

# DEQ Nutrient Work Group 24th Meeting Summary November 8, 2013

## Introductions

A list of the members of the Nutrient Work Group (NWG) and others in attendance or participating in the meeting via telephone is attached below as Appendix 1.

## Agenda

The meeting participants reviewed and approved the following agenda items.

- Review of the October 16, 2013 Meeting Summary
- Comments & Concerns about the Rule Package Received since Mid-October 2013 and What DEQ Has Done about Them
- Rule vs. Guidance: Optimizing the Placement of Elements of the Rule Package
- Rule Modifications to Subchapter 5 (Mixing Zone Rules)
- Public Comment
- Next Steps Regarding the Rule Package
- Next Meeting

## Review of the October 16, 2013 Meeting Summary

NWG members present at this meeting had no comments on the October 16, 2013 meeting summary.

## Comments & Concerns about the Rule Package Received since Mid-October 2013 and What DEQ Has Done about Them

Mike Suplee reviewed the latest versions of three documents in the nutrient standards rule making package that were posted on the NWG web page: "[Nutrient Standards Rules and Statements of Reasonable Necessity](#)" (Version 7.8); "[Department Circular DEQ-12, Parts A and B](#)" (Version 6.7) and "[DRAFT 1.2 Base Numeric Nutrient Standards Implementation Guidance](#)" (Version 1.2). He also discussed comments on these documents received by DEQ since mid-October. Dr. Suplee also reported that the Water Pollution Control Advisory Council (WPCAC) considered the rule package at its meeting this morning and voted 5-3 to support presenting the package to the Board of Environmental Review (BER). WPCAC was aware that more work by DEQ is required regarding implementation of the variance components of the rules which will be adopted by the Department, and also rule changes to Subchapter 5.

### Nutrient Standards Rules (Version 7.8) and Statements of Reasonable Necessity

Some formatting and non-substantive editorial changes have been made. The primary substantive change in this version was modification of the severability clause in response to comments from the Montana Petroleum Association. The clause appears in 17.30.619 (4). The modification clarifies that if either a court or the EPA invalidates any portion of the statute, then the numeric nutrient standards are nullified and the nutrient narrative standards again apply.

*Question - The clause references the statute. What about the rule package?*

Answer - Functionally, the statute and the rules are the same, so that the clause applies to both. An individual permit is not the same as the statute and rules, so invalidation of a permit would not invalidate the statute and rules.

*Question - What about the 14Q5 change?*

Answer - We will cover this later in this meeting when we discuss the mixing zone rules. This change was not included in the WPCAC decision regarding the rule package.

#### Department Circular DEQ-12, Parts A

The third definition in Section 1.1 addressing soluble reactive phosphorus was deleted because it pertained only to “related assessment information” for Flathead Lake and is not being carried forward. Table 12A-1 was changed by dropping the column that addressed benthic chlorophyll *a*. The numeric nutrient standard now addresses only total phosphorus (P) and total nitrogen (N) and not chlorophyll *a*. The standard levels in this table for the Yellowstone River are changed because of finalization of DEQ modeling. Models have not been used previously to set water quality standards and this is why the criteria estimates in DEQ-12 version 6.6 were caveated as preliminary.

*Comment - The Yellowstone River changes are substantive.*

#### Department Circular DEQ-12, Part B

The three bullets formerly in Section 2.0 General Nutrient Standards Variances on pages 2 and 3 will be dropped based on comments from the Montana Petroleum Association and advice from DEQ legal staff that they were beyond the authority provided in statute. The language, “The review will occur triennially and will be carried out at a state-wide scale” will be retained.

#### DRAFT 1.2 Base Numeric Nutrient Standards Implementation Guidance

A definition of a pollution control project was added to Section 1.1 to clarify that a project includes an upgrade to a wastewater treatment facility and all directly relevant infrastructure. Under Section 3.3, language was added setting forth the DEQ staff team that will be involved with reviewing an individual application.

#### Issues Still Under Consideration

DEQ is still considering the following:

- In Section 2.1 Wastewater Facility Optimization Study of Part B of Department Circular DEQ-12, we are considering changing the bullet number 2 to read “Should not result in rate increases or substantial investment.” With this change, the bullet would address both public and private treatment plants.
- Table 12B-1 in Part B of Department Circular DEQ-12 references the long-term average. The statute addresses monthly averages. Permits address long-term averages. DEQ legal staff has suggested wording changes that might address this but this issue is still being considered.
- Shall and must language in the guidance document will likely be softened.

