

FILED

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL JUN 26 2006

Terri A. Lorenzon, Director
Environmental Quality Council

PETITION TO AMEND WYOMING)
WATER QUALITY RULE, CHAPTER 2,) 05-3102
APPENDIX H)

PETITIONERS' RESPONSES TO COMMENTS

COME NOW, Petitioners, and on this 26th day of June, 2006, respectfully submit their Responses to Comments in the above-captioned rulemaking Petition.

When the dust settles, the essential fact remains that Chapter 2, Appendix H, as written and as applied by the DEQ, is broken, and it must be fixed. The evidence and testimony that led to the Environmental Quality Council's ("EQC") unanimous vote to set this matter for rulemaking following the February 16, 2006 pre-hearing conference remain sound. Neither the comments of industry nor the opinion of the Attorney General have attempted to refute that essential fact;¹ they have only attempted to argue why the EQC should not take action.

In fact the EQC has the jurisdiction to take action to correct the serious flaws in DEQ's regulation of CBM water that are exemplified in Appendix H, and it should do so by setting this matter for a full rulemaking hearing, and then taking appropriate action in accordance with the evidence and testimony presented at that hearing.

¹ DEQ Director John Corra has said he is "not disappointed with the outcome of the EQC hearing on the petition. The DEQ and many interested stakeholders have attempted to address these matters in the past, but have not achieved resolution. I look forward to discussions before the Council, and remain hopeful that we will be able to resolve the issues." Exhibit 28, letter from John Corra, incorrectly dated Jan. 24, 2006.

1. Appendix H

Appendix H(a)(i) currently states:

(i) The produced water discharged into surface waters of the state shall have use in agriculture or wildlife propagation. The produced water shall be of good enough quality to be used for wildlife or livestock watering or other agricultural uses and actually be put to such use during periods of discharge.

DEQ's current practice is to use this language as a blanket "beneficial use" determination that allows it to issue WYPDES permits without consideration for the impacts of water quantity, whether the quantity has unacceptable effects on water quality or not. So long as effluent limits are met, DEQ considers that its obligations to regulate water quality impacts have been met. Quality considerations are disposed of by referral to the Appendix H beneficial use presumption. *See, e.g.*, Exhibit 29, DEQ/WQD's Response to Comments dated November 3, 2005, in which DEQ responds to a comment expressing concern that the permits "allow for downstream damage to occur to soil, vegetation and trees. . ." by stating:

Response: The effluent limits in these permits are established in accordance with Chapters 1 and 2 of the Wyoming Water Quality Rules and regulations, and are protective of the designated uses of the receiving streams.

In response to a comment questioning compliance with the requirements of 45 CFR 435 Subpart E, the DEQ stated:

Response: These discharges are in compliance with Chapter 2, Appendix H (a)(i) and (d)(i) of the Wyoming Water Quality Rules and Regulations. These sections address agricultural and wildlife use of produced water from coal bed methane production facilities.

The rationale set forth above is repeated over and over in DEQ's response to comments,² and clearly demonstrates how Appendix H is being used. It is nothing more than a license to disregard quantity, whether or not it has an effect on water quality. As such, Appendix H violates the Environmental Quality Act ("EQA") as interpreted by the Attorney General in Formal Opinion 2006-001, and it violates the Clean Water Act ("CWA").

The harm that has occurred, and continues to occur, as a result of the DEQ practice under Appendix H, was clearly demonstrated at the February 16 pre-hearing, and is discussed in Petitioner's December 7, 2005 Petition. Contrary to Marathon's statement that "There is no evidence to suggest that produced water from CBM operations will not also be highly valuable to ranchers and farmers" (Response of Marathon Oil Company to Petitioners' First Status Report, p. 9), there is a great body of evidence that CBM water has been and continues to be detrimental to many farmers and ranchers, including these Petitioners. *See* December 7 Petition and attachments thereto, and Response of Wyoming Outdoor Council to Attorney General Opinion No. 2006-01, p. 3. This is not a theoretical argument, but a very real one for these Petitioners and many other farmers and ranchers in Wyoming.

