



**Minutes of
 May 19, 2008 Meeting
 Metro Wastewater Reclamation District**

In Attendance:

Dennis Stowe	L/E WWTP
Blair Corning	SACWSD
Todd Dahlberg	Colorado Springs Utilities
Tim Woodard	City of Westminster
Dave Meyer	City of Westminster
Tim Grotheer	Carollo Engineers
Lauren Swenson	Colorado Springs Utilities
Bob Anastov	Aurora
Lesa Julian	Broomfield
Christine Laroe	Bear Creek W&SD
Jill Piatt-Kemper	Aurora
Paul Grundemann	CWSD
Richard Leger	Aurora Water
Amy Woodis	MWRD
Sharon Davis	Brown & Caldwell
Nancy Keller	Pueblo
Dennis Schump	Greeley
Mike Wicklund	Monument Sanitation District
Jim Kendrick	Monument Sanitation District
Steve Canton	GEI
Paul Ferraro	Ferraro Associates, Inc./CWWUC

I. Nutrient and Selenium Update, Steve Canton (GEO)

Selenium: Steve Canton first gave an overview of the Selenium Study that GEI has done for the Council. The study addresses two outstanding issues from USEPA 2004 Draft Selenium Criteria Document:

1. Evaluation of USEPA ovary to whole-body (Se) relationships.
2. Evaluation of population effects vs. tissue threshold concentrations.

A copy of Steve's presentation is attached.

Nutrient: Steve is working with the Nutrient Criteria Workgroup for the Council. The State is working on the Chatfield Reservoir and the Cherry Creek Reservoir. The Nutrient Criteria established for these two reservoirs may be used for all of the State's lakes, and the Council is concerned about this approach.

II. Spill Guidance Document, David Meyer (Westminster)

David Meyer gave an update. The draft document is available on the State's website: http://www.cdphe.state.co.us/wq/WhatsNew/WQE_10.pdf.

A meeting was held yesterday regarding language that should go into permits regarding spills. After a 2-hour discussion, the following was agreed upon: Dave Akers will get draft language out soon. The next meeting will be held on June 19, 2008 at 10 AM at the CDPHE offices. Also, the Division will include the Guidance Document in a permit if the permittee requests having it in their permit.

III. Updates

- Water Utility Council - Paul G. mentioned the following:
 - Policy #4 that addresses water treatment requirements, has additional requirements and may not be needed for all systems. It should not be published because the some of the language appears to be illegal.
 - One size fits all - 90% of the facilities that are in compliance will need to jump through a lot of hoops.
- Biosolids Subcommittee - reported by Dennis Schump.
 - November 13, 2008 seminar at the Double Tree on I-70 and Quebec.
 - Agenda to be distributed soon.
 - California is looking at salinity impact on reuse waters.
 - Delegation of Biosolids Program - Colorado
 - \$6 per dry ton
 - 3-5 additional FTEs to run the delegated program
 - Industrial Pretreatment Delegation -
 - Meeting held recently regarding the delegation of the Pretreatment Program.
 - What is the State doing now that they will do when they have delegation?
 - Both programs will be considered in the 2009 Legislative Session.
 - What are the opinions of the Council members and other organizations about delegation of both the Pretreatment and Biosolids Programs?
 - Will need changes in the law and increases in fees.
 - The Division needs to justify the staffing needs with a delegated program.

IV. Open Discussion


- Paul G. mentioned that the Permit Seminar will be held on May 19, 2008 in Glenwood Springs in cooperation with CRWA and CWQCD.

- Tim G. mentioned that a separate certification for backflow prevention may be required by the State. Tim also offered having a council meeting at the Project he is working on in Aurora - Aurora Reservoir Water Purification Facility - 50 mgd at a cost of \$193 million.

The meeting adjourned at 2:30 PM.


