



ENVIRONMENTAL QUALITY COUNCIL

PO BOX 201704
HELENA, MONTANA 59620-1704
(406) 444-3742

GOVERNOR JUDY MARTZ
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ENVIRONMENTAL
ANALYST
Todd Everts

**ENVIRONMENTAL QUALITY COUNCIL
Coal Bed Methane/Water Policy Subcommittee
May 8 and 9, 2002
FINAL MINUTES**

COUNCIL MEMBERS PRESENT

**SEN. MACK COLE, Chair
MS. JULIA PAGE
SEN. BEA McCARTHY
SEN. PETE EKEGREN**

**SEN. JON TESTER, Vice Chair
MR. TOM EBZERY**

STAFF MEMBERS PRESENT

**MS. MARY VANDENBOSCH
MS. KRISTA LEE EVANS
Ms. Robyn Lund, Secretary**

AGENDA

Attachment 1

**VISITORS' LIST
Attachment 2**

SUBCOMMITTEE ACTION

- Approve February minutes
- Adopt agenda for July meeting

I. UPDATE FROM RESERVED WATER RIGHTS COMPACT COMMISSION

Chris Tweeten, Reserved Water Rights Compact Commission, said that the Commission can trace its existence to the 1972 constitution, which created an obligation on the part of the state to keep a central record of all water rights in the state. Between 1972 and 1979, there were several attempts to implement that central record keeping requirement. Those efforts culminated in the Water Use Act in 1979. Montana undertook a fairly burdensome and extensive process of trying to quantify all the water rights in Montana. When the legislation that created

the Water Use Act was being contemplated, many of the best minds in Montana worked to ensure that the act was workable and addressed the needs that those involved wanted to address. One of the pieces of advice was that a special provision for federal and Indian water rights was needed. Those rights are fundamentally different than water rights under the state law. The federal rights can't be abandoned by non-use. The Legislature had to come up with some system to deal with those rights. The Legislature created the Reserved Water Rights Compact Commission to address federal and tribal water rights. The idea was the Commission would attempt to negotiate water rights settlements without having to litigate those rights in court. This is unique to Montana; a lot of states are envious because Montana has had more success with negotiating these water issues out of court than other states. One of the objectives of the Compact Commission was to deal with these rights at less cost than litigation. The Commission is proud of the way this is done in Montana. It has produced substantial benefits for the state.

There are 9 members on the Commission. There are 4 citizen members appointed by the governor, one member appointed by the Attorney General, and the remainder of the Commission is made up of legislators. The Commission has broken into negotiating teams of between 2 and 4 Commission members and staff to deal with specific issues. The process is that the Compact Commission reaches negotiated settlements over the claims of a federal agency or Indian tribe. Those settlements are then reduced to a written agreement and then submitted to the legislature for ratification. At that point the federal and tribal claims begin to differ. The federal government has determined that congressional ratification is required for compacts that settle Indian reserve water rights claims. The final step in the process is the incorporation of the compacted rights and the decrees. The litigation process ends in a final decree of the water rights in a specific basin. Those compacts are folded into the decree process. Since the Compact Commission began in the 1980's, they have completed contracts at Fort Peck, which have been ratified; with the Northern Cheyenne Tribe, which has been ratified by Congress; with the Crow Tribes, which is moving toward congressional ratification; and Chippewa Cree Tribes at Rocky Boy. They have reached compacts with several federal agencies with respect to water rights. An example is the U.S. Fish and Wildlife Service. They have reached compacts regarding all the national parks in Montana. The Glacier Park compact involves agreement on in-stream flow rights and restrictions on new water uses. In the Yellowstone Park compact, a controlled ground water area was established for protecting the geothermal resources that make Yellowstone Park what it is. All of those compacts have been ratified by the Legislature and are in full effect.

There are some things that are left to address. This includes three Indian tribal issues, the Flathead Reservation, the Blackfeet Reservation, and the Turtle Mountain Chippewa Tribe allotments. The federal agencies remaining are the National Forest Service lands. They have been meeting frequently to discuss water rights claims and are making significant progress. There is not a significant potential for conflict in most areas. They are working to come up with a simple workable way to protect the national forest interests while at the same time protecting upstream users. They are optimistic that there may be a compact in 2003, but certainly by 2005. The major tribal negotiation involves the Flathead Reservation. There is a proposal from the tribe that the state agree that all waters on or below the reservation belong to the tribe and they have all management rights. The Commission did not believe that was a politically achievable proposal. They are proceeding through the technicalities, but it has a long way to go before a compact is finished. They are proceeding in good faith.

SEN. TESTER asked where the Blackfeet are in negotiations. **Mr. Tweeten** said that there is a proposal on the table regarding the Birch Creek claims. Birch Creek has a large irrigation project associated with it. There are a lot of competing claims for that water. The tribe has a proposal that seems to be well accepted. In general, the irrigators in the area are not opposed to the resolution. Birch Creek is the most complicated drainage in the basin. They haven't met with the Blackfeet in some time. The tribe has significant turnover of their tribal council, but they are represented by a very competent water attorney. At the staff level they are discussing and sharing information. They are trying to schedule a negotiating meeting some time this summer.

