

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL

STATE OF WYOMING

FILED

OCT 09 2002

IN THE MATTER OF THE APPEAL	)	
OF REDSTONE RESOURCES, INC.	)	Terri A. Lorenzon, Director
REGARDING CONDITIONS IN NPDES	)	Environmental Quality Council
PERMIT NOS.: WY 0036188, WY0036285,	)	
WY0036293, WY0036323, WY0036331,	)	Docket No. 02-3600
WY0036358, WY0036366, WY0036374,	)	
WY0036382, WY0038148, WY0038491,	)	
and WY0038504	)	

**AMENDED APPEAL OF PERMIT CONDITIONS  
AND REQUEST FOR HEARING**

The permittee, Redstone Resources, Inc. ("Redstone"), by and through its undersigned counsel and pursuant to W.S. § 35-11-112 (a) (iii) and (iv) and the Environmental Quality Council ("EQC") Rules of Practice and Procedure, and Rule 13 W.R.C.P., hereby files its First Amendment to its appeal in the above-referenced matter relating to certain conditions imposed by the Department of Environmental Quality, Water Quality Division ("DEQ/WQD") appearing in the above-captioned NPDES permits issued to Redstone on June 27, 2002, and hereby challenges the DEQ's decision and authority to require NPDES permits for the discharge of unaltered groundwater incident to coal bed methane production. In support hereof, Redstone states as follows:

1. The name and address of the Petitioner is: Redstone Resources, Inc., 410 17<sup>th</sup> Street, Suite 400, Denver, Colorado, 80202. Counsel's address appears on the signature block below.
2. Redstone holds the above-captioned NPDES permits. The permits allow for discharge of coal bed methane ("CBM") produced water into the Wildcat

Creek drainage and various draws and tributaries thereto. Wildcat Creek is an ephemeral or intermittent drainage.

3. CBM produced water is managed closely by Redstone pursuant to a water management plan (“WMP”). Redstone’s WMP was initially proposed to the DEQ/WQD in April of 2001. The goal of the WMP is to store water in reservoirs during the irrigation season, except when natural precipitation would cause a flow event in Wildcat Creek. When a significant flow event would naturally occur, CBM produced water would be released from the reservoirs into the drainage. In its WMP and permit applications, Redstone provided a water balance and a mixing analysis demonstrating that a mixed water quality resulting from releases following a significant runoff event would not differ in quality from that of a natural runoff event. During the non-irrigation season, the WMP provides for Redstone to release water from reservoirs to create storage space for the next irrigation season.
4. Redstone’s WMP was tailored to maintain the ephemeral or intermittent nature of the Wildcat Creek drainage during the irrigation season months.
5. At the time Redstone submitted its WMP in April, 2001, the DEQ/WQD indicated that the WMP satisfied the DEQ’s concerns and encouraged Redstone to implement the plan. Subsequently, a refined version of the WMP was submitted in November, 2001 and approved by the DEQ in permits issued on January 1, 2002. The January 1, 2002 permits were for a period of 180 days and expired on June 27, 2002.

6. After the DEQ advised Redstone that its WMP satisfied its DEQ's concerns, Redstone began to execute on the plan. Carrying out the WMP required the construction of several reservoirs with outlet structures to release water, and, in some cases, with bypass channels to funnel natural flow around reservoirs. Construction and implementation of Redstone's WMP involved substantial capital investment and construction and enlargement of several reservoirs.

**REDSTONE'S FIRST OBJECTION: The 24-hour/25-year storm containment provision, which was added after the draft permit was published and after the public comment period had closed, should be eliminated and the previously approved release protocol should be reinstated.**

7. During the six month period during which the January 1, 2002 permits were in effect, Redstone reapplied to renew its NPDES permits. In the renewal applications, Redstone incorporated its previously approved water management plan, which had now been fully implemented.
8. On or about May 1, 2002, the DEQ published notice of draft NPDES permits for Redstone's permit applications. The draft permits generally followed the Redstone WMP as it pertained to releases of water from reservoirs. Under the WMP and the previous permits, Redstone was authorized to release CBM discharge water from reservoirs any time a precipitation event caused a flow event in Wildcat Creek, so long as the mandated effluent limits could be met. The draft permits endorsed this release protocol, stating that the reservoirs must not discharge "unless due to reservoir spills as a result of a storm event that exceeds reservoir capacity."

