



COLORADO

Water Quality
Control Commission

Department of Public Health & Environment

NOTICE OF PUBLIC RULEMAKING HEARING BEFORE THE COLORADO WATER QUALITY CONTROL COMMISSION

SUBJECT:

For consideration of the adoption of revisions to the Grand Lake clarity standard in Upper Colorado River Segment 12 of the Classifications and Numeric Standards for Upper Colorado River Basin and North Platte River (Planning Region 12), Regulation #33 (5 CCR 1002-33). Revisions to Regulation #33 proposed jointly by Grand County, Northwest Colorado Council of Governments, Colorado River Water Conservation District and Northern Colorado Water Conservancy District, along with proposed Statement of Basis, Specific Statutory Authority and Purpose, are attached to this notice as Exhibit 1.

In these attachments, proposed new language is shown with double-underlining and proposed deletions are shown with ~~strikeouts~~. Any alternative proposals related to the Grand Lake clarity standard will also be considered.

SCHEDULE OF IMPORTANT DATES

| | | |
|---|------------------------|--|
| Party status requests due | 01/21/2016 5 pm | Additional information below. |
| Proponent’s prehearing statement due | 02/03/2016 5 pm | Additional information below. |
| Responsive prehearing statement due | 03/03/2016 5 pm | Additional information below. |
| Last date for submittal of motions | 03/10/2016 5 pm | Additional information below. |
| Notify commission office if participating in prehearing conference by phone | 03/11/2016 by noon | Send email to cdphe.wgcc@state.co.us with participant(s) name(s) |
| Prehearing Conference (mandatory for parties) | 03/14/2016 11:00 am | Florence Sabin Conference Room Department of Public Health and Environment 4300 Cherry Creek Drive South Denver, CO 80246 |
| Rebuttal Statement due | 03/30/2016 5 pm | Additional information below. |
| Rulemaking Hearing | 04/11/2016 10:30 am | Florence Sabin Conference Room Department of Public Health and Environment 4300 Cherry Creek Drive South Denver, CO 80246 |

HEARING SUBMITTALS:

For this hearing, the commission will receive all submittals electronically. Submittals must be provided as PDF documents, except for raw data exhibits which may be provided as Excel workbooks. Submittals may be emailed to cdphe.wqcc@state.co.us, provided via an FTP site, CD or flash drive, or otherwise conveyed to the commission office so as to be received no later than the specified date.

PARTY STATUS:

Party status requests must be in writing and must provide:

- the organization's name,
- one contact person,
- a mailing address,
- a phone number, and
- email addresses of all individuals associated with the party who wish to be notified when new submittals are available on the commission's website for review.

In accordance with section 25-8-104(2)(d), C.R.S., any person who believes that the actions proposed in this notice have the potential to cause material injury to his or her water rights is requested to so indicate, along with an explanation of the alleged harm, in their party status request.

PREHEARING AND REBUTTAL STATEMENTS:

Each party that has proposed revisions must submit a proponent's prehearing statement.

Each prehearing and rebuttal statement must be provided as a separate PDF document from any accompanying written testimony or exhibits.

Following the rebuttal statement due date, no other written materials will be accepted from parties except for good cause shown.

Oral testimony at the hearing should primarily summarize written material previously submitted. The hearing will emphasize commission questioning of parties and other interested persons about their written prehearing submittals. Introduction of written material at the hearing by those with party status will not be permitted unless authorized by the commission.

PREHEARING CONFERENCE:

Attendance at the prehearing conference is mandatory for all persons requesting party status. Parties needing to participate by telephone can call 1-857-216-6700 and enter the conference code 425132.

Following the cut-off date for motions, no motions will be accepted, except for good cause shown.

PUBLIC PARTICIPATION ENCOURAGED:

The commission encourages input from non-parties, either orally at the hearing or in writing prior to the hearing. Written submissions should be emailed to cdphe.wqcc@state.co.us by March 30, 2016.

SPECIFIC STATUTORY AUTHORITY:

The provisions of sections 25-8-202(1)(a), (b), and (2); 25-8-203; 25-8-204; and 25-8-402, C.R.S., provide the specific statutory authority for consideration of the regulatory amendments proposed by this notice. Should the commission adopt the regulatory language as proposed in this notice or alternative amendments, it will also adopt, in compliance with section 24-4-103(4) C.R.S., an appropriate Statement of Basis, Specific Statutory Authority, and Purpose.

Dated this 14th day of December, 2015 at Denver, Colorado.