SEN. TESTER asked if the Rocky Boy compact has any effect on the Blackfeet. **Mr. Tweeten** said that there is a potential for conflict. The Blackfeet came in opposed to the Rocky Boy compact because of the allocation to the Chippewa Cree Tribe of a block of water in the Tiber Reservoir. There is a huge block of unallocated water that the federal government gave a portion of to the Chippewa Cree tribe. This compact is done; it has been approved by Congress. There is still a large block of water in Tiber Reservoir available for allocation. **SEN. TESTER** asked if the President doesn't sign it, what will happen to the compact? Is the compact solid?

Mr. Tweeten said that the issue with the compact is the funding of it. The compact allows the tribe to withdraw from the compact if it is not fully funded. This situation is not unheard of; there was a similar situation several years earlier with the first Bush administration. They are hopeful that those concerns will be addressed and the funding will go forward. **SEN. TESTER** asked when the Fort Peck and Crow compacts will move through congress. **Mr. Tweeten** said that the objection at Fort Peck involves concerns of downstream states about exportation of water. He doesn't have a time table for when those issues will be resolved. The Crow tribe is no longer seeking to reopen that compact. The next step is the drafting of legislation for that compact. That process hasn't gone far at all. The tribe is anxious to go forward.

SEN. COLE asked, regarding the Northern Cheyenne, is there anything for using water out of the Tongue River Dam? **Mr. Tweeten** said that the compact enlarged the Tongue River Dam by raising the crest of the dam and the spillway. The additional storage was allocated to the tribe. They are allowed to market that water under the compact, but that has not happened. **SEN. COLE** asked about the Bureau of Land Management (BLM). **Mr. Tweeten** said that there were 2 separate claims by the BLM. They reached compacts regarding the 2 claims in the early 1990's and those have been ratified by the Legislature. The recent controversy over the designation of the Missouri as a national monument creates an interesting overlay because the federal language includes language about water rights. He isn't sure if it will require additional negotiation regarding the water rights for the Wild and Scenic portion of the Missouri. It would be hard to imagine a water right greater than what was already agreed to. They are waiting for that controversy to resolve itself. **SEN. COLE** asked if there is any water rights requested for BLM land other than those two. **Mr. Tweeten** said those are the only claims for water rights.

SEN. COLE asked where the waters would be on BLM lands if they were not asking for a reserved water right. **Mr. Tweeten** said that they would be required to apply to the Montana Department of Natural Resources (DNRC) for a permit for water rights. They can use the existing state process for that. **SEN. COLE** asked as far as underground water, is there anything different as far as appropriations on the reservations? **Mr. Tweeten** said that the water court judge issued a ruling with respect to one of the compacts which talked about ground water

and he observed that the law is not clear at the point as to whether the reserved water rights extended to ground water. It is a major issue on the Flathead Reservation and the Supreme Court will have to resolve this issue at some point. There is usually a gallon-for-gallon trade off of ground water and surface water. The water court thought that was reasonable. **SEN. COLE** asked about the shortage of water in the Fort Belknap area. **Mr. Tweeten** said that compact is on its way to Congress. It is an extremely complicated compact. There are a lot of conflicting interests. The compact allocates a block of water to the tribes and then counts on the creation of mitigation efforts. The forecast is that the water supply will be better this year than last. The carry over is nil. The likelihood is that there will be conflict. **SEN. COLE** asked about what is happening with Canada. **Mr. Tweeten** said that there have been proposals for additional storage in southern Alberta for the Milk River, but he doesn't think anything active is going on. The model figures that the Canadian share will be fully used.

SEN. TESTER asked when the BLM agreement regarding the Missouri mining was entered into. **Mr. Tweeten** said it was the late 1980's or early 1990's.

SEN. COLE said that reserved water rights will play a major role in how the state operates.

II DRAFT GENERAL PERMIT FOR CBM WATER

Tom Reid, Department of Environmental Quality (DEQ), said that his group's responsibility is to issue water discharge permits. See **EXHIBIT 1**. The water quality section oversees the issuance of individual and general discharge permits. At this point there is only one discharge permit for CBM water and that is for Fidelity. The DEQ issues individual and general permits. General permits cover discharge of waste in state waters. These are used for discharge such as storm water, construction activities, et cetera. The fact sheet includes the information for the permit. The permit is the actual authorization. The discharges are of the same nature. They all discharge the same type of waste, same effluent limits, the same or similar monitoring, and are more appropriately controlled under a general permit rather than an individual permit. On a individual permit an application is processed with public notice. They also do an environmental assessment (EA) or an environmental impact statement (EIS) for an individual permit. With a general permit, the permit is issued up front.

At the time that the department issues the draft permit, it sets up public comment, etc. It is a different process than that of an individual permit. There are hundreds of general permits issued. The DEQ anticipates hundreds of CBM discharge permits and they will be a general discharge permit. They have been issuing Montana Pollutant Discharge Elimination System (MPDES) permits since 1974, since the -5- mid 1980's they have been issuing general permits for produced water from oil and gas facilities. Under the general permit you can discharge to ephemeral waters or ponds provided that the water goes to a beneficial use. Federal effluent limits must be incorporated. That requirement comes out of the federal guidelines. With every permit that they issue they are required to include any federally promulgated effluent limit guidelines.