In its recent comments, industry has taken the position that the DEQ currently does properly regulate water quantity, "only in the context of evaluating dilution factors and waste load allocations." (Joint Response to Petitioners' First Status Report, p.8; Marathon Response, pp. 2, 10.) This extremely restrictive view of the EQA and CWA mandate is

² *See also*, Exhibit 27 to Petitioners' First Status Report.

unsupported. Even in the view of the AG Opinion, DEQ should also consider many other scenarios in which the quantity of CBM water creates quality issues. For example:

- Where a small amount of CBM water which meets the effluent limits may not cause concern so long as the water remains in the channel, a greater quantity of water of the same quality, sufficient to overflow the channel, damage the vegetation used for forage, and destroy the soil's ability to drain, will have very significant impacts, caused by water quantity and water quality, which clearly fall under the EQA definition of "pollution." Yes DEQ refuses to consider such impacts.
- Where a release of small flows of CBM water mobilizes harmful salts that exceed effluent limits, a clear water quality issue, the DEQ refuses to take enforcement action because CBM discharges meet end-of-pipe effluent limits. DEQ enforcement personnel explained this is "what we would expect under the low flow conditions existing. . ." and failed to consider that low flow conditions were created by CBM water quantity, which clearly "has an unacceptable effect on the quality of water." See Exhibit 25 to First Status Report. It is well-known that water quality is often degraded after discharge (and the extent of degradation depends upon flow volume, duration and timing –all quantity issues), yet in practice DEQ fails to consider those impacts to water quality.³

³ On occasion, DEQ will consider downstream effects in light of the Chapter 1, section 20 language requiring no measurable decrease in crop or livestock production. However, DEQ has minimized the protections afforded by that language (and placed the burden of

- As discussed above, when DEQ is asked to consider cumulative impacts of CBM discharges and damage to downstream soil and trees, DEQ merely responds that the effluent limits are deemed to be protective. Exhibit 29. Clearly the effluent limits alone are not protective. Water quality must be considered in conjunction with water quantity. It is not.

DEQ is failing to regulate even within the scope of the AG Opinion, by ignoring the many instances where water quantity has an unacceptable effect on the quality of water.⁴

The huge volumes of water produced with CBM are creating a water quality problem throughout the Powder River Basin, and in other parts of Wyoming, and Appendix H is the key to the problem. Appendix H is the vehicle for the DEQ to ignore water quantity when it has unacceptable effects on water quality. Appendix H is the

proving a measurable decrease on the objecting landowner). Revisions to Chapter 1 currently in the rulemaking process would authorize DEQ to give even less protection to landowners. In its comments, Marathon argues that Appendix H and the Chapter 1, section 20 Agricultural Use Protection Policy currently being revised must be viewed in light of each other. Petitioners agree with this position and are hopeful that the EQC will soon have the opportunity to review the Chapter 1 changes and the Ag Use Policy that are wending their way through the rulemaking process. In its current form (4th Draft), the Ag Use Policy would present alarming opportunities for the DEQ to give regulatory approval to the degradation that is already occurring to crops and livestock production. It would require a rancher to show a 10% loss before it would consider regulating the impacts of CBM water. It would deem it acceptable for a rancher or farmer to lose up to 20 acres of naturally irrigated land (per parcel, not cumulative). *See* Summary of Amendments to the Agricultural Use Policy attached hereto as Exhibit 30.

⁴ It must also be noted that the statement that "DEQ is administering the program consistently with the CWA" (Joint Response p. 2), is misleading. Although EPA did, in 1975, approve DEQ's adoption of the program, it has not approved the current Chapter 2 rules.

vehicle for the DEQ to ignore water quantity when it renders CBM waters “harmful, detrimental or injurious to . . . agricultural, recreational or other legitimate beneficial uses, or to livestock, wildlife or aquatic life. . .” Wyo. Stat. § 35-11-103(c)(i). It is up to this Council to correct this practice.

2. The Environmental Quality Council is Authorized to Fix Appendix H

Apparently industry no longer argues that DEQ/EQC is without authority to regulate water quantity at all (Joint Response, p.8) (The exception is Devon, which contends that CBM waters are waters of the State, and therefore under the sole jurisdiction of the State Engineer. (June 16, 2006 letter to Sara Flitner from Randall W. Maxey, Devon Energy Production Company, L.P.) Under Devon’s argument, the DEQ would have no ability at all to regulate water quantity, even to the limited extent it currently does. This position would practically nullify the EQA, and cannot be given serious consideration.) Instead, industry now argues that the EQC cannot consider this Petition because it has not been through the proper process, or because the original Petition has been revised. Neither contention bears scrutiny.

A. The Rulemaking process

Industry correctly points out that the usual procedure for DEQ rulemaking is to go through the Advisory Board and Administrator first. Luckily, the Wyoming Administrative Procedures Act provides an avenue for citizens like these Petitioners to “petition an agency requesting the promulgation, amendment or repeal of a rule.” Wyo.

