

**WATER QUALITY CONTROL COMMISSION  
STATE OF COLORADO**

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**RESPONSIVE PREHEARING STATEMENT OF THE CITY OF BOULDER, CENTENNIAL WATER & SANITATION DISTRICT, LITTLETON/ENGLEWOOD WASTEWATER TREATMENT PLANT, METRO WASTEWATER RECLAMATION DISTRICT, AND COLORADO WASTEWATER UTILITY COUNCIL**

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**REVISIONS TO SECTION 31.17 IN THE BASIC STANDARDS AND METHODOLOGIES FOR SURFACE WATER, REGULATION #31, AND THE NUTRIENTS MANAGEMENT CONTROL REGULATION, REGULATION #85**

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The City of Boulder, Centennial Water & Sanitation District, Littleton/Englewood Wastewater Treatment Plan, Metro Wastewater Reclamation District, and Colorado Wastewater Utility Council (“Municipal Stakeholders”) provide the following Responsive Prehearing Statement.

1. Executive Summary and Statement of Issues

The Municipal Stakeholders are providing this RPHS to respond to the Water Quality Control Division’s Proponent’s Prehearing Statement and Exhibits. The Municipal Stakeholders support the majority of the Division’s proposal. As explained in the Municipal Stakeholders’ PPHS, there are limited aspects of the Division’s proposal with which the Municipal Stakeholders disagree.

This RPHS provides comments on the following topics:

- General comments. The Municipal Stakeholders support many of the Division’s proposals. The aspects of the proposal of most importance to the Municipal Stakeholders are explained below.
- Nutrient Incentive Program and Risk. The Municipal Stakeholders offered an alternative proposal to address potential future nutrient impacts in the incentives program. In this RPHS, the Municipal Stakeholders are providing comments on the Division’s proposal.
- Nutrient Incentive Program and Discharger-Specific Variances. The Municipal Stakeholders also offered an alternative proposal to address how nutrient incentives will be made available to facilities that receive discharger-specific variances during or after 2027. In this RPHS, the Municipal Stakeholders are

providing comments on the Division's proposal, along with questions that are intended to spur additional discussion of the issues.

## 2. General Comments

The Municipal Stakeholders support most aspects of the Division's proposal package, including changes to Regulations 31 and 85 and proposed Policy 17.1. Thanks to a thorough and robust stakeholder process leading up to the proposal, there was good discussion of the majority of issues before the hearing process started. Also, all stakeholders were given an opportunity to review the data and information that support the Division's proposal.

The following aspects of the Division's proposal are particularly important to the Municipal Stakeholders:

- Rescheduling consideration of standards: 2022 hearing on chl-a and high-priority lakes and reservoirs; 2027 hearing on streams P and N
  - The change in schedule is necessary as a response to EPA non-action on stream interim values for TP and TN. The Municipal Stakeholders compromised with the Division and accepted the revised schedule and remain supportive. It is important to note that significant amounts of work will be needed to develop a basis for stream standards and that the revised schedule represents only a modest delay.
  - Compared to the Commission's plans in 2012, this results in accelerating the adoption of standards for some lakes and for chl-a. Site-specific standards will be adopted in 2022 instead of in the following basin hearings. The chl-a standards will be implemented through TMDLs.
  - It is appropriate to focus on priority lakes and reservoirs in 2022 and the rest in 2027. EPA's letter recommended considering site-specific data before using the interim values for lakes and reservoirs. This task will need to be divided up.
  - For streams and low-priority lakes and reservoirs, the revised schedule represents only a modest delay in the schedule for stream standards adoption for South Platte Basin – 2 years compared to the plan contemplated in 2012, which would have included site-specific standards considered in the 2025 basin hearing.
- Extending Regulation 85 through 2027, and retaining the interim values in Regulation 31.

