

Pinedale Anticline Working Group

Draft Minutes

November 8, 2011 - 9:00 am

BLM Pinedale Field Office

0900 Call to Order

In Attendance

Eugene Ninnie, Town of Pinedale; John Anderson, Academician; Cally McKee, Oil and Gas; Bart Myers, Sublette County; Mike Kramer, Landowner; Paul Hagenstein, Grazing; Joy Bannon, Recreation; Stephanie Kessler, Environmental Org.

Mike Kramer motions to approve the previous meeting minutes; Paul Hagenstein seconds. Motion passes unanimously.

Review of Draft Advice from October

After a review of the field tour and previously developed draft advice, DeForest further clarified the PAPO fertilization project.

- For 400 acres, initial results were positive after one year (favorable weather, etc.). No invasive species were noted. PAPO now implementing a second phase on flanks of Mesa and will continue as long as we have positive results.
- Fertilization is two-phase for just over 3,000 acres. This year 1,000 acres was approved; next year, an additional 2000 acres. As long as there are positive effects, the PAPO can incrementally implement treatments within the larger project area (30,000 acres).
- Weather patterns were considered. A condition of approval by the PAPO board was success of the pilot treatment, then approval of first application, before the second application is applied. Results of next 1,000 acres will be reported to the public. Last year (2010-2011), was an ideal weather year.
- Liquid fertilizer was reviewed as a possibility.

Anderson: Important to consider fertilization as a short term mitigation tool. In the long term we should be looking at some of the other treatments, too – layered over the top of each other. There will be bad results at times. Nitrogen might disrupt the soil composition over the long term. Should there be soils research done? **Shane:** On first 400 acres, soil sampling was not a component. It was more to get best chemistry on the ground. We have incorporated pre and post soil sampling treatments, as per scoping. Fertilization allowed us to immediately do something – since we hit the matrix – and lead us into the longer term goals. **Stephanie** is interested in understanding more about targeted time frames – short and long term. Likes emphasis on results of increasing the mule deer. When do we know when we've spent enough time per treatment? **Shane:** It all depends on the treatment and what the goals are. At some point this will be clarified. We don't just go out and throw money out – know what you can get before you go for it. **Stephanie:** Are we keeping a running accounting of all of the costs – public investment? **Shane:** PAPO staff prepares annual documents highlighting this. **Stephanie:** Is all of this funded thru PAPO? **Shane:** Not entirely – there are other funding sources.

Tony Gosar: With all this rehab going on – 46% quoted of deer decrease on the Anticline by recreationists. Are there any indications from this past winter – have they moved off of the Anticline because of all of the activity? **Shane:** There is monitoring in place. Reports should be posted online.

Anderson motions to approve the recommendation for habitat mitigation and forward to the BLM; Kramer seconds. Motion passes unanimously.

Wyoming Department of Transportation Wildlife Over and Under Passes

Pete Hallsten, WYDOT, presented an update on the status of wildlife over and underpasses on Highway 191 from Trapper's Point to north of Daniel Junction. Peter.Hallsten@wyo.gov.

Animal counts are from two data sets: reported animal-vehicle collisions and maintenance worker pick up of carcasses. This is only a portion of animals – some of them make it to the right-of-way fence and don't get picked up and counted by maintenance. WYDOT's next priority is on 89 between Big Piney and LaBarge. Focus now shifted to maintenance because of funding. WYDOT has considered lowering speed limits during migration but this can actually increase safety hazards; legislatively have to establish speed limits; legislature hasn't address different speed limits for night and day. It's difficult to get people to perceive a good reason to slow down. Use of under and over passes will be monitored with radio collars and game camera studies. After the data is collected and studied, some tweaks can be made. Eight foot fences have worked well in other areas; it's the same as around the elk refuges. The electronic program (warning signs) didn't work because there was a lot of maintenance and unreliable; not cost effective. Gates are meant to be used primarily during the migration. Overpasses are designed for a variety of species; hopes pronghorn will use, also. Nugget Canyon used successful box design; current design is more open. Nuggett Canyon has data on pronghorn. Hallsten not aware of data on grade-separated projects, preference of crossing or data around Farson.

