Hanging Woman Creek
Meeting 2
18 November 2003
Sheridan, Wyoming

Welcome and Introductions

Dave McIlnay opened the meeting. There's controversy throughout the Powder River Basin. He saw that there was an opportunity to get stakeholders to sit down and do Coordinated Resource Management (CRM). There is an opportunity since there are no commitments in the area at present. Dave introduced Dennis Phillippi, who facilitated the meeting. In the last meeting we agreed to continue discussions. Representatives from WY DEQ and MT DEQ are here to address water law. Dave then introduced the BLM staff.

Dennis Stenger reminded the group about CRM. What it means and the cardinal rules. We all want win-win (some control over the process). We want consensus and need to involve all kinds of people.

Ground Rules

1. Agree to disagree – we all have legitimate needs.
2. Stay on the topic – focus.
3. Attack the issues, not the people.
4. One speaker at a time – 1st seek to understand, then be understood.
5. Remain professional. Professional courtesy.
6. Treat others like you would like to be treated.
7. Be a member and participate.

The Hanging Woman landowners met last week and would like answers to a set of questions today. Would like it to be an agenda item.

Jim Eisenhouser **(**WY DEQ), works with the NPDES department. Jim did a presentation on the State of Wyoming's water permitting. Any potential discharge that enters water of state has to have a NPDES permit. He is Wyoming's inspector. On permit issues, he inspects. The MT/WY agreement is that WY development will not degrade water quality in the Tongue or Powder River at the state line. With that agreement they've modified how they've done permits. They are going to try to keep discharge out of the basin. He then discussed the various permits.

Option #1 permit. They have permits issued prior to the Wyoming and Montana agreement. It is pretty much full containment. #1a – off-channel man-made full containment. Class 4c - water of the state. The water is protected for vegetation, livestock and wildlife. Uses on permits are not as strict as water going down a drainage. Option #1b playas or closed basin. These are not necessarily man-made. Class 3b limits

on no degradation are stricter. There can't be any other way to affect water of the state. "Option #1a" is the most common.

Is there protection for livestock and wildlife?

Under Chapter 7, need to not exceed an EC of 7500, TD5 of 5K, sulfur of 3K and chlorides of 2K.

Are there water quality parameters?

Yes. The landowner has the option to use the water. In a full containment basin, there is no point source outlet to allow water to flow out. Full containment means there's no surface water discharge.

Justify for numbers?

Typically no. Permits are set up around the volume. Companies can't exceed the permit.

Option 2 permit – don't see a lot because of the agreement with MT and concerns on water degradation. It is for direct discharge into a drainage. Class 3 B stream – Hanging Woman only flows during snow melt or thunderstorms. It is protected for aquatic life (as well as livestock, etc.). So there are more parameters and stricter limits. Class 2 ab is the Tongue River. Don't typically see option 2.

Option 2 has 4 subs (1): Irrigation use downstream. Designate an ICP (Irrigation Compliance Point) around 200 >10 (6 or 7 prob). EC and SAR limit.
(2) If there's no irrigation, then ICP doesn't apply but companies would have to have signatures from landowners. Goes to the state line.
(3) Direct discharge full containment reservoirs. Built in ephemeral drainage or side tributary going into it. Full containment as they can't discharge from the reservoir. (4) Combos of the above. Ex. Outside irrigation season, allow a discharge.

We have a general permit for CBM. It's only for off- channel containment units. We can issue a lot of permits with a small burden of getting them out. Needs to be similar water quality, same type of operation, etc. for full containment off-channel. It's generally the same as 1A and doesn't (generally) go through public comments. There are water quality limits and operators have to take samples with the results going to the state.

Are there monitoring wells to see where the water is going?

We can't require, but BLM has a ground water monitoring system.

An NPDES permit is not a requirement unless you're in an area very close to perennial water.

A year ago we developed a siting document for where off-channel water is placed. It has to be at least 500' away from ephemeral draw. Perennial water must be at least ¼ mile away.

If companies find a suitable location that is not possible at that distance and companies can show there would be no subsurface effects (no way for water to reach the drainage) it can be allowed.