9. Redstone commented that the language of the draft permits should be clarified to clearly state that Redstone was authorized to release water from reservoirs during the irrigation season in response to precipitation events causing flow in the drainage, so long as effluent limitations could be met. Such clarification was warranted based on the State Engineer's written policies that require reservoirs to be able to release water to meet downstream senior water right demands. The clarification was also warranted based upon the DEQ's prior endorsements of the WMP and the supporting mixing analysis and other materials submitted by Redstone in its permit applications.
10. In response to Redstone's request for clarification, the DEQ abruptly changed its position. Instead of clarifying the permits consistent with the approved WMP, the DEQ revised the language of the permits to state that Redstone was prohibited from discharging water from reservoirs except in the event of a 24-hour/25-year storm event. In the Statement of Basis for the permits, the DEQ added the following provision:

“Part I.A.1 of the permit has been amended to define the conditions under which the permit authorizes discharge from the reservoirs. During the irrigation months (April 1 through September 30), the permit now specifies that such release are only authorized when they are the result of a 25-year /24-hour storm event or greater.”  
(emphasis added).

11. This 24-hour/25-year storm event requirement is an unwarranted departure from the DEQ's prior position and has the potential to place Redstone in violation of its permits, without any scientific or environmental justification.

12. Redstone was provided no notice of DEQ's intent to change its requirement, and was not consulted about the technical feasibility of implementing such a change. Redstone did not learn of the change in the DEQ's position until after June 27, 2002, when it received copies of the newly issued renewal permits and the DEQ's response to comments.
13. The DEQ's Statement of Basis accompanying the renewal permits admits that the imposition of the 24-hour/25-year storm containment provision was a newly added provision that did not appear in the public notice or prior draft of the permits. DEQ referred to this change as a "minor difference" between the draft permit and the final permit. (Statement of Basis, page 6). However, the difference is far from "minor." Instead, to comply with the provision would require that Redstone undertake substantial revisions to its WMP. These revisions, to the extent they could be accomplished, would require significant construction and modification to existing facilities and substantial additional capital investment. Modification of the approved WMP to meet the 24-hour/25-year containment requirement would have a high potential of making Redstone's CBM development in the Wildcat Creek drainage economically infeasible.
14. The imposition of the 24-hour/25-year containment at the "eleventh hour" in the final permit, without any prior notice in either the draft permit or the public notice, has deprived Redstone of any opportunity to address the feasibility or practicality of complying with such a provision. Since the provision was only added in the final permit, rather than at the public notice or

draft permit stage, Redstone had no opportunity to comment on or protest the imposition of the condition prior to it becoming part of the final permit. Such action is not a “minor difference” it is a major difference.

15. Redstone’s facilities are constructed on lands owned by private landowners generally engaged in ranching operations. When DEQ changed its requirements and added the 24-hour/25-year containment provision after the public notice period had already expired, these landowners, who are directly impacted by construction of reservoirs and operation of facilities on their lands, were denied an opportunity to comment on the new permit condition.
16. Redstone is informed and therefore believes that landowners on whose lands Redstone’s reservoirs are constructed oppose the new permit condition on at least two grounds. First, they do not want “oversized” reservoirs constructed on their lands to contain a 24-hour/25-year storm event. Second, they want to continue receiving the benefit of some releases of water into the drainage to wet the channel and enhance forage for livestock and provide livestock water. As a direct result of releases of CBM discharge water into the channel, these ranchers have realized increased carrying capacity for livestock, due to increased forage and water availability. Requiring full containment of all water up to a 24-hour/25-year storm event would deprive these landowners of the beneficial use of CBM water in their ranching operations which they have enjoyed in the past.
17. The DEQ has provided no technical or scientific justification for the 24-hour/25-year storm containment requirement. If Redstone can meet effluent

limitations in its permits by releasing water in response to a precipitation event of less than 24-hour/25-year magnitude, there is no reason under Wyoming law or the Clean Water Act to prevent Redstone from making such releases. Accordingly, Redstone seeks to have the EQC modify its permits to include provisions which allow Redstone the flexibility to release water during the irrigation season following precipitation events causing runoff in the drainage, provided the effluent limitations are met. Redstone also seeks to have the EQC allow releases of water under the permits at rates not exceeding the channel infiltration rate to allow landowners to continue to benefit from enhanced forage in the drainage.

18. W.S. § 35-11-302(a)(vi) requires that the Administrator consider all of the facts and circumstances bearing upon the reasonableness of the pollution involved when recommending permits. Several specific considerations are referenced in the statute, including, among others, technical practicality and economic reasonableness. The DEQ failed to give adequate consideration to these particular facts and circumstances when it decided to include the 24-hour/25-year storm containment provision in Redstone's NPDES permits.
19. W.S. § 35-11-302 (a) (vii) requires the Administrator provide "such reasonable time as may be necessary for owners and operators of pollution sources to comply with rules, regulations, standards or permits." Chapter 2 § 9 of the WQRR contains a similar provision for implementing compliance schedules where necessary to meet permit conditions. When the DEQ abruptly and without prior notification to Redstone changed its position with

respect to when Redstone could discharge from its reservoirs and required Redstone to contain up to the 24-hour/25-year storm event, the DEQ failed to provide reasonable time for Redstone to modify its WMP to comply with the new requirement. Such compliance would require substantial additional capital investment and construction, which cannot be accomplished overnight.

