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# State of Utah
**DEPARTMENT OF NATURAL RESOURCES**

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**Division of Oil, Gas and Mining**

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August 13, 2013

Kirk Nicholes, Environmental Manager
Alton Coal Development LLC
463 North 100 West, Suite 1
Cedar City, Utah 84720

Subject: 2012 Sage Grouse Progress Report, Alton Coal Development, LLC, Coal Hollow Mine, C/025/0005

Dear Mr. Nicholes:

The Division has completed a review of your 2012 Sage Grouse Progress Report which we have attached. We have also incorporated comments from the Fish and Wildlife Service (FWS) and the Division of Wildlife Resources (DWR). There is additional information that needs to be included in the report and some information that needs to be clarified. Once you have had an opportunity to address the comments I would suggest that you contact Joe Helfrich to discuss your response prior to submitting the information.

If you have any questions, please call me at (801) 538-5325 or Joe Helfrich at 801 538-5290.

Sincerely,

Daron R. Haddock

Daron Haddock
Coal Program Manager

DRH/ss
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UTAH DNR
OIL, GAS & MINING

# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 12, 2013

TO: Internal File

THRU: Daron Haddock, Permit Supervisor

FROM: Joe Helfrich

RE: 2012 Sage Grouse Progress Report, Alton Coal Development LLC, Coal Hollow Mine, C/025/0005

**SUMMARY:**

On April 11, 2013 the Division received the 2012 Sage Grouse Progress report for the Coal Hollow mine. The document was distributed to the local sage grouse working group members (CCARM), DWR and FWS for comment. The Division received comments on the progress report from the Fish and Wildlife Service (FWS) on May1st and the Division of Wildlife Resources (DWR) on May 2nd. These comments have been incorporated into this memo and the memo will include the Division's review of the progress report. The memo will be provided to ACD to make changes as needed.

**TECHNICAL ANALYSIS:**

# OPERATION PLAN

## FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

**Analysis:**

**Protection and Enhancement Plan**

Page 2, paragraph 2 the word mines should be Mining throughout the document.

Page 2, paragraph 3 *"Sagebrush habitat conservation has been emphasized, in particular in areas where birds are known to frequent."* If the sagebrush habitat conservation means the vegetation treatment (by ACD) that has been implemented to date I don't believe there is data to support that the birds are frequenting those areas. However the 2013 treatment plan does need to include treatment in the areas where the data indicates the most frequent use (Sagebrush Flat).

Page 10, DWR conducted two aerial surveys. The data and flight path map from the second survey needs to be included in the progress report.

Page 13, paragraph 1, *"It was not considered that noise could be impairing breeding activity during the leking season. This was particularly apparent as birds were displaying directly on the mine site"*. Since we don't know if the breeding activity of the females was impaired (40 db threshold) from the noise the statement would be more accurately stated by saying: *"It was not considered that noise could be impairing breeding activity of the males during the leking season. This was particularly apparent as birds were displaying directly on the mine site". However it is not known if the breeding activity of the females was impaired as only males were observed.*

Page 17, Paragraph 2, *"The combined area for both rabbitbrush treatment and juniper removed resulted in a continuous area of 146 acres of usable habitat".*

Chapter 3, Appendix 3-5, page 14, paragraph 2 requires the treatment of 240 acres per year. The treatment of 146 acres represents only 63% of the required acreage as a result the Division issued Notice of violation #10123 to ACD for failing to comply with the terms and conditions of the permit (R645-300-143). The permittee is required to submit plans for the treatment of 314 acres in areas where the sage grouse are known to frequent and complete the

treatment by no later than September 17, 2013. These plans (when approved) should also be incorporated into the 2012 progress report.

Page 19, Table 4. The Division cannot give mitigation credit for the reclamation of the disturbed area. Table 4 needs to be revised to reflect the total acreage (146) for the rabbitbrush and juniper removal treatments.

Page 19 Predator Control Activities

Figure 16 of the progress report needs to include the coyote removal locations.

Page 20, Summary

1. The three areas need to be identified.
6. There is also the component of increased number of individuals either conducting lek counts or employee observations that need to be mentioned as a contributor to the increase in # of birds seen.

Page 21 Paragraph 2, the report needs to include the # of aerial surveys for 2014 as determined by DWR.

Page 21 Vegetation Improvements and Monitoring, ACD has not met Submit a comprehensive detailed plan for the vegetation treatment of 314 acres in areas where sage grouse are known to frequent according to the data provided in the 2012 sage grouse progress report, eg. sagebrush flat noted in figure 1. Plans must be complete and adequate and implemented upon approval.

The report needs to include a map and description of the proposed treatment areas and corresponding acreages for 2014. Treatment should be prioritized in the areas where the data indicates the most frequent use ie (Sagebrush Flat).

**FWS comments from Amy Defreese**

1) In general, it would be really helpful if the authors could provide some context to the report. They could either refer the reader to a document that outlines the avoidance/minimization/mitigation requirements or include them in the document for the reader's reference. It would also be useful to list the goals/objectives of the mitigation plan and then document where the Mine is in reaching those goals/objectives. As it is currently written, it is hard to make this determination from the information provided and how it is presented.

2) For context, it would be really helpful if the authors would include the boundaries of DWR greater sage-grouse occupied habitat types, and the point location of the Sink Valley and Hoyt Ranch leks in the maps.

