14b	Clear Creek from Tom Creek to Roan Creek. Roan Creek, including tributaries from Clear Creek to Kimball Creek	all	<i>E.coli</i> , Fe(Trec)		
COLCLC14c	Mainstem of Roan Creek including all tributaries from Kimball Creek to the Colorado River	Dry Fork		Se	L
COLCLC15	Plateau Creek, including tributaries from source to Hwy 330 Bridge. Kimball Creek, Grove Creek, Big Creek, Cottonwood Creek, Bull Creek, Spring Creek, Coon Creek and Mesa Creek.	all	Fe(Trec), Se		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COLCLC19	Lakes and reservoirs tributary to the Colorado River, Parachute Creek to the Colorado/Utah border.	See specifics to the right.	Se (Maggio Pond, Peters Ponds 1, 2, 3, & 4)	Se (West Pond Orchard Mesa Wildlife Area)	H
COLCLC20	Rifle Gap Reservoir, Harvey Gap Reservoir and Vega Reservoir	Rifle Gap Reservoir		Aquatic Life Use (Hg Fish Tissue)	H
COLCLY02	Yampa River, Elkhead Creek to Green River	all	sediment	Fe(Trec)	H
COLCLY03c	Milk Creek and tributaries from CR 15 to the Yampa	Stinking Gulch	Cu, Fe(Trec), Se, Zn		
COLCLY03e	Good Spring Creek above Wilson Reservoir	Wilson Creek	Se		
COLCLY05	Fortification Creek from North and South Fork to the Yampa River	all		Se	L
COLCLY07	Little Bear Creek, including all tributaries from source to Dry Creek	all	Cu, Zn		
COLCLY16	Little Snake River from Power Wash to the Yampa River	all	sediment		
COLCLY18	Slater Creek, including tributaries from source to Second Creek	all	<i>E. coli</i> , Fe (Trec), Se		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COLCLY22a	Mainstem of Vermillion Creek, including all tributaries and wetlands, from the Colorado/Wyoming border to a point just below the confluence with Talamantes Creek.	Talamantes Creek		Aquatic Life (provisional)	L
COLCLY22c	Vermillion Creek from Hwy 318 to Green River	all	<i>E.coli</i> , Fe(Trec)		
COLCWH07	Mainstem of the White River from a point above the confluence with Miller Creek to a point immediately above the confluence with Piceance Creek	White River, blw Meeker	Cu		
COLCWH09a	Tributaries to the White River from North and South Forks to Piceance Creek not within the boundary of national forest lands except segments 9b and 10b.	Strawberry Creek	Cu, Zn		
COLCWH09d	Sulfur Creek and tributaries from Source to White River. Flag Creek and tributaries from the East Fork of Flag Creek to the White River	all		Se	L
COLCWH10b	Mainstem of Big Beaver Creek, Miller Creek, and North Elk Creek, including tributaries, from their boundaries with the national forest lands to their confluences with the White River. Mainstem of Coal Creek, including all tributaries from the source to the confluence with the White River	Coal Creek	Se		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COLCWH11	Rio Blanco Reservoir	Rio Blanco Reservoir		pH	H
COLCWH13b	Mainstem of Yellow Creek from the source to the confluence with Barcus Creek. All tributaries to Yellow Creek from the source to the White River	Duck Creek	Aquatic Life		
COLCWH13c	Mainstem of Yellow Creek from immediately below the confluence with Barcus Creek to the confluence with the White River.	All		Fe (Trec), Aquatic Life	L
COLCWH14a	Mainstem of Piceance Creek from the source to a point just below the confluence with Hunter Creek	Willow Creek to Hunter Creek		Fe(Trec)	H
COLCWH15	Mainstem of Piceance Creek from Ryan Gulch to the confluence with the White River. The Dry Fork of Piceance Creek, from Little Reigan Gulch to Piceance Creek.	Piceance Creek		Aquatic Life (provisional)	L
COLCWH16	All tributaries to Piceance Creek, including all wetlands, lakes and reservoirs, from the source to the confluence with the White River	Ryan Gulch	<i>E.coli</i>		
COLCWH20	Mainstems of Black Sulphur Creek from the source to Piceance Creek.	Black Sulphur Creek		Aquatic Life (provisional)	L

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COLCWH22	Tributaries to White River, Douglas Creek to Colorado/Utah border	West Evacuation Wash, Douglas Creek		sediment	L
COLCWH23	Mainstem of East Douglas Creek and West Douglas Creek including all tributaries from their sources to the confluence	East Douglas Creek	Fe(Trec)		
COLCWH23	Mainstem of East Douglas Creek and West Douglas Creek including all tributaries from their sources to the confluence	West Douglas Creek		Aquatic Life (provisional)	L
<b>CORG</b>	<b>Rio Grande River Basin</b>				
CORGAL02	Alamosa River, from source to confl with Alum Creek	Tribs to lower Iron Ck		pH, Cu, Zn, Fe(Trec)	H
CORGAL02	Alamosa River, from source to confluence with Alum Creek	All, except for the tributaries to Lower Iron Creek	pH, Fe(Trec)		
CORGAL03b	Alamosa River, from Wightman Fork to Fern Creek	Above Jasper Creek	Se	Cd	H
CORGAL03d	Alamosa River, from Ranger Creek to Terrace Res.	all		Al	H
CORGAL08	Terrace Reservoir	all		Fe(Trec)	M
CORGAL11	La Jara Creek including tributaries, wetlands, lakes and reservoirs from source to Hot Creek	La Jara Reservoir	pH	D.O.	H
CORGAL13	Hot Creek from source to La Jara Creek	all		Fe(Trec)	H

<b>WBID</b>	<b>Segment Description</b>	<b>Portion</b>	<b>Colorado's Monitoring &amp; Evaluation Parameter(s)</b>	<b>Clean Water Act Section 303(d) Impairment</b>	<b>303(d) Priority</b>
CORGAL14	Conejos River including tributaries, wetlands, lakes, and reservoirs from source to Fox Creek	Platoro Reservoir	pH		
CORGAL20	Rio Grande, tribs within the Rio Grande Forest	all	pH, Cu,Cd, Fe(Trec), Mn, Zn		
CORGCB02	La Garita Creek, source to 38 Rd, Carnero Creek, source to 42 Rd	La Garita Creek	Fe(Trec)		
CORGCB05	San Luis Creek, from Piney Creek to San Luis Lake	Lower San Luis Creek	D.O.		
CORGCB06	San Luis Lake	all		NH <sub>3</sub> , Fe(Trec)	H
CORGCB08	Kerber Creek, source to abv Cocomongo Mill Site, Squirrel Creek from source to abv Bear Creek. Brewery Creek from source to Elkhorn Gulch	Squirrel Creek	Cd, Cu, Zn, Fe(Trec)		
CORGRG02	Rio Grande River, source to Willow Creek	South Clear Creek	Fe(Trec),		
CORGRG04	Rio Grande River, Willow Creek to Alamosa County line	Del Norte to county line		Cu	H
CORGRG05	All tributaries to the Rio Grande River, abv Willow Creek to Del Norte	Nelson Creek	Cd, Cu, Pb, Mn, Zn, pH		
CORGRG07	West Willow Creek, East Willow Creek, Willow Creek and tributaries	Nelson Creek, West Willow Creek below Nelson Creek to East Willow Creek		pH	H

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CORGRG12	Mainstem of the Rio Grande from the Rio Grande/Alamosa County line to the Old State Bridge east of Lobatos (Conejos County Road G).	all		Aquatic Life (provisional)	L
CORGRG13	Rio Grande River, Conejos County Road G to Colorado/New Mexico border	all	sediment		
CORGRG27	Smith Reservoir	Smith Reservoir	pH		
CORGRG28	Rito Seco, from source to Salazar Reservoir	Upper Rito Seco blw Battle Mtn		<i>E.coli</i>	H
CORGRG30	Culebra Creek, including all tributaries, lakes, and reservoirs from HWY 159 to the Colorado/New Mexico border	Sanchez Reservoir		D.O.	H
<b>COSJ</b>	<b>San Juan River Basin</b>				
COSJAF03c	Arrastra Gulch including all lakes, tributaries, and wetlands from the source to the confluence with the Animas River.	all	Pb	Cd, Zn	M
COSJAF04a	Mainstem of the Animas River from a point immediately above the confluence with Mineral Creek to a point immediately above the confluence with Deer Park Creek.	all		Al(Trec)	M

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COSJAF05a	Mainstem of the Animas River, including wetlands, from Bakers Bridge to the Southern Ute Indian Reservation boundary.	all		Mn(WS)	L
COSJAF12a	All tributaries to the Animas River, from a point immediately above the confluence with Elk Cr. to a point immediately below the confluence with Hermosa Cr. All tributaries to the Florida from the source to the outlet of Lemon Reservoir Mainstems of True, Red and Shearer Creeks from their sources to their confluences with the Florida River.	Electra Reservoir	Ag, Zn		
COSJAF13a	Mainstem of Junction Creek including all tributaries, from U.S. Forest Boundary to confluence with Animas River.	Junction Creek	Ag, <i>E. coli</i>		
COSJDO04b	McPhee Reservoir and Summit Reservoir	McPhee Reservoir		Aquatic Life Use(Hg* Fish Tissue)	H
COSJDO11	All tributaries to the Dolores River, from the confluence of the West Dolores River, to the bridge at Bradfield Ranch (Forest Route 505, near Montezuma/Dolores County Line	Lost Canyon Creek	<i>E. coli</i>		
COSJLP01	Mainstem of the La Plata River, from the source to the Hay Gulch diversion south of Hesperus.	All		Ag	H

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COSJLP03a	All Tributaries to the La Plata River from Hay Gulch to the Southern Ute Indian reservation boundary	Cherry Creek	Cu	Fe(Trec)	H
COSJLP04a	Mancos River and tributaries above HWY 160	E. Mancos River	Pb	Cu,D.O., Mn (WS)	H
COSJLP04a	Mancos River and tributaries above HWY 160	Mancos River	Cu, Pb	D.O.,	H
COSJLP07a	Mainstem of McElmo Creek from the source to the Colorado/Utah border; Mainstem of Yellow Jacket Creek from the source to the confluence with McElmo Creek.	McElmo Creek		Fe-Trec, <i>E. coli</i>	H
COSJLP08a	Tributaries to McElmo Creek	Mud Creek		Se	M
COSJLP08a	Tributaries to McElmo Creek	Hartman Draw	Fe(Trec)		
COSJLP08a	Tributaries to McElmo Creek	Trail Canyon		Fe(Trec)	M
COSJLP08a	Tributaries to McElmo Creek	all	<i>E. coli</i>		
COSJLP11	Narraguinnep, Puett, and Totten Reservoir	Narraguinnep Reservoir, Totten Reservoir		Aquatic Life Use(Hg* Fish Tissue)	H
COSJPI05	All tributaries to the Piedra River, including all wetlands, lakes and reservoirs, from the boundary of the Weminuche Wilderness Area to a point immediately below the confluence with Devil Creek. Williams Creek Reservoir.	Williams Creek Reservoir	pH, Zn, Fe(Trec), D.O.		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COSJPI05	All tributaries to the Piedra River, from the boundary of the Weminuche Wilderness Area to the confluence with Devil Creek. Williams Creek Reservoir.	Williams Creek	pH, Cu		
COSJPI06a	Tributaries to the Piedra River	Stollsteimer Creek above Southern Ute Boundary	Sediment, <i>E. coli</i> , Fe(Trec), SO <sub>4</sub>		
COSJPN03	Vallecito Reservoir	Vallecito Reservoir		Aquatic Life Use (Hg Fish Tissue)	H
COSJSJ01	Mainstem of the Navajo River and the Little Navajo River from the boundary of the South San Juan Wilderness Area to the Colorado/New Mexico border	Navajo River	<i>E. coli</i>		
COSJSJ03	Little Navajo River, including tributaries from the San Juan-Chama diversion to the San Juan River	all	<i>E. coli</i>		
COSJSJ05	Mainstem of the San Juan River and the East Fork and West Fork of the San Juan River, from the boundary of the Weminuche Wilderness Area (West Fork) and the source (East Fork) to Fourmile Creek	Mainstem	Pb		
COSJSJ06a	San Juan River from Fourmile Creek to Southern Ute Indian Reservation. Mill Creek from source to San Juan River. Echo Canyon Reservoir.	San Juan River	Pb, Cu		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COSJSJ06a	San Juan River from Fourmile Creek to Southern Ute Indian Reservation. Mill Creek from source to San Juan River. Echo Canyon Reservoir.	Echo Canyon Reservoir	pH	D.O. (Temperature) Aquatic Life Use (Hg Fish Tissue)	H
COSJSJ08	Navajo Reservoir	Navajo Reservoir	Aquatic Life Use (Hg Fish Tissue)		
COSJSJ09a	Mainstem of the Rio Blanco from the boundary of South San Juan Wilderness Area to the Southern Ute Indian Reservation boundary,		Ag, Pb		
COSJSJ10	Mainstem of the Rito Blanco River from Echo Ditch to the confluence with the Rio Blanco River.		<i>E. coli</i>		
<b>COSP</b>	<b>South Platte River Basin</b>				
COSPBD01	Mainstem of Big Dry Creek, including all tributaries, lakes, reservoirs and wetlands, from the source to the confluence with the South Platte River	all		<i>E. coli</i> , Se (4/1 thru 10/31)	H/L
COSPBE01a	Mainstem of Bear Creek from the boundary of the Mt. Evans Wilderness area to the inlet of Evergreen Lake.	Witter Gulch to inlet of Evergreen Lake		Temperature, Aquatic Life (provisional)	H
COSPBE01c	Bear Creek Reservoir	all		Chl-a, phosphorus	H
COSPBE01e	Mainstem of Bear Creek from the outlet of Evergreen Lake to the Harriman Ditch.	All	Aquatic Life		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COSPBE01e	Mainstem of Bear Creek from the outlet of Evergreen Lake to the Harriman Ditch.	From the outlet of Evergreen Lake to Kerr/Swede Gulch		Temperature	H
COSPBE02	Bear Creek below Bear Creek Reservoir to South Platte River	Below Kipling Parkway (CO 390)	Aquatic Life	<i>E.coli</i> (May-Oct)	H
COSPBE05	Swede, Kerr, Sawmill, Troublesome and Cold Springs Gulches and Cub Creek	Swede/Kerr Gulch		<i>E.coli</i>	L
COSPBO01	All tribs to Boulder Creek within the Indian Peaks Wilderness Area	all	Pb, Zn		
COSPBO02a	Mainstem of Boulder Creek, from the boundary of the Indian Peaks Wilderness Area to a point immediately below the confluence with North Boulder Creek	all	Cd, Cu		
COSPBO02b	Boulder Creek, from below the confluence with North Boulder Creek to above the confluence with South Boulder Creek	all	Cd, Cu		
COSPBO03	Mainstem of Middle Boulder Creek from source to the outlet of Barker Reservoir	all	Cd, Cu		
COSPBO07b	Coal Creek, HWY 36 to Boulder Creek	all	Aquatic Life	<i>E. coli</i>	H
COSPBO08	All tribs to South Boulder Creek and all tribs to Coal Creek	Rock Creek	<i>E. coli</i> ,	Se	M

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COSPBO09	Mainstem of Boulder Creek, from South Boulder Creek to Coal Creek	all	Cd, As		
COSPBO09	Mainstem of Boulder Creek, from South Boulder Creek to Coal Creek	From 107 <sup>th</sup> Street to the confluence with Coal Creek		Aquatic Life (provisional)	L
COSPBO10	Boulder Creek, Coal Creek to St. Vrain Creek	all	Aquatic Life, Cd	<i>E. coli</i>	H
COSPBO14	Lakes and reservoirs tributary to Boulder Creek from source to South Boulder Creek.	Barker Reservoir	Cd, Cu		
COSPBO15	South Boulder Creek and tributaries from source to outlet of Gross Reservoir	Gross Reservoir	Aquatic Life Use (Hg Fish Tissue)		
COSPBT01	Mainstem of the Big Thompson River, including all tributaries and wetlands, within Rocky Mountain National Park.	All		Cu	H
COSPBT02	Big Thompson River and tribs, RMNP to Home Supply Canal diversion	Fish Creek below Marys Lake		pH	H
COSPBT02	Big Thompson River and tribs, RMNP to Home Supply Canal diversion	all	Sulfide	Cu, Cd, Zn, temperature	<u>H</u>
COSPBT03	Mainstem of the Big Thompson River from the Home Supply Canal diversion to the Big Barnes Ditch diversion.	All		Cu	M

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COSPBT04a	Mainstem of the Big Thompson from the Big Barnes Ditch diversion of the Greeley-Loveland Canal diversion.	All		Se	M
COSPBT04b	Big Thompson River, Greeley-Loveland Canal diversion to CR11H	all		Se	M
COSPBT05	Big Thompson River, I-25 to S. Platte River	all		Se	L
COSPBT06	All tributaries to the Big Thompson River, from Home Supply Canal to the confluence with the South Platte River.	All		Cu	M
COSPBT06	All Tribs to the Big Thompson River, from Home Supply Canal to the confluence with the South Platte River.	Dry Creek	<i>E. Coli</i>		
COSPBT07	Mainstem of the North Fork of the Big Thompson from RMNP to confluence with Big Thompson	North Fork of Big Thompson		Cu	H
COSPBT08	Mainstem of the Little Thompson River, from source to the Culver Ditch diversion.	All		Temperature, D.O	H
COSPBT08	Mainstem of the Little Thompson River, from source to the Culver Ditch diversion.	From source to St. Vrain Supply Canal		SO <sub>4</sub>	H
COSPBT09	Little Thompson River, Culver Ditch to Big Thompson River	all		Cu, Se, <i>E. coli</i> (May-October), Aquatic Life Use	M/L/H/M

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COSPBT10	Tributaries To the Little Thompson River	Big Hollow		Se	L
COSPBT11	Carter Lake	all		Aquatic Life Use (Hg Fish Tissue), As	H
COSPBT12	Lake Loveland, Horseshoe Lake, Boyd Lake	Boyd Lake		Aquatic Life Use (Hg Fish Tissue)	H
COSPBT14	Welch Reservoir, Lonetree Reservoir, Boedecker Lake, Lon Hagler Reservoir	Lonetree Reservoir	Aquatic Life Use (Hg Fish Tissue)		
COSPBT16	Lakes and reservoirs tributary to the Big Thompson from RMNP to Home Supply Canal diversion.	Lake Estes		Cu, Pb	H
COSPCH03	Mainstem of Cherry Creek from Cherry Creek Reservoir to the South Platte.	All		<i>E.coli</i> , Se	H/L
COSPCH03	Mainstem of Cherry Creek from Cherry Creek Reservoir to the South Platte.	From Holly Street to South Platte confluence		Fe(Trec)	M
COSPCH04	Tributaries to Cherry Creek	Goldsmith Gulch, Cottonwood Creek		Se	L
COSPCH06	Lakes and reservoirs in the Cherry Creek watershed within the City and County of Denver.	Lollipop Lake	Se	D.O.	M

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COSPCL01	Mainstem of Clear Creek, including all tributaries and wetlands, from the source to the I-70 bridge above Silver Plume.	Kearney Gulch, Grizzly Gulch	Aquatic Life		
COSPCL02a	Mainstem of Clear Creek from Silver Plume to West Fork Clear Creek.	All		Cd	H
COSPCL02b	Mainstem of Clear Creek from West Fork Clear to Mill Creek.	All		Cd, Zn	H
COSPCL02c	Mainstem of Clear Creek from Mill Creek to Argo Tunnel.	All		Cd	H
COSPCL03a	Mainstem of S. Clear Creek	all		Cu	H
COSPCL03b	Leavenworth Creek	all		Cu	M
COSPCL06	West Clear Creek tributaries	Mad Creek	pH	Zn	M
COSPCL06	All tributaries to West Clear Creek.	Hoop Creek	Cd, Pb, Zn		
COSPCL09a	Fall River & tributaries, source to Clear Creek	Fall River	Zn, D.O.		
COSPCL09a	Fall River & tributaries, source to Clear Creek	Silver Creek		Cu, Pb	H
COSPCL09b	Trail Creek & tributaries, source to Clear Creek	all		Cd, pH	H
COSPCL11	Clear Creek, Argo Tunnel to Farmers Highline Canal	all		Cd	H
COSPCL13b	N. Clear Creek & tributaries, lowest water supply intake to Clear Creek	Mainstem of N. Clear Creek		Cd	M

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COSPCL14a	Mainstem of Clear Creek from the Farmers Highline Canal diversion in Golden, Colorado to the Denver Water conduit #16 crossing.	From Croke Canal Diversion to McIntyre Street		Aquatic Life (provisional)	L
COSPCL14b	Clear Creek, Denver Water conduit #16 to Youngfield St.	all	Mn	Aquatic Life Use, organic sediment,	L
COSPCL15	Clear Creek, Youngfield St. to S. Platte River	all	Pb	<i>E. coli</i> (May-October), Aquatic Life Use, organic sediment, Mn (WS)	H/L/L
COSPCL17a	Arvada Reservoir	all		D.O.(Temperature)	H
COSPCL17b	Mainstem of Ralston Creek, including all tributaries and wetlands, from the source to the inlet of Arvada Reservoir.	all		U	H
COSPCL18a	Ralston Creek and tributaries below Arvada Reservoir	Ralston Creek		<i>E. coli</i>	H
COSPCL06	Mainstem of the North Fork of the Cache La Poudre River, including all tribs from source to Halligan Res.	all	Cu		
COSPCL07	North Fork of the Cache la Poudre from Halligan Reservoir to the Cache la Poudre.	all		Pb, Cd	M
COSPCL08	All tributaries to the North Fork of the Cache La Poudre from Halligan Reservoir to the Cache La Poudre.	all	<i>E. coli</i>		

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COSPCP09	Rabbit Creek and Lone Pine Creek	all	Cd, Pb		
COSPCP10	Cache la Poudre River, Monroe Canal to Shields Street	all		Cu, Temperature	M
COSPCP11	Mainstem of the Cache la Poudre River from Shields Street in Ft. Collins to a point immediately above the confluence with Boxelder Creek.	all		Se	L
COSPCP12	Cache la Poudre River, Box Elder Creek to S. Platte River	all		Se, <i>E. coli</i> (May-October)	L/H
COSPCP13a	All tributaries to the Cache la Poudre River, including all wetlands, from the Monroe Gravity Canal to the confluence with the South Platte River.	all		Se	L
COSPCP13a	All tributaries to the Cache la Poudre River, including all wetlands, from the Monroe Gravity Canal to the confluence with the South Platte River.	Spring Creek and Fossil Creek		<i>E. coli</i> , (May-Oct)	H
COSPCP13b	Boxelder Creek from source to the Cache la Poudre River	all		Se	L
COSPCP14	Horsetooth Reservoir	all		Aquatic Life Use (Hg Fish Tissue), Cu, As	H

