

though it established higher effluent standards than the South Prong Barber Creek Permit; therefore, the South Prong Barber Creek Permit should also be revoked.

Procedural History

In April of 2006, Williams submitted a request for major modification of the South Prong Barber Creek Permit. On June 6, 2006, Mr. Maycock wrote to the DEQ and requested the DEQ to modify or terminate the South Prong Barber Creek Permit so as to protect down drainage grazing pastures and bottomlands and other lands from adverse impacts of the produced CBM effluent and to protect the water quality standards of neighboring states. He pointed out that the South Prong Barber Creek Permit was issued based on materially inaccurate information provided by Williams. In order to get the permit, Williams told the DEQ that the effluent would not reach the Powder River while testimony in later proceedings showed that it would reach the Powder River in significant quantities. Williams told the DEQ that there were no downstream irrigators while testimony in later proceedings showed this was not true. Williams also provided inaccurate information about the quality of the discharge water. The DEQ never responded to Mr. Maycock's request.

On September 5, 2006, Mr. Maycock commented to the DEQ on the major modification that the DEQ proposed to give to Williams. These comments were made after the hearing on the Barber Creek Permit. He pointed out that it would be irresponsible for the DEQ to modify the South Prong Permit without imposing an SAR effluent limit and reducing the EC effluent limit given the DEQ's admission in the Barber Creek Permit case that even an EC effluent limit of 3000 and an SAR effluent limit of 18 were not protective of downstream agricultural uses. Mr. Maycock asked to be advised of the DEQ's action

on the major modification.

On October 26, 2006, the DEQ sent a letter to Williams telling Williams, "At some point it may be appropriate to modify the permit to reflect that irrigation is occurring and to establish different limits. We do not, however, believe that it is necessary at this time to modify this particular permit. Although the permit as it currently stands would allow discharges into the South Prong of Barber Creek, such discharges have not yet occurred. Williams has so far been successful in containing all discharges in reservoirs and managing the water to ensure that it does not reach or impact irrigated lands. Williams must continue to containment of its produced water for protection of downstream crop and livestock production. Should you fail to maintain containment, we will take corrective action." The DEQ never bothered to send a copy of this letter to Mr. Maycock or his attorney or to inform them of this action.

The DEQ then issued the major modification in a document signed by the Administrator of the DEQ on October 27, 2006 and by the Director of the DEQ on October 29, 2006. When the DEQ issued the major modification, the DEQ left the EC effluent limit at 7500 and imposed no limit on SAR, and despite the statement made in its October 26, 2006 letter, the DEQ did not require Williams to contain its discharge or to ensure that it did not reach or impact irrigated lands. In other words, just days after telling Williams it would have to contain its discharge, the DEQ issued a modification allowing the direct discharge with no containment requirement.

The DEQ also did not notify Mr. Maycock or his counsel of its action in granting the major modification. They discovered that the major modification had been granted only through an independent investigation.

Once the DEQ's actions were discovered, Mr. Maycock timely filed his petition with the Environmental Quality Council on December 18, 2006, and he filed a motion for an expedited hearing on April 2, 2007.

Just yesterday, on June 19, 2007, Williams' attorneys sent Mr. Maycock's attorney a copy of another application for a major modification of the South Prong Barber Creek Permit which Williams claims would require Williams to contain its discharge except in the event of the 50 year/24 hour precipitation event or greater. This application has not yet gone through the notice and public comment process.

Pending Motions:

The only pending motion before the Council is Mr. Maycock's Motion for Expedited Hearing. Williams has opposed this motion. Williams argues that the DEQ's letter of October 26, 2006 somehow prohibits Williams from discharging into South Prong of Barber Creek and protects Mr. Maycock from Williams' discharges. However, after writing that letter, the DEQ immediately granted a modification allowing direct discharge into Barber Creek of effluent with EC of up to 7500 and no limit on SAR. Nothing in the South Prong Barber Creek Permit prohibits direct discharge or requires containment. If Williams discharged water down South Prong of Barber Creek today with EC of 7500 and SAR of 50, not only would Williams not have violated the permit but the DEQ also could take no enforcement action. That is why an expedited hearing is critical.

