

Coalbed Methane Working Group Meeting Summary

December 2, 2009
Clarion Inn, Gillette, WY

DRAFT (Do not circulate)
Draft Date: 12/04/09

APPROVED (For general distribution)
Approval Date: 01/07/10

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
David Gomendi, Anadarko Petroleum
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

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

Member Alternates:

Marge West, Landowner

Absent:

Dee Hillberry

Others:

Dan Clark, WY Dept of Env Quality

Facilitators:

Diana Hulme, Ruckelshaus Institute
Steve Smutko, Ruckelshaus Institute

December 2, 2009 Meeting Agenda

1. Welcome and Introductions
2. Agenda Review, Review of Ground Rules
3. Presentations: WOGCC, BLM, DEQ, SEO, EPA
4. Lunch
5. Reactions and Implications to Morning Presentations
6. Summary of Interviews
7. Overview of Collaborative Process
8. Review Draft Charter
9. Public Comment
10. Set Date for Next Meeting

Handouts Provided

1. CBM Working Group Resource Materials Binder: AG letter to Governor, Ag Use Protection Policy, Governor letter to EQC, Report of WY CBM Task Force, Tier 2 Expert Opinion May 2009, Tier 2 Expert Opinion September 2009, Water Quality Rules and Regulations Chapter 1
2. Draft Charter
3. Ground Rules
4. Negotiation Worksheet

Actions Taken

1. PowerPoint presentations and comments by the Wyoming State Engineer and EPA will be posted to the DEQ website.
2. Subsequent meeting dates set for January 7, 2010 and February 1, 2010.
3. Invited EPA to participate in future Working Group meetings in an ex officio capacity.

I. Welcome and Introductions

John Corra, WDEQ

- A. John Corra reviewed his November 4th letter and the purpose of the group for the members of the audience. The focus of the working group will be on the achievement of the agricultural protection standard, Chapter 1, Sec 20 of the WWQSR. Corra also stated that the working group effort is not a rulemaking, not a public hearing. It is a working group coming together with the guidance of a facilitator with the hope of guiding the agency going forward. Corra also stated that the working group is not intended to review discharges from other sources other than Coal Bed Methane (CBM) – not municipal treatment, power plants, oil treaters. This is for CBM permitting strategies in the Powder River Basin (PBR). We know CBM exists in other parts of the state but there are different rules there and the main controversy is in the PBR.
- B. Corra briefly reviewed the history of CBM produced water and the current issues before the DEQ.

II. Agenda Review, Review of Ground Rules

Steve Smutko, Ruckelshaus Institute

- A. The facilitator, Steve Smutko, reviewed the day's agenda and asked for comment. The agenda was accepted as presented.
- B. Smutko reviewed the contents of the working group binder and indicated that information from future working group meetings should be retained in the binder.

- C. Smutko presented the ground rules and asked for comment. Ground rules were accepted by the working group.

III. Informational Presentations

- A. Background Information was given to the working group in a series of presentations. Copies of the presentation slides can be downloaded from the DEQ website at: <http://deq.state.wy.us/Coalbedworkinggroup.htm>.
1. Craig Eggerman, Wyoming Oil and Gas Conservation Commission. Presented an update on CBM production in the Powder River Basin. Brief Q&A followed.
- (a) Question: there was a slide that says WOGCC regulates waste?
Response: the WOGCC does regulate the waste out of the EMIT water treatment system. If the waste is disposed of on site, then WOGCC regulates, if off-site, it gets permitted under DEQ.
- (b) Comment: I think the previous question was about wasting water, not generation of waste.
- (c) R: We need to limit numbers of wells to what is needed to produce the gas. To quantify and evaluate the relationship between flow rate and habitat for aquatic biological communities in stream reaches affected by the projects.
2. Bill Hill, Bureau of Land Management. Presented information on the BLM's role in regulating and managing produced water on BLM lands. Brief Q&A followed.

(a) Q: How many fed leases are yet to be filled?

R: don't know that but can bring that info to the next meeting.

(b) Q: BLM does require bonding for impoundments – is this for off or on channel?

R: Yes, on BLM surface for on and off channel

(c) Q: Who is water management plan submitted to?

R: They submit to DEQ and we include that in our Plans of Development (PODs) and evaluate pipeline, road, discharge scenarios when we issue those. Usually what gets submitted is what is approved.