WATER QUALITY CONTROL COMMISSION

Trisha Oeth, Administrator

EXHIBIT 1

REGULATION #33 STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS Upper Colorado River Basin

| 12. Lakes and reservoirs within Arapahoe National Recreation Area, including Grand Lake, Shadow Mountain Lake and Lake Granby. | | | | | | | | | | | |
|--|-----------------|-------------------------|-------------|---------|--------------------|--------------|----------|---------|------------|-----|--------|
| COUCUC12 | Classifications | Physical and Biological | | | Metals (ug/L) | | | | | | |
| Designation | Agriculture | | | DM | MWAT | acute | chronic | | | | |
| Reviewable | Aq Life Cold 1 | Temperature °C | 4/1 - 12/31 | CL,CLL* | 19.3* ^B | Aluminum | --- | --- | | | |
| | DUWS* | Temperature °C | 4/1 - 12/31 | CL,CLL* | 19.6* ^B | Arsenic | 340 | 0.02(T) | | | |
| | Recreation E | Temperature °C | | CL,CLL | CL,CLL | Beryllium | --- | --- | | | |
| | Water Supply | | | | | Cadmium | TVS(tr) | TVS | | | |
| Qualifiers: | | clarity | 7/1 - 9/30 | --- | 4* | Chromium III | 50(T) | TVS | | | |
| Other: | | clarity | | --- | narrative* | Chromium VI | TVS | TVS | | | |
| <p>*chlorophyll a (ug/L)(chronic) = applies only above the facilities listed at 33.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.</p> <p>*Classification: DUWS Applies only to Grand Lake</p> <p>*Phosphorus(chronic) = applies only above the facilities listed at 33.5(4), applies only to lakes and reservoirs larger than 25 acres surface area.</p> <p>*clarity(chronic) = July 1 through September 11 Grand Lake Clarity = 4 <u>3.8</u> meter average <u>and 2.5</u> meter <u>minimum</u> secchi disk depth, effective January 1, 2017 <u>2022</u>.</p> <p>*clarity(chronic) = For Grand Lake, the highest level of clarity attainable, consistent with the exercise of established water rights, the protection of aquatic life, and protection of water quality throughout the Three Lakes system.</p> <p>*Temperature(4/1 - 12/31) = Shadow Mtn Res (MWAT=19.3)</p> <p>*Temperature(4/1 - 12/31) = Lake Granby (MWAT=19.6)</p> | | D.O. (mg/L) | --- | 6.0 | Copper | TVS | TVS | | | | |
| | | D.O. (spawning) | --- | 7.0 | Iron | --- | WS | | | | |
| | | pH | 6.5 - 9.0 | --- | Iron | --- | 1000(T) | | | | |
| | | chlorophyll a (ug/L) | --- | 8* | Lead | TVS | TVS | | | | |
| | | E. Coli (per 100 mL) | --- | 126 | Manganese | TVS | TVS | | | | |
| | | | | | Manganese | --- | WS | | | | |
| | | Inorganic (mg/L) | | | | | Mercury | --- | 0.01(t) | | |
| | | | | | acute | | chronic | | Molybdenum | --- | 160(T) |
| | | Ammonia | | | TVS | TVS | Nickel | TVS | TVS | | |
| | | Boron | | | --- | 0.75 | Selenium | TVS | TVS | | |
| | | Chloride | | | --- | 250 | Silver | TVS | TVS(tr) | | |
| | | Chlorine | | | 0.019 | 0.011 | Uranium | --- | --- | | |
| | | Cyanide | | | 0.005 | --- | Zinc | TVS | TVS | | |
| | | Nitrate | | | 10 | --- | | | | | |
| Nitrite | | | --- | 0.05 | | | | | | | |
| Phosphorus | | | --- | 0.025* | | | | | | | |
| Sulfate | | | --- | WS | | | | | | | |
| Sulfide | | | --- | 0.002 | | | | | | | |

All metals are dissolved unless otherwise noted.
T = total recoverable
t = total
tr = trout
sc = sculpin

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 33.6 for details on TVS, TVS(tr), TVS(sc), WS, temperature standards.

STREAM CLASSIFICATIONS and WATER QUALITY STANDARDS – FOOTNOTES

- (A) Whenever a range of standards is listed and referenced to this footnote, the first number in the range is a strictly health-based value, based on the Commission's established methodology for human health-based standards. The second number in the range is a maximum contaminant level, established under the federal Safe Drinking Water Act that has been determined to be an acceptable level of this chemical in public water supplies, taking treatability and laboratory detection limits into account. Control requirements, such as discharge permit effluent limitations, shall be established using the first number in the range as the ambient water quality target, provided that no effluent limitation shall require an "end-of-pipe" discharge level more restrictive than the second number in the range. Water bodies will be considered in attainment of this standard, and not included on the Section 303(d) List, so long as the existing ambient quality does not exceed the second number in the range.
- (B) Assessment of adequate refuge shall rely on the Cold Large Lake table value temperature criterion and applicable dissolved oxygen standard rather than the site-specific temperature standard.

All metals are dissolved unless otherwise noted.
T = total recoverable
t = total
tr = trout
sc = sculpin

D.O. = dissolved oxygen
DM = daily maximum
MWAT = maximum weekly average temperature
See 33.6 for details on TVS, TVS(tr), TVS(sc), WS, temperature standards.