- The Municipal Stakeholders agree that over the next ten years all nutrients permit limits will be based on the Regulation #85 parameter limitations as adopted in 2012. Additionally, the municipal stakeholder agree with retaining the interim values in Regulation #31 as adopted in 2012 while the Division and stakeholders work on developing new phosphorus and nitrogen standards, which is currently slated for a special hearing in 2027.
- This approach continues the Commission's policy of supporting BNR-based effluent limitations, which are based on the Regulation #85 parameter limitations. A Wastewater Utility Council poll of its members (results attached as Exhibit 3) found that facilities are already expecting capital improvements and more chemical usage to meet the Regulation #85 effluent limitations, particularly for TP. Lower effluent limitations before 2027 (based on either reducing the Regulation #85 parameter limitations or Regulation #31 interim values) would logically increase costs, and if the effluent limits were set below the treatment capability of BNR would logically increase the reliance on chemical treatment.
- The focus over the next ten years should be on optimization of BNR as the next step; optimization performance may differ from facility to facility, making the task of setting generally-applicable limits difficult.
- In particular, some facilities would require capital upgrades or major operational changes and associated costs to meet limits lower than the current Regulation 85 limits. The Colorado Wastewater Utility Council poll of its members asked about the extent of significant costs that would be associated with TIN limits of less than 15 mg/L. Of the 12 facilities responding, a majority indicated that there would be either major capital costs or major operational cost impacts associated with lower TIN effluent limits.
- Capital upgrades could conflict with facility planning. Many facilities are planning for tertiary treatment to meet nutrient-related WQBELs. Capital improvements aimed at improving or enhancing biological nutrient removal could become stranded assets once standards are adopted.
- Changing the effluent limitations now would be unfair to many facilities. The Division has only issued permits to approximately half of the facilities subject to Regulation 85 effluent limitations since 2012. (*See* WQCD Ex. 1, pg. 1). If Regulation 85 effluent limitations were changed, questions about how to address limits for facilities that have not yet had Regulation 85 implemented in their permits would need to be addressed.

- Also, most of the facilities subject to Regulation 85 effluent limits have either not had permits issued to implement those limits or, where a permit has been issued, the facility has been granted a compliance schedule that provides additional time to meet the limits. The Municipal Stakeholders agree with the Division's proposal to not reduce the total inorganic nitrogen (TIN) effluent limit for existing facilities from 15 mg/l to 10 mg/l. As the Division noted, most Municipal Stakeholders are in the process of planning or executing plans to meet the limits in Regulation 85 or to go beyond those limits. Lowering the Regulation 85 limitation for TIN to 10 mg/l would cause a significant hardship for the Municipal Stakeholders as they would have to re-evaluate their plans in the light of meeting a different limitation causing delays in progress and possible confusion for their decision making boards and councils and citizens. The Municipal Stakeholders support the incentive program as it will allow them to make plans for nutrient reductions that could range from somewhat less than the Regulation 85 limits to levels that would be achieved by enhanced biological nutrient removal. These plans will be able to be implemented relatively quickly with resulting reductions in nutrient concentrations achieved sooner than if the regulation were changed with the limits issued in permits that may not be issued for a period of years.
- Using a voluntary incentive program to make progress on nutrient reductions.
  - The Municipal Stakeholders are proud to have worked with the Division on this innovative regulatory program, and are appreciative that the Division was willing to embrace an innovative regulatory program.
  - This approach targets the largest facilities (with the largest loads) although all can participate.
  - The incentive program does not require permitting but relies on the initiative of the facilities independent of the permit cycle. Facilities can achieve more nutrient reductions sooner than through regulatory requirements because there is an incentive for action before permit issuance. Participation in the program will not require modifications to permits that have already been issued with effluent limitations based on Regulation 85.
  - A flexible approach allows facilities to maximize optimization while accounting for different opportunities for optimization at different facilities.