Land application water use method: WY has companies are doing this. DEQ doesn't get involved, so as long as water doesn't enter water of the state. Otherwise it is unpermitted and would be a violation. We recommend it's done during irrigation season. That way there's no oversaturation, no water into the drainage. Atomizers/ misters in the winter cause problems – ice castles and water flowing down the draw. Spring melt flows into drainage. Has to be monitored closely.

It can provide irrigation water.

Is there an organized monitoring program for land application by the state?

Yes, under general inspection we make sure there is no runoff. The only jurisdiction DEQ has is if there's runoff. Jim says he has gone out on complaints and dealt with ice buildups.

Option 2 – limited by volume?

It's in the application process. The company submits an estimated total volume of water discharge. The permit holds them to that. Companies can add wells as long as they don't exceed.

The volume is based on flow in the stream?

Yes, but of 3d ephemeral, also how far up drainage. .1 cfs/ mile for the Powder River Basin at expt flow rate, water never reaches the Powder River. If flow rates are exceeded, there is a problem.

Is there WY discharge into Nebraska?

Not CBM water. Have had municipal water etc. into Nebraska, but not right now.

When's the irrigation season?

Defined on permit as April – September.

Right now there is water being applied!

Is land application available to the surface owners also?

Yes, landowners can sign a use agreement.

Does the 1a or general require beneficial use?

Yes, with 1a and it's possible with the general.

Is that a gray area?

Jim responded that he's not the permit writer, he's compliance.

A 3rd party does testing on compliance? BLM has one chance in a lifetime to monitor. That's insufficient. Isn't the companies doing it themselves insufficient?

WY is hoping to beef up its inspection staff. The number of inspectors visit outfalls at a more regular process. We have cooperative agreements with USGS for example.

Is it different to monitor where the discharge is coming from?

In areas reaching (the Powder River) we bracket above and below.

This is applied for NPDES permits and they are very specific. Do you require quarterly monitoring?

Depends where you're at in the basin. If it's off-channel and no direct discharge, monitoring is done twice/year by the company. DEQ also has inspection schedules.

South of Belle Fourche, there is better water, so there are more options (option 2 permits). We need to tailor the monitoring to the water shed.

Bonnie Lovelace (MT DEQ) then did a presentation on water permitting by the State of Montana. She explained she can't answer questions regarding water rights. The definition for MT for state water is a body of water, irrigation system or drainage system, either surface or underground. It doesn't apply to

ponds/lagoon for treatment

land application disposal water when water used up in irrigation….and not returned to state water.

Bonnie discussed how DEQ has no control over what is requested/proposed, but they must respond. DEQ tells the company how their proposal must meet the requirements.

Permits apply to wastewater systems, etc and it's per statute 75-5-103 (definition in #29).

Permits are for discharges of pollutants from a point source.

Exceptions for getting a ground water permit – something developed under oil and gas operations. If there's discharge proposed directly to ground water DEQ has – no jurisdiction.

Permits

MPDES –discharge permits require meeting standards, process, application, and public process.
It applies to everyone.
There are 2 kinds of permits:

1. Individual
2. General

#1: Individual – a significant amount of information is required. It is developed parameter by parameter. The company has to say what's in the water, where it's coming from and where it is we are going to use 7Q10. DEQ has paid USGS to update the database. In a drought, the 7Q10 will go down. In other cases, it may go up. DEQ is obligated to use flow numbers. When they look at discharge parameters, they must meet water quality standards and have to also look at the receiving water. Whatever's the most stringent problem for how the permits are set up, for example: ammonia was the biggest problem for the CX permit, so limits flow based on that. We do that every time. We then look at nondegradation and it may be made lower.

The Board of Environmental Review establishes regulations under the law. When they looked at the parameters they also gave authority for flow-based permits, so will also be a part of every permit. MEPA is also required. Each permit will have an EA with public comment. DEQ will respond to comments and make a final decision. Once the permit is out, it can't really change except in response to comments. So if you have something to say, you need to say it. Be involved.