When they excluded CBM from the other produced water permits, the industry wanted to know what they were going to do. The DEQ decided to set up another general permit. This is a draft permit. By the time they issue a final permit, the flavor of that permit could change substantially. The U.S. Environmental Protection Agency (EPA) has the right to object to a permit. The EPA has said that they will submit comments for this permit. Those comments will have to be

considered. If they change the permit, they have to go through the process of public comment again. In this case, the receiving waters are the impoundments that are put to beneficial use. The standards for irrigation will be proposed. In this case, produced water is considered an industrial waste. In their general permit the waste is the produced water that is discharged. If the produced water is discharged into state water, they would require an individual MPDES permit. In this case it is not necessary because the ponds are constructed off channel in areas that do not contain other state waters. The permit does not authorize the drilling of the well or the construction of the pond. The Water Quality Act does prohibit the construction, operation, or modification of a disposal system.

MS. PAGE asked if the impacts are examined in the EIS. **Mr. Reid** said that was correct. The impacts of CBM development are analyzed in the EIS. **MS. PAGE** asked if there would be no further analysis of an impoundment if it came in under the general discharge permit. **Mr. Reid** said that was correct. The DEQ only authorized the discharge, it doesn't control the impoundment. The general permit will not become a final permit until the comments on the final EIS are responded to. If there are significant changes, they will have to start the process over again. They review each application individually. The authorization will require the applicant to monitor the discharge. General permits will still require the permittee to monitor receiving water downstream to look at cumulative effects. **MS. PAGE** asked if the only water quality limitations that the ponds need to meet are for wildlife and cattle, which doesn't address the concerns of high sodium levels. If there is a wide spread use of the general discharge permit, that water will end up in the ground water and eventually surface water used for irrigation. **Mr. Reid** said that the permit requires no discharge. There would be no discharge except for a storm event. There needs to be some overflow structure. The issue of seepage from the ponds is not addressed in the permit other than the monitoring of the cumulative effects. They can look at trends of what is happening with the water. They had looked at issuing a number of permits based on a unit of base flow. The other issue is just the number of ponds in a particular basin. These are issues that were not addressed in the EIS. Ultimately you have to rely on the monitoring. The legislature exempted the DEQ from regulating discharges to ground water by produced water. The DEQ doesn't have the authority that they might with other sources of discharge to ground water.

Mr. Reid said that currently, from the DEQ's perspective, the EIS is programmatic for the general permit. They will respond to comments and issue a final permit. They do have the authority to attach stipulations to individual permits. They can also suspend or revoke a general permit for cause, such as cumulative effect. Other grounds for revoking a permit include violation of water quality standards or misrepresentation during the permit process. Any person can ask for review of an authorization for a general permit. Cumulative effects are addressed in the EIS. To address those the DEQ would require monitoring. An operator could use a network of ponds for discharge water provided that the cumulative impacts are not a factor. There is nothing in the permit that limits an operator from constructing and using a number of ponds. There is a quality standard in the permit for those ponds. The intent of the permit is to locate these things outside of drainages. The permit prevents a pond from being sited in a drainage. If an operator wants to do that it would require an individual permit.

SEN. EKEGREN asked about the sediment in the ponds, it is assumed that the seepage would be about 24% and they don't want the sediment to get above a certain percentage; what happens when the sediment gets above that level? **Mr. Reid** said that the DEQ would require monitoring of the water in the pond. The concern is that over time, through evaporation the

ponds would concentrate and no longer be suitable for the beneficial uses that they were prescribed for. They would also affect the soils underneath. The permit requires monitoring of the soils underneath the ponds and that if the electric conductivity (EC) exceeds a certain level, the permittee has to submit a reclamation plan. **SEN. EKEGREN** asked if the ponds have a liner of any sort to hold the water and prevent seepage. **Mr. Reid** said that the permit doesn't require a liner in the ponds.

SEN. EKEGREN asked if the producer elected to line the ponds and eliminate the seepage, would the build up of the sediment be quicker? **Mr. Reid** said that would be the case. **SEN. EKEGREN** asked if it would be the producer's responsibility to clean the pond or would the permit allow him to build another pond and abandon the first? **Mr. Reid** said that they could abandon the pond and construct another pond. It would be handled as a separate permit or operation. **SEN. EKEGREN** asked if it is possible to connect the ponds. **Mr. Reid** said that DEQ would have to look at that specifically. The permit doesn't allow construction in a drainage, but the permit doesn't currently prohibit linking ponds in a series. If the ponds are constructed consistent with the permit, there is nothing to prohibit linking the ponds together.

SEN. TESTER asked what the purpose of the general permit is. **Mr. Reid** said that the purpose is to facilitate and give the industry a target to shoot for so that they can design their facilities. **SEN. TESTER** asked if the target doesn't include irrigation. **Mr. Reid** said that they wouldn't prohibit the use of the water for irrigation, but the permit doesn't protect at that level. **SEN. TESTER** asked if the 24% of discharge water that goes into the ground water through seepage would vary greatly depending on the soil and rock base. How does the DEQ accommodate that in the permit? **Mr. Reid** said that there will be a wide range of permeability in those soils. These are constructed away from the coarser soils, in less permeable soils.

