DEQ Nutrient Work Group
4th Meeting Summary
August 20, 2009

Introductions
Gerald Mueller, the Nutrient Work Group (NWG) facilitator, and those attending this meeting introduced themselves. George Mathieus introduced two Department of Environmental Quality (DEQ) bureau chiefs, Mark Bostrom, new Chief of the Water Quality Planning Bureau, and Jenny Chambers, Chief of the Water Protection Bureau. A list of the members and others in attendance is attached below as Appendix 1.

Agenda
- Review of the July 16, 2009 Meeting Summary
- DEQ Legal Opinion on the Permit Shield
- EPA's Response to the MPDES Permit Shield
- DEQ's Sensitivity Analysis of Different Levels of the Algae Criteria Used to Set the Base Numeric Criteria For Nutrients
- Translation of the Base Numeric Nutrient Standard into Permit Decisions
- Administrative Rule Adoption process
- NWG Work Plan
- Public Comment
- Next Meeting Schedule

Review of the July 16, 2009 Meeting Summary
Gerald Mueller noted that the meeting summary on page 2 referenced an EPA memo describing the case law on variances. EPA was unable to supply this memo. No other changes were made to the summary.

DEQ Legal Opinion on the Permit Shield
Claudia Massman discussed DEQ's legal view of the Montana Pollutant Discharge Elimination System (MPDES) permit shield. Under section 402(k) of the federal Clean Water Act, if a discharger is acting in compliance with a discharge permit or if a discharge permit application is under administrative review, the permit holder or applicant is shielded from citizen lawsuits alleging non-compliance with the Clean Water Act. Federal court decisions have upheld this provision. Montana does not have a specific permit shield in statute. However, under the statutory definition of pollution, discharges made pursuant to discharge permit are not pollution so that a discharger would be shielded from a citizen lawsuit. A citizen may sue DEQ alleging that the department issued an in adequate permit.

Question - Would a notice of violation (NOV) issued because of a monitoring problem negate the permit shield?
Answer - If DEQ is taking action regarding a NOV, then the discharger continues to be shielded against citizen lawsuits.

Question - If a discharger has received a NOV letter that is not followed by enforcement action, could the discharger be sued by a citizen?

Answer by Jenny Chambers - If a NOV has been issued, but a repeat sampling does not show violation, then a violation has not occurred. A discharger is not subject to lawsuits regarding the provision of a permit in which he or she is in compliance.

Comment - DEQ needs to close out NOVs in its files. If a notice is not closed, then the discharger is subject to a citizen lawsuit regarding the violations.
Response by Jenny Chambers - We are attempting to close out instances of significant violations.

EPA's Response to the Permit Shield

Erin Perkins, an attorney with the EPA Region 8 Office of Regional Counsel, participated in the meeting by telephone from Denver. She generally agreed with Ms. Massman's description of the permit shield. She stated, however, that a permit applicant must disclose all of the pollutants to be discharged in order for the permit shield to be effective regarding all pollutants. Ms. Perkins will supply an EPA policy statement regarding the shield to Ms. Massman for posting on the NWG web page.

Question - I understand that EPA is not able to provide a general legal memo about nutrient standard variances. Does EPA have any guidance or policy statements regarding the variance procedure and the issuance of temporary criteria?
Answer - I am not aware of any, but I will check with EPA Headquarters and work with Tina Laidlaw to get an answer to this question. EPA did recently issue guidance regarding a scientific advisory panel for nutrient standards, but it did not address variances.

Comment - I have and am passing around a copy of a 1985 EPA memorandum regarding variances in water quality standards. See Appendix 2 below.