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COSPCP20	Lakes and reservoirs tributary to the North Fork of the Cache la Poudre from Halligan Reservoir to the Cache la Poudre River.	Seaman Reservoir		D.O.	M
COSPLA02a	Mainstem of Laramie River from the source to the NF boundary.	all	pH		
COSPLS01	Mainstem of the South Platte from the Weld/Morgan County line to the Colorado/Nebraska border.	all	Aquatic Life Use	Se, Mn	M
COSPLS02b	Tributaries to S Platte River, Beaver Creek, Bijou Creek and Kiowa Creek	Beaver Creek		Se, <i>E. coli</i>	H
COSPLS03	Jackson, Prewitt, North Sterling, Jumbo, Riverside, Empire and Vancil Reservoirs	North Sterling	D.O.		
COSPLS03	Jackson, Prewitt, North Sterling, Jumbo, Riverside, Empire and Vancil Reservoirs	North Sterling, Jackson and Jumbo Reservoirs	Se		
COSPLS03	Jackson, Prewitt, North Sterling, Jumbo, Riverside, Empire and Vancil Reservoirs	Jackson Reservoir		pH	H
COSPMS01a	South Platte River from Big Dry Creek to St. Vrain Creek	all		<i>E.coli</i>	H
COSPMS01b	South Platte River from St. Vrain Creek to Weld/Morgan County Line	all		Se	L
COSPMS04	Barr Lake and Milton Reservoir	Milton Reservoir		D.O., pH, NH <sub>3</sub> ,	M/L

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COSPMS04	Barr Lake and Milton Reservoir	Barr Lake		pH, D.O.	M
COSPMS07	All lakes and reservoirs trib to the South Platte River below Big Dry Creek to Weld/Morgan County Line	Horse Creek Reservoir		pH, NH <sub>3</sub> , D.O.	L
COSPMS07	All lakes and reservoirs in watershed tributary to the South Platte from Chatfield to Big Dry Creek.	Prospect Lake		D.O., pH, NH <sub>3</sub>	M
COSPRES04	Mainstem of Arikaree River from the confluence of the North and South Forks to the Kansas border.	all		<i>E.coli</i>	H
COSPRES05	Mainstem of the Black Wolf Creek from the source to the confluence with the Arikaree River.	all	E. coli, Se		
COSPSV02a	Mainstem of St. Vrain from Indian Peaks Wilderness Area and RMNP to eastern boundary of Roosevelt Ntl Forest	all		Zn	H
COSPSV02b	St. Vrain Creek, RMNP to Hygiene Road	all		Cu, Temperature	H
COSPSV03	St. Vrain Creek, Hygiene Rd. to S. Platte River	From the confluence with Left Hand Creek to the confluence with Boulder Creek		Aquatic Life Use (provisional)	L
COSPSV03	St. Vrain Creek, Hygiene Rd. to S. Platte River	From Hover Road to the confluence with Left Hand Creek	Aquatic Life Use,		

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COSPSV04a	Left Hand Creek, from source to blw confluence with James Creek	(Hwy 72 to James Ck);		pH, Cu, Zn	M
COSPSV04b	James Creek, Little James Creek	Little James Creek		Cu, Pb	M
COSPSV04c	Left Hand Creek from James Creek to HWY 36	all		Cu, As	H
COSPSV05	Mainstem of Left Hand Creek, including all tributaries and wetlands from Highway 36 to the confluence with St. Vrain Creek.	Upstream Lefthand Feeder Canal		Mn (WS)	L
COSPSV05	Mainstem of Left Hand Creek, including all tributaries and wetlands from Highway 36 to the confluence with St. Vrain Creek.	Downstream Lefthand Feeder Canal		Cu	M
COSPSV06	Tributaries to the St Vrain River	Dry Creek		<i>E. coli</i>	H
COSPSV06	Tributaries to the St Vrain River	all		Se	L
COSPSV13	All lakes and reservoirs tributary to Left Hand Creek from Hwy 36 to St. Vrain Creek.	Lake Thomas	D.O.		
COSPUS02a	Tributaries to S. Platte River, source to Tarryall Creek	Salt Creek d/s of N. Fork, on USFS Land	Temperature		
COSPUS02a	Tributaries to S. Platte River, source to Tarryall Creek	Twin Creek, on USFS Land	Temperature		

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COSPUS02a	Tributaries to S. Platte River, headwaters to Tarryall Creek	S. Fork of S. Platte below Antero Reservoir	Aquatic Life		
COSPUS02b	Mosquito Creek from South Mosquito Creek to the Middle Fork of the South Platte.	all		Cd	H
COSPUS02c	South Mosquito Creek from the source to the confluence with Mosquito Creek and No Name Creek from the source to the confluence with Mosquito Creek	No Name Creek		Cd, Zn	H
COSPUS03	Tributaries to S.Platte River, Tarryall Creek to N.Fk.S.Platte R	Trout Creek and tributaries on USFS property	Aquatic Life	sediment*	H
COSPUS03	Tributaries to S.Platte River, Tarryall Creek to N.Fk.S.Platte R	Pine Creek		As	H
COSPUS03	Tributaries to S.Platte River, Tarryall Creek to N. Fk. S. Platte River	Pine Creek, on USFS Land	sediment		
COSPUS03	Tributaries to S.Platte River, Tarryall Creek to N.Fk.S.Platte R	Fourmile Creek		Fe(trec), As, Hg	H
COSPUS03	Tributaries to S.Platte River, Tarryall Creek to N.Fk.S.Platte R	Sugar Creek, on USFS Land	sediment		
COSPUS03	Tributaries to S.Platte River, Tarryall Creek to N. Fk. S. Platte River	Hawkins Gulch	Cd, Se		
COSPUS03	Tributaries to S.Platte River, Tarryall Creek to N. Fk. S. Platte River	Horse Creek	D.O., Fe(trec)	Aquatic Life (provisional)	L

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COSPUS03	Tributaries to S.Platte River, Tarryall Creek to N. Fk. S. Platte River	West Creek	As, Hg		
COSPUS03	Tributaries to S.Platte River, Tarryall Creek to N. Fk. S. Platte River	Goose Creek	D.O.		
COSPUS03	Tributaries to S.Platte River, Tarryall Creek to N. Fk. S. Platte River	Trail and Wigwam Creeks	Fe(trec)		
COSPUS04	N. Fk. S. Platte River & Tributaries, source to S.Platte R	Hall Valley area to Geneva Ck		pH	H
COSPUS05c	Gooseberry Gulch and all tributaries from source to confluence with Elk Creek.	Unnamed Tributary to Gooseberry Creek		NH <sub>3</sub>	M
COSPUS06a	Mainstem of the South Platte River from the outlet of Cheesman Reservoir to the inlet of Chatfield Reservoir.	South Platte River from outlet of Cheesman Reservoir to Fourmile Creek	Aquatic Life		
COSPUS07	Tributaries to the South Platte from the North Fork of the South Platte to the outlet of Chatfield Reservoir.	Willow Creek	Fe(Trec), Se		
COSPUS09	Mainstem of Bear Creek, including all tributaries and wetlands from the source to the inlet of Perry Park Reservoir (Douglas County).	Bear Creek	D.O.		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COSPUS10a	Mainstems of East Plum Creek, West Plum Creek, and Plum Creek from the boundary of national forest lands to Chatfield Reservoir, mainstems of Stark Creek and Gove Creek from the boundary of national forest lands to their confluence.	West Plum Creek		Aquatic Life (provisional)	L
COSPUS11a	Tributaries to East Plum Creek which are not on national forest lands.	all	pH, Fe(Trec)		
COSPUS11a	Tributaries to East Plum Creek which are not on national forest lands.	Cook Creek		Aquatic Life (provisional)	L
COSPUS11b	Tributaries to W. Plum Creek, not on USFS Land	Spring Creek, Bear Creek	Aquatic Life Use		
COSPUS12	Garber and Jackson Creeks	Jackson Creek	Pb		
COSPUS14	S. Platte River	all		As	H
COSPUS15	S. Platte River, Burlington Ditch to Big Dry Creek	all		<i>E. coli</i>	H
COSPUS16a	Sand Creek	all		Se, <i>E. coli</i>	L/H
COSPUS16c	Tributaries to S. Platte River, Chatfield Reservoir to Big Dry Creek except specific listings	all		Se	L
COSPUS16c	Tributaries to S. Platte River, Chatfield Reservoir to Big Dry Creek except specific listings	Westerly Creek, Dry Creek		<i>E. coli</i>	H
COSPUS16c	Tributaries to S. Platte River, Chatfield Reservoir to Big Dry Creek except specific listings	Weir Gulch, Sanderson Gulch, Humble Creek	<i>E. coli</i>		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COSPUS16c	Tributaries to S. Platte River, Chatfield Reservoir to Big Dry Creek except specific listings	Harvard, Harvard West, and Lakewood Gulches		<i>E. coli</i> (May-Oct)	H
COSPUS17a	Washington Park Lakes, City Park Lake, Rocky Mountain Lake, Berkeley Lake	Berkeley Lake, Rocky Mountain Lake		Aquatic Life Use (Hg Fish Tissue)	H
COSPUS17a	Washington Park Lakes, City Park Lake, Rocky Mountain Lake, Berkeley Lake	Rocky Mountain Lake	Cu, D.O.	pH	L
COSPUS17a	Washington Park Lakes, City Park Lake, Rocky Mountain Lake, Berkeley Lake	Ferril Lake, Smith Lake		pH	H
COSPUS17a	Washington Park Lakes, City Park Lake, Rocky Mountain Lake, Berkeley Lake	Smith Lake		NH <sub>3</sub>	H
COSPUS17a	Washington Park Lakes, City Park Lake, Rocky Mountain Lake, Berkeley Lake	Grasmere Lake	Cu		
COSPUS17a	Washington Park Lakes, City Park Lake, Rocky Mountain Lake, Berkeley Lake	Berkeley Lake		D.O., As	H
COSPUS17a	Washington Park Lakes, City Park Lake, Rocky Mountain Lake, Berkeley Lake	Duck Lake		D.O., pH, NH <sub>3</sub>	H
COSPUS17b	Sloan's Lake	all	Fe (Trec)	D.O.	

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COSPUS23	All lakes and reservoirs in watershed tributary to the South Platte from Chatfield to Big Dry Creek.	Barnum Lake		D.O.	L
COSPUS23	Lakes and reservoirs in the Upper South Platte watershed within the City and County of Denver.	Vanderbilt Lake		D.O.	
COSPUS23	Lakes and reservoirs in the Upper South Platte watershed within the City and County of Denver.	Garfield Lake, Harvey Lake, Aqua Golf Lake	Fe(trec)		
COSPUS23	Lakes and reservoirs in the Upper South Platte watershed within the City and County of Denver.	Garfield Lake, , Parkfield Lake, Huston Lake		D.O.	M
COSPUS23	Lakes and reservoirs in the Upper South Platte watershed within the City and County of Denver.	Aqua Golf Lake, Huston Lake, Overland Lake, Parkfield Lake		pH	M
COSPUS23	Lakes and reservoirs in the Upper South Platte watershed within the City and County of Denver.	Huston Lake	<i>E. coli</i>		
<b>COUC</b>	<b>Upper Colorado River Basin</b>				
COUCBL02a	Mainstem of the Blue River from the confluence with French Gulch to a point one half mile below Summit County Road 3.	all		Mn(WS)	L
COUCBL04a	All direct tributaries to Dillon Reservoir and all tributaries and wetlands in the Blue River drainage above Dillon Reservoir.	Gold Run Gulch below Jessie Mine	Cd, Zn		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COUCBL17	Mainstem of the Blue River from the outlet of Dillon Reservoir to the confluence with the Colorado River.	Blue River from outlet of Dillon Reservoir to N. Rock Creek confluence	Aquatic Life		
COUCBL20	Mainstem of Elliott Creek and Spruce Creek including all tributaries and wetlands from their sources to the confluence with the Blue River	Spruce Creek	Fe(Trec)		
COUCEA05c	Eagle River, Martin Creek to Gore Creek	all		Cd	H
COUCEA06	Tributaries to Eagle River, Belden to Lake Creek, except specific segments	Black Gore Creek, adjacent to I-70	Aquatic Life	Sediment	H
COUCEA06	Tributaries to Eagle River, Belden to Lake Creek, except specific segments	Mainstem of Lake Creek from below the confluence with East and West Lake Creek to the mouth		Aquatic Life (provisional)	L
COUCEA06	Tributaries to Eagle River, Belden to Lake Creek, except specific segments	Beaver Creek from confluence with Wayne Creek to Mouth	Aquatic Life		
COUCEA06	Tributaries to Eagle River, Belden to Lake Creek, except specific segments	Red Sandstone Creek from USFS Boundary to north side I-70 Frontage Road	Aquatic Life		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COUCEA06	Tributaries to Eagle River, Belden to Lake Creek, except specific segments	Red Sandstone Creek from north side I-70 Frontage Road to confluence with Gore Creek		Aquatic Life (provisional)	L
COUCEA08	Mainstem of Gore Creek from the confluence with Black Gore Creek to the confluence with the Eagle River.	all		Aquatic Life (provisional)	L
COUCEA09a	Mainstem of the Eagle River from Gore Creek to a point immediately below the confluence with Rube Creek.	From Berry Creek to confluence with Ute Creek	Temperature		
COUCEA09a	Mainstem of the Eagle River from Gore Creek to a point immediately below the confluence with Rube Creek.	From Ute Creek to confluence with Rube Creek		Temperature	H
COUCEA09a	Mainstem of the Eagle River from Gore Creek to a point immediately below the confluence with Rube Creek.	Eagle River from confluence with Berry Creek to confluence with Squaw Creek	Aquatic Life	Sediment	H
COUCEA09a	Mainstem of the Eagle River from Gore Creek to a point immediately below the confluence with Rube Creek.	Eagle River from Gore Creek to confluence with Berry Creek and from Squaw Creek to confluence with Rube Creek	Sediment		
COUCEA10a	All tributaries to the Eagle River from Lake Creek to the Colorado River.	Eby Creek	Se		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COUCNP01	Tribs to the N Platte & Encampment Rivers w/in Wilderness Areas	South Fork Big Creek	Cu, <i>E.coli</i>		
COUCNP04a	Tributaries to the North Platte River except those tributaries in Segment 1, 4b, 6, 7a and 7b.	Canadian River	Fe(Dis), <i>E. coli</i>		
COUCNP04a	All tributaries to N. Platte River except segments 4b, 6, 7a and 7b	Grizzly Creek, Little Grizzly Creek	Aquatic Life Use		
COUCNP04a	All tributaries to N. Platte River except segments 4b, 6, 7a and 7b	Little Grizzly Creek	<i>E.coli</i> , Fe(Trec)		
COUCNP04a	All tributaries to N. Platte River except segments 4b, 6, 7a and 7b	Lake Creek	pH, Fe(Trec)		
COUCNP04a	All tributaries to N. Platte River except segments 4b, 6, 7a and 7b	Big Creek Reservoir	Aquatic Life Use (Hg Fish Tissue)		
COUCNP04b	Mainstem of the Illinois and Canadian Rivers, including all tributaries of the Illinois from Indian Creek to Michigan River except for specific listings in Segments 7a and 7b, and all tribs of Canadian entering the mainstem from the Southwest.	Illinois River		Fe (Trec)	M
COUCNP07b	Government Creek, Spring Creek	Spring Creek		D.O.	M
COUCNP09	All lakes and reservoirs tributary to the North Platte and Encampment Rivers	Lake John, North Delaney Lake	pH		

<b>WBID</b>	<b>Segment Description</b>	<b>Portion</b>	<b>Colorado's Monitoring &amp; Evaluation Parameter(s)</b>	<b>Clean Water Act Section 303(d) Impairment</b>	<b>303(d) Priority</b>
COUCNP09	All lakes and reservoirs tributary to the North Platte and Encampment Rivers	Lake John		D.O.	H
COUCRF03a	Roaring Fork including all tributaries and wetlands from Hunter Creek to the Colorado River except segments 3b through 10	Capitol Creek	Se		
COUCRF03a	Roaring Fork including all tributaries and wetlands from Hunter Creek to the Colorado River	West Sopris Creek		Aquatic Life (provisional)	L
COUCRF03a	Roaring Fork including all tributaries and wetlands from Hunter Creek to the Colorado River	Cattle Creek from Bowers Gulch to mouth		Aquatic Life (provisional)	L
COUCRF03a	Roaring Fork including all tributaries and wetlands from Hunter Creek to the Colorado River	Roaring Fork from confluence with Hunter Creek to below Brush Creek confluence,		Aquatic Life (provisional)	L
COUCRF03b	Red Canyon Creek including all tributaries and wetlands from the source to the Roaring Fork except Landis Creek from source to Hopkins Ditch Diversion	Landis Creek	Fe(Trec)		
COUCRF04	Mainstem of Brush Creek from the source to the confluence with the Roaring Fork River.	Mainstem Brush Creek		Aquatic Life (provisional)	L

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COUCRF07	All tributaries to the Fryingpan River	South Fork Frying Pan River from transbasin diversion to confluence with unnamed tributary (39.25128°N, -106.59442°W)		Aquatic Life (provisional)	L
COUCRF10	Thompson Creek including all tributaries and wetlands from the source to the Crystal River	Thompson Creek	Fe(Trec)		
COUCUC02	Mainstem of the Colorado River, including all tributaries and wetlands within or flowing into Arapahoe National Recreation Area.	Willow Creek Reservoir		Mn	L
COUCUC03	Mainstem of the Colorado River from Lake Granby to the Roaring Fork River.	From 578 Road Bridge to just above the confluence with the Blue River		Temperature, Mn(WS)	H
COUCUC03	Mainstem of the Colorado River from Lake Granby to the Roaring Fork River.	From the outlet of Windy Gap Reservoir to 578 Road Bridge	Aquatic Life		
COUCUC06b	Mainstem of unnamed tributary from the headwaters to Willow Creek Reservoir Road	all	D.O.		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COUCUC07a	All tribs to the Colorado River, including wetlands from a point abv the confluence with the Blue River to blw confluence with the Roaring Fork, which are not on National Forest Lands except specific listings in segment 7b.	Alkali Slough		Fe (Trec), Se	L
COUCUC07a	All tribs to the Colorado River, including wetlands from a point abv the confluence with the Blue River to blw confluence with the Roaring Fork, which are not on National Forest Lands except specific listings in segment 7b.	Muddy Creek and tribs	Temperature		
COUCUC07b	Muddy Creek from Wolford Mountain Reservoir. Rock Creek, Deep Creek, Sheephorn Creek Sweetwater Creek and Piney River.	Muddy Creek from Wolford Mountain Reservoir to Cow Gulch	Temperature		
COUCUC07b	Muddy Creek from Wolford Mountain Reservoir. Rock Creek, Deep Creek, Sheephorn Creek Sweetwater Creek and Piney River.	Muddy Creek from Cow Gulch to the Colorado River		Temperature	H
COUCUC10a	Mainstem of the Fraser River from the source to a point immediately below the Rendezvous Bridge. All tributaries to the Fraser River, from the source to the Colorado River	Fraser River, Vasquez Creek		Aquatic Life (provisional)	L

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COUCUC10a	Mainstem of the Fraser River from the source to a point immediately below the Rendezvous Bridge. All tributaries to the Fraser River, from the source to the Colorado River.	Ranch Creek		Temperature	L
COUCUC10c	Mainstem of the Fraser River from Hammond Ditch to the Colorado River.	all		Temperature	L
COUCUC10c	Mainstem of the Fraser River, from the Hammond Ditch to the confluence with the Colorado River	From the Town of Fraser to the confluence with the Colorado River.	Cu		
COUCUC10c	Mainstem of the Fraser River, from the Hammond Ditch to the confluence with the Colorado River	From the Town of Tabernash to the Town of Granby	Pb		
COUCUC12	Colorado River and tributaries, wetlands, lakes and reservoirs within Arapahoe National Recreation Area	Shadow Mountain Lake		D.O.	H
COUCUC12	Lakes and Reservoirs within Arapahoe National Recreation Area including Grand Lake, Shadow Mountain Lake and Lake Granby	Lake Granby		Aquatic Life Use (Hg Fish Tissue)	H
COUCYA02a	Mainstem of the Yampa River from Wheeler Creek to Oak Creek.	Yampa River below Stagecoach Reservoir	Mn, Se		

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COUCYA02b	All lakes and reservoirs tributary to the Yampa River, Elkhead Creek, and the Little Snake River.	Elkhead Reservoir, Catamount		Aquatic Life Use (Hg Fish Tissue)	H
COUCYA02c	Yampa River from Oak Creek to Elkhead Creek	all	Temperature		
COUCYA03	All tributaries to Yampa River except for specific listings, on USFS land	Bushy Creek		Sediment	L
COUCYA03	All tributaries to Yampa River except for specific listings, on USFS land	Walton Creek	Mn		
COUCYA03	All tributaries to Yampa River except for specific listings, on USFS land	Little Morrison Creek	Zn, Fe(dis)		
COUCYA04	Little White Snake Creek, source to Yampa River	all	D.O.		
COUCYA08	Elk River source to Yampa River	Elk River below Morin Ditch		<i>E.coli</i>	H
COUCYA08	Elk River including tributaries and wetlands from the source to Yampa River	Lost Dog Creek	Hg		
COUCYA13b	Foidel Creek and tributaries, Fish Creek, Middle Creek and tributaries	Fish Creek	<i>E.coli</i>		
COUCYA13d	Dry Creek including all wetlands and tributaries from source to the Yampa River	Below Seneca sample location 8 (WSD5)		Se	L

WBID	Segment Description	Portion	Colorado's Monitoring & Evaluation Parameter(s)	Clean Water Act Section 303(d) Impairment	303(d) Priority
COUCYA13d	Dry Creek including all tributaries and wetlands from source to the Yampa River	all		Fe(Trec) (Snowmelt season)	L
COUCYA13d	Dry Creek including all tributaries and wetlands from the source to the Yampa River	Dry Creek below Routt County Road 53 (Sec. 22, T6N, R88W)	Pb, <i>E. Coli</i>		
COUCYA13e	Sage Creek, Grassy Creek and tribs	Sage Creek below Routt County Road 51D		Se	L
COUCYA15	Mainstem of Elkhead Creek and tributaries Calf Creek and 80A Road on the Dry Fork of Elkhead Creek, to the confluence with the Yampa River.	Elkhead Creek		Aquatic Life (provisional)	L
COUCYA18	Little Snake River including all tributaries and wetlands from forest boundary to Wyoming border	all	Cu		

**93.4 - 93.9 Reserved**

**93.10 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; MARCH, 2004 RULEMAKING**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (i), (2) and (6); 25-8-203; 25-8-204; and 25-8-401; 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 (303(d) List)**

**A. Introduction**

This regulation establishes Colorado's List of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads ("TMDLs"). This list was prepared to fulfill section 303(d) of the federal Clean Water Act ("Act") which requires that states submit to the U.S. Environmental Protection Agency ("EPA") a list of those waters

for which technology-based effluent limitations and other required controls are not stringent enough to implement water quality standards.