Stat. § 16-3-106. The EQA also gives the EQC authority to “approve, disapprove, repeal, modify or suspend any rule [or] regulation. . .” Wyo. Stat. § 35-11-112(c)(i) (which is a separate provision than the one regarding recommendation from the director, administrator and advisory boards, 112(a)(i)). In accordance with the WAPA, the EQC over the years has regularly considered citizen rulemaking petitions (e.g. the recent smoke rules, hog farm rules, and numerous petitions brought by industry itself under Chapter 1 for reclassification). Citizens should be able to petition for rulemaking in exactly this sort of situation, in which the agency itself has been unable or unwilling to address a very significant environmental issue. This historic practice is authorized by the WAPA and the EQA and should not be stopped now. The suggestion that the EQC should accept the Petition and then refer it to the Advisory Board and Administrator would defeat the purpose of the citizen Petition. This rule has gone through several years of the Advisory Board and Administrator process⁵ and it has been found wanting. A referral now would serve only one purpose – delay.

Industry’s argument that a rulemaking decision should include the factors set forth at Wyo. Stat. § 35-11-302(a) (Joint Response, p. 11) is correct, as far as it goes. Those factors should be considered at the rulemaking hearing, which will take place at a future date.

⁵ For example, the 1st draft of the Chapter 1 rules went to public notice, after years of outreach and drafting, in November, 2004. DEQ hopes to present the Advisory Board with a 5th Draft for its review in the fall of 2006.

B. Petition Amendments

Industry also argues that, because the original Petition has been changed, the EQC can no longer consider it. (Marathon Response, pp. 2-4.) Yet they fail to point to any authority that prohibits a Petition's amendment, and they simply overlook the practical reality that Petitioners could file a brand new Petition. Again, no purpose would be served other than to delay. The EQC can consider multiple and modified versions of a proposed rule, up until the time the rulemaking goes to public notice. Even after public notice, and after the hearing, changes can be (and have been) made by the EQC so long as they are within the confines of the public notice.

3. What is the Right Fix for Appendix H?

Petitioners have presented two options:

A. Close the "Beneficial use" Presumption loophole

The original Petition, as modified by the Appendix H and Appendix I separate treatment for CBM and for traditional oil and gas in Petitioners' March 2, 2006 letter, focuses on the "beneficial use presumption" that is the historic foundation of the current Appendix H language.

The general rule of the CWA was for no discharge of water from oil and gas production. But, due in part to lobbying by some of the same companies providing comments in this procedure, an exception was made for discharges in arid states such as

Wyoming. The exception was to be narrow one, and was specifically tailored to accommodate actual uses of produced water. The reasoning for the exception was:

Subcategory E was initially established in response to comments from certain western states asking that the Agency allow the use of produced water for agricultural or wildlife purposes. Investigation showed that in arid portions of the western United States low salinity produced waters were often the only, or at least a significant, source of water used for those purposes. Although not required by the Clean Water Act, the Agency chose to accommodate this situation by the creation of Subpart E. It is intended as a relatively restrictive subcategorization based on the unique factors of prior usage in the region, arid conditions and the existence of low salinity, portable water.

44 Fed. Reg. 22069, 22072 (April 13, 1979)(emphasis added)(complete copy attached as to Petitioners' First Status Report as Exhibit 26). The original term "beneficial use" was defined as "the produced water is of good enough quality to be used for livestock watering or other agricultural uses and is being put to such uses." 41 Fed. Reg. 44942 (Oct. 13, 1976). The term "beneficial use" was changed to "use in agricultural or wildlife propagation" to differentiate it from the State Engineer term, but the meaning is the same, and the same words as used in the original "beneficial use" definition are found in the current Appendix H(a)(i). The Subcategory E exception was intended as a restrictive exception to the no-discharge rule, in order to allow for the use of produced water in arid regions. It is in fact a beneficial use presumption, which is exactly what many protestants have vigorously contended is beyond DEQ's jurisdiction. (Even worse, the presumption ignores the requirements of a true beneficial use determination under Wyoming water law.)

Although industry contends the "passing antelope test" is not a beneficial use test, but merely a question of quality (Joint Response, p. 4), it ignores the history. Further, it contradicts itself on the same page by stating: "Given the generally arid conditions in

Wyoming, DEQ reasonably concludes that produced water ‘of good enough quality’ is put to use ‘during periods of discharge’ if it is accessible for wildlife, agricultural, and livestock purposes.” However, nobody can contend that more than a fraction of CBM produced water is put to use. Of the approximately 75,000 acre-feet of water produced annually by CBM in Wyoming, a very conservative estimate would be that 50,000 acre-feet are simply flushed through Wyoming’s drainages.

