

PINEDALE ANTICLINE WORKING GROUP (PAWG)

Sublette County Public Library, Pinedale , WY

August 11, 2004

9:00 AM- 5:00 PM

PAWG Decisions, Recommendations and Action Items

Decisions

1. Continue to use both tapes and note taking to record the permanent record of each PAWG meeting and to include in written record a section that breaks out decisions, recommendations and action items for each meeting.
2. Establish a separate TG that addresses socio-economic impacts
3. Include recreation, hunting, and tourism under Range Task Group (TG)
4. Add TG volunteers on an as needed basis
5. Develop a resource list of experts for TGs
6. Approve new TG members at next meeting
7. Add local road congestion to Transportation TG
8. Move October PAWG meeting to November
9. Schedule next PAWG meeting for Thursday, November 4th
10. Invite Matt Holleran and Hall Sawyer or Joel or Kim Berger to November meeting

Recommendations

1. Create resource list from volunteer pool of those who want to help but do not want to serve
2. Place volunteers with their first choice of TG
3. Encourage volunteers who have strengths in more than on area to self-select TG where appropriate
4. Allow Kate Forsting to stay on Water and Air TGs and later self-select
5. Include the ROD's suggested representation on TGs
6. Suggest 1st deliberative meeting of TGs to take place by end of October
7. Ask Questar for substantial mule deer and sage grouse study and monitoring requirements in their proposal
8. Refrain from making and decision or recommendation about the proposal at this meeting

Action Items

Staffing Task Groups

- Linda- contact special interest groups for possible participation
- Carol
 1. Contact Army Corps of Engineers
 2. Follow up with all volunteers on and being added to TG list
 3. Assist TGs get started with coordinating first meeting
- Mary
 1. Follow up on representative for Transportation TG- State Trails and Department of Agriculture
 2. Follow up on representative for Socio-economic TG- Department of Tourism

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Meeting Minutes

In Attendance:

PAWG Members: Mary Flanderka, State of Wyoming; Robert Barrett, Member-at-Large; Nylla Kunard, Town of Pinedale; Susan Kramer, Landowner bordering PAPA; Robin Smith, PAPA Oil & Gas Operators; Linda Baker, Environmental Community; Kirby Hedrick, Member-at-Large, Robert Reese, Sublette County Government; Paul Hagenstein, Livestock Operators Bordering/Within PAPA; Carol Kruse, BLM Planning and Environmental Coordinator.

BLM Representatives: Prill Mecham, Daisy Pistey-Lyhne

Presenter: Ron Hogan, Questar Market Resources

Questar: Jay Neese, Diana Hoff

Public: Marissa Martin, Tony Gosar, Peter Aegst, Wayne Jensen, Kay Jensen, Jim, Jensen

Meeting Facilitated by: Nancy Golden
Webster

Meeting Recorded by: Susan

Prill Mecham

Meeting called to order at 9:00AM

Prill introduced the meeting agenda and revisited the purpose of the PAWG which is to conduct discussion and entertain public questions regarding the effectiveness of the current Questar Gas Drilling Proposal and its monitoring and mitigation, with the end result being a recommendation to the BLM that is arrived at through compromise or consensus.

BLM is not looking for approval of the proposal but rather a careful consideration of all available facts and figures with a recommendation as the end result that everyone can live with. In the event that the PAWG is unable to come to consensus regarding the proposal, that will effectively become the recommendation made to the BLM. In addition, Prill encouraged the group to engage in discussion and resolve all PAWG related issues inside the PAWG rather than on a one-on-one basis.

Since last meeting, BLM hired Nancy Golden to facilitate this PAWG meeting and Susan Webster to record the discussion. Nancy will keep the meeting and discussion on track and Susan will be taking minutes and transcribing audio tapes for the meeting.

Prill mentioned the general mitigation issues that are up for discussion which include Questar's pipeline for transport, those surrounding directional drilling, and wildlife studies.

Linda

Communication about PAWG matters and all related discussion should stay within the PAWG, not circulate outside. As a member of the PAWG you need to work to reach consensus. If you want to talk about something related to the group's work, it should go before the group.

Nancy Golden began facilitating meeting and let group know she was there to help guide the discussion, would be checking in frequently with the group to assess progress, and would entertain any new ideas or issues.

Carol

Conducted a brief overview of the contents of the binders the BLM prepared for the PAWG. Binders and spine tabs for these will be available at the next meeting. An updated Task Group List (TG) was handed out for insertion in the binders. The contents of the binder include the following items:

From July 12th Meeting

- Minutes
- Press Release
- Agenda July 12 Pawg Meeting
- Scoping Notice
- Questar Proposal
- Questar July 12 Presentation
- Federal Register Notice
- List of working group members
- Charter
- Appendix C
- Subpart 1784-Advisory Committees
- Federal Register call for members
- Acronyms

For This Meeting

- Minutes
- Agenda
- Press Release
- Master Letter
- TG Volunteer List

Nancy Golden

Reviewed agenda for today's meeting and the question was posed as to whether or not the group felt inclined to keep both the written record and the taped record of PAWG meetings as the official permanent record for all meetings going forward. After discussion about the value of each type of record keeping, the group opted to continue with both tapes and note taking for permanent. A recommendation was made to include in the written record a section that breaks out decisions, recommendations, and action items for each meeting.

