

Coalbed Methane Working Group Meeting Summary

January 7, 2010
Clarion Inn, Gillette, WY

DRAFT (Do not circulate)
Draft Date: 01/21/10

APPROVED (For general distribution)
Approval Date: 02/01/10

Attendance

Working Group Members:

Steve Adami, Landowner
Eric Barlow, Landowner
Robert Brug, Landowner
Rebecca Byram, Devon Energy Corporation
John Corra, WY Dept of Env Quality
Bill DiRienzo, WY Dept of Env Quality
Craig Eggerman, WY Oil & Gas Conservation Comm
Ken Hamilton, Farm Bureau
Tom Harriet, Landowner
Bill Hill, WY Bureau of Land Management
David Hill, Marathon Oil Company
Steve Jones, Wyoming Outdoor Council
Harry LaBonde, WY State Engineer's Office
Bob LeResche, Powder River Basin Res Council
Joe Olson, Williams Production Co.
Ashley Roberts, Powder River Basin Res Council
John Robitaille, Petroleum Assoc of WY

Jason Thomas, WY Dept of Env Quality
Ed Swartz, Landowner
John Wagner, WY Dept of Env Quyality
Marge West, Landowner
Terry Wolf, Washakie County Commission

Member Alternates:

Tim Kalus, Anadarko Petroleum
Jill Morrison, Powder River Basin Res Council

Absent:

Jim Hillberry

Others:

Dan Clark, WY Dept of Env Quality

Facilitator:

Steve Smutko, Ruckelshaus Institute

January 7, 2010 Meeting Agenda

1. Welcome, Agenda review and approval
2. Public comment (9:45)
3. Meeting summary review and approval
4. Information and updates from DEQ
5. Charter review and discussion
6. Identification of Working Group member interests
7. Adoption of Working Group goals
8. Identification of issues to be discussed
9. Public comment (3:45)
10. Wrap up and agenda items for next meeting

Handouts Provided

1. December 2, 2009 meeting summary
2. CBM Working Group Charter, Draft 1
3. Ground Rules

Actions Taken

1. Amended the Working Group Charter
2. Identified stakeholder interests
3. Specified draft Working Group goals
4. Identified a draft set of issues to be deliberated

I. Welcome, Agenda Review

- A. John Corra welcomed the working group to its second meeting. Members introduced themselves.
- B. Facilitator, Steve Smutko introduced the agenda. The agenda was approved as presented.

II. Public Comment

- A. John Corra opened the meeting for public comment. He prefaced the public comment period with a statement of the purpose of this meeting and working group process. No one from the audience elected to speak.
- B. One member of the Working Group asked whether the output of the group would be limited to rulemaking only. The response from Director Corra was that this group is not limited to just rulemaking recommendations.

III. Meeting Summary Review/Approval

- A. The December 2, 2009 meeting summary was approved with the following changes:
 1. Page 3, upper right hand corner – mobilize sediments not salts.
 2. Pages 5 and 6, corrected responses from EPA representative, Sandy Stavnes.
 3. Page 8, #12 Water not all injected – some surface discharge.

4. Working Group members should include DEQ personnel.

IV. Information and Updates

- A. No updates or new information was presented.

V. Charter Review and Discussion

Steve Smutko opened the discussion on the charter. The following items were discussed:

- a. Background
- b. Purpose
- c. Geographic Area
- d. Final Product
- e. Decision Process
- f. Interaction with Media and Officials

A. Background

1. The group discussed the reports identified in the background statement. Some group members wanted to de-emphasize the New Mexico reports cited in the background statement, indicating that other scientific reports about CBM were just as relevant. Other members pointed out that it was the findings of these reports that prompted DEQ to convene the stakeholder group.
2. The group agreed to amend the background statement to broaden the focus to include all the relevant reports and issues.

