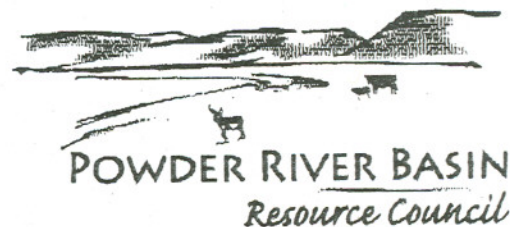


ENCOURAGING RESPONSIBLE DEVELOPMENT TODAY - FOR TOMORROW

934.N.MAIN ST. SHERIDAN, WY 82801 (307) 672-5809 FAX (307) 672-5800
INFO@POWDERRIVERBASIN.ORG WWW.POWDERRIVERBASIN.ORG



February 13, 2007

Fax Transmission

Environmental Quality Council
c/o Mr. Bill DiRienzo
Department of Environmental Quality
122 West 25th Street
Herschler Building
Cheyenne, WY 82001

FILED
FEB 14 2007
Terri A. Lorenzon, Director
Environmental Quality Council

RE: Chapter 1 Water Quality Rules & Regs Proposed changes

Dear Council Members,

The Powder River Resource Council appreciates this opportunity to once again comment on the proposed changes to Chapter 1 of the Water Quality Rules and Regulations. As you know, our organization has worked for more than three decades to safeguard the ranch and agricultural heritage of the Powder River Basin. Our comments will be focused on those sections of the proposed rules we believe require additional changes by the Council in order to provide the necessary protections to our agricultural lands and water.

Comments Regarding DEQ's Proposed Ag Protection Rule - Appendix H

We have previously commented on the five drafts of this proposed Agricultural Protection Policy and most recently on the proposal to implement this policy as a rule. We believe the following changes must be addressed in order to ensure the proposed Appendix meets the requirements of Chapter 1, Section 20.

On page 1, in lines 38-44, the DEQ correctly acknowledges that they must manage water quality for agricultural use by managing the concentration and chemical makeup of dissolved solids and that they can establish numeric criteria for pollutants such as TDS and SAR that will allow efficient use of surface water for irrigation purposes. They also correctly acknowledge that what is acceptable water quality for irrigation must involve the evaluation of local agricultural practices and background water quality conditions.

However, DEQ then drops the ball regarding their responsibility for carrying out this protection. The policy as drafted does not provide adequate protection.

Specifically, DEQ ignores consideration of local agricultural practices and water quality conditions regarding protection of the "downstream" consequences of in-channel discharges, diffuse discharge or surface spreading beyond the immediate point of discharge or use. This policy needs to add language that requires protection of agricultural lands at both the "point of use" and "point of impact," as well as at the point of discharge of the water.

Page H-2, b. Livestock Watering. Line 42 should note that the water quality standards must be met at the "point of use". The discharge limits must account for the "end of pipe" and after mixing with the receiving stream, which is the quality of water at the point of use.

Page H-3, line 3 -6, ii. Livestock watering waiver. While we understand a livestock producer may want to request use of the water and thereby accept any potential risk to his livestock, language must be added (as DEQ proposes on page H-10 lines 11-15 for the irrigation waiver) to either ensure protection of any downstream landowner's livestock and affected wildlife and to require the upstream landowner to maintain or confine all this water on their property, unless the downstream landowner requests it. If the water is to travel downstream, then waivers must be secured from all potentially impacted downstream landowners and the Wyoming Game & Fish Department. It should also be clarified in the rule that the specific landowner who wants to use poor quality discharge water that does not meet required water quality standards will not only be accepting the potential risk to his livestock but is also accepting liability for damages to livestock or wildlife downstream from this poor quality water. In proposing this language is the state relinquishing their requirement under the Clean Water Act and the Wyoming law and regulations to ensure protection of current and existing uses of water, which includes uses for livestock and wildlife?

Page H-4, Lines 1-21. The definition of agricultural lands which qualify for protection is too narrow under this policy and needs to be expanded. On page H-4, lines 1-8 the definition of naturally irrigated lands should be deleted and replaced with "Agricultural Grazing Lands defined as those lands not artificially irrigated but composed of ephemeral and intermittent draws and bottomlands used for livestock grazing. The proposed policy which limits the protection to 50 foot wide and 20 acres in size is arbitrary. This low-balled, arbitrary threshold for what constitutes a meadow significant enough to merit protection should not have a place in a policy billed as protecting agricultural uses. This DEQ requirement of size ignores the fact that ranchers throughout Wyoming rely on significantly smaller sub irrigated pastures to support their herds, especially during times of drought and for winter forage. This is not a "big" agricultural use protection policy.

