

WATER QUALITY CONTROL COMMISSION, STATE OF COLORADO
PROPOSERS' (CONSERVATION GROUPS) PREHEARING STATEMENT
IN THE MATTER OF RULEMAKING TO CONSIDER REVISIONS TO REGULATION #31, THE BASIC
STANDARDS FOR SURFACE WATER, AND ADOPTION OF REGULATION #85 FOR NUTRIENT
MANAGEMENT CONTROL

The Colorado Environmental Coalition, Colorado Trout Unlimited, High Country Citizens' Alliance and San Juan Citizens Alliance (hereinafter, collective, Conservation Groups), through their undersigned counsel, submit the following Proponents' Prehearing Statement:

I. SUMMARY of POSITION

The Commission establishes water quality standards as the upper limits of acceptable concentrations of pollutants allowable in a waterbody that will still allow attainment of the uses for which the water is classified. Nutrient pollution affects water supply, aquatic life and recreational use classifications. The strategy that the Colorado Water Quality Control Division (Division) has set out in the draft rules noticed in November 2011 will not result in many state waters achieving protective levels of nutrient contamination for decades. In fact, even the first increment of progress towards pulling nutrient concentrations down towards the interim standards will take a decade. None-the-less, because the Conservation Groups recognize that nutrient control is going to be costly and take time to implement, they support Colorado's approach, as set for the in the noticed proposal, provided both that the rules require that all waters currently not suffering from excess nutrient be maintained in this healthy state, and that the rules provide a meaningful framework to address non-point source, as well as point-source, contributions to nutrient pollution.

II. INTRODUCTION

A. The Conservation Groups -- Who We Are

Founded in 1965, the Colorado Environmental Coalition (CEC) is the largest state-based citizen group committed to protecting Colorado's open spaces, clean air and healthy waterways. With three offices statewide, CEC works on behalf of our 95 partner groups and more than 4,000 individual members to build statewide strength through uniting grassroots voices.

Colorado Trout Unlimited is a nonprofit organization dedicated to conserving, protecting, and restoring Colorado's coldwater fisheries and their watersheds. Our more than 9,000 members statewide engage in on-the-ground projects, education programs, and advocacy on behalf of healthy waters. Our members use rivers and lakes across the state for recreational angling and are directly affected by water quality including nutrients in those waters, from trout angling in rivers near Colorado's mountain communities to carp fishing in the urban South Platte.

High Country Citizens' Alliance (HCCA) is a regional grassroots environmental group with hundreds of members based in Crested Butte, Colorado. For over 30 years, HCCA has championed the protection, conservation and preservation of the natural ecosystems within the Upper Gunnison River Basin. HCCA's water program addresses water resources issues and water quality concerns, and engages with water districts, and state and regional organizations for collaborative solutions to these challenges.

San Juan Citizens Alliance (SJCA) formed in 1986 and is a grassroots organization dedicated to social, economic and environmental justice. SJCA organizes San Juan Basin residents to protect southwest Colorado's water and air, public lands, rural character, and unique quality of life while embracing the diversity of our region's people, economy and ecology. SJCA's River Program works to improve ecological conditions of streams and rivers, to find permanent protections for remaining free-flowing streams, to protect and enhance water quality and to promote democracy in water policy.

B. The Conservation Groups' Interest in Nutrient Pollutant Control in Colorado

The Conservation Groups have engaged in Colorado's efforts to put in place a meaningful regulatory scheme for nutrient pollutant control because the groups' members care about protecting and restoring Colorado's rivers for fish, wildlife and recreation. As a headwaters state, Colorado's efforts to control nutrient pollution have implications throughout this country's great watersheds. Nutrient pollutants discharged into the South Platte and Arkansas Rivers not only adversely affect watersheds in this state, but ultimately contribute to the "dead zone" at the mouth of the Mississippi River. Meanwhile, while nutrient pollution across the Colorado River Basin is currently less of a crisis than in the nation's midsection, high levels of phosphorus and nitrogen may adversely affect the West Slope's rural communities and important recreation economy.

