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Re: Petition to Amend Wyoming Water Quality Rule, Chapter 2, Appendix H

Dear Director Lorenzon:

On December 7, 2005, The Powder River Basin Resource Council et al. ("Petitioners") filed a Petition with the Environmental Quality Council ("EQC") to amend Wyoming Water Quality Rules and Regulations ("WQRR"), Chapter 2, Permit Regulations for Discharges to Wyoming Surface Waters. Williams Production RMT Company ("Williams") believes that the current Water Quality Rules adequately control coalbed methane ("CBM") facility discharges. The proposed amendments would interfere with the current water appropriation, distribution and diversion system in Wyoming, and would expand the current Wyoming Pollutant Discharge Elimination System ("WYPDES") permitting program beyond the limits of its statutory authority.

More importantly, the PRBRC proposal would not meet the purported objective of maximizing the beneficial use of Wyoming water. To the contrary, by forcing re-injection and other alternative disposal methods, it would have the unintended consequence of wasting water and limiting its availability for use by Wyoming farmers, ranchers and others. The Petitioners' purported support of treatment options is only a panacea, since many of the treatments are not technologically proven and each creates its own disposal issues.

No amendment of the WQRR is needed at this time. Williams respectfully requests that the EQC deny the petition to initiate rulemaking.

I. Background

The Wyoming Constitution provides that the Board of Control, which includes the State Engineer and superintendents of water divisions, shall "have the supervision of the waters of the state and of their appropriation, distribution and diversion." Wyo. Const. Art. 8, § 2; Wyo. Stat. Ann. § 97-8-002. The State Engineer's Office has the primary responsibility for the regulation of quantities of water used, discharged and

distributed throughout Wyoming. It is the State Engineer's job to make sure that State waters are put to beneficial use.

In contrast, the Wyoming Department of Environmental Quality's ("DEQ") authority to regulate water is focused on the quality of State waters and discharges into these waters. DEQ regulates water quality by implementing regulations developed to meet requirements under both the Wyoming Environmental Quality Act and the federal Clean Water Act ("CWA"). Wyo. Stat. Ann. § 35-11-101 et seq.; 33 U.S.C. § 1251 et seq. The broad purpose of the Environmental Quality Act is to protect State air, land and water resources. Wyo. Stat. Ann. § 35-11-102. Similarly, in the area of water quality protection, the CWA prohibits the unauthorized discharge of pollutants into waters of the United States. 33 U.S.C. § 1311. At the time the United States Congress passed the CWA, it wanted to control the amount of various contaminating substances discharged so that water quality could be improved or maintained. The CWA originally focused on the control of the discharge of conventional polluting substances e.g., BOD, TSS and pH, and was amended to include toxic and priority polluting substances. 33 U.S.C. §§ 1314(a)(4), 1317(a)(1).¹

The WYPDES permit program, Wyoming's version of the CWA's pollutant discharge permit program, establishes limits on the discharge of specific chemical compounds. By controlling the discharge of specific chemical compounds, the WYPDES permit program ensures that water discharges have the potential to meet certain uses, e.g., agricultural or wildlife. The purpose of this program is not to ensure that such discharges are 100% used since the program must operate within existing constraints for the control of water within the State. The CWA expressly states, "[T]he authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired [by the CWA permit program]. 33 U.S.C. § 1251(g); Wyo. Stat. Ann. § 35-1-1104(a).

II. State Engineer Controls Water Quantity and Beneficial Use

The Petitioners request that the EQC change the WYPDES permit program in a fundamental way. The Petitioners want DEQ to police and control the quantities and distribution of waters in the State and want DEQ to ensure that each and every drop of CBM water discharged is used. Such a request is misguided. The amendment the Petitioners request cannot be implemented for practical reasons and should not be considered for constitutional and statutory reasons.

DEQ currently evaluates and regulates CBM facility discharges in a comprehensive, thorough way. DEQ authorizes certain produced water discharges from CBM production facilities, if such discharges meet specified standards. WQRR, Chs. 1, 2. The standards have been methodically and carefully developed. The Appendix

¹ Coal bed methane produced water contains certain conventional pollutant parameters which are regulated.

H(a)(i) standard is one of many limits placed on CBM produced water discharges. Appendix H(a)(i) requires that discharged produced water be suitable for agriculture or wildlife use and be put to such use during periods of discharge. This current standard makes sense.