(d) Q: is that also submitted to EPA and approved by them?

R: That is DEQ's responsibility to get info to EPA. DEQ has primacy. Unless we have an EIS to prepare, that is the only time BLM sends anything to EPA.

3. John Wagner, Wyoming Dept. of Environmental Quality, presented information on the DEQ's permitting program. Brief Q&A followed.

(a) Q: in the New Mexico study, what did they specifically say was the quantity impact on agriculture? Saturation?

R: There are 2 issues – water on surface and with raising the water table downstream through drainage discharge or from reservoirs. Bringing up water table raises salinity to root zone.

(b) Q: With respect to volume, DEQ only looks at maintaining integrity of stream channel?

R: Generally, we do look to see if there will be excessive erosion. That is pretty much all we look at.

(c) Q: Why did it become limited to that?

R: we think that is where our statutory authority ends. We look at it because it could mobilize sediments.

(d) Q: you think your policy is consistent with the AG opinion?

R: Yes.

4. Harry LaBonde, State Engineers Office (SEO), presented information on his agency's responsibilities in regulating water quantity related to CBM produced water. A brief Q&A followed.

(a) (Question not recorded)

R: Dec 2007 was when the water/gas ratio was required on permits.

(b) Q: You talked about consumptive vs non-consumptive uses, what is the significance of that?

R: one of the criticisms in the state is that CBM water is wasted, but from SEO's perspective, CBM production is not a waste of water. I just wanted to show that water can be used and also not used. CBM is a non-consumptive use like water that is used for hydropower.

(c) Comment: Another time and place to discuss the validity of that.

(d) Q: you mentioned duty of water, 1 cubic feet second (cfs)/70 acres

R: there is an excess water law. When water is available irrigated lands are allowed another duty (2 cfs) if they are senior right holders.

(e) Q: Siting section 41-3-504, the Superintendent's requirements for drainage ditches. Some of these old drainages are very old. Assume these were put together by landowners. These collection systems are permitted by SEO?

R: No, their point of diversion is permitted. The drain system was constructed when water table increased to prevent field flooding.

(f) Q: But a drainage system could be required?

R: That is for surface water, mostly for return flows that run along the surface that can impact irrigation on other people's land, then the Superintendent can require drainage system to control return flows.

(g) Q: Jeff Fassett declared CBM beneficial use of water, do you know if he obtained an AG opinion on that question?

R: I don't know.

(h) Q: Water withdrawal permits have language that says it doesn't control a water right to anyone, is that correct? If so, why is it in there?

R: Not sure which language you are talking about. When we issue a permit, it allows use of the water and is a start of a water right process – not adjudicated – but starting water right status.

(i) Q: Referring to anyone else who wants to use the water downstream needs to get another permit. CBM permit doesn't allow any other use of the water without another permit.

R: A CBM permit can have multiple uses – CBM, irrigation, stock water, this is identified in the water management permit.

(j) Q: Duty of water – you only have authority when the flow is the result of a permitted diversion?

(k) R: Yes, and it was also asked if we could use that statute for CBM and it was thought no, SEO could not. This also made the legislation unsuccessful.

(l) Q: For landowner to get a water right, does there have to be a point of diversion?

R: Yes, there needs to be.

(m) Q: How are people protected if they don't have a water right?

R: If they don't have a permit, they can't be protected. The passive situation happens all the time. We wouldn't require a permit because a human isn't taking water out of a channel. A spreader dike would require a permit by SEO but just growing grass along a channel or a flood plain area, that would not require a permit and likewise would not enjoy the protection of being able to make a call.

(n) Q: Could a landowner apply?

R: Yes, if you can say how you will use the water. What landowners have done in these situations is use spreader dikes.

(o) Q: If you don't have a diversion do you have to have a means of control?

R: If there is water in the channel and you want to use your right, you need to get the water,.

(p) Q: On water rights on ephemeral streams, SEO determined that an irrigation right was only good from April 1 – Sept 30, who determined that and when?

R: Not familiar with that. We do recognize irrigation use outside of that window.

5. Sandy Stavnes, US Environmental Protection Agency presented comments from the EPA on the existing DEQ permitting strategy. A brief Q&A followed.

(a) Q: Can we get a copy of the original permit issued in 1990-1991 for industry on an Indian reservation.

R: Not sure what permit you are talking about. Can find it with more info.

(b) Q: Are there any federally mandated standards for EC and SAR?