3) There is a statement in the progress report on page 5 that "Based on these surveys, it can be assumed that Fords Pasture supports a population during at least some portion of the year and is subsequently the southern-most population of the species". I'd like to hear Rhett Boswell and Nicki Frey's thoughts on whether this determination can be made based on one year of observations. If not, I'd suggest leaving the observation in the document, but taking out the conclusion that the extent of the species population/range has changed in the last few years.

4) On page 10 (last paragraph), I read that mining activities including large equipment activity, was on-going within 50 yards of strutting birds (documented March 15). I can't recall, did the State apply any seasonal or spatial buffers to mining activity? It would be super helpful to include avoidance/minimization/mitigation requirements from the original permit in the Progress Report.

5) Relative to on-going predator control and documented discussions about additional coyote control as a conservation measure, has the local working group documented that predators are a high threat (that needs to be addressed) for this local population? Do the greater sage-grouse biologists agree that this is a useful measure? I think the author's decision to expand coyote control measures to Ford Pasture should be reviewed by Rhett and Nicki. It seems like an aggressive and perhaps pre-mature measure given little information to support it.

6) I'm wondering if either Rhett Boswell or Nicki Frey could fact-check the summary on page 20. In addition, some of the conclusions the author makes seem pre-mature (ie that sage-grouse have habituated to human-related activities or are not being impacted by surface mining activities to the degree predicted).

**DWR comments from Rhett Boswell**

**General comments and suggestions for ACD's Greater Sage-grouse progress report 2013**

**R. Boswell - UDWR**

Page 5.

The report list a total of 56 birds in Ford's Pasture. This may be a bit misleading, it would be hard to confirm that there are 56 individuals there; the same group may have been flushed over and over. It is accurate to say they are using Ford's and it is currently safe to say they are using it in the winter. The Ford's Pasture birds could very well be using the sink valley area. The last sentence makes it seem that the Ford's birds are a separate population from the sink valley birds

(no evidence currently to refute or confirm this) but in other parts of the report they are all lumped together.

Page 9.

The "number of birds" column in table 2 is a bit misleading in that it is a total number from multiple flushes/observations in the same survey area. There *may* be as many as 70 individuals in these areas but one must consider that double counting is likely happening. A simple side note could explain this to readers. Also, this "70 birds" is used throughout this report as evidence of a general increase in birds in sink valley since mining began. 56 of those 70 *observations* were made in Ford's Pasture on one survey night with half a dozen flushing events. Is this report using observations in sink valley and ford's pasture to draw conclusions on the overall population as it relates to mining activity?

Page 10.

Last sentence of last paragraph: Is this statement eluding that these birds are acclimating to major disturbances? If birds are displaying in the presence of disturbance (helicopters, "begee's", other noise) that does not mean they are not being impacted. Most research suggests that sage grouse are very sensitive to these levels of disturbance and noise.
The birds observed displaying are instinctually trying to attract mates to breed. Research suggests the importance of hens being able to audibly detect strutting males. The birds may be getting used to the mine but that doesn't mean that their breeding success is not being hindered by the disturbance in the area.

Page 13

Last two sentences of first paragraph: Same concern as above on page 10. These sentences are making a major sweeping assumption that breeding is not being impacted by the mine. Displaying behavior is still occurring, yes, but how can conclusions be made that breeding activity is not being impaired?

Page 17

Vegetation Enhancement and Revegetation: Can ACD list exactly who paid for these treatments and provide documentation for the report? It appears that the rabbit brush was not mowed prior to herbicide application; is that true? is that effective? It appears from the photos that the rabbitbrush is seeded out and not actively growing.

Page 20.

SUMMARY

Item #2: Is 12 birds the official count from DWR or the mine? The actual count on the traditional lek should be listed here along with other lekking behavior in the area.

Item #4. Again these numbers cannot assume total individuals and may be misleading to the reader. Also, weren't 56 of the 70 birds recorded from Ford's Pasture? Why is it listed here as being in the "valley"?

Item#5. This is a misleading assumption as a total of 7 chicks where observed according to table 2. The observations of chicks are good data and do confirm successful breeding. However, it is problematic to assume that "sage-grouse are completing nesting and brood rearing activities near the mine" for the area's population based on 7 chick sightings. If the mine claims that as many as 70 birds are in the area then 7 chicks is dismal breading success. Of course we can assume that not all birds and chicks were detected with the surveys from the mine. The latter fact alone makes it hard to suggest that brood rearing and nesting is being completed near the mine without more robust evidence.

Item#6: Caution should be used in stating that sage grouse are "habituating" and "not being impacted to the degree predicted" from activities associated with mining. It seems that both these assumptions are based on a "general increase in bird observations in the Alton area since mining has begun". A general increase in observations may be a function of observer effect. The amount of eyes looking for grouse in the area has increased exponentially since mining began. Before the mine the only observations were DWR annual lek counts and some research from USU/SUU. It could be interpreted as scientifically irresponsible to make such sweeping assumptions in a yearly progress report based on "a general increase in observations".

**Findings:**
There is additional information that needs to be included in the report and some information that needs to be clarified.

## RECOMMENDATIONS:

The permittee needs to address the comments provided by the Division, DWR and FWS.