The Appendix H loophole is a sham and must be closed. It must be closed because the quantity of water produced, in combination with other factors including its quality at discharge, the native soil chemistry, and the timing and flows of the water’s application, has unacceptable effects on water quality.

DEQ has made the “beneficial use presumption” for nearly a decade; now Petitioners have presented evidence sufficient to require DEQ to make a presumption of no beneficial use (or rather, at this stage, to set the matter for hearing on the question). DEQ should return to the no-discharge baseline that it deviated from 30 years ago. DEQ can continue to allow discharges of water for a true beneficial use permitted by the State Engineer.

B. Use the Attorney General’s Language

In response to the Attorney General’s Opinion to Governor Freudenthal, Petitioners offered an alternative in their First Status Report filed May 8, 2006. That option adopts the language of the AG Opinion, and was presented to the EQC to offer them an option which complied with the AG Opinion, should the Council feel bound by it. Industry has attacked the “AG Appendix H” as being vague, yet the language is taken

strictly from the AG Opinion. The EQA definition of “pollution” simply highlights the broad scope of DEQ/EQC’s regulatory jurisdiction.

Industry has challenged the inclusion of a “credible data” standard (which is not from the AG Opinion), arguing that the definition was originally intended for other purposes. Very often regulations borrow language from companion regulations, and there is certainly no prohibition on doing so. As defined at 35-11-103(c)(xix),

“Credible data” means scientifically valid chemical, physical and biological monitoring data collected under an accepted sampling and analysis plan, including quality control, quality assurance procedures and available historical data.

The use of such a standard would require DEQ to put permit applicants to the proof of their assurances regarding water quality.⁶

4. Changes to Effluent Limits are Warranted

Marathon points out that “because there are many scientific questions about the exact relationship of TDS and salinity levels in livestock water supplies to animal health, DEQ has indicated that it intends to proceed with a program of research recently proposed by scientists at the University of Wyoming.” (Marathon Response, pp. 10-11.) That proposal (which was requested by DEQ after, and presumably in response to, the current rulemaking Petition and February 16 pre-hearing), states: “While there is some good science underlying some of the standards, the simple fact is that many of today’s standards are based upon science that is at least 30 years old – or upon the best guess of


⁶ Industry complains that “Petitioners fail to adequately define CBM operations.” (Joint Response, p. 1 n.1), yet the current version of Appendix H uses the language “Coal Bed Natural Gas Production Facilities,” which industry apparently finds adequate?

the nearest expert available when they were written.” (Exhibit A to Marathon Response, p. 1.) Although Marathon concedes “the fact that a critical review of the existing scientific literature is needed demonstrates the current degree of uncertainty” (Marathon Response, p. 11), it contends that no changes should be made pending the completion of the study in June, 2008. This illustrates the faulty presumption that pervades regulation of CBM water – when in doubt, discharge. The correct approach under the EQA, and prudent scientific practice, would be to acknowledge there is doubt regarding the science underlying the current effluent limits for sulfates, TDS and barium, and to impose limits on the more protective, rather than less protective, end of the spectrum until reliable science is available.

This matter is much too important to the State of Wyoming to allow it to be buried on procedural grounds. The Environmental Quality Council can and should address it in a rulemaking hearing.

WHEREFORE, Petitioners respectfully request the Environmental Quality Council set this important matter for a hearing at its earliest convenience.

Dated this 26th day of June, 2006.



Kate M. Fox
Davis & Cannon
422 W. 26th St.
P.O. Box 43
Cheyenne, WY 82003
(307)634-3210

CERTIFICATE OF SERVICE

I hereby certify that I served, via e-mail and United States Mail, a true and correct copy of the foregoing Petitioners' Responses to Comments, dated June 26, 2006, addressed as follows:

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Kate M. Fox



FEB 27 2006

Department of Environmental Quality



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

Dave Freudenthal, Governor

John Corra, Director

January 24, 2006

Ms. Kate M. Fox
Davis & Cannon
P.O. Box 43
Cheyenne, WY 82003

actually mailed after Feb. 17. See

Dear Kate:

Thanks for your letter of February 17, 2006. I am not disappointed with the outcome of the EQC hearing on the petition. The DEQ and many interested stakeholders have attempted to address these matters in the past, but have not achieved a resolution. I look forward to the discussions before the Council, and remain hopeful that we will be able to resolve the issues.

As a point of clarification, my suggestion to the Council to seek advice and/or opinion from the Attorney General was not intended to stop the process. My intent was to ensure that the Council's efforts to find solutions do not result in rules for which there is no statutory authority. I suspect that this is in the best interest of all stakeholders, including your clients.