Task Group Category Review

Carol reviewed the 6 TGs identified at last meeting and the possibility of adding the following TGs to the list:

1. Socio-economic impact of developments on the Pinedale Anticline
2. Separate out recreation hunting and tourism into their own category.

She reminded the group that the focus should be to monitor the mitigation that was presented in the ROD.

Questions and Discussion on Addition of Socio-Economic TG

Bob

How do you monitor socio-economic impact on the Pinedale Anticline? What do we do with the information? And can we use it to make changes?

Paul

One task group is not represented here and that is grazing which will be impacted why hasn't it been included?

Linda

Range is included and would fall under the category of reclamation as decided in the previous meeting

Robin

We need to remember the idea here is to monitor mitigation to address those things in the ROD. An issue I hear about is that the towns bear a lot of the impact and don't get much revenue from these development projects. The Socio-economic TG could monitor those kinds of impacts and work with community to address them and bring that information back to the PAWG. Mary originally proposed this TG.

Nancy

As suggested by Susan, reads from the ROD the 4 paragraphs that pertain to socio-economic monitoring.

Mary

Socio-economic should still be a part of this because the Questar proposal specifically talks about the impact to local communities. There are a number of things outside of what is already defined that we can look at for monitoring under socio-economic.

Linda

It was noted that two studies are currently being done on the socio-economic impact of oil and gas development one by University of Wyoming and another by Rice University. It seems important that PAWG should address this as well

Robin

Read addition section from the ROD.

Motion made to leave socio-economic as separate Task Group, all were in favor.

Questions and Discussion on Recreation, Tourism and Hunting

Carol

It is an important enough component to the community and the lifestyle of residents that it should be looked at separately—it merits specific scrutiny rather than being lumped in with other groups.

Robert

Recreation and off-road vehicle travel should be part of this group. The resource base is shrinking from oil and gas development. How do we deal with that and what happens on that remaining base?

Mary

It needs to be addressed; how we do it is up for discussion.

Linda

Wildlife-based recreation is the number 2 industry in state. It should be addressed; it is a separate but similar issue to other kinds of recreation and should be included in wildlife-based recreation aspects and should be a distinctive sub-group within that wildlife task group.

Susan

Perhaps it should be called “other land uses” instead of recreation, hunting, and tourism.

Linda

We need to clarify the language we use to describe the different kinds of recreation and tourism and they probably falls somewhere within the TGs already established and we should address them there.

Paul

Consolidate as much as we can and where we can, so we aren't spread too thin.

Carol

Thought it would be useful to go through each of the TGs and identify what each should be looking at, evaluate whether or not each has the right components, and identify where gaps exist. The group identified the following:

Reclamation

- Effort to reclaim is successful surface to surface and facilitates grazing and wildlife habitat
- Success rate and composition of reclamation related to weeds and species
- Best management practice to reduce amount of initial disturbance to area
- Time is of the essence
- Domestic and wide species health
- Monitoring proves or disproves goals of monitoring plan are being met
- Hunting opportunities /Herd Viability
- Soil erosion grade slopes and topography

Wildlife

- Hunting and fishing
- Types Impact and sustainability existing species
- Observation of animals

Water Resources

- Surface and ground water quality and quantity
- Climatic condition
- Quality and quantity for Human and wildlife

Socio-economic (new committee added at this meeting)

- Tourism
- Domestic violence, drugs, alcoholism,
- Pressure on infrastructure sewer and water
- Chain businesses verses local business development
- Schools

- Solid waste and hazardous waste
- Long-term boom and bust cycles/ and the effect on economy typical 10-year cycles
- Split estate impact

Transportation

- Local road congestion
- Grazing and recreation off-road vehicle travel

Air Quality

- Near-field visibility associated with flareless completions
- More monitoring and other points

Cultural

- Recreation issues associated with Lander Cut-off Trail

Range

- Recreation hunting and tourism
- Lander cut-off trail recreation and transportation issues associated with

The group decided to include recreation, hunting and tourism under the Range TG

Staffing of TGs

Carol explained process of how BLM acquired names for TGs. A press release was sent out to the general state-wide public, letters were sent to those who had worked on previous TG's who were not government entity appointees, and information was spread by word of mouth. Every one self-sorted onto the TG's of interest and names are still being taken.

There has been great regional interest in the TGs—people coming from Salt Lake, Casper, Jackson and are expressing a willingness to commit time and energy to the cause. Those who are on the list with no agency affiliation listed, they are considered public-at-large. The facilitator pointed out that the best size for an effective work group is 5-7 people. There is currently one oil and gas person on each TG. If multiple people from an industry volunteer to serve on same TG, one individual should be selected to represent that industry.

Names will be added on an as needed basis. Those who volunteer and can add value to TGs, but do not want to serve, will be listed on a resource list of experts who may consulted on an as needed basis. It will be appropriate for TG to call on members of the public who have expertise that can benefit them in making their recommendation to the PAWG.