DEQ's Sensitivity Analysis of Different Levels of the Algae Criteria Used to Set the Base Numeric Criteria for Nutrients

Sensitivity Analysis - At the July 16 NWG meeting, Dr. Suplee was asked to conduct a sensitivity analysis to determine the effect of varying benthic algae densities on candidate nutrient criteria. Dr. Suplee analyzed five levels of algae, 100, 125, 150, 175, and 200 mg Chl*a*/m,^{2} using relationships between algae and nutrient concentrations taken from four regional stressor-response studies that were carried out in Montana or an ecoregion that occurs in Montana . He presented his analysis using a PowerPoint presentation entitled "Sensitivity Analysis of Numeric Nutrient Criteria, Including a Presentation of Aquatic Insect vs. Stream Nutrients Relationships." Access to the presentation will be provided through the NWG web page. Dr. Suplee's summary slide made three points:

- Collectively, the four published algae-nutrient equations show that as 200 mg Chl *a*/m^2 is approached, corresponding nutrient concentrations move into the highest range of values measured in Montana reference stream sites (i.e., 99th percentile of reference).
- At the very extremes of the reference data sets (i.e., 99th percentile), very high outlier values are encountered in the Middle Rockies ecoregion.
- The algae-nutrient equations show that nutrient concentrations associated with higher algae levels (175, 200 mg Chl*a*/m^2) are fairly similar to nutrient concentrations at 150 mg Chl*a*/m^2.

Question - Three of the four stressor response studies used soluble reactive phosphorus (SRP) and one used total phosphorus (TP). Should you be averaging the SRP and TP results together?
Answer - The results should be used to consider the overall pattern of the algae response to varied nutrient levels and reference data distributions, not to determine a single reference percentage value. The patterns for TP and SRP are similar.

Question - In DEQ's water quality monitoring, does every stream have both TP and SRP data?
Answer - We have paired data for many monitoring sites.

Comment - SRP is generally about one third of TP.
Response - Assuming this relationship, SRP is one third of TP, is a good ballpark approach for many western Montana streams. We should remember, however, that DEQ is not using reference stream data alone to set the base nutrient criteria.

Comment - Other factors than nutrient levels determine algae growth.
Response - The stressor response studies and the reference stream data show consistent patterns for the relationship between nutrient and algae concentrations regardless of other factors.

Comment - Most reference streams had low levels of nutrient concentrations.
Response - The reference streams did have low levels, but the stressor response studies did not. The stressor-response studies included nutrient concentrations within and also well beyond concentrations seen in reference sites. For example, one study looked at changes in stream nutrient concentrations below several waste water treatment plants in the Canadian Rockies.

Nutrient-aquatic Insect Correlation Study - DEQ and EPA have conducted a study showing the correlations between nutrient levels and impacts on aquatic insects. Data from this study provide another line of evidence for considering the nutrient criteria thresholds. In his PowerPoint presentation, Dr. Suplee presented partial results from this study. He found that while the nutrient-aquatic insect correlations contain a lot of scatter, they demonstrate changes in biometrics in the same nutrient concentration ranges as would maintain benthic algal growth in the 150 - 200 mg Chl*a*/m^2 range

Recommended Nutrient Criteria Levels - Dr. Suplee reviewed a chart he presented to the NWG previously showing the actual or likely affects on stream uses at varying algae levels. He presented the following table of his recommended base nutrient criteria levels by ecoregion. He also stated that nitrate criteria are likely needed for the Middle Rockies ecoregion and strongly suggested for the Prairies ecoregion.

TableB. Nutrient concentrations corresponding to differing algae levels & reference distribution percentiles.

Algae Level Threshold (mg Chl*a* /m^2)	Associated Reference Percentile	Nutrient and Ecoregion (Level III)							
		Total Phosphorus (mg/L)				Total Nitrogen (mg/L)			
		Northern Rockies	Canadian Rockies	Middle Rockies	Idaho Batholith	Northern Rockies	Canadian Rockies	Middle Rockies	Idaho Batholith
100	76th	0.007	0.004	0.020	0.007	0.104	0.177	0.180	0.095
125	86th	0.011	0.005	0.031	0.010	0.160	0.206	0.256	0.128
150	96th	0.015	0.010	0.099	0.012	0.294	0.224	0.384	0.229
175	97th	0.016	0.011	0.111	0.012	0.306	0.226	0.452	0.230
200	99th	0.017	0.034	*0.199*	0.015	0.333	0.232	*2.966*	0.235

Concentration ranges I recommend for consideration, by ecoregion.