Specifically, DEQ is proposing (lines 19-21) to exclude lands from protection which "lack a persistent active channel and unconsolidated floodplain deposits which are generally less than 50 feet in width." This defies common sense since these areas are

often locations where natural flows in ephemeral drainages result in wide bottomlands and provide the most productive agricultural lands. We request that the Council reject the DEQ's narrow definition and ensure protection of all agricultural lands regardless of size or presence/absence of an active channel. Small ephemeral drainage bottoms and areas without persistent active channels should be protected as viable & valuable Agriculture Lands.

Page H-5, lines 21-24 and H-6 Lines 6-25 – Default Limit Academic references. We agree with DEQ's recommendation that the USDA Bridger Plan Materials Center document is not scientifically valid. Delete this section, replace with the DEQ recommendation in the footnote.

Page H-6, Lines 17-21, Default Limits on EC and SAR should be protective of agricultural uses. Our experience with this issue over the past ten years and our review of the scientific literature indicates that EC and SAR limits should be conservative numbers and should ensure protection of vegetation and soils over the long haul. We therefore recommend an EC of 1,300 umhos/cm and an SAR no greater than 5. As evidence we cite a June 30, 2006 study conducted by the USDA Salinity Laboratory based on Powder River Basin soils. This study indicates that an SAR above 2 will start to impact soils and the study shows significant impacts with an SAR above 4. The report states on page 51:

“For the bare clay soil even an increase from SAR 2 to SAR 5 resulted in a significant increase in infiltration time (decrease in infiltration rate), while for loam soil the increase in infiltration time was significant at the SAR 6 level. For cropped soil the variance was higher and differences were statistically significant at SAR 6 when paired tests were made. However, the fitted regression model showed decreases in infiltration are predicted for both bare and cropped clay soil and for cropped loam soil as the SAR increased from 2 to 4. For bare loam soil the model was non linear and the decrease in infiltration rate starts above SAR 4.”

Evaluation of Water Quality Criteria for Rain-Irrigation Cropping Systems Donald L. Suarez, James D. Wood and Scott Lesch, Salinity Laboratory USDA-ARS. Final Report to EPA, June 30, 2006

It is widely acknowledged that the Powder River Basin has predominately clay soils. According to DEQ, Mr. Suarez was also present in a recent meeting with DEQ and other soil scientists to discuss these issues and Mr. Suarez again recommended not going above an SAR of 4. We request that DEQ provide the EQC with a copy of the study for the record. In addition we want to emphasize that once soils are damaged by salts and sodium build up it becomes virtually impossible, if not prohibitively expensive to reclaim these lands. Therefore, we ask the EQC to act conservatively to ensure protection of our agricultural lands by not approving an SAR above 5 or an EC above 1330.

Page H-6, Lines 23-26: DEQ correctly acknowledges that on sub-irrigated lands and passively irrigated lands, the irrigation season should be considered to be year-round.

Yet, DEQ seems to contradict themselves by stating that the EC and SAR limits only apply during the irrigation season and when flows are sufficient to support the use of the water. What about alluvial fill recharge, bank recharge and down gradient lateral flow?

Page H-6, lines 30-36 should be deleted. To determine the background water quality based on soil samples is an unproven technique. Generally, in the Powder River Basin, where soils are already alkali and contain salts, soil analysis will almost always come up with a much higher salinity level than is actually reflective of the true background water quality. The DEQ has already allowed the use of this technique by industry's consultant, Kevin Harvey, and approved a permit #WY0044229 which determines that an SAR of 24 and an EC of 6,000 is adequate to protect these lands. DEQ approved these high SAR and EC levels based on this proposed policy. DEQ also approved these high SAR and EC levels despite the analysis also giving a background water quality on SAR and EC on irrigated land to be EC 1,900 and SAR 8.8. Please see DEQ's attached response to the concerns raised regarding this permit. We believe DEQ has issued other permits with similarly high EC and SAR levels. If this is how this policy will be implemented under Tier 2 and Tier 3 it is painfully evident that agricultural lands will not be protected under the policy, if DEQ continues to approve such high EC and SAR levels.