The Petitioners seek to maximize the beneficial use of produced water discharges by demanding proof of 100% actual use of discharges by livestock, wildlife or agriculture. This is unreasonable and impractical. Wyoming adopted the Appendix H(a)(i) standard because it knew that discharges of produced water from facilities in the arid western United States could be used beneficially. See Exhibit 1 (Petitioners' Exhibit 5). However, in an arid climate, the goal has never been to consume 100% of existing surface water or to dispose of discharged water without any use. Such assumptions remain true of CBM produced water today.

In Wyoming, where surface water has generally been scarce, water use develops from the presence of water. Contrary to Petitioners' assertion, produced water in Wyoming is generally being used. Wildlife, livestock and plants are attracted to and collect where they find water. It is impossible to predict how much water an animal or plant will use from a water source or on what schedule in any given year. Petitioners' proposed amendment to the WQRR would require WYPDES permit applicants to forecast animal and plant consumption patterns which cannot be determined. The proposed amendment would require DEQ to confirm such predictions for a specific drainage and then regulate quantities of produced water discharged under WYPDES permits to ensure that such consumption needs were met. Permittees would be required to adjust the timing and amount of discharges to meet agricultural irrigation schedules and livestock and wildlife drinking schedules. Requiring WYPDES permittees to release water with such precision is impractical.

The Petitioners' proposed amendment also would have an effect beyond how oil and gas operations, whether conventional or CBM, are operated. It would have a direct effect on and interfere with appropriated water rights. Despite the claims of many of the Petitioners, farmers and ranchers in many drainages depend on and frequently use substantial quantities of discharged produced water for agricultural and livestock propagation purposes. Appropriated water rights incorporate certain assumptions about produced water discharge levels and are dependent on the release of such water. The proposed amendment would adversely affect many of these appropriated water rights, again interfering with water quantity allocations established by the State Engineer. If 100% use criteria were required before a permittee could discharge water, the operator could choose to cease producing gas in a certain area or choose to consider options where there is no beneficial use, thus depriving Wyoming farmers and ranchers of a plentiful source of water for their crops and livestock. In many cases, the Petitioners' proposal, if adopted, would harm the very citizens in rural agricultural communities it seeks to protect. The Petitioners' "all or nothing" approach does not meet the water needs of many landowners in arid Wyoming.

On the other hand, assuming a WYPDES permittee could prove 100% use of produced water, the permittee could continue to discharge as much water as it produced, without ever reducing the quantity of water discharged. This would meet Petitioners' 100% use goal but could exacerbate rather than solve flooding or other issues accurately or inaccurately attributed to produced water discharges.

The proposed amendment would distort the purpose of the WYPDES program and would interfere enormously with the distribution of water in the State. The State Engineer, not the DEQ, is the regulatory entity authorized to distribute and divert waters of the State on specific schedules to meet the multiple water resource demands within the State. For that reason, our legislature expressly precluded the DEQ from interfering with the jurisdiction, duties or authority of the State Engineer or the Board of Control. Wyo Stat. Ann. § 35-1-1104(a).

The practical effects of the Petitioners' proposal would be significant. The WYPDES permit program is not a program meant to manipulate the quantity and distribution of water in Wyoming. It is essentially a water quality permit program and should remain one.

III. Appropriate WYPDES Standards Exist

Chapters 1 and 2 of the WQRR currently provide DEQ with appropriate directions and standards to protect Wyoming water quality consistent with the mandates of the Wyoming Environmental Quality Act and the CWA. Wyoming very recently completed its triennial review of Chapter 2 of WQRR. Citizens had numerous opportunities to comment and participate in the amendment of the WQRR, including any revisions to Appendix H. The EQC already considered and rejected proposals strikingly similar to that of the Petitioners during the 2004 deliberations. No revisions to these rules are necessary, particularly to regulate water quantity per se.

The WYPDES permit application is detailed and extensive. See Exhibit 2 (WYPDES Permit Application). DEQ evaluates requests for WPDES discharges on an area-specific basis; DEQ considers the type of facility whose discharges will be authorized and the nature of downstream facilities which require protection. Before granting a WYPDES permit, the permit applicant supplies data and DEQ evaluates whether the proposed representative discharge contains any of 25 chemical parameters, including barium, pH, chlorides and sodium adsorption ratio. *Id.* at § 14. DEQ also evaluates control measures that the applicant proposes to implement to prevent erosion of the receiving water channel and measures used to meet chemical parameters. *Id.* at §§ 9, 10. DEQ reviews the applicant's flow volume estimates and considers the nature and quality of the receiving water before issuing a WYPDES permit. *Id.* at §§ 15, 16; WQRR, Ch. 1.

