

# STATE OF COLORADO

John W. Hickenlooper, Governor  
Larry Wolk, MD, MSPH  
Executive Director and Chief Medical Officer

## WATER QUALITY CONTROL COMMISSION

<http://www.colorado.gov/cdphe/wqcc>

4300 Cherry Creek Dr. South  
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Colorado  
Department  
of Public Health  
and Environment

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

### SUBJECT:

For consideration of the adoption of revisions to the Biosolids Regulation, Regulation #64 (5 CCR 1002-64). The revisions to Regulation #64 proposed by Rocky Mountain Water Environment Association Biosolids Committee, along with a proposed statement of Basis, Specific Statutory Authority and Purpose, are attached to this notice as Exhibit 1. Proposed new language is shown with double-underlining and proposed deletions are shown with ~~strikeouts~~. Any alternative proposals related to the revisions proposed in Exhibit 1 and developed in response to those proposed revisions, will also be considered.

### HEARING SCHEDULE:

DATE: Monday, May 12, 2014  
TIME: 9:00 a.m.  
PLACE: Florence Sabin Conference Room  
Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, CO 80246

### PUBLIC PARTICIPATION ENCOURAGED:

The Commission encourages all interested persons to provide their opinions or recommendations regarding the matters to be addressed in this rulemaking hearing, either orally at the hearing or in writing prior to or at the hearing. Although oral testimony from those with party status (see below) and other interested persons will be received at the hearing, the time available for such oral testimony may be limited.

Interested members of the public that do not have party status are encouraged to submit written submissions prior to the hearing. In order to be distributed to the Commission for review prior to the hearing, such submissions need to be received in the Commission Office or the Colorado Department of Public Health and Environment's (Department's) mail room by April 30, 2014. Written submissions received after this date will be distributed to the Commissioners at the hearing. However, for logistical reasons, the Commission office cannot guarantee that **electronic submissions** received after 1:00 p.m. Friday, May 9, 2014 will be provided to Commissioners. Interested persons wishing to submit comments or other documents after that date and time should bring paper copies to the hearing.

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 generally will not be permitted. The Commission requests that all interested persons submit to the Commission any available information that may be relevant in considering the noticed proposals.

#### PARTY STATUS:

Participation as a "party" to this hearing will require compliance with section 21.3(D) of the Procedural Rules, Regulation #21 (5 CCR 1002-21). It is not necessary to acquire party status in order to testify or comment. **For each request for party status, please provide the organization's name, a contact person, mailing address, phone number, and email address.** Written party status requests are due in the Commission Office on or before:

DATE: Tuesday, February 25, 2014  
TIME: 5:00 p.m.

A single copy of the party status request may be transmitted as an email attachment to [cdphe.wqcc@state.co.us](mailto:cdphe.wqcc@state.co.us), submitted by fax to 303-691-7702, mailed or otherwise conveyed so as to be received in the mail room of the Colorado Department of Public Health and Environment (Department) no later than this deadline.

#### ELIMINATION OF MAILING LIST STATUS:

On June 10, 2013, the Water Quality Control Commission approved revisions to the Procedural Rules, Regulation #21 (5 CCR 1002-21), which eliminate mailing list status.

#### PREHEARING STATEMENTS:

**PLEASE NOTE** that for this hearing two separate deadlines for prehearing statements are established:

- (1) A PDF version of a **Proponent's Prehearing Statement** from Rocky Mountain Water Environment Association Biosolids Committee as the proponent of revisions proposed in Exhibit 1 attached to this notice, **including** written testimony and exhibits providing the basis for the proposals, must be emailed to [cdphe.wqcc@state.co.us](mailto:cdphe.wqcc@state.co.us) **AND** 14 paper copies of the Proponent's Prehearing Statement **without** written testimony and exhibits must be received in the Department's mail room no later than **March 4, 2014**; and
- (2) A PDF version of a **Responsive Prehearing Statement**, including any exhibits, written testimony, and alternative proposals of the Water Quality Control Division or **anyone seeking party status and intending to respond to the proponent's proposal** must be emailed to [cdphe.wqcc@state.co.us](mailto:cdphe.wqcc@state.co.us) **AND** 14 paper copies of the Responsive Prehearing Statement **without** exhibits and written testimony must be received in the Department's mail room no later than **March 25, 2014**.

As soon as prehearing statements are posted on the Commission's web site, the Commission office will email a link to the page containing the prehearing statements to proponents, parties and the Attorney General's Office representatives for the Commission and the Division.