#2: General Permit – we have about a dozen. The EIS has proposed permit (like WY, it's full containment). Bonnie then read out of regulations. General permit can be developed….requires same, similar monitoring, etc. We look at this section and say within the proposal it will fit under a General permit. There is an EA and public comment for the general permit also. When someone wants to use it, they have to have public comment. We were sued because of livestock (because of MEPA). It affected every general permit, we have to do an EA on every general permit. In the past, if outside the scope, then we would do an EA. That's gone. Now an individual EA is done on each action.

Not every state has MEPA. Some states have similar provisions. EPA can talk about the border issues.

A Federal NPDES also has a general permit (state adopted federal rule). There is an NOI process and if it's excluded under NEPA, then there's an NOI and no review. In MT, we do a review and we do an EA. The public may ask for changes. WY also reviews their general permits. MT doesn't do a review for construction storm water.

The general permit in the EIS has been tweaked because of court cases and comments. It's only for off-channel (50'). If the proposal doesn't fit, we have to go to an individual permit. This is very close to coming out.

Bonnie then discussed the conditions in the general permit:
-self – monitoring requirements
- impoundments – actual (built) structure is BOGC but they monitor conditions of soil on the bottom of the impoundment.
Submitted to DEQ and landowner.

- TDS>5000 mcf

Self – monitoring?

Under the NPDES program, are all self-monitoring. The Government can't afford doing all of it. MT has inspection/enforcement program samples. We don't have statewide monitoring, but we respond to complaints and USGS does the monitoring.

Jason Whiteman, Sr. then asked about the link between the NPDES discharge from CBM produced discharge into the Tongue River. Permitted discharge creates an excess body of water in the Tongue River. Under the Water Rights Settlement Act the Northern Cheyenne has 1st right to excess water. The discharge creates excess but the Yellowstone Compact Commission says we can't claim. Northern Cheyenne can't claim the right.

Bonnie Lovelace responded that under the water quality option, DEQ is looking at chemistry not volume. General permits address water quality and keep (polluted water) from being discharged. Bonnie explained that she can't help with water rights; that's another agency. If there's too much pollutant, the water can't be assimilated. Who takes the water is a different issue and she recommended talking with DNRC.

Bill Browne from Marathon then discussed self monitoring. I see faces with concern. It requires periodic and frequent sampling to a 3rd party lab agreed to by DEQ and the operator has to sign for accuracy. Self monitoring includes 3rd party testing. There is strict reporting periodically.

Bonnie Lovelace continued that the information then goes into a federal data base. Information on monitoring is provided on a monthly basis.

Under the general permit, tables show what to monitor, how often and what kind of sample.

How many inspectors are there?

Bonnie Lovelace explained how they don't have a separate staff. These people are the same as the NPDES permit writers. Two positions were lost last session – the legislature

deleted the FTE. Four writers do NPDES all the time. Not enough if this blows up and gets big.

Is there a bonding requirement for the NPDES permit?

No.

CBM water tributary or no tributary?

Bonnie said how you need to look at the definition of state water. A dry gully can be state water. The standards applied are different drainage to drainage. For example, Squirrel Creek doesn't have enough assimilative capacity so there is no discharge there. Can't issue a permit that allows standards to be exceeded unless it's a mixing zone (but can't kill things).

Can CBM water improve water in a stream? For example: Hanging Woman has a high TDS and produced ground water high SAR. Will surface water fix the problem?

It's a possibility. It has to do with quality and volume.

Art Hayes Jr. says the Northern Cheyenne have a Federal Reserve water right. How can MT issue a permit to degrade?

Bonnie discussed how the State of Montana is approved by EPA to permit discharge. If the issue the tribe has is with the State of Montana, we all need to come to the table water rights issue.

Andy Bobst then discussed how Hanging Woman is an intermit stream and the 7Q10 is 0. It's a tributary of the Tongue River and the EC is 500, so you won't see CBM water that quality and so it is highly unlikely you'll see discharge permits into the creek.

Bonnie agreed it doesn't mean the operator may not propose water treatment, etc. There are a mosaic of water management options.

Hanging Woman Creek rarely has EC < 500 naturally, so it would have to be treated……

Better or match it!