Statement of Facts

William P. Maycock is the owner of a ranch on a drainage known as Barber Creek in Campbell County, Wyoming. Mr. Maycock is a lifelong rancher in Campbell County,

Wyoming. His ranch is located in northwest Campbell County. It consists of approximately 11,000 deeded acres, one section of state grazing lease, and 720 acres of land leased from the Bureau of Land Management. Mr. Maycock also leases two section of land from his brother. The ranch has been in the Maycock family since 1907. Mr. Maycock's agricultural operation is a cow-calf operation. He runs 200-300 head of mother cows and about 40 head of sheep.

The Barber Creek Drainage crosses Mr. Maycock's ranch about 8½ to 9 stream miles from his east boundary to his west boundary. The South Prong of Barber Creek enters Mr. Maycock's property from the south and has its confluence with Barber Creek on the Maycock Ranch about 4 miles from Mr. Maycock's west boundary and about 1¼ miles from his south boundary.

On January 16, 2004, the Administrator of the Water Quality Division of the Department of Environmental Quality issued WYPDES Permit No. WY0050857 to Williams Production RMT Company (the "South Prong Permit"). The South Prong Permit was signed by the Director of the DEQ on January 22, 2004.

Failure to Disclose Downstream Irrigation

When Williams submitted its application for the South Prong Permit, Williams represented to the DEQ that there were no downstream irrigators on Barber Creek. Williams made this representation even though there was an existing spreader dike system on the Powder River Ranch downstream from Williams' discharge points. The Powder River Ranch borders the Maycock Ranch on the west. Discharges under the South Prong Barber Creek Permit will flow across the Maycock Ranch onto the Powder River Ranch. This spreader dike system irrigated approximately 315.3 acres of land, and some of the

lands irrigated by this spreader dike system included lands owned by the United States. These spreader dikes were constructed in the late 1950's or early 1960's and they were used for irrigation of pasture grasses. The spreader dike system was visible from aerial photographs of the area taken before Williams submitted the application for the permit.

The Maycock Ranch has bottomlands along the Barber Creek drainage and the South Prong drainage. These are large flat areas generally without any defined channel which are naturally irrigated by water that flows down the drainages. These bottomlands are important to Mr. Maycock's agricultural operation. Forage grasses also grow in the areas of the Barber Creek and South Prong drainages where there is a defined channel, and these forage grasses are also important to Mr. Maycock's agricultural operation. The soil on Mr. Maycock's ranch where Williams proposes to discharge water is also highly erodible.

The South Prong Barber Creek Permit authorizes Williams to discharge water produced from wells located adjacent to and up gradient from Mr. Maycock's ranch into on-channel reservoirs within the South Prong watershed which the permit identifies as a tributary of the Powder River. These on-channel reservoirs are located up drainage from the Maycock Ranch, and any water discharged from the on-channel reservoirs will be discharged onto the Maycock Ranch.

The water that Williams proposes to discharge from the on-channel reservoirs will cross the Maycock ranch for several miles and will pass through the bottom lands on the Maycock Ranch and will flow down the well vegetated channel bottoms on the Maycock Ranch.

Admission By DEQ That Effluent Limits Are Not Protective

The South Prong Permit set an effluent limit for electrical conductivity ("EC") of 7500 and set no effluent limit for sodium adsorption ration ("SAR"). Mr. Maycock believes that it is undisputed that a permit with no SAR effluent limit and an EC limit of 7500 is not protective of down drainage agricultural uses.