20. Chapter II § 13 of the WQRR requires the preparation of a draft permit and publication of notice that a complete application has been filed to allow for opportunity for public comment on proposed permits. The addition of the 24-hour/25-year storm containment provision in the final permit, when it did not appear in the draft permit or public notice, violates the public notice process prescribed by Chapter II § 13 of the WQRR, and has resulted in Redstone and others being deprived of any opportunity to have meaningful participation in the permitting process as it relates to the new permit condition.
21. W.S. § 35-11-1104(a)(iii) prohibits the DEQ from interfering with the jurisdiction or duties of the State Engineer. The imposition of the 24-hour/25-year containment requirement violates this statutory limitation on the DEQ's authority and interferes with the State Engineer's authorities under Wyoming law. The 24-hour/25-year containment requirement is in direct conflict with the written policy for permitting CBM storage reservoirs adopted by the Wyoming State Engineer. (See State Engineer Policies of May 19, 2001 and August 2, 2002). The State Engineer requires that CBM reservoirs be equipped to release water to satisfy downstream landowners' water rights in accordance with the State Engineer's administration of water rights.



22. One of the policies and purposes of the Environmental Quality Act is to “secure cooperation between agencies of the state”. W.S. § 35-11-102. Similarly, the Director of the DEQ is charged with the duty to “advise, consult and cooperate with other agencies of the state...in furtherance of the purposes of this Act.” By failing to coordinate and cooperate with the State Engineer in requiring containment of CBM discharge water up to the 24-hour/25-year storm event, the DEQ has impermissibly ignored this policy and purpose.
23. Chapter II § 16 of the WQRR provides that any point source constructed so as to meet all applicable standards of performance shall not be subject to more stringent standards of performance during a ten-year period following construction. Imposition of the 24-hour/25-year containment provision violates this regulatory mandate, as it would require Redstone to undertake wholesale revisions of its previously approved WMP and expend substantial resources to modify, construct or enlarge its facilities to comply with the provision.

**REDSTONE’S SECOND OBJECTION: The irrigation season electrical conductivity (“EC”) limit of 2300 µmhos/cm is unjustified and should be increased to a level consistent with the naturally occurring salinity levels in the Wildcat Creek drainage. Alternatively, the permits should be structured to subtract naturally occurring salinity from the total EC measured at the Irrigation Compliance Point prior to determining whether the EC limit has been exceeded.**

24. The DEQ included in Redstone’s permits an irrigation season effluent limitation for EC of 2300 µmhos/cm at the irrigation compliance point on Wildcat Creek. The EC limit was included to ensure compliance with Chapter

1 § 20 of the Wyoming Water Quality Rules and Regulations. Chapter 1 § 20 provides that:

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 for continued use of such water for agricultural purposes. Degradation of such water 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.

**Factual flaws with the EC limit of 2300:**

25. The soils in the Wildcat Creek drainage are high in salinity. In particular, the soils in the drainage contain high levels of gypsum. When gypsiferous soils come into contact with surface water, high concentrations of sulfate from the soil dissolve into the water. Sulfate is a salt which contributes to EC readings in surface water.
26. CBM water discharged in the Wildcat Creek drainage does not typically contain sulfate and is relatively low in salinity (typical EC of  $\cong$  1300  $\mu\text{mhos/cm}$ ). As CBM water flows in Wildcat Creek, however, levels of salinity increase due to naturally occurring sulfate available in the waterway. In particular, sulfate concentration increases as the water flows down the creek. Depending on the amount of flow present, salinity will naturally increase with distance up to a salinity level of between 4000 and 6000  $\mu\text{mhos/cm}$ .
27. This increase in salinity occurs with both CBM discharge water and with natural flow. In other words, the salinity occurring naturally in the drainage is

equally available to CBM discharge water and natural runoff, and it accumulates in both.