- The Municipal Stakeholders and the Division have agreed that certainty that the incentive-based compliance schedule time will be provided in permits after 2027 is critical to facility participation. The reasons for the extended compliance schedule meeting the regulatory requirement to comply with WQBELs (or AELs) “as soon as possible” enumerated in the bullets on page 10 of the Division’s RPHS fully justify providing surety that this time will be made available in the future. If the decision regarding the additional compliance schedule time is put off till after 2027 facilities will not be able to count on that time for planning projects that will be needed to meet WQBELs or AELs after 2027. The ability to factor the incentive-based compliance schedule period earned through early reduction of nutrient concentrations is critical for facilities to participate in the incentive program. If Municipal stakeholders can’t convince decision-making boards and councils that expenditure of funds to voluntarily reduce nutrient concentrations will allow for more time to plan for improvements in the future, they will be reluctant to approve participation. This extra time is distinguishable from the time that would ordinarily be provided when a compliance schedule is provided where the water quality standards are known and a permit is being issued in the present as opposed to ten years from now or more.
- The Division providing a detailed nutrient management plan with robust stakeholder outreach.
  - Ongoing and significant stakeholder involvement is important.
  - Consideration of feasibility issues early in the process will smooth facility planning and enhance the ability to achieve water quality improvements.
  - Early distribution of draft criteria for review and planning purposes will be key to successful hearing processes in 2022 and (particularly) 2027.
  - The robust stakeholder outreach should reduce concerns about the practicality of considering table value standards, site-specific standards, and DSVs for the entire state in a single hearing.
- The incentive program should continue for all program participants for the duration of the program (2017-2027).
  - The Division stated in both its Prehearing Statement (page 11) and Exhibit 5, Policy 17-1 (page 4) that the Commission will consider revisiting the approach during the middle of the program period. This is an issue that

we thought we had reached agreement with the Division, so this comment is for clarification.

- The Municipal Stakeholders believed that we had agreed that for any facility that opts into the incentive program that the incentive program will continue for that facility through 2027. This is an essential because it is directly related to certainty, which is the most important characteristic of the program. Facilities that undertake early expenditures as part of this program need to know that the program will not be stopped mid-way through the program period.
- If there is insufficient participation in the program, then the Division and stakeholders may develop additional program(s) that would apply to facilities that are not participating in the program.
- The Division should supplement the rulemaking record.
  - The Municipal Stakeholders respectfully request that the Division supplement the rulemaking record. During the stakeholder process the Division presented several qualitative analyses that supported the ten-year road map and approach that are not included in the rulemaking record.

3. Comments on Division Exhibit 3: Colorado Nutrient Management Plan and 10-Year Water Quality Roadmap.

In the first paragraph on Page 17 the division states they are "...working with four different contractors on developing technology fact sheets to support the alternatives analysis for temperature, ammonia, nitrate, and selenium." These fact sheets are intended to provide technical and cost information on various treatment technologies and support decision making related to DSVs. The Municipal Stakeholders support this effort and request additional clarification on what type of information and detail are intended to be included in the fact sheets. A concern the Municipal Stakeholders have is how future regulatory requirements for temperature, ammonia, nitrate, and selenium, in addition to possible future changes to nutrient criteria, fit together with respect to the potential for conflicting technologies or the sequencing of technology improvements based on criteria implementation schedules set through the 2017 rulemaking hearing.

4. Comments on the Division's Proposed "Safety Clause" wording.

The success of the proposed nutrients incentive program will depend heavily on the certainty and predictability of the offered incentive. In order to have access to the resources needed to optimize nutrient reduction, facilities will need to be able to clearly

communicate the benefits to stakeholders including Boards and City Councils. The Division's proposed "safety clause" language in Reg. [add cite] reduces the certainty in the program.