**GRAND LAKE STAKEHOLDERS' CLARITY PROPOSAL
DRAFT STATEMENT OF BASIS AND PURPOSE**

33.56 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; APRIL 11, 2016 RULEMAKING; FINAL ACTION MAY 9, 2016; EFFECTIVE DATE JUNE 30, 2016

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

BASIS AND PURPOSE

In 2008, the Commission concluded that the clarity in Grand Lake needs to improve. It accordingly adopted a narrative clarity standard for Grand Lake, which is a natural lake and used as a component of the U.S. Department of the Interior, Bureau of Reclamation's (Reclamation) Colorado-Big Thompson Project (C-BT Project). In basing the narrative standard on "attainability", the Commission intended "that attainability is to be judged by whether or not a clarity level can be attained in approximately twenty years by any recognized control techniques that are environmentally, economically, and socially acceptable."

The Commission also "determined in 2008 that the adoption of a 4 meter numerical standard with a delayed effective date was an appropriate policy choice to encourage cooperative efforts to improve Grand Lake clarity." The Commission decided in 2014 "that further delay in the effective date of the numerical standard was justified in view of the progress that had been made cooperatively by the [stakeholders] and by the obstacles they [had] yet to overcome." The Commission in particular noted that sufficient effort had not yet been focused on determining an "attainable" level of clarity that is consistent with the constraints identified in the narrative standard. Furthermore, the Commission stated its "hope that improvement in clarity can be achieved by a balanced approach that does not sacrifice water rights, the recreational fishery, or water quality." The Commission expected and anticipated "a cooperative effort [to] focus on identifying an attainable and protective Grand Lake clarity standard" by January 2016. Specifically, the Commission directed that this cooperative "effort should address the following questions that consider the constraints imposed on attainability:

- "1) What are the water rights constraints?
- "2) What are the aquatic life constraints?
- "3) What are the water quality constraints from the perspective of the Three Lakes system?
- "4) What are the financial constraints?"

In response to the Commission's challenge, Reclamation, Grand County, Northern Water, the Colorado River Water Conservation District, the Northwest Colorado Council of Governments, and others engaged in a facilitated process beginning in September 2014. The Proponents (Grand County, Northern Water, Colorado River Water Conservation District and Northwest Colorado Council of Governments) reached consensus on the water rights constraints and the aquatic life constraints. The Proponents also reached agreement on working hypotheses concerning water quality constraints from the perspective of the Three Lakes system. Finally, the Proponents reached a common understanding of why and to what extent the financial burdens of C-BT Project operations, maintenance and capital improvements fall on Reclamation, Northern Water, and power rate payers under federal Reclamation law and C-BT Project contracts.

The clarity in Grand Lake is affected by many variables, including but not limited to natural hydrologic variations, and Reclamation's operation of the C-BT Project, which pumps water from the Colorado River through Shadow Mountain Reservoir into Grand Lake on its way for its ultimate use on the Front Range. The complexities of the C-BT system do not lend themselves to simple solutions. Although a great deal of

information has been generated to identify the causes of diminished clarity in Grand Lake, the existing information is inadequate to determine the clarity attainable within 20 years by any recognized control techniques that are environmentally, economically, and socially acceptable. Essential information on attainability will, however, be developed as the water quality model for the Three Lakes is completed and integrated with the hydrologic model for the C-BT Project, by analyzing the clarity effect of C-BT operational changes taken to improve clarity through an adaptive management process, and by Reclamation's planning and National Environmental Policy Act (NEPA) process to evaluate structural and operational alternatives to improve clarity in Grand Lake, pursuant to a supplemental contract between Reclamation and Northern Water signed on October 23, 2013. Reclamation expects this process, to take approximately 5 years, subject to Congressional funding.

The Proponents have negotiated a Memorandum of Understanding (MOU) to establish the adaptive management process to improve clarity in Grand Lake through using flexibility in operations while Reclamation conducts its NEPA process to evaluate alternatives. Over the next five years, the Proponents anticipate that adaptive management will improve clarity, and inform the operational component of the alternatives being considered. The adaptive management process will result in regular communication between the Proponents and Reclamation, monitoring of the operational adjustments on clarity, and an evaluation of the relative clarity improvements.

The Proponents established clarity goals for July 1 through September 11 of an average Secchi depth of 3.8 meters and a minimum Secchi depth of 2.5 meters to guide the adaptive management efforts for the next five years.

The Commission adopted the Proponents' proposal to defer the effective date of a numeric clarity standard to January 1, 2022, to allow time for Reclamation to complete its NEPA alternatives analysis while exploring adaptive management. The Commission also amended the numeric standard to an average Secchi depth of 3.8 meters, and a minimum Secchi depth of 2.5 meters, for July 1 through September 11. The Commission, like the Proponents, expects that Reclamation's NEPA alternatives analysis will identify the clarity attainable. As with all standards, the Commission concluded in 2008, it expects to revisit this issue in future review cycles.