

**FILED**

MAY 18 2010

Jim Ruby, Executive Secretary  
Environmental Quality Council

**BEFORE THE  
ENVIRONMENTAL QUALITY COUNCIL  
STATE OF WYOMING**

IN THE MATTER OF: )  
APPEAL OF WYPDES PERMIT ) DOCKET NO. 09-3807  
NO. WY0094056 )

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**ORDER DENYING RESPONDENT STEPHENS' MOTIONS TO STRIKE  
EXPERT TESTIMONY, TO DISMISS PETITION AND FOR SUMMARY  
JUDGMENT AND GRANTING PETITIONERS' MOTION FOR SUMMARY  
JUDGMENT**

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This matter came before the Environmental Quality Council (EQC) on March 11, 2010 for oral argument on the Motion to Strike of Stephens Energy Company, LLC ("Stephens"); the Motion to Dismiss of Stephens; and the cross-motions for summary judgment filed by Petitioners and Stephens. Council members present included Dennis M. Boal, Chairman; Dr. Fred Ogden, presiding officer; John N. Morris; Thomas Coverdale (via videoconference); Tim Flitner; and Catherine Guschewsky. Councilman David Searle recused himself pursuant to Rule 1 Section 15 of the DEQ Rules of Practice and Procedure. Petitioners were represented by Kate M. Fox and Mark Stewart of Davis & Cannon, LLP; Respondent Stephens was represented by Drake Hill and William Sparks of Beatty & Wozniak, P.C.; and Respondent the Department of Environmental Quality (DEQ) was represented by Mike Barrash and Luke Esch of the Wyoming Attorney General's Office.

## I. MOTION TO STRIKE

1. Stephens moved to strike the testimony of Petitioners' expert, Ginger Paige, PhD, arguing that her testimony did not meet the standards set forth in *Daubert v. Merrell Dowd Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and *Bunting v. Jamieson*, 984 P.2d 467 (Wyo. 1999). However, the Wyoming Supreme Court has held, in *Griffin v. State*, 2002 WY 82, ¶11, 47 P.3d 194, that the *Daubert/Bunting* standard does not apply to administrative proceedings. Instead, "[t]he evidence must be of a type that is 'commonly relied upon by reasonably prudent men in the conduct of their serious affairs.'" *Id.*

2. The Council finds that Dr. Paige is qualified to opine on matters of watershed and rangeland hydrology, and specifically on the impacts of coalbed methane produced water on agriculture. *Paige CV, Petitioners' Motion for Summary Judgment*<sup>1</sup> Ex. 13. Her testimony regarding the scientific validity of Tier 2 is important to the Council's determination of the issues presented in this appeal, and is of a type commonly relied upon by prudent persons in the conduct of their serious affairs.

3. Upon a 6-0 vote, the Council found that Stephens' Motion to Strike should be and therefore is DENIED. (*Mt. Hrg. Tr.* p. 16).

## II. MOTION TO DISMISS

4. Stephens argued that the Petition should be dismissed for failure to state a claim under WYO. R. CIV. P. 12(b)(6); however, Stephens' argument for dismissal was

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<sup>1</sup> Unless otherwise noted, references to exhibits refer to those exhibits attached to Petitioners' Motion for Summary Judgment, filed February 9, 2010.

that Petitioners “have no evidence that can substantiate any of their claims.” (*Mt. Hrg. Tr. pp. 16-18*). The Council found that the Petition states a claim upon which relief can be granted, and did not consider evidentiary material in the context of considering the motion to dismiss. The Council unanimously found that Stephens’ Motion to Dismiss should be and is therefore DENIED. (*Mt. Hrg. Tr. p. 22*).

### III. MOTION FOR SUMMARY JUDGMENT

#### A. Standard

5. Summary judgment may be granted where there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. WYO. R. CIV. P. 56; Chapter 2, § 14, DEQ Rules of Practice & Procedure. Summary judgment is proper “if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue of material fact and that the moving party is entitled to judgment as a matter of law.” WYO. R. CIV. P. 56(c).