B. Purpose

1. A comment was made that one agreed solution may not be possible and that the term “negotiation” may be too strong of a descriptor of the discussions the group will be engaged in. Smutko explained that the deliberations of the group will likely result in many issues identified by the group, some of which the group may reach agreement or consensus, and others where the group may not agree. It is not intended for the group to reach agreement on one, single, overarching recommendation.

C. Geographic Area

1. Concern was noted that recommendations made by this group may have impacts in other parts of the state. No change was made to this section of the charter.

D. Final Product

1. The group wanted to change the language of the charter to state that their recommendations may be broader than amending existing rules and regulations. They elected to change the words “rules and regulations” to “policies.”
2. The group discussed the process by which their recommendations may be reviewed by a scientific panel, and whether they would have an opportunity to review a final draft policy. They chose to add the following process description:
 - a. The Working Group will develop a set of recommendations to WDEQ for achieving a permitting strategy through the amendment of existing policies and/or the development of new policies. WDEQ may then, at its discretion, convene a scientific panel to review the recommendations of the Working Group. Based on the

recommendations of the scientific panel, the WDEQ will then draft a “path forward”. If needed the “path forward” may be presented back to the scientific panel for further review. The Working Group will then have an opportunity to review the “path forward” and will then provide feedback to the WDEQ.

E. Decision Process

1. The group discussed the issue of how a group member may want to reconsider his/her vote on a proposal (that is, a 1, 2, 3, 4 or 5 on the consensus scale) after an agreement had been reached. The example given was that a group member agreed to a proposal but finds out later that his/her constituents or organization does not back the decision. Can a group member change his/her mind?
2. It was recommended that group members check with their constituents (by a phone call during the meeting if possible) if they are not sure of their constituents’ support.
3. The group chose to add a sixth point to the consensus scale. A “6” indicates that the member cannot make a decision because of a lack of information.

F. Interaction with Media and Officials

1. This item was tabled

VI. Identification of Interests

- A. Steve Smutko reminded the group that interests are the things that motivate people to pick a favored solution. They are the needs, desires, concerns and fears of people related to CBM production and regulation. Working Group members will evaluate proposals based on how well their interests will be met. Smutko instructed group

members to write their interests and post them on the wall at the front of the room. He then reviewed them and helped the members refine them to clearly identify their interests. The refined list of interests is in *Attachment 1*.

VII. Working Group Goals

- A. Smutko divided the group into four sub-groups charged with developing a goal or goals that will guide the final product of the working group. The goal statements are contained in *Attachment 2*.

VIII. Identification of Issues

- A. Smutko instructed the group to brainstorm the issues that the Working Group should address in its final recommendations. The issues were posted on the wall in the front of the room. With the assistance of some of the DEQ representatives, Smutko categorized the issues into groups of similar issues. The list of issues and their categories is contained in *Attachment 3*. Smutko noted that the Ruckelshaus facilitator team will attempt to condense the full list of issues into a smaller set that the group will use to set its discussion agenda. This condensed version will be presented and discussed at the next meeting.

IX. Public Comment

A. Earl Shaw – No Contractors on group. Most people like water. Consider putting the produced water up on the hill instead down the ditch. Sub-soil disposal is a better approach.

B. Rachael Matchin – Thanks for doing this. She likes the option of improving/fine tuning existing rules as opposed to doing a totally new rule making. This doesn't have to be another exercise in the same old thing. We can do something new and be successful.

C. Tom Johnson – Note that the WG doesn't have strong representation from the PRB. WG is captive to big picture solutions by narrow vested interests. Need to do a "jail break" to look outside the box. Public comment period is perfunctory. Why no wildlife interests on the WG?

D. Richard Bonine – SEO has jurisdiction over water quantity and DEQ has jurisdiction over water quality. Most issues identified today are land quality issues, not water. Need more expertise on soils. Hoping for an escape from the second night at the same movie. Need to look at the non-coal permitting process to look at soil impacts – needed to assess impacts on soils – would lead to more beneficial use options.