Jason Thomas of the DEQ admitted in a deposition taken in the appeal of WYPDES WY0053171 (the "Barber Creek Permit") that when the DEQ issued the South Prong Permit, the DEQ believed that there was no irrigation on Barber Creek. He also testified that the South Prong permit had no SAR limit and an EC limit of 7500. He said:

Q. Is that the type of effluent limit you would set for SAR and EC if you knew there was downstream irrigation?

A. If we knew there was downstream irrigation, these are not the type of effluent limits we would include in the permit.

Q. Why is that?

A. They'd simply be too high.

(Thomas Dep. p. 19)

After the DEQ issued the South Prong Barber Creek Permit, the DEQ attempted in later permits to protect the down drainage agricultural uses on Barber Creek and South Prong. When the DEQ issued the Barber Creek Permit, the DEQ recognized that it was necessary to impose limits on the quality of water discharged into the Barber Creek drainage in order to protect downstream agricultural uses. The DEQ imposed an SAR limit of 18 and an EC limit of 3000, even though those limits were not in fact protective. Even more significantly, the DEQ granted permit WY0053899 to Devon to discharge CBM

effluent into South Prong, the same drainage as is affected by the South Prong Permit and imposed an SAR limit of 18 and an EC limit of 3000. While these limits are not effective to protect the downstream agricultural lands, as this Council has already determined in its decision on the appeal of the Barber Creek Permit, the fact that the DEQ found it necessary to impose those effluent limits demonstrates that the effluent limits set in the South Prong Barber Creek Permit are not and were not adequate. The South Prong Barber Creek Permit allows an EC of 7500 and sets no limits on SAR. The DEQ's determination that limits were required for Williams' Barber Creek drainage area permit and Devon's South Prong drainage area permit demonstrates that the permitted discharge under the South Prong permit can only be regulated to acceptable levels by permit modifications or termination.

Materially Inaccurate Statements Concerning Water Reaching Powder River

When Williams submitted its application for the South Prong Barber Creek Permit, Williams also represented to the DEQ that under normal conditions, all of the water discharged under the permit would be lost due to infiltration and evaporation before it reached the Powder River.

Williams told a different story in court when Williams sued Mr. Maycock in Civil Action No. 26099 in the District Court of Campbell County in order to condemn an easement to flow its effluent across Mr. Maycock's ranch. In that case, Joe Olson, the Williams employee in charge of its water management plan in this area, testified that Williams was seeking to condemn an easement in order to flow water down the South Prong of Barber Creek and onto the bottomlands and grazing pastures below the confluence of the South Prong drainage and the Barber Creek drainage. Mr. Olson

testified that if Williams piped its effluent to the Powder River that several million barrels of water per month would reach the Powder River, but if Williams used its system of containment reservoirs 1/4 to 1/2 of that amount would "actually make it to the river." He also testified that if Williams' produced CBM effluent is discharged into the Powder River, Williams would have to meet different discharge and treatment standards. Thus Williams conceded that despite what it told the DEQ in its permit application for the South Prong Barber Creek Permit, Williams fully expected that large quantities of this effluent will reach the Powder River.

Williams produced documents in response to discovery in the appeal to this Council of the Barber Creek Permit showing that Williams predicted that its typical discharge down Barber Creek would be 5 c.f.s and that its maximum discharge down Barber Creek would be 10 c.f.s., and Williams is seeking a 20 c.f.s capacity ditch across portions of the grazing pastures and bottomlands on Mr. Maycock's property in the condemnation action. Williams has also presented documents attached to Williams' designation of expert witness in the appeal of the Barber Creek Permit stating that Barber Creek consists of 24.79 stream miles and South Prong consists of 8.075 stream miles. The DEQ and Williams have used a channel loss for infiltrating CBM effluent of .1 cfs per mile. Therefore, it is clear that large quantities of Williams' effluent will reach the Powder River contrary to Williams' representation to the DEQ that under normal operating conditions all of the effluent would be lost before reaching the Powder River.

The South Prong Barber Creek Permit authorizes Williams to discharge 2.1 million gallons per day into South Prong of Barber Creek. The DEQ also granted Devon Energy permit WY0053899 to discharge 1.24 million gallons per day into the South Prong of

Barber Creek when erosion control measures are in place. Large quantities of water will reach the Powder River, yet the South Prong Barber Creek Permit does not establish standards to address that fact.