I am interested in your offer to work together to find a solution. However, it would be useful to schedule a brief meeting at your earliest convenience to determine if there is some common ground to build on. I would also like talk about the nature and scope of a process that we could use to attempt to resolve this important issue.

Sincerely,

John Corra
Director

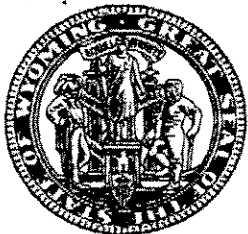
cc: Pete Maxfield
Mary Flanderka
Jill Morrison
EQC Council

EXHIBIT
28

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

ADMIN/OUTREACH (307) 777-7758 FAX 777-3610	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 777-5864	SOLID & HAZ. WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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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

November 3, 2005

Jill Morrison
Powder River Basin Resource Council (PRBRC)
943 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) JULY 2005 PUBLIC NOTICE

Dear Ms. Morrison and Mr. Jones:

The Water Quality Division (WQD) has received your letter dated August 18, 2005 in which you provided comments on draft permits included in the above referenced WYPDES public notice. This letter is to provide a written response to the comments raised in your letter, and notification of the issuance of several permits. The permits listed below were issued on October 27, 2005.

The responses below do not include permits which have not yet been issued. As those permits are issued, we will address your comments in accordance with our usual WYPDES process.

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).

Comments Related to CBM Permits in General

Comment: "The majority of CBM discharge permits do not protect for downstream existing and designated uses. Many of the permits allow for downstream damage to occur to soil, vegetation and trees. This damage has already occurred as a result of permitted CBM discharges and DEQ has failed to address or stop this damage. Please explain how DEQ is protecting current and existing uses on these drainages when serious damage has and is continuing to occur on many of these ephemeral drainages."

Response: The effluent limits in these permits are established in accordance with Chapters 1 and 2 of the Wyoming Water Quality Rules and regulations, and are protective of the designated uses of the receiving streams.

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ADMIN/OUTREACH
(307) 777-7758
FAX 777-3610

ABANDONED MINES
(307) 777-8145
FAX 777-6462

AIR QUALITY
(307) 777-7391
FAX 777-5616

INDUSTRIAL SITING
(307) 777-7369
FAX 777-8937

LAND QUALITY
(307) 777-7756
FAX 777-5964

SOLID & HAZ WASTE
(307) 777-7752
FAX 777-5973

EXHIBIT
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Handwritten initials/signature

Comment: "...Please explain how DEQ is in compliance with 40 CFR 435 Subpart E..."

Response: These discharges are in compliance with Chapter 2, Appendix H (a)(i) and (d)(i) of the Wyoming Water Quality Rules and Regulations. These sections address agricultural and wildlife use of produced water from coal bed methane production facilities.

use the 5/1/06

*WQD
WYOMING
FIELD
MONITORING*

Comment: "We are continuing to voice concerns that reservoir discharge is occurring outside of even minor (2 yr.) storm events, which are allowed under several WYPDES permits. Why has WQD been avoiding enforcement of these occurrences? How is DEQ monitoring storm event discharges?"

Response: Containment requirements are site-specific, and therefore may vary from permit to permit. WQD has taken enforcement actions on violations of containment requirements, and will continue to do so where appropriate. If you become aware of any specific instances of violations in the field, please contact our office and we will follow up on the matter.

Comment: "Many outfalls are contributing excessive aluminum to water sources. What impact are these initial inputs of aluminum having upon irrigation, soil, water quality, aquatics, etc? These exceedences, though each may be short-term, what is the cumulative effect? Is there a build-up of this constituent in the soil? Please address."

Response: WQD is not aware of any stream impairments or adverse impacts occurring in CBM receiving waters as a result of aluminum in discharges. WQD regulates aluminum like it does any other constituent. Effluent limits for total aluminum are established where appropriate, and those effluent limits are enforced.

*Some
how
from
WQD
FIELD*

Comment: "The channel infiltration rate of 0.1 cfs continues to be utilized as a standard. WQD has stated some time ago that this figure needs to be revisited and scientifically validated. When will this review occur as applicants continue to use this as a standard that may well not apply to actual conditions?"

Response: While some submitted water budgets may still include estimates of 0.1 cfs/mile for channel conveyance loss, these values are currently dismissed by WQD if they have not been verified by the applicant in long term site-specific field tests. Applicants have been instructed not to rely on channel infiltration / evaporation as a water management strategy if the actual conveyances losses for that area have not been measured.