SEN. TESTER asked if the land owner is different than the mineral owner, does the land owner have any say in the building of these ponds. **Mr. Reid** said that the DEQ requires a letter from the surface land owner.

SEN. TESTER asked who monitors the rivers. **Mr. Reid** said that they would require that the permittee do self monitoring. This is the first line of monitoring in all MPDES permits. The department also does compliance monitoring on a less frequent schedule.

SEN. TESTER asked if they will be monitoring the Tongue River in the same manner. **Mr. Reid** said that there are 2 levels of monitoring. The operator and the agencies are doing monitoring. The U.S. Geological Survey (USGS) maintains monitors. The DEQ is also doing quite a bit of monitoring. **SEN. TESTER** asked if the mineral content will be part of the monitoring. **Mr. Reid** said that it would be included in the permit.

SEN. TESTER asked if there are some bonds attached to the wells. **Mr. Reid** said that the DEQ doesn't require bonding. **SEN. TESTER** asked, when the ponds are full of solids, who pays for the reclamation? **Mr. Reid** said that if they violate the permit, the DEQ can require them to clean up. But the DEQ would not do the clean up because they don't have the funds to do that. There is a voluntary bonding provision in the Water Quality Act.

SEN. EKEGREN asked if the ponds became unacceptable in the level of sediment, would the DEQ just shut off the permit, leaving the land owner responsible for the cleanup. **SEN. TESTER** said that sometimes the mineral owner is different than the land owner.

Gail Abercrombie, Montana Petroleum Association, said that while it is drilled, it is bonded. The pit is under the bond and the Board of Oil and Gas Conservation (BOGC) would be out there getting it reclaimed. The bond can be forfeited to reclaim that land. **SEN. COLE** asked about the fund that was set up under legislation. **Ms. Abercrombie** said that is a subset of the Resource Indemnity Trust (RIT) fund. **SEN. COLE** said that there are 2 sets of bonding. **Ms. Abercrombie** said that they have standards that they have to meet. Grants are awarded to the BOGC through the RIT.

SEN. TESTER said that there are far more wells than what there is money to reclaim. Is there a percentage amount for the bond? **Ms. Abercrombie** said that there are various ways to determine the amount. The bond amount is usually determined on the liability that is out there.

MS. PAGE asked if there were a bunch of ponds approved for a drainage, and there was a monitoring system, down the road there will be an effect on the river, at that point, wouldn't there already be a lot of water that would still continue to show up in the river for a period of time after the closure of the ponds. **Mr. Reid** said that is a factor. The seepage mixes with the existing ground water; it is not a total replacement. Over time there will be an increase. The monitoring would have a lag time, but short of lining the ponds, there isn't another mechanism to prevent that. **MS. PAGE** asked where in the EIS is that effect analyzed. **Mr. Reid** didn't know. He believes that the current permit doesn't allow direct discharge. It is the seepage that is discussed and the cumulative impact of that which could affect the sodium absorption ratio (SAR) in the soil. **MS. PAGE** asked if they submit comments on the general discharge permit, should those be sent to the department. **Mr. Reid** said that if the comments are specific to the general discharge permit, it would be helpful to have it say that in the comments. They -8- can be sent to the department or the BLM. There are many people involved with the overall impact of CBM development.

Steve Gilbert, Northern Plains Resource Council (NPRC), said that the irrigators on the Tongue River have tremendous issues with the concept of the general permit. Under the permit it says "increase water availability to livestock and wildlife in holding pond...beneficial uses of produced water." Under HB 573, Rep. Bale's bill, CBM has been exempted from having to prove a beneficial use because it is not a water right. How can we have a beneficial use without a water right. You don't create wildlife or livestock by adding water. The state has eliminated wildlife values by creating these stock ponds. The discharge pits have flooded wildlife habitat. Twenty-four percent of water seepage is an arbitrary number. The actual number is between 0 and 100% that will make it into surface waters. How is this not a discharge to surface water? It seems preposterous that we can talk about 1/4 of the water as not discharge. The EIS doesn't look at the cumulative effect of the general permit. In terms of cumulative effects, the EIS doesn't address any of the issues pertinent to discharge pits in Wyoming.

Rep. Keith Bales, HD 1, said that HB 573 said that the discharge of CBM water wasn't waste under the Water Appropriation Act. It didn't preclude putting that water to beneficial use. Ducks Unlimited spends a lot of money to increase wetlands. There are 2 sides to this issue. Mr. Gilbert's interpretation of HB 573 was wrong.

III COAL BED NATURAL GAS AND WATER POLICY UPDATES

• *Total Maximum Daily Loads (TMDL)*

SEN. TESTER said that they met in February in Chester with a group of producers that are in the Sage Creek Watershed. The users expressed some concerns about the baselines that were established, and the process and time lines that were used. Other issues include ground water versus surface water. There was a discussion with DEQ staff about those issues that had been raised. These are eastern Montana concerns. The DEQ assured Council members that they would take those concerns into consideration with the next TMDL.

SEN. McCARTHY said that most of the hydrologists are trained in the western part of Montana and when they go to the eastern part of the state it is totally different. All of those at the meeting felt that this is something that needed to be brought forward. The turnover of DEQ staff personnel came up during the discussion.