Nutrient pollution from point sources is directly related to population. With Colorado's population projected to double by mid-century,¹ it is imperative that the state put in place now a regulatory strategy to control the nutrient pollution from urban sources to protect Colorado's beneficial uses.

III. BACKGROUND

A. The imperative for nutrient control in CO – Use Protection

High levels of nutrients in streams and reservoirs can adversely affect beneficial uses in Colorado, including water supply, aquatic life and recreation. Nitrogen and phosphorus cause algal growth, which reduced oxygen concentrations in lakes and rivers; low levels of dissolved oxygen adversely affect fish and other aquatic life. Colorado has several reservoirs, on both the West Slope and Front Range, for which the Commission has adopted site-specific control regulations with the goal of lowering nutrient levels. For example, the Bear Creek Watershed Control Regulation, originally adopted in 1992, has as its goal to control nutrient loading into Bear Creek Reservoir.² However, the Reservoir again experienced algal blooms in the summer of 2010.³

On the West Slope, meanwhile, in 2002, large quantities of algae were observed in the Colorado portion of the lower Animas River, and in New Mexico, the Animas streambed contained anaerobic, fine-grained sediment. These two observations suggested an exceedance of the assimilative capacity of nutrients in the Animas River. Sampling in 2003 and 2004 confirmed this, resulting in a 303(d) listing for nutrient impairment in New Mexico, based on that state's narrative criterion, and a 2005 TMDL calling for load reductions in both nitrogen and phosphorus, mostly targeting non-

¹ SWSI 2010

² 5 CCR 1002-74

³ Bear Creek Watershed Association, "2010 Annual Report for the Colorado Water Quality Control Commission," p. 13, available on line at, <http://www.cdphe.state.co.us/op/wqcc/Reports/WatershedAR/BearCreekAR2010.pdf>, last viewed 12/1/11.

point source pollution. However, in Colorado, data collected in 2010 in the Animas River from upstream of Durango to the Stateline suggested that four of the largest ten sources of nitrogen and phosphorous were the sewage treatment plants in the sampling stretch, with effluent from Durango and Hermosa being the top two contributors of both total nitrogen and total phosphorus.⁴

Algal growth also affects aquatic life and results in fewer people recreating in and on the water, affecting both quality of life and the recreation economy. This is true both on the Front Range, e.g., in the South Platte, and on the West Slope, e.g., in Grand Lake. Effects are often seasonal. While in plains streams, there are likely to be more adverse effects in the summer, one can see high nutrient loadings in ski country during the winter, e.g., in the Crested Butte area, both in Washington Gulch downstream of the Mount Crested Butte discharge, and in Coal Creek, downstream of Crested Butte.⁵ While there may not be active recreation mid-winter, the high nutrient concentrations are not healthy for the fish that drive stream recreation at other times of the year, and as Dr. John Nickum says, having acute, low dissolved oxygen levels even two percent of the time affects the aquatic population.⁶

Finally, the Safe Drinking Water Act requires water suppliers to remove nitrates (a form of nitrogen) from source water prior to delivering the water for human consumption. As a result, there are financial costs to nutrient pollution for drinking water suppliers. Moreover, if source water protections are ineffective, threats to public health from the formation of toxic disinfection byproducts can result. In Colorado, due to the direct relationship between the costs of supplying clean, safe drinking water and nutrient pollution, drinking water suppliers from reservoirs like Stanley Lake and Arvada Reservoir have been strong proponents of Colorado adopting an effective water quality control scheme for nitrogen and phosphorus pollution. On the west slope, some small communities face increasing difficulty removing organics and providing clean drinking water with limited technology. For example, in the summer of 2011, the Town of Hotchkiss fell out of compliance with state drinking water standards for haloacetic acids, a carcinogenic by-product formed during disinfection when chlorine is applied to organic carbon (typically in source water as a result of algae that grows because of nitrogen and phosphorus in the water).⁷ The Draft Cost Benefit Study has extensive data about the costs to these water suppliers.