Question - What supporting documentation do you have for your recommended base levels?
Answer - The documentation includes the recreation survey, five dose-response studies, dissolved oxygen data, and the scientific literature.

Comment - Differences in the threshold values determined through averaging may be significant for treatment expenditures, particularly the nitrogen values. While your math tools may identify change points in data with significant variation, the implications of the variation may be significant for removal technology.
Response - My recommendations are supported from three lines of evidence, the benthic algae studies, aquatic insect studies, and reference stream data.

Question -Reference streams likely have low nutrient levels, cold water, and coarse substrates. Are there lab studies of the effects of nutrients on aquatic insects?
Answer - The best place to assess the impacts of nutrients is the field rather than the laboratory. We can't do LC50 studies (i.e., the concentration which is lethal to 50% if the target population, usually in 96 hrs) for specific insect taxa, because nutrients in the ranges we've discussed are not toxic, but rather, cause changes in the primary productivity of the streams (plants, algal growth) and then in turn on the aquatic life.

Question - You are setting nutrient criteria based on adverse effects. Why not regulate the adverse effects?
Answer - We are starting to look at bio criteria; however, there is a lot of noise and other problems with them alone.

Question - Why regulate nitrogen (N) and phosphorus (P) levels if they are not the cause of the problems?
Answer - *We need to quantify the cause of the adverse affect even though there is a lot of noise.*

Question - Foreshadowing our permit discussion in the next agenda item, I agree that basic nutrient standards make sense. Why don't we treat the basic standard as a target and enforce achievable temporary criteria?
Answer - We have not ruled out this approach.

Comment - The sensitivity analysis shows a range of effects. The issue should be what level of impacts is acceptable.
Response - Assessing harm to use is difficult, but the DEQ has thought long and hard on what harm to use is, and presented much of that work here.

Question - The recreation survey showed a clean break point. Was this an artifact of how you conducted it?
Answer - We saw some variation. The only way to address your question would be to replicate the study.

Comment - EPA requires that the base nutrient criteria provide protection for the most sensitive beneficial use.

Comment - We have been conducting macro invertebrate studies at the Stone Container mill for over 50 years. Drought cycles affect taxa shifts.
Response - I agree. Water level impacts are part of the scatter in the results. DEQ is, however, looking at several lines of evidence in setting the nutrient standards.

Question - You mentioned that a nitrate criterion may be considered for the Middle Rockies ecoregion. Are you considering a nitrate criterion for the Yellowstone River?
Answer - Yellowstone is not a wadeable stream. We are currently considering nutrient criteria only for wadeable streams. We are working on a pilot modeling project using a water quality model (QUAL2K) and will be happy to present the results to the group when it is ready.

Comment -Your statistical studies are dependent on input data. I have asked before about treatment of non-detect values, i.e. values below the laboratory detection limit. You sent me the data, which I appreciate. You set the value at 50% of the detection limit for non-detect reference stream samples. Different laboratories have different detection limits.
Response - There are two approaches possible for non-detect samples, throwing out the samples below the detection limit and assigning a value to them. Only 4% of the data set were at or below the detection limits in the dataset I sent you. Throwing out the data at or below the detection levels is a bad approach, as you are loosing valuable information about the low-concentration data in your population. Going to the coarsest detection limit in the dataset is also unacceptable as the worst laboratory would then determine the data detection limit of the dataset, and I do not agree with doing so.

Comment - I am concerned that your 50% of detection limit invalidates the data. A better approach would be to use the practical quantification limit (PQL) which is five times greater than the detection limit.
Response – The PQL you mention is a recommendation as to how laboratories should report their data, but does not refer to how analysts should handle and compile various datasets once

the data is out in the world. Also, we are not working at the low end of the data spectrum. We are not just slavishly using a specified percentile of the reference stream data for setting the nutrient criteria. As long as we consider multiple lines of evidence, the non-detect issue is not significant.