SEN. TESTER said that they suggested that the department work with the BLM and Montana Salinity Control, which have both worked and have experience in that ecosystem.

SEN. COLE said that everybody is talking about the salts and minerals in the water, but there are a lot of those already in the soils in the drier areas of the state. We need to be looking at that as we move down the road. It was a beneficial meeting.

MR. EBZERY asked if both parties learned through the process and will that help as they get into the program. **SEN. TESTER** said that one of the concerns is staff turnover. The Sage Creek group was very frustrated with the process. When it came to setting the base line numbers, the watershed group felt that they had not been listened to. The creek has only run 2 out of the last 10 years. The DEQ was very open and receptive to the concerns expressed. They understood that there was a problem. The watershed didn't feel that the baseline was fair. The DEQ has been dealing with western watersheds; the east is a different ecosystem.

• *CBM updates*

MS. VANDENBOSCH referred to **EXHIBIT 2**. There are two activities underway to develop water quality standards. Regarding the Northern Cheyenne water standards, the tribe has responded to the comments and is working on a final set of standards. The standards do require EPA approval. The DEQ is working on numerical standards for SAR and EC. They will present those to the Board of Environmental Review. The board has the authority to adopt water quality standards.

The Flathead Lake station got some money to study CBM and specifically they are doing a scientific study of the ecological integrity of streams and rivers. The researchers are going to be traveling to the area of CBM development in the eastern part of Montana. They are networking with people involved in other studies.

SEN. TESTER asked if the researchers could talk about the study when it is finished.

MS. VANDENBOSCH said that they may finish after this Council is done.

MS. VANDENBOSCH said that the EPA has been working on the best professional judgement determination of effluent limitations that represent best available technology economically achievable for CBM produced waters. They have been working on this for a while and the current expectation is for a draft in August 2002. This is to support their permitting activities in Indian country in Montana. It will also be available for the states to use in their own permitting process. Included is a list of legislation that has been introduced in Congress or has been considered by members of Congress.

The deadline for comments on the general discharge permit and the EIS is May 15.

The Agency Oversight and MEPA Subcommittee had a panel on severed mineral rights and how the land owner knows about that. The panel included Monte Mason, DNRC; Sen. Tom Keating, a representative from Helena Abstract and Title, and a clerk and recorder.

MS. PAGE said that the counties don't have a record and don't track the mineral rights. You have to read all the specifics to see if the mineral rights were severed and transferred. The state says that they know and can tell you if you own the minerals. This information is difficult to find.

SEN. TESTER asked who you contact at the state for that information. **MS. PAGE** said Monte Mason. **MS. VANDENBOSCH** said that if they are state owned minerals you need to go to the Trust Land Management Division of the DNRC. If they are federal you need to go to the Bureau of Land Management (BLM). If they are private you need to go to the clerk and recorder.

- ***Water Policy Update***

MS. EVANS referred to **EXHIBIT 3**. There was a recently decided Montana Supreme Court case with the Bitterroot River Protection Association versus the Bitterroot Conservation District. The Bitterroot Conservation District is the authorized district for Valley County. For years they have issued 310 permits on the Mitchell Slough. A few years ago they had a request for a four ditch permit for Mitchell Slough. In the evaluation of that they tried to determine if it was a naturally occurring stream. They had a public comment process to determine if it is a perennial flowing stream. The Bitterroot River Protection Association asked for a writ prohibition. The conservation districts have the authority to decide which bodies of water the 310 law doesn't apply to. The Montana Supreme Court decided that it was only natural that the conservation districts would also be the ones to determine if a stream is a naturally flowing perennial stream. The other issue that came up in this was whether or not their decision on whether it was a perennial flowing stream would have any impact on the stream access. The Supreme Court said that would be two different fact finding missions. If it is not a stream is it then a ditch and not subject to stream access laws.

IV BUSINESS AND NEXT STEPS

- ***Agenda***

MOTION/VOTE: SEN. McCARTHY moved to approve the agenda. Motion passed unanimously.

MOTION/VOTE: SEN. McCARTHY moved to approve the February minutes. Motion passed unanimously.

MS. EVANS said that in regards to the handbook, a draft will go out within 2 to 3 weeks. There will be a time line associated with that for comments, so that there can be a final rough draft for review at the July meeting.

V BREAK

There being no further business, the meeting was adjourned. The subcommittee will reconvene after the full EQC meeting May 9.

VI DRAFT CBM EIS QUESTION AND ANSWER

David Breisch, Bureau of Land Management (BLM), referred to **EXHIBIT 4**. The purpose of the document for the BLM is two fold. It is to analyze the potential impacts of CBM development and discuss mitigation measures, reduce or eliminate adverse impacts, and outline a comprehensive monitoring plan to monitor the effectiveness of mitigation efforts, etc. The EIS will be used to amend BLM's land use plans. The reason that the BLM needs to amend the land use plans is that neither plan discusses CBM exploration or full field development. A couple years ago the land use plans were amended for oil and gas. The draft EIS will analyze and amend the land use plans. For the BLM, the record of decision which will follow the final EIS will provide a foundation for decisions regarding lease options, outline decisions for the BLM, and provide guidance for implementation. Plans of development would be required for lease operators for CBM development. Those would require a detailed explanation addressing everything involved in the operation.