B. Why Action is Justified Now/Do the benefits justify the costs?

⁴ BUGS Consulting (2011). Animas River Watershed Based Plan Prepared for the Animas River Partnership, p. 28, and Table 8, p. 98. available on line at <http://www.bugsconsulting.com/LinkClick.aspx?fileticket=w9%2bh50t4u4%3d&tabid=491&mid=1301>, last viewed 12/9/11.

⁵ USGS Colorado Water Quality Data Repository, Gunnison Project, Washington Gulch, available on line at <http://rmgsc.cr.usgs.gov/cwqdr/default.aspx?project=Gunnison#>; Coal Creek Watershed Monitoring Plan, 2001, pp. 19-20 & Appendix, figures 20 and 21, available on line at: <http://www.coalcreek.org/documents/Watershed-%20Restoration%20Plan%20Appendices%20Final.pdf>. Last visited 12/6/11.

⁶ Nickum, John, 2001, "Too Much of Good Things," High Country Angler. (On file with author; December 2001 issue will be available on line in January, at <http://www.hcamagazine.com/CurrentIssue/Current%20Issue.htm>.

⁷ For information about the Hotchkiss event, go to the city's blog at: <http://townofhotchkiss.com/-uncategorized/disinfection-by-products-back-in-compliance>, last viewed 12/07/11. For information about the relationship how nutrient pollution can lead to toxic byproducts following chlorine disinfection, see EPA webpage on nutrients, <http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/effects.cfm>, citing, Jack, J., T. Sellers, and P.A. Bukaveckas. 2002. "Algal production and trihalomethane formation potential: an experimental assessment and inter-river comparison." CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES, 59: 1482-1491

Nutrient control is, without question, expensive. At the same time, the benefits of keeping excess levels of nitrogen and phosphorus out of Colorado waters are also substantial, in terms of the recreation economy, the delivery of clean and safe drinking water, and healthy fish populations. The Colorado Water & Power Development Authority's draft cost-benefit analysis showed that the state-wide benefit-cost ratio would have been approximately 0.9:1 even considering the imposition of effluent limits for 50% more point source dischargers than the Division's current proposal would regulate. The Conservation Groups commented that the draft over-stated costs and underestimated benefits. But, given the high stakes, it is not surprising that the cost-benefit study was attacked from all sides.

With the expected increase in population for Colorado and the clear link between urban growth and nutrient discharges, putting a regulatory program in place now may help ensure that Colorado's waterbodies have the protection necessary to sustain their beneficial uses even if the State really does grow to between eight and ten million people by mid-century, as the State has projected.⁸ There is also little question that Colorado's adoption of its own regulatory program will forestall federal action regarding nutrient control. Over the last several years, EPA has actively pursued adoption of federal water quality standards for nitrogen and phosphorus in Florida because it found the numeric criteria that state adopted inadequate, and has put Illinois on notice that its permits for major dischargers of nitrogen and phosphorus, which do not impose effluent limitations for those pollutants, are inadequate regardless of the fact that Illinois has not adopted numeric criteria for phosphorus or nitrogen. Colorado's entire water quality program history suggests, over and over, that the state wants to create water quality programs itself, rather than simply following federal guidance. The high stakes for nutrients demand a Colorado approach.

C. The Division's Approach – a Necessary & Defensible First Step

As a result of a several year debate in the Water Quality Forum Nutrient Criteria Work Group about how best to control nitrogen and phosphorus pollution in the State of Colorado, the Division has proposed a two-pronged approach to nutrient pollutant control:

As part of the overall nutrients management strategy described here, [Colorado] has decided to depart from its usual practice of adopting numerical table values in Regulation #31 and then, in subsequent hearings to review individual basin standards, broadly applying those values as segment-specific water quality standards throughout the State. Rather, [the state agencies] believe[] that nutrient control in Colorado will proceed faster and more expeditiously by focusing the primary control efforts over the next decade on the technology-based approach described ... in a new Nutrients Management Control Regulation.⁹

The primary focus of the Nutrients Management Control Regulation (Regulation 85) is on point sources, both traditional point sources, like waste-water treatment facilities, and storm water collection and discharge systems. Thus, for wastewater treatment plants, Regulation 85 establishes phosphorus and nitrogen effluent limits for dischargers with lagoons larger than 1 million gallons per day (MGD) or mechanical plants larger than 0.5 MGD, not in economically distressed areas. In

⁸ CWCB, State of Colorado 2050 Municipal & Industrial Use Projections, Appendix H, Figure ES-2, p. ES-3, available on line (and last viewed 12/09/11), at http://cwc.state.co.us/water-management/water-supply-planning/Documents/SWSI2010/Appendix%20H_State%20of%20Colorado%202050%20Municipal%20and%20Industrial%20Water%20Use%20Projections.pdf.