Once listed, the State is required to prioritize these water bodies or segments (rivers, streams, lakes reservoirs) based on the severity of pollution and other factors. It will then determine the causes of the water quality problem and allocate the responsibility for controlling the pollution. This analysis is called the TMDL Process, and results in the determination of: 1) the amount of a specific pollutant that a segment can receive without exceeding a water quality standard (the TMDL), and 2) the apportionment to the different contributing sources of the pollutant loading (the allocation). The TMDL must include a margin of safety, waste load allocation (for point sources) and a load allocation (for non-point sources and natural background). The TMDL must include upstream loads in the assessment and apportionment process.

## **B. List Development**

### **1. Listing Methodology**

The "Section 303(d) Listing Methodology - 2004 Listing Cycle" contains a description of the listing process, the criteria for listing, and the criteria for determination of TMDL priority. The Listing Methodology was developed through a public process and finalized as a policy at a Water Quality Control Commission administrative action hearing on September 9, 2003.

This Listing Methodology sets forth the criteria that generally were used to make decisions regarding which waters to include on the 2004 Section 303(d) List and the 2004 M&E List. However, this methodology was not adopted by the Commission as a rule. The Commission therefore has the flexibility to take into account other appropriate factors in making site-specific listing decisions.

### **2. Information Considered**

The Commission has considered all existing and readily available information in developing the 2004 Section 303(d) List. In determining whether data and information are existing and readily available, it has taken into account such data and information as the Division has utilized in the preparation of those identification processes, calculations and models referenced in 40 CFR §130.7(a)(5)(i), (ii) and (iv) and that credible data and information presented in a readily usable format and submitted in reports provided to the Division as referenced in 40 CFR §130.7(a)(5)(iii). In addition, the Commission accepted credible data and information that was submitted in accordance with the listing process schedule, whether submitted by EPA or any other interested party. The Division also continues to independently collect and analyze new data on a rotating basin basis as part of its triennial review efforts and will utilize such data and information in making future listing determinations. Existing data which was not brought forward through one of the above mechanisms or otherwise presented to the Commission in accordance with the schedule was not treated as "readily available" for purposes of making the 2004 listing decisions. Such information will be considered in the next listing cycle.

## **C. Prioritization**

The objective of prioritization is to identify those waterbody segments where the Division and the public should concentrate their resources. Priorities of High, Medium and Low were established according to section IV. of the 2004 Section 303(d) Listing Methodology. Segments/parameters where the Commission determined that an appropriate plan is in place to resolve the uncertainty as specified in section 93.4 have been denoted as "L\*". A Low priority may also be assigned to other segments as per section IV.

## **D. Discussion of Issues Raised in the Hearing**

During the course of the hearing, the status of approximately 30 segments was debated. The basis for the Commission's decisions regarding the major issues for these segments is recorded below.

1. Selenium: Several parties questioned whether selenium, where the source is underlying native shale, should be considered a pollutant. The Commission found that selenium, like many other naturally occurring metals in Colorado is a pollutant and is classified as such on EPA's list of priority toxic pollutants (62 FR 42160). If the source of impairment is natural, that is grounds for consideration of an ambient quality-based, site-specific standard as described in Regulation No. 31 at 31.7 1(b)(ii). However, the listing decisions must be made based upon a comparison of the current adopted standard and the ambient condition for the segment. Although parties to the rulemaking submitted testimony questioning the decision to list several specific segments for selenium, such as Lower Colorado River segment 3 and Lower Arkansas River segment 1a, the evidence provided was directed largely at questioning the appropriateness of the current selenium standards. The Commission has determined, based on the evidence submitted, that these segments are not in attainment of the current selenium standards.

2. Segments where there is no new data, but following the 2004 Listing Methodology resulted in a different conclusion than in 2002: The following segments had no new data included in the assessments since the 2002 listing cycle. However, clarification and changes in the 2004 Listing Methodology resulted in the segments moving from the Monitoring and Evaluation List to the 303(d) List. The modifications that resulted in the most changes had to do with more clearly specifying that segments with small datasets where the ambient condition exceeds the standard by more than 50 percent should be listed. The following segments were affected:

Gunnison River Basin:	Lower Gunnison segment 27 Uncompahgre segment 2
Lower Colorado River Basin:	White River segment 9b

3. Segments with multiple tributaries: Issues were raised regarding what is the appropriate way to handle segments with multiple tributaries where there is evidence of impairment. The Commission found that since segments are generally treated as having consistent uses and characteristics, their impairment should be handled in a similar fashion. Unless either water quality data or other evidence has been presented that shows that the impairment is not present in the entire segment, the entire segment has been listed as impaired. "Other evidence" may include changes in geology within a segment or the confluence with a stream known to be impaired. Nevertheless, it is anticipated that before any TMDL is developed and implemented in "all tributary" segments, work will be performed to determine the causes and locations of the impairment, such that efforts and controls are not inappropriately directed towards individual tributaries that are not truly of concern, and the Section 303(d) List can be modified accordingly. Where other evidence shows that some portions are in exceedance and other portions are not, only the impaired portion needs to be listed. The following segments were listed based on this rationale:

Gunnison River Basin:	Lower Gunnison segments 4a and 4b North Fork segments 5 and 6
Lower Colorado River Basin:	Lower Colorado segment 4a

#### **E. Segment- Specific Issues**

1. San Juan Basin, Dolores River below McPhee Reservoir: Despite a recent decline in the fish population in this reach, the Commission found that there was not adequate readily available evidence to conclude that there exists an impairment of the aquatic life use due to other than extraordinary events associated with the long-term drought that has existed in southwest Colorado for several years. In view of evolving operations of McPhee Reservoir and varying (and generally

declining) hydrologic conditions, the Commission is not able at this time to identify an “expected condition” upon which to base a decision of impairment. Further, even if an impairment caused by other than the extraordinary events associated with the drought were found to exist, the Commission could not conclude based on this record that the decline was due to a “pollutant” as compared to “pollution.” Nevertheless, the Commission encourages cooperation by all interested parties in the implementation of habitat improvement measures that may serve to enhance the quality of the fishery in the reach. The Commission is prepared to revisit the concept of “expected condition” as it applies to this reach should that be warranted by changes in habitat condition. Certainly the achievement of goals set under the 1996 Operating Agreement for McPhee Reservoir may influence the nature of the expected condition. Finally, any evidence of impairment due to pollutants can be brought forth at the next listing hearing.

2. South Platte Basin, Clear Creek, segments 14b and 15: Available data, with specific reference to biological information on fish species collected over time and visual observations of the physical condition of the stream bed, provide an indication of “use-impairment” for Clear Creek Segments 14b and 15 relative to aquatic life. Though organic sediment appears to be a significant contributor to the impairment, the exact interaction of potentially numerous causative factors need to be further explored. No single source or cause of the impairment has been identified to date. Coors Brewing Company has voluntarily come forward with a study plan for segments 14a, 14b and 15 as part of the “pilot study” approach outlined in the section 309 study report recently submitted to the State Legislature. This pilot study would assist in defining the expected condition for these segments in view of existing hydrological/habitat conditions and in fashioning the best approach to remedying the impairment. Should Coors decide to proceed with the pilot study, the Division will identify segments 14b and 15 as “low priority” and refrain from any further TMDL implementation measures until such time as the study results are known and an appropriate approach to rectifying the identified problems is crafted in cooperation with basin stakeholders.
3. Upper Colorado Basin, Blue River segments 6 and 8 (Camp Cr, Jones Gulch, Keystone Cr, and Mozart Creek): The four identified tributaries in these two segments were proposed by the Division to be listed as impaired relative to measured pH levels. The evidence submitted raised questions regarding the representativeness of the data showing a possible standards exceedance, particularly in the absence of data regarding seasonality of pH levels for multiple years. Therefore, the Commission determined that it is more appropriate to include these specific tributaries on the Monitoring and Evaluation List at this time. Keystone Resorts has stated that it will complete a Use Attainability Analysis for Camp Creek and Jones Gulch, and that it is willing to include Keystone Creek and Mozart Creek in this analysis. The Commission believes that it is appropriate to revisit the attainment status of these segments following completion of the UAA. Depending on the results of this analysis, the adoption of site-specific seasonal pH standards is one option that can be considered. Indeed, the Commission notes that the evidence submitted to it showed that nearby snowmaking actually mitigates pH levels in the snow.
4. Uncompahgre River, segment 6b (Red Mountain Creek): The Commission does not believe that an impairment of the aquatic life use of segment 6b relative to a realistic expected condition for this segment has been shown. The Commission found that the aquatic community in segment 6a is not the appropriate expected condition for this segment. The Commission endorses the Division’s proposal not to list at this time, while moving forward to investigate segment 6b and make a recommendation to the Commission regarding the attainable aquatic life use and appropriate numeric standards in the context of the next basin-wide standards and classification rulemaking proceedings. However, it is uncertain at this time whether any future remediation activities in this area will improve the aquatic life use of this segment. In the absence of documentation that the attainable expected condition for this segment is an aquatic life use that is better than the current condition of this segment, it would be inappropriate to identify this segment as impaired.

5. Bear Creek segment 1a: This segment was proposed by the Division and by Trout Unlimited to be included on the Section 303(d) List. The evidence submitted demonstrated adverse impacts to the aquatic life use in this segment during 2002, and documented that the use had started to recover in 2003, although full recovery had not yet occurred. The evidence also demonstrated that the unusual and extreme drought conditions in 2002 were the determinative cause of the adverse impacts to aquatic life. Although there was evidence submitted indicating that ammonia concentrations or elevated temperatures may have adversely affected the aquatic life, the evidence demonstrated that these potentially harmful conditions would not have been present except for the drought. The Commission has concluded that this segment should be included on the Monitoring and Evaluation List for potential aquatic life, ammonia and temperature impairments, and that its status should be reconsidered in future updates of Regulations No. 93 and No. 94. Any evidence of impairment due to pollutants can be brought forth at the next listing hearing.
6. Lower Colorado segment 13b: This is an “all tributaries” segment that was proposed by the Division to be listed in its entirety for selenium. All of the ambient water quality data available in the record for this hearing was from tributaries on the north side of the Colorado River. In addition, there was testimony regarding significant differences in the geology on the north and south sides of the Colorado River in this area. Therefore, the Commission determined that it is appropriate that only the tributaries on the north side of this segment should be listed as impaired for selenium.
7. West Fork of Clear Creek, segment 5: The Commission found that the acute zinc standard in the West Fork of Clear Creek was exceeded more than once in three years. Because the chronic zinc standard is in attainment, and because Climax presented credible biological evidence that the aquatic life use classification is supported, the Commission determined that listing for acute zinc is not warranted in this instance. This segment is included on the Section 303(d) List as impaired for copper.
8. Middle South Platte segment 1: The Division proposed that the portion of this segment from Big Dry Creek to Highway 60 be included on the Section 303(d) List as impaired for dissolved oxygen during the months of August and September. The evidence submitted offered conflicting interpretations of what the available data for this segment show regarding attainment. Because this segment appears to be in compliance with dissolved oxygen standards based on the established convention of looking at the 15<sup>th</sup> percentile of the available data for the entire segment, the Commission determined that it is more appropriate at this time to include this segment on the Monitoring and Evaluation List for further assessment of dissolved oxygen conditions. The Commission also believes that future clarification of the appropriate methodology for assessing attainment of dissolved oxygen standards, e.g. within specific months of the year, would be helpful.

#### **F. Plans to Resolve Uncertainty**

Three parties presented plans to resolve uncertainty for segments that have temporary modifications based on uncertainty [see Regulation No. 31.7(3)(a)(iii)]. These segments will not be subject to the development of a TMDL as long as there is a plan in place that addresses the following:

- (1) There is an appropriate plan in place to remove the uncertainty;
- (2) The plan includes an implementation schedule that will resolve the uncertainty in a time frame consistent with Colorado’s timeline for the development of TMDLs; and
- (3) The plan is being implemented in accordance with its terms.

The Commission found that the following segments have adequate plans. It is the Commission’s intent to revisit these plans at the next listing cycle to determine if they continue to meet the Commission’s intent.

1. Fountain Creek segment 6 (Monument Creek from the National Forest boundary to Fountain Creek): The selenium water quality standard for Fountain Creek segment 6 has a temporary modification for uncertainty pursuant to section 31.7(3)(a)(iii) of the Basic Standards. The City of Colorado Springs submitted an appropriate plan to remove the uncertainty
2. Lower Arkansas segment 1a (Arkansas River from Fountain Creek to the Colorado Canal): The selenium water quality standard for Lower Arkansas segment 1a has a temporary modification for uncertainty pursuant to section 31.7(3)(a)(iii) of the Basic Standards. The City of Pueblo submitted an appropriate plan to remove the uncertainty
3. Upper Yampa segment 13d (Dry Creek): In the 2003 Upper Colorado River rulemaking hearing, the Commission adopted a temporary modification (based on uncertainty) of 60 ug/L for selenium in Dry Creek. This temporary modification was based on five WQCD samples collected in Dry Creek in 2001 and 2002 near its confluence with the Yampa River. The Commission approved Seneca Coal Company's plan to monitor Dry Creek with the objective of determining the source or sources of selenium loading, where the loading is isolated in the lower portion of Dry Creek and to determine whether the loading is due to natural or irreversible man-induced sources.

## **BASIS AND PURPOSE (Monitoring and Evaluation List)**

### **A. Introduction**

This regulation establishes Colorado's Monitoring and Evaluation List. This list was prepared as part of the effort to identify water bodies for which technology-based effluent limitations and other required controls are not stringent enough to implement water quality standards (those impaired waters requiring TMDLs). Regulation No. 93 is the list of impaired waters which require TMDLs. This regulation is the Monitoring and Evaluation List ("M&E List") that identifies water bodies where there is reason to suspect water quality problems, but there is also uncertainty regarding one or more listing factors, such as the representative nature of the available data. Water bodies that are impaired but it is unclear whether the cause of impairment is attributable to pollutants as opposed to pollution are also included on the M&E List.

### **B. List Development**

The statement of basis and purpose for Regulation No. 93 contains a description of how the lists were developed.

### **C. Prioritization and Scheduling**

The Division has committed to establishing a plan for monitoring and evaluating these water bodies prior to the list submission date for the subsequent listing cycle. Further, the Commission has committed to determining their appropriate status (as either impaired or fully supporting) within ten years of their placement on the M&E List.

### **D. Segment-Specific Issues**

1. Blue River segment 3: The Commission has included Gold Run Gulch below Jessie Mine (for cadmium and zinc) and the South Branch Swan River below Royal Tiger Mine (for zinc) on the Monitoring and Evaluation List. The Royal Tiger Mine and the Jessie Mine are both part of a CERCLA remediation effort, for which remedial project design is currently out to bid. Therefore, the Commission understands that the conditions in this area affecting water quality will be changing and that it is currently uncertain what uses or water quality can be supported in these waters in the future. The Commission does not intend by including these waters on the Monitoring and Evaluation List to conclude that any actions other than those CERCLA-related activities already

underway are necessary or appropriate at this site. The status of those efforts will be reviewed during the next update of this list.

2. Segments proposed for the Section 303(d) List: In several specific instances, the Commission made a determination in this rulemaking hearing that segments proposed by the Division or others for inclusion on the Section 303(d) List should instead be included on the Monitoring and Evaluation List. This applies in particular to Bear Creek segment 1a and Middle South Platte segment 1 in the South Platte Basin and to four named tributaries in Blue River segments 6 and 8 in the Upper Colorado River Basin. In each of these instances, the rationale for the Commission's decision to include these waters on the Monitoring and Evaluation List is set forth in the Statement of Basis and Purpose adopted for Regulation No. 93 as a result of this rulemaking.

**93.11 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; FEBRUARY, 2006 RULEMAKING, EFFECTIVE DATE OF APRIL 30, 2006**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (i), (2) and (6); 25-8-203; 25-8-204; and 25-8-401; 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 (303(d) List)**

**A. Introduction**

This regulation updates Colorado's List of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads ("TMDLs") to reflect additional water quality information available since the Regulation was promulgated in 2004. This list was prepared to fulfill section 303(d) of the federal Clean Water Act ("Act") which requires that states submit to the U.S. Environmental Protection Agency ("EPA") a list of those waters for which technology-based effluent limitations and other required controls are not stringent enough to implement water quality standards.

**B. List Development**

1. Listing Methodology

The "Section 303(d) Listing Methodology - 2006 Listing Cycle" contains a description of the listing process, the criteria for listing, and the criteria for determination of TMDL priority. The Listing Methodology was developed through a public process and finalized as a policy at a Water Quality Control Commission administrative action hearing on May 9, 2005.

This Listing Methodology sets forth the criteria that generally were used to make decisions regarding which waters to include on the 2006 Section 303(d) List and the 2006 M&E List. However, this methodology was not adopted by the Commission as a rule. The Commission therefore has the flexibility to take into account other appropriate factors in making site-specific listing decisions.

2. Information Considered

The Commission has considered all existing and readily available information in developing the 2006 Section 303(d) List. In determining whether data and information are existing and readily available, it has taken into account such data and information as the Division has utilized in the preparation of those identification processes, calculations and models referenced in 40 CFR §130.7(a)(5)(i), (ii) and (iv) and that credible data and information presented in a readily usable format and submitted in reports provided to the Division as referenced in 40 CFR §130.7(a)(5)(iii). In addition, the Commission accepted credible data and information that was submitted in accordance with the listing process schedule, whether submitted by EPA

or any other interested party. The Division also continues to independently collect and analyze new data on a rotating basin basis as part of its triennial review efforts and will utilize such data and information in making future listing determinations. Existing data which was not brought forward through one of the above mechanisms or otherwise presented to the Commission in accordance with the schedule was not treated as "readily available" for purposes of making the 2006 listing decisions. If submitted, such information will be considered in the next listing cycle.

### **C. Prioritization**

The objective of prioritization is to identify those waterbody segments where the Division and the public should concentrate their resources. Priorities of High, Medium and Low were established according to section IV. of the 2006 Section 303(d) Listing Methodology.

### **D. Temporary Modifications and Plans to Eliminate Uncertainty**

Consistent with the recent changes to the Basic Standards and Methodologies for Surface Water (Regulation No. 31) and the Discharge Permit Regulations (Regulation No. 61), the Commission deleted subsection 93.4 "Plans to Eliminate Uncertainty." The Statement of Basis for the June 2005 rulemaking hearing for Regulation No. 31 states:

The Commission recognizes that portions of the temporary modification provisions adopted in this rulemaking may be inconsistent with current provisions in Regulation No. 93. The Commission intends that the provisions adopted in this rulemaking will govern until appropriate revisions will be adopted in the Regulation No. 93 in the next rulemaking hearing reviewing that regulation.

In 2004, this provision was added to Regulation No. 93 to identify those waterbodies where work independent of the TMDL process was proceeding to identify the appropriate underlying standards. In these cases, TMDLs and permit limits were not to be based on the underlying standards until the uncertainty was resolved. The intent was that dischargers should not be forced to comply with underlying standards where there is ongoing work being done to resolve acknowledged uncertainty regarding the appropriateness of those underlying standards.

Dischargers are now protected from complying with underlying standards before the uncertainty is resolved by recent changes in the Basic Standards and the Permit Regulations. Now, for discharges to waters where a temporary modification has been adopted, a permit may contain compliance schedules that recognize this ongoing work and may extend beyond the end of the permit term. The Commission believes it appropriate for dischargers to focus their available resources on addressing uncertainty with respect to appropriate water quality standards, rather than on complying with standards that may change in a short time.

Consistent with this new approach to temporary modifications, the Commission intends that a more thorough consideration will be given to the causes and sources of non-attainment before temporary modifications are proposed. In cases where the appropriate way to address non-attainment of underlying standards is through the TMDL program, not through adoption of temporary modifications, the Commission may assign a higher TMDL priority to such waters.

### **E. Segment- Specific Issues**

Fountain Creek segment 2a: The Division had proposed inclusion of this segment due to non-attainment of the assigned E. coli standard. The Division noted that its proposal erroneously identified the listing as a "low" priority. The Section 303(d) Listing Methodology, 2006 Listing Cycle indicates that TMDLs for waters in non-support of Recreation 1a use classifications be designated as "high" priority. The Commission has therefore adopted a "high" priority designation for this segment.

Fountain Creek segment 2b: This segment is the lowermost of three that comprise the mainstem of Fountain Creek. Both of the upper two segments are included on the List of Impaired Waters for E. coli. The Sierra Club had proposed that this lowermost segment should also be listed for E. coli. The Commission has decided that the Division's analysis of the available data is consistent with the procedures contained in the Section 303(d) Listing Methodology, 2006 Listing Cycle and that the results of that analysis do not support inclusion of this segment on the Section 303(d) List of Water-Quality-Limited Segments Requiring TMDLs.

North Fork Gunnison River segment 6: The Division had proposed that this "all tributary" segment be listed in its entirety for non-attainment of the aquatic life use-based chronic selenium standard. The Colorado River Water Conservation District provided evidence that the standard is, in fact, attained at several locations within this segment. It is therefore appropriate that only that portion of the segment for which non-attainment has been documented be included on the list. The Commission has identified the affected portion of the segment as "Cottonwood Creek" and has revised the proposal accordingly.

Uncompahgre River segment 6b (Red Mountain Creek): The Commission had in a February 2004 Rulemaking Hearing determined that there is not adequate data to support a finding of impaired Aquatic Life Use relative to the expected condition. Information offered in the 2006 hearing further reinforces this conclusion by demonstrating that the Commission's classification assumes an extremely limited aquatic life use in this segment. In a rulemaking hearing scheduled for June 12, 2006, the Commission will consider a proposal to delete the aquatic life use classification for this segment. The Commission has therefore opted not to include Red Mountain Creek on the 2006 Section 303(d) List of Water-Quality-Limited Segments Requiring TMDLs.

Lower Gunnison segment 2: The Division proposed that this segment be listed for selenium and temperature, with a "high" priority for each. In view of evidence that it may be appropriate to reconsider the cold water aquatic life classification of this segment prior to initiating a TMDL, the Commission chose to change the priority for the temperature listing to "low".

Lower Colorado River segment 3: The Division had initially proposed listing of this segment for ammonia. During discussions with the City of Grand Junction it was noted that during the course of the Division's assessment an error had been made relative to the dataset utilized. The Division subsequently modified its proposal to withdraw this segment from its proposal. The Commission has not included the segment on the 2006 Section 303(d) List of Water-Quality-Limited Segments Requiring TMDLs.