R: States establish numerical standards, EPA uses tech based standards. We are evaluating whether an effluent guideline is necessary. We are doing a study

w/operators and in Oct of next year, will make the determination on whether HQ will develop a tech based guideline for CBM

- (c) Q: Can you explain that if EPA goes with Effluent Limit Guidelines – Technology-based (ELG-TB) standard how that impacts DEQ?

R: The TB tech based effluent limits need to be evaluated along with the water quality based effluent limits (for the same pollutants) and the more stringent limit should be included in NPDES permits.

IV. Discussion

- A. Question from the facilitator: What are your reactions to what you heard from the presenters?

1. Get EPA's comments for us and recommendations from legislative CBM task force besides what was submitted to legislature.
2. I felt a bit of despair. People talked like this is the way it was and they can't change it, talked about the Gov's letter but not questioning it and talked about statutes. It sounded like people felt their hands were tied due to law.
3. I heard this was just with CBM discharge and I don't understand how we can just limit this to CBM. There are other water discharges and water is water and when discharges are regulated any rule changes will impact other discharges.
4. Just heard the status quo, that we have to discharge. We need to look at some other way instead of discharge.
5. I wish would have discussed a case that Wyoming Outdoor Council is involved

in on Pumpkin and Willow Creeks. The decision by Environmental Quality Council (EQC) on the discharge permits for these - tried to impact entire drainage and area. Need to protect native grasses. The policy is that if it's over 20 acres, DEQ will look at protecting native grasses, less than that, they won't protect it. EQC also said they don't think it's a good idea for on-channel reservoirs to have different effluent limits vs direct discharge to stream. That decision has implications on this whole program and I wish that would have been talked about more.

6. I would like more info on the EQC decision. (Response from group member): It's on the EQC website, has a docket number.

7. I did have a reaction to the EPA comments. Even if this group can work out this problem, are we going to be trumped by an outside force – EPA.

- B. Question from the facilitator: What are the implications of what you learned today on the task of developing recommendations for a permitting strategy?

1. I have concerns that some people believe that "everything is set" and that we have little recourse to change current rules.
2. There is the implication that the makeup of the group – that this is a stakeholder problem. But hearing EPA, this is not a stakeholder problem, it is a legal and engineering and technological problem. This group can't help with that.
3. (John Corra) As a member of the executive branch, it is not my place to convene a group to make or revise state statutes. BUT if this group comes to consensus that they want to go to the legislature with a proposed statutory

change, that's fine. But it is not my role and I don't have authority to say let's convene a group of citizens and make statutory changes. Some members of the legislature are sensitive to this issue and are interested in it. This group could go to a legislator and ask for help.

4. From what I heard, I don't think any of our regulatory agencies have been working outside of the law. If we have a problem with the law, change it.
5. My reaction is déjà vu. Was member of leg task force, advisory group on the EQC rule. I don't think there is a single issue we are talking about today that hasn't been discussed already to death. The implication I see is that we need to look at what is the same and different now compared to 5 years ago and maybe that can make for some fresh thinking.
6. I appreciate the exec branch not wanting to step on legislative branch but exec can do rulemaking as long as it isn't counter to statute or constitution. We should be thinking about what is effective and determine what the process will be to carry it forward. We can check legality along the way and do our ideas fly. I appreciate comments about "been there, done that." There is something different that we have heard today and that was what EPA said today. They are looking at things differently now. I am going to look at that change that we heard today and their oversight role and what that might mean. I wrote down "despair" and "dumbfounded." But I do have some hope that what we do is legal and makes sense and flies with EPA.
7. I feel that where DEQ feels locked down is with water quantity. Wagner said we only look at it when it can impact the integrity of the stream. I think the agency should take another look at the AG opinion. It is clear that if there are

water quality implications, DEQ can look at water quantity. Pollution isn't just a constituent, quantity can be to. I would like the agency to take a fresh look at the AG opinion again.