Enhanced Reclamation on Anticline

Pinedale Anticline already a requirement for reclamation; however, with the Matrix triggered in 2010, BLM started to figure out if we can do better. BLM Wildlife Biologist Josh Hemenway presented "Enhanced Reclamation Options in the Pinedale Anticline Project Area."

Interim reclamation is done when the pad is drilled out and no activity is expected within two years but the gas company could one day re-enter. Final is when production is done and wells are plugged. Most Anticline pads will be in interim for the next 20, 30, 40 years, etc. A few pads are currently in final.

The BLM can provide information on specific soil amendments. **Anderson:** One amendment can favor one species, but not another. **Bannon:** Soil amendments are used to increase microbial activity and deal with structure to keep nutrients in. **Amy Davidson (Shell):** Soils are tested, then disturbed, and then treated based on offsite/onsite elements. Some amendments, often organic, added to reclaim the soils. The BLM has a seed collection program; two interns this past summer. **Kessler:** Is there an opportunity for entrepreneurial seed collection? **Kelley:** A local gentlemen trying to raise various different species. **Pete Guernsey (QEP):** There has been interest; it takes time and commitment to get seed collected/production scale, etc. **Hagenstein:** Are people aware of 3-4' deep soil monitoring? Studying why fertilizer isn't working? **Bannon:** Detriments versus good: don't really know how treatments will respond. Tests plots are a good path. **Guernsey:** Actually attempting on state lands on the Mesa with non-native seed. No established monitoring program, no utilization study. Info will be given to the BLM. **Anderson:** The whole idea of non-native species should carry a huge red flag. History of west and other places (think Russian Olive) that seemed like a good idea, but later, we spend huge sums trying to remove species. Should tend to think non-native species are a bad idea and always bear in mind much greater long term costs of what we do. Non-native species should be one of items we should be most concerned with. **Bannon:** Is there something we can do with veg removal (oak mat) so that more can be done to avoid having to implement further seeding. **McKee:** There are always ways of doing a better job, but with 2008 SEIS decision, 100 pads overall – there is a significant amount of less

surface disturbance. One pad per quarter section and some areas are better than that. Need to maintain safe working environment also. Some of this is addressed during onsite. **Stephanie:** We're struggling with asking for advice when this appears to be technical and scientifically difficult – uncomfortable suggesting methods. This should be something that Wyoming in general should spend some energy on. Thirty-plus years of interim reclamation is a long time frame. Recommends pursuing assistance from different places...UW...more scientific. **DeForest:** It's complex but the matter fits neatly into the scope and objective of the PAWG's charter. Option to use subcommittees to reach out and find technical expertise. **Kessler:** Would rather have time to do some homework and come back with recommendations. **DeForest:** This idea came about from February's wildlife planning meeting - would like to implement for 2012 reclamation season. **Anderson:** If there's time, there's no need to do subcommittee; third option is to say we don't want to handle this. **Cally:** Is BLM looking for pilots, tests, experiments? Some operators use different methods. Two to three years or more of trying to find out what works, or make a decision and go with it? Has the BLM talked with operators about what's working for them? **Hemenway:** Could definitely work with the operators and not reinvent the wheel totally. **McKee:** Can we discuss at May's meeting and present any results? Do we have to do something today? **Kessler:** Progress. Wants the BLM to meet with operators and turn the data into an initial recommendation. **DeForest:** BLM doesn't want to indicate that we've already made up our minds. Gathering and preparing info is good but make sure that BLM is transparent with the process. No implied ownership. Subcommittees have goal of putting that info together. Does the PAWG want the BLM to move forward and make the decisions without the group? **Bannon:** How would the subcommittee work – who are the players, etc., what should the group suggest? **Anderson:** Subcommittees good, but sometimes there are more questions / hashing out the issues anyway after hearing the info. When the subcommittee reports back, are you still going to have dozens of questions? Is this efficient? **Guernsey:** Monitoring of reclamation already being done every year on each pad. PAPO already evaluates and recommends based on ROD requirements for vegetation, etc. that must be met. What will we gain here? If you do elect to go to subcommittee – ask specific questions. Should go beyond what is already being done, already required. *Decision: Develop subcommittee agreement.*