It was noted that The TG's should probably flush out which Oil and Gas operators they believe would work best given their expertise and that if people want to volunteer they should be allowed to participate. A recommendation was made to place people with their first choice and take them off of 2nd and 3rd choices. The following changes have been made to the task force volunteer list:

- Kate Forsting is on both Water and Air TGs; should she be assigned to one or both?
Recommendation to let her stay on both and let her self-select. The group agreed to this.
- Additional representatives are needed from the conservation groups and the Army Corp for Engineers (for water only). Linda volunteered to make some contacts for the special interest groups. Carol will contact Army Corps and see if they will appoint someone.

Robin

Q. What do we do about representation that is suggested in the ROD but not yet included in our list?. The ROD’s suggestions beyond what we have already established are:

- Water Resources-Army Corp of Engineers and livestock Operator
- Reclamation-County Weed and Pest, Sublet County (Adrian) and State of Wyoming
- Wildlife- US Fish and Wildlife Services has been contacted but not responded yet, Environmental Group- Linda will contact
- Cultural – State Historic Preservation Office (SHPO) they have appointed someone
- County Commission had chosen which groups they want representation on

Mary

Transportation- State Trails and Department of Agriculture-Mary to Follow-up
Socio-economic- Department of Tourism- Mary to Follow-up

The following additional names have been accumulated and will added to volunteer list:

- William Belveal was added to Air Quality
- Jana Weber was added to Socio-Economic
- Syd Goodrich stays on Socio-economic
- Amy Ramage will self-select one of her 3 interest groups
- Tony Gosar was added Wildlife and Water Resources (at-large)
- Stan Murdock and Randy Bogliano were added to Water Resources (livestock)
- Randy Bogliano was added to Wildlife (livestock)
- Chris Tronvley was added to Socio-economic (at-large)

New members will continue to be added and group will formally approve the additions of each individual at the next meeting. Carol will follow up with all names on TG volunteer list to inform them of PAGW’s recommendations and requests. An updated list of volunteers will be presented at the next meeting.

Public Input and Comment

None at this time

Process Going Forward

Robin

Q. What is the process from this point forward? How do we let people know they were appointed? Who set dates for meetings? Should we establish time frame in which they will complete their work?

Carol

A. As based on Appendix C of the ROD and the PAWG Charter, Carol will contact each appointee. When TGs are deliberating on matters that will come before the PAWG, the meeting must be announced in federal register 30 days prior to meeting. Their initial meeting schedule will be set up via phone.

The PAWG will meet in February or March to accept the TG’s evaluation and recommendation plan. The TGs need to meet between October and February to come up with monitoring plan. Each TG will meet a different number of times, they elect their own leadership and decide on meeting schedules amongst themselves. Going forward, each TG will evaluate its meeting schedule for frequency and time

and determine whether or not they increase or decrease their frequency in order to achieve their goal. This goal is to produce the product needed for PAWG in the appropriate timeframe. All deliberative meetings are open to public except for the meeting when TGs establish their meeting schedule.

Probably plan at least four meetings through the end of this year, all of which can be published in one federal register notice. It was recommended that the first deliberative TG meeting occur by the end of October. BLM will assist TGs in coordinating first meeting. Carol will meet with them in next week or so to help with scheduling meetings.

Bob

Q. Are the duties of the TGs spelled out well in the ROD?

Kirby

A. The ROD provides good detail for the TGs to get started and for direction with their ongoing meetings. TG's can formulate questions for discussion from this that can be presented to PAWG for discussion.

Linda

Supports direction the ROD provides for TG's.

Robin

Suggested that we include local road congestion to transportation TG and it was added to the list.

Susan

Suggested monitoring split estate impacts and it was added to the Socio-economic TG list.

Linda

ROD says BLM cannot mandate what happens on private land —operators are suppose to come to agreement with land owner.

Robin

Q. Who has the authority to make decision regarding split estate?

Carol

A. It may be a legislative issue and it brings up an interesting point. Working group may not be able to take solutions discussions, or recommendation, to BLM but may be able to take it to the appropriate group who may have the authority to evoke some change.

****Lunch Break****

Questar Drilling Presentation

Ron Hogan

Purpose of this presentation is to further summarize Questar Proposal on Gas Management of South West Wyoming Pipeline System and to answer the questions and concerns that were posed at the July, 12, 2004 PAGW meeting as well as address any additional questions.

Water Pipeline

- The pipeline is being designed to remove water from the top of the Mesa to the water disposal pit.

- The Water pipeline is being installed in the corridor next to new gas lines
- This line will be tied in at the Gobbler's NOB to another existing line that goes under the New Fork River in an encasement and ends at the water disposal site near Hwy. 351
 - No tanks will be used at the Gobbler's NOB location for capturing or staging water. And there is no trucking necessary

Q. Are the existing water disposal site capabilities are sufficient to handle the volume of water that you see coming off Mesa?

A. Recently been expanded to up to 2M barrel capacity.

Condensate Pipeline

- An existing 6in. line will be utilized to remove Questar's condensate from the Mesa to Gobbler's Knob compressor site.
- From Gobbler's Knob, the additional proposed condensate pipeline would continue to an existing plant in Granger.
 - Current Design plans use a 6in. pipeline. However, pipeline size can be increased to 8 in. to accommodate use by additional operators and additional pump sites.
- Expected Carrying Capacity of the condensate line will be over 18,00 barrels/day and 110 miles long
- Condensate will be stabilized by removing the low pressure gas (VOCs)
 - Low pressure gas will be processed and added to the natural gas for delivery to market.
- The pump Station(s) located along the pipeline will be electrically powered.
 - No air emissions
- There will be no storage tanks between the wellheads and the processing plant at Granger.