⁹ Hearing Notice, Exhibit 1, p. 9, Proposed Regulation 31.50.

most cases, these effluent limits will require the discharger to install biological nutrient removal (BNR).¹⁰ Regulation 85 also includes provisions to allow trading between point and non-point sources as a means to lower nutrient concentrations in a water body.¹¹ For larger storm water dischargers, Regulation 85 requires that they institute public education programs and that they control nutrient runoff from municipal operations.¹²

It is important to note that the many exceptions and variances in Regulation 85 result in its provisions covering only about one quarter of Colorado's wastewater treatment facilities. Thus, to provide meaningful protection across Colorado requires that the Commission also have the flexibility to adopt water quality standards where necessary to protect the state's classified uses.

Regulation 85's focus on point source control is justified in Colorado. Nation-wide, nutrient pollution that impairs beneficial uses comes from urban point sources, urban and agricultural non-point sources and even atmospheric deposition.¹³ In the Mississippi River Basin (including the Arkansas and the Platte), 70% of the nutrients that flow into the Gulf of Mexico comes off agricultural lands.¹⁴ However, looking more closely at the data from this same study shows, dramatically, that the main sources of nutrient loading in Colorado's portions of the Arkansas and South Platte come from urban areas, as the four figures on the next two pages demonstrate.¹⁵ While some urban nutrient contributions come from unregulated non-point sources, point source and storm water discharges contribute the majority of nutrient pollutants from in urban areas.

While Regulation 85 recognizes that non-point sources also contribute to nutrient loads in Colorado waters, the regulation imposes no requirements on non-point sources, although it does encourage best management practices.¹⁶ By contrast, on the West Slope, with only 15% of Colorado's population and, as a result, substantially less urban development, nutrient loading is more likely due to agricultural contributions. Still, the sources of nitrogen and phosphorus vary by watershed.

Neither the Clean Water Act nor the Colorado Water Quality Control Act has a regulatory scheme for controlling non-point sources. Rather, non-point source controls at the federal level grow out of voluntary programs that provide money to implement best management practices. Non-point source control under Colorado law may occur also as a result of voluntary measures, or, in a few cases, has been implemented through trading programs in control regulations. Proposed Regulation 85 is consistent with the majority of non-point source control in that it would rely on voluntary measures, including education, trading and best management practices.

¹⁰ Hearing Notice, Exhibit 2, p. 31, Proposed Regulation 85.15.

¹¹ Id., at p. 23, Proposed Regulation 85.5(3)(d).

¹² Id., pp. 23-24, Proposed Regulation 85.5(4)

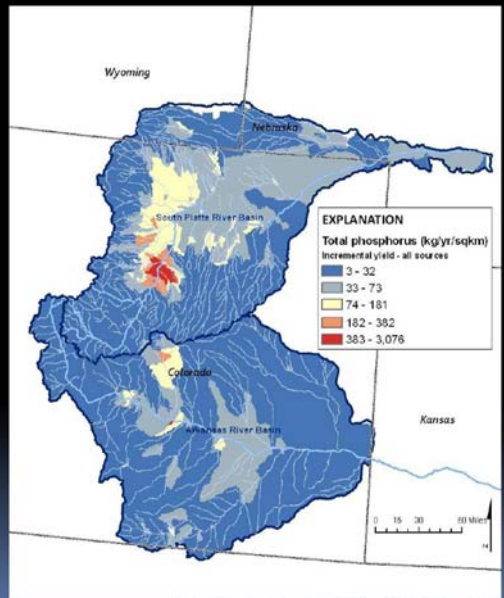
¹³ Preston, et al. (2011), "Factors Affecting Stream Nutrient Loads: A Synthesis of Regional SPARROW Model Results for the Continental United States," JOURNAL OF THE AMERICAN WATER RESOURCES ASSOCIATION 47(5), p. 891, available on line at, <http://onlinelibrary.wiley.com/doi/10.1111/j.1752-1688.2011.00577.x/pdf>.