Next Meeting: Wednesday, June 11, 2008 at L/E WWTP

Presented By:
Steve Canton





Update on Nutrient Criteria Support

Presented To:
Colorado Wastewater Utility Council
May 14, 2008




Evaluation of Nutrient Criteria



List of Tasks

- Meeting Attendance
 - Nutrient Criteria
 - Aquatic Life
- Evaluation of Chlorophyll Thresholds
- Colorado Lake Database
- Technical Review of WQCD's Lake & Reservoir Methodology and Proposal
- Evaluation of Nutrient Criteria for Streams & Rivers




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Evaluation of Nutrient Criteria






- Nutrient Criteria Workgroup
 - Established to address EPA's mandate that all states develop nutrient criteria to protect aquatic resources,
 - Or, adopt EPA's proposed regional criteria.




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Summary of EPA's Nutrient Criteria as Applied to Colorado Lakes and Reservoirs






Ecoregion	Basin	# Lakes with Chl data	TP	Chl
Southern Rockies	All; high elevation	7	14.8	1.7
Wyoming Basin	Yampa	5	10.0	1.4
Colorado Plateau	Colorado	34	3.0	1.4
AZ/NM Plateau	San Juan, Rio Grande	5	15.0	2.0
Western High Plains	South Platte, Arkansas	12	24.0	2.4
SW Tablelands	Arkansas	11	20.0	1.2




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Evaluation of Nutrient Criteria






- Nutrient Criteria Workgroup
 - Lakes and Reservoirs evaluations appear to have advanced farther than Streams and Rivers
 - Presented many pieces of nutrient criteria framework for lakes and reservoirs,
 - Growing season, chlorophyll to phosphorus response ratio, pH and dissolved oxygen patterns as related to chlorophyll
 - have not combined all of the pieces to develop criterion or even proposed approach
 - Using Chatfield Reservoir and Cherry Creek Reservoir Control Regulations as test cases for developing nutrient criteria?




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Evaluation of Nutrient Criteria

- Colorado Lake Database
 - Compilation of database for front-range reservoirs
 - Poor data organization often leads to extensive quality control
 - The Division recently released their Chatfield Reservoir database for review by the Chatfield Authority



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Evaluation of Nutrient Criteria Lakes Study

- **Evaluation of Chlorophyll Thresholds**
 - **Growing Season Thresholds for Fishery Types**
 - Cold water 6 µg/L
 - Cool water 15 µg/L
 - Warm water 25 µg/L
 - **Alternative narrative approaches**
 - e.g.: “An algal bloom is characterized by > 40 µg/L, and should not be exceeded more than 20% of the time”
 - pH or dissolved oxygen thresholds as related to chlorophyll
 - **Direct Use Drinking Water Supply**
 - Criteria protective of aquatic life is not protective of drinking water supply
 - Create a new sub-use category in drinking water category for direct supply reservoirs
 - Site specific standards
 - e.g.; New York State <5 µg/L

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Evaluation of Nutrient Criteria

- **Technical Review of WQCD’s Lake & Reservoir Methodology and Proposal**
 - To date, there has only been presentations of potential components within a nutrient criteria framework
 - No formal proposal for statewide criteria
 - In April 2008, the Division released site-specific nutrient criteria standards for Chatfield Reservoir

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Evaluation of Nutrient Criteria Streams and Rivers

- **Dr Lewis’ study of “mountain streams”**
 - No statistical nutrient thresholds or trends for
 - periphyton biomass,
 - composition of periphyton or benthic invertebrates, or
 - numerical abundance of benthic invertebrates
 - Periphyton community composition reveals a weak threshold at approximately 50 µg/L TP
 - Upper limit of TP in study streams is 100 µg/L
 - Used Redfield’s Ratio (7:1) to estimate upper limit of TN at 700 µg/L

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Evaluation of Nutrient Criteria Streams and Rivers

- **Have decided that approach not workable**
- **Now wish to tie nutrient criteria in streams to response by aquatic life**
 - **Multimetric Approach using benthic invertebrates**
 - **Observed/Expected Fish Model**
- **Nutrient Criteria?**
 - **Merge biocriteria models with nutrient thresholds**

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Nutrient Criteria Combined with Aquatic Life Workgroup

- **Aquatic Life**
 - **Established to address issues and concerns regarding aquatic life use classifications and assessment of aquatic life use impairments**
 - Bioassessment tool development to evaluate the biological health of aquatic resources
- **Future Nutrient Criteria/Aquatic Life Workgroup Meetings**
 - August and November 2008
 - Rule Making Hearing June 2010

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