Question - Would it make sense to conduct a sensitivity analysis using the practical quantification limit for non-detect values?
Response - A sensitivity analysis for the non-detect reference stream data would not gain much because of the acknowledged variability. Also, I do not agree with accepting or rejecting data based on a back-end analysis.

Comment - The nutrient criteria levels are low enough that a sensitive analysis is not necessary.

Comment by Mark Bostrom - Prior to assuming the bureau chief position, I was DEQ's quality assurance officer. The approach used by Dr. Suplee is consistent with EPA quality assurance guidance and is preferable to rejecting non-detect data for standard setting purposes.

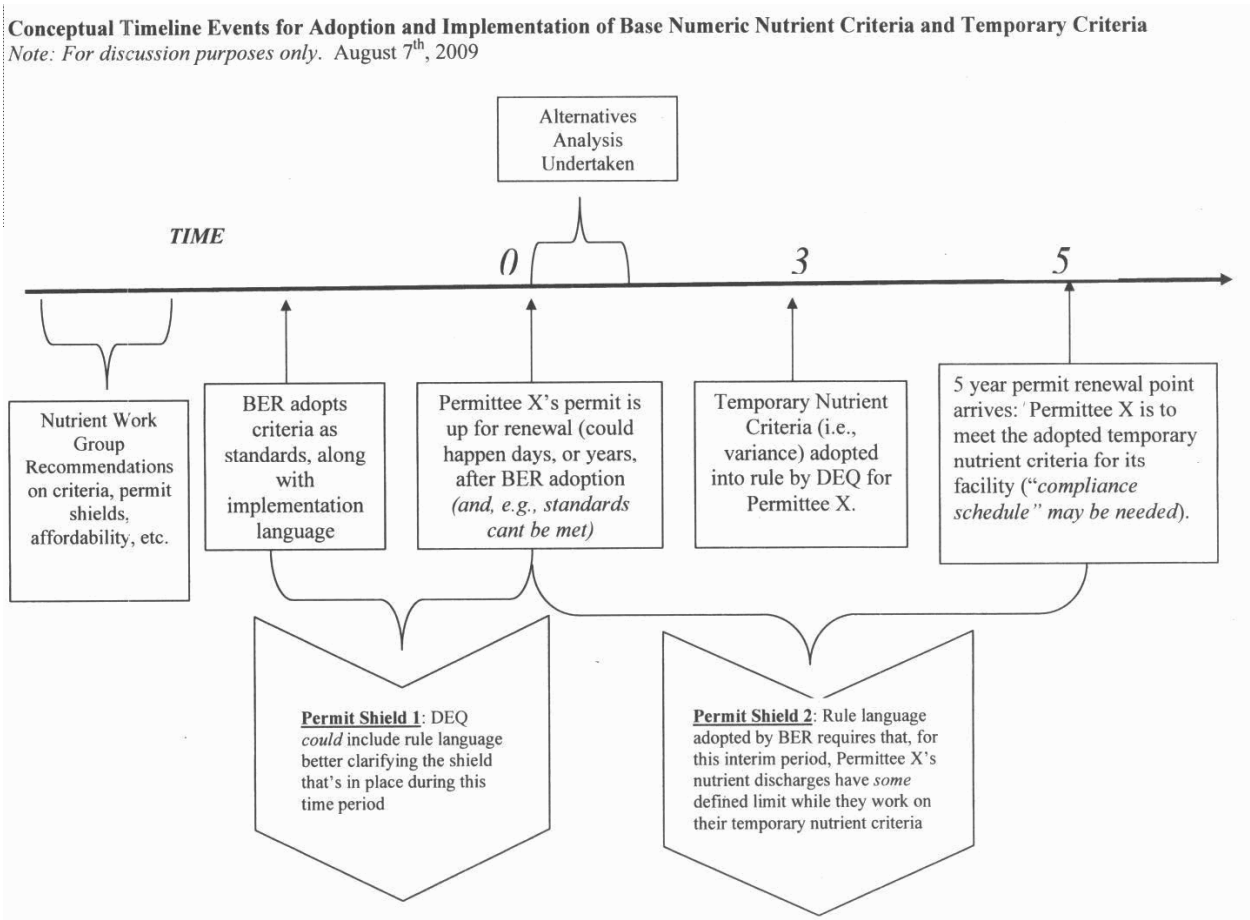
Question - You are focusing on a handful of tightly controlled stressor response studies. Have you plotted SRP and TP versus algae levels?
Answer - We have not. There is not a good dataset to do so except for the reference streams and the Clark Fork River. The Clark Fork nutrient dataset has problems that we are working to resolve. After we resolve the problems, we can plot the relationship. The four stressor response studies included the same ecoregions as in Montana and included data from and up and downstream of waste water treatment plants.