*Question - Is the monthly average based on 30 days of data?*

Answer - Sampling is usually based on four samples per month.

*Question - What does “long-term” mean?*

Answer - Permit writers look at the longest term with available monitoring data, generally five years, and apply statistics to develop the monthly average.

*Question - What is the legal effect of guidance?*

Answer - If language is not directly referenced in the rule, then it is guidance only and need not be followed. An applicant may apply equally good science or technology and take action different than that set out in the guidance.

*Question - Is guidance binding on anyone?*

Answer - Only if guidance is referenced in the rule is it binding.

*Question - What about provisions for the streamlined site specific standard?*

Answer - These provisions are only in the guidance document. However any site-specific criteria developed via that process must be approved by the BER for adoption as a standard.

*Question - What would be the effect of delaying the adoption of the rule by the BER?*

Answer - I am not sure. The rule is ready for adoption now.

*Comment - In the view of the Mining Association, the rule package is incomplete because it does not address the legislative intent that non-degradation is linked to variances. We have been advised by DEQ that this issue may be addressed in guidance, but as we just heard, guidance is not legally binding.*

*Comment - The League of Cities and Towns submitted comments by email. Some have been addressed in the changes to the rule package, but some have not. For example, the State of Wisconsin has spelled out in its nutrient rules how permits will be written. Circular DEQ-12 does not spell out how permits will be written.*

Response - We have responded to the Leagues' comments and will post both the comment and our response on the NWG web page.

*Comment - In standards and permits, whether average monthly limits are specified as a concentration or load is important. Montana statues state that if the standard is expressed as a concentration, then permits must also be written in terms of concentrations. We need to have permits written in terms of loads. Writing standards as concentrations is a deal killer.*

Response - I will clarify this with the permit staff.

*Comment - This issue is important for nutrient trading. It must be addressed explicitly.*

*Question - What about seasonal versus monthly limits?*

Answer - The standards are not seasonal. We know that in some cases only 14 to 20 days pass before problems are manifest when nutrients are elevated. A season-long average (over about 3 months) would not be protective, but monthly limits should be.

*Comment - Treatment plant upsets are an issue. In Wisconsin, when standards are below 0.3 mg total P, then averages are calculated over the season rather than one month.*

Response - Permitting allows for adjusted sampling within a month to address plant upsets.

*Comment - We may not know that a violation has occurred so we cannot adjust sampling. Small plants cannot monitor as often.*

*Comment - Upsets will likely occur frequently and will be an issue at lower standard levels.*

*Question - Are we being set up to fail?*

Answer - No. At the lowest levels of the guidance reduction steps, this may be an issue.

However, permits are designed and written given that 95-99% of the effluent discharges will be better (lower concentrations) than standard levels.

*Comment - The low standard levels may be an issue 15 years out. The NWG will have an opportunity to address plant upsets at a later date.*

*Comment - If the science indicates that an average time longer than one month is not a water quality issue, then can we address this problem?*

Answer - Yes.

*Question - Is monthly average an issue with site specific standards?*

Answer - It could be.

*Comment - I am comfortable that we can address the long-term issue in the future.*

Response - DEQ is comfortable with monthly averages, not with seasonal averages.

*Comment - The biological data have not simulated effluent spikes as opposed to high levels over longer periods.*

Response – The best information we have to this end is from long-term monitoring in the Clark Fork River. The Clark Fork data indicate that effluent levels that exceed standard levels more than about 20% of the time are a problem.

*Question - Could we put the 20% exceedance level in the guidance so that it translates into permits?*

Answer - Not directly. The issue would be the expected condition derived from surface water monitoring (20%) vs. once in five years allowances established via design for low flow.

*Comment - We need to be clear about the role of TMDL in the variance process. George Mathieus has said that the variance will trump a TMDL. I don't see confirmation of this in the rule.*

Response - If this is important, we can clarify it. It would be helpful if the League would propose language.

*Comment - Section 3.2 of Part B of Circular DEQ-12 requires that the demonstration include effects on the downstream waterbody. Language should be added about the environmental significance of the downstream effects.*

Response - We are considering this.

*Question - Can we stay on a general variance while working on an individual variance?*

Answer - Yes. We can add language to this effect.

*Comment - In Section 2.0 of the guidance document, for the large treatment plants (greater than 1 million gallons per day discharge), the final reduction step D, 5 mg TN/L, 0.15 mg TP/L, should be dropped.*

Response - These levels are merely guidance, and are designed to afford regulatory certainty. After 2016 the levels in this section might be put in the rule.