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Comment: "Many postings are for major modifications to permits. Evidence and information applicable to these changes is scant and not accessible to public without a personal visit to WQD Cheyenne to access data. We believe that this is an obstruction to the public right of access to information. Please comment."

Response: Applications for major modifications contain information pertinent to the modification. Those applications are posted on the WQD web site during public notice. Materials such as DMR data or previous applications for a given facility are not posted on the web site as part of the public notice for a major modification. If there are older materials for a permit file that you wish to review, please contact the Cheyenne office of WQD and we will make them available to you in accordance with our usual process. - *see policy in - visit*

Comments Related to Specific CBM Permits

WY0049930 – Continental Industries – West Recluse SA Creek

Comment: "There are 'several' on-channel reservoirs generally described in permit. What is the total count for these reservoirs?"

Response: Five

Comment: "Will a bypass be required at outfall 001? Unclear if this is initiated or required by SEO."

Response: Questions related to SEO requirements can be addressed to the SEO Surface Water Office at (307) 777-6475.

Comment: "The SAR of 17.6 at SA Creek is a concern. This level may well have impacts to native vegetation. Please give support for this level."

Response: This permit modification is not related to SAR. If the applicant proposes to renew this permit at a later date, WQD will then seek comments on all aspects of this discharge, including SAR.

Comment: "The permit makes it understood that there are/were beneficial use statements generated. Who generated these statements? They are not in evidence in the document."

Response: A beneficial use statement was not required in the application. Please see response to general comments above, relating to agricultural and wildlife use of the produced water.

Comment: "The permit is not protective of current or existing uses on this stream."

Response: The effluent limits in this permit are established in accordance with Chapters 1 and 2 of the Wyoming Water Quality Rules and Regulations.

WY0050636 – Lance – Tincom Butte

Comment: "Of the total permitted effluent flow, 0.11 cfs is said to over-top and will be, 'absorbed by the channels within two total channel miles.' Has this channel infiltration rate within these two miles been confirmed by WQD? What rate is being used?"

Response: This permit modification is not related to water management at the facility.

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or don't bother w/
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Comment: "Have all exceedences, some in excess of new Chapter 2 standards, been confirmed by WQD as being in compliance with DEQ limits?"

Response: Yes.

Comment: "We are concerned with the High SAR and EC impact upon soils. The permit states that, 'Increases will be infrequent...due to sporadic and short-term nature of stream events.' Further, mixing calculation language states that these levels will last no longer than 2 hours. Shouldn't this determination be based upon impacts of a minimum 2 yr., 24 hour storm event?"

Response: The permit does not contain the language referenced above, relating to SAR and EC. There is no discussion in the permit of "increases" infrequent or otherwise. Further, this permit modification is not related to SAR or EC.

Comment: "Will any outfalls run directly into an irrigation ditch conveyance...?"

Response: No.

Comment: "Will the Ra226 effluent standard be affected by this major modification?"

Response: The Radium²²⁶ effluent limit in this permit has been modified in accordance with current permitting procedures. The Radium²²⁶ effluent limit complies with Chapter 1 of the Wyoming Water Quality Rules and Regulations.

Comment: "Application states, 'Soils analysis not necessary...assuming irrigation occurs over high clay content soil. High clay content soils are indeed apparent in the Prairie Dog drainage. These analyses should occur and be used on a regular basis to determine impact to soils, vegetation and irrigated agriculture impacts. Please explain this apparent failure in analysis."

Response: This facility is not in the Prairie Dog Creek drainage and there is no irrigation occurring downstream of this facility in the tributary drainage.

50636

Comment: "This permit application states that no discharge has occurred yet, is that accurate? Why, then is additional storage proposed."

Follow-up?

Response: Discharge monitoring reports for this facility indicate that discharge commenced in the Spring of 2004.

Comment: "The permit states that passive treatment methods will be used to precipitate metals. What techniques and what metals are targeted? This information is lacking."

Response: The application was referring to typical rock splash pads intended to precipitate iron.

Comment: "The operator is very inexact as to where and what erosion controls will be installed. We are continually concerned with the impacts to soils, land and water with the volumes of product water put into a system not adapted to such a regimen. Will erosion controls be extensive enough to protect water quality throughout the affected drainage?"

Response: This facility, like all point source discharge facilities in Wyoming is subject to regulation under Chapter 1, Sections 15 and 23 of the Wyoming Water Quality Rules and Regulations, relating to settleable solids and turbidity in the receiving waters.

Comment: "An SAR of 62 is a red flag. Further, the 'resultant SAR' at Slim Reservoir is at 48 after mixing. What will these levels do to local soils / vegetation as well as Prairie Dog Creek and Tongue River water quality?"