¹⁴ Alexander, et al. (2008), "Differences in Phosphorus and Nitrogen Delivery to the Gulf of Mexico from the Mississippi River Basin," ENVIRONMENTAL SCIENCE & TECHNOLOGY, 42(3), p. 822, available on line at, <http://pubs.acs.org/doi/full/10.1021/es0716103>.

¹⁵ These figures are based on Alexander, above, and were part of a Division powerpoint presented 2/9/10 to the Nutrient Work Group of the Colorado Water Quality Forum. The whole presentation is available on line at, http://projects.ch2m.com/CWQFwebsite/Workgroups/Content/nutrient_criteria/Meetings/2010/02%202010%20February/Nutrients%20in%20Rivers%20and%20Streams%2002-09-10.pdf, last viewed 12/5/11.

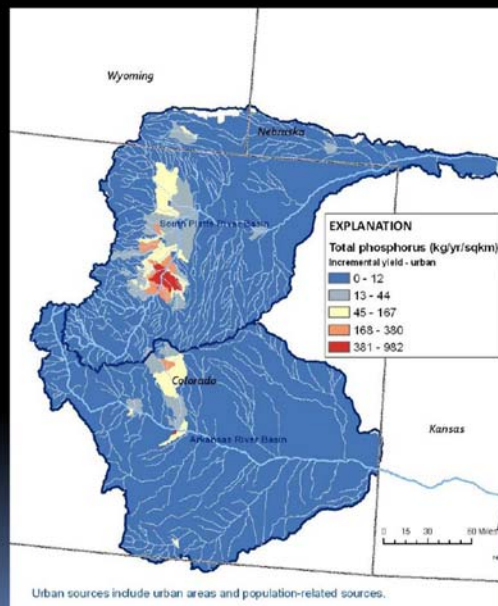
¹⁶ Hearing Notice, Exhibit 2, pp. 24-25, Proposed Regulation 85.5(5).

Total phosphorus
– incremental
yield *from all
sources* in the
South Platte and
Arkansas River
basins



Alexander et al., 2008 ES&T 42(3):822-830

Total phosphorus
– incremental
yield *from urban
and population-
related sources* in
the South Platte
and Arkansas
River basins

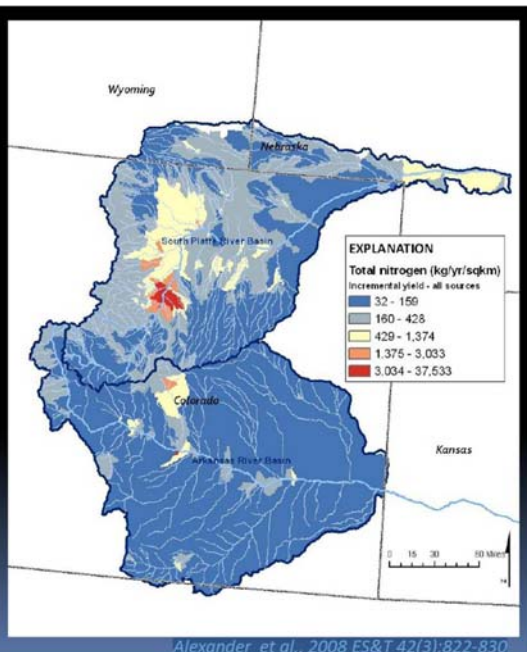


Urban sources include urban areas and population-related sources.