X. Wrap up and Next Meeting

- A. The working group selected meeting dates for March and April. Next meeting dates (all at Gillette Clarion Inn):

February 1, 2010, 9:30 – 4:00
March 4, 2010, 9:30-4:00
April 1, 2010, 9:30-4:00

**Next Meeting:
February 1, 2010
9:30-4:00
Clarion Inn, Gillette**

1. Welcome
2. Agenda review and approval
3. Public comment period
4. Meeting summary review and approval
5. Information and updates from DEQ
6. Review and prioritization of issues
7. Development of options
8. Public comment period
9. Wrap up and next agenda

Attachment 1
CBM Produced Water Working Group
Interests

1. Protect water bodies for agricultural uses.
2. Treat CBM discharge water so it can be put to beneficial use.
3. Waive irrigation effluent limits. Right for landowner waiver to effluent limits.
4. Conserve resources (wise use).
5. Continued use of CBM water for livestock and crop production.
6. Protect land for future generations.
7. Leave water for future generations.
8. Ensure produced water is put to a beneficial use and does not damage property.
9. To enable my company to continue to develop economically its CBM resources in the PRB.
10. To enable my company to produce economically its conventional O&G resources outside PRB and ensure continued supply of water to long-time ag users in the Big Horn Basin and elsewhere.
11. Protect property (surface) rights for both upstream and downstream property owners.
12. Protect sustainable agriculture.
13. Maintain natural soil quality.
14. Protect sensitive crops.
15. Resource development without unreasonable obstruction.
16. Maintain existing solutions(?)
17. Ability to continue using existing water management systems.
18. Protect Fish and Fisheries.
19. Coalbed methane gas production continue and increase to fund Wyoming programs.
20. Prevent unnecessary cost and damage.
21. Protect soil and vegetation and ephemeral drainages from CBM discharge water and salts.
22. Keep Wy's water in Wy(?)
23. Beneficial production of water should not be limited by DEQ discharge standards(?)
24. Stop salt loading shallow aquifer from CBM discharges.
25. Beneficial use of water without harm (non-consumptive discharge).
26. Honor property rights.
27. Protect the water rights.
28. Protect the water rights.
29. Conserve water.
30. Protect and preserve water for future generations.
31. Protect land from unnecessary damage.
32. Continue reserve streams.
33. Keep people working.
34. Stop waste of water.
35. Produce gas economically.
36. Produce natural gas.
37. Let those who want CBM discharge water have it.
38. Protect surface.
39. Stop the waste of groundwater, conserve and use this resource.
40. Protect aquatic life.
41. Preserve and protect watersheds.
42. Preserve and protect ecosystems.
43. Stop depletion of groundwater.
44. Protect air quality.
45. Protect water quality.
46. Economic solutions (P)
47. Flexibility
48. Flexibility to address real site-specific issues, problems and desires. (P)
49. Allow for flexible regulation (P).
50. Flexibility – maintain range of water management options (P).
51. CBM discharges will be allowed certain amount of flexibility.
52. Write discharge permits that are consistent with rules and regs (P).
53. Elimination of appeals of WYPDES permits by both industry and environmentalist interests (P).
54. Minimize permit appeals and slow-downs (P).
55. Use common sense solutions (P).
56. Any modification to Wyo WQRR adhere to review required in EQA.
57. Consider socio/economic impacts of any rule changes (P).
58. Long-term solutions (P).
59. A solution does not have to be a new rule or law. (Don't shoot ourselves in the feet because of unforeseen impacts.)

60. A surface water permitting system that is acceptable to the stakeholders (P).
61. Transparent permitting procedures (P).
62. Clarity on who and where and how the solutions to the issues are implemented (P).
63. Employ a permitting strategy that is transparent and predictable (P).
64. Use competent science (P).
65. Consistent regulatory framework (P).
66. Establish rule – stop delay (P).
67. Plan ahead, don't dwell on the past, learn from any mistakes (P).
68. A future state where the conflicts over DEQ permits are much fewer than today.
69. Water flooding of lands is not within DEQ authorities (P).
70. Keep Wyoming decisions in Wyoming.
71. Comply with state law and CWA.
72. Retain CWA primacy in WYO.
73. Keep the control at the State's level.
74. Follow federal and state laws governing water discharges.
75. Comply with water quality rules and Clean Water Act
76. Use valid science.
77. Economic and Envir acceptable approach (P) to reduce water quantity (?)
78. Address surface owner concerns for CBM water flooding of pasture land.