Lance Oil & Gas Company, Inc., which is Williams co-venturer in CBM development, has permit WY0051276 for discharge into Barber Creek. This permit recognizes that there will be discharge into the Powder River and requires that the discharged water meet Montana state line discharge limits (SAR = 5/6.5 and EC = 2000/2500). Williams's effluent will be discharging into the Powder River at nearly the same point, yet it is not required to meet any similar standards under the South Prong Permit.

Materially Inaccurate Statements of Quality of Produced Water

In support of its application for the South Prong Barber Creek Permit Williams submitted a water sample taken from Section 21 in Township 50 North, Range 75 West for the Big George Coal which showed an EC of 2120 and an SAR of 17.3. Williams produced a lab report indicating that the Wall Coal water would have an SAR of 14.8 and an EC of 2180 and that the Werner Coal would have an SAR of 16.3 and an EC of 2440. Williams claimed that these water samples were representative of the water that would be produced from the wells that would be discharging to the outfalls under the permit/

In fact, the water produced from the wells allowed to discharge under the South Prong Barber Creek Permit is of much worse quality than that represented by Williams in its application for permit. Laboratory analyses of water produced from wells discharging to these outfalls have consistently shown the water from the wells discharging to this permit is much worse than represented by Williams at the time of the permit application. For example, the Discharge Monitoring Report Summary for Permit WY0050857 for the period

1/1/05 to 6/30/05 never showed SAR levels as low as 17.3 (the highest level Williams said was representative of the discharge water). The SAR levels shown on the Discharge Monitoring Report ranged from 19.9 to 25.2. Similarly, while Williams represented that the highest EC level would be 2440, the EC levels reported in the Discharge Monitoring Report ranged from 2670 to 3220. Other laboratory analyses produced by Williams in discovery in the appeal of the Barber Creek Permit show SAR levels as high as 30.4 and EC levels as high as 3780. This information was not available to the DEQ at the time it decided to issue this permit without including effluent limits to protect down-drainage ranchers and agricultural users.

Issues:

1. Should the South Prong Barber Creek Permit be terminated under the provisions of Chapter 2, §13 which provides that a permit may be terminated during its term for reasons determined by the department, including, but not limited to: (a) obtaining a permit by misrepresentation or failing to disclose any fact which is material to granting of the permit or to the establishment of terms or conditions of the permit, (b) materially false or inaccurate statements or information in the permit application or the permit or (c) a determination that the permitted activity endangers existing uses of surface waters of the state and can only be regulated to acceptable levels by permit modifications or termination?
2. Does the South Prong Barber Creek Permit fail to maintain and protect the existing water uses and the level of water quality necessary to protect those uses in violation of Chapter 1, §8 of the DEQ Water Quality Rules and Regulations?
3. Does the South Prong Barber Creek Permit allows degradation of Wyoming

surface water to such an extent as to cause a measurable decrease in crop or livestock production in violation of Chapter 1, §20 of the DEQ Water Quality?

4. Does the South Prong Barber Creek Permit fail to require the permittee to take all reasonable measures to prevent downstream erosion that would be attributable to the discharge of produced water in violation of Chapter 2, Appendix H(d)(iv) of the DEQ Water Quality Rules and Regulations?

5. Does the South Prong Barber Creek Permit fail to prevent the presence of substances attributable to or influenced by the activities of man that will settle to form sludge, bank or bottom deposits in quantities which could result in significant aesthetic degradation, significant degradation of habitat for aquatic life or adversely affect agricultural use, plant life or wildlife in violation of Ch. 1, § 15 of the Water Quality Rules and Regulations of the DEQ?

6. Does the South Prong Barber Creek Permit fail to ensure compliance with the applicable water quality standards of all affected states in violation of Chapter 2, §9 of the DEQ Water Quality Rules and Regulations?

7. Does the South Prong Barber Creek Permit fail to provide for and assure compliance with all applicable requirements of the Clean Water Act, the Wyoming Environmental Quality Act, and applicable Wyoming Water Quality Rules and Regulations which have taken effect prior to final administrative disposition of the permit in violation of Chapter 2 § 5 (c)(ii) of the Water Quality Rules and Regulations of the DEQ?