Lower Colorado River segment 13a (Salt Creek): Salt Creek was proposed by the Division to be listed for sediment based upon a study of this and other tributary segments performed in conjunction with the BLM and Chadwick and Associates. Mesa County objected to the inclusion of Salt Creek on the Section 303(d) List of Water-Quality-Limited Segments Requiring TMDLs, arguing that the assessment protocols used were inconsistent with Commission Policy 98-1, the Implementation Guidance for Determining Sediment Deposition Impacts to Aquatic Life in Streams and Rivers. The assessment performed utilized the same approach embodied in the Sediment Guidance with respect to comparison of the affected reach to an expected condition. The validity of this comparative, expected condition analysis is not dependent on this being a high gradient, cobble bottom stream. The Commission has determined that the assessment adequately demonstrated non-attainment of the narrative sediment standard and consequent impairment of Salt Creek.

Bear Creek segment 1a: The Division proposed that this segment be retained on the Monitoring and Evaluation list for non-attainment of the assigned aquatic life use classification and for temperature. The evidence submitted demonstrated adverse impacts to trout populations at two stations (Bear Creek cabins and O'Fallon Park) situated in the upper reach of this segment since 2002 and documented that the use continued to recover well into 2004, although full recovery had not yet occurred. This evidence is consistent with the Commission's conclusion in 2004 that the demonstrative cause of adverse impacts to aquatic life

was the extreme drought in 2002. The 2006 Listing Methodology states that “Data collected during or immediately after temporary events influencing the waterbody that are not representative of normal conditions shall typically be discounted in making the listing decision.” Several parties argued that water quality conditions might have adversely affected the aquatic life. However, there was no evidence submitted demonstrating exceedance of the Mean Average Weekly Temperature criterion during 2004 or 2005, or demonstrating that impairment was otherwise caused by pollutants. The Commission has decided that the Division’s interpretation of the available data is consistent with the procedures contained in the Section 303(d) Listing Methodology, 2006 Listing Cycle and has determined that this segment should be retained on the Monitoring and Evaluation List for aquatic life impairments and temperature, and that its status should be reconsidered in future updates of Regulations No. 93 and No. 94.

The fact that impacts to Bear Creek aquatic life continue to appear to be related to the 2002 extreme drought is an adequate and appropriate basis for including this segment on the Monitoring and Evaluation List, rather than the Section 303(d) List. However, the Commission also notes that, even if continuing impacts did not appear to be tied to the drought, where there is no evidence that a numerical standard has been exceeded, the Commission’s practice has been to place waters on the Monitoring and Evaluation List if there is not evidence that a use impairment has been caused by a pollutant. The 2006 Listing Methodology states “Water bodies that are impaired but it is unclear whether the cause of impairment is attributable to pollutants as opposed to pollution will be placed on the M&E List.” EPA’s guidance for such circumstances differs. EPA’s guidance says that where there is an impairment but there has not been a demonstration that the impact is not caused by a pollutant, the water segment should be included on the Section 303(d) List. Because this provision appears in EPA guidance only, and the Commission is aware of no specific provisions of the Clean Water Act or EPA regulations that would dictate this result, the Commission believes that it has policy discretion to use different approach – i.e., to refrain from listing unless a pollutant has been identified as the cause of the use impairment.

Clear Creek segment 13b (North Fork Clear Creek): The Division had proposed this segment be retained on the Section 303(d) List of Water-Quality-Limited Segments Requiring TMDLs for several parameters and for non-attainment of the assigned aquatic life use classification. The Commission has adopted this proposal, but notes that the segment attains the assigned numeric copper standard. The listing therefore does not include copper. Further, the Commission notes that the Division had proposed a “high” priority for completion of TMDLs for this segment, due to the fact that the North Fork of Clear Creek was included on the 1998 List of Impaired Waters and is therefore subject to provisions of the 1999 Settlement Agreement addressing TMDL development by the Division. The Commission has determined that a “medium” priority will be assigned for TMDL development, while recognizing that the Division remains obligated to completion of TMDLs for this segment by June 30, 2008. If the underlying standards are revised in the 2009 South Platte River basin rulemaking, TMDLs and/or Wasteload Allocations based on the superceded standards should be revisited.

Cache la Poudre segment 14 (Horsetooth Reservoir): The Division proposed inclusion of Horsetooth Reservoir on the Section 303(d) List of Water-Quality-Limited Segments Requiring TMDLs due to non-attainment of the dissolved oxygen standard. Data for a ten-year period of record was found to be representative of conditions in the Reservoir. The Commission determined that in this instance it is appropriate to consider data for more than the most recent five years, in view of evidence that the most recent five years include a potentially unrepresentative period of reservoir drawdown. While the available data do not include samples spaced throughout a 24-hour period, the data are typical of that usually available for lakes and reservoirs. If diel variation were expected, it is likely that any such data would demonstrate a slight depression of dissolved oxygen concentration in the epilimnion during non-daylight hours. However, the area of non-attainment of dissolved oxygen in Horsetooth Reservoir is in the metalimnion, or middle layer of the reservoir. Testimony from Division staff indicated that it is unlikely that diel variation in dissolved oxygen levels would be expected in the metalimnion, since this deeper layer is unlikely to be affected by photosynthesis that occurs in the epilimnion. The Commission interprets the reference in the Listing Methodology to lake and reservoir samples representative of diel variation to apply

only in those factual circumstances (e.g. dissolved oxygen in the epilimnion) where such variation would be expected.

The assessments and recommendations by the Division regarding Horsetooth Reservoir were consistent with the Section 303(d) Listing Methodology, 2006 Listing Cycle. However, the Commission notes that this hearing identified a need to provide further clarifications regarding appropriate procedures for assessing compliance with dissolved oxygen standards, particularly for lakes and reservoirs. The Commission encourages the Division to pursue such clarifications in preparation of the 2008 Listing Methodology, including, e.g., addressing variations in attainment status from year-to-year and further clarification of what constitutes representative data.

Evidence regarding the status of aquatic life in Horsetooth Reservoir does not override the fact that the data demonstrate a long term standards exceedance. The Commission's practice has been to list waterbodies on the Section 303(d) List whenever representative data demonstrate non-attainment of a numerical standard, including dissolved oxygen. For other waters listed for non-attainment of dissolved oxygen, the Commission has not required evidence of the cause of the non-attainment. Although the provisions of the 2006 Listing Methodology arguably contain potentially conflicting language on this point, the Commission's practice has not been to apply the provision regarding "water bodies that are impaired but it is unclear whether the cause of impairment is attributable to pollutants" to waters with dissolved oxygen impairments. Moreover, although the Commission was willing to consider listing Horsetooth Reservoir on the M&E List if the cause of the dissolved oxygen impairment was recent reservoir draw downs (i.e., reservoir operations), the evidence did not support this conclusion.

Middle South Platte River segment 03a (Horse Creek Reservoir): The Division proposed that Horse Creek Reservoir be included on the Section 303(d) List of Water-Quality-Limited Segments Requiring TMDLs due to non-attainment of the assigned pH standard. The recommendation was based upon a representative dataset including four years of water quality monitoring results. The Commission has determined that inclusion of the Reservoir on the Section 303(d) List of Water-Quality-Limited Segments Requiring TMDLs for pH is appropriate and consistent with the Section 303(d) Listing Methodology, 2006 Listing Cycle. Dissolved oxygen data for the same four-year period demonstrate attainment of the dissolved oxygen standard. Although EPA questioned the Division's current practice of averaging dissolved oxygen data within the sampling profile or profiles for a single sampling event, the Commission has determined that this practice is acceptable and appropriate, and consistent with the 2006 Listing Methodology. EPA's proposal that Horse Creek Reservoir be listed for dissolved oxygen is based upon analytical procedures that are inconsistent with the Division's current assessment practice. The Commission has determined that the Reservoir is not impaired with respect to the dissolved oxygen standard.

Upper Colorado River segment 07b (Muddy Creek): The Division had proposed the listing of Muddy Creek for non-attainment of the assigned temperature standard. The Colorado River Water Conservation District objected to the Division's proposal and has provided evidence suggesting that the USGS sampling station (data from which formed the basis for the Division's proposal) is situated such that any temperature data generated is likely not representative. The Commission has therefore included the segment on the 2006 Monitoring and Evaluation List to allow further examination of temperature data from this station.

Upper Yampa River segment 07b: This segment comprises a portion of the Yampa River mainstem. The Division had proposed that this segment be listed for temperature, again based upon USGS monitoring data. The Colorado River Water Conservation District provided evidence concerning the location of the USGS sampling station below the Steamboat Springs hot springs discharge. Again parties have agreed that such data is likely not representative of instream conditions. The Commission has placed the segment on the 2006 Monitoring and Evaluation List.

Upper Yampa River segment 20 (First Creek, Elkhead Creek): These waters are classified for Recreation Use 1a, and are assigned a numeric E coli standard of 126 org./100 mL. Ambient E. coli levels exceed the

assigned numeric standard. The U. S. Forest Service has raised concerns regarding the current assigned Recreation Use and the associated numeric standards. The Commission has included the segment on the 2006 Section 303(d) List of Water-Quality-Limited Segments Requiring TMDLs based upon the current classification and standards. However, it is the intent of the Commission that these issues be examined in the context of the 2008 Upper Colorado surface water standards rulemaking prior to the initiation of the TMDL development process.

### **BASIS AND PURPOSE (Monitoring and Evaluation List)**

#### **A. Introduction**

This regulation updates Colorado's Monitoring and Evaluation List to reflect additional water quality information available since the Regulation was promulgated in 2004.

#### **B. List Development**

The statement of basis and purpose for Regulation No. 93 contains a description of how the lists were developed.

#### **C. Prioritization and Scheduling**

The Division remains committed to establishing a plan for monitoring and evaluating these water bodies prior to the list submission date for the subsequent listing cycle. Further, the Commission has committed to determining their appropriate status (as either impaired or fully supporting) within ten years of their placement on the M&E List.

#### **D. Segment-Specific Issues**

In a number of instances, the Commission chose in this hearing to include on the Monitoring and Evaluation List waters that were initially proposed by the Division, or recommended by other rulemaking participants, for inclusion on the Section 303(d) List, Regulation #93. These waters include Bear Creek segment 1a, Upper Colorado River segment 07b (Muddy Creek), and Upper Yampa River segment 07b. In each instance, the Commission's rationale for these decisions is set forth in the statement of basis and purpose for Regulation #93.

### **PARTIES TO THE RULEMAKING**

1. The City of Grand Junction
2. The Colorado Division of Wildlife
3. Evergreen Trout Unlimited and Colorado Trout Unlimited
4. The City of Colorado Springs
5. The City of Black Hawk
6. The Colorado River Water Conservation District
7. Friends of Bear Creek
8. Big Thompson Watershed Forum
9. The Bear Creek Watershed Association
10. The Northern Colorado Water Conservancy District
11. U.S. Environmental Protection Agency, Region 8
12. Evergreen Metropolitan District and West Jefferson County Metropolitan District
13. USDA Forest Service, Medicine Bow-Routt National Forests
14. Colorado Rock Products Association
15. City and County of Broomfield
16. Climax Molybdenum Company

17. The Metro Wastewater Reclamation District
18. Mount Carbon Metropolitan District

**93.12 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; FEBRUARY, 2008 RULEMAKING, EFFECTIVE DATE OF APRIL 30, 2008**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (i), (2) and (6); 25-8-203; 25-8-204; and 25-8-401; 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 (303(d) List)**

**A. Introduction**

This regulation updates Colorado's List of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads ("TMDLs") to reflect additional water quality information available since the Regulation was promulgated in 2006. This list was prepared to fulfill section 303(d) of the federal Clean Water Act ("Act") which requires that states submit to the U.S. Environmental Protection Agency ("EPA") a list of those waters for which technology-based effluent limitations and other required controls are not stringent enough to implement water quality standards.

**B. List Development**

1. Listing Methodology

The "Section 303(d) Listing Methodology - 2008 Listing Cycle" contains a description of the listing process, the criteria for listing, and the criteria for determination of TMDL priority. The Listing Methodology was developed through a public process and finalized as a policy at a Water Quality Control Commission administrative action hearing on May 15, 2007.

This Listing Methodology sets forth the criteria that generally were used to make decisions regarding which waters to include on the 2008 Section 303(d) List and the 2008 M&E List. However, this methodology was not adopted by the Commission as a rule. The Commission therefore has the flexibility to take into account other appropriate factors in making site-specific listing decisions.

2. Information Considered

The Commission has considered all existing and readily available information in developing the 2008 Section 303(d) List. In determining whether data and information are existing and readily available, it has taken into account such data and information as the Division has utilized in the preparation of those identification processes, calculations and models referenced in 40 CFR §130.7(a)(5)(i), (ii) and (iv) and that credible data and information presented in a readily usable format and submitted in reports provided to the Division as referenced in 40 CFR §130.7(a)(5)(iii). In addition, the Commission accepted credible data and information that was submitted in accordance with the listing process schedule, whether submitted by EPA or any other interested party. The Division also continues to independently collect and analyze new data on a rotating basin basis as part of its triennial review efforts and will utilize such data and information in making future listing determinations. Existing data which was not brought forward through one of the above mechanisms or otherwise presented to the Commission in accordance with the schedule was not treated as "readily available" for purposes of making the 2008 listing decisions. Such information will be considered in the next listing cycle.

**C. Prioritization**

The objective of prioritization is to identify those waterbody segments where the Division and the public should concentrate their resources. Priorities of High, Medium and Low were established according to section IV. of the 2008 Section 303(d) Listing Methodology.

#### **D. Fish Consumption Advisory Listings**

Consistent with the 2008 Section 303(d) Listing Methodology, the Division proposed to include 12 segments on the 2008 303(d) List for non-attainment of the aquatic life use due to fish consumption advisories for mercury. The 2008 Section 303(d) Listing Methodology, states:

Fish Consumption Advisories are issued by the Colorado Department of Public Health and Environment (“CDPHE”) in instances where analysis of fish tissue samples provides documentation of a public health risk. Issuance of a FCA by CDPHE indicates impairment of an Aquatic Life Use classification for any waters so classified.

The 2006 303(d) List included three of these reservoirs for impairment due to mercury: one in the Rio Grande basin: Sanchez Reservoir (Rio Grande, segment 30), and two in the San Juan basin: McPhee Reservoir (Dolores, segment 4) and Narraguinnep Reservoir (La Plata, segment 11). These listing were changed by the Commission to specify that the listing was based on non-attainment of the aquatic life. This is consistent with the 2008 Listing Methodology and avoids confusion that there is non-attainment of the mercury standard in the water column.

The Commission has included 12 segments on the 2008 303(d) List for non-attainment of the aquatic life use due to mercury fish consumption advisories for 13 lakes or reservoirs. The Commission also included one listing based on non-attainment of the aquatic life use due to a PCE fish consumption advisory in Willow Springs Ponds, Fountain Creek, segment 7a.

#### **E. Discussion of Issues Raised in the Hearing**

Dissolved Oxygen Standard in Lakes and Reservoirs: The issue of an appropriate D.O. standard in lakes and reservoirs was raised in this hearing by two parties, Northern and the River District. The River District focused its attention to high elevation lakes and reservoirs while Northern discussed the concept of representative data and assessment methods as outlined in the 2008 Listing Methodology. The Division agreed that work is needed to examine the D.O. standard for lakes and reservoirs and that additional refinement of the Listing Methodology is appropriate including consideration of whether and how refugia should be addressed. This standard is scheduled for review in preparation for the 2010 Basic Standards and Methodology, Regulation No. 31, RMH in June 2010. The Commission directs the Division to work with parties in 2008 and 2009 on any changes that are deemed appropriate for the 2010 Listing Methodology. The Commission made listing decisions based on the available data using the adopted standards and the 2008 Listing Methodology. Site-specific decisions made by the Commission are discussed below.

#### **F. Segment- Specific Issues**

Fountain Creek segment 6, Monument Creek: Mainstem of Monument Creek from the boundary of National Forest Lands to the confluence with Fountain Creek: The Division had proposed retaining the portion of Monument Creek below Mesa Road on the 2008 303(d) List because selenium concentrations in that portion exceed the water quality standard for Fountain Creek Segment 6. The Commission has determined that it is appropriate at this time to include this portion of Monument Creek on the 2008 303(d) List. However, because there is an appropriate plan in place to address the segment as a whole, the Commission directs the Division and Colorado Springs Utilities to revisit this plan to determine the causes and potential reversal of elevated Se concentrations and the appropriate long-term underlying standard for this section of COARFO06.

Lower Colorado segment 2, Colorado River (COLCLC02): Mainstem of the Colorado River from Parachute Creek to the Gunnison River. The Division originally proposed listing this segment based on non-attainment of the selenium standard. The Division based its proposal on data from multiple sampling locations. The River District questioned whether some of the sample locations, including the Humphrey backwater location and others, were in the segment. The Division reviewed the sampling locations and determined that some of the sampling locations used in the original proposal were outside the segment. The segment was reassessed and still showed impairment. The parties disagree whether Humphrey Backwater is located within the segment but agreed that it demonstrated exceedances of the selenium standard. The Commission ultimately decided to list the Humphrey Backwater portion of the Colorado River segment based on those data, rather than listing the entire segment.

White River segment 13b: Shell Frontier Oil and Gas Inc. provided additional analytical results for a number of locations within the Yellow Creek drainage. Re-assessment of several waters which had been proposed for inclusion on the Monitoring and Evaluation List indicated that Corral Creek, Box Elder Gulch, Stake Springs and Duck Creek, are all in attainment of the assigned standard for total recoverable iron. This additional data, however, also demonstrated that the lower portion of Corral Creek and Duck Creek are in non-attainment of the Aquatic Life Use-based chronic selenium standard. The Commission has added these waters to the 303(d) List for selenium.

Upper Colorado segment 5, Wolford Mountain Reservoir (COUCUC05): The River District opposed the Division's proposal to move Wolford Reservoir from the 2006 M&E List to the 2008 303(d) List when no additional data has been collected. In addition, the River District expressed their concerns with the current D.O. standard and Listing Methodology especially as it is applied to high alpine lakes and reservoirs. The Commission moved Wolford Reservoir from the M&E List to the 303(d) List based on the current standards and listing methods. The Commission has encouraged the Division, the River District and other parties to continue to work towards an improved D.O. standard for the 2010 Basic Standards Rulemaking Hearing. The Commission adopted a low priority for this listing, since it is appropriate for the D.O. standard and listing methodology issues to be addressed before substantial resources are expended on development of a TMDL.

Uncompahgre segment 14, Sweitzer Lake (COGUUN14): The Division proposed listing for Sweitzer Lake due to exceedances of the D.O. standard in the mixed layer. The River District pointed out that there was no thermal stratification and adequate refugia present and therefore the segment should not be listed. They also indicated that there is evidence of chemical stratification. The Commission listed Sweitzer Lake, segment COGUUN14, on the 303(d) List due to exceedances in the mixed layer as defined in the Listing Methodology.

Upper Yampa segment 13d, Dry Creek (COUCYA13d): The Division proposed listing the Hubberson Gulch tributary of this segment due to non-attainment of the total recoverable iron standard. Seneca Coal Company (Seneca) provided evidence that the tributary is in attainment of the standard. The Commission did not list the segment for total recoverable iron on the 303(d) List.

Upper Yampa segment 13e, Sage and Grassy Creeks (COUCYA13e): The Division proposed listing this segment due to non-attainment of the total recoverable iron and dissolved selenium standards. Seneca provided evidence that the total recoverable iron standard is attained within the segment. The Commission did not include the segment on the 303(d) List for total recoverable iron. Seneca also provided evidence that the selenium standard is attained in the upper portions of the two creeks in the segment. The Commission did include the lower portion of the creeks (Sage Creek below Routt County Road 51D and Grassy Creek below Routt County Road 27A), on the 303(d) List for dissolved selenium.

## **BASIS AND PURPOSE (Monitoring and Evaluation List)**

### **A. Introduction**

This regulation updates Colorado's Monitoring and Evaluation List to reflect additional water quality information available since the Regulation was promulgated in 2006.

## **B. List Development**

The statement of basis and purpose for Regulation No. 93 contains a description of how the lists were developed.

## **C. Prioritization and Scheduling**

The Division remains committed to establishing a plan for monitoring and evaluating these water bodies prior to the list submission date for the subsequent listing cycle. Further, the Commission has committed to determining their appropriate status (as either impaired or fully supporting) within ten years of their placement on the M&E List.

## **D. Segment Specific Issues**

1. Lower Dolores segment 3 (COGULD03): The Commission approved resegmentation of Lower Dolores segment 3 at the Regulation 35 Rulemaking Hearing in June 2006. The resegmentation was based on the Division's investigation identifying Salt Creek draining the Sinbad Valley. The Sinbad Valley is identified by the Colorado Geological Survey as a graben or a collapse feature that formed in response to salt migration and dissolution beneath the area. Based on this information the selenium and zinc standards for the new Salt Creek segment were set at ambient conditions. The Division proposed to delete this from the M&E List based on attainment of the new ambient standards. The Commission removed this segment from the M&E List.
2. Bear Creek segment 1a (COSPBE01a): This segment was removed from the M&E List based on assessment of annual fish surveys, water quality parameters and temperature data. It is noted that Bear Creek has seen significant improvement but still requires continued cooperative efforts by the Division, DOW, the Bear Creek Watershed Authority, Trout Unlimited and others to prevent future impairment or re-listing.
3. Blue River segment 3 (COUCBL03): The Commission has included Gold Run Gulch below Jessie Mine (for cadmium and zinc) and the South Branch Swan River below Royal Tiger Mine (for zinc) on the 2006 Monitoring and Evaluation List. The Royal Tiger Mine and the Jessie Mine are both part of a CERCLA remediation effort completed in 2007. Remediation results with respect to water quality are not yet available. In the past the Commission did not intend by including these waters on the Monitoring and Evaluation List to conclude that any actions other than those completed CERCLA-related activities are necessary or appropriate at this site. The status of those efforts will be reviewed during the next update of this list.
4. White River segment 16 (COLCWH16): The Commission has included Ryan Gulch on the Monitoring and Evaluation List for *E. coli*. Shell had argued that Ryan Gulch should not be included on the Monitoring and Evaluation List for *E. coli* due to the lack of more than a single sample and because "*the segment does not appear to support classification as recreation class 2.*" The Commission notes that placement of the water on the Monitoring and Evaluation List does not indicate a finding that Ryan Gulch is in non-attainment with the assigned Recreational Use, only that more data is needed to accurately assess the attainment status. Further, the Commission would note that alternate Recreation Use designations have more stringent *E. coli* standards than that assigned with the current Recreation Use designation.
5. Upper Yampa segment 13d, Dry Creek (COUCYA13d): The Division proposed listing this segment due to exceedances of the lead standard. Seneca provided evidence that the lead standard is

attained within the upper portion of this segment. The Commission included the lower portions of the segment (below Routt County Road 53 (Sec. 22, T6N, R88W)), on the 2008 M&E List for dissolved lead.