*Comment - I would prefer that level D go away. Numbers that are written down tend to become significant.*

*Comment - There is a consensus here today supporting levels A through C for the treatment plants with discharges greater than 1 million gallons, but not for level D.*

Response - We will discuss this, but I do not see why this would not be acceptable. In place of the numerical levels for D, we will consider language that for the third permit cycle the numbers will be under development.

*Comment - We should also drop level D for the small plants with discharges less than 1 million gallons per day.*

Response - For small plants, optimization alone can often achieve the step D levels (8 mg TN/L and 0.8 mg TP/L).

*Comment - I like the level D numbers in the guidance for small plants as long as individual variances are an option.*

Response - By statute, individual variances are available.

*Comment - Optimization doesn't mean anything without details about how the levels can be achieved without spending a lot of money. DEQ should lay out a program including training and a series of steps and procedures so people can learn how to improve water quality.*

Response - We agree. The last two years, DEQ has hired a consultant to do this. The consultant has provided class room training focused on non-capital expenditure improvements.

*Comment - I also support keeping D for small treatment plants.*

Response - Based on the apparent consensus here today, we will likely keep the level D for small plants.

## **Rule vs. Guidance**

Mike Suplee stated that the DEQ Director is prepared to proceed with the content of the rule and guidance documents as currently structured, but asked for comments about what should be in rule and what in guidance.

*Comment - The issue seems to be that EPA may not approve certain provisions in the rule that DEQ wishes, so these are put in guidance.*

Response - Yes. For example, EPA will not approve defining the limits of technology to be a wastewater treatment that can consistently achieve a concentration of 70 µg TP/L and 4,000 µg TN/L. We therefore are putting this definition in guidance rather than in rule.

*Question - What are the policy implications of including provisions that are not mandatory in the guidance?*

Answer - The guidance reflects that we have to have approval of EPA.

Answer by Tina Laidlaw - To approve a rule, EPA must find that the provisions are consistent with federal statutes. EPA does not act on language in guidance.

*Question - So if something would not be acceptable to EPA in the rule, it can be put in guidance?*

Answer by Tina Laidlaw – The information can go into guidance but if it results in an action that requires EPA approval (e.g., variance request) the action must still comply with state and federal regulations.

*Comment - I am comfortable with putting more in guidance to preserve flexibility. The proposed DEQ rule package is a good compromise between regulatory certainty and flexibility.*

*Comment - The Montana Petroleum Association has a couple of issues where greater certainty is more important. We will discuss these with the DEQ.*

## **Mixing Zone Rules**

Mike Suplee passed out a draft of rules for Subchapter 5 of 17.30 ARM, Mixing Zones in Surface and Ground Water. This draft is currently being reviewed by DEQ permitting staff. These rules would incorporate Circular DEQ-12. In 17.30.515 (3), discharge limits would be based on dilution with the seasonal 14-day, five year low flow (14Q5). Other water quality standards are based on dilution with the seven-day, 10 year low flow (7Q10).

*Question - Is it clear what the seasonal period is to which the numeric nutrient criteria apply?*

Answer - Yes. Section 17.30.635 provides that the season is July through October.

*Question - The 14Q5 applies to base standards and not the variances?*

Answer - Yes. The 14Q5 is part of a dilution calculation used with the base standards, whereas variances are essentially end-of-pipe and stream flow is not considered.

*Question - Will you post this document on the NWG web page while the permit staff is reviewing it?*

Answer - We will post it in about a week, after permits has had time to review.

*Question - Why does 17.30.502 (14) reference human health?*

Answer - The standards are segregated into two parts via the two circulars. One addresses nutrient levels necessary to protect human health, the toxic provisions (DEQ-7). The lower levels of the nutrient criteria in the other part protect the environment from eutrophication (DEQ-12).

## **Public Comment**

*Comment - I am concerned about not looking at the big picture for small communities. The ammonia requirements will push them into mechanical systems.*

Response by Mike Suplee - These communities must figure out how to meet the ammonia standard independent of the nutrient requirements.

*Comment - I do not see hope for lagoon systems to meet the ammonia standards.*

Response by Tina Laidlaw - EPA has issued options for ammonia treatment and is trying to connect ammonia and nutrients. EPA would welcome comments related to ammonia standards.

*Question - Could we have a stakeholder process similar to the NWG to address ammonia?*

Answer by Eric Urban - DEQ is looking at EPA guidance and options. The ammonia standards are the tip of the iceberg.