8. Should Mr. Maycock's petition for an expedited hearing be granted?

9. Should the South Prong Barber Creek Permit be modified under the provisions of Chapter 2, §12(d)(ii) of the Regulations which provides that a permit may be

modified in whole or in part when the administrator has received new information which was not available at the time of permit issuance and which would have justified different permit conditions at the time of issuance?

10. Should the South Prong Barber Creek Permit be modified under the provisions of Chapter 2, §12(d)(vi) which provides for modification when required by the reopener conditions in the permits? The reopener provisions in Part III ¶3 of the South Prong Permit include reopening the permit if the permit does not control or limit a pollutant that has potential to cause or contribute to a violation of a state water quality standard or in order to protect water quality standards in the neighboring states.

Special Matters

1. Because the Council has already heard four days of testimony on the Barber Creek Permit, Mr. Maycock believes that the transcript and exhibits in Docket No. 05-3803 should be made part of the record in this case.

2. The Council revoked the Barber Creek Permit (EC = 3000; SAR = 18), yet when DEQ modified the South Prong Permit, it left in tact effluent limits (EC = 7500; SAR - no limit) that were even less protective than the Barber Creek Permit.

The DEQ permit writer admitted in the Barber Creek Permit case that the permit was not protective of downstream uses, and the DEQ permit writer admitted that the effluent limits on the South Prong Barber Creek Permit were too high to protect downstream uses.

The DEQ issued the South Prong Barber Creek Permit under the mistaken belief that there were no downstream irrigation uses on Barber Creek and that the discharge would not reach the Powder River.

Given these facts, Mr. Maycock believes that this Council should direct that all discharges under this permit stop until the permit can be modified by the DEQ.

Witnesses

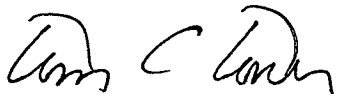
See the attached Witness List. The witnesses who were deposed or testified in Docket No. 05-3803 are expected to testify to the subjects discussed in their depositions or trial testimony in the contested case hearing on the Barber Creek Permit. Any other witnesses are expected to testify to any listed exhibit prepared, reviewed, or authorized by them.

Exhibits

See the attached Exhibit List.

Dated this 20th day of June, 2007.

Yonkee & Toner, LLP

By: 

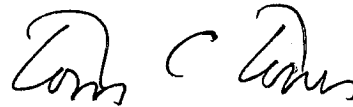
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Certificate of Service

I certify that on the 20th day of June, 2007, I served a true and correct copy of the foregoing by depositing the same in the U.S. Mail, postage prepaid and addressed to:

Mike Barrash
Senior Assistant Attorney General
123 Capitol Building
200 West 24th Street
Cheyenne, WY 82002

Mark Ruppert
Holland & Hart
P. O. Box 1347
Cheyenne, WY 82003-1347



Tom C. Toner

WITNESS LIST

William P. Maycock will call the following witnesses:

1. William P. Maycock, Box 836, Gillette, Wyoming 82716, 307-682-5722.

William P. Maycock may call the following witnesses:

2. James W. Bauder, professor and extension soil and water quality specialist with Montana State University, 420 North 21st Avenue, Bozeman, Montana 59718-3134.

3. Eric S. Barlow, veterinarian, 1625A Buffalo Cutacross Road, Gillette, Wyoming 82718 (307) 682-9639.

4. Deborah Grace "Mickey" Steward, ranch consultant for forage management and grazing plans and Ph.D in Range Science, 801 E. 4th Street, #22, PMB5046, Gillette, Wyoming 82716 (307) 680-5410.

5. David Engels, civil engineer, 1949 Sugarland Drive, Suite 205, Sheridan, Wyoming 82801 (307) 673-1542.

6. Larry C. Munn, professor of soil science at the University of Wyoming, Soil Science Division, Department of Renewable Resources, Dept. 3354, 1000 University Ave., Laramie, Wyoming 82071 (307) 766-3414

7. Ginger Paige, assistant professor, Department of Renewable Resources, P. O. Box 3354, University of Wyoming, Laramie, Wyoming 82071-3354 (307) 766-2200.