One of the questions talked about alternatives in the draft EIS. Alternative A is a description and analysis of the existing situation. The other alternatives look at different ways of managing CBM exploration and development. This looks at a range of wells based on information from the oil and gas industry and published geologic data. This range was 10,000 to 26,000 wells that might be drilled throughout the entire state of Montana. Industry, in Oct 2000, made a presentation to the CBM coordination group and projected the drilling of 9,500 to 10,000 wells in the Montana portion of the Powder River Basin. They included wells on tribal reservations and federal land. Most of it was done for analysis purposes. If there are fewer wells, the impacts would be less.

Another question was asked about a preferred alternative. If implemented, would that require changing federal laws? The BLM has determined that it would not. They are confident that the existing federal laws and regulations adequately address CBM exploration and development and give the BLM the authority to oversee those operations. The preferred alternative requires a water management plan, which is a proposal submitted by the company telling how they intend to manage the water produced by CBM.

Another question asked about surface owner agreements. The BLM requires that a lease operator gain a surface agreement with the surface owner before operations begin. This is to protect surface resources and provide for reclamation. If an agreement can't be reached and a good faith effort has been made, the BLM can require an additional bond for protection of the surface resources and reclamation.

SEN. EKEGREN asked what the time table would be for the EIS, the application for permit to drill (APD), the National Environmental Protection Act (NEPA), and the Reasonable Foreseeable Development Scenario (RFD). **Mr. Breisch** said that the time frame for the EIS is that the public

comment closes May 15. The BLM will look through all of the comments received and make whatever changes are necessary to the document. The final EIS is anticipated in August. After publication, there is a 30 day protest period. They will review all the protests and respond to the valid ones. If changes to the record of decision are needed, those changes can be done. Then the BLM will issue a record of decision. After the record of decision is signed, companies can submit APD's and plans of development to the BLM and they can start processing those. For the CBM plans of development, which will look at multiple wells and infrastructure, it will be a larger project than reviewing just a single APD. In Miles City they don't know how long it will take them to review and process a plan of development because they have never done that before. Once the plan of development and APD's are approved the company has the right to implement whatever is authorized by that APD. **SEN. EKEGREN** asked where MEPA fits in. **Mr. Breisch** said that the MEPA review, after the record of decision is signed, when the BLM receives an individual APD, they are required to do a NEPA review and an EA of the proposed activity. If there is just one APD to approve, they should be able to approve that in 30 days. A plan of development requires a further NEPA review. **SEN. EKEGREN** asked from the beginning of the EIS to the actual permit, what time frame would that be. **Mr. Breisch** said that they began the EIS in December 2000. **SEN. EKEGREN** asked when it would be finished. **Mr. Breisch** said they are hoping it will be finished by the end of this calendar year.

MS. PAGE asked, if you can't come to a surface use agreement, how does the BLM determine the amount of the additional bond. **Mr. Breisch** said that he had not had that experience. **MS. PAGE** asked if that was detailed in the regulation. **Mr. Breisch** said it is not. **MS. PAGE** asked if there is some important data that hasn't been developed for inclusion in the EIS, the actual means of managing water are not specified, how does the BLM plan to incorporate the information that is lacking. **Mr. Breisch** said that the BLM has not received written comments from the EPA. In the course of that meeting the concerns that the EPA expressed were ones that the EPA felt were resolvable. In terms of protecting water, the BLM believes that the existing state laws are in place to protect. In dealing with produced water, the BLM can't authorize the disposal of water when the action requires state approval. **MS. PAGE** asked if there was any formal public input when the BLM looks at plans of development and what level of scrutiny will these individual fields have. Also, what mitigation efforts are required and are they adequate? **Mr. Breisch** isn't sure what level the public input will be during that process. The affected surface owners will be involved right from the beginning, and also with siting and water management.

Tom Richmond, DNRC, said that the impacts of water quantity are similar in all the alternatives, except the no action alternative. The EIS quantifies that as about 23% withdrawal of the water resources in the affected areas of the Powder River Basin watersheds. With development on the reservations that amount could increase to 35%. The second part is about research on how quickly the aquifers recharge after being drawn down. The Wyoming BLM indicates that after CBM development ends, within 3 to 4 years, water levels in the coal aquifers are expected to partially recover to within 20 to 30 feet of pre-operational conditions. The EIS predicts an 80% recovery within 4 years. The remaining 20% will take a very long time. There was a question on the alternatives that might impact that alternative. The preferred alternative requires a water management plan. Another question dealt with phasing in development. As a practical matter there can't be 20,000 wells drilled tomorrow. There isn't the needed infrastructure. They need to develop project plans and water management plans, which will slow things down. Beyond that issue, there is the concern that if agencies choose to prohibit some owners from developing their property, then the government creates inequities. If the

government makes that decision, the government is responsible for the inequities that are created. If the phasing is created by the nature of the business, such as the lack of infrastructure, then the government is not responsible and doesn't create any inequities. The practical result is that the development is staged over a period of time. There was a comment that the draft EIS says there may not be replacement water in the area is to be used for mitigation. The draft EIS says that there may need to be outside sources of water to comply with mitigation. The operator is responsible for this.