Comment - Only one of the studies was done in the northwest.
Response - We will review our data sets to see what is available from the northwest. There may be data from Lake Creek and the Gallatin River.

Translation of the Base Numeric Nutrient Standard into Permit Decisions

Dr. Suplee reviewed the following chart that provided an overview of the standard setting and permit process.

Conceptual Timeline Events for Adoption and Implementation of Base Numeric Nutrient Criteria and Temporary Criteria
Note: For discussion purposes only. August 7th, 2009



Jenny Chambers stated that she has been part of the standard development discussions to ensure that adoption of base nutrient criteria would not force the immediate reopening of all discharge permits. Permitting needs an "out" or interim standard level applicable to the "Permit Shield 2" in the chart so that dischargers will be required to make progress towards the base standards while they are subject to temporary criteria, i.e. variances. Ms. Chambers noted that DEQ is allowed under the Clean Water Act to set five year compliance schedules.

Question - Would all back logged permits have to address the new nutrient standards?
Answer - The standards would be addressed in the normal permit review process.

Question - How many permits are you processing annually?
Answer - For wadeable streams, our target is 25 per year. We would expect half of these to address the nutrient criteria.

Comment - Along with the base nutrient criteria, interim criteria should be set that most dischargers could meet pending the issuance of individual temporary criteria. This approach would provide the progress regarding nutrient levels sought by SB95. The interim standards might be established by basin or by discharge facility type.
Response - We don't know if EPA would approve an interim standard.

Comment - Another approach would be to adopt the base nutrient standards with a delayed effective date.

Question - Would the interim standard in effect be a technology based variance?
Answer - It would appear so. For example, for lagoon based treatment systems, we might specify specific N and P discharge levels.

Comment - Setting technology based standard would break the direct link with water quality. DEQ would have to define the conditions in which an interim standard would be appropriate. TMDL and waste load allocations may apply.
Response - An interim standard set by technology may require a decision by the Board of Environmental Review rather than by DEQ. The interim approach would also have to be approved by EPA. Most impaired streams do not have point sources of nutrients, so the base nutrient standard would set nutrient loads through the TMDL.

Question - Would discharge permits be reopened by a TMDL?
Answer by Jenny Chambers - EPA wants us to reopen permits to address waste load allocations. However, we lack the staff resources to do so, so we will address TMDL allocations when discharge permits are renewed.

Comment - We need to understand what load reductions can be achieved by agriculture and septic system non-point sources to assess whether intra-basin pollution abatement trading would make sense.
Response by Gerald Mueller - We will add this topic at a future meeting.

Question - Where to the Tribes fit in?
Answer by Rosemary Rowe - I am not sure, since I do not address reservations. We will check into this.
Answer - DEQ comments on Tribal permits. Tribal discharges would have to meet downstream, off reservation water quality requirements.

Comment - To design a waste treatment plant, we need to know the nutrient level standard that must be met. Once we have a design and a cost estimate, the affordability variance procedure could be triggered.