Attachment 2
CBM Produced Water Working Group
Goals
Jan. 7, 2010

Group 1

Steve Adami, Rebecca Byram, Craig Eggerman,
Tom Harriett, Steve Jones, John Corra

1. Maintain economic production of coalbed methane while ensuring the economics of downstream landowners' operations without decreasing production of the downstream landowner.
2. Balance competing landowner interests while protecting the ecosystem.
3. Maintain and increase production of coalbed methane while reducing the number of complaints

Group 2

Eric Barlow, Tim Kalus, Bill Hill, Bob Leresche, Terry Wolf, Bill DiRienzo

1. Develop a system for permitting produced water discharges that is predictable, efficient and effective in achieving water quality standards, stakeholder interests and other intents and purposes of the law.
2. Responsibly develop resources in a way that honors property rights, environmental conditions, and legal obligations.

Group 3

Robert Brug, David Hill, Harry LaBonde, Jill Morrison, John Robataille, Jason Thomas

1. Develop recommendations for a flexible permitting approach that:
 - a. Allows gas production
 - b. 2. Protects agricultural uses
 - c. 3. Maximizes use of water

Group 4

Ken Hamilton, Joe Olson, Marge West, John Wagner, Ed Swartz

1. Maintain pre-CBM agricultural uses and production while allowing development of coalbed methane.

Attachment 3
CBM Produced Water Working Group
Issues

SOILS/SALTS

1. Opportunity: Adopt numeric criteria for EC and SAR in the Powder River Basin.
2. Decrease salt problems to sub-surface aquifers caused by CBM discharges.
3. Prevent salt loading of the watershed and maintain native vegetation.
4. Opportunity: Stop damages caused by CBM discharged waters to crops and rangeland.
5. Build-up of salts in irrigated areas.
6. Provide for soil improvements by quality control of discharged water.
7. Soil Monitoring.
8. How do we stop the destruction of topsoils?
9. Subsurface flow of CBM water.

FLOODING

1. Downstream flooding of CBM water on landowners' properties.
2. Need to prevent flooding of lands (other than by natural storm events).
3. Flooding of pasture lands.
4. Reasonable opportunity to address downstream flooding including restoration of pre-existing channels and removal of obstructions.
5. We must address the problem of CBM gas discharge water causing flooding.
6. Find multiple ways to handle water volumes.
7. How do we overcome water logging impacts in ephemeral drainages?

BENEFICIAL USE

1. Ability to continue to provide CBM water to those who wish to receive it.
2. Require a Real Beneficial Use for all CBM water discharges.
3. Maintain the ability to enjoy beneficial uses of CBM water.

4. Opportunity: Use of CBM water for livestock and crop production.
5. Opportunity: How can surface owners better utilize increased water?
6. True beneficial use beyond production of gas.
7. Opportunity: True beneficial use of water to improve agriculture production and/or urban lifestyles.
8. Maintain/increase opportunities for beneficial use of water.
9. Balancing the benefits the water can provide against the issues it can create.
10. We have to opportunity to put CBM water to beneficial use by: Treating it and piping it to municipalities.
11. Additional water available for ag uses.

IMPOUNDMENT

1. Need options for managing CBM produced water including ability to surface discharge w/ reasonable limits (impounded v. direct discharge).
2. Seepage impacts from water impoundments.
3. Drainage-wide water gathering systems.
4. On-channel reservoirs.