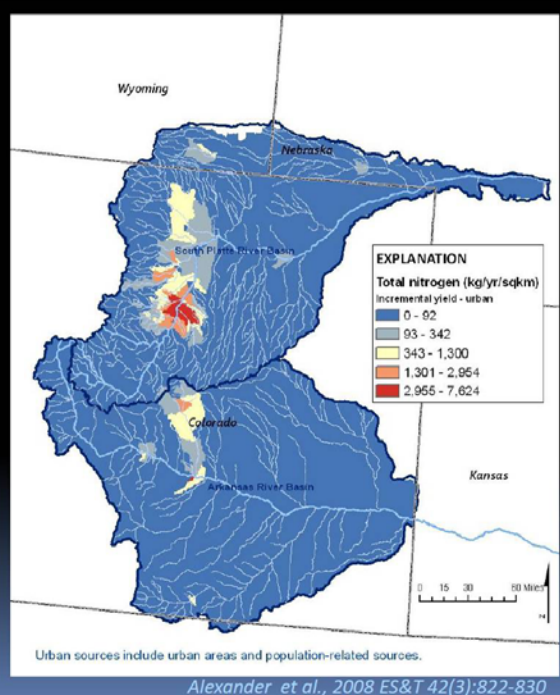


Alexander et al., 2008 ES&T 42(3):822-830

Total nitrogen –
incremental yield
from *all sources* in
the South Platte
and Arkansas
River basins



Total nitrogen –
incremental yield
from *urban and
population-related
sources* in the
South Platte and
Arkansas River
basins



In addition to the voluntary measures proposed in Regulation 85, Colorado would have the tools available in Regulation 31. While the Basic Standards only establish table values, the Commission may then adopt these values as water quality standards for specific stream segments. Doing so would provide a floor and the protections that come from the anti-degradation policy, and the potential for listing/establishment of TMDLs or the future imposition of discharge limits consistent with standards. Such policy creates incentives to address non-point source nutrient contributions.

IV. REGULATION 31 – Conservation Groups’ Alternative

The Conservation Groups support the noticed version of the Division’s proposal, in terms of establishing the new Direct Use Water Supply classification, the numeric criteria for phosphorus, nitrogen and chlorophyll *a*, and many of the associated provisions of Regulation 31.17. However, the Conservation Groups have submitted a limited alternative proposal because a protective program for the control of nutrients requires several additional provisions, both to allow protection of currently high quality waters and to set a floor that will allow the state to begin to control nutrient pollutant runoff (non-point sources). The Conservation Groups’ alternative keys off of the Division’s Proposal, included in the Notice. The Division has informed us that their proposal in eh Prehearing Statement will be different from that attached to the Notice.

Our alternative has four facets: two expansions to subsection 31.17(5), Use of Interim Phosphorus and Chlorophyll *a* values for Standards Adoption, the addition of a definition of “significant” and a parallel addition to conform the proposed use of nitrogen values to these changes in the proposed use of phosphorus values. This prehearing statement explains each modification in turn below.

A. Adoption of Standards for Good Quality Reaches.

Proposed Addition of Language to 31.17(e)(i)¹⁷

The Conservation Groups urge the Commission to adopt interim numeric values as water quality standards not only for reaches upstream of point source dischargers subject to Regulation 85 permit effluent limits, but also in situations where the water quality of the reach currently supports all classified uses. Adopting water quality standards would provide a floor that would more likely result in maintaining existing beneficial uses unimpaired. There are at least three types of segments where this strategy would be useful:

- Segments in Colorado that extend into other states, where there are no dischargers, currently or in the foreseeable future, who would be subject to Regulation 85 permit limits. Examples include a number in southwest Colorado, including the San Juan and Mancos Rivers. The Commission has routinely adopted numeric water quality standards for other pollutants where a segment has good ambient quality and no known threat.
- Segments with no dischargers likely to be subject to Regulation 85 permit limits in the next decade, but whose water quality may be threatened in the future as a result of increased non-point source discharges. The White River, for example, may be adversely affected as a result of road building associated with oil and gas (or even oil shale) development.
- Segments with no dischargers likely to be subject to Regulation 85 permit limits in the near future, but where an increase in population may result in the need for a plant large enough to trigger Regulation 85 requirements in the future. The Upper Yampa in the vicinity of Steamboat Springs would be an example.