8. Joe Olson, Williams Production RMT Company, 300 North Works Avenue, Gillette, Wyoming 82716, 307-686-1636.

9. Tom Doll, Williams Production RMT Company, Williams Production RMT Company, 300 North Works Avenue, Gillette, Wyoming 82716, 307-686-1636.

10. Gretchen Kohler, Williams Production RMT Company, 300 North Works Avenue, Gillette, Wyoming 82716, 307-686-1636.

11. Peggy Carter, Williams Production RMT Company, 300 North Works Avenue, Gillette, Wyoming 82716, 307-686-1636.

12. Jason Thomas, Wyoming Department of Environmental Quality, Herschler Building, 122 West 25th Street, Cheyenne, Wyoming 82002, 307-777-7781.

13. Kathy Shreve, Wyoming Department of Environmental Quality, Herschler Building, 122 West 25th Street, Cheyenne, Wyoming 82002, 307-777-7781.

14. William DiRienzo, Wyoming Department of Environmental Quality, Herschler Building, 122 West 25th Street, Cheyenne, Wyoming 82002, 307-777-7781. .

15. Todd Parfitt, Wyoming Department of Environmental Quality, Herschler Building, 122 West 25th Street, Cheyenne, Wyoming 82002, 307-777-7781.

16. John Corra, Wyoming Department of Environmental Quality, Herschler Building, 122 West 25th Street, Cheyenne, Wyoming 82002, 307-777-7781.

17. Jennifer Zygmunt, Wyoming Department of Environmental Quality, Herschler Building, 122 West 25th Street, Cheyenne, Wyoming 82002, 307-777-7781.

Mr. Maycock may also read or introduce into evidence excerpts from the depositions of any of the above named witnesses who have been deposed in this matter or in the Barber Creek Permit contested case.

EXHIBIT LIST

1. Map Williams Production RMT Carr Draw POD III - Maycock - Western Land Services dated 5/12/2005
2. Map Barber Creek East Lowham Engineering, LLC dated 8/11/05
3. Map Barber Creek Central Lowham Engineering, LLC dated 8/11/05
4. Map Barber Creek West Lowham Engineering, LLC dated 8/11/05
5. Olson cover letter dated March 9, 2005 and Application for Permit WY0053171 ("Barber Creek Permit") dated March 10, 2005
6. NPDES Permit Issuance Checklist for Barber Creek Permit
7. Barber Creek Permit
8. Application for Permit WY0050857 ("South Prong Permit")
9. NPDES Permit Issuance Checklist for South Prong Permit
10. Letter dated 10/9/03 from CBM Associates to DEQ)
11. South Prong Permit
12. Letter from CBM Associates to Zygmunt of DEQ 2/16/05
13. Application for WY0051411
14. Letter dated 2/12/04 from CBM Associates to Shreve of DEQ
15. Letter dated 4/1/04 from CBM Associates to Shreve at DEQ
16. Draft Permit for WY0051411
17. Letter from Western Land Services to Zygmunt 12/2/04
18. Application for WY0051527 (DEQ Ex. 26)
19. Draft Permit for WY0051527
20. Letter from Toner to DEQ 7/15/04 re: WY0051411 and WY0051276

21. Letter from Wagner of DEQ to Toner 12/6/04
22. Letter from Thomas of DEQ to Toner 12/20/04
23. Letter from Thomas to Olson 12/21/04
24. Letter from Thomas to Maycock 12/21/04
25. Letter from Bill Maycock to DEQ 1/9/05
26. Letter from Toner to Krafft 5/12/05 re: WY0053171
27. Letter from Toner to Krafft 5/12/05
28. Letter from Christina Maycock to Krafft 5/13/05
29. Letters from Joe Maycock to Thomas
30. Letter from Morrison to Krafft 5/16/05
31. Letter from Thomas to Morrison and Jones 7/5/05
32. Letter from Thomas to Joe Maycock 7/5/05
33. Letter from Thomas to Bill and Christina Maycock 7/5/05
34. Letter from Thomas to Toner 7/5/05
35. Summary re: Permit #WY0053171
36. Summary re: Permit #WY0050857
37. Summary re: Permit Application #WY0051411
38. Summary re: Permit Application #WY0051527
39. Water Management Carr Draw Federal POD II dated 2/11/05 filed with BLM 3/11/05
40. Olson letter to DEQ dated March 9, 2005
41. Photographs of Outfall #5 and drainage and reservoir
42. Photographs of Maycock Ranch
43. Water Quality Analyses of Maycock water wells