WATER QUANTITY

1. This is a groundwater problem that results from a discharge to surface water.
2. How do you address the quality v quantity issues?
3. Can't someone control H₂O quantity discharged on land?
4. How to minimize the discharge of CBM water.
5. Opportunity: Establish "perennialization" criteria not to be exceeded in all or certain drainages.

STATE AGENCY COOPERATION

1. How do we get all state agencies to agree that the withdrawal of CBM produced water is not a beneficial use?
2. Regulatory uncertainty.
3. Problem: DEQ can address water quality issues but has limited authority to address water quantity.
4. State Engineer's regulatory role

5. How can we find solutions that are acceptable to the legislature, the AG, the public?

REGULATORY

1. Minimize potentially intrusive EPA review of DEQ-issued permits.
2. DEQ must regulate at point of use rather than end-of-pipe to protect soils and vegetation.
3. No change to existing permits where no harm shown from current discharges.
4. How can we insure the DEQ will enforce existing laws and existing permits?
5. Freedom from challenges to or litigation on permits.
6. Regulation gap (real or perceived)
7. Opportunity: Allow appeals only by affected landowners.
8. Problem: Produced water pipelines not regulated.
9. Irrigation management is a private property and personal rights matter.
10. How do we convince DEQ to address all the environmental effects of CBM discharges? W.5.35-11-103(c)(i) pollution → adversely affects environment.
11. Ability to obtain new, modified, or renewal permits relatively quickly.
12. Problem: Unpredictable changes in CBM water regulations.
13. Non compliance with Clean Water Act.
14. Is it possible to require active management of produced H2O?

WATER CONSERVATION

1. Loss of groundwater for current and future generations.
2. Waste of water?
3. Wise development of resources.
4. Keep aquifers from being depleted.
5. Prevent the waste groundwater and damage to the surface.
6. How do we stop the waste of groundwater? (e.g. Clear Creek and Crazy Woman Creek drainages) (300bbbls/mcf).
7. We have to opportunity of not wasting our water.

8. We have the opportunity to save CBM gas discharge by reinjecting it.
9. How can we keep produced H2O close to home?

COOPERATION

1. Distrust among parties.
2. Landowners and operators work together to achieve mutually beneficially interests.
3. All entities work together to be part of the solution and not the problem.
4. Trying to produce CBM while satisfy an extremely diverse set of interests.
5. Industry and State externalizing costs by dumping excess CBM water on downstream landowners.
6. There can be different solutions in different drainages.
7. Delays in project development due to disagreement.
8. Developing incentives to cooperate in a contentious environment.

FORAGE & LIVESTOCK PRODUCTION

1. Loss of forage due to CBM discharges.
2. How do we protect and help native grasses and sensitive crops (e.g. alfalfa) to thrive?
3. How to measure crop and livestock production?

HEALTHY WATERSHEDS

1. Problem: How do you resolve past surface damage problems?
2. How do we protect and maintain intermittent and ephemeral stream systems?
3. How do we promote healthy watersheds that can be maintained on a sustainable basis?

ECONOMICS

1. The State's loss of revenue.
2. Minimize additional costs for managing CBM water?
3. How do we persuade the CBM industry to disclose the economics of its operations so we can know what the industry can and cannot afford to do?
4. How to address damages caused by CBM discharge water – reclamation and watershed.

5. Protect surface owner interests in terms of agri viability.
6. How can we learn what the costs and benefits of reinjection are, for CBM discharges?
7. Should we adopt a moratorium on CBM development where it appears to uneconomical? (e.g. 300 bbls/mcf)

UNCLASSIFIED

1. How do we insure that water quality is sufficient to protect wildlife and enable wildlife to thrive (i.e. no negative effects)?
2. To clean up mistakes in the past and not to repeat them.
3. Opportunities third party group to collect and manage CBM water.
4. Opportunity: Identify drainages where landowners do not want CBM water, allow discharges without appeals to all other drainages.
5. Pooled Operator/DEQ resources.
6. We have the opportunity to do this CBM gas thing RIGHT!