Q. Is the 18,000 barrels/day your capacity or extra capacity?

A. We're making about 10barrels/ M at our peek time if we are at 400M cu. ft. of gas per day. We'll be putting about 4000 per day of our own production in there. It is designed for at least three more equal to the size of our production.

Q. Is the 8 in. pipeline is for use to accommodate other operators other than Questar?

A. that's correct. The larger line will be considered if others are interested in sending condensate through our line.

Q. Is it on the surface?

A. It is buried and we would have to have that decision made before we bury it.

Q. What is capacity of 8 in. line?

A. I don't have that answer, but it is much more.

VOCs are removed at the processing plant. Nothing escapes and there are no emissions VOCs control will be eliminated and will be electrically powered, so there are no emissions here. Control technology produces nitrogen oxide emissions which contributes to the haze. By eliminating the control technology it will eliminate some of the haze. No storage plants between the well heads and the processing plan in Granger. No trucking of condensates will take place.

Q. Will there be cathodic Stations along the pipeline?

A. Not sure... Ron will find out.

Ron

Tariff for condensate line has already been submitted to Public Service Commission who oversees and regulatory authority over the pipeline. Proposal must be competitive with trucking industry. We are getting continued requests for information, so we think it is being seriously considered by other operators.

Q. Is tariff the same for 6 & 8 in. pipeline?

A. Yes.

Q. How do people buy transportation on line?

A. Through our proposals that explains our process .

Pipeline Tariffs

- A tariff for the condensate line has been submitted to the Public Service Commission of Wyoming, the regulatory authority for the pipeline.
- Questar has proposed a competitive tariff rate, in order to secure business from the other operators.
- In order to be competitive with trucking, the tariff for use of the pipeline will be less than the cost of trucking.

Use of Condensate Pipeline by Other Operators

- Proposals for utilizing the condensate pipeline have been reviewed with other operators.
 - Questar submitted proposals to other operators several months ago. They are being considered, but no firm commitments from operators have been received.
 - Questar anticipates that commitments from other operators will be made once the tariff is approved by the Public Service Commission of Wyoming.

Air Quality

- Trucking/Traffic
 - Trucking will be virtually eliminated, a reduction of approximately 25,500 semi-truck trips annually. All air emissions caused by these semi-truck trips will be eliminated.
 - No intermediate storage locations for water or condensate or transfer points at the processing plant will require trucking.
 - Pickup traffic on the Mesa will be required during the production phase.
- Compressor Engines
 - Currently 4 compressors at Gobbler's Knob site
 - Compressor engines use catalytic converters to reduce emissions.
- Heat Trace Lines
 - Heat trace lines will be utilized at various locations and the associated heaters will emit minor amounts of emissions
- Volatile Organic Compounds (VOCs)
 - VOCs are part of the condensate production
 - Typically, VOCs are removed from storage tanks on each location and combusted.
 - With approval of the pipeline, VOCs from condensate will be transferred in the pipeline to the processing plant located near Granger and not emitted on the Mesa.
 - The plant will remove the VOCs and combine them with the natural gas stream to be transported to market.
 - After the processing plant, the condensate will be transported via another pipeline to a refinery for processing into marketable products.

Unitization

- Unitization is a Federal process in which large amounts of acreage (e.g. the entire PAPA) are placed under the operatorship of a single company.
 - The purpose of unitization is to provide a more uniform system of development and operating of the entire property.
- Questar supports future discussions regarding voluntary unitization.
- However, these discussions should be considered Independent of Questar's proposal.
 - Questar's proposal is not necessarily applicable to other parts of the PAPA.
 - The unitization process for the PAPA will be a very complicated process in establishing undivided ownership within the Unit and determining the appropriate operator for the Unit.

Wildlife

- Ongoing annual monitoring under EIS/ROD of all Anticline wildlife species
 - Questar's well location was included in UW sage grouse study
 - Assisting Matt Holloran and Hall Sawyer with monitoring plans and collection of data related to Mule Deer & Sage Grouse
- Questar will consult with BLM and WG & F to determine where the 9 additional pads will be built.
- Questar is supportive of the Adaptive Management process and, if necessary, will adapt development plans as scientific results regarding wildlife are made available.

Additional Questions to Questar

Q. Is the route you are taking the condensate line to Granger going to follow an existing route?

A. Yes, it follows existing pipeline corridors that will require their own right-of-ways.

Q. Is there potential for the 8 in. pipeline to transport all the condensate that is anticipated?

A. I'm not 100% sure. It will depend on the results of future drilling and development and how much production is on stream at any given time.

Q. Are the pump stations able to increase the capacity of the pipelines?

A. Yes, they increase carrying capacity of lines but I don't know exact number. The 18,000 barrels has a certain number of pumps designed into it. If we need more capacity more pumping stations will be installed. That will vary with time and depends on amount of condensate.