The Appendix H(a)(i) limit is not the only basis for determining whether a CBM facility can discharge produced water in Wyoming. Appendix H also identifies multiple additional criteria which a permittee must meet in order to discharge CBM produced

water. Some of these criteria include numeric limits on certain identified substances e.g., chlorides, sulfates, total dissolved solids, and other criteria describe general principles which must be met e.g., erosion control. Appendix H, b(ii), (iv), (vii).

DEQ has not turned a blind eye to quantity, but rather has incorporated it appropriately into its regulatory control of specific contaminant discharges. The combination of the numeric limits and other general principles makes the Appendix H criteria more stringent than the federal discharge criteria for conventional oil and gas operations. Exhibit 1; 40 C.F.R. § 135.52.

IV. Nexus Required Between Water Quality and Water Quantity

The Petitioners readily admit that DEQ evaluates the interplay of water quantity and water quality in many contexts. Exhibit 3 (Petition to Amend Wyoming Water Quality Rule, Ch. 2 Appendix H, pp. 13-14). However, the CWA and implementing regulations in Wyoming do not and should not require that DEQ establish volume limits per se on produced water discharges in WYPDES permits. The CWA cases the Petitioners cite also do not support such an interpretation of DEQ's WYPDES permitting authority.

The Petitioners cite no 10th Circuit cases which involved requests for NPDES authorization of discharges, much less authorization for discharges of produced water in an arid region.² Several of the cases cited involved requests for authorization to discharge dredged and fill materials into waters of the United States in connection with the proposed construction of dams. *PUD No. 1 of Jefferson County v. Washington Dept. of Ecology*, 511 U.S. 700 (1994); *Riverside Irrigation District*, 758 F.2d 508 (10th Cir. 1985); *Alameda Water & Sanitation Dist. v. Reilly*, 930 F. Supp. 486 (D. Colo. 1996). Section 404 of the CWA authorizes the U.S. Army Corps of Engineers ("Corps") to issue permits for the discharge of dredged or fill material into regulated waters. 33 U.S.C. § 1344(a). Before issuing a Section 404 permit, the Corps must evaluate whether a proposed discharge of fill material complies with certain EPA guidelines; the guidelines require the agency to evaluate potential impacts of the discharge to the physical, chemical and biological characteristics of the aquatic ecosystem including current patterns and downstream flows. 40 C.F.R. § 230.11. (Emphasis added).

The CWA discharge authorization requested in the cases cited by the Petitioners is not the same authorization requested under the WYPDES program. By definition, dam construction requires that fill material (dirt, rock, concrete) be placed in an

² The Petitioners did cite one 9th Circuit case that dealt with CBM produced water. *Northern Plains Resource Council v. Fidelity Exploration and Development Co.*, 325 F.3d 1155 (9th Cir. 2003). However, this case addressed the question of whether the discharge of produced water required an NPDES discharge permit in the first instance, and not whether the quantity of water was appropriately regulated under such a permit.

existing stream or channel which typically transports water. The fill material blocks the regular flow of the water, thus impacting the physical characteristic of the aquatic ecosystem. The courts in each of these cases discussed water quality in connection with water quantity since water quantity (the existing stream flows) would be altered (significantly reduced) if the CWA permits were granted.

The Petitioners have not identified any cases where a state asserted authority to regulate the volume of water discharged directly into a waterway, as opposed to cases where the discharge of fill material was regulated due to potential impacts on stream flow. The Petitioners quote language from *United States v. Earth Sciences*, 599 F.2d 368 (10th Cir. 1979) and *Quivira Mining Co. v. U.S. Env't'l Prot. Agency*, 765 F.2d 126 (10th Cir. 1985) in support of the assertion that the DEQ should regulate water quantity as part of the WYPDES program. The courts in these cases did not evaluate a state's ability to regulate the quantity of water discharged under a program like the WYPDES permit program. The language the Petitioners quoted from these cases merely offers a general paraphrasing of the purposes of the CWA, unsubstantiated by statutory analysis.

V. Request for Petition Denial

DEQ must ensure and regulate the quality of whatever quantities of water a WYPDES permit applicant proposes to discharge into the State's surface waters. DEQ, through the WYPDES permit program, allows certain discharges which the Department determines will not degrade the quality of Wyoming's waters. There is no need to amend Chapter 2, Permit Regulations for Discharges to Wyoming Surface Waters. The Petition should be denied.

Sincerely,



Joe Olson
Facilities Engineer