8. (John Corra) I encourage the group to think about the effectiveness and what we need to do, look at the problems and seek some solutions first then figure out where do we go to make those solutions happen. Let's not get encumbered so much – this morning showed how the agencies are operating and how they got where they are. But this is the info we need to deal with to come to consensus.
 9. Barlow – one implication is what has come out in the last 3 years. We are operating under a policy that was put out then withdrawn and EPA is now on board. We are not saying everything stops but we are creating a bigger problem by continuing with the status quo. The problem is continuing while we sit here and talk about this.
 10. The only thing new that I learned was EPA's involvement and I don't know what the implication is to industry. Are all permits halted for now? We have to know that and get by. We need legitimate science and maybe statutory change but EPA is the 800-pound gorilla.
 11. It caught me by surprise that all these ditches and drainages aren't regulated by SEO. I thought they were. But by corollary, when there is too much water, put the drainage system in to get the water quantity away. The issue is quantity and it is static.
- C. Question from facilitator: What can this group do to develop rules given there are no scientists on the group?
1. Wagner – there is a lot of technical expertise at this table.

2. We can we have DEQ bring some technical expertise to us when needed?
 3. I'm a PhD but not in soil science and not peer reviewed. We need some qualified peer-reviewed soil scientists.
- D. Question from facilitator: One member brought up the point that what this group does has implications for other parts of the state. Is that true? What does it mean for this group?
1. Not sure there is a need for a fix, but we have water produced in Big Horn basin and I don't know how what you do here won't impact other parts of the state. O&G is our county's bread and butter.
 2. (Corra): The original rule that was discussed before EQC was attached to WQ standard section of rules and regs and had individual WQ standards involved and didn't distinguish between discharges. We withdrew the rule. In trying to figure out how to go about discharge permitting for CBM ONLY – is how we brought this group together. If we expanded what we do here to other types of discharges around the state, this group would be in the 100's. Your fear that what is done here might lead to implications to others is legitimate. But my goal is to keep to CBM permitting strategies in PRB. My goal is not to get into Oil Treater (OT) discharge regulations in the Big Horn Basin but let's just look at CBM in PRB. If you look at our stats, over ½ of our discharge permits are for CBM in PRB. Your concerns are well founded and I want to hear from others in the group. I have other CC's and leg that have said this to me. If there is something here that will apply elsewhere, then we will do it for other places.
 3. But if we come up with rules here, then it WILL impact other places in the state. How can it not? EPA said they look at
 4. We are “cherry-picking” this industry.
 5. We need more clarification from EPA on what we are going to do.
 6. (Sandy Stavnes): EPA will continue to do real-time reviews for proposed CBM discharges. We will be looking for the permits are in compliance with the Clean Water Act. In doing that, the WQ standards and effluent limits have to meet WQ standards that state has gotten approved by EPA for agriculture.
 7. Sandy is not the problem. In fact EPA's comments should be helping us.
 8. There is precedent for having different standards. The ELGs do this. There are options that are applicable for this situation. We can't just think that all of us will go down with the ship but if we do nothing we do more damage than if we don't try to do anything.
 9. The two main constituents we are worried about are Sodium Adsorption Ratio (SAR) and Electrical Conductivity (EC). Are either one of those at risk of having lower limits put on them for OT's or is that not an issue for them? (Response from DEQ): SAR and EC are constituents associated with protecting the use, not the discharge so if an OT is impacting that use with those constituents, then yes, the standards for SAR and EC would apply. OT's don't have limits for EC and SAR?
 10. (Corra): We have one number in the WQ standards for EC and it is for livestock and we don't have a standard for SAR.
 11. We need to protect for artificial and natural irrigation. I assume there is

natural irrigation in the Big Horn Basin and I'm not sure we are protecting that. (Response from DEQ): Yes, we are. When you look at historic discharges like in the Big Horn Basin for years and there have been no problems, then the status quo is not interpreted as a decrease of that use.

12. The Big Horn Basin (BHB) does produce a lot of water and some of it is reinjected. BHB water has different qualities than PRB water. The SAR is low and EC is high and it is good for irrigation. It's good for livestock.
13. There is precedent for site specific standards and this group can come up with site specific standards for just the PRB and if we run into problems elsewhere, we can address that at the time. We don't have to jump right into a statewide rule.
14. If we could just deal with things from a common sense approach and work together and work toward something like site specific standards, that would be good. I'm still skeptical that if a rule is put in place, it won't filter out of PRB.

E. Other comments?

1. So far the talk has been on problems and despair. This water is being put to good use in places. We need to see what positive can be gleaned from having water in an arid area. This water should be as much a resource as anything else we produce around here.
2. Got a letter from Big Cat, the ARID pumping system. When I got this letter I sent it to DEQ right away. I want to know whether DEQ can insist on the use of this technology. If this technology can keep water from being brought to the surface while still getting the gas, why don't we use it? DEQ should check

this out. Companies could save money by not having to manage the water.