Dave McIlnay was asked by Denise Wood, if landowners came forward and asked for a drainage-specific EIS, what would BLM say? He said, that the Montana EIS was based on a "reasonable development scenario" for the entire state of Montana, particularly targeting southern Montana. The analysis included numbers of wells, miles of pipeline, road, powerlines, and so forth, and their effects. It was a programmatic umbrella. The Record of Decision identifies particular development issues. It requires an Environmental Analysis on each site-specific proposal, particularly "Plans of

Development. Hanging Woman Creek currently does not have any Plans of Development for Federal minerals.

Fidelity has submitted a POD for expansion of the CX Field, which was the basis for the EA (85 wells on 18 locations), which was subsequently approved.

Because there are no site-specific PODs for Hanging Woman Creek, there are no EAs to date. The EA must be based on specific projected impact. Dave's vision is for stakeholders to be able to sit down and work together to optimize the PODs, including landowners, tribes, government agencies. Realistically speaking, working together may be difficult, but it is important.

Denise asks, is there a timeline? Dave says it will be based on demand as it is manifested by submittal of the POD.

Mickey asks, what will happen when you get really busy? Will you be able to maintain public participation in the face of accelerating development? Are you looking at HWC as a model for rationalizing public input? Dave says, it depends. Dennis says they are backlogged 1400 APDs and are expecting 3000 by the end of the year in the Buffalo Field Office.

Terry says that Buffalo Field Office says you can only get information by presenting yourself in person to the Field Office. Access is restricted to the public for Internet information.

POD requirements include 13 point surface use plan, 8 point drilling plan, surface water management plan, wildlife plan, some soils requirements, cultural resource management plan, etc.. Locations, surface ownership, pipeline locations, ancillary facilities, such as central delivery points, surface discharge points, reservoirs, compressors are required. Must contain a certified statement that some type of surface use agreement has been reached or demonstration of legal "bonding on." Plan of coal seam development – for example 18 locations with 85 wells because of multiple seams. PODs can be tied to a geographical feature like a watershed. Processing the PODs includes adjudication of the lease rights, including surveys of the locations; on-site inspections are included, try to invite the surface owners, but not mandatory.

In the last month, the Buffalo BLM is requiring a noxious weed management program (comment by Marathon representative). This is a new requirement

Andy Bobst says a water management plan is needed whenever a well is producing water. How much will be produced and what will the quality of water be? What will be done with it? And what information documents the fate of the water and salts? How is the feasibility of the plan demonstrated? All applications must include permits such as 401, NPDES, production pits. Andy says there is baseline data collected by USGS in HWC. There is a BLM station in HWC.

What is a 401 permit? Bonnie responded that it says if there is a Federal Action that will not be otherwise permitted there must be a determination that water quality will be protected.

What if a landowner does not want a pond? There is no bonding of each pond, but there are company bonds. Groundwater depletion is not addressed? What about this? Andy says drawdown is dealt with by DNRC Groundwater Control Plan, not by them.

Terry says this is a problem because of how important the springs are.

Bonnie Lovelace says the idea of water conservation is a water rights issue. She says she is water quality, not water quantity.

Hugh says what is the ratio of infiltration to evaporation? Andy says it is site specific, depending on infiltration rates? Hugh says the Wyoming EIS says that 80% recovery over 10 years; they also say that the shallow water table will rise. Andy says yes, that is right, infiltrated water will go back into shallow aquifers. Duane says pan evaporation in their tests so far is less than 1 percent, with 99 percent going to infiltration.

Duane says HWC on Wyoming side water quality on alluvial and stock wells is lower quality than CBM wells. Surface water in HWC is about 12,000 TDS; wells are 950 to 1250 TDS from the coal.

John asks is handling of brine, more broadly reclamation of the pits, addressed in the permit? No clear answer on this.

Marathon representative said there is a single bond per company, not per well. The company must certify there is an agreement with the landowner or a bond that is specific to a land being affected if no agreement can be reached with the landowner. What are the terms of that bond is asked? Not a clear answer, but must be site specific. A good question.