Q. Are your pump stations on the refuse line too?

A. They are along the condensate line. There are 2 pipelines. One is for water produced that goes to the disposal pit and the pump stations located along condensate line to get at the entire 110 miles. The gas is in a completely different line. We'll have 3 pipelines, one for natural gas that already exists, one for water (4 in line) and one 6 or 8 in. line for the condensate.

Q. Did you say there will be no VOC emissions?

A. By design there should be none that come off the condensate, but there may be upsets and mistakes.

Statement from Carol

Currently there are volatile organic compounds that are emitted off the tanks. By state regulation, those need to be incinerated. That process of incinerating creates nitrous oxide (NOx) emissions which contribute to haze.

****End Tape One****

Linda

Q. When condensate is transferred to Granger where are the VOCs burned?

A. VOCs are caught being somewhere between a liquid and a natural gas and have a boiling point of 60 degrees. They are like gasoline and the job of the processing plant is to take those natural gases and either break them down, or put them into the marketing stream along with other gasses. They never escape.

Carol Comment

The route or alignment of condensate pipeline was changed on July 28th, just before the public scoping meeting for this project; we have reopened the scoping period and people can provide additional comments if they need to. It is open until the 20th Aug. She passed around a letter reflecting that and the summary of public comments. These are available for both PAWG members and the public.

Susan

Q. Am I understanding that we are we will not have any emissions associated with the Questar proposal?

A. No, We still have dehydration equipment at sites which will have emissions associated with them in the form of NOx and minor amounts of BTEX

Robin

Q. You are waiting on tariff approval from Public Utilities Commission and right-of-way from BLM. What is the timeframe for completing the condensate pipeline if you proposal is approved?

A. It will be next year before construction can start and installation will start by May and beyond summer 2005, with installation completed at end of summer2005

Susan

Q. What are you dehydrating?

A. A certain amount of water vapor remains with the natural gas after production, so one final stage of water removal must happen so gas will flow to market freely without interruption.

Linda

Q. Do you have to apply with Army Corps of Engineers for a crossing of the Newfork?

A. No, the pipeline goes through the same encasement that goes under the under the Newfork- it is an existing encasement. We can go in the pipe and out the other side.

Kirby

Q. Is Questar's position still that deviation angles above 22 degrees are technically and economically not feasible?

A. Yes, that is our position now relative to the numbers.

Q. Have you reconciled that with the economics in the technical reports in the EIS and the ROD which reflect different numbers. You are proposing 2 pads per section and the limits were when gas prices were \$1.50-\$2.50. They thought you could do deviated wells at less than 4 BCF. Your numbers in technical report don't seem to match at all.

A. I don't recall exactly what our position was on the directional drilling. Comment from Jay Neese at Questar could not be heard and did not carry over on tape.....I guess the answer is we have not reconciled and our drilling costs are significantly more than what was anticipated in the EIS, as I recall.

Q. Can you give me the drilling costs a vertical, a 22.5, and a well that steps out 5000 ft. from surface location?

A. Vertical are 4.5M, directional are 5.0M, and wells that step-out are...

Dianna Hoff

A 2500 foot kick is the maximum we can get on directional wells in this area. Problems arise as a result of hard rock and spacing. We've seen significant hole problems above 23 degrees. Part of our concern in that area has to do with drilling fluids. We have deep fresh water intervals and there is concern about contamination issues down to 500 feet. Based on that you can't run oil-based system, or a salt saturated system. The best scenario would be to set surface pipe to 5000 feet, protect all the fresh water and then convert immediately to oil-base mud and do the rest of the directional work. But we don't think the rock is strong enough to hold bottom hole pressure at the depth we need. That is how we have arrived at the well design we are in.

Kirby

Q. Did you set pipe right above the overpressure zone?

A. The overpressure is at about 900 feet. Currently we have two plans we are using one for wells drilled on water base where we have a big directional kick—we set the casing high at 3500-4000 feet. The other is to set a short surface pipe about 750 feet and then we go into the overpressure. It's a risky design because there is a lot more open hole exposed when you are doing directional work. This depends on the directional kick.

Public Input and Comment

Tony Gosar

Q. Are you requesting funding from the Wyoming Pipeline Authority? And is it feasible to design a diet for deer for the difficult winter months, or is it just the stress with at the activity on the Mesa?

Supplemental feed during those critical months might be a way to go to stop deer from perishing

A. To date, we have not. I am going to let the BLM answer that question regarding the deer diets. Questar is basically precluded from doing this type of thing.

Prill

There are problems associated with supplemental feed. First, deer tend to bunch up and transmit disease more readily and secondly, deer eat differently than elk—deer are browsers. It is problematic and has not been successful in past. One of the biggest issues is stress on animals due to activity in their wintering area, not necessarily the availability of food. F&G are not excited about this and we tend to listen their recommendations pretty carefully.

Tony Gosar to Prill

Q. What is the carrying capacity of livestock during months they graze on Mesa? What is carrying capacity of wildlife in general on the Mesa. What is the baseline?