6. Uncompahgre segment 3b, Ridgeway Reservoir (COGUUN03b): Listing methods for temperature in lakes were changed in the *Section 303(d) Listing Methodology – 2008 Listing Cycle* to reflect changes in the temperature standards in *Regulation No. 31*. In the *Listing Methodology* (p. 25) it states: “If the refuge is not adequate because of low dissolved oxygen, the lake or reservoir may be listed as impaired for dissolved oxygen rather than for temperature.” The Division proposed a few segments for the M&E List that are listed for dissolved oxygen due to exceedances of temperature in the epilimnion where there was not adequate refugia in the lower levels of the lake or reservoir. Ridgeway Reservoir was one of those segments. The data showed that the temperature standard was exceeded in the epilimnion on 7/21/05. An adequate refuge from high temperatures in the epilimnion was not present on that day due to inadequate dissolved oxygen in the lower portion of the lake. Due to confusion that this type of listing caused, the parameter notation in Regulation No. 94 was changed to indicate that the D.O. listing was due to exceedances of the temperature standard. The Commission added Ridgeway Reservoir; segment COGUUN03b, to the M&E List for “D.O. (temperature)”.
7. Fountain Creek segment 2a (COARFO02a): Fountain Creek segment COARFO02a includes the mainstem from its confluence with Monument Creek to the State Highway 47 Bridge. This segment was assigned an ambient-based chronic selenium standard of 8.0 ug/L during the Arkansas River Basin RMH in 2007. The Aquatic Life Use-based acute standard was set at TVS. Two acute exceedances were found during the data assessment for this rulemaking hearing that could place this segment on the 303(d) List. Further investigation of these acute exceedances showed discrepancies in the USGS and the WQCD data. The Division, as well as Colorado Springs, believed that because of the inconsistent nature of this data it may not be representative, and together the parties will investigate the validity of these data. For this reason, the Commission placed this segment on the M&E as opposed to the 303(d) List until further study of selenium in this segment can take place.
8. Upper Colorado segment 2, Shadow Mountain Reservoir (COUCUC02): The Division originally proposed to include Shadow Mountain Reservoir on the 2008 303(d) List for dissolved oxygen. In their RPHS, Northern opposed the listing of Shadow Mountain for dissolved oxygen on the 303(d) List. They stated that the data was not representative because it was not spatially distributed, it did not have temporal variability, and it followed a temporary event, namely fall turn over following a historic drought. The Division disagreed regarding the representative nature of the sampling program but points out that there are questions about the validity of the September 2003 sample profile that was evaluated. For example, the Division believed that D.O. readings taken on September 16, 2003 may have been a calibration error. Moreover, that was the only reading that exceeded the standard during the entire period of record and thus may not have been representative. For these reasons the reservoir was placed on the M&E List as opposed to the 303(d) List until further evaluation can take place.
9. Upper Colorado segments 6 and 8, Camp Cr, Jones Gulch, Keystone Cr, and Mozart Creek (COUCBL06 and COUCBL08): During the 2004 rulemaking process, the four identified tributaries in these two segments were placed on the M&E List based upon measured pH levels during one spring one runoff season when pH levels are expected to be relatively low due to natural causes. Subsequent water quality monitoring conducted over a period of four years has found that these streams meet the pH standards and have 15<sup>th</sup> percentile values that are above the minimum 6.5 s.u. pH standard. Based upon these findings, the Commission removed segments COUCBL06 and COUCBL08 from the M&E List.

10. Upper Colorado segment 10 (COUCUC10): The Division proposed that segment COUCUC10 be placed on the M&E List for copper based on data from WQCD station 12193, located on the Fraser River at the Town of Fraser. Additional stations were assessed on this segment. The Districts questioned the data used in the assessment and upon reevaluation of data for five stations along the Fraser River, the Division revised its proposal to only list a portion of the segment on the M&E List. The WQCC placed the Fraser River from the Town of Fraser to the confluence with the Colorado River on the M&E List based on this data analysis. The Division will work with the Grand County Districts and the Grand County Water Information Network (GCWIN) to collect more data and look into copper issues on the Fraser River.

#### PARTIES TO THE RULEMAKING HEARING

1. The Metro Wastewater Reclamation District
2. Bear Creek Watershed Association
3. Keystone Resort
4. City of Colorado Springs and Colorado Springs Utilities
5. CAM-Colorado LLC and CAM Mining LLC
6. Colorado Division of Wildlife
7. Southeastern Colorado Water Conservancy District
8. Shell Frontier Oil and Gas, Inc.
9. The Grand County Water and Sanitation District #1, the Winter Park West Water and Sanitation District, the Fraser Sanitation District and the Winter Park Sanitation District
10. Trout Unlimited, Colorado Trout Unlimited, and the Evergreen Chapter of Trout Unlimited
11. Northern Colorado Water Conservancy District
12. Seneca Coal Company
13. Colorado River Water Conservation District
14. U.S. Environmental Protection Agency, Region 8
15. City of Black Hawk and Black Hawk/Central City Sanitation District
16. Cripple Creek & Victor Gold Mining Company
17. Town of Minturn
18. Homestake Mining Company of California
19. CBS Operations Inc

#### **93.13 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; FEBRUARY, 2010 RULEMAKING, EFFECTIVE DATE OF APRIL 30, 2010**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (i), (2) and (6); 25-8-203; 25-8-204; and 25-8-401; 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**

##### **A. Consolidation of Regulations #93 and #94**

Prior to the 2010 listing cycle, Colorado's list of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads was set forth in this Regulation #93, and Colorado's Monitoring and Evaluation List was set forth in Regulation #94. In this hearing, the Commission has approved the Division staff proposal to combine both lists into Regulation #93, and to repeal the former Regulation #94. The primary benefit of combining the regulations is to make the status of water segments in Colorado easier to understand by setting forth both lists in one table. This new structure will also make it easier to understand proposed revisions to either list during future rulemaking hearings. These benefits will be seen by the Division, the Commission and interested stakeholders.

Both regulations were heard by the Commission at the same rulemaking hearings in the past and decisions were made for both regulations at the same time. One reason for maintaining separate lists in the past is that Colorado's list of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads is subject to EPA approval, while Colorado's Monitoring and Evaluation List is not. Although the Commission is now combining both lists into one regulation for simplicity and ease of use, it will continue to be only the list of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads that requires EPA approval. In submitting the revised "Section 303(d) List" to EPA, the Commission will note that only that list is submitted for approval and that the separate Colorado Monitoring and Evaluation List is maintained as state-only information.

**B. Revisions to 303(d) List**

1. Introduction

This regulation updates Colorado's List of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads ("TMDLs") to reflect additional water quality information available since the Regulation was promulgated in 2008. This list was prepared to fulfill section 303(d) of the federal Clean Water Act ("Act") which requires that states submit to the U.S. Environmental Protection Agency ("EPA") a list of those waters for which technology-based effluent limitations and other required controls are not stringent enough to implement water quality standards.

2. List Development

a. Listing Methodology

The "Section 303(d) Listing Methodology - 2010 Listing Cycle" contains a description of the listing process, the criteria for listing, and the criteria for determination of TMDL priority. The Listing Methodology was developed through a public process and finalized as a policy at a Water Quality Control Commission administrative action hearing on May 11, 2009.

This Listing Methodology sets forth the criteria that generally were used to make decisions regarding which waters to include on the 2010 Section 303(d) List and the 2010 M&E List. However, this methodology was not adopted by the Commission as a rule. The Commission therefore has the flexibility to take into account other appropriate factors in making site-specific listing decisions.

b. Information Considered

The Commission has considered all existing and readily available information in developing the 2010 Section 303(d) List. In determining whether data and information are existing and readily available, it has taken into account such data and information as the Division has utilized in the preparation of those identification processes, calculations and models referenced in 40 CFR §130.7(a)(5)(i), (ii) and (iv) and that credible data and information presented in a readily usable format and submitted in reports provided to the Division as referenced in 40 CFR §130.7(a)(5)(iii). In addition, the Commission accepted credible data and information that was submitted in accordance with the listing process schedule, whether submitted by EPA or any other interested party. The Division also continues to independently collect and analyze new data on a rotating basin basis as part of its triennial review listing efforts and will utilize such data and information in making future listing determinations. Existing data which was not brought forward through one of the above mechanisms or otherwise presented to the Commission in accordance with the schedule was not treated as "readily available" for purposes of making the 2010 listing decisions. Such information will be considered in the next listing cycle.

c. Data Quality

In the Division's Quality Management Plan 2007 for the Collection and Utilization of Environmental Data, the WQCD states that "It is the expressed goal of the Division to use only those analytical data that are both reliable and have a defined level of quality." In order to meet this goal, the WQCD required that all information submitted in response to its August 2009 call for data have a certification of quality included with the data. All of the information received for this data call that was utilized to develop assessments for this rulemaking hearing had a quality certification submitted or has been identified as not having this certification. Only a small fraction of the data is not certified.

3. Prioritization

The objective of prioritization is to identify those waterbody segments where the Division and the public should concentrate their resources. Priorities of High, Medium and Low were established according to section IV. of the 2010 Section 303(d) Listing Methodology.

4. Fish Consumption Advisory Listings

The 2010 Section 303(d) Listing Methodology, states:

Fish Consumption Advisories are issued by the Colorado Department of Public Health and Environment ("CDPHE") in instances where analysis of fish tissue samples provides documentation of a public health risk. Issuance of a FCA by CDPHE indicates impairment of an Aquatic Life Use classification for any waters so classified.

The Commission has included 17 segments on the 2010 303(d) List for non-attainment of the aquatic life use due to mercury fish consumption advisories for 22 lakes or reservoirs. The Commission also included one listing based on non-attainment of the aquatic life use due to a PCE fish consumption advisory in Willow Springs Ponds, Fountain Creek, Segment 7a.

The following segments have been added to the 2010 303(d) List due to new Fish Consumption Advisories:

- Lower Gunnison Segment 4b, Juniata Reservoir
- Lower Colorado Segment 20, Rifle Gap Reservoir
- San Juan Segment 6a, Echo Canyon Reservoir
- Upper Colorado Segment 12, Lake Granby
- Yampa River Segment 2b, Elkhead Reservoir, Catamount Lake

5. New Table Value Standards

Cadmium and Zinc: As part of the Basic Standards hearing of 2005, new zinc and cadmium table values were adopted. The acute and chronic zinc and cadmium equations in each basin were modified to conform to Regulation No. 31 over the last four years. An increase in cadmium listings were the result of a more stringent cadmium standard.

The following segments were added to the 303(d) List for cadmium:

- Big Thompson Segment 2
- Clear Creek Segments 2a, 2b, 2c, 9b, 11, 13b
- Cache la Poudre Segment 7
- Upper South Platte Segments 2b, 2c, 5a, 5b, 15
- Blue River Segment 12

- Eagle River Segment 5c
- Upper South Platte Segments 3 (Hawkins Gulch), 5a

Temperature: As part of the Temperature Standards hearing of 2007, new temperature table values were adopted. The acute and chronic temperature standards in the Upper and Lower Colorado and the South Platte River Basins were modified to conform to Regulation No. 31 over the last two years.

The following segments were added to the 303(d) List for temperature:

- Upper Colorado Segments 3, 4, 7b and 10c

#### 6. Listings Due to Exceedances of the Secondary Water Supply Standards

For the secondary water supply standards of dissolved iron, manganese and sulfate, the less restrictive of the following two options will apply as the numeric standard: existing quality as of January 1, 2000 or the table value criteria in Regulation No. 31, Tables II and III. For dissolved iron this value is 300 ug/l. For manganese this value is 50 ug/l. For sulfate this value is 250 ug/l.

The Division evaluated the water quality as of January 1, 2000 to determine in some cases where standards exceeded the water supply criteria in Tables II and III. The following segments were proposed for listing based on exceedances of the standards:

- Lower South Platte Segment 1: Manganese

#### 7. Relisting Segments with Approved TMDLs Due to Standards Changes

Once a TMDL has been completed, impaired waters are removed from the 303(d) List and placed into Integrated Reporting Category 4a. TMDLs are written to the adopted standards at the time they are submitted to EPA. As standards are periodically reviewed they may become more stringent. In these cases the TMDL may no longer be protective of the current standards. The Division reviewed segments where both TMDLs have been written and new, more restrictive standards have been adopted by the Commission. The Commission has relisted the following segments:

South Platte Basin:

- Clear Creek Segments 09b, 11, and 13b: Cadmium
- Clear Creek Segment 02b: Zinc
- Upper South Platte Segments 2b, 2c and 15: Cadmium

#### 8. Delisting of Segments with Recently Approved TMDLs

The Division submitted 64 TMDLs to EPA in the last biennium that have been approved. The following segments and parameters have been removed from the 303(d) List:

- Upper Arkansas Segment 2a: Zinc
- Upper Arkansas Segments 2b, 2c and 3: Cadmium and Zinc
- Upper Arkansas Segment 5: Lead and Cadmium
- Upper Arkansas Segment 7: Zinc
- Upper Arkansas Segment 11: pH, Aluminum, Cadmium, Copper and Zinc
- Upper Arkansas Segment 12a: Lead and Zinc
- San Miguel Segment 3a: Zinc
- San Miguel Segment 3b: Cadmium and Zinc

- San Miguel Segments 6a and 6b: Zinc
- Uncompahgre Segments 2, 3a, 6a: Cadmium, Copper, Iron, and Zinc
- Rio Grande Segment 4: Cadmium and Zinc
- Rio Grande Segment 30, Sanchez Reservoir: Aquatic Life Use (Hg FCA)
- Closed Basin Segment 9a: Cadmium
- Closed Basin Segment 9b: Copper
- Dolores River Segment 9: Cadmium and Zinc
- Boulder Creek Segment 4a: pH, Cadmium, Copper and Zinc
- Clear Creek Segment 2: Copper and Zinc
- Clear Creek Segment 3a: Zinc
- Clear Creek Segment 3b: Lead and Zinc
- Clear Creek Segment 9a: Copper
- Clear Creek Segment 9b: Copper, Lead and Zinc
- Clear Creek Segment 11: Lead and Zinc
- Clear Creek Segment 13b: Total Recoverable Iron, Manganese, Zinc, and Aquatic Life Use
- Upper South Platte Segment 4: Copper
- Upper South Platte Segment 5b: Zinc
- Blue River Segment 6: pH, Cadmium, Copper, Lead and Zinc
- Blue River Segment 7: pH, Cadmium, Copper, Lead, Manganese and Zinc
- Blue River Segment 12: Zinc
- Eagle River Segment 5a: Copper and Zinc
- Eagle River Segment 5b: Zinc
- Eagle River Segment 5c: Zinc
- Eagle River Segment 7b: Copper and Zinc

9. Delisting of Segments where Water Quality is Currently Meeting Standards

As additional water quality data is collected and assessed, new data may show attainment of the standards. The following segments and parameters have been removed from the 303(d) List due to attainment of current water quality standards:

- Upper Arkansas Segment 2a: NO<sub>3</sub>
- Uncompahgre River Segment 14, Sweitzer Lake: D.O.
- Lower Colorado Segment 3: Total Recoverable Iron
- White River Segment 13b, Corral Creek: Selenium
- La Plata Segment 4a: Zinc
- Rio Grande Grande Segment 9 (Beaver Creek Reservoir): D.O.
- Closed Basin Segment 6, San Luis Lake: D.O.
- Cherry Creek Segment 2, Cherry Creek Reservoir: chlorophyll a
- Upper Colorado Segment 7a: Total Recoverable Iron
- Yampa River Segment 16: Total Recoverable Iron
- Lower Yampa Segment 20: *E. coli*
- Cache La Poudre Segment 14 (Horsetooth Reservoir): D.O.
- Upper Colorado Segment 5 (Wolford Reservoir): D.O.

10. Dissolved Oxygen Standard in Lakes and Reservoirs

In 2008, the Commission directed the Division to work with outside parties and stakeholders on changes to the Listing Methodology with regards to the assessment of dissolved oxygen in lakes and reservoirs. Refinement of assessment methods were discussed in workgroup meetings and updates to the dissolved oxygen methods were included in the 2010 Listing Methodology.

The revised 2010 Listing Methodology states that if the average temperature in the epilimnion of lakes and reservoirs exceeds the temperature standard, temperature and dissolved oxygen below the epilimnion will be evaluated for adequate refuge. Refuge is defined as the concurrent attainment of the temperature and dissolved oxygen standard at lower depths. If adequate refuge is not present in a single profile, the segment is listed as impaired for dissolved oxygen rather than for temperature. The Commission added the following segments to the 303(d) List due to exceedances of the temperature standard where adequate refuge was not found:

- Lower Arkansas Segment 5b, Trinidad Lake
- Clear Creek Segment 17a, Arvada Reservoir

The Listing Methodology also states that if the average dissolved oxygen concentration in the epilimnion falls below the standard in any profile, the lake will be placed on the 303(d) list. Where the dissolved oxygen standard is not attained in the metalimnion, but it is attained in the epilimnion, the lake may be placed on the M&E list, according to the Listing Methodology. The Commission added 25 new lakes to the M&E list due to exceedances in the dissolved oxygen standard in the metalimnion. The following twelve lakes and reservoirs were added to the 303(d) List due to exceedances in the dissolved oxygen standard in the epilimnion:

- Cache la Poudre Segment 20, Seaman Reservoir
- Middle South Platte Segment 4, Milton Reservoir
- Middle South Platte Segment 7, Prospect Lake
- Upper South Platte Segment 17a, Berkeley Lake, Duck Lake
- Upper South Platte Segment 17b, Sloan's Lake
- Upper South Platte Segment 23, Barnum Lake, Garfield Lake, Harvey Lake, Parkfield Lake and Houston Lake
- Upper Colorado Segment 2, Shadow Mountain Lake

The dissolved oxygen standard is slated for revisions in the 2010 Basic Standards and Methodology, Regulation No. 31, rule-making hearing in June 2010. The attainment decision for these lakes and reservoirs may be different when they are reassessed with the revised standard.

11. Seasonal Listings of *E. Coli*

The 2010 Listing Methodology included a provision to allow assessment of the *E. coli* standard on a seasonal basis. The Division proposed the following segments be placed on the 303(d) List based on seasonal impairments of the *E. coli* standard:

- Arkansas River Basin, Fountain Creek Segments 2b and 6
- South Platte Basin, Big Thompson Segment 9
- South Platte Basin, Cache la Poudre Segments 12 and 13a
- South Platte Basin, Bear Creek Segment 2
- South Platte, Clear Creek Segment 15
- South Platte, Upper South Platte Segment 16c: Harvard, West Harvard and Lakewood Gulches

The Commission adopted all proposed seasonal listings onto the 303(d) List as proposed by the Division.

12. Listing of Segments where Water Quality is not Meeting Standards not Identified Above

The following segments were added to the 303(d) List due to exceedances of water quality standards not identified above:

- South Platte, Bear Creek Segment 5: Swede Gulch/Kerr Gulch, *E. coli*
- South Platte, Cherry Creek Segment 3: *E. coli* and Se
- South Platte, Clear Creek Segment 2b: Zn
- South Platte, Clear Creek Segment 3a: Cu
- South Platte, Clear Creek Segment 9a: Silver Creek, Cu and Pb
- South Platte, Clear Creek Segment 9b: pH
- Upper Gunnison Segment 29a, Deadman Gulch: pH, Cd, Cu, Mn, Zn, Fe(Trec)
- Lower Colorado Segment 10: Se
- Lower Colorado, White River Segment 9d: Se
- South Platte, Bear Creek Segment 1c (Bear Creek Reservoir): Chl a, Phosphorus
- South Platte, Bear Creek Segment 5: *E. coli*
- South Platte, Boulder Creek Segment 2a, 2b and 3: Cu
- South Platte, Boulder Creek Segment 8: Se
- South Platte, Boulder Creek Segment 9: As
- South Platte, Big Thompson Segment 2: Cu, Zn
- South Platte, Big Thompson Segment 3, 6, 7: Cu
- South Platte, Big Thompson Segment 4a, 4b: Se
- South Platte, Big Thompson Segment 8: D.O
- South Platte, Big Thompson Segment 16 (Lake Estes): Cu
- South Platte, Cache La Poudre Segment 7: Pb
- South Platte, Cache La Poudre Segment 11: Se
- South Platte, Lower South Platte Segment 1: Se, Mn
- South Platte, Lower South Platte Segment 2b: Se
- South Platte, Middle South Platte Segment 1a: *E. coli*
- South Platte, Middle South Platte Segment 1b: Se
- South Platte, Middle South Platte Segment 4 (Barr and Milton Reservoirs): NH<sub>3</sub>
- South Platte, Middle South Platte Segment 7 (Horse Creek Reservoir and Prospect Lake): pH, NH<sub>3</sub>
- South Platte, Republican Segment 4: *E. coli*
- South Platte, St. Vrain Segment 2a: Zn
- South Platte, St. Vrain Segment 4c: Cu, As
- South Platte, Upper South Platte Segment 2c: Zn
- South Platte, Upper South Platte Segment 3 (Hawkins Gulch): Se
- South Platte, Upper South Platte Segment 3 (Horse Creek): D.O., Fe(trec)
- South Platte, Upper South Platte Segment 3 (West Creek): As, Hg
- South Platte, Upper South Platte Segment 3 (Goose Creek): D.O.
- South Platte, Upper South Platte Segment 3 (Trail & Wigwam Creeks): Fe(trec)
- South Platte, Upper South Platte Segment 4: pH
- South Platte, Upper South Platte Segment 5a: Cu, Zn
- South Platte, Upper South Platte Segment 5c: NH<sub>3</sub>
- South Platte, Upper South Platte Segment 14: As
- South Platte, Upper South Platte Segment 17a (Berkeley Lake): As
- South Platte, Upper South Platte Segment 23 (Barnum Lake): *E. coli*
- Upper Colorado, Yampa River Segment 13b: Total Recoverable Iron

13. Segment- Specific Issues

- a. Upper South Platte Segment 15 and Middle South Platte Segment 1a – Category 4b Demonstration Plan

Metro Wastewater Reclamation submitted a Category 4b Demonstration Plan to the Division for two segments on the mainstem of the South Platte: Upper South Platte Segment 15 and Middle South Platte Segment 1a. Category 4b is an alternative to listing an impaired segment on the 303(d) List. A Category 4b Demonstration Plan, when

implemented, must ensure attainment with all applicable water quality standards through pollution control mechanisms within a reasonable time period. This plan was accepted by the U.S. Environmental Protection Agency prior to the development of the Division's proposed 303(d) List. As a result, the Division did not include these segments in their proposal. No further discussion or comments were received by other parties. The Commission did not include Upper South Platte Segment 15 and Middle South Platte Segment 1a on the 303(d) List for ammonia and nitrate, for which the Category 4b Demonstration Plan was written. The Commission expects that after a reasonable period of time as defined in the Category 4b Demonstration Plan, water quality will be reexamined on these segments. If water quality standards are not achieved at this time the segment will be considered impaired and placed on the 303(d) List.

b. South Platte River (COSPUS14 and COSPUS15) - Trash

Two proposals were originally submitted in prehearing statements by P.U.R.E. and Wild Earth Guardians to list the South Platte River from Bowles Avenue to the confluence of Sand Creek as impaired for trash. Wild Earth Guardians withdrew their proposal but P.U.R.E maintained their proposal. The Division met prior to the Rulemaking hearing with representatives of P.U.R.E and discussed the issue. The Division maintained that a method to determine impairment for trash did not exist and that this must be determined before a decision of impairment can be made. The Division and P.U.R.E agreed to begin to address this issue in the 2012 303d Listing Methodology development stakeholder process that is to begin in the summer of 2010.