#### B. Findings of Fact

6. On May 6, 2009, DEQ issued WYPDES Permit No. WY0094056 (“the Permit”) to Cedar Ridge, LLC (“Cedar Ridge”), authorizing discharge of water from coalbed methane wells into three reservoirs located in ephemeral tributaries to Spotted Horse Creek. Petitioners timely appealed the Permit. *Permit 1*.

7. Petitioner Powder River Basin Resource Council (“PRBRC”) is an association of ranchers and citizens dedicated to working for the careful and responsible development of Wyoming’s valuable and important mineral resources. *Morrison Depo. Tr. 6:2-7*.

8. Petitioner William F. West Ranch, LLC (“West LLC”) owns and operates ranchlands in Campbell County, Wyoming, portions of which lie on Spotted Horse Creek, downstream of the permitted discharges. Bill West, an owner and operator of West LLC, is a member of PRBRC. *B. West Depo. Tr. 5:11-13; 39:4-6.*

9. By order entered October 28, 2009, the Council approved the substitution of Stephens Energy, LLC (“Stephens”) for Cedar Ridge as a party/permittee.

10. The Permit authorizes discharge from three outfalls into three unlined, on-channel reservoirs located in ephemeral drainages tributary to Spotted Horse Creek, located approximately seven to eleven miles upstream of the ranch owned by the West LLC. *Petitioners’ Ex. 1, Statement of Basis (“SOB”), p. 1.*

11. DEQ identified irrigation as an agricultural use occurring below the permitted outfalls on Petitioner West LLC land. The Permit establishes an effluent limit for Electrical Conductivity (“EC”) of 2,680  $\mu\text{S}/\text{cm}$  for protection of that agricultural use. *SOB, p.2.*

12. Relying on the “Tier 2” methodology in its Agricultural Use Policy, DEQ determined that the average soil EC in irrigated fields potentially affected by the Permit likely fell within the range of 4,024 to 5,356  $\mu\text{S}/\text{cm}$ . DEQ then divided the lower value by 1.5 to establish an effluent limit of 2,680  $\mu\text{S}/\text{cm}$  for water EC. *SOB, p. 2-3.*

13. Petitioners’ expert, Dr. Ginger Paige, stated in her deposition that the Tier 2 methodology is scientifically invalid and cannot be used to establish numeric effluent limits for EC that ensure no measurable decrease in crop production. *Petitioners’ Ex. 6, p. 2.*

14. Dr. Paige stated that the Tier 2 methodology does not provide a reasonable or scientifically defensible method to determine the quality of water that historically flowed within a drainage system and will not support the establishment of scientifically defensible effluent limits for discharges that will not cause a measurable decrease in crop production. *Petitioners' Ex. 6, p. 2.*

15. Dr. Paige's conclusions comport with some of the opinions of consultants hired both by the Council and DEQ. Hendrickx & Buchanan, Expert Scientific Opinion on the Tier-2 Methodology – Report to the Wyoming Environmental Quality Council, May, 2009, p. iii; Hendrickx & Buchanan, Expert Scientific Opinion on the Tier-2 Methodology – Report to the Wyoming Department of Environmental Quality, September, 2009. (The Council takes notice of these two reports, which are posted on its website and are maintained within the permanent files of the Council.)

16. Respondents presented no evidence disputing the opinions of Dr. Paige regarding the scientific validity of Tier 2 methodology.

17. The Permit did not set an end-of-pipe effluent limit for Sodium Adsorption Ratio ("SAR"). It required daily monitoring below the reservoirs to determine whether effluent from the outfalls would reach the irrigation monitoring point ("IMP") and provided that, if data collected at the IMP exceeded the formula of  $SAR < 6.67 \times EC - 3.33$ , an SAR end-of-pipe effluent limit would automatically apply at each outfall for the Permit. *SOB, p. 3.*

18. The Permit requires that all effluent be contained in the on-channel reservoirs, except if DEQ grants prior written authorization for a release in association

with assimilative capacity credits, or in conjunction with natural precipitation events. *SOB*, pp. 1-2.

19. Water stored in the reservoirs may also infiltrate into the underlying soils as a result of hydrostatic pressure and the matrix potential of the soils. *Petitioners' Ex. 7, Dr. Paige Deposition*, 23:4-24:15. Dr. Paige stated that it is a valid assumption that an unlined reservoir in the Powder River Basin is likely to result in infiltration. *Id.* at 26:11-27:15.