A. Animal unit months are 12 acres for livestock carrying capacity in winter I don't have the numbers. We need to refocus on the fact is not so much the availability of forage, but the disturbance to the animals. We have analyzed the ROD based on greater disturbance than what was allowed in Pinedale EIS. This proposal is less than what was stated in original proposal. Activity that is proposed by Questar appears to be at a lower level of activity and less acres disturbed than what was analyzed in the original EIS. This proposal incorporates wildlife study to look at what was happening to the deer and now the study is expanded to look at impact of the addition of winter drilling

Linda

Q. So does the proposed additional study include the physiological effects of additional stress during the winter?

A. Prill that's exactly the type of stuff this group (the PAWG) ought to be talking about for monitoring and mitigation.

Daisy Pistey-Lyhne

Q. Is pipeline economically feasible just for Questar alone if they don't have other companies paying tariffs on it?

A. Yes

Q. Are other companies going to by into it, based on the fact they are not doing concentrated drilling like you are?

A. Can't answer that for them. Companies grouped together may work out some sort of joint working facility themselves before it ever gets to our pipeline and we don't know where they are on those sorts of things.

Q. Is there any mitigation planned for impacts this winter if the proposal is approved regarding drilling and trucks creating more stress than under normal circumstances?

A. There will be some traffic but it will be reduce because water will not be collected at the locations.

Peter Aegst

Q. Would it be feasible for you to go in with 2 rigs on a pad, drill 4 wells from May to November, not perforate or fracture any of them, come back the following May –November with the rigs, drill 4 more and perforate and fracture all 8 of them so you have all the wells on one pad, without having the disturbance effect from December –April?

A. While physically feasible, it's not economically feasible because 2.5 million dollars for each well is left in ground

Q. What would be the added economic cost of this scenario vs. the one you are proposing?

A. Same as you waiting a year for your paycheck. It defers income off the wells for at least a year or more. These wells produce at high rate initially and fall off very rapidly-50-60% fall off in first year. To leave money in the ground, plus defer cash flow off of that for another year, would cause significant impact to the economics.

Q. So, it's primarily having them sit for a year without any production, rather than the added cost of rigs getting transported on and off without being in operation continuously?

A. We're not able to drill 4 wells in the summer. We'll get two, for sure, if we don't have any problems, possibly a 3rd. So, what we are doing under your scenario, rather than grouping in 4's, which we would drill during the winter basically, we are starting to split those up so the pad, instead of being this size grows for the next year. In order to get our locations on there the size of the pad grows incrementally as we defer the drilling.

Q. I don't follow that. I read in the scoping notice that the proposal was to have 2 rigs operating at the same time on a pad and it took 3-4 months per directional well.

A. It takes 2 months to drill a well without any problems.

Q. If there is a 6-month drilling season and you have 2 rigs going why can't you drill 4 wells?

A. They are side by side and each rig can drill 2-3 wells on either side so we have the 6 there. What we're proposing is basically to start earlier in a rolling sequence from pad to pad during winter. The

design is to drill 4 wells during winter and move 200 feet to drill another sequence of wells with that rig, while the others are being completed. Under your scenario, the size of the pad grows larger and larger every time we defer.

Q. *Are you talking about wells per rig or wells per pad?*

A. *Both*

Q. *You defer revenues for year because of no production until second season and the loss revenue by not having any return that year. In the life of a field over 20-40 years doesn't that compensated for that assuming gas prices stay high it seems like over the lifetime of getting of getting a "paycheck", over 10-20 years it still seems like there are possibilities there. It's not a cost that will never been compensated for.*

A. *These wells produce large volumes in the first year and we recover 50 % of reserves in first 5-7 years. The other 50% take 40 + years to recover, so we push out a huge paycheck and they get smaller and smaller over time. The early cash flow off of those wells is very significant to the payoff of money you have invested in the ground.*

Marisa Martin

Q. *F&G has endorsed your project because of the reduced surface disturbance and I am wondering about the risk, once your proposal is finished and you find there is more gas in the ground that you weren't able to get with your proposal, what is stopping Questar from doing info on the acreage that they leased therefore eliminating the any of the benefit of surface disturbance reduction that we would get from your proposal? Related to that, I'm wondering if Questar is willing to commit to not doing any info or your successors in interest in your area on the Mesa?*

A. *Can't commit for someone else what they may or may not do. As far as Questar goes, we feel like we have data today that support 20-acre spacing and 20- acre spacing has been approved as mentioned in our project and in all our presentations we have assumed 20- acre spacing as one of the outcomes and our 430 wells based on 20-acre spacing would be drilled from the 61 pads we have right. It's certainly too early for us to tell whether or not there is going to be a lot of unfound gas but our suspicion based on what you see in the Jonah field and our development so far that we don't think 10-acre spacing would be very viable. You would have to have significant gas prices or extremely reduced costs to make it economically feasible. I don't know what 10, 15 or 20 years brings for us.*

Q. *Yes, that's why it is worrisome. In the Jonah field I don't think they anticipated they would be down to 10 or 5-acre spacing. It seems like this proposal is being touted as really reducing surface disturbance and that would eviscerate any of those benefits.*

A. *We have the benefit of seeing what happen in the Jonah field technically underground and we can transpose that type of information. We are deeper, we have an intermediary string, and much more expensive wells. We go through a higher pressure transition zone and spend a lot more money to get the same kind of gas. They can afford to drill more wells for the same amount of gas, we can't. We are starting to push our ability to get paid back for the amount of money we spend. Most likely we will be limited to 20- acre spacing.*

Comments From Questar to Group

Jay Neese

Even if 10 years from now we did need some additional pads for further infill, the incremental benefit of what we are proposing is still there. It's not there if we don't do this proposal; the incremental benefit will never go away.