After listening to all of the testimony on this topic, the Commission took no action on listing these segments for trash at this time. It is expected that P.U.R.E, the Division and other stakeholders will work collaboratively to develop an appropriate methodology for determining impairment for trash through the 2012 303d Listing Methodology development process and other appropriate collaborative processes.

c. Muddy Creek (COUCUC07b) – Temperature

The Division proposed to list Muddy Creek (COUCUC07b) on the 303(d) List for temperature. The River Water Conservation District (River District) opposed this listing stating that exceedances at an upper station were due to a temporary construction at the outlet of Wolford Reservoir. Exceedances were still found at the lower station. The Commission adopted the Division's alternate proposal to include the upper portion from Wolford Reservoir to Cow Gulch on the M&E List the and lower portion from Cow Gulch to the Colorado River on the 303(d) List.

d. Colorado River (COUCUC03) – Temperature

The Division proposed to place all of the Colorado River mainstem from Lake Granby to the Roaring Fork River (COUCUC03) on the 303(d) List for temperature exceedances. Northern Colorado River Conservancy District (Northern) proposed an alternative portion of 578 Road bridge to the William Fork confluence. The Commission found that the portion that Northern recommended, omitted sites with exceedances both above and below their recommended portion. To encompass the entire scope of temperature exceedances, the Commission adopted the portion from 578 Road to immediately above the confluence with the Blue River.

e. Lower Colorado Segment 2b – Selenium

In 2008, the Commission adopted only the portion at Humphrey Backwaters Area onto the 303(d) List for selenium. For this cycle, the Division proposed to list the entire segment for selenium. The City of Grand Junction and the River District opposed this listing claiming that the Riverwatch data used in the assessment was not representative or of good quality. The Division supported the quality of this data but since the data was older than five years, the Division agreed that additional data collection was needed before a decision to list the entire segment could be made. The Commission placed the remainder of this segment on the M&E List while leaving the Humphrey Backwaters Area on the 303(d) List. Grand Junction and the River District have offered to collect data throughout the segment before the next 303(d) rulemaking hearing in 2012.

f. Upper South Platte Segment 16c

Upper South Platte Segment 16c is an all tributary segment and the Division proposed to place the entire segment on the 303(d) List for exceedances of *E. coli* and selenium.

*E. coli*: Denver Environmental Health (DEH) opposed listing all tributaries for both parameters. DEH put forward an alternative proposal for *E. coli* on this segment with some tributaries to be included on the 303(d) annually, some listed seasonally and one for the M&E List based on the attainment conclusions for each tributary individually. Those tributaries attaining the standard were not proposed for either list. The Division reviewed their proposal and agreed that it is a reasonable approach for *E. coli*. The Commission adopted the alternative proposal as presented by DEH.

Selenium: DEH also asked that the Commission to only list those tributaries that have selenium data on the 303(d) List. The Division opposed this alternative proposal. The Division pointed out that unlike the data found on *E. coli* for these tributaries, everywhere that selenium data was collected, exceedances were found. The Commission chose to place the entire segment on the 303(d) List for selenium.

g. Fountain Creek Segments 2a and 2b

The Division originally proposed to change the *E. coli* listing on Segment 2a from annual to seasonal (May through October) and to add Segment 2b to the 303(d) List seasonally. Rocky Mountain Environmental Labor Coalition/Sierra Club and Bill Thiebaut, District Attorney for the 10<sup>th</sup> Judicial District, asked that the listing be considered for the entire year for both segments as there are recreation uses in Fountain Creek year round. Through further investigation and reassessment of the data by the Division and the parties, data indicates that in Segment 2a, the *E. coli* standards are exceeded annually as opposed to seasonally as originally thought. In Segment 2b the exceedances were only found from May – October. The Commission chose to retain the listing on Segment 2a for *E. coli* annually and to add Segment 2b to the 303(d) List from May-October.

The Division also originally proposed to remove the selenium listings on Segment 2a and 2b. This proposal also received opposition from RMELC/Sierra Club and Bill Thiebaut as there are ongoing studies regarding selenium in Fountain Creek. Colorado Springs supported the Division's original proposal. Further investigation of acute selenium exceedances in Segment 2b in July 2005 prompted the Division and EPA to change their position prior to the hearing to retain this segment on the 303(d) List. The Commission agreed that this listing should remain on the 303(d) List until further evidence exist to support delisting. The Commission agreed with the Division that the data is meeting the ambient based standards in Segment 2a and removed the M&E listing for that segment.

h. Bear Creek (COSPBE05) – Swede Gulch and Kerr Gulch -*E. coli*

The Division originally proposed to list only Swede Gulch based on the Division's sampling at the mouth of the gulch. The Bear Creek Watershed Association (BCWA) identified this sampling location as Kerr Gulch. The Division used USGS and other maps indicating this as Swede Gulch. The Colorado Department of Transportation (CDOT) and residents identify this as Kerr Gulch. The Division met with the BCWA and agreed that the watershed, whatever the name of the stream, may be impacted by septic systems and livestock. The BCWA agreed to the development and implementation of a monitoring plan in the watershed to identify *E. coli* sources. The Division agreed that if the plan were implemented the priority of the listing should be changed from high to low to allow time for sampling and development of stakeholder involvement. The Commission agreed with the Division and the BCWA's plan for Swede Gulch and Kerr Gulch.

i. Clear Creek (COSPCL14b) – Manganese

The Division proposed to add manganese to the list of impairment parameters of Clear Creek segment 14b. During the 2009 South Platte River Basin RMH a new site-specific manganese standard was established for the segment. In the development of the new site-specific standard for segment 14b, data from both Clear Creek segments 14a and 14b were combined to determine a single standard for both segments. This procedure was used since segment 14a has very limited data and it was felt averaging would establish a more realistic standard. As it turns out when segment 14b only data is assessed against the new standard developed using data from both segments, the few samples from segment 14a with a lower ambient manganese concentration skewed the development of the site-specific standard enough that segment 14b data exceeds the new standard.

Based on the fact that the segment 14b site-specific standard was developed using data from the upstream segment it is not possible to evaluate if the segment is in attainment of the manganese standard. The proper site-specific standard indicating ambient conditions should be equivalent to the current assessment value and would not indicate impairment since they are the same dataset.

After reviewing the development of the segment 14b site-specific manganese standard, the Division agreed with MillerCoors that the Clear Creek segment should not be listed for exceeding the manganese standard. The Commission agreed with the Division and MillerCoors that Clear Creek segment 14b should not be listed for manganese.

j. Juniata Reservoir (COGULG04a)

The Division originally proposed to list Juniata Reservoir on the 303(d) List for impairment of the Aquatic Life Use due to a Fish Consumption Advisory (FCA). A mercury FCA was issued for Juniata Reservoir in 2009. The Section 303(d) Listing Methodology 2010 Listing Cycle states at III.D.6 "Issuance of a FCA by CDPHE indicates impairment of an Aquatic Life Use classification for any waters so classified." The City of Grand Junction and Colorado Division of Wildlife proposed to either close the reservoir or change the reservoir to "catch and release" in order for the Division to remove the FCA and therefore remove the basis for inclusion on the 303(d) List. The Division stated that the FCA would not be lifted if the reservoir changed to catch and release and the only way that the FCA could be lifted at Juniata is if the reservoir was completely fenced and fishing access was prohibited. At the time of the hearing, no action had been taken and the FCA was still in effect. Therefore the Commission chose to add this segment to the 303(d) List.

k. Marston Reservoir (COSPUS22)

The Division proposed that Marston Reservoir as part of COSPUS22 be placed on the M & E List for non-attainment of the DO standard in the metalimnion. The Denver Water Board argued that Marston was not waters of the state and was not used for aquatic life uses. There was discussion about what constitutes waters of the state and it was decided that that decision was not appropriate for this hearing, since this hearing addresses all waters for which classifications and standards have been adopted. The Commission decided to include Marston Reservoir on the 2010 M & E List because it fits within the description of waters in Upper South Platte segment 22.

**C. Revisions to Monitoring and Evaluation List**

1. Introduction

This regulation updates Colorado's Monitoring and Evaluation List (M&E List) to reflect additional water quality information available since the Regulation was promulgated in 2008.

2. List Development

See the discussion of list development under subsection B.2 above.

3. Prioritization and Scheduling

The Division remains committed to establishing a plan for monitoring and evaluating these water bodies prior to the list submission date for the subsequent listing cycle. Further, the Commission has committed to determining their appropriate status (as either impaired or fully supporting) within ten years of their placement on the M&E List.

4. Data Quality

See the discussion of data quality under subsection B.2.c above.

5. New Table Value Standards

Cadmium and Zinc: As part of the Basic Standards hearing of 2005, new zinc and cadmium table values were adopted. The acute and chronic zinc and cadmium equations in each basin were modified to conform to Regulation No. 31 over the last four years. An increase in cadmium listings were the result of a more stringent cadmium standard.

The following segments were added to the M&E List for cadmium:

- Gunnison River, San Miguel Segment 3a
- South Platte, Boulder Creek Segment 14, Barker Reservoir
- Boulder Creek Segments 2a, 2b, 3, 9 10 and 14
- Clear Creek Segment 6, Hoop Creek
- Cache la Poudre Segment 13a
- Upper South Platte Segment 3, Hawkins Gulch
- Cache La Poudre Segment 9

6. Listings Due to Exceedances of the Secondary Water Supply Standards

For the secondary water supply standards of dissolved iron, manganese and sulfate, the less restrictive of the following two options will apply as the numeric standard: existing quality as of January 1, 2000 or the table value criteria in Regulation No. 31, Tables II and III. For dissolved iron this value is 300 ug/l. For manganese this value is 50 ug/l. For sulfate this value is 250 ug/l.

The Division evaluated the water quality as of January 1, 2000 to determine in some cases where standards exceeded the water supply criteria in Tables II and III. The following segments were proposed for listing based on exceedances of the standards:

- Upper Colorado, Yampa River Segments 2a: Manganese
- Upper Colorado, Yampa River Segments 3: Manganese and Dissolved Iron

#### 7. Delisting of Segments where Water Quality is Currently Meeting Standards

As additional water quality data is collected and assessed, new data may show attainment of the standards. The following segments and parameters have been removed from the M&E List due to attainment of current water quality standards:

- Fountain Creek Segment 2a: Selenium
- Fountain Creek Segment 3, Bear Creek and Cheyenne Creek: Sediment
- Middle Arkansas Segment 14: *E. coli*
- Upper Arkansas Segment 5, Turquoise Lake: D.O.
- Upper Arkansas Segment 13: Sediment
- Lower Colorado Segment 4a: Selenium
- Lower Colorado Segment 11h: Total Recoverable Iron
- Lower Colorado Segment 13b: D.O. and *E. coli*
- St. Vrain Segment 2: Sediment
- St. Vrain Segment 3: *E. coli*
- Upper South Platte Segment 2a: Sediment
- Upper South Platte Segment 3: Sediment and Temperature
- Upper South Platte Segment 4 (North Fork South Platte and Buffalo Creek): Sediment
- Upper South Platte Segment 6a: Sediment
- Upper Colorado, Yampa River Segment 3 (First Creek): Sediment
- Upper Colorado, Yampa River Segment 19 (Oliver Creek): Sediment
- Upper Colorado, North Platte River Segment 4a: Sediment
- Gunnison River, Uncompahgre Segment 3b, Ridgway Reservoir: D.O.
- Gunnison River, San Miguel Segment 7a: Total Recoverable Iron
- Lower Colorado, White River Segment 22: Sediment
- Upper Colorado, Blue River Segment 18: *E. coli*

#### 8. Segments Moved to the 303(d) List

As additional water quality data is collected and assessed, a segment may be moved from the M&E List to the 303(d) List once the non-attainment is confirmed. In general, segments with less than 10 data points will be placed on the M&E List until more data is collected. The following segments and parameters have been moved from the M&E List to the 303(d) List due to additional data collection:

- Lower Arkansas Segment 5b: D.O.
- San Miguel Segment 3a: Cadmium
- Upper Gunnison Segment 29a, Deadman Gulch: Cd, Cu, Mn, Zn, Fe(Trec)
- Big Thompson Segment 4b: Selenium
- Boulder Creek Segment 8: Selenium
- Upper Colorado Segment 12, Shadow Mountain Lake: D.O.

- Upper Colorado, Yampa River Segment 3 (Bushy Creek): Sediment
- Upper South Platte 5a: Cadmium, copper and zinc

9. Dissolved Oxygen Standard in Lakes and Reservoirs

In 2008 the Commission directed the Division to work with parties in 2008 and 2009 on changes to the Listing Methodology in regards to dissolved oxygen. Refinement of assessment methods were discussed in workgroup meetings and included in the 2010 Listing Methodology. The dissolved oxygen standard is slated for revisions in the 2010 Basic Standards and Methodology, Regulation No. 31, RMH in June 2010.

The following segments were added to the M&E List due to exceedances of the dissolved oxygen standard in the metalimnion in at least one profile:

- Gunnison River, Uncompahgre Segment 14, Sweitzer Lake
- Rio Grande Segment 9, Beaver Creek Reservoir
- Big Dry Creek Segment 2, Standley Lake
- Boulder Creek Segment 14, Barker Reservoir
- Big Thompson Segment 12, Lake Loveland, Horseshoe Lake and Boyd Lake
- Big Thompson Segment 14, Lon Hagler Reservoir and Lonetree Reservoir
- Cache la Poudre Segment 14, Horsetooth Reservoir
- Lower South Platte Segment 3, North Sterling Reservoir
- Middle South Platte Segment 4, Barr Lake
- Middle South Platte Segment 7, Horse Creek Reservoir
- St. Vrain Creek Segment 7, Boulder Reservoir
- St. Vrain Segment 9, Union Reservoir
- St. Vrain Segment 13, Lake Thomas
- Upper South Platte Segment 16b, Aurora Reservoir
- Upper South Platte Segment 19, Tarryall Reservoir, Cheesman Reservoir, Elevenmile Reservoir, Spinney Mountain Reservoir
- Upper South Platte Segment 22, Marston Reservoir, Quincy Reservoir,
- Upper South Platte Segment 23, Vanderbilt Reservoir
- Upper Colorado Segment 5, Wolford Mountain Reservoir
- Upper Colorado, Yampa River Segment 2b, Stagecoach Reservoir

PARTIES TO THE RULEMAKING HEARING

1. Protect Urban River Environments (Confluence Kayaks and Telemark, Colorado Whitewater Association, Denver Trout Unlimited, The Shimoda Group, The Greenway Foundation)
2. Summit Water Quality Committee
3. Northwest Colorado Council of Governments
4. City of Boulder
5. City of Colorado Springs and Colorado Springs Utilities
6. City of Aurora
7. Denver Water
8. City and County of Denver
9. Bear Creek Watershed Association
10. City of Grand Junction
11. Northern Colorado Water Conservancy District
12. Metro Wastewater Reclamation District
13. Alamosa Riverkeeper
14. Bill Thiebaut, District Attorney for 10<sup>th</sup> Judicial District, Colorado
15. Farmers Reservoir and Irrigation Company

16. Barr Lake and Milton Reservoir Watershed Association
17. Colorado Division of Wildlife
18. City of Black Hawk and Black Hawk/Central City Sanitation District
19. Cherry Creek Basin Water Quality Authority
20. South Platte Coalition for Urban River Evaluation
21. Colorado River Water Conservation District
22. Grand County Water and Sanitation District #1, Winter Park Ranch Water and Sanitation District, Fraser Sanitation District, Winter Park Sanitation District
23. City of Westminster
24. The Rocky Mountain Environmental Labor Coalition and the Sierra Club
25. Colorado Stormwater Council
26. Seneca Coal Company
27. Littleton/Englewood Wastewater Treatment Plant
28. City of Arvada
29. MillerCoors LLC
30. Ute Water Conservancy District, acting by and through the Ute Water Activity Enterprise
31. US Environmental Protection Agency

**93.14 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; DECEMBER 2011 RULEMAKING, EFFECTIVE DATE OF MARCH 30, 2012**

The provisions of C.R.S. 25-8-202(1)(a), (b) and (i), (2) and (6); 25-8-203; 25-8-204; and 25-8-401; 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**

**A. Revisions to 303(d) List**

1. Introduction

This regulation updates Colorado’s List of Water-Quality-Limited Segments Requiring Total Maximum Daily Loads (TMDLs) to reflect additional water quality information available since the Regulation was revised in 2010. This list was prepared to fulfill section 303(d) of the federal Clean Water Act (Act) which requires that states submit to the U.S. Environmental Protection Agency (EPA) a list of those waters for which technology-based effluent limitations and other required controls are not stringent enough to implement water quality standards.

This regulation also updates Colorado’s Monitoring and Evaluation List (M&E List) to reflect additional water quality information available since the Regulation was revised in 2010.

2. List Development

a. Listing Methodology

The “Section 303(d) Listing Methodology - 2012 Listing Cycle” contains a description of the listing process, the criteria for listing, and the criteria for determination of TMDL priority. The Listing Methodology was developed through a public process and finalized as a policy at a Water Quality Control Commission administrative action hearing in March 2011.

This Listing Methodology sets forth the criteria that generally were used to make decisions regarding which waters to include on the 2012 Section 303(d) List and the 2012 M&E List. However, this methodology was not adopted by the Commission as a rule. The

Commission therefore has the flexibility to take into account other appropriate factors in making site-specific listing decisions.

b. Information Considered

The Commission has considered all existing and readily available information in developing the 2012 Section 303(d) List. In determining whether data and information are existing and readily available, it has taken into account such data and information as the Division has utilized in the preparation of those identification processes, calculations and models referenced in 40 CFR §130.7(a)(5)(i), (ii) and (iv) and that credible data and information presented in a readily usable format and submitted in reports provided to the Division as referenced in 40 CFR §130.7(a)(5)(iii). In addition, the Commission accepted credible data and information that was submitted in accordance with the listing process schedule, whether submitted by EPA or any other interested party. The Division also continues to independently collect and analyze new data on a rotating basin basis as part of its triennial review efforts and will utilize such data and information in making future listing determinations. Existing data which was not brought forward through one of the above mechanisms or otherwise presented to the Commission in accordance with the schedule was not treated as "readily available" for purposes of making the 2012 listing decisions. Such information will be considered in the next listing cycle.

c. Data Quality

In the Water Quality Control Division's (WQCD) Quality Management Plan 2011 for the Collection and Utilization of Environmental Data, the WQCD states that "It is the expressed goal of the Division to use only those analytical data that are both reliable and have a defined level of quality."

3. Prioritization

The objective of prioritization is to identify those waterbody segments where the Division and the public should concentrate their resources. Priorities of High, Medium and Low were established according to section IV. of the 2012 Section 303(d) Listing Methodology.

The Division remains committed to establishing a plan for monitoring and evaluating water bodies on the M&E List prior to the list submission date for the subsequent listing cycle. Further, the Commission has committed to determining their appropriate status (as either impaired or fully supporting) within ten years of their placement on the M&E List.

4. Fish Mercury (Hg) Listings

The 303(d) Listing Methodology was revised in 2012 for the assessment of Fish Mercury (Hg). The newly adopted methods compare the median fish Hg for each waterbody and species to a 0.3 ppm threshold. A sample size requirement of 30 fish tissue samples per waterbody/species was also introduced in order to list new waterbodies for Fish Hg. Waterbodies can also be listed if there is overwhelming evidence of impairment (>0.45 ppm Hg) and a sample size of at least 10 fish tissue samples.

The Commission retained the following 6 lakes on the 303(d) List because these lakes have a median Hg above the 0.3 ppm threshold and either meet the sample size requirements or show overwhelming evidence of impairment:

- Upper South Platte Segment 23, Berkeley Lake (COSPUS23)
- Upper Arkansas Segment 27, Brush Hollow Reservoir (COARUA27)
- Cache la Poudre Segment 14, Horsetooth Reservoir (COSPCP14)
- Upper South Platte Segment 17a, Rocky Mountain Lake (COSPUS17a)
- Lower Arkansas Segment 5b, Trinidad Reservoir (COARLA05b)
- Los Pinos Segment 3, Vallecito Reservoir (COSJPN03)

The Commission retained the following 10 lakes on the 303(d) List because they were on the 303(d) List prior and have a median Hg of greater than 0.3 ppm. Although the 2012 Listing Methodology requires a minimum sample size of thirty fish, the Commission chose to retain these segments on the 303(d) List as opposed to the Monitoring and Evaluation List:

- Big Thompson Segment 11, Carter Reservoir (COSPBT11)
- Yampa River Segment 2b, Catamount Reservoir (COUCYA02b)
- San Juan Segment 6a, Echo Canyon Reservoir (COSJSJ06a)
- Yampa River Segment 2b, Elkhead Reservoir (COUCYA02b)
- Middle Arkansas Segment 16, Horseshoe Lake– Lathrop (COARMA16)
- Dolores River Segment 4, McPhee Reservoir (COSJDO04)
- Los Pinos, Segment 11, Narraguinnep Reservoir (COSJLP11)
- Lower Colorado Segment 20, Rifle Gap Reservoir (COLCLC20)
- La Plata Segment 11, Totten Reservoir (COSJLP11)
- Upper Arkansas Segment 14b, Teller Reservoir (COARUA14b)

The Commission retained the following 2 lakes on the 303(d) List because they were on the 303(d) List prior to the adoption of the new assessment methods. With median Fish Hg concentrations below 0.3 ppm, they will not be removed from the 303(d) List, however, until a minimum of 30 fish are collected:

- Big Thompson Segment 12, Boyd Lake (COSPBT12)
- Upper Colorado Segment 12, Lake Granby (COUCUC12)

The Commission added the following 3 lakes on the Monitoring and Evaluation List because they have a median Fish Hg of greater than 0.3 ppm but the sample size is insufficient for Listing:

- North Platte Segment 4a, Big Creek Lake (COUCNP04a)
- Boulder Segment 15, Gross Reservoir (COSPBO15)
- Big Thompson Segment 14, Lonetree Reservoir (COSPBT14)

The Commission removed the following lake from the 303(d) List. Additional data was collected meeting the minimum sample size requirement of thirty fish. Median Fish Hg concentrations are below the 0.3 ppm, threshold.