Comment - I am concerned that industry would need a different interim standard/variance than municipal waste water treatment plants.
Response - There may be technologies broadly applicable to public waste treatment plants that would not be applicable to specific industries such as petroleum refineries, sugar refineries, or pulp mills. EPA guidance provides for affordability variances for public and privately owned systems. The previous advisory committee, Nutrient Criteria Affordability Advisory Group, recommended an affordability variance for public systems, but did not reach a decision about a mechanism for private systems.

Question - How would we get permits structured to incorporate what technology is capable of achieving?
Answer - Technology would be considered in the alternative analysis that we will need to distill into rule language. We would be interested in hearing from the engineering and industry representatives on this group about the achievable levels of discharges.

Comment by Gerald Mueller - I am hearing two issues. One is the legal process by which a "third way", i.e., an interim nutrient standard or delayed effective date of the base standards, might be established, by DEQ action or by Board of Environmental Review (BER) action, and the acceptability of the "third way" to EPA. The second issue is the practical limits of technology. We will ask the NWG waste water treatment plant engineers and industry representatives to make presentations about this. We will ask for a presentation by DEQ/EPA about the legal issues at the next NWG meeting along with a discussion by NWG engineers of the levels of municipal waste water treatment. We will ask for a similar technology presentation by the industry representatives to follow at a subsequent meeting.

Administrative Rule Adoption Process

Bob Bukantis passed out and discussed a summary of the application of the Montana administrative rule making process to base nutrient criteria. See Appendix 3 below. The summary included theoretical dates for each step in the process assuming that the rule making package was "ready to go" on January 1, 2009. The BER would adopt rules for the nutrient base criteria and to specify the variance (temporary criteria) process. The DEQ would adopt rules for specific variances, using the same process as the BER rulemaking.

Question - Would the TMDL Advisory Committee be involved with nutrient criteria rules?
Answer - No.

Question - One of the steps in the process is compliance with HB521, the legislation that requires that rules be no more strict that federal standards. Since there are no federal numeric nutrient standards, would state adoption be blocked?
Answer - While no federal standards exist, federal guidance does; it was published by EPA in 2000 and contains 304a nutrient-criteria recommendations. DEQ expects that the numeric nutrient standards it will propose would be less stringent that the federal guidelines.

Question - How would the EPA approval process fit into the schedule?
Answer by Tina Laidlaw - Once an approved package of rules is submitted to EPA, the agency has 60 days to approve them or 90 days to disapprove them. EPA has missed these deadlines in the past.

Question - If EPA is involved in the development of the package of rules, how long would EPA's approval or disapproval take?
Answer by Tina Laidlaw - Region 8 would attempt to issue an approval or disapproval letter within the 60 or 90 day windows. Whether we would succeed probably depends on the content of the package.

NWG Work Plan

Gerald Mueller asked if the group has additional questions regarding the first item in the work plan, the base numeric criteria and associated science. The group agreed to move on to other work plan topics. At the next meeting, DEQ will report on the legal basis for interim nutrient criteria and NWG engineers will report on the level of achievable technology for municipal waste water systems. At a future meeting, NWG industrial representatives will make a similar

presentation for industrial discharges. Also at a future meeting, the TMDL-related issues will be discussed.

Public Comment

Question - Would the economic impact of the base nutrient criteria affect local municipal permits to industries?
Answer by John Rundquist - In the case of the City of Helena, we have industrial pre-treatment permits, but not for nutrients.
Answer by Dave Clark - Cities might want to look at loads that industries put on their municipal treatment plants.

Comment - SB95 requires a report on the economic impacts of the nutrient criteria to the Environmental Quality Council. When will these impacts be discussed?
Answer by Dr. Suplee - Dr. Jeff Blend is working on a broad brush economic analysis of nutrient criteria. He is planning to look at individual discharge permits to estimate the facility's contribution to summer water volume and then use this as a rough surrogate for nutrient contribution.