Diana Hoff

We brought in 2 new style rigs designed in Canada that have ability to fit additional wells on existing pads with its umbilical system. This allows part of rig to sit back by the reserve pit and front part of rig can sit anywhere within a 160 foot radius away, there is an example of this up on Mesa 9 8. You drill closer to an existing well than you can get with a conventional rig. Counting the 2 that we have, there are 3 that exist in the Rockies and we are trying go forward with technology so that we ca best take advantage of development and minimize surface disturbances.

Ron Hogan

We are constantly looking for better ways to do things. What I can't tell you today is that we have that better way in hand.

Tony Gosar

Q. A temporary surface line was set up in the Birch Creek area. Is it possible to get a temporary permit and cut down VOCs while moving the condensates..

A. We are waiting on the answer as to whether our year-round proposal is approved and pipeline is contingent on that. We would wait until spring to do a buried pipeline installation.

PAWG Questions to Questar

Linda

Q. Could you elaborate a bit on how Questar is supportive of adaptive management and what scenario you envision under which Questar would adapt their proposal if undo circumstances are seen?

A. We've stated all along that what we are asking for is an exception to the winter stipulation; we are not asking that anything else in the EIS be set aside. So the adaptive environmental management program that says monitor the deer determine if there are negative effects and make adjustments...we understand that's still on the table and it has to be that way.

Q. Would it include sage grouse?

A. They are under the AEM so...

Q. Will your adaptive process include managing seasonal stipulations for the sage grouse?

A. Yes, should the study indicate we are having a negative impact, the AEM process kicks in and we have to make adjustments accordingly.

Susan

Q. If Questar's proposal approved this winter we will have 116 tons of haze emitted into the air this year?

A. Those are peak production numbers which would happen somewhere beyond 2008.

Nylla

Q. Is there a plan to put in a road that doesn't go through town and down Tyler Street?

A. A road onto Mesa has been established from the south. We insist on our contractor's coming in from the south. Many of our contractors come from Pinedale and may go more directly, but we don't have much control over that. We don't have much persuasion in convincing them to drive all the way to Boulder and back up, when they could just go through Tyler. If we found a better route we would entertain doing that and get the traffic off Tyler Street.

Robert

Q. Under your proposal you will be drilling in late March to early April during prime grouse strutting season. Correct?

A. Yes, we have asked for and been granted winter drilling exceptions for the last 2 years. So we have been drilling during that season and the locations have been placed away from leks

Q. Drilling activity can cause complete abandonment of wildlife in a two mile radius. How far can realistically move drilling and still hit what you are drilling for?

A. Twenty-one hundred feet is as far as it can be moved. If we had to go further, we would have to look at how we would get to subsurface locations from other areas.

Susan

Q. How many people are involved in production phase per day?

A. About 12-15 per day. Electronic equipment makes it so we may not need to visit every well every day.

****Facilitator requested that everyone from the public remember to sign in****

Mitigation Issues

Linda

I sent e-mail to members of the PAWG covering a variety of issues I am concerned about for example, whether or not we are monitoring the physiological effects of additional stress on wildlife during the winter and will the reduced footprint on the habitat offset the additional stress imposed during the winter? I believe we should be measuring this but I don't believe it is part of Questar proposal and not required by BLM at this point.

Q. Is there benefit vs. a cost in that question? I'd like to hear the PAWG's opinion on this. Are we measuring reproductive success, body fat content in mule deer, fawn survival and size as they relate to weather, habitat, and stress? These are important indicators of whether or not we are going to be maintaining our wildlife herds at acceptable levels. My recommendation is that we do monitor these and we ask for these monitoring requirements as part of the proposal.

Bob

Q. Have we got a baseline for this type of study at this time? Can you determine that stress is caused from a drilling operation in the winter?

Linda

A. To my knowledge we don't have any studies on physiological stress on mule deer, but a study design would include a plan to establish a baseline of a control population and would measure snow depth, wind velocity, and any other potential impact on survival such as protein content of sage brush. It would be up to the appropriate wildlife group to design a good study that would give us that kind of information.

Paul

A. In my experience, we study everything to death. You should address climatic condition as the bottom line because that will tell you a lot of things.

Mary Comment

She presented additional possible mitigation items for the PAWG to consider as referred to in an August 2, 2004 from the State of Wyoming to the BLM. These include the following:

- Commitment to flareless completions
- Habitat improvement
- Accommodations for permittees affected by habitat mitigation
- Funding for expanded mule deer study
- No net gain or disturbance to Questar lease block
- All agreements become part of the ROD
- Questar agrees to address major unanticipated impacts
- They commit to use EPA tier-2 compliant engines or alternative fuel drill rig engines
- Hazardous Air Pollution assessment be conducted and funded
- Air Quality monitoring will be conducted and funded by Questar for 5 years
- Questar commits to funding a contract DEQ inspector for 5 years

Tape ran out—not flipped over

Nancy

Q. So, what additional mitigation do you need to move forward with a recommendation?

Linda

We can take in depth analysis performed by TGs but the group doesn't have all info they need to make a fully informed decision. One of the first steps for TGs is to establish monitoring and anticipate the effects. Based on this, we can make a better informed decision if we have more complete information. We are stepping outside what the charter indicates we do if we make a recommendation at this point.