20. DEQ has not conducted or obtained any study, and has made no calculation, regarding the quantity of water that is leaving the subject reservoirs by infiltration. *Mt. Hrg. Tr.* 57, 66.

21. West LLC stated it has experienced damage as a result of CBM water discharges in Spotted Horse Creek above its ranch, flooding its property, including the loss of 100 acres of hay meadows and 200 cottonwoods. It has hauled 500 truckloads of soil in an attempt to reclaim its lands. *Petitioners' Ex. 10, Marge West Deposition*, 6:20-8:22.

22. Petitioner West LLC is unable to establish that the damage it has experienced and anticipates experiencing in the future is the result of the specific discharges under this permit. *Petitioners' Motion for Summary Judgment*, p. 5.

### C. Conclusions of Law

23. To the extent any of the above findings of fact constitute or include conclusions of law, they are hereby incorporated as such.

24. Petitioner West LLC and Petitioner PRBRC have standing to appeal this Permit. They have demonstrated a “definite interest exceeding the general interest in community good shared in common with all citizens.” *Northfolk Citizens v. Park County Bd. of County Commr’s*, 2008 WY 88, ¶16, 189 P.3d 260, 264 (Wyo. 2008); *see, also, Riedel v. Anderson*, 70 P.3d 223, 229 (Wyo. 2003)(litigant must have ‘personal stake in the outcome’ of a controversy).

25. The policy and purpose of the Wyoming Environmental Quality Act (“EQA”), WYO. STAT. §§ 35-1-101 et seq. is described in WYO. STAT. § 35-1-102 where it states that it is the “policy and purpose of this act to enable the state to prevent, reduce and eliminate pollution; to preserve and enhance the air, water and reclaim the land of Wyoming; [and] to plan the development, use, reclamation, preservation and enhancement of the air, land and water resources of the state[.]”

26. The extent to which the EQA allows alteration of Wyoming’s waters is prescribed by the water quality standards, rules and regulations. Wyoming’s water quality standards are contained in Chapter 1 and rules for discharges and permit requirements are contained in Chapter 2 of Water Quality Rules and Regulations (“WQRR”).

27. Chapter 1, Section 20 of the WQRR provides a narrative water quality standard  
for the protection of agricultural uses:

All Wyoming surface waters which have the natural water quality potential for use as an agricultural water supply shall be maintained at a quality which allows continued use of such waters for agricultural purposes.

Degradation of such waters shall not be of such an extent to cause a measurable decrease in crop or livestock production.

Unless otherwise demonstrated, all Wyoming surface waters have the natural water quality potential for use as an agricultural water supply.

The procedures used to implement this section are described in the “Agricultural Use Protection Policy.”

28. It is the DEQ water quality administrator’s obligation to recommend to the director rules and regulations that prescribe “effluent standards and limitations specifying the maximum amounts or concentrations of pollution and wastes which may be discharged into waters of the state.” WYO. STAT. § 35-11-302(a)(ii).

29. When an effluent constituent “has the reasonable potential to adversely impact a designated use of receiving surface waters of the state and no numeric standard has been promulgated . . . for the constituent, the administrator may establish a numeric effluent limitation **based on values derived from appropriate scientific methods.**” WQRR, Chapter 2, Section 5(c)(iii)(IV)(emphasis added).

30. Effluent limitations are defined as “any restriction established by the state or by the administrator of the Environmental Protection Agency on quantities, rates and concentrations of chemical, physical, biological and other constituents which are discharged from point sources into waters of the state, including schedules of compliance.” WQRR, Chapter 1, Section 2(b)(xv).