- Lower Gunnison Segment 4, Juniata Reservoir (COGULG04)

The Commission retained one listing based on non-attainment of the aquatic life use due to a PCE fish consumption advisory in Willow Springs Ponds, Fountain Creek, Segment 7a.

## 5. Aquatic Life Listings

280 Multimetric Index (MMI) scores were calculated for the 2012 listing cycle, utilizing the Water Quality Control Commission's (WQCC) Policy 10-1, Aquatic Life Use Attainment. Of the 280 MMI scores generated, 48 segments were found to be not attaining the Aquatic Life Use standard. From those segments, or portions of segments, determined to be in non-attainment, 31 will be

provisionally listed, as there is currently no water quality data available to indicate impairment. This is in accordance with the Section 303(d) Listing Methodology for the 2012 Listing Cycle, approved by the WQCC in March 2011. The Commission anticipates that the Division will collect additional data for these segments in the next two years to continue the investigation into potential sources. Because of the site-specific nature of macroinvertebrate data, waterbodies in all tributary segments that were identified as impaired for their Aquatic Life Use were listed individually.

The following segment was 303(d) listed for non-attainment of the Aquatic Life Use based on Policy 10-1:

- White River, Segment 13c, Yellow Creek (COLCWH13c)

The following segments were provisionally 303(d) listed for non-attainment of their Aquatic Life Use based on Policy 10-1:

- Upper Arkansas Segment 21a, Cripple Creek (COARUA21a)
- San Miguel Segment 12, Maverick Draw (COGUSM12)
- Upper Gunnison Segment 6b, Cement Creek (COGUUG06b)
- Upper Gunnison Segment 15, S. Beaver Creek (COGUUG15)
- Upper Gunnison Segment 24, Cochetopa Creek from Forest Road 3076/Co. Rd 43 to confluence with Tomichi Creek (COGUUG24)
- Upper Gunnison Segment 29a, Lake Fork Gunnison River between Cooper and Silver Creek (COGUUG29a)
- Uncompahgre Segment 11, Deer Creek (COGUUN11)
- Lower Yampa Segment 22a, Talamantes Creek COLCLY22a)
- White River Segment 15, Piceance Creek (COLCWH15)
- White River Segment 20, Black Sulphur Creek (COLCWH20)
- White River Segment 23, West Douglas Creek (COLCWH23)
- Rio Grande Segment 12, Rio Grande River (CORGRG12)
- Bear Creek Segment 1a, Bear Creek from Witter Gulch to inlet to Evergreen Lake (COSPBE01a)
- Boulder Creek Segment 9, Boulder Creek from 107<sup>th</sup> Street to confluence with Coal Creek (COSPBO09)
- Clear Creek Segment 14a, Clear Creek from Croke Canal diversion to McIntyre Street (COSPCL14a)
- St. Vrain Segment 3, St. Vrain Creek (COSPSV03), from Left Hand Creek confluence to confluence with Boulder Creek
- Upper South Platte Segment 3, Horse Creek (COSPUS03)
- Upper South Platte Segment 10a, West Plum Creek (COSPUS10a)
- Upper South Platte Segment 11a, Cook Creek (COSPUS11a)
- Eagle River Segment 6, Lake Creek (from below the confluence with East and West Lake Creek to the mouth), and Red Sandstone Creek (from north side I-70 Frontage Road to the confluence with Gore Creek) (COUCEA06)
- Eagle River Segment 8, Gore Creek (COUCEA08)
- Roaring Fork Segment 3a, Roaring Fork from Hunter Creek to Brush Creek confluence, Cattle Creek from Bowers Gulch to Mouth, W. Sopris Creek (COUCRF03a)
- Roaring Fork Segment 4, Brush Creek (COUCRF04)
- Roaring Fork Segment 7, South Fork Frying Pan River from transbasin diversion to confluence with unnamed tributary (COUCRF07)
- Upper Colorado Segment 10a, Fraser River, Vasquez Creek (COUCUC10a)
- Yampa River Segment 15, Elkhead Creek (COUCYA15)

The following segments were included on the M&E List for possible non-attainment of their Aquatic Life Use based on Policy 10-1:

- Bear Creek Segment 1e, Bear Creek (COSPBE01e)
- White River Segment 13b, Duck Creek (COLCWH13b)
- Eagle River Segment 6, Black Gore Creek Beaver Creek (from Wayne Creek to Mouth), Red Sandstone Creek (from USFS boundary to north side I-70 Frontage Road) (COUCEA06)
- Eagle River Segment 9a, Eagle River (from confluence with Berry Creek to confluence with Squaw Creek) (COUCEA09a)

Several segments were found to have data outside of the standard index period for data collection. The Commission included these segments on the Monitoring and Evaluation (M&E) List in order to gather more information within the standard index period. The following segments were listed on the M&E List for possible non-attainment of their Aquatic Life Use based on Policy 10-1:

- Fountain Creek Segment 4, Sand Creek (COARFO04)
- Upper Arkansas Segment 5, Lake Fork Creek (COARUA05)
- Upper Gunnison Segment 8, Slate River (COGUUG08)
- Saint Vrain Segment 3, Saint Vrain Creek from Hover Road to the confluence with Left Hand Creek (COSPSV03)
- Boulder Creek Segment 7b, Coal Creek (COSPBO07b)
- Bear Creek Segment 2, Bear Creek (COSPBE02)
- Clear Creek Segment 1, Kearney Gulch, Grizzly Gulch (COSPCL01)

Various parties questioned whether or not the data collected below reservoirs should be evaluated as being representative of an entire stream segment. They recommend that listings below reservoirs be placed on the M&E List while the applicability of the current thresholds below reservoirs is investigated. The Division agreed that a study was warranted and changed its proposal to the M&E List. The Commission placed the following segments on the M&E List for possible non-attainment of their Aquatic Life Use:

- COUCBL17, Blue River from outlet of Dillon Reservoir to N. Rock Creek confluence
- COARUA05, Lake Fork below Sugarloaf Dam
- COSPUS02a, South Fork South Platte River below Antero
- COSPUS06a, South Platte River below Cheesman at Cheesman Canyon
- COSPUS03, Trout Creek below Manitou Reservoir Dam
- COUCUC03, Colorado River from below Windy Gap Reservoir to FR 538

Several segments were found to have data outside of the assessed period of record. Therefore, the Division proposed to remove them from both the 303(d) and M&E Lists. The Commission did not include these segments on either list:

- Upper Arkansas Segment 5, S. Cottonwood Creek (COARUA05)
- Upper Arkansas Segment 18, Currant Creek (COARUA18)
- San Miguel Segment 2, Howard Fork (COGUSM02)
- Rio Grande Segment 2, South Clear Creek (CORGRG02)
- Animas and Florida Segment 13c, Salt Creek (COSJAF13c)
- Big Thompson Segment 2, Big Thompson River (COSPBT02)
- Blue River Segment 17, Blue River from N. Rock Creek confluence to Colorado River (COUCBL17)
- North Platte Segment 4a, Snyder Creek (COUCNP04a)
- Upper Colorado Segment 7a, Big Alkali Creek (COUCUC07a)

Other issues were raised in this rulemaking hearing in regards to listing decisions based on the assessment of macroinvertebrate data. In October 2010, the Commission adopted the Aquatic Life Use Attainment WQCC Policy 2010-1 which determined that the Colorado MMI is an appropriate tool for the quantitative bioassessment of the health of aquatic communities. The Commission adopted the 2012 Listing Methodology in March 2011. This Regulation No. 93 rulemaking hearing is the first occasion where the policies adopted by the Commission in Policy 2010-1 are being implemented into regulation. The Division followed the policies as defined in the methodologies to the intent for which they were adopted. The Commission recognizes that some of the policy decisions that were questioned by various parties may need additional review. The Commission directs the Division and interested parties to review WQCC Policy 2010-1 and the 2012 Listing Methodology and make appropriate changes in regards to the use of data for the MMI tool.

6. Listings Due to Exceedances of the Secondary Water Supply Standards

For the secondary water supply standards of dissolved iron, manganese and sulfate, the less restrictive of the following two options will apply as the numeric standard: existing quality as of January 1, 2000 or the table value criteria in Regulation No. 31, Tables II and III. For dissolved iron this value is 300 ug/l. For manganese this value is 50 ug/l. For sulfate this value is 250 mg/l.

The Division evaluated the water quality as of January 1, 2000 to determine in some cases where standards exceeded the water supply criteria in Tables II and III. The following segments were included on the 303(d) listing based on exceedances of the standards:

- Lower Gunnison Segment 4a, Whitewater Creek from below Brandon Ditch to confluence with Gunnison River: Manganese, Sulfate (COGULG04a)
- North Fork Segment 6b, Alum Gulch: Sulfate (COGUNF06b)
- Upper Gunnison Segment 11, Coal Creek: Manganese (COGUUG11)
- Upper Gunnison Segment 29a, Lake Fork Gunnison River: Manganese (COGUUG29a)
- Upper Gunnison Segment 32, N. Fork Henson Creek: Manganese (COGUUG32)
- Uncompahgre Segment 2, Uncompahgre River: Manganese (COGUUN02)
- Animas and Florida Segment 5a, Animas River: Manganese (COSJAF05a)
- La Plata Segment 4a, E. Mancos River, Manganese (COSJLP04a)
- Big Thompson Segment 8, Little Thompson River: Sulfate (COSPBT08)
- Clear Creek Segment 15, Clear Creek: Manganese (COSPCL15)
- Saint Vrain Segment 5, Left Hand Creek: Manganese (COSPSV05)
- Blue River Segment 2a, Blue River: Manganese (COUCBL02a)
- Upper Colorado Segment 3, Colorado River: Manganese (COUCUC03)

The following segments were included on the M&E List:

- Lower Gunnison Segment 4a, Callow Creek, Cummings Gulch, Peach Valley Creek: Sulfate (COGULG04a)
- Lower Gunnison Segment 4b, Kannah Creek: Sulfate (COGULG04b)
- North Fork Segment 6b, Cottonwood Creek: Manganese, Sulfate (COGUNF06b)
- San Miguel Segment 8, S. Fork San Miguel River: Manganese (COGUSM08)
- Upper Gunnison Segment 15, S. Beaver Creek: Manganese, Dissolved Iron (COGUUG15)
- Upper Gunnison Segment 17, Antelope Creek: Manganese (COGUUG17)
- Upper Gunnison Segment 23, Cochetopa Creek: Dissolved Iron (COGUUG23)
- Uncompahgre Segment 11, Cow Creek: Sulfate (COGUUN11)
- Piedra River Segment 6a, Stollsteimer Creek: Sulfate (COSJPI06a)

7. Delisting of Segments with Recently Approved TMDLs

The Division submitted 26 TMDLs to EPA in the last biennium that have been approved. The following segments and parameters have been removed from the 303(d) List:

- Arkansas, Upper Arkansas Segment 10, Lake Creek: Cu (COARUA10)
- Gunnison, Lower Gunnison Segment 2, Gunnison River: Se (COGULG02)
- Gunnison, Lower Gunnison Segment 4a, Tributaries to Gunnison River: Se (COGULG04a)
- Gunnison, Lower Gunnison Segment 4c, Red Rock Creek: Se (COGULG04c)
- Gunnison, North Fork Segment 3, North Fork Gunnison River: Se (COGUNF03)
- Gunnison, North Fork Segment 5, Leroux Creek, Jay Creek: Se (COGUNF05)
- Gunnison, North Fork Segment 6a, Short Draw: Se (COGUNF06a)
- Gunnison, North Fork Segment 6b, Big Gulch, Cottonwood Creek: Se (COGUNF06b)
- Gunnison, San Miguel Segment 3a, San Miguel River: Cd (COGUSM03a)
- Gunnison, San Miguel Segment 6a, Ingram Creek: Cd (COGUSM06a)
- Gunnison, San Miguel Segment 6b, Marshall Creek: Cd (COGUSM06b)
- Gunnison, Upper Gunnison Segment 30, Henson Creek: Cd, Zn(sc) (COGUUG30)
- Gunnison, Upper Gunnison Segment 31, Palmetto Gulch: Cd, Zn (COGUUG31)
- Gunnison, Uncompahgre Segment 4b, Uncompahgre River: Se (COGUUN04b)
- Gunnison, Uncompahgre Segment 4c, Uncompahgre River: Se (COGUUN04c)
- Gunnison, Uncompahgre Segment 12, Tributaries to Uncompahgre River: Se (COGUUN12)
- South Platte, Boulder Segment 2b, Boulder Creek from 13<sup>th</sup> Street to the confluence with South Boulder Creek: *E. coli* (COSPBO02b)
- South Platte, Boulder Segment 4a, Gamble Gulch: Cd (COSPBO04a)
- South Platte, Upper South Platte Segment 5a, Geneva Creek: Cd, Cu, Zn (COSPUS05a)
- South Platte, Upper South Platte Segment 5b, Geneva Creek: Cd (COSPUS05b)
- South Platte, Upper South Platte Segment 15, South Platte River: Cd (COSPUS15)
- Upper Colorado, Blue River Segment 12, Illinois Gulch: Cd (COUCBL12)

#### 8. Delisting of Segments where Water Quality is Currently Meeting Standards

As additional water quality data is collected and assessed, new data may show attainment of the standards. The following segments and parameters have been removed from the 303(d) List due to attainment of current water quality standards:

- Arkansas, Fountain Creek Segment 1a, Fountain Creek: Se (COARFO01a)
- Arkansas, Fountain Creek Segment 2b, Fountain Creek: Se (COARFO02b)
- Arkansas, Fountain Creek Segment 6, Monument Creek below Mesa Road: Se (COARFO06)
- Arkansas, Lower Arkansas Segment 4, Lorencito Canyon: Se (COARLA04)
- Arkansas, Lower Arkansas Segment 5a, Purgatoire River: Se (COARLA05a)
- Gunnison, Lower Dolores Segment 1, Dolores River: Fe(Trec) (COGULD01)
- Gunnison, Lower Gunnison Segment 2, Gunnison River: SO<sub>4</sub> (COGULG02)
- Gunnison, Lower Gunnison Segment 8, Kannah Creek: Se (COGULG08)
- Gunnison, Upper Gunnison Segment 11, Coal Creek: Pb (COGUUG11)
- Lower Colorado, Lower Colorado Segment 3, Colorado River mainstem: Se (COLCLC03)
- South Platte, Middle South Platte Segment 4, Barr Lake: NH<sub>3</sub> (COSPMS04)
- South Platte, Upper South Platte Segment 23, Barnum Lake: *E. coli* (COSPUS23)

The following segments and parameters have been removed from the M&E List due to attainment of current water quality standards:

- Arkansas, Upper Arkansas Segment 20, North Fork Wilson Creek: Cu (COARUA20)
- Arkansas, Upper Arkansas Segment 27, Brush Hollow Reservoir: pH (COARUA27)
- Gunnison, Lower Gunnison Segment 7, Surface Creek: Fe(Trec) (COGULG07)
- Gunnison, Lower Gunnison Segment 7, Ward Creek: Se (COGULG07)
- Gunnison, San Miguel Segment 2, Bilk Creek: Cd (COGUSM02)
- Gunnison, Upper Gunnison Segment 7, Slate River: Cd (COGUUG07)
- Gunnison, Upper Gunnison Segment 16, Ohio Creek: Zn(sculpin) (COGUUG16)
- Gunnison, Upper Gunnison Segment 17, Antelope Creek: Dissolved Oxygen (COGUUG17)
- Gunnison, Upper Gunnison Segment 18, Tomichi Creek: *E. coli* (COGUUG18)
- Gunnison, Upper Gunnison Segment 32, N. Fork Henson Creek: Pb, Zn(sculpin) (COGUUG32)
- Gunnison, Uncompahgre Segment 8, Mineral Creek: Cd (COGUUN08)
- Lower Colorado, Lower Colorado Segment 2b, Colorado River mainstem: Se (COLCLC02b)
- Rio Grande, Alamosa Segment 11, La Jara Reservoir: Cu, Se, Zn (CORCAL11)
- South Platte, Big Thompson Segment 11, Carter Lake: Cu (COSPBT11)
- South Platte, Big Thompson Segment 16, Lake Estes: As (COSPBT16)
- South Platte, Cache la Poudre Segment 14, Horsetooth Reservoir: D.O. (COSPCP14)
- South Platte, Lower South Platte Segment 3, N. Sterling and Jumbo Reservoirs: pH (COSPLS03)

#### 9. Dissolved Oxygen Standard in Lakes and Reservoirs

Twenty-eight lakes were previously on the M&E List due to low dissolved oxygen (DO) in the metalimnion. With the adoption of a revised DO standard in 2011, the Division proposed to remove 24 of these lakes from the M&E list because the lakes are now in attainment. Barr Lake was proposed for the 303(d) List for DO because recent data show non-attainment. The Division proposed that Horse Creek Reservoir, North Sterling Reservoir and Lake Thomas remain on the M&E list for DO either because of a minimal sample size (n=1) or due to concerns of the representative nature of the data. The Commission supported the Division's proposal.

Lakes now in attainment with the revised DO standard:

- Upper South Platte Segment 16b, Aurora Reservoir (COSPUS16b)
- Boulder Segment 14, Barker Reservoir (COSPBO14)
- Bear Creek Segment 1c, Bear Creek (COSPBE01C)
- Rio Grande Segment 9, Beaver Creek Reservoir (CORGRG09)
- St. Vrain Segment 7, Boulder Reservoir (COSPSV07)
- Big Thompson Segment 12, Boyd Lake (COSPBT12)
- Upper South Platte Segment 19, Cheesman Reservoir (COSPUS19)
- Cherry Creek Segment 2, Cherry Creek Reservoir (COSPCH02)
- Upper South Platte Segment 19, Elevenmile Reservoir (COSPUS19)
- Big Thompson Segment 12, Horseshoe (Loveland) Lake (COSPBT12)
- Cache la Poudre Segment 14, Horsetooth Reservoir (COSPCP14)
- Big Thompson Segment 14, Lon Hagler Reservoir (COSPBT14)
- Big Thompson Segment 14, Lonetree Reservoir (COSPBT14)
- Big Thompson Segment 12, Lake Loveland (COSPBT12)
- Upper South Platte Segment 22, Marston Reservoir (COSPUS22) - Now identified as Bear Creek Segment 11 (COSPBE11)
- Upper South Platte Segment 16c, Quincy Reservoir (COSPUS16c)
- Upper South Platte Segment 19, Spinney Mountain Reservoir (COSPUS19)
- Yampa River Segment 2b, Stagecoach Reservoir (COUCYA02b)
- Big Dry Segment 2, Standley Lake (COSPBD02)
- Uncompahgre River Segment 14, Sweitzer Reservoir (COGUUN14)

- Upper South Platte Segment 2a, Tarryall Reservoir (COSPUS02a)
- St. Vrain Segment 9, Union Reservoir (COSPSV09)
- Upper South Platte Segment 23, Vanderbilt Lake, Harvey Lake, Duck Lake (COSPUS23)
- Upper Colorado Segment 5, Wolford Mountain Reservoir (COUCUC05)

The Commission moved the following lakes to the 303(d) List for D.O.:

- Middle South Platte Segment 4, Barr Lake (COSPMS04)
- Middle South Platte Segment 7, Horse Creek Reservoir (COSPMS07)
- Upper South Platte Segment 23, Vanderbilt Lake (COSPUS23)

The Commission retained the following lakes on the M&E List for D.O.:

- Lower South Platte Segment 3, North Sterling Reservoir (COSPLS03)
- St. Vrain Segment 7, Thomas Reservoir (COSPSV07)

10. Listing of Segments where Water Quality is not Meeting Standards not Identified Above

The following segments or parameters were added to the 303(d) List due to exceedances of water quality standards not identified above:

- Arkansas, Upper Arkansas Segment 20, North Fork Wilson Creek: As (COARUA20)
- Gunnison River, Lower Gunnison Segment 3, Eggleston Reservoir: Fe(Trec) (COGULG03)
- Gunnison River, Lower Gunnison Segment 7, Tongue Creek: Fe(Trec) (COGULG07)
- Gunnison River, Lower Gunnison Segment 13, Crawford Reservoir: D.O. (temperature) (COGULG13)
- Gunnison River, North Fork Gunnison Segment 4, East Muddy Creek: Fe(Trec) (COGUNF04)
- Gunnison River, North Fork Gunnison Segment 6b, Alum Gulch: SO<sub>4</sub>, Fe(Trec) (COGUNF06b)
- Gunnison River, San Miguel Segment 2, Bear Creek: Cd, Zn(sc) (COGUSM02)
- Gunnison River, San Miguel Segment 2, Howard Fork abv Swamp Gulch: pH, D.O. (COGUSM02)
- Gunnison River, San Miguel Segment 11, Miramonte Reservoir: D.O. (temperature) (COGUSM11)
- Gunnison River, Upper Gunnison Segment 9, Coal Creek: As (COGUUG09)
- Gunnison River, Upper Gunnison Segment 11, Elk Creek: As (COGUUG11)
- Gunnison River, Upper Gunnison Segment 11, Coal Creek: Cd, Zn, As (COGUUG11)
- Gunnison River, Upper Gunnison Segment 12, Coal Creek: Cu (COGUUG12)
- Gunnison River, Upper Gunnison Segment 26, Blue Creek: Cu (COGUUG26)
- Gunnison River, Uncompahgre Segment 4c, Uncompahgre River: Fe(Trec) (COGUUN04c)
- Gunnison River, Uncompahgre Segment 6a, Red Mountain Creek: Ag, Cu (COGUUN06a)
- Gunnison River, Uncompahgre Segment 7, Gray Copper Gulch: Cu (COGUUN007)
- Gunnison River, Uncompahgre Segment 9, Sneffels Creek: Cd, (COGUUN09)
- Gunnison River, Uncompahgre Segment 12, Dry Creek: Fe(Trec) (COGUUN12)
- Gunnison River, Uncompahgre Segment 12, Loutzenhizer Arroyo: Fe(Trec) (COGUUN12)
- Gunnison River, Lower Dolores Segment 5, Roc Creek: Cu, Fe(Trec) (COGULD05)
- Lower Colorado, Lower Colorado Segment 13b, Leach Creek: *E. coli*, Fe(Trec) (COLCLC013b)
- Lower Colorado, White River Segment 13c, Yellow Creek: Fe(Trec) (COLCWH13c)