Denying permits brings up an interesting question. We are talking about a project that might impinge on water quantity in a certain area. There needs to be a water monitoring plan that allows someone to plan for a water resource for impacted parties and determine when and where the water would be depleted. He was also asked about a land owner surface use agreement. State law requires that the mineral developer and the land owner reach some agreement on compensation for the activity. He is not aware of many of the cases going to district court, but that is where the law would lead if an agreement could not be reached. He is not aware of any case and would believe that these agreements are reached. It is to everybody's advantage to reach a surface use agreement.

SEN. EKEGREN asked if water that sits on the coal is solid or in motion all the time.

SEN. COLE said that it is mixed around the molecules. **John Wheaton, Montana Bureau of Mines and Geology (MBMG)**, said that the water is in motion all the time in the coal seams.

MS. PAGE asked where it is analyzed what a 30% draw down in overall water resources would mean. **Mr. Richmond** said that it is addressed in the discussion about modeling and how far out draw down might be seen. The area of influence of a project would depend on the size of the project and the coal around it. On a site specific basis you would look at what was physically present. The prediction is that there is little effect of withdrawal from a coal bed aquifer. It is separated from above and below, otherwise the gas wouldn't be there. **MS. PAGE** asked if residential loss of water is talked about in the EIS. **Mr. Richmond** said that the law requires that a mitigation offer be given to anyone within one mile of the project. Beyond that, you have to look at what the project proposes. **MS. PAGE** said that she doesn't understand what recharge to 20 or 30 feet of head means. Would it reduce the effectiveness of a well? **Mr. Richmond** said that it would reduce the hydrostatic pressure in the well. When the pressure is reduced, the surface drops. Often we are talking about a surface that is higher than the top of the aquifer. **MS. PAGE** asked if this is something that the 3D modeling would help us understand. **Mr. Richmond** said that the 3D model factors in recharge. It is a different way of predicting an area of influence.

Art Compton, Department of Environmental Quality (DEQ), said that in the Alternative A, the EIS predicts another 20% increase in discharge to the Tongue. Alternative B is where produced water is injected. The only water quality impact identified is erosion and runoff of the land disturbed by surface facilities. Alternative C is discharge of all produced water to the landscape. It predicts 24% of that water will reach stream flow. The EIS is specific about the salinity and SAR and the resulting water quality. Alternative D is the treatment alternative. The only impact is from Wyoming development. Under the preferred alternative, the impacts are similar to the full discharge scenario. Under the preferred alternative it requires a site specific water management plan for each site. In the water management plan they would expect to see the manner in which they propose to divide up the water for beneficial uses, distribution to infiltration ponds, and treatment. It is not sure if we will see much injection of water at this point. The water

management plan will be submitted to the DEQ or the BLM. It would be approved or disapproved based on the ability of the plan to meet water use standards. Most operators will put water into ponds. They will be encouraged to use the water for beneficial purposes.

How does an operator make beneficial uses in the preferred alternative? In some places operators may have limited means for beneficial uses, such as stock water. CBM water is good for supporting livestock. There will be a limited amount of water used for that benefit. Other uses include dust management on roads. There are efforts underway using land application and experimenting with soil amendments that will allow the water to be used for irrigation.

There was a question about phasing in development. This is a 20 year play for CBM development in the Tongue and Powder Basins. It will be the market that determines the timing and pace of that development.

The last question was, given the facts in the EIS about the ambient water quality and the water quality of the discharged water, how many wells can be permitted to discharge into the Tongue River. Assuming a water quality threshold of 2 for SAR, the EIS calculated that at the state line 91 wells could discharge on the Little Powder, which is only about 4% of the reasonably foreseeable wells on that river. Upstream from the state line on the Tongue River there could be 1,800 discharging wells, which is about 70% of the foreseeable wells in Wyoming. In Montana the Tongue River could have about 516 wells discharging, which is about 18% of the RFD. The EIS does provide the reader some insight into how many wells could discharge and still maintain water in the streams of irrigation quality.

MS. PAGE said that dust suppression with CBM produced water on roads would amount to spreading high SAR water in a corridor going wherever. Wouldn't we also be spreading salts onto the ground making those road corridors harder to reclaim. **Mr. Compton** said that often water surface treatments for dust suppression include salt compounds. The other water that is often used for dust suppression contains a magnesium chloride, which is also a salt. Salt compounds are commercially available and commonly used. He wouldn't think that elevated SAR would do anything but improve the water used for dust control. **MS. PAGE** asked if there is a discussion of how much water it is practical to use in that application and what the consequences are. Another potential beneficial use is the stock ponds, is there a discussion of how much water will be produced versus how much water it is -15- practical to think that the cows will drink.

Mr. Compton said that there are some environmental effects of mis-use of dust suppression applications. That is not addressed in the EIS. With respect to the amount of water that a cow can drink, the amount would be a very small percentage of the produced water that an operator will need to dispose of. Evaporation, which can be 15 to 20%, will be a far greater water disposal method.

Steve Gilbert, NPRC, said that part of the job of the National Environmental Policy Act is to provide information for public disclosure. Why was this process begun on a time line that didn't allow for the inclusion of any original data to be gathered and analyzed for the document? Since public disclosure is part of the process, why are there 9 studies that are not going to be part of the public review process? Since discharge pits are a primary disposal method, and 70% of the surface is privately owned, if a landowner doesn't want a discharge pit on his property and is

unable to come to an agreement with the company, is he going to be forced to have a discharge pit on his property?