(Response from DEQ): Wagner – we have permitted about 100 of those systems and 9 of them are in use.

3. I would like more citations for CWA and other statutes and regs that have been talked about today. I want you to provide the references and location. Let us interpret some of these things ourselves.

(Response from DEQ): We will pull together references that are germane to the comments from EPA and other agencies.

V. Summary of Interviews

1. Steve Smutko presented a summary of the interviews conducted with working group members in preparation for convening the first meeting. There were no comments by working group members in response to the presentation. The summary of the interviews can be found on the Ruckelshaus Institute website at:
<http://www.uwyo.edu/enr/iern/info.asp?p=6993>

VI. Overview of the Collaborative Process

- A. Steve Smutko described the working group process. Smutko described the overall approach as a process of developing four "lists."
 - a) Goals and objectives
 - b) Issues, topics to be deliberated and resolved
 - c) Interests, needs, wants, desires of stakeholders
 - d) Options, methods that meet goals and satisfy interests
- B. Smutko handed out a worksheet for group members to use to help them identify their

goals, issues, interests and options. These will be discussed at the next meeting.

VII. Overview of the Collaborative Process

A. Smutko reviewed the draft working group charter with the group. The charter is the document that will guide discussions of the group. Smutko stated that this is a first draft and changes will be made based on working group comments made today and at the next meeting. A copy of the charter is available on the Ruckelshaus website at:

<http://www.uwyo.edu/enr/ienr/info.asp?p=6993>

B. Discussion

1. It seems that a lot of these principles in the charter make a good deal of sense of what you call negotiation, but the task of this group is to make recommendations not come up with a final binding agreement. To me, there is no final outcome and that difference, it makes a difference in some of these principles.
2. How many entities at the table anticipate having alternates on a routine basis? In Section 13, media interaction, and this is an on-going issue, all of us here are involved in real-time activities that may not be in the interest to people on this group. I don't think this group will concede that we will cease our activity while this group functions but we do need to agree to lay our daily work at the door when we come in here.
3. Calving season is barrier to some people here and they may have to send alternates.
4. I think for landowners, it can be another involved family member, like Marge for Bill West and Troy for Ed Swartz but other than those situations, we want to keep the same people at the table.

5. When you set meetings some of us may not be able to attend and can we have a sub then?
6. (Corra): I don't want to imply that if a conflict comes up for you, it can't be worked. Legislature will be in session in Feb and that might make it tough to schedule a meeting that month for us. I want to schedule a meeting today for January. I would prefer to lock this in today for a Jan meeting.
7. What is the urgency that DEQ or this group has to get to solutions? When I listen to what I heard this morning, it sounded like there was some level of urgency that might drive our schedule.
8. (Corra): I believe there is a sense of urgency and this process cannot drag on. We need to do something and the question is what. We need to roll up our shirt sleeves.

VIII. Public Comment

A. Tom Johnson, PRB resident since 1970. I think there is consensus that you need to find a different facility. The temp is too variable here. Go to the library or the college. Would like to remind you that when this group gets confused or concerned about this effort, we appreciate what you are doing but most of you are not from the PRB and what you say and do will impact those of us who live here. Focus on water, not statistics, law, water. I'm a 3rd generation water well driller. Prior to CBM water the Bull Creek drainage had no water. We drilled for water there to get stock water. Oil industry developed Amos Draw for 40 years and surface water occurred due to the industry produced water. There was no wildlife back there where there had been no development. On the Amos Draw side, there was lots of wildlife.

- B. Bill Hill on Working Group – Neglected to mention that for the Buffalo Field Office Resource Management Plan we will have a comment period on Dec 15th in Buffalo in the evening. There will be press releases in the paper about it. Come out and see what is being proposed and provide comments to your elected officials, conservation districts and BLM.
- C. (Corra): I Want the group to know that next week, Wyoming County Commissioners Association (WCCA) is meeting in Cody and I'm going to go speak to them about this working group. I will use Wagner's presentation on what exists and not much more but I wanted to make you aware of that presentation. When we formed this group, I got all kinds of calls about concerns of spill over to other counties. I talked to Joe Evans about getting an opportunity to address the WCCA to alleviate some of their concerns. The counties have strong interest in this and I think we should let them know what we are doing.