Page H-6 and H-7 Lines, 38-40 and Lines 1-2, Tier 2. Effluent limits should be based upon the tolerance values for the most sensitive crops.

Page H-7, Lines 10-31, Page H-9, Lines 3-44. For the reasons stated above the Council should delete this entire section, because calculating background of water quality from soil surveys is highly questionable and almost certainly invalid. If the Council does decide to allow DEQ to set water quality limits by using soils sampling, a process that is more clearly and scientifically designed should be established. Soil sampling at "terrain zones" should be undertaken by an independent third party agreeable to the landowner and DEQ. Older adjacent terraces often have higher EC and SAR values which, if not properly represented in collective samples, may skew the reading. In addition, if the EQC does not reject the soil sampling as a methodology for calculating background water quality, then additional language should be added requiring DEQ to pick the most conservative EC and SAR levels to ensure protection and prevent harm.

Frankly, it would be much simpler and more logical for DEQ to establish a cap for EC and SAR limits that are truly protective of our soils and vegetation rather than endlessly looking for ways to allow industry to find loopholes around protective limits.

Page H-10 line 11-15, iii. Irrigation Waiver – the granting of irrigation waivers where landowners agree to accept any potential risk to crop production on their lands must, according to the DEQ, provide reasonable assurance that the lower water quality will be confined to the targeted lands. Language must also be added that states, "these landowners will also accept the liability for any risk or damage this water causes downstream".

Page H-10, line 17- 27 iv. Reasonable Access Requirement. Protections provided under this policy should be available equally to all residents and citizens of this state. Landowners who choose not to provide access to their private property for soil samples to be taken by industry consultants should not be penalized for exercising this basic right by being denied protections provided under the Environmental Quality Act and the Clean Water Act. This section of the policy is nothing more than a blackmail clause and should be deleted. DEQ must apply the protections required under Section 20 to all agricultural lands and water.

Finally, regarding whether this proposed policy should be applied as a rule and a new appendix H, we say "yes!" It was quite remarkable to listen this past week at the Water Quality Advisory Board meeting to the protests of industry to implementing this as an enforceable rule where, thereby reducing the flexibility they and DEQ have enjoyed in the past. Industry asserted that they had not had enough time to comment on this policy as a rule. In fact, this proposed policy has been in the works for nearly 2 years and revised 5 times. It is very clear that DEQ does not want to force the CBM industry to abide by rules that truly protect agricultural resources from damage. Both DEQ and industry seem to want the flexibility of not being held accountable for the true impacts of their practices, but rather would prefer to continue to parse statutory language and define away real detrimental effects of these actions. It is understandable that industry would seek maximum flexibility in these matters. It is unconscionable that DEQ would enable them, however.

Comments on Chapter 1 proposed changes

Page 1-4 Creation of new definitions xiii, xiv, xxxviii

"Effluent Dependent Waters," "Effluent Dominated Water" and "Net Environmental Benefit" are all new definitions that we believe open a Pandora's Box of problems and should not be approved by the Council at this time. These are new definitions that appear to be an attempt to classify industrial discharges and waste as an integral and favorable asset and to institutionalize the discharge of poorer quality water in once healthy drainages.

Though in very limited instances this may not be the case, the by-product effluent or pollution commonly contains excessive salinity and chemical pollutants that are damaging to native vegetation, soils, native aquatic life and existing water quality and land uses. Without additional explanation and justification for how and where these new definitions will be used we urge the Council to steer away from a Kafkaesque, slippery slope of adding new definitions that claim our once ephemeral drainages are now "effluent dependent," or "effluent dominant" and that the effluent has created a "net environmental benefit."

These definitions appear to be the height of an Orwellian bureaucratic justification for permitting more pollution. It is important to note that more water is not always better, in fact the ephemeral systems have evolved over eons with biological systems that are both healthy and support important agricultural, wildlife and aquatic systems and uses. These

new definitions open the door to relaxing water quality standards that will lead to degraded stream systems and damages to the current and existing uses on those streams. One very important question that must be addressed if these new definitions are to be included is: Do the discharge and transformation of the once ephemeral stream create nuisance conditions? If so, how is this addressed in Chapter 1? We see these new definitions as another way for DEQ to allow industry to avoid the requirement of using cost effective and reasonable best management practices for dealing with discharges.