28. Given the naturally occurring salinity levels in Wildcat Creek, an EC level of 2300  $\mu\text{mhos/cm}$  is unreasonable, as even natural runoff in the drainage far exceeds an EC of 2300  $\mu\text{mhos/cm}$  under normal flow conditions. Only exceptionally high flow conditions result in lower EC being realized.
29. In the permit application process, Redstone presented extensive technical information from its environmental consultants demonstrating that the natural salinity levels in Wildcat Creek are much higher than 2300  $\mu\text{mhos/cm}$  under normal flow conditions. Redstone used several independent lines of evidence to reach this conclusion, including soil salinity evaluation, evaluation of accumulation of salinity over stream length, use of historical data from adjacent drainages, and evaluation of publications related to irrigation and salinity. These sources constitute credible data supporting the effluent limits proposed by Redstone. The DEQ did not give adequate consideration to these data in establishing the permit effluent limit for EC.

**Legal flaws with the EC limit of 2300:**

30. The permits state that EC limits are included to protect agricultural uses of water pursuant to Chapter 1 § 20, WQRR. That regulation provides that “*degradation*” of water quality shall not be of an extent to cause a “*measurable decrease*” in crop or livestock production. It also requires that water quality be “*maintained*” at a quality level that allows continued use for agricultural purposes.

31. Chapter 1 § 20 is a narrative standard. As such, it is problematic to assign a numeric effluent limit, especially where water quality can exhibit wide fluctuation depending on the amount of water in the drainage, the timing of runoff and other factors. (Even DEQ acknowledged in the Statement of Basis that a back-calculation of natural irrigation water quality<sup>1</sup> could range from 2325 µmhos/cm to 4650 µmhos/cm.) The variability in water quality is due to natural conditions in Wildcat Creek, rather than variations in the quality of discharged CBM water.
32. Chapter 1 § 20 cannot legally be interpreted to allow imposition of an effluent limit that is below the natural water quality or characteristics of the receiving water or drainage. To hold otherwise would nullify the “degradation” and “maintenance” language of § 20, and would require a permit holder to improve the natural water quality of the drainage.
33. Under Chapter 1 of the WQRR, ephemeral and intermittent drainages are classified as “surface waters of the state.” Chapter 1 §2 a.(xlv). The presence of naturally occurring salinity in those waters of the state is not a result of CBM point source discharges or any “addition of pollution” or “wastes” to waters of the State. See, W.S. § 35-11-103 (c)(i) (ii) and (vii). The naturally occurring EC levels in the drainage will accumulate in CBM water in the same manner as it will in natural runoff. As a matter of law, such natural accumulation is not an “addition” or “discharge” of pollution from a point source, as is required for regulation under the State and federal NPDES

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<sup>1</sup> It should be noted that the flood irrigation that occurs in an ephemeral system using spreader dikes typically occurs only in response to significant cloudbursts or snowmelt runoff events, where high flooding flows can be spread by the diversion dikes onto adjacent fields.

program. Stated another way, those constituents occurring naturally in the waterways of the state do not constitute an addition of pollution by a permittee, and a permittee cannot be said to be in violation of an effluent limit on account of pollutants it did not add to the water.

34. DEQ's regulatory program, or its interpretation of the EC limits established in Redstone's permits, must acknowledge and account for the naturally occurring salinity in the drainage and the fact that the existing quality of intermittent or ephemeral waters of the state is subject to significant variation.
35. Redstone cannot be legally held to an effluent standard that requires it to, in effect, improve the naturally occurring water quality in Wildcat Creek. Nor should Redstone be placed in a position where it is subject to enforcement action for an EC exceedence where the "exceedence" is caused by the natural conditions of the drainage.

**REDSTONE'S THIRD OBJECTION: The permitted SAR limit of 7 is unreasonable and was imposed without appropriate scientific or technical justification. The limit should be revised to correspond and conform to scientifically accepted and technically defensible published methodologies.**

36. The DEQ established a permit limit for SAR of 7. This limit was set without appropriate consideration of available technical information and literature relating to the effects of SAR on soil permeability. As a result the established SAR limit is below what is reasonably required to meet the narrative standards and objectives of Chapter 1 § 20 WQRR.

37. Redstone requests the Council to review the scientific and technical basis for establishing an SAR limit, and revise the limit to reflect an appropriate SAR level for discharges in the Wildcat Creek drainage.

**REDSTONE'S FOURTH OBJECTION: The DEQ's requirement that all releases from reservoirs storing CBM water be measured at each reservoir is unnecessary, does not provide DEQ with meaningful information and should be deleted from the permits.**

38. Part I. A. 2. f. of the NPDES permits requires Redstone to log all releases from all reservoirs. The requirement does not provide the DEQ with any meaningful information as it does not differentiate between CBM water and natural flow and imposes an unnecessary regulatory burden on Redstone. In addition, water quantity measurement is a function of the State Engineer's Office, not the DEQ.
39. Redstone requests that the reservoir log requirement be deleted from the permits.