Air Presentation

Janet Bellis, BLM, presented on the air visibility milestones set in the SEIS ROD. Milestone #2 based on modeling of impacts on a certain date/certain amount of tonnage, etc. Milestone #1 had very specific tonnage - 3,809 tons/year – 42 days. Milestone #2 – 10 days. Target tonnage not yet established. Look at 2009 or 2010 emissions inventory. Now looking at proposal that operators submitted. Three agencies need to agree on this. **Kessler:** Will this proposal change how this milestone will be measured? **Bellis:** Because proposal being looked at by three agencies, strategies not entirely approved. Use same facilities used in 2008. Drilling rigs by 1/1/2012 will all contain the same types of facilities/systems (selective catalytic). For comparison purposes. Pinedale, Gobblers, Falcon, Paradise (others?). Bird Canyon and Opal – no determination on whether these will be included. Based on emission inventories. Planning on using most recent data verified. 2010 emissions reports won't be verified until after the annual February meeting. Now looking at using 2009 data. DEQ and BLM to look at whether to make the determination of whether the milestone is met or not before presenting it. When model is run, receptors assume some level and model the emissions as they come out of the field. If it's over one dv of change, it models it. **Kessler:** Model predicted that if Nox emissions down, than only have 10 days instead of 40 of visibility issues. DEQ drives emissions inventories. Shocked to hear the time lag of validating data. **McKee:** There's no discussion about not meeting requirements/dates; DeForest validates that milestone(s) are met via letter. **DeForest:** Concerned over using 2009 data vs 2010. Stumbling block is whether we can have the 2010 data validated. However, if it's 2009 data and we can verify that emissions are down, relatively speaking, not a tremendous amount of risk. If 2009

has been met, then 2010 would be better. **Kessler:** There was a dip in drilling in 2008/9. Perhaps the public wouldn't think 2009 data would be representative. **Bellis:** We are talking visibility, not Nox. Primarily, fugitives for visibility – construction, dust in air, exhaust. **DeForest:** Model considers a broader scale of inputs. 40 days attributable to this project. Waiting for DEQ data – when can the data be presented. **Bellis:** 2010 data discussed – on track with the 2009 data that was verified.

Overview of Wildlife Annual Planning Meeting

- Pygmy rabbit – trigger based on three consecutive years of decline (presence or absence) – need three years of data – we have two years so far. No significant differences.
- White Tailed Prairie Dog: Three years of data needed, we have two years. Researchers reported that there (monitored since 2009, but UW suggested changes in monitoring protocol – adopted in 2010, but then decided to return to original method) two years of data – different methods. Little change in numbers.
- Raptors: Not a matrix species. 910 nest locations were visited; 8 faulty, 142 active, 36 not raptor species. Info online. No change in nest activity or productivity in the two years' data.
- Sage grouse: Matrix - number of leks, peak winter attendance, and noise. Number of active leks summarized. Sage grouse complexes. No matrix triggers shown. Triggers not met in treatment areas as compared with reference areas. Since 2007, 12% decline. With last year's winter, greater declines at reference. Noise criteria discussed - UC Davis helping develop noise protocol. Snow & traffic data overviewed: snow measurements indicated substantial depths. Interesting trends – 190,000 acres – lots of differences. Traffic reported on: # trucks by month throughout winter season – most notable observation – 2010 to 2011 some interesting shifts in volume of traffic in on part of the mesa (unexpected shifts).
- Pronghorn: 15% decline is ROD #. Snafu in info will be corrected this year. Additional facet added – included collaring – the info doesn't automatically upload – collars have to fall off – this will be fixed next year. However, last year's info suggested higher survival rates in the PAPA as compared to reference area. Researchers found no adverse impacts on anticline.
- Mule deer – matrix hit Oct 2010 – last years' info reported a slight increase on the mesa, but we are still below the trigger. Discussion on timing of info. Up until last winter, researchers had never detected interchange of mule deer on mesa and rye grass herds. Because of snow cover, soap holes moved to the mesa, some moved further south.