A large majority of Wastewater Utility Council members are concerned with the Division's current proposed safety clause language. Overall, most members felt that certainty in the program is the most important factor that will make them more likely to participate. The Municipal Stakeholders provided a thorough explanation of its position and rationale in its Prehearing Statement (see pages 4-12), and incorporates those positions here. The Municipal Stakeholders hope to continue to work with the Division during the rulemaking process to define the specific scenarios that would trigger a reduction to an incentive compliance schedule in the regulatory framework. The Municipal Stakeholder reiterate from their Prehearing Statement that if the Division has alternative specific conditions that should be considered, the Municipal Stakeholders request that the Division provide a list, and explanation, of those specific conditions.

5. Comments on Division Exhibit 5, Draft Policy 17.1: Colorado Nutrient Incentives Program

The Municipal Stakeholders strongly support the use of a voluntary nutrient reduction incentive program to achieve nutrient reductions before 2027.

The "Matrix" nutrients sub-workgroup met multiple times to discuss the details of the incentive program and Policy 17.1. As a result, most of the provisions in Policy 17.1 represent a consensus among the Division and the Municipal Stakeholders. However, as explained in the Municipal Stakeholders' Proponents Prehearing Statement, the stakeholders and the Division still disagree about how the incentive program should work for facilities that receive discharger-specific variance approvals in or after 2027.

*a. Incentive program and DSVs.*

The relationship between the incentive program and DSVs is important, because many facilities will require variances, particularly for nitrogen. Several factors make this likely:

- Large domestic wastewater facilities in Colorado frequently discharge to streams with very low flow. This results in effluent limits equal to or close to the water quality standards.
- The Regulation 31 interim values for Total Nitrogen, if imposed as end-of-pipe effluent limitations, are beyond the limits of technology for biological nutrient

removal. Tertiary treatment for nitrogen frequently requires expensive and unsustainable filtration technology.

- The Regulation 31 interim values for Total Phosphorus, if imposed as end-of-pipe effluent limitations, are likely to require tertiary treatment including costly chemical addition with environmental consequences requiring further analysis. Among the respondents to a Wastewater Utility Council poll, all of the facilities rated the feasibility of meeting Regulation 31-based limits as “low to mid” based on the current interim values. This indicates that most if not all facilities are currently contemplating variances.

Because variances are likely for many facilities, the Municipal Stakeholders appreciate the Division’s decision to allow extended compliance schedules for facilities that receive variances. The Municipal Stakeholders’ concerns relate primarily to the *certainty* of the incentive program. The more facilities are uncertain about the amount of the incentives, the less likely those facilities are to participate. If fewer facilities participate, it will be difficult for the incentive program to achieve the nutrient reductions that the Division and stakeholders desire.

Viewed through the lens of achieving the maximum possible *certainty* in the program, the Municipal Stakeholders have the following comments and questions about the Division’s proposal for Policy 17.1:

- The Division proposal includes a cap of 10 years on the total AEL compliance schedule (including both the underlying compliance schedule and the incentive). (WQCD Ex. 5, pg. 14).
  - Added complexity (two independent caps on compliance schedule).
  - Would it be more straightforward to use one or the other limitation instead of both? What is the benefit of having both limitations in light of the added complexity?
  - Disproportionately affects facilities with more stringent AELs.
- The Division proposal acknowledges that the Regulation 85 effluent limits regulate TIN, while WQBELs and AELs may regulate TN. The Division proposal says, “When scaling the credit earn a facilities TIN/TN ratio will need to be taken into account.” (WQCD Ex. 5, pg. 15, Table fn. 1).
  - How does the Division propose to take the facility’s TIN/TN ratio into account?
  - At what time will the ratio be calculated? At the time of permitting?