44. Departmental Vita of Dr. Bauder
45. Declaration of Request for Review, Identification, Qualification as Expert by James W. Bauder
46. Analysis of Golder Associates Report by James W. Bauder dated 6/15/06
47. Analysis of Harvey Report by James W. Bauder dated 6/19/06
48. Report on analysis of Harvey's testimony relating to leaching fractions by James W. Bauder dated July 28, 2006
49. Excerpts from Ayers and Westcot re: leaching fraction
50. Graph showing Ayers and Westcot leaching fraction figure and soil salinity profiles
51. Resume of Dr. Steward
52. Report of Dr. Steward dated May 9, 2006
53. Excerpt from Ayers and Westcot
54. Calculations of Yield Loss
55. Photographs - aerials of Barber Creek drainage
56. Photographs - Maycock Ranch
57. Comparison of Permit EC Limits with Runoff EC
58. Comparison of Permit SAR Limits with Runoff SAR
59. Load Calculations
60. Supplemental Report
61. Blaylock, Soil Salinity, Salt tolerance, and Growth Potential of Horticultural and Landscape Plants, University of Wyoming Cooperative Extension Service (Feb. 1994)
62. Kentucky Bluegrass - Plant Species - Montana State University
63. Soil-water-use Characteristics of Precision - irrigated Buffalograss and Kentucky Bluegrass, Plant Management Network (2004)

64. Excerpts from North American Range Plants
65. Resume of David Engels
66. Affidavit of David Engels, P.E. dated July 15, 2005
67. Supplemental Report of David Engels
68. Map
69. Photograph
70. Photograph
71. Photograph
72. Photograph
73. Photograph
74. Photograph
75. Photograph
76. Photographs
77. Map showing location of photographs
78. Photographs
79. Map showing location of photographs
80. Photographs West property
81. Excerpt from Environmental Engineering Handbook
82. Williams' Water Balance Calculations for WY0053171
83. WY0052957
84. WY0053163
85. WY0051357
86. WY0051985

87. WY0052035
88. WY0053210
89. Summary of Containment Provisions in Other Permits
90. Permit Application WY0054569
91. Permit Application WY0054208
92. Report of Eric S. Barlow, DVM dated May 6, 2006
93. Patterson and Johnson, Department of Animal and Range Science, South Dakota State University "Effects of Water Water Quality on Beef Cattle."
94. Excerpt from Ayers and Westcot, "Water Quality for Agriculture" 3.2.1
95. Excerpt from Hanson Agricultural Salinity and Drainage
96. Letter form Dr. Munn and Dr. Paige to DeRienzo of DEQ dated 6/9/06
97. Letter from Dr. Paige to DeRienzo of DEQ dated 12/5/05
98. Letter from Dr. Munn and Dr. Paige to Cora of DEQ dated 12/5/05
99. Letter from Dr. Munn and Dr. Paige to Krafft of DEQ dated 12/12/05
100. Harvey Soil Chemical and Physical Conditions on Powder River Ranch
101. Harvey Soil Chemical and Physical Conditions on Maycock Ranch
102. Harvey Figures
103. Gladson Vegetation Surveys on Powder River Ranch
104. Vermillion Vegetation Analysis on Maycock Ranch
105. Hanson Diagram Produced by DEQ
106. Excerpt from Ayers & Westcot, "Water Quality for Agricultures" 3.1
107. Figure 2-1 Effects of Salinity and SAR on Infiltration Rates from DEQ NPDES Permit Issuance Checklist for WY0053171
108. Figure 25 - Diagram for the classification of irrigation waters from DEQ NPDES