Bannon: Snow and traffic report: shift from one side of development area to the other – what happened? **DeForest:** We don't know what happened. Operators didn't suggest any known changes to pattern of operation.

DFO Report

See handout.

Water Brochure

Patterned after the one Sublette County Conservation District (SCCD) did. Come up with something easy for the public to understand, but still true to the purpose of the program. Is the water safe? **Kramer:** 41 wells found; Geomatrix said 73 industrial supply wells that had detections. Detections mean something different than in here. We don't have final Geomatrix report, yet, either. Cannot find evidence of domestic (82-38) contamination – can we add this in? **Bellis:** Struggled with “What is the purpose of water monitoring?” Group consensus of what that actually is? **Kremer:** Ensure that there is no contamination due to development activities. **Delsa Allen (SCCD):** DEQ doesn't always have the same standards as EPA (or definitions). **Anderson:** People want to know what 's dangerous - is there

any reason to think that we'd get that from development [on water]? Do we need to define development? Need more understanding of what they need to watch for. **Kessler:** Relate back to what people want to know (brochure) – migration of contaminants in the future? Trends? Is it true, in 2008, that Geomatrix modified existing monitoring plan? Doesn't that lead to pollution prevention plan? **Bellis:** They came up with an interim plan. **Kessler** thinks the public wants to know that we are using this to prevent or mitigate contamination. **Bellis** wants everyone to help her describe the actual purpose of the program. **Kramer:** Would want to know why the wells are contaminated? Are the aquifers contaminated? We don't have the answers to that yet. **Kessler:** Important to indicate the trend that they are getting cleaner. Could come with a number that had cleared up. **Hagenstein:** What do you do if your water report comes back that well water is okay for human consumption, but not to water your lawn (too much sodium).

Gosar: Over in the Piney area, we knew by virtue of electric logs, freshwater zones – 150 feet. 1,100 feet was fresh water zone. Same thing on Pinedale Anticline. When state engineer came forward with proposal to abandon fresh water well from 700-1100 feet. Now we know that by virtue of drilling a water level, in the field, from the surface to 1,000 feet. Wants oversight to allay fears of the public. To prove the subsurface waters, making sure by the operators are running a cement bond long thru that very viable surface water. Drilling a well to 14,000' in 8-12 days, we're finding out that maybe the cement from 750 or 1200 feet, has been bonded with the hole. All this info is available - like to see surface water could be protected and characterized so that what industrial water has been used and inventoried can be stored with 212 water or reclaimed or surface water so that we have an insurance policy and have it available for the future. Wants to save surface water and make sure it's protected. *Decision: Final brochure draft due prior to next meeting.*

Subcommittee

Draft subcommittee agreement. *Decision: Due at next PAWG meeting on February 7.*

PAWG Vacancy

Need official letter of resignation so that call for nominations can be posted.

February 7 Meeting Topics

Surface Water (review of results from sampling, techniques, and how sites were selected)
Groundwater: Overview of findings, what happens next. Interplay between the processes.
Characterization of the aquifer. Pit monitoring.
Subcommittee report
Brochure report
Reclamation report

Gosar: Requests that DEQ not give a blanket flaring and venting program for all operators in State of WY on Feb 11th of each year? Court house has an order to permit all operators to go ahead and vent and flare across state of Wyoming on this day. **McKee:** Operators have permits for venting and blow down, but these are not blanket exceptions.

Mike Kramer motions to adjourn; Paul Hagenstein seconds. Motion passes unanimously.

MEETING ATTENDANCE FORM

PURPOSE: WYOMING FERTILIZER WORKING GROUP

TIME: FROM 9:00 AM TO _____

DATE: 11-2-11

NAME	ORGANIZATION	PHONE	E-MAIL ADDRESS
Park Hogensten	PAWG		
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Stiff Kessler	Tris PAWG	332 3462	stiff yon know!
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JOHN ANDERSON	PAWG		
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Wyoming Department of Transportation

<http://www.dot.state.wy.us>

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