Larry Rau then did a presentation on the Wildlife Monitoring and Protection Plan (WMPP). He says the CRM group can bring important issues to the surface. He says the EIS was done rapidly and there might be holes, but the CRM group can help address them. The WMPP in the EIS is a very broad plan, from endangered species to songbirds. For the first time, they are requiring industry to provide inventory information. Larry says they were hit pretty flat-footed as far as baseline information was concerned, and particularly difficult on top of prairie dogs, sage grouse, etc. The biggest issue is bald eagles, especially as there are active nests. They may require a ferret survey and mountain plovers, and sage grouse survey. They are distance from lek requirements.

Quantico Coal Creek project has had some stipulations added to address wildlife issues. He wants companies to be pro-active, for example mule deer winter range. Can certain slope aspects be avoided during winter. In the specific case, Hugh asks, how did Larry

find out about the eagle nests? Larry says word of mouth and existing agency information.

Larry says Fidelity has been very good about addressing wildlife questions. The companies hire contractors who must be approved by Larry, who reviews their standing within the profession. Ultimately, Larry is responsible, so he needs to be sure the information is good.

Andy Lemann asks do you field check the information? Larry says he knows the land well enough himself so he can verify the information. For example, Larry says they flew by helicopter last spring and also they visit leks specifically. They are doing a range-wide inventory on prairie dogs rights now.

Marathon asks doesn't BLM send a wildlife biologist out to approve every POD? Larry says yes, at two levels, both area wide and site specific.

Page 1 of the WMPP requires BLM to consult with Fish and Wildlife Service and develop a joint plan for addressing wildlife.

The facilitator asks how could the HWC CRM help? Larry says the group can give him feedback on emerging issues. He uses sage grouse going from one project to three; collaboratively funded by several agencies. As issues float up to the surface, Larry's priorities can be adjusted.

Is their an operator group supporting the sage grouse study asks Duane? The Petroleum Association of Wyoming and the USFWS Foundation are giving some money.

Bryce Christiansen says we are also moving forward with the WMPP. All of their staff is involved. They have 4 persons on those committees specific to wildlife. He says FWP role is wildlife. He is particularly concerned about habitat fragmentation. He calls the HWC a relatively pristine area. He says the landowners can give specific expert knowledge on their own property that will help to minimize fragmentation.

Doug Melton then did a presentation on cultural resources and discussed what is done for cultural resource surveys. Clearances are given for PODs for cultural resources. Linear surveys are usually done 50 feet on either side of pipelines, etc. No significant HWC specific surveys have been done as nothing has been proposed. The Powers Yonkee Bison Kill is one example of a known HWC site. The contract archaeologists must be approved through the BLM office and meet national standards.

Who pays for the surveys?

The company requesting development. The on-sites are done by the BLM. One well is currently being "held up" by the BLM process. The preferred mitigation method is avoidance, depending on the particular site. This depends to some degree on the

significance of the resource. Sites important to the tribes are treated specially. The BLM will provide input to survey results and mitigation.

Bonnie asks, is the information being entered into a central location? Doug says the cultural resources go into a central State database. This may be linked to the NRIS state library site.

Denise said that Jim Eisenhauer says that the agencies don't communicate effectively with each other and there needs to be some emphasis on this – a working arrangement for communication.

Robert Mitchell then did a presentation on soils requirements – they ask for a soil survey based on published information, which are currently being updated. The operators use these as a base for information submitted in the POD. One important topic is erosional susceptibility and what might take place out there. With this information he is trying to encourage the operators to take a look at the soils themselves to look for risks and management activities.

A land application site may require site specific physical and chemical information about the soils. This, in addition to the water information being provided, along with plant species, rate of evaporation, and so forth will help assess the impact of the water being applied. When and how much water should be applied to each site? What is the ultimate fate of the salts being applied and where do the salts end up in the soil profile? These effects must be identified and predicted to help adjust water management techniques.

Randy reminds Robert that soil amendment techniques and chemicals are evaluated as part of a land application (so to speak). He says there are a number of models that can be used to help evaluate the effects of land application. He says an intensive soil survey and laboratory analysis is useful to make these predictions.