Permit Issuance Checklist for WY0053171

109. Agricultural and Salinity Drainage Crop Salt Tolerance materials produced by DEQ
110. Figure 13.3 Crop Salt Tolerance Graph "Divisions for Classifying Crop Tolerance for Salinity"
111. Memo from Wagner of DEQ to Water & Waste Advisory Board dated 12/22/05
112. Summary of Amendments to the Agricultural Use Policy and 4th Draft
113. E-mails from DiRienzo of DEQ to Munn and Paige and reply
114. Summary of Laboratory Analytical Reports for Permit WY0053171
115. Laboratory Analytical Reports for Permit WY0053171
116. E-mails concerning measuring effluent halfway down path
117. Technical Memorandum dated 11/16/05 from K C Harvey, LLC to Williams
118. Discharge Monitoring Reports 2nd Semester and Annual 2005 for Permit WY0053171
119. Summary of Discharge Monitoring Reports for WY0050857
120. Discharge Monitoring Reports for WY0050857 1/1/04 to 12/31/04
121. Discharge Monitoring Reports for WY0050857 1st semester 2005
122. Discharge Monitoring Report for WY0050857 2nd semester 2005
123. Laboratory Analytical Reports for South Prong Permit produced by Williams 7/26/06
124. Laboratory Analytical Reports for Barber Creek Permit produced by Williams 7/26/06
125. Summary of Laboratory Analytical Reports for Barber Creek Permit for Outfall #5 at 260'
126. State Engineer's Permit No. 33246
127. Letter from Corps of Engineers to Powder River Ranch dated 4/20/05

128. Excerpts of testimony from October 19, 2005 hearing in Civil Action No. 26099
129. Excerpts of testimony from October 19, 2005 hearing in Civil Action No. 26099
130. Excerpts of testimony from January 27, 2006 hearing in Civil Action No. 26099
131. Permit No. WY0053899 (Devon - South Prong of Barber Creek)
132. Application for WY0052175 - Lance - Barber Creek East CBM Facility
133. Permit WY0052175
134. Application for WY0052176 - Lance - Barber Creek CBM Facility
135. Permit WY0052176
136. Recording Supplement to Operating Agreement and Financing Statement and Development Agreement
137. Letter from EPA to Krafft of DEQ 1/5/01
138. Memo from Krafft to CBM NPDES Discharge Permit Applicants 1/30/01
139. Memo from Todd Parfitt to CBM NPDES Discharge Permit Applicants 1/27/04
140. Letter from Cora to EPA 4/25/05
141. Spreadsheet from CBM Associates reflecting invoicing from Lowham Engineering relating to Barber Creek Special Study
142. Lowham Engineering Invoices for April - July 2006
143. Invoices Golden Associates March - July 2006
144. Invoices from Harvey
145. Answers to Interrogatories re: expert fees
146. Photos of Powder River Ranch taken by Lowham
147. Photos of State lands taken by Lowham
148. Photos of BLM lands taken by Lowham
149. Photos taken by Lowham of property designated as Mitchell Maycock property

150. Transcripts of hearing in Docket No. 05-3803 (Barber Creek Permit contested case before EQC)
151. Findings of Fact, Conclusions of Law, and Order in Docket No. 05-3803
152. Photographs of Williams ditch on Maycock Ranch
153. Letter from Tom Toner to DEQ dated June 6, 2006
154. Letter dated September 5, 2006 from Tom Toner to Leah Krafft of DEQ
155. Letter dated October 13, 2006 from Vicci Colgan to Tom C. Toner
156. Letter dated April 21, 2006 from Thomas E. Doll to Jennifer Zygmunt, DEQ
157. Major Modification to Permit WY0050857 dated October 29, 2006
158. Letter dated October 26, 2006 from DiRienzo to Olson
159. Application for major modification for WY0050857 dated June 18, 2007