¹⁷ Compare Hearing Notice exhibit 1, p. 7 and Exhibit 3, p. 47.

B. Adoption of Standards where Necessary because the Control Regulation is Inadequate.
Proposed Change in language for 31.179(e)(iii)¹⁸

The Division has proposed that the Commission consider the imposition of numeric nutrient standards in situations where the Commission finds “unanticipated circumstances” and “determines that adoption of numerical standards is necessary to address existing or potential nutrient pollution because the provisions of Regulation #85 will not result in adequate control of such pollution.”¹⁹ The Conservation Groups would broaden this section beyond “unanticipated” circumstances to **any** situation where the Commission makes the determination that numerical nutrient pollutant standards are necessary. Throughout the country, and in some of Colorado’s rural, agricultural watersheds, for example on the eastern plains in the Republican River Basin and tributaries of the Arkansas and South Platte mainstems, one finds waters adversely affected by nutrient pollution due to runoff from non-point sources. The Conservation Groups believe that the Commission must have the flexibility to adopt numeric standards for such segments where nutrient pollution threatens a classified use. Because these situations are not “unanticipated,” the Commission should remove that language from the rule it adopts.

Note that, in the Conservation Groups’ proposed alternative as noticed, there was a new subsection (iv) as well, to cover situations where adoption of the water quality standards would be more cost effective than compliance with Regulation 85.²⁰ The Conservation Groups have determined that this addition is no longer necessary, and thus do not include it in our proposed alternative now, because the expansion of “other circumstances” will accommodate that situation if it arises. Dropping this suggested change does not affect Exhibit 3 Statement of Basis & Purpose.

C. Defining “significant” sources in the Rule.
Proposed addition of section 31.17(g)

The Conservation Group alternative provides a definition for what constitutes a “significant” point source discharge of nutrient pollutants for the purposes of the rule. While the Division makes this suggestion in its Statement of Basis and Purpose, the Conservation Groups believe that it is more appropriate to house this definition in the rule itself. However, the proposed language below is different from that offered in Exhibit 3 of the Hearing Notice:

(g) For sections (e) and (f) of this Regulation 31.17, dischargers have “significant nutrient concentrations in their effluent or discharges that cause significant nutrient loading in the receiving water” if they would need permits that include water quality based effluent limitations for total phosphorus or total nitrogen.

This change does not affect the Conservation Groups’ proposed Statement of Basis and Purpose from Exhibit 3.

D. Allowing Adoption of Nutrient Values as Standards in Similar Circumstances.
Addition of language to 31.17(f)²¹

Comment [m1]: EPA commented: Does this proposal (31.17(g)) mean that “significant nutrient dischargers” are limited to only those subject to Reg 85 limits? If so, does that mean the WQCC could adopt WQS if there are no dischargers to that segment or an upstream segment that are subject to Reg 85 limits? If so, does that mean that segments receiving only discharges that are exempted from Reg 85 (e.g., small communities) would potentially become candidates for WQS adoption and WQBELs?

¹⁸ Id.

¹⁹ Hearing Notice, Exhibit 1, p. 8, Proposed 31.17(5)(e)(iii).

²⁰ Hearing Notice, Exhibit 3, p. 48.

²¹ Compare Hearing Notice, Exhibit 1, p. 8 with Exhibit 3, p. 48.

Regulation 31.17, as proposed by the Division, describes flexibility for Commission adoption of interim values in standards for phosphorus/chlorophyll *a* in subsection (5), and for nitrogen in subsection (6). The Division proposes that the Commission exercise flexibility in the same set of circumstances for both phosphorus/chlorophyll *a* and nitrogen. The Conservation Groups propose the same, albeit with the above-described expansions to Commission flexibility.

V. REGULATION 85 – Conservation Groups’ Alternative

Proposed new subsection (iv) in 85.3(b)²²

Our alternative proposes just one change to the Division’s proposed new Regulation #85, as noticed. The alternative would add a new subsection (iv) to Exceptions, Regulation 85.3.b. The exception would be for wastewater treatment facilities discharging to stream segments where the Commission has adopted standards pursuant to Regulation 31. The reason for this provision is that a discharger who must meet Regulation 31 nutrient standards will have to adopt measures or install treatment that will be at least as stringent as that required in Regulation 85. With this additional exception, the rule will make clear that Colorado is not requiring compliance with two different nutrient regulations.