Soil analysis is required on a Federal action, that is, on Federal minerals. Some ranches have been bought in Montana (private surface) but the expectation is that, because the area is underlain by Federal minerals, the information would be collected.

Ron Santi says that people should be comforted by the effort, procedures, and science that actually goes into the planning and monitoring that occurs prior to development, and specifically mentions the water, wildlife, cultural, and soils information.

Denise asked about the State Task Force. Have they been identified? Dave McIlnay says they are identified. They are attached to the meeting minutes.

Terry Punt says how will the expedited permitting process that will form part of the energy bill actually work? Dave McIlnay says he hasn't been formally notified of it yet. Randy says more staff would help a lot. Dave says they have enough money to do the studies right now in cooperation with other agencies and they are pressing on getting the studies done.

Development Plan – A Hanging Woman Basin Ranch Plan – A Generic Model for Development in HWC: document prepared by landowners. Group compared the notes of the development plan with the BLM's. The plan document is attached.

Key Points of the Development Plan

Mike Bowen begins to read through the presented document. Ron comments on the first sentence, how can we have a development plan if you don't know how much development might be possible. Bonnie says maybe the plan could be tiered. Mike says there does not exist a counterpoint plan of what is needed from the operator's standpoint. John Chase says they have a version of a similar product. He says that the development plan is created by landowner and operator working together. Jim Guercio says 100% of the minerals are leased; one of the largest lessors is already working on pilot projects. He wants to reinforce how important the effort is.

Jack Kendrick says this looks like a legal development, but it is really more a list of concerns. Denise says it is a vehicle for addressing difficult issues. Jack says maybe we should just inventory the concerns or maybe think of it as a laundry list.

John says we should set up and plan for what we want, not what we don't want. His guess is that the developers have an image of what they want also. So the plan is a meeting of what is wanted.

The meeting continues with a detailing of what should contribute to the development plan. Andy adds noise considerations to 4a.

Ron says they need to take the document and review it. They need time to consider it and digest it. Denise says the document is designed to elucidate the concerns of the landowners, although John Chase, one of the landowners, pointed out that he wasn't involved in drawing up the document.

Bonnie says a side-by-side analysis of operator concerns, agency concerns, and landowner concerns would be helpful. She asks, what in broad strokes are the things missing? She says it looks to her like they are getting what they need via the BLM.

Several commenters said they need to look at the document as it was hard to digest without time.

Jim Guercio says most of this comes from a kitchen sink document – everything is provided here as topics for discussion. He wants to see everything here discussed. He says, lets go through it, listen to it. He wants a Memoranda of Understanding between affected parties.

Larry says hit the points where the BLM is lacking, then the real detail can come out at a subsequent meeting. Mike says he doesn't want to pick holes in the BLM effort so far, but will do it. Dave says things are missing because BLM has no right to ask for it.

Some more discussion followed about what the document means and how it should be used. It is a starting point for a drainage-wide development plan? How can we use this document most effectively? John says, focus on the broader underlying concerns; but, as Mike Bowen says, the devil is in the details.

Andy asks what is it we are really trying to achieve with these meetings? Mike says, to try and take a large geographical area and plan correctly so it is done correctly. Here we have the government and industry involved. We need some level of agreement amongst the stakeholders. Jim Guercio says a plan will help make things operate more efficiently.

A break was called for some caucusing between some of the representative stakeholders. Dave then says the caucus decided to ask to take the document, come back with an assessment of how the document meets the needs of the reader, what is right with it and what is wrong with it. Bill Browne says that the Wyoming DEQ is working on a watershed approach to permitting, and that approach might be germane to HWC.

Terry wants a DNRC representative at the next meeting to talk about water rights. Art wants to hear some concrete plans from industry. Dave says he understands about the difficulty of long range planning, but also understands about the need for general planning. Bill says he can contribute general planning information, but specific planning information does not exist.

Next meeting is scheduled for 10th January 2004; 0900h; Sheridan Holiday Inn. Following that, the next meeting will be held in Billings on a week day.