- What if the AEL is expressed as TIN but the underlying water quality standard is expressed as TN?
- This introduces significant uncertainty into the duration of the incentives for nitrogen. This is particularly unfortunate because of the difficulties reducing nitrogen to the concentrations in the interim values, which could be revised downward in 2027.
- While the Municipal Stakeholders appreciate the Division's proposal to allow an extended compliance schedule for DSV AELs the Municipal Stakeholders do not agree with the concept of applying a TIN/TN ratio and propose that the incentive be based on the actual TIN concentration. It is typical for a wastewater treatment facility discharge to have approximately 1.5 to 2 mg/L of TN be in the form of soluble organic nitrogen (SON), which cannot be removed through enhanced BNR. To remove SON a reverse osmosis treatment process is required. This, on top of the Division's proposal to apply a scaling factor, further disincentivises dischargers from participating in the Incentive Program and deters from the goal of achieving early nutrient reductions.
- Additionally, part of the reasoning for developing the Incentive Program is to allow time for new, and more economical, enhanced treatment processes to be evaluated to remove nitrogen. It also supports the Division's statement in Section III, page 3, of Exhibit 5:
- "There are limits in the technology available that would allow entities to meet the expected water quality-based effluent limitations (WQBELs) based on numeric standards for nutrients at the levels expected to be adopted in section 31.17 of Regulation #31, particularly in cases of low ambient dilution. The commission has revised its long-term strategy for water quality improvement in Colorado and decided to take a different approach for the time-period of 2017 through 2027 in order to provide sufficient time for development of revised numeric nutrient values and to provide certainty for the regulated community."
- The goals or reasons for the Division's proposed incentives scaling are unclear from the Division's proposed Policy 17.1 language or prehearing statement.
  - Is the proposal intended to be based on a reduced need for incentives among dischargers with less onerous capital improvement requirements after 2027? If so it does not address any reduced need directly; instead it uses the relationship between the WQBEL and the AEL as a proxy.

Depending on facility configuration a significant investment may be required even if the AEL value is significantly higher than the WQBEL. Instead, the policy should directly consider the level of capital investment required to meet the AEL.

- Is the proposal intended to encourage more aggressive AELs when variances are adopted? That is a site-specific consideration and the Commission will have the opportunity to determine the concentration that represents the best feasible water quality at the time that variances are proposed.

As explained in their Proponents' Prehearing Statement, the Municipal Stakeholders agree that, under some circumstances, an extended compliance schedule under the incentive program may not be necessary. This may occur when a facility's AEL does not require capital investments beyond those already made at the facility. Under those circumstances, it is possible that no compliance schedule is needed (although one could be needed to provide time for further optimization).

Therefore, the Municipal Stakeholders proposed to make the incentive unavailable for facilities that can meet an approved AEL without capital investment. The Municipal Stakeholders believe the alternative limitation is unlikely to be a disincentive to participation in the incentive program. This is because the *full* incentive will still be available to all facilities that need more time in 2027.

b. *Other comments on Draft Policy 17.1*

**General comment:** The draft Policy applies to both domestic and non-domestic wastewater treatment facilities. The draft also contains several references to "wastewater treatment plants," which may create confusion because that term often applies to domestic facilities. We suggest using a defined term in the Policy to avoid confusion.

**Page 5:** The incentive program does not apply to facilities commencing discharge after December 31, 2017. Should this statement use the new Regulation #85 defined term "New Treatment Facility?"

**Page 9:** We suggest clarifying that the annual report due on or before March 31<sup>st</sup> will cover data from the previous calendar year.

6. Comments on the Division's "Examples of Regulatory Challenges Related to Nutrient Loading Versus Infrastructure"

In the Division's Prehearing Statement, the Division provided seven examples interpreting the definitions of "the current Regulation #85 terms "existing discharge" and "new domestic wastewater treatment works" in light of similar terminology used in Regulations #22 and #61." Division Responsive Prehearing Statement, at 18-20. These examples are inconsistent with the Division's Policy Number: Clean Water 3, *Permit Compliance Schedules*, effective March 4, 2014.

The Division makes several conclusions about how the hypothetical situation would fit the Regulation #61 definitions of "new discharger" and "new source." Some of these are inconsistent with the Division's interpretation of these terms in its Compliance Schedule Policy.