- Lower Colorado, White River Segment 14a, Piceance Creek from Willow Creek to Hunter Creek: Fe(Trec) (COLCWH14a)
- San Juan/Dolores Rivers, Animas and Florida Segment 3c, Arrastra Gulch: Cd, Zn (COSJAF03c)
- San Juan/Dolores Rivers, Animas and Florida Segment 4a, Animas River: Al(Trec) (COSJAF04a)
- San Juan/Dolores Rivers, La Plata Segment 1, La Plata River: Ag (COSJLP01)
- San Juan/Dolores Rivers, La Plata Segment 4a, E. Mancos River: D.O. (COSJLP04a)
- San Juan/Dolores Rivers, La Plata Segment 4a, Mancos River: D.O. (COSJLP04a)
- San Juan/Dolores Rivers, La Plata Segment 7a, McElmo Creek: Fe(Trec), *E. coli* (COSJLP07a)
- San Juan/Dolores Rivers, La Plata Segment 8a, Mud Creek: Se (COSJLP08a)
- San Juan/Dolores Rivers, La Plata Segment 8a, Trail Canyon: Fe(Trec) (COSJLP08a)
- San Juan/Dolores Rivers, San Juan Segment 6a, Echo Canyon Reservoir: DO (Temperature) (COSJSJ06a)
- South Platte, Bear Creek Segment 1a, Bear Creek: Temperature (COSPBE01a)
- South Platte, Bear Creek Segment 1e, Bear Creek: Temperature (COSPBE01e)
- South Platte, Cherry Creek Segment 3, Cherry Creek: Fe(Trec) (COSPCH03)
- South Platte, Clear Creek Segment 17b, Ralston Creek: U (COSPCL17b)
- South Platte, Upper South Platte Segment 17a, Smith Lake: NH<sub>3</sub> (COSPUS17a)
- South Platte, St. Vrain River Segment 5, Left Hand Creek: Cu (COSPSV05)
- Upper Colorado, Eagle River Segment 9a, Eagle River from Ute Creek to Rube Creek: Temperature (COUCEA09a)
- Upper Colorado, Eagle River Segment 9a, Eagle River from Berry Creek to Squaw Creek: Sediment (COUCEA09a)
- Upper Colorado, North Platte Segment 9, Lake John: D.O. (COUCNP09)
- Upper Colorado, Upper Colorado Segment 2, Willow Creek Reservoir: Mn (COUCUC02)

The following segments or parameters were added to the M&E List where there is a reason to suspect water quality problems, but there is also uncertainty.:

- Arkansas River, Fountain Creek Segment 2a, Fountain Creek: Fe(Trec)
- Gunnison River, Lower Gunnison Segment 3, Eggleston Reservoir: pH, Zn, Fe(Trec) (COGULG03)
- Gunnison River, Lower Gunnison Segment 4a, Callow Creek: *E. coli* (COGULG04a)
- Gunnison River, Lower Gunnison Segment 4a, Peach Valley Creek: Fe(Trec) (COGULG04a)
- Gunnison River, Lower Gunnison Segment 4a, Wells Gulch: pH (COGULG04a)
- Gunnison River, Lower Gunnison Segment 7, Ward Creek: Se (COGULG07)
- Gunnison River, Lower Gunnison Segment 7, Surface Creek: Pb (COGULG07)
- Gunnison River, Lower Gunnison Segment 12, Muddy Creek: *E. coli* (COGULG12)
- Gunnison River, North Fork Gunnison Segment 4, East Muddy Creek: Pb, Se (COGUNF04)
- Gunnison River, North Fork Gunnison Segment 4, Muddy Creek: *E. coli* (May-Oct) (COGUNF04)
- Gunnison River, North Fork Gunnison Segment 4, Island Reservoir: pH, Zn (COGUNF04)
- Gunnison River, North Fork Gunnison Segment 5, Leroux Creek: *E. coli* (COGUNF05)
- Gunnison River, North Fork Gunnison Segment 6a, Unnamed Tributary: Se (COGUNF06a)
- Gunnison River, North Fork Gunnison Segment 6b, Alum Gulch: Fe(Trec) (COGUNF06b)
- Gunnison River, North Fork Gunnison Segment 7, Paonia Reservoir: Zn (COGUNF07)
- Gunnison River, San Miguel Segment 2, Bear Creek: Pb (COGUSM02)
- Gunnison River, San Miguel Segment 2, Cornet Creek: Pb (COGUSM02)

- Gunnison River, San Miguel Segment 3b, San Miguel River: Pb (COGUSM03b)
- Gunnison River, San Miguel Segment 4a, San Miguel River: Pb (COGUSM04a)
- Gunnison River, San Miguel Segment 7a, Chapman Creek: Fe(Trec) (COGUSM07a)
- Gunnison River, San Miguel Segment 7a, Iron Bog Creek: pH, D.O. (COGUSM07a)
- Gunnison River, San Miguel Segment 10, Naturita Creek: *E. coli*, D.O. (COGUSM10)
- Gunnison River, San Miguel Segment 12, Mesa Creek: Se (COGUSM12)
- Gunnison River, San Miguel Segment 12, Calamity Draw: D.O. (COGUSM12)
- Gunnison River, San Miguel Segment 12, Specie Creek: D.O. (COGUSM12)
- Gunnison River, Upper Gunnison Segment 4, Taylor River: Pb (COGUUG04)
- Gunnison River, Upper Gunnison Segment 10, Redwell Creek: pH (COGUUG10)
- Gunnison River, Upper Gunnison Segment 15, S. Beaver Creek: Fe(Trec) (COGUUG15)
- Gunnison River, Upper Gunnison Segment 16, Ohio Creek: *E. coli* (COGUUG16)
- Gunnison River, Upper Gunnison Segment 17, Antelope Creek: *E. coli* (COGUUG17)
- Gunnison River, Upper Gunnison Segment 23, Stewart Creek: Fe(Trec) (COGUUG23)
- Gunnison River, Upper Gunnison Segment 26, Mesa Creek: Cu (COGUUG26)
- Gunnison River, Upper Gunnison Segment 31, Palmetto Gulch: Ag (COGUUG31)
- Gunnison River, Uncompahgre Segment 2, Uncompahgre River: Pb (COGUUN02)
- Gunnison River, Uncompahgre Segment 3b, Ridgway Reservoir: Pb, Zn (COGUUN03b)
- Gunnison River, Uncompahgre Segment 4c, Uncompahgre River: Pb (COGUUN04c)
- Gunnison River, Uncompahgre Segment 7, Gray Copper Gulch: pH (COGUUN007)
- Gunnison River, Lower Dolores Segment 2, Dolores River: *E. coli* (COGULD02)
- Gunnison River, Lower Dolores Segment 3a, Disappointment Creek: Se, *E. coli* (COGULD03a)
- Gunnison River, Lower Dolores Segment 4, West Paradox Creek: *E. coli*, Fe(Trec) (COGULD04)
- Gunnison River, Lower Dolores Segment 5, Roc Creek: *E. coli* (COGULD05)
- Lower Colorado, Lower Colorado Segment 4b, South Canyon Hot Springs: Pb (COLCLC04b)
- San Juan/Dolores Rivers, Animas and Florida Segment 3c, Arrastra Gulch: Pb (COSJAF03c)
- San Juan/Dolores Rivers, Animas and Florida Segment 12a, Electra Reservoir: Ag, Zn (COSJAF12a)
- San Juan/Dolores Rivers, Animas and Florida Segment 13a, Junction Creek: Ag, *E. coli* (COSJAF13a)
- San Juan/Dolores Rivers, Upper Dolores Segment 11, Lost Canyon Creek: *E. coli* (COSJDO11)
- San Juan/Dolores Rivers, La Plata Segment 3a, Cherry Creek: Cu (COSJLP03a)
- San Juan/Dolores Rivers, La Plata Segment 4a, E. Mancos River: Pb (COSJLP04a)
- San Juan/Dolores Rivers, La Plata Segment 4a, Mancos River: Cu, Pb (COSJLP04a)
- San Juan/Dolores Rivers, La Plata Segment 8a, Tribs to McElmo Creek: *E. coli* (COSJLP08a)
- San Juan/Dolores Rivers, Piedra Segment 5, Williams Creek Reservoir: pH, Zn, Fe(Trec), D.O. (COSJPI05)
- San Juan/Dolores Rivers, Piedra Segment 8a, Williams Creek: pH, Cu (COSJPI05)
- San Juan/Dolores Rivers, Piedra Segment 6a, Stollsteimer Creek: Fe(Trec), *E. coli* (COSJPI06a)
- San Juan/Dolores Rivers, San Juan Segment 1, Navajo River: *E. coli* (COSJSJ01)
- San Juan/Dolores Rivers, San Juan Segment 5, San Juan River: Pb, (COSJSJ05)
- San Juan/Dolores Rivers, San Juan Segment 6a, San Juan River: Pb, Cu (COSJSJ06a)
- San Juan/Dolores Rivers, San Juan Segment 6a, Echo Canyon Reservoir: pH (COSJSJ06a)
- San Juan/Dolores Rivers, San Juan Segment 9a, Rio Blanco: Ag, Pb (COSJSJ09a)
- San Juan/Dolores Rivers, San Juan Segment 10, Rito Blanco: *E. coli* (COSJSJ10)
- South Platte, Upper South Platte Segment 17a, Rocky Mountain Lake: Cu, DO

- (COSPUS17a)
- South Platte, Upper South Platte Segment 23, Huston Lake: *E. coli* (COSPUS23)
- Upper Colorado, Eagle River Segment 9a, Eagle River from Berry Creek to Ute Creek: Temperature (COUCEA09a)
- Upper Colorado, Eagle River Segment 9a, Eagle River from Gore Creek to Berry Creek and from Squaw Creek to Rube Creek: Sediment (COUCEA09a)
- Upper Colorado, Upper Colorado Segment 10c, Fraser River: Pb (COUCUC10c)

11. Segments Moved to the 303(d) List

As additional water quality data is collected and assessed, a segment may be moved from the M&E List to the 303(d) List once the non-attainment is confirmed. In general, segments with less than 10 data points will be placed on the M&E List until more data is collected. The following segments and parameters have been moved from the M&E List to the 303(d) List due to additional data collection:

- Arkansas, Upper Arkansas Segment 10, Twin Lake West Cu (COARUA10)
- Gunnison, Lower Gunnison Segment 7, Tongue Creek: Se (COGULG07)
- Gunnison, Uncompahgre Segment 9, Sneffels Creek: Zn (COGUUN09)
- Lower Colorado, White River Segment 11, Rio Blanco Reservoir: pH (COLCWH11)
- South Platte, Boulder Creek Segment 9, Boulder Creek: Aquatic Life Use (COSPBO09)
- South Platte, Big Thompson Segment 11, Carter Lake: As (COSPBT11)
- South Platte, Big Thompson Segment 16, Lake Estes: Pb (COSPBT16)
- South Platte, Cache la Poudre Segment 14, Horsetooth Reservoir: Cu, As (COSPCP14)
- South Platte, Lower South Platte Segment 3, Jackson Reservoir: pH (COSPLS03)
- South Platte, Middle South Platte Segment 4, Barr Lake: D.O. (COSPMS04)
- South Platte, Middle South Platte Segment 7, Horse Creek Reservoir: D.O. (COSPMS07)
- South Platte, St. Vrain Segment 3, St. Vrain Creek from Left Hand Creek confluence to confluence with Boulder Creek: Aquatic Life Use (COSPSV03)
- South Platte, Upper South Platte Segment 17a, Rocky Mountain Lake: pH, Cu (COSPUS17a)
- South Platte, Upper South Platte Segment 17a, Ferril Lake, Smith Lake: pH (COSPUS17a)
- South Platte, Upper South Platte Segment 17a, Duck Lake: pH, NH<sub>3</sub> (COSPUS17a)
- South Platte, Upper South Platte Segment 23, Aqua Golf, Overland, Parkfield, and Huston Lakes: pH (COSPUS23)
- South Platte, Upper South Platte Segment 23, Vanderbilt Lake: DO (COSPUS23)

12. *E. coli* Listings

In June of 2010, the Commission adopted a two-month averaging period for the existing *E. coli* criteria. Evaluation of the *E. coli* standard is over fixed two-month intervals. Where adequate data were available two-month intervals were assessed. Where adequate data were not available data were assessed either seasonally or for the entire period of record.

13. Lakes and Reservoirs D.O. (temperature) listings

For lakes and reservoirs, the MWAT is assumed to be equivalent to the maximum WAT. When a lake or reservoir is stratified, the upper portion may exceed the applicable temperature standards in the basin regulations, provided that an adequate refuge exists in water below the upper portion. Adequate refuge depends on concurrent attainment within a given profile of the temperature standard and applicable dissolved oxygen standards. Attainment of the temperature standard below the upper portion is based on comparison with individual depths because of the need to verify concurrent attainment with the DO standard. If the refuge is not adequate because of low dissolved

oxygen levels, the lake or reservoir will be listed as impaired for dissolved oxygen rather than for temperature.

14. Site-specific decisions made by the Commission are discussed below.

Eagle River Segments 6, 8 and 9a:

The Division originally proposed to list the following segments in the Eagle River Basin: the mainstem of Eagle River Segment 9a for sediment, temperature, and Aquatic Life Use impairment, and several tributaries to the Eagle River for impairment of the Aquatic Life Use (Provisional) including Black Gore Creek, Beaver Creek, Lake Creek, Red Sandstone Creek and Gore Creek. Division staff worked with stakeholders in the Eagle River watershed to examine the data and further narrow the issues potentially in dispute. Through this work additional data was made available. Based upon the additional data received and reviewed by Division staff, the Division revised its proposal. In general, parties agreed with the Division's refined proposal for the Aquatic Life Listings in the Eagle River Subbasin. Eagle River stakeholders opposed the Division's proposal to list the mainstem of the Eagle River (Segment COUCEA09a) for temperature. They presented an alternative proposal to M & E list a 6-mile long portion of the segment from Berry Creek to Ute Creek. Evidence presented by the Eagle River Water & Sanitation District showed that the only temperature excursions in this stream reach occurred in the early part of the winter shoulder season and wastewater effluent did not cause the excursions. The District will continue collecting data and will work with the Division to complete additional analysis to determine whether the temperature excursions are a result of anthropogenic activities in the watershed. The Commission adopted the Eagle River Basin stakeholders' proposal.

Upper Colorado River Segment 3 (COUCUC03):

Trout Unlimited referenced a report prepared by the Division of Parks and Wildlife (Nehring 2011) which contained significant site-specific macroinvertebrate and other aquatic life information and analysis for the portion of the Colorado River mainstem between Windy Gap Reservoir and its confluence with the Blue River. The Commission finds that given the fact that there are conflicting MMI scores on this segment, said portion of this segment should be placed on the Monitoring and Evaluation list at this time.

Western Resource Advocates White River Basin:

WRA proposed the addition of White River Segments COLCWH13b, COLCWH13c, COLCWH14a, COLCWH14b, COLCWH15 and COLCWH20 on either the 303(d) or M&E Lists for selenium (COLCWH13b) or total recoverable iron. Following additional data that was submitted by Shell in its Responsive Prehearing Statement, WRA modified its proposal. WRA supported listing a portion of COLCWH13b, Duck Creek, on the 303(d) List for selenium. However, the Commission agreed with the Division that the 2008 Statement of Basis and Purpose language in Regulation #37, Classifications and Numeric Standards for the Lower Colorado River Basin, identifies that the four sites used to create the ambient selenium standard should be assessed in aggregate. The Commission supports the Division's position to include COLCWH13c and a portion of COLCWH14a (the mainstem Piceance Creek from Willow Creek to Hunter Creek) for inclusion on the 303(d) List for total recoverable iron.

Southwestern Water Conservation District *E. coli*:

The Commission has placed several stream segments (COGULD02, COGULD03a, COGULD04, COGULD05, COSJAF13a, COSJDO11, COSJLP08a, COSJPI06a, COSJSJ10, and COSJSJ03) on the M&E List for *E. coli* based on data from four or fewer measurements as outlined in the Listing

Methodology. Because of the limited number of data points, the listings were based on either a seasonal or annual geometric mean, rather than the two-month averaging period. As a result, the Commission has concluded that the data at these sites indicate potential impairment of the *E. coli* standard, warranting listing on the M&E List so that additional measurements can be collected.

Lower Colorado Segment 3 (COLCLC03):

Lower Colorado Segment 3 was proposed to be removed from the 303(d) List for selenium impairment due to attainment of standards. USFWS opposed its removal from the list because the segment is critical habitat for the endangered Colorado pikeminnow and razorback sucker. The Commission acknowledges the significance of this issue, but given the fact that the segment is in attainment of its selenium standard, the segment should be removed from the list. If the USFWS feels that the standard is not protective of endangered fish species, the Commission recommends they pursue an alternative standard in the next Colorado basin rulemaking hearing.

Animas River (COSJAF05a):

La Plata Energy Council expressed concern with listing segment COSJAF05a as impaired for manganese. In segment COSJAF05a there is an actual water supply use in the upper portion of the segment. However, there is no actual water supply use in the lower reach below the intake to the Animas-La Plata Project. In 2000, when the Commission adopted the table value criteria for manganese based on secondary water supply standards, the Commission adopted Statement of Basis and Purpose language in Section 31.37(iv)(H) indicating that its action could result in the situation facing La Plata – that is, a segment with a water supply classification but where the only actual water supply use is upstream of point source dischargers. The Commission determined in 2000 that the appropriate course of action is for the Commission to consider resegmentation of that stream. Accordingly the Commission encourages La Plata to pursue resegmentation in the Regulation #34 basin rulemaking hearing if they believe it is warranted.

Marston Forebay (COSPUS22 or COSPBE11):

Marston Forebay was listed as Segment COSPUS22 in the 2010 version of Regulation #93, when in fact, it is correctly included in COSPBE11. Marston Forebay was originally placed on the M&E List in 2010 because dissolved oxygen (DO) concentrations were below the standard in the metalimnion (middle layer of the reservoir). In 2010, the DO standard was revised in Regulation 31. The current DO standard only applies to the top 0.5-2 meters of the water column, unless assessing for refuge with regards to the temperature standard. When assessing against the revised standard, Marston is now attaining the DO standard, as DO readings are above 6 mg/L in the top 2 meters of the water column on all dates. As a result, the Division proposed to remove Marston from the M&E List. The Commission agreed with the Division's recommendation and removed Marston from the M&E List for this reason.

Denver Water also requested a finding that Marston is not "waters of the state". The Commission believes that a Regulation #38 rulemaking hearing is the appropriate forum in which to consider any formal regulatory conclusion regarding this issue.

Ralston Creek (COSPCL17b):

The Division originally placed Ralston Creek on the 303(d) List for impairment of its Water Supply Use-based uranium standard. Cotter Corporation opposed this listing and its high priority listing due to ongoing cleanup work at the Schwartzwalder Mine Site. The Division recognizes that Cotter Corporation is actively addressing non-attainment of the primary drinking water uranium standard in Ralston Creek, and the Division anticipates continued cooperation during development of a

Category 4b Plan. However, pending revisions to the standard, the Commission finds that COSPCL17b should be retained on the 303(d) List in the interim with a high priority.

Wildhorse Creek – Segment COARMA04a:

Bill Thiebaut, District Attorney for the Tenth Judicial District, Colorado submitted an alternative proposal to add selenium to the existing listing for *E.coli* for Wildhorse Creek. After review of the data submitted, the Division agreed with the alternative proposal. Pueblo West opposed this listing as data for the middle portion of the segment attains the ambient based selenium chronic standard of 597 ug/L as well as the ambient based acute standard of 708 ug/L. It has generally not been the practice of the Commission to 303(d) list the majority of a segment except for a portion in the middle. In addition, there was discussion in regards to the appropriateness of the adopted ambient based standard. Pueblo West has expressed interest in reviewing this standard in a future rulemaking hearing. Until revisions to the standard can be made, the Commission has added the entire segment to the 303(d) List for selenium.

Pueblo West raised concerns about whether the current ambient based selenium standard for Middle Arkansas segment 4a is still the appropriate standard. This issue was discussed and it was determined that revising the ambient based standard based on new data is not appropriate for this rulemaking but could be addressed in the next basin hearing for Regulation #32 in June 2013. If the ambient based standard is modified during that proceeding, the appropriateness of the 303(d) listing for this segment would be revisited in the next rulemaking hearing for Regulation #93 in December 2013. The Commission does not expect that the Division would proceed with development of a TMDL between now and the Regulation #32 hearing in June 2013.

PARTIES TO THE RULEMAKING HEARING

1. Western Resource Advocates
2. Bill Thiebaut, District Attorney for the 10th Judicial District
3. Colorado Division of Parks and Wildlife
4. Town of Avon
5. City of Grand Junction
6. Eagle River Watershed Council Inc
7. Town of Vail
8. Shell Frontier Oil and Gas Inc.
9. Denver Water
10. Roaring Fork Conservancy
11. City of Aurora
12. Northern Colorado Water Conservancy District
13. City and County of Denver
14. City of Colorado Springs and Colorado Springs Utilities
15. Cripple Creek & Victor Gold Mining Co
16. MillerCoors, LLC
17. Seneca Coal Company
18. Tri-State Generation & Transmission Association
19. Xcel Energy
20. Eagle County
21. City of Boulder
22. Grand County Districts
23. Gunnison County
24. Eagle River Water and Sanitation District
25. Upper Eagle Regional Water Authority
26. Vail Corporation

27. Northwest Colorado Council of Governments
28. Littleton/Englewood Wastewater Treatment Plant
29. Southeastern Colorado Water Conservancy District
30. Colorado Department of Transportation
31. Pitkin County
32. Upper Gunnison River Water Conservancy District
33. Metro Wastewater Reclamation District
34. Bear Creek Watershed Association
35. Colorado River Water Conservation District
36. Cotter Corporation (N.S.L.)
37. Colorado Oil & Gas Association
38. Gunnison County Stockgrowers Association, Inc.
39. Trout Unlimited
40. Pioneer Natural Resources USA, Inc.
41. XTO Energy, Inc.
42. U.S. Fish and Wildlife Service
43. Colorado Petroleum Association
44. La Plata County Energy Council
45. Dolores Water Conservancy District
46. Southwestern Water Conservation District
47. Pueblo West Metropolitan District
48. Greeley Water & Sewer Department
49. City of Pueblo
50. Environmental Protection Agency
51. North Front Range Water Quality Planning Association
52. Board of County Commissioners of Montrose County
53. Wright Water Engineers, Inc
54. South Platte Coalition for Urban River Evaluation
55. Garfield County
56. Ruedi Water and Power Authority
57. Vail Recreation District
58. National Park Service
59. Town of Norwood, Norwood Water Commission and Norwood Sanitation District