Response: As stated above, this facility is not in the Prairie Dog Creek drainage and there is no irrigation occurring downstream of this facility in the tributary drainage.

Comment: "This permit is not protective of current and existing uses and does not comply with the Clean Water Act."

Response: WQD disagrees. Please see responses above.

WY0051012 – Pennaco – Kingsbury

Comment: "The total permitted effluent flow is 3.5 MGD. The major modification calls for the addition of 1 well to an existing 14 wells. What is the original number of wells for which this has been permitted? Is there a major difference in permitted flow and actual flow?"

Response: This permit originally authorized 3.5 MGD of discharge from 40 outfalls, serving 116 CBM wells. This permit now authorizes 3.5 MGD of discharge from 41 outfalls, serving 117 CBM

wells. The actual current discharge at this facility is reported at 0.18 MGD.

Comment: "The specific conductivity in the 2-year event approaches or exceeds moderate risk for downstream impacts. This risk to irrigation, alteration to native vegetation is not acceptable under CWA. How is this supported by WQD?"

Response: This permit modification is not related to specific conductance. The Statement of Basis in the permit lists the six items in the permit that are being modified.

Comment: "Have there been exceedences at ICP's and harm done to irrigation water quality?"

Response: No. This facility has no history of non-compliance at the ICP location.

WY0050148 – Continental Industries – West Recluse LX Bar Creek

is this in rules? where? done?
Please note that this permit modification is only related to the six items listed in the Statement of Basis in the permit. These six items are not related to EC, SAR, or water management at this facility. Comments relating to the six modified items in the permit are addressed below. Any other submitted comments for this permit are beyond the scope of the modification.

Comment: "The removal of POC standards is requested in this modification. Is the ICP distance great enough from the outfalls that these distance-related standards come into play and will assure quality of irrigation water supply?"

Response: The removal of the POC from this permit will not affect the irrigation effluent limits for SAR and EC. Those limits will still be met at an irrigation compliance point (ICP).

WY0053112 – JM Huber – Ash Creek Option 1A

Comment: "Are pits / containment units located such that likelihood of overtopping in flood events will be minimized?"

Response: Yes. These are off-channel pits.

Comment: "No groundwater approval was called for in this permit. Why? Are containment units 1-9 designed for infiltration of product water?"

Response: These are existing pits. This facility was previously covered under authorization # WYG390028. Therefore, Table 1 of the permit does not list these pits as requiring a groundwater compliance approval prior to receiving discharge.

Comment: "We appreciate the WDEQ questioning basic criteria such as number of producing wells and per well CBM water production. The corrected water balances indicate total water production will be nearly half of that originally indicated in permit / application. Has WQD confirmed that well flow analysis provided by Huber? Has water production from similar coals in the area shown similar amounts?"

Response: The water budget in the application adequately addresses the expected inputs and outputs for the impoundments at this facility. No additional information is required of the applicant at this point.

Comment: "SAR will be quite high at 39.2. When production ceases, how will effluent tailings be disposed of in a way that will not endanger future uses and water resources?"

2 f - Response: For details related to how WQD will address reclamation of CBM impoundment structures, please see agency memo dated August 19, 2005, available on our web site at: http://deq.state.wy.us/wqd/npdesprogram/cbm/downloads/BONDING_GUIDANCE-CBM.pdf

WY0053589 – JM Huber – Little Badger Option 1A

Comment: "What is the daily maximum permitted flow rate? WQD has not specified this in permit. Water balance in application would indicate operator figure for produced water at 247,296 total gallons per day. Is this the permitted flow rate? Is this rate not required to be indicated in permit?"

Response: Off-channel permits typically do not establish flow limits for the effluent because the requirement to contain all effluent plus up to a 100-year / 24-hour storm event would over-ride any limit placed on daily maximum flow from the outfalls.

Comment: "Permit indicates that this is a new development. However, further reading shows that this is currently permitted under WYG390056. Why is this permit made as 'new' and not a modification?"

Response: WYG390056 was an authorization issued for this facility under Wyoming's general permit for off-channel discharges. As you are aware, coverage under that general permit is gradually being phased out, and some operators have applied early for individual permit coverage of these existing off-channel discharges.

Comment: "Assuming that the pit has been designed for infiltration, why has groundwater approval not been required?"

Response: Please see response above, relating to previous permit coverage for this facility.

Comment: "Chlorides at 2,000 mg/l were noted in permit. Is this an effluent of concern in this permit? If not, why not?"

Response: The effluent limit of 2,000 mg/l in the permit is based on the numeric standard for chlorides established in Chapter 2 of the Wyoming Water Quality Rules and Regulations.