Mr. Reisch said that the BLM felt comfortable with the existing data that was available and is included in the draft EIS, they felt that additional studies would be needed to augment the existing data. They have received draft reports and final reports for some of the reports mentioned in the draft EIS. The information supports or validates the existing data that they had and the projections and assumptions made in the document. The data doesn't show any substantial changes needed in the EIS.

Mr. Compton said that there has been a lot of discussion about split estates. It is the mineral owner's right to develop that resource. The use of infiltration ponds on the surface is likely to be the first and foremost option of the operator to dispose of water. He doesn't know what option the surface owner has other than to negotiate the most agreeable mitigation plan that he can.

Mr. Gilbert asked if he is the surface owner and doesn't want discharge pits on his property, he may have to have them anyway. **Mr. Compton** suspects that a surface estate owner's options may be limited if the mineral owner is entitled by law to extract those minerals and because of water quality concerns the use of infiltration ponds is the best option for them.

Mr. Gilbert said that none of the data that he had seen from the coal companies was included in the document. There is a list that suggests that the aquatic and wildlife studies may be done and not included. This is an enormous oversight on the part of the government.

Wayne Ransbottom, Marathon Oil Company, said that there is a lot of confusion about SAR. It is the ratio of sodium to calcium and magnesium. As water comes to earth as snow or rain there are very few minerals in it. As it moves over land, it picks up chemicals and you develop the SAR. You get a constantly changing SAR level. If you blend the CBM produced water, the water picks up calcium and there is a blended effect leaving almost 0 impact on the river SAR. If you look at the actual increases in the river, there is very little impact. At the point where the water is applied you need to understand what the water quality is, the chemical makeup of the water, and how it impacts the intended use.

MS. PAGE asked about the infiltration pits, there was a suggestion that the discharge into these pits would be going into the pits only to be protective of wildlife and livestock. There was an implication made that the water quality may improve as it travels through the ground to the surface. **Mr. Ransbottom** said that the water will change constantly. Most likely the SAR will go down as it goes through the soil because the water is picking up calcium and magnesium as it goes through the soil. **MS. PAGE** asked if there is much mixing that goes into the infiltration ponds. **Wayne VanVoast, MBMG**, said that ground water moves as a plume with a fuzzy boundary. The ground water doesn't mix very much.

Greg Petruska, Fidelity Exploration and Production Company, said that there are other uses than what was discussed. They didn't do an injection program because of concern of the local mines that by injecting into the coals it might create more water for them to deal with in their mining activities. Other companies that have tried to inject have had limited success; they don't have any large voided spaces to put water into. There was a pilot test for irrigation where they added gypsum. The sodium is not very high, it is that the calcium is low. Adding supplemental calcium will also reduce the SAR.

SEN. COLE asked about the possibility of moving some of the water to an area where there wasn't water over the top of the coal. **Mr. Petruska** said that they were trying to identify some shallow coals that were dry. What you need is a large reservoir that is depleted. The concern was that by adding water to those coals, they would enhance the amount of water that other mining operations would have to extract before they could mine the coal. Unless you can inject a lot of water into a single well, there will be greater surface impact as you add wells for injecting.

Mr. Richmond referred to **EXHIBIT 5**. Some of what was discussed today is addressed in the booklet.

SEN. COLE said that the question about bonding has come up in connection with leases. **Mr. Richmond** said that bonds are set by the BOGC. The board has the authority to increase the bond and has done so. The bonds are conditioned on the plugging of the well and restoration of the site. There is a damage mitigation account funded through the RIT that they administer. They also participate in the reclamation grant program through DNRC.

MS. PAGE asked if it is only the well site and the well itself that is covered by the bond. **Mr. Richmond** said that it includes any sites or facilities that were permitted. Roads are covered in the surface use agreement.

Mr. Breisch said that the bonding for BLM is similar to that of the state. An operator has to have a bond before lease operations can begin. There are 3 or 4 types of bonds that can be in place on federal oil and gas leases. There is a minimum bond and the BLM can raise that and they have done so.

MS. PAGE asked what it would take to reclaim the sites. **Mr. Breisch** said that it would be site specific. The way that they handle production pits now is that they can require whatever is left in the pit to be tested to get an idea of what treatment and reclamation work is needed. **MS. PAGE** said that we know a lot about the components of the water. **Mr. Breisch** said that we don't. We only know about the components of the water where there has been an analysis done. Until you have the site specific characteristics, you can't come up with a reclamation plan for a specific pit. **Mr. Richmond** said that there is experience in reclaiming salt water pits. They require the contents of those sites to be removed to upland sites. There have been notably few problems with reclamation on upland sites.

VII OTHER BUSINESS

MS. VANDENBOSCH asked if it is necessary to include the update on the status of the EIS in the next meeting's agenda.

SEN. COLE asked for an update on the Interior Board of Land Appeals decision. **MS. VANDENBOSCH** said that would fall under litigation which is scheduled for 30 to 60 minutes.

VIII ADJOURN

There being no further business, the meeting was adjourned.