Bob

Read section of charter that confirmed Linda's concern.

Robert

If we wait for TGs, plus all monitoring you are 3-4 years out. Many benefits may be lost as result.

Susan

I agree with Bob and Linda. If the charter is not followed, we put ourselves in jeopardy.

Nancy

Q. How detrimental is it if no recommendation is made?

Carol

A. We have to accept that response.

Bob

Recommendation will be considered as another form of public input.

Kirby

Comfortable providing his view on where the group stands today.

Robin

Would be helpful if there was clarification of recommendation...are we to endorse or approve?

Carol

We are not looking for a recommendation on monitoring that should be included, we are looking for mitigation.

Susan

With the information we need, I don't think we should make a recommendation.

Mary

I would like to hear groups concerns on monitoring and mitigation.

Linda

By adding monitoring and mitigation it seems like we are endorsing the proposal. I would feel better if we had preliminary data on mule deer and sage grouse first. But those won't be available to us until October and November.

Paul

Q. Has the BLM endorsed this proposal?

Prill

A. No, we are entertaining it and scoping has been extended till August 20th. BLM will not endorse until decision and recommendation is made. If it is not endorsed, we will entertain the same 1 rig, 1 pad drilling exception request. BLM will stick to ROD of the EIS.

Paul

Q. What if this proposal is not approved?

Prill

A. If not, there will be no drilling in winter and things will go on like they have since the 2000 ROD. Seasonal drilling will occur and perhaps the 1 rig, 1 pad exception.

We want air quality monitoring but the state hasn't got it's act together. The air quality is not good. DEQ is looking at emission sources differently and looking at emissions from mobile sources.

Robin

It's clear we are on horns of dilemma. We don't have what we need to make a decision. In adaptive management we learn through experimentation. In the past, mule deer monitoring has been managed that way. The benefit of proposal and the possibility of having a study that would answer questions scientifically and thoroughly, would be helpful

Prill

She confirmed that the BLM is looking for exactly that kind of monitoring.

Linda

I am looking for good science with which to make a decision. Maybe we wait a year. There is no huge risk in waiting and Questar may still get their winter exception.

Bob

Proposal has merit but we have a dilemma. Our approval or disapproval may not make a difference. I'm convinced that the law (charter) will probably not allow us make a decision because the task forces haven't be set up yet.

Robert

Proposed making no recommendation at this time and capturing Mary and Linda's ideas

Robin

Q. If we do not make recommendation what happens to proposal going forward?

Prill

The EA will go forward and any decision from this group will be deferred. EA will continued to be process dependant on decision is yea or nay. TG's will continue to look at mitigation that was agreed on and make recommendation regarding monitoring of mitigation requirement and it would continue to looked at by PAWG.

**Tape resumes here **

Public Input and Comment

None at this time.

Next Steps for PAWG

Carol Comment

The following people who attended today's meeting would like to volunteer for a TG. She read the names, their area of interest and the PAWG agreed to add their names the list of TG volunteers:

- Wayne Jensen-Reclamation TG
- Kay Jensen-Transportation TG
- Jim Jensen-Wildlife TG

Linda

At some point we want to achieve balance of all the interest groups on the TGs and be comfortable with that balance—they should be equally weighted.

Mary

Q. What happened to Matt Hollerand and Hall Sawyer regarding the mule deer study? We had originally planned for them to be here at the meeting.

Carol

A. Spoke to both of them and they were not willing to release their findings or any preliminary conclusions in a public forum. They don't feel like the information has been validated, QAQC, or peer reviewed. Matt said sage grouse information could be available in September or October and Hall said November. Carol to keep in touch with them and possibly obtain information for the PAWG for next meeting.

Bob

Proposed changing the next meeting to November and forgo an October meeting.

Nancy

Q. Would it be beneficial after the TGs have their first meeting to have the group available for to TGs to answer question they have? Do you see that as role for yourselves? If they can meet late October early November could the PAWG meet with them?

Carol

That could happen at the Oct 5th meeting or before, with the purpose being just to give them their charge at that meeting. It can happen without with announcement on federal register. If you are just detailing their charge, that would work. What has to be announced is the meeting where they start working on monitoring plans. Susan, Nancy, and I will be getting them set up with their meeting dates and will be getting them started with general direction. Once they come together and figure out when they are going to meet all the questions will hit them.

Susan

I am available to attend and answer questions as a representative to the TGs for the PAWG.

Mary

PAWG meeting should happen soon after the TG's first deliberative meeting

Carol

Recommended PAWG scheduling meeting in early November after the TGs have had their first deliberative meeting (in October)

Next Meeting: PAWG will meet on Thursday, November 4th at 9:00 AM

Purpose of meeting is to meet with the TGs or a representative of each group and give each team a chance to air concerns and issues.

Invite Matt Holleran and Hall Sawyer to present findings of their studies. If Hall can't come, invite Joel or Kim Berger from WCS, who have studies going on as well. These are good contact points and resource people for the Wildlife TGs perhaps have entire wildlife group come to this meeting.

****Meeting Adjourned****