Comment: "Application indicated past exceedences in fluoride and copper. Have these been corrected?"

Handwritten: k-
had

Response: WQD's records indicate that there are no outstanding effluent violations for this facility.

WY0053431 - Pennaco - Non-Discharging Option 2

Comment: "There is downstream irrigation. Why are no Irrigation Compliance Points required? Please explain."

Response: This permit requires containment of all effluent at the facility, plus up to a 100-year / 24-hour storm event. This facility is not expected to have any adverse impact on downstream uses because the effluent is simply not permitted to flow downstream.

Comment: "Total maximum daily flow rate is 0.79 MGD. However, if the number of wells (82) and per well production (19,900 GPD) are applied, the total flows would exceed this by 841,000 GPD. Please explain this drastic difference."

Response: This is a full-containment type of permit and therefore does not limit daily maximum flow into the impoundments. The containment scenario is similar to the off-channel facilities described above.

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Comment: "The permit states that product water will be placed in 3 on-channel reservoirs.

Application states that these will be off-channel reservoirs and that there will be additional reservoirs as well. What is the reality here? What accounts for the provision of drastically different data between application and permit? Is operator attempting to cover 2 different options in one permit?"

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Response: WQD considers the impoundments at this facility to be on-channel. The permit is written accordingly.

Comment: "Groundwater approval is required. Depending on the outcome to the above question, why is this required here and not for other similar pits / reservoirs in this area?"

Response: The impoundments at this facility are new. They are subject to groundwater monitoring requirements in accordance with WQD Groundwater Pollution Control guidance (Memo Updated 9/22/04). Any questions on details related to groundwater monitoring can be addressed to that

53431 CONT

program at (307) 777-5985.


Comment: "Chlorides are high at 230 mg/l. One analytical shows SAR of more than 60! The permit does not, 'establish effluent limits protective of downstream uses.' With effluents at these levels, irrigation use downstream, as well as the potential impacts upon the Tongue River, why are no effluent standards set?"

Response: Please see response to first WY0053431 comment above, relating to containment requirements at this facility.

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 file
Todd Parfitt, DEQ/WQD
Leah Krafft, DEQ/WQD



Department of Environmental Quality



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

Dave Freudenthal, Governor

John Corra, Director

At its public meeting on January 26, 2006, the Water Quality Advisory Board recommended that the Water Quality Division should revise and solicit additional public comment on the attached Agricultural Use Protection Policy. The following items summarize the changes that were made to the policy subsequent to the January 26th meeting.

SUMMARY OF AMENDMENTS TO THE AGRICULTURAL USE POLICY

1. The protection for irrigation uses has been expanded to include naturally irrigated bottomlands as well as artificially irrigated lands.
2. Artificially irrigated lands have been defined as those where water is intentionally applied through some diversion mechanism.
3. Naturally irrigated lands have been defined as bottomlands that exhibit enhanced vegetative production of agriculturally significant plants due to natural flooding or sub-irrigation.
4. Electrical conductivity (EC) and sodium adsorption ratio (SAR) limits will be established on all discharges that may reach any artificially irrigated lands.
5. EC and SAR limits will also be established where an effluent may reach a "substantial acreage" of naturally irrigated lands. Generally, a substantial acreage will be considered to be 20 acres or more.
6. A landowner may dispute the WQD's determination of substantial acreage in any circumstance. These disputes will be settled by an application of a formula historically used by the DEQ, Land Quality Division to determine the agricultural significance of impacted bottomlands in relation to coal mine permitting.
7. The Tier 1 process for establishing default EC limits will be based on soil salinity tolerance levels for the most sensitive irrigated plant species published by the USDA Agricultural Research Service (ARS) rather than the previously proposed Bridger Plant Materials publication. The USDA tolerance values are significantly more restrictive. Default EC limits may be modified using the Tier 2 or Tier 3 refined procedures.



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WATER QUALITY
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8. To minimize the potential for sodium build-up with high EC waters, default SAR limits will be capped at 10. The default cap of 10 SAR may be modified using the Tier 2 or Tier 3 refined procedures.
9. Irrigation uses may not be protected in circumstances where the affected landowner denies access to obtain the necessary data to calculate appropriate EC and SAR limits.
10. The previous Section IV. "Bottomland Forage" has been deleted. In February, 2006, the Environmental Quality Council voted favorably on a petition to initiate rulemaking concerning the regulation of the volume of water which could be discharged into naturally low flow stream channels. This new rule making initiative has rendered the original Section IV of the Ag Protection policy irrelevant.