Under Regulation #61 a publicly owned domestic wastewater treatment plan cannot be a new source, as recognized in the Permit Compliance Schedule Policy, "[u]nder Regulation No. 61 a POTW can never be a "new source" because POTWs are not subject to new source performance standards (i.e., pursuant to section 306 of the Clean Water Act)." (emphasis added) Clean Water 3, *Permit Compliance Schedules*, effective March 4, 2014, at 7. The Division's Prehearing Statement does not recognize this distinction and improperly makes conclusions about all domestic wastewater treatment works.

Additionally, the Division's examples in its Prehearing Statement overlook and are inconsistent with its interpretation of new discharger in its Compliance Schedule Policy. The Compliance Schedule Policy provides a thorough explanation of the term "site," which includes "land area" and "water area", which are sub-elements of the definition:

The term "new discharger" does apply to POTWs and POTW treatment plants. Discharges from POTWs are existing sources if they commenced at the particular site before August 13, 1979 or if they received a final effective permit for discharges at the site, which can mean either land or water area. For discharges associated with POTWs, the POTW includes sources that are contributions to the collection systems, sources within the collection systems, and sources at the treatment plant.

In conducting its evaluation of whether the discharge is from the same "land area" the Division evaluates whether the POTW treatment plant is on the same property (i.e., adjacent to) the existing POTW treatment plant. The Division has considered discharges from a new POTW treatment plant constructed on the same land area (adjacent) as an existing POTW

treatment plant, an existing source, even if the discharge could be interpreted to be to a new water area (e.g., different receiving water).

In conducting its evaluation of whether the discharge is from the same "water area" the Division evaluates "water area" on a case-by-case basis, in consideration of the pollutants for which a compliance schedule may be appropriate. Water area considerations for each pollutant include segmentation, uses, adopted standards, hydrologic characteristics (e.g., flow regime), sensitive receptors (e.g., designated as critical habitat for threatened and endangered species) and the availability of watershed analyses such as those contained in a TMDL or category 4b plan. The Division has considered discharges from a new POTW treatment plant, constructed at a distinct physical location (not adjacent) to the location of the existing POTW treatment plant, that will discharge treated municipal sewage from an existing POTW, to be an existing source on the basis that the discharge was to the same water area.

The Division's examples 2 and 6 from its Prehearing Statement are inconsistent with the Compliance Schedule Policy, and example 5 may in some applications be inconsistent.

7. Comments on the Division's statement regarding how it will determine "as soon as possible" under a compliance schedule

On page 14 of the Division's Prehearing Statement the Division stated:

At the time of issuing and renewing each facility's permit after 2027, there will need to be a case-by-case demonstration that the extra time given to that facility is consistent with achievement of the water quality-based effluent limits "as soon as possible." The division intends that the "as soon as possible" finding will be based upon facility-specific considerations *such as the steps needed to modify or install the necessary treatment facilities, operations, or other measures, and the time those steps would take based upon the facility's financial resources or other relevant factors.* (emphasis added)

The Municipal Stakeholders would like to seek clarification about the Division's statement. We thought we had reached an agreement with the Division on this issue. In the first permit renewal after 2027 a participating facility's compliance schedule will be based on two sub-compliance schedules: the incentive compliance schedule and the compliance schedule that the facility would have otherwise received, not to exceed a fifteen year total. We agree that the portion of the compliance schedule based on what the facility would have otherwise received should be facility-specific. However, we

believe that facility-specific determination should be based on regulation and policy. We want to confirm that the Division is not creating a new standard for compliance schedules that are limited to the factors listed in its Prehearing Statement.

8. Exhibits.

Exhibit 3 Wastewater Utility Council Survey Results

DATED this [\_\_\_\_] [OB] [\_\_\_\_] . [\_\_\_\_] .

VRANESH AND RAISCH, LLP

By: \_\_\_\_\_