31. DEQ’s regulations require that permit limits be set with the use of appropriate scientific methods. *Mt. Hrg. Tr. pp. 94, 95.*

32. DEQ determined in this instance that EC is a constituent that has reasonable potential to adversely impact irrigation occurring downstream of the outfalls authorized by the Permit. *Petitioners' Ex. 1; SOB, p. 2; Agricultural Use Policy, Ex. 5, p. 55.*

33. Using Tier 2, DEQ established a numeric limitation for EC of the discharged water for this Permit. Its purpose for doing so was to protect downstream irrigated agriculture. *Mt. Hrg. Tr .pp. 45, 46.*

34. There is no dispute that Tier 2, DEQ's methodology for deriving a numeric effluent limitation for EC, is not an appropriate scientific method. The only evidence before the Council on this issue were the deposition testimony and reports of Drs. Paige, Hendrickx and Buchanan, who deny any basis in science for the assumption that background water quality can be determined from sampling soil salinity. (*Ex. 3, p. 2, Hendrickx & Buchanan, p. iii, 11-14*). A method premised on a scientifically invalid assumption cannot be an appropriate scientific method.

35. The purpose of addressing SAR in this Permit related to irrigation is to control the concentration of sodium, calcium and magnesium contained within the discharged water. SAR is a ratio of sodium to calcium and magnesium dissolved in the water. *Petitioners' Ex. 5, p. 55.*

36. WYO. STAT. 35-11-302 and WQRR, Chapter 2, Section 5(c)(iii)(C)(IV), required DEQ to address SAR. DEQ considered SAR but elected not to impose an end-of-pipe effluent limit for that constituent in this Permit. *DEQ Response to Motion for Summary Judgment, Ex. 1, J. Thomas Aff., ¶¶ 5-11.*

37. The Permit thus contains no specific limit on SAR, or on the concentrations of sodium, calcium or magnesium, which may be discharged from the outfalls described in the Permit.

38. The Permit was written using Option 2, which is “for facilities which discharge into drainages that are class 2 or are tributary to class 2 systems, regardless of whether a reservoir(s) is being proposed for construction within the drainage.” This option requires “evaluation of downstream irrigation practices.” *Petitioners’ Ex. 12, pp. 2-3.*

39. The Permit allows overtopping with precipitation events or through the use of assimilative capacity credits. The Permit does not prohibit infiltration nor does it require monitoring of infiltration. *Permit.*

40. WQRR Chapter 2, Section 9(a)(vi) states that “No permit may be issued when conditions of the permit do not provide compliance with applicable requirements of W.S. 35-11-302 and of these regulations.”

41. DEQ’s regulations require that the limits be set with appropriate scientific methods. *Mt. Hrg. Tr. pp. 94- 95.* The Council concluded the EC limit was not derived based on an appropriate scientific method.

42. DEQ has failed to establish effluent limitations in the Permit that comply with the EQA and Wyoming water quality standards and permit regulations by basing the EC limit on the flawed Tier 2 methodology. *Mt. Hrg. Tr. pp. 94-95.*

43. For all the foregoing reasons, the Council voted 4-2 to grant the Petitioners' Motion for Summary judgment and revoke the Permit as issued by DEQ. *Mt. Hrg. Tr. pp. 90-106.*

#### IV. CONCLUSION

There are no genuine issues as to any material fact and the effluent limitation established for EC in Permit WY0094056 was not derived using appropriate scientific methods as required by WWQR, Chapter 2, Section 5(c)(iii)(C)(IV). The Permit also does not contain an effluent limitation for SAR. Accordingly, the Permit as issued by the Director should be, and hereby is, revoked as requested by Petitioners, pursuant to WYO. STAT. ANN. § 35-11-112(c) (ii).

The Council hereby FINDS and ORDERS that Stephens' Motion to Strike is DENIED, Stephens' Motion to Dismiss is DENIED, Stephens' Motion for Summary Judgment is DENIED, and Petitioners' Motion for Summary Judgment is hereby GRANTED. The Council ORDERS that Permit WY0094065 is hereby REVOKED.

DATED this 13 day of MAY, 2010.



Fred Ogden, PhD, Presiding Officer  
Environmental Quality Council

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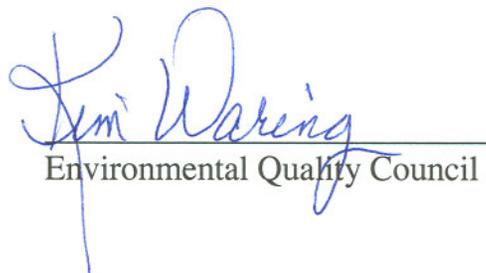
**CERTIFICATE OF SERVICE**

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