IX. Final Comments and Discussion

- A. Smutko – any information needs for next time besides the statute citations?
1. Expert reports by Henrickx and Buchanan are in our notebooks but I can tell you we had plenty of expert opinion given to us in development of the rule before it went to EQC. Are there other expert opinions that we should consider besides the New Mexico study? Like some of the comments submitted at the Waste Water Advisory Board (WWAB) meetings by other experts.
 2. (Corra): There are pages of technical opinions available. The other option is that when we get to the solutions piece of things here, that would give us some time to get it together. We do have 15-20 pages of comments that we have received. On one hand we can scan it and put it on a website so people can see the actual comment. Summarizing brings up new issues and someone will be interpreting what someone else said. Would rather have the raw comments available.
 3. I'm not sure you want to limit to just the WWAB comments, there was comment at EQC hearings.
 4. (Corra): We will provide powerpoint presentations and comments from experts on the website, but not all the testimony. It's too much.
 5. Let's get comments from EPA made available to all of us too.
 6. Should an EPA rep be on this panel? Would encourage Corra to consider adding EPA rep to the panel.
 7. (Corra): That question did cross my mind. The reason why they are not on the panel but are here is that they are in a difficult position to vote on what this group does. They are in the approval chain. When the group gets to the point of consensus, they have to stay independent because they have to review the rules. But, if there is consensus to add them, we can add them.
 8. (Sandy Stavnes): We checked with our regional council and they didn't have issues, but there might be times when we have to reserve participating in a vote of some kind.
 9. The group discussed whether EPA should have a seat at the table or serve as a technical and administrative resource.
 10. The group agreed that EPA should serve as a technical and administrative resource and should not have a seat at the table. An invitation was extended to

Stavnes to attend the working group meetings.

Meeting adjourned at 4:05 p.m.

Next meeting dates:

January 7, 2010, 9:30 – 4:00 in Gillette

February 1, 2010, 9:30 – 4:00

**Next Meeting:
January 7
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. Charter review and discussion
7. Identification of Working Group member interests
8. Adoption of Work Group goals
9. Identification of issues to be discussed
10. Wrap up and agenda items for next meeting

**CBM Working Group
Citation list from December 2, 2009
meeting presentations**

WYOMING STATUTES

W.S. 41-3-501

Establishes the requirement to obtain a permit before constructing distributing works (surface water). The origin of this statute was the 1890-91 legislature.

<http://legisweb.state.wy.us/statutes/statutes.aspx?file=titles/Title41/T41CH3AR5.htm>

W.S. 41-3-930

Establishes the requirement to obtain a permit before constructing a water well and beneficially using ground water. First ground water statutes enacted in 1947 and later amended in 1957 and 1969.

<http://legisweb.state.wy.us/statutes/statutes.aspx?file=titles/Title41/T41CH3AR9.htm>

W.S. 41-3-301

Requires a construction permit for reservoirs. First enacted in 1903 and enhanced with Safety of Dam statutes in 1977 and 1992 1992. Three size classes of reservoirs now recognized:

- Less than 20AF and 20' in height (stock dam, SW-4form)
- Less than 50AF and 20' in height (SW-3 form)
- 50 AF or greater in size, or 20' or greater in height (safety of dams size, SW-3 form with engineered plans and specifications).

<http://legisweb.state.wy.us/statutes/statutes.aspx?file=titles/Title41/T41CH3AR3.htm>

W.S. 41-3-504

Agency does not regulate discharges of water – Exception: W.S. 41-3-504 – Superintendent may order the construction of return flow ditches for irrigation water.

<http://legisweb.state.wy.us/statutes/statutes.aspx?file=titles/Title41/T41CH3AR5.htm>

W.S. 30-5-104 A, C, D, E

Oil and gas conservation commission; powers and duties; investigations; rules and regulations.

<http://legisweb.state.wy.us/statutes/statutes.aspx?file=titles/Title30/T30CH5AR1.htm>

W.S. 35-11-301

Article 3, Environmental Quality Act, Water Quality

<http://legisweb.state.wy.us/statutes/statutes.aspx?file=titles/Title35/T35CH11AR3.htm>

WATER QUALITY RULES AND REGULATIONS

Chapter 1, Section 20, Agricultural Water Supply

<http://deq.state.wy.us/wqd/WQDrules/Chapter01.pdf>