Also **note** that the Commission has prepared an **updated version** of a document entitled "Information for Parties to Water Quality Control Commission Rulemaking Hearings". A copy of this document will be emailed to all persons requesting party status. It is also posted on the Commission's web site as Appendix C to the [Public Participation Handbook](#). Following the suggestions set forth in this document will enhance the effectiveness of parties' input for this proceeding. **Please note the request that all parties submit two-sided copies of all hearing documents on three-hole punch paper.**

#### REBUTTAL STATEMENTS:

**Written rebuttal statements responding to the prehearing statements due on March 25, 2014 may be submitted by Rocky Mountain Water Environment Association Biosolids Committee, the Division or anyone seeking party status.** Any such rebuttal statements must be received in the

Commission Office by **April 30, 2014**. A PDF version of written rebuttal statements including exhibits must be emailed to [cdphe.wqcc@state.co.us](mailto:cdphe.wqcc@state.co.us) **AND** 14 paper copies **without exhibits** must be received in the Department's mail room by this deadline. No other written materials will be accepted following this deadline except for good cause shown.

**PREHEARING CONFERENCE:**

DATE: Tuesday, April 22, 2014  
TIME: 1:00 p.m.  
PLACE: Sabin Conference Room  
Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, Colorado 80246

**Attendance at the prehearing conference is mandatory for all persons requesting party status.** An opportunity may be available to participate in this prehearing conference by telephone. Persons wishing to participate by telephone should notify the Commission Office as early as possible.

**Any motions regarding the conduct of this rulemaking shall be submitted by Thursday, April 17, 2014, so that they can be considered at the prehearing conference. No motions will be accepted after February 17, 2014, except for good cause shown.**

**SPECIFIC STATUTORY AUTHORITY:**

The provisions of sections 25-8-202(1)(c) and (2), 25-8-205(1)(e), 25-8-501(1) and (2), and 25-8-509 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.

**NOTIFICATION OF POTENTIAL MATERIAL INJURY TO WATER RIGHTS:**

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 in the party status request submitted. In order for this potential to be considered fully by the Commission and the other agencies listed in the statute, persons must fully explain the basis for their claim in their prehearing statement which is due in the Commission Office on the date specified above. This explanation should identify and describe the water right(s), and explain how and to what degree the material injury will be incurred.

Dated this 21st day of January 2014 at Denver, Colorado.

WATER QUALITY CONTROL COMMISSION

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Trisha Oeth, Administrator

**EXHIBIT 1**  
**ROCKY MOUNTAIN WATER ENVIRONMENT ASSOCIATION**  
**BIOSOLIDS COMMITTEE**

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

**5 CCR 1002-64**

**BIOSOLIDS REGULATION**

**REGULATION NO. 64**

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**64.15 USE OF BIOSOLIDS FOR AGRICULTURE AND RECLAMATION**

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**D. Groundwater.**

- (1) No person shall apply biosolids for beneficial use on land which is underlain by groundwater where the annual high groundwater table is within five feet of the surface of the land. Determination of the annual high groundwater table shall be made as follows:
  - (a) Groundwater depth determinations based upon direct observation using piezometric tubes or other groundwater depth monitoring devices shall be the preferred method of groundwater depth determination. The Division may require installation of such devices in instances where other information which is developed does not conclusively demonstrate adequate depth to groundwater, alternately,
  - (b) U.S.D.A. Soil Survey maps of the application site, and/or
  - (c) Well completion records may be considered as documentation, either singly or in combination with other supporting documentation, in instances where surface topography, vegetation, or lack of seasonal ponding suggest that adequate depth to groundwater exists, and/or-
  - (d) Any other methods approved by the Division.

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**G. Soils.**

- (1) No person shall apply biosolids for beneficial use on land cultivated in food crops where the soil exhibits a pH of less than 6.0 standard units.
- (2) No person shall apply biosolids for beneficial use on land unless:

- (a) for irrigated agricultural land, the depth of suitable soil is a minimum of three (3) feet, or
- (b) for agricultural land cultivated in dryland crops, or for rangeland, the depth of suitable soil is a minimum of eighteen (18) inches, or
- (c) for reclamation of disturbed land the depth of suitable soil is a minimum of twelve (12) inches.
- (d) For the purposes of this paragraph 64.15(G)(2), the depth of suitable soil shall be defined as the distance beneath the level in the soil at which biosolids are placed to the level at which impermeable substrata are encountered. The Division shall approve the method of determining depth to suitable soil.

#### H. Nutrient Management.

- (1) No person shall apply biosolids for beneficial use to agricultural land such that nitrogen application exceeds the agronomic rate for the crop or vegetation cultivated. Agronomic loading rates shall be determined in a manner that is acceptable to the Division and shall account for plant available nitrogen sources which may include biosolids, manures, fertilizers, irrigation water, residual soil nitrogen, and soil organic matter. The Division may require monitoring to determine background levels of nitrogen in irrigation water in instances where the soil percolation rate, groundwater depth and residual soil nitrogen level indicate a reasonable potential for excessive nitrogen transport to groundwater.
- (2) No person shall apply biosolids for reclamation of disturbed land such that the nitrogen application exceeds the agronomic rate for the vegetation which is to be established, except that such application rate may be based upon an aggregate agronomic need representing the initial five years after application occurs or as justified in an operational plan that documents the application rate and process has been designed to prevent the discharge of pollutants to State Waters, and is approved by the Division.
- (3) When, per paragraph (2) of this subsection, a nitrogen application rate is requested which is based on an aggregate agronomic requirement for the vegetation, the Division may specify additional siting and operational restrictions which are more stringent than those otherwise specified within this section 64.15, or additional monitoring requirements which are more stringent than those specified in section 64.16 of these regulations.
- (4) The plant available nitrogen levels (lbs per dry ton) in biosolids shall be calculated as follows:

$$\text{Biosolids PAN} = (m) (\text{Organic N}) + (v) (\text{NH}_4\text{-N}) + \text{NO}_3\text{-N}$$

Where:

PAN = Plant Available Nitrogen (lbs per dry ton of biosolids)

m = Mineralization Factor

v = Volatilization Factor

Organic N = organic nitrogen in biosolids (%)

NH<sub>4</sub>-N = Ammonia-nitrogen in biosolids(%)

NO<sub>3</sub>-N = Nitrate-nitrogen in biosolids (%)

- (5) No person shall apply biosolids for beneficial use to land, unless: ~~where the available phosphorus content of the soil exceeds the following:~~
  - (a) ~~100 ppm, using sodium bicarbonate extraction;~~

(b) ~~50 ppm, using AB-DTPA extraction;~~

(c) ~~170 ppm, using Bray P1 extraction;~~

Available phosphorus levels shall be determined based upon the Bray P1 extraction when soil pH is 6.5 or less.

(a) For Soil pH greater than 6.5, the available phosphorus content of the soil does not exceed:

a. Sodium bicarbonate extraction - 80 ppm; or

b. AB-DTPA extraction - 40 ppm

(b) For Soil pH 6.5 or less, the available phosphorus content of the soil does not exceed:

a. Bray P1 extraction - 120 ppm; or

b. Mehlich 3 extraction - 200 ppm

c) Where a phosphorus content limit in subsection (a) or (b), above, is exceeded, the Division may allow land application of biosolids where the potential for phosphorus movement off-site is minimized based on evaluation of site-specific conditions, management practices, application methods, and rates (e.g., in accordance with the Colorado phosphorus index).

~~(6) The Division may consider allowing land application of biosolids if appropriate erosion control measures are implemented (e.g., NRCS code 590 for Colorado).~~

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## **64.16 MONITORING AND ANALYSIS**

### **A. Biosolids Monitoring.**

- (1) For purposes of this section, "Annual Biosolids Production " is defined as the amount of biosolids (dry weight basis) applied to the land, which also includes those facilities that further process biosolids, e.g. "composting", that is distributed to the public. Collection and analysis of biosolids shall be accomplished after final treatment and at the frequencies specified in Table 7. When sampling is required once per year samples shall be collected during the fourth quarter (October 1 through December 31) unless the Division approves otherwise. Collection and analysis of biosolids shall be accomplished at the frequencies specified in Table 7. For purposes of this section, "Annual Biosolids Production " is defined as either the amount of biosolids applied to the land, which includes those facilities that further process biosolids, e.g. "composting", that is distributed to the public (dry weight basis). When sampling is required once per year samples shall be collected during the fourth quarter (October 1 through December 31) unless the Division specifies otherwise.

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## **ROCKY MOUNTAIN WATER ENVIRONMENT ASSOCIATION** **BIOSOLIDS COMMITTEE PROPOSED**

### **64.32 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE; MAY 12, 2014 RULEMAKING HEARING; FINAL ACTION JUNE 9, 2014; EFFECTIVE JULY 30, 2014**

The provisions of Colorado Revised Statute Sections 25-8-202(1)(c) and (2), 25-8-205(1)(e), 25-8-501(1) and (2), and 25-8-509 C.R.S, provide the specific statutory authority for the Colorado Biosolids Regulations adopted by the Commission. The Commission has also adopted, in compliance with Colorado Revised Statute Section 24-4-203(4) C.R.S., the following Statement of Basis and Purpose.

#### **BASIS AND PURPOSE**

The Commission found it necessary to clarify, modify or update four parts of these regulations.

An option was added to section 64.15D(1) and 64.15G(2) that allows the Division to use other means to determine the depth to groundwater and depth of suitable soil than the three previously listed options. This allows more flexibility for the Division when permittee is trying to determine these levels.

Under section 64.15H(2), the language was expanded to allow the use of operation plans to allow more flexibility in determining the application rate for reclamation sites.

Under section 64.15H(5), the phosphorus values and references were updated to be consistent with other federal and state programs. This will make it easier for the permitted community to be in compliance.

Finally, the Commission found that re-wording section 64.16A(1) clarified the number of tests that need to be performed on biosolids prior to use and who needs to perform those tests.