Even more problematic, proposed Sec 33(b) of Chapter 1 authorizes the administrator to establish site-specific criteria on these waters without formal rule making procedures. One need only review recent reversals of actions of the administrator to understand the perils of allowing him to establish criteria unilaterally without a formal oversight process.

Finally, the EPA has been involved in holding several facilitated meetings with interested stakeholders regarding these proposed new definitions. This process has raised many complicated questions and concerns that we do not believe have been resolved. We request that the Council again reject and delete all references to these new definitions until we understand more about the ramifications of classifying waters as effluent dependent, effluent dominant and stating that those establish a net environmental benefit.

Page 1-18, Section 20. We suggest this section be revised to provide better protection for landowners impacted by discharge water destroying their existing native grass, soil, and trees and flooding out meadows. Suggested language: Line 34-35 "Degradation of such waters shall not damage or destroy native vegetation and soils. Effluent related by-product waters shall not harm or inhibit traditional agricultural use, including forage production or use of lands for calving grounds."

B-5 Arsenic "Fish & Drinking Water and Fish Only" values were increased for this pollutant from 7 ug/l to 10. Please explain the reasoning and justification for this increase?

Page B-10 – Site Specific Criteria

Big Horn River Drainage – Cottonwood Creek (near Hamilton Dome): Please provide the background and reasoning for having a chronic life criterion for chloride at 860 mg/l and chronic aquatic life for selenium at 43 ug/L? Does this discharge enter the Big Horn River? If so, where? The US Fish & Wildlife Service recommended against this lowering of water quality.

Please provide the background and explanation for raising chronic and aquatic life criteria for chloride to 1600 mg/L in Salt Creek.

Please provide the same for Meadow Creek.

Please provide the justification, background and reasoning for allowing acute and chronic aquatic life criteria for the Powder River for chloride at 984 mg/L?

We urge the Council to reject these changes. They are attempts to institutionalize water quality degradation for the convenience of one industry, and do not uphold DEQ's or the state's charge of protecting environmental quality.

We thank this Council for their hard work, diligent efforts and commitment to maintaining the Environmental Quality of Wyoming.

With Best Regards,

A handwritten signature in black ink, appearing to read "Bob LeResche". The signature is written in a cursive style with a long horizontal line extending to the right.

Bob LeResche, PhD
Chair, Powder River Basin Resource Council



Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



John Corra, Director

Dave Freudenthal, Governor

September 22, 2006

Jill Morrison
Powder River Basin Resource Council (PRBRC)
934 North Main Street
Sheridan, WY 82801

Steve Jones
Wyoming Outdoor Council
262 Lincoln St.
Lander, WY 82520

RE: RESPONSE TO COMMENTS RELATED TO PROPOSED WYOMING POLLUTANT DISCHARGE ELIMINATION SYSTEM (WYPDES) PERMITS WY0039055 AND WY0044229

Dear Ms. Morrison and Mr. Jones:

The Wyoming Department of Environmental Quality, Water Quality Division (WQD) has reviewed and considered your April 20, 2006 comments related to the above referenced draft permit renewals. These draft permit renewals were included in the March 2006 WYPDES Public Notice, and were issued on September 11, 2006. Listed below are WQD's responses to your comments.

WQD appreciates your comments and concerns. As you are aware, the Water Quality Division has the responsibility of balancing the rights and needs of the discharger against the rights and needs of those who will be affected by the discharge. To do this we use our professional judgment to set permit limits adequate to meet the in-stream standards which have been duly adopted by the Environmental Quality Council (EQC).

WY0039055 – Pennaco – LS Draw LX Bar

Comment: "What storm event magnitude will reservoirs be allowed to overtop? Please provide this information."

Response: For outfall 008, this permit requires the effluent to be contained in the natural playa lake except in the event of overtopping from a 100-year / 24-hour storm event or greater. For the remaining outfalls, this permit requires containment of the effluent in the tributaries and on-channel reservoirs in the absence of a storm event.

Comment: "Standards for SAR and EC are not considerate of injury to rangelands and bottomlands exposed to CBM effluent. Please reply to this issue."

Herschler Building • 122 West 25th Street • Cheyenne, WY 82002 • <http://deq.state.wy.us>

ADMIN/OUTREACH (307) 777-7758 FAX 777-3810	ABANDONED MINES (307) 777-8145 FAX 777-8462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 777-5854	SOLID & HAZ. WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5873
--	---	---	---	--	--	---



Response: Because of physical modifications to the downstream irrigation use within this drainage, the discharge will not reach irrigated lands along LX Bar Creek.