Comment - After we have the TMDL discussion, I request that DEQ present a case study of a discharge permit for nutrients.
Response by Jenny Chambers - I have it on our radar. If an industry would like to volunteer, please let us know.

Next Meeting

The next meeting is scheduled for Thursday, September 20 in room 226 of the offices of the Montana Department of Commerce at 301 S. Park Avenue in Helena. The agenda will include:

- DEQ's analysis of the legal approach to interim nutrient criteria;
- The NWG engineers presentation regarding achievable technology for municipal waste water systems; and
- A review of the Nutrient Criteria Affordability Advisory Group recommendations for an affordability variance to the base nutrient standards for the public sector.

Appendix 1
NWG Attendance List
August 20, 2009

Members

Jim Edgcomb	Montana Department of Commerce/Treasure State Endowment Program
Scott Murphy	Morrison-Maierly, Inc.
John Wilson	City of Whitefish
Dick Hoehne	Town of Philipsburg
Don Allen	Western Environmental Trade Association (WETA)
Ryan Swinney	Bruce Swinney & Associates
Michael Perrodin	BNSF Railway
Terry McLaughlin	Smurfit-Stone Container
Debbie Shea	Montana Mining Association
Dave Aune	Great Western Engineering
Brian Sugden	Plum Creek
John Rundquist	City of Helena
John Youngberg	Montana Farm Bureau
Donald Quander	Holland & Hart
Jim Jenson	Montana Environmental Information Center

Alternate Members

Doug Parker	Hydrometrics (alternate for Debbie Shea)
Jay Bodner	Montana Stock Growers Association (alternate for John Youngberg)

Non-Voting Members

George Mathieus	Department of Environmental Quality (DEQ), WQP Bureau Chief
Dr. Mike Suplee	DEQ, Water Quality Standards Section, Water Quality Specialist

Other Meeting Participants

Tina Laidlaw	US Environmental Protection Agency (EPA)
Rosemary Rowe	EPA
Bob Bukantis	DEQ, Water Quality Planning, Water Quality Standards Section Supervisor
Mark Bostrom	DEQ Water Quality Planning Bureau Chief
Jenny Chambers	DEQ Water Protection Bureau Chief
Andy Welch	DEQ Water Quality Standards Section
Claudia Massman	DEQ Attorney
Mark Simonich	Helena Association of Realtors
Bill Courtney	EMIT Water Discharge Technology
Todd Ordahl	EMIT Water Discharge Technology
Joe Kolman	Legislative Environmental Policy Office
Julie Spencer	Big Fork Water and Sewer District
Kristi Kline	Montana Rural Water Systems
Jessie Luther	Browning, Kaleczyc, Berry, and Hoven
Dave Clark	H2R
Steve Granzove	Montana Association of Conservation Districts
Darryl Barton	City of Deer Lodge

Appendix 2

WASHINGTON, D.C. 20460

MAR 15 1985

OFFICE OF WATER

MEMORANDUM

SUBJECT: Variances in Water Quality Standards
TO: Water Division Directors

Numerous questions have been raised regarding the granting of variances to water quality standards. The Preamble to the water quality standards regulations discusses limiting the granting of a variance that "…based on a demonstration that meeting the standard would cause substantial and widespread economic and social impact, the same test as if the State were changing a use..."

A interpretation by our Office of General Counsel, provides a better determination on what factors can be considered in allowing variances from water quality standards. The OGC interpretation is that any of the factors recognized in. the regulation for justifying a stream use downgrade, not just the substantial and widespread economic and social impact test, may be used to support a variance.

Our previous interpretation was somewhat illogical as it allowed more opportunity for a permanent change in standards then it did for a temporary short-term change which could be granted by a variance. Under Section 510 of the Clean Water Act, States have the right to establish more stringent standards than suggested by EPA. Therefore, as long as any temporary water Quality standards modification conforms to the requirements established in Section 131.10 (g) of the regulation for downgrading uses, such an approach is acceptable as it would lead to only a temporary change to a water quality standard rather than a downgrade, and thus would be more stringent than the Federal requirements.