VI. WRITTEN TESTIMONY

None at this time.

The Conservation Groups reserve the right to submit expert written testimony along with their Rebuttal Statement. They have retained Professor Michelle Baker from Utah State University, who has reviewed the scientific documentation and rationale for the Division’s proposal and will be scrutinizing the information that the Division submits with its Prehearing Statement.²³ Dr. Baker also peer-reviewed the 2008 “Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana’s Wadeable Stream and Rivers.”²⁴ Were the Conservation Groups to call her to testify, she would provide evidence and an expert opinion about the protectiveness of the proposed numeric criteria in Regulation 31 vis-à-vis the use classifications. If the Conservation Groups determine that Professor Baker’s testimony is necessary, they will provide a written expert statement, along with her CV, with their Rebuttal Hearing Statement.

VII. WITNESSES

A. Jon Kahn
Confluence Kayaks
2373 15th Street
Denver, CO 80202
303.433.3676
jkahn@confluencekayaks.com

²² Compare Hearing Notice, Exhibit 2, p. 22 with Exhibit 4, p. 52.

²³ Professor Baker’s CV is available on line at, http://www.cnr.usu.edu/files/uploads/faculty/Baker_Michelle-/Baker_CV2009.pdf. (Last viewed 12/5/11.)

²⁴ Available on line at, http://www.deq.idaho.gov/media/574871-montana_nutrient_study.pdf. (Last viewed 12/5/11.)

Mr. Kahn, a local recreation business owner and member of the Metro Basin Roundtable, will testify regarding the impact of degraded waterways on recreation and tourism.

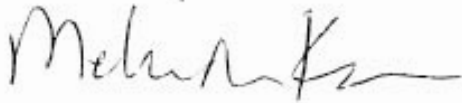
- B. Kirk Klancke
President, CTU Colorado Headwaters Chapter
P.O. Box 82
Fraser, CO 80442
970.531.2199
kk@wprwater.com
- C. Ken Neubecker
Director, Western Rivers Institute
P.O. Box 1029
209 Holland Thompson Dr.
Carbondale, CO 81623
970.376.1918
eagleriver@sopris.net

Mr. Klancke and Mr. Neubecker are both long time anglers and advocates for river protection and restoration. The Conservation Groups may call one or both of them to testify regarding the need for and practicality of effective nutrient regulations for mountain rivers and communities.

VIII. EXHIBITS

None at this time.

Respectfully submitted this 9th day of December,



Melinda Kassen, JD, Registration # 13112
WaterJamin Legal & Policy Consulting
2350 Balsam Dr., suite 103
Boulder, CO 80304
303.579.5453
melindakassen@aim.com

CERTIFICATE OF SERVICE

I do hereby certify that a true and exact copy of this Proponents' (Conservation Groups) Prehearing State in the Matter of the Rulemaking for Consideration of Revisions to the Basic Standards for Surface Water and Adoption of a Nutrient Management Control Regulation, was served by email to the Division and by regular mail to the Office of the Attorney General, and that the original and 13 paper copies, double sided and three-hole punched, were hand delivered to:

Nancy Horan
Water Quality Control Commission
4300 Cherry Creek South Drive, A-5
Denver, CO 80246

Sent via email to:

Water Quality Control Division
Sarah Johnson
Sarah.johnson@state.co.us

Water Quality Control Division
Dave Akers
Dave.akers@state.co.us

Sent via regular mail to:

Jerry Goad, Water Quality Control Commission
Attorney General's Office
1525 Sherman St., 7th Floor
Denver, CO 80203

Trisha Oleth, Water Quality Control Division
Attorney General's Office
1525 Sherman St., 7th Floor
Denver, CO 80203

Becky Long
Colorado Environmental Coalition
1536 Wynkoop Street, #5C
Denver, CO 80202
becky@ourcolorado.org
303.405.6714