Comment: "Aluminum is once again an issue with WY0039055. The permit states that operator will continue sampling for this element, but does not actively correct or address issues of compliance. Please address this issue in WY0039055."

Response: WQD's records indicate that there are no outstanding effluent violations associated with this permit.

WY0044229 – Pennaco – Wild Horse Creek Phase IV

Comment: "The DEQ/WQD has determined that an SAR of 24 and an EC of 6,100 is adequate to protect irrigation water. Study performed by K. Harvey and Assoc. gives SAR and EC found on irrigated lands in question to be EC of 1,900 and SAR 8.8. Why then does DEQ/WQD set the standard for irrigation protection at SAR 24 and EC 6,100? Please explain this excessively high standard and the correlation with actual on-the-ground findings in this study."

Response: The effluent limits for EC and SAR in this permit were derived from site specific soil studies conducted within the downstream irrigated fields. These soil studies were used to estimate historic background water quality for Middle Prong Wild Horse Creek. For more details related to that data and how the effluent limits were calculated for this permit, please see WYPDES permit WY0054585 Statement of Basis.

Comment: "How are these limits for EC and SAR protective of current and existing uses? The limits set in the permit will destroy the current and existing uses for agriculture. Also, EC and SAR limits appear to be justified by some soil study. Please explain where the soil samples were taken and how? What water quality led to existing salinity? Was it natural flood runoff? If so, wouldn't DEQ be concerned about how poorer quality water might react in the same environment? Won't the results be worse? What does DEQ expect will happen when the system is returned back to natural water only? The SAR limit of 24 will result in loading of sodium in the surface soils of the system. If the natural water will be low in salinity this will create big problems. How are these limits preventing increasing the pollutant loads?"

Response: Please see response above, relating to effluent limits for EC and SAR established in this permit.

Comment: "Information conflicts occur between application and permit. Application mentions that native wheat grass and hay is being irrigated. Permit (p. 3) elaborates upon local cultivation in Horse Creek drainage of alfalfa, Timothy, etc.. DEQ/WQD should set limits for the most sensitive potential species, here being alfalfa. SAR limit of <4 and EC<1,300 should apply."

Response: The historic background water quality of Middle Prong Wild Horse Creek exceeds the

above cited values for SAR and EC, based on the available irrigated soils data. Please see response to first comment above, relating to effluent limits for EC and SAR established in this permit.

Comment: "Further conflicting information confuses the point of irrigation monitoring. Materials mention change from POC to ICP. Then an IMP is called for in this role. Which one is it? Is actual regulatory compliance being achieved for irrigation waters? Please elaborate on this issue."

Response: The applicant assumed that an irrigation compliance point (ICP) would be established in this permit. However, the permit does not establish an ICP. Rather, the effluent limits for EC and SAR are established at the outfalls. The permit does establish a downstream irrigation monitoring point (IMP) for data gathering purposes.

Comment: "Has the surface water quality standard derived from sampling in 2002 been influenced by previous development? If so, this is not an accurate portrayal of background quality. Please explain."

Response: The effluent limits for EC and SAR in this permit were not based on surface water sampling from 2002 or any other year. The effluent limits for EC and SAR in this permit were based on data from downstream irrigated soil samples. Please see responses above.

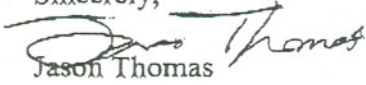
Comment: "Analytical sample contained in application page 41 seems to set some kind of guideline for baseline/background data. Is this questionable sample being used to set irrigation standards portrayed in page 1 of permit?"

Response: The above referenced instream water sample was taken at a point of compliance (POC) in 2000. This particular sample had no bearing on the effluent limits established in this permit, and was disregarded by WQD as irrelevant to this renewal application.

If you wish to file a formal appeal to the issuance of these permits, you have the opportunity to do so. Chapter 1 of the "Wyoming Department of Environmental Quality Rules of Practice and Procedure" states that "Unless otherwise provided by these Rules or the Environmental Quality Act, all appeals to Council from final actions of the Administrators or Director shall be made within sixty (60) days of such action."

If you have any further questions, please contact me at (307) 777-5504.

Sincerely,



Jason Thomas

Wyoming Department of Environmental Quality
Water Quality Division

cc: WYPDES permit files
Leah Krafft, DEQ/WQD