*Comment - Small communities do not see what is coming.*

*Question - Funding agencies are examining these programs. We do not see lagoon optimization options for controlling ammonia. Ammonia treatment alone will bump some communities against their debt limits. Local governments may not have the ability also to respond to nutrient requirements and system emergencies. Is there a way to involve stakeholders and EPA with the bigger picture including unregulated contaminants?*

Answer by Mark Bostrom - This becomes a national issue.

*Comment - Federal grant programs to water treatment are gone.*

*Comment - Water treatment plant designs must address ammonia, nutrients, and other contaminants.*

Response by Mike Suplee - Studies indicate that higher levels of nutrient controls also address pharmaceuticals and endocrine disrupters.

*Comment - Nutrient controls will not address all pharmaceuticals and endocrine disrupters.*

*Comment - Regulatory certainty over 20 or 30 years for contaminants will not happen. Addressing nutrients is not throwing away money.*

## **Next Steps towards Nutrient Standards Rule Making**

Mark Bostrom stated that DEQ is planning for a December rule making although some elements such as the Sub-Chapter 5 Mixing Zone provisions still need work. We are in discussions with mining and petroleum representatives. DEQ will decide on November 18 whether to proceed with BER consideration of rules in December or next January. DEQ will provide its decision to the NWG.

*Comment - DEQ has addressed some of the concerns raised in the October letter from the Montana Petroleum Association. We would like to understand DEQ's response to the other issues. For example, the September 5, 2013 NWG meeting summary states that DEQ is writing a policy addressing application of non-degradation to new and expanded sources and would*

*discuss it with the NWG. We have not yet seen this policy. We urge DEQ to hold off on the rules until January.*

Response by John North - I am working through the letter and will make an effort to resolve all of the issues raised by November 18. I will contact you.

*Comment - We would like to see Mike Suplee make all of the changes discussed today to the rule package documents posted on the NWG web page.*

*Question - Is EPA reviewing the rule package in advance?*

Answer by Tina Laidlaw - EPA is reviewing the draft documents and advising DEQ about potential approval issues. We will not provide written comments unless we see show stoppers, and we have not seen any yet. EPA will not take final action on the rule until it is submitted to us.

*Question - Is the individual variance worksheet in the rules?*

Answer by Mike Suplee - It is in the guidance document.

*Question - When is the BER December meeting?*

Answer - December 16.

*Question - What is the role of the NWG in the rule process?*

Answer by John North - According to statute, NWG is an advisory body with which DEQ must consult. A vote of the group on proposals is neither anticipated nor needed.

## **Next Meeting**

The next meeting of the NWG was not scheduled.

**Appendix 1  
NWG Attendance List  
November 8, 2013**

**Members**

Kate Miller	Montana Department of Commerce
Tom Hopgood	Montana Mining Association
Brian Sugden	Plum Creek
Mark Lambert	Treasure State Resource Industry Association
Craig Woolerd	City of Bozeman
John Wilson	City of Whitefish
Scott Murphey	Morrison Maierle
Shari Johnson	City of Polson/League of Cities and Towns (via telephone)

**Alternate Members**

Doug Parker	Hydrometrics (alternate for Tom Hopgood)
Bill Mercer	Holland & Hart (alternate for Dave Galt)
Craig Pozega	Great Western Engineering (alternate for Dave Aune)
Alan Stine	Olympas Technical (alternate for Michael J. Perrodin)

**Non-Voting Members**

Mark Bostrom	Montana Department of Environmental Quality (DEQ), Water Quality Planning Bureau Chief
Dr. Jeff Blend	DEQ Economist
Dr. Mike Suplee	DEQ, Water Quality Standards Section, Water Quality Specialist

**Other Meeting Participants**

Susan Elayng	Browning, Kaleczyc, Berry & Hoven
Paul Lammers	Revett Minerals
Rebecca Bodnar	City of Kalispell
Lina Laidlaw	EPA
Mitchell Leu	Plum Creek
Abigail St. Lawrence	Montana Association of Realtors
Gary Swanson	Robert Peccia & Associates
Jason Mohr	Legislative Environmental Policy Office
Amanda McInnis	HDR/Montana League of Cities and Towns
John North	DEQ Attorney
Bob Habeck	DEQ, Water Protection Bureau Chief
Eric Urban	DEQ, Water Quality Standards
Chris Brick	Clark Fork Coalition (via telephone)
Alsan Wendt	AE2S

**NWG Facilitator**

Gerald Mueller	Consensus Associates
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