This interpretation dies not change the regulation which provides that States may have general policies affecting the application and implementation of standards. It does affect the discussion of variances contained in the Preamble to the regulation and the guidance included in the WQS Handbook, page 1-9. No other aspect of the variance policy and guidance is altered by this new interpretation. This memorandum should be kept as part of your permanent file for interpreting water quality standards.

Overall, we expect the impact of this change to be minimal as the discussion of variances appears to far outweigh its actual affects on the program. Often the confusion surrounding variances obscures the fact that what is really being discussed are specialized permit conditions, scheduling adjustments, site-specific criteria, or actual downgrading actions,

Edwin L. Johnson, Director
Office of Water Regulations
and Standards (WH-551)

cc: Bill Whittington
Peter Perez
Cathy Winer
Net Notzen

Appendix 3

Montana Adminstrative Rulemaking Procedure: Summary with Example Dates

19 August 2009

Note: The dates bolded below are for illustrative purposes only and represent the fastest reasonable timing for a theoretical rulemaking assuming the rule package was "ready to go" on 1 January 2009. These theoretical dates were set by considering timelines specified in the Montana Water Quality Act and Montana Administrative Procedures Act as well as the 2009 Secretary of State publication dates for the Montana Administrative Register, and the Water Pollution Control Advisory Council's and Board of Environmental Review's 2009 meeting schedules.

1. DEQ management approval for rule.

2. The draft rule moves forward in the form of an administrative register notice of proposed rulemaking. This notice includes draft rule language, information on hearing(s) and opportunity for comment, and a statement of reasonable necessity. The statement of reasonable necessity references the statute the rule is intended to implement, and briefly describes principal reasons for the rulemaking, and for the particular approach being pursued, if there are other alternative approaches available to accomplish the objectives of the rulemaking.

3. The first time that a rule is drafted under any bill, DEQ notifies legislative sponsor of intention to commence rulemaking to implement the bill.

4. Public notice as part of WPCAC meeting prep. **16 February 2009**

5. WPCAC review and comment. **26 February 2009**

6. Memo to Governor's Office along with draft notice of proposed rulemaking. The memo must briefly describe the areas of potential controversy that might reasonably be anticipated as a consequence of the rulemaking proposal. **26 February 2009**

7. Copy of draft notice of proposed rulemaking goes to the Environmental Quality Council. **26 February 2009**

8. DEQ presents draft notice of proposed rulemaking at BER meeting. **27 March 2009**

9. Secretary of State's Office publishes notice of proposed rulemaking in the Montana Administrative Register **16 April 2009**

10. publish notice of proposed rulemaking on DEQ website.

11. Mail notice of proposed rulemaking to legislative sponsor, if notification letter has been sent pursuant to step 2, and also mail the notice to persons on the interested parties list within 3 days after publication by Secretary of State's Office.

12. HB 311 and HB 521 analyses submitted into the record

13. Minimum of 30 days public comment period **16 April to 14 May 2009**

14. Hearing **6 May 2009**

15. DEQ & Board must consider all comments received. DEQ staff evaluate public comment and draft responses for BER's consideration and, if necessary, **proposed** amendment(s). Any modifications to the draft rule as well as public comment end draft response are incorporated into a rule adoption notice, which is used to move the rule to final adoption.

16. Board's Hearing Officer and DEQ staff present the rule adoption notice at BER meeting. **29 May 2009**

17. Publish rule adoption notice and put up on web site. **25 June 2009**

18. The rule adoption notice must be published by the Secretary of State's Office no later than six months after the *Proposal* Notice is published. If the deadline is missed, a new notice of proposed rulemaking must be published (and new hearing held, if appropriate) in order to proceed with the rulemaking.

19. The rule amendments, new rules or rule repeals are effective the day after publication of the rule adoption notice in the Montana Administrative Register.

20. Submit to EPA for approval to be effective under CWA.