**REDSTONE'S FIFTH OBJECTION: Redstone requests that the point of compliance for the end of pipe monitoring for Dissolved Iron and Radium 226 be moved to the storage reservoirs immediately adjacent to the outfalls.**

40. Part I A. 2. b. of the permits requires routine end of pipe monitoring with samples taken at the outfall. Dissolved Iron precipitates rapidly when exposed to oxygen after discharged water leaves the outfall. Radium 226 also attenuates rapidly after it leaves the outfall and enters the reservoirs. Redstone requests that the permit be modified to allow for sample collection for these constituents to occur from the reservoirs immediately adjacent to the outfalls, rather than directly from the outfall. Waters of the state will not be

adversely affected by monitoring of these constituents at the reservoir, after they have had an opportunity to precipitate and attenuate.

**REDSTONE'S SIXTH OBJECTION: As a matter of law, no NPDES permit is required for the discharge of unaltered groundwater incident to CBM production, because the discharge of unaltered groundwater is not a "discharge" of "pollution" from a "point source" to "waters of the state" as required for regulation under the NPDES program.**

41. Unaltered groundwater discharged in conjunction with CBM production is not "pollution" as defined by the Environmental Quality Act or the Federal Clean Water Act. As a result, the discharge of unaltered groundwater in conjunction with CBM production is not a discharge of pollution to waters of the State requiring a permit under W.S. § 35-11-301 et seq. or the Water Quality Rules and Regulations. The DEQ lacks authority to establish effluent limits for the discharge of unaltered groundwater.
42. Redstone requests the EQC to find that as a matter of law, that discharges of unaltered groundwater incident to CBM production do not require permits under the NPDES permitting program and that the DEQ is without statutory authority to require a permit for such activities.

WHEREFORE, Redstone respectfully requests that the Environmental Quality Council (or the Water Discharge Permit Subcommittee of the EQC) grant Redstone a contested case hearing, and following said hearing, grant the following relief:

1. Finding that the DEQ exceeded its statutory authority in requiring an NPDES permit for the discharge of unaltered groundwater produced in conjunction with CBM production and that no permit is required.

In the alternative:

2. Eliminating the 24 hour/25 year storm event containment requirement from Redstone's permits and modifying the permits to allow for releases of contained CBM discharge water in response to natural runoff events, so long as water quality effluent standards can be met. Further, to allow for releases in amounts not exceeding the channel infiltration rate to enhance livestock forage within the drainage.
3. Revising the EC limits in the permits by either:
  - a. Selecting an appropriate EC limit taking into account the natural salinity level in the drainage. (Redstone previously submitted support for an EC limit of 3719  $\mu\text{mhos/cm.}$ ); or
  - b. Including clarifying language in the permit to state that the effects of naturally occurring salinity (e.g., sulfate) in the drainage must be subtracted from the total EC prior to evaluating whether a permit exceedence has occurred.
4. Modifying the SAR limits in the permits to reflect an appropriate SAR level to meet the objectives of Chapter 1 § 20 WQRR.
5. Modifying the effluent limits in the permits to account for the fact that natural water quality varies depending on flow, and since the flow conditions generated from relatively small storm events do not provide sufficient head for flood

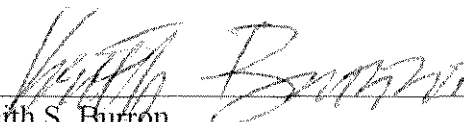


irrigation using spreader dike systems in the Wildcat Creek drainage, the constraints of Chapter 1 § 20 WQRR should not apply in the same manner under low flow conditions as when high flow is present that could be utilized for irrigation.

6. Eliminating the permit requirement that Redstone log all releases from reservoirs.
7. Moving the sample collection point for routine monitoring of Dissolved Iron and Radium 226 from the outfalls to the reservoirs immediately adjacent to the outfalls.
8. Providing such other and further relief as the EQC deems just and equitable in this matter.

RESPECTFULLY SUBMITTED this 9<sup>th</sup> day of October, 2002.

FOR REDSTONE RESOURCES, INC.

  
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**CERTIFICATE OF SERVICE**

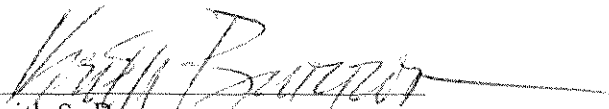
The undersigned certifies that a true, full and correct copy of the foregoing AMENDED APPEAL OF PERMIT CONDITIONS AND REQUEST FOR HEARING was served upon the following via U.S. Mail, postage prepaid, first class, on this 9<sup>th</sup> day of October, 2002:

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