



**Montana Fish,
Wildlife & Parks**

Tom Ring
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October 6, 2010

Dear Mr. Ring:

Thank you for the opportunity to review and comment on the "Approach for Implementing Mitigation Measures to Minimize the Effects of Construction and Operation of the Keystone KXL Pipeline Project on Greater Sage Grouse" prepared by WESTECH Environmental Services, Inc for Trow Engineering Consultants. MFWP staff has taken the time to review the mitigation approach and has some comments and recommendations to consider as we move forward towards developing a plan that conserves wildlife and allows for efficient construction of the pipeline, which is an important energy development project in the state of Montana. MFWP has outlined specific comments related to the proposed mitigation measures, provided new information from 2010 surveys, and offers suggestions for changes in mitigation at some leks. Of the 22 leks along the pipeline route in Montana, MFWP would be willing to consider reducing constraints on 11 leks, agrees with proposed mitigation on 6 leks, and proposes the need for alternative or additional mitigation for 5 important leks in critical habitats.

As you are aware, Montana Fish, Wildlife and Parks promotes the use of progressive mitigation measures that begin with siting projects in a manner that 1) avoids the greatest amount of potential impacts to fish and wildlife resources, 2) continues with minimizing impacts and restoring areas that are impacted, and 3) uses compensatory mitigation for impacts that cannot be avoided, minimized or restored. The document prepared by WESTECH makes significant progress towards outlining how impacts will be minimized and restored. However, FWP maintains our opinion that compensatory mitigation will be necessary to some degree, in order to compensate for the long term impacts to sage grouse and other fish and wildlife habitat. The State of Montana and its citizens will ultimately incur the cost of unmitigated losses of economically important species, recreational opportunities and of managing and or recovering sage grouse should the species be listed under the Federal Threatened or Endangered Species Act. As such and given the elevated status and annual review of the status of sage grouse, FWP believes that that compensatory mitigation options must be incorporated into any final mitigation plan in order to ensure that the interests of Montana's citizens are protected. The exact

amount of needed compensatory mitigation is difficult to determine. However, FWP suggests that compensatory mitigation could be approached in at least two ways. Compensatory mitigation could be based on the acreage value of direct disturbance to important core and critical sagebrush and sage grouse habitat, or the compensatory mitigation could be based on monitoring unmet restoration objectives and potential declines in sage grouse populations.

Specific Comments Related to the Mitigation Plan

2.0 DEIS PROPOSED SAGE GROUSE MITIGATION MEASURES

Page 2: Contact BLM, MFWP or SDGFP to determine what mitigation measures are needed for a lek found within the construction ROW.

FWP recognizes there are no known leks within the 150 feet wide ROW. However, FWP recognizes there are leks within 3 miles of the ROW that will be impacted and recommends listing these leks by proximity to the 150 feet wide ROW. To say there are no known leks within the ROW, given proximity of known leks to the ROW, is misleading. Furthermore, we recommend contacting the before mentioned agencies if any new lek is discovered within the 3 miles of the ROW during construction.

Page 2: Implement reclamation measures (i.e., application of mulch or compaction of soil after broadcast seeding, and reduced seed rates for non-native grasses and forbs) that favor the establishment of big sagebrush in disturbed areas where compatible with the surrounding land use and habitats.

Often, buried pipelines are visible for years as the earthwork leaves a "hump" over the buried line as soil is displaced. Although FWP recognizes a certain amount of natural soil compaction occurs following reclamation, FWP recommends minimizing this "hump" by smoothing the soil more widely within the ROW so it blends more evenly into the undisturbed ground, as an opportunity to show "poster quality" reclamation work.

avoid
disturbance
not like
disturbance
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Page 3-4: Where facilities would permanently remove sagebrush communities, implement compensatory mitigation nearby to restore, enhance and preserve sagebrush communities for greater sage grouse and other sagebrush-obligate species.

Pump Station 10 (PS-10) (North Valley County) is not included in this list. It is located along a 2-track trail, not a road, where the habitat has not been "somewhat affected." Road upgrades will likely be required and a 69 or 115KV power line will have to be constructed to service this area. Low sagebrush densities occur in this area, but sage grouse have been documented and observed using this area, and it is located within the circled lek buffer zones as described on included maps. Pump Station 15 (PS-15) is located in the somewhat limited sage grouse habitat along the eastern range of the bird. FWP recommends noise muffling devices for pump

stations and that offsite mitigation funds be provided to FWP to restore, enhance and preserve sagebrush communities in the vicinity of each valve and pump site.

Page 4: Implement measures to prevent colonization of reclaimed areas by noxious weeds and invasive annual grasses such as cheatgrass.

FWP recommends mitigation funds to offset impacts that will encumber private, local, state, and federal landowners.

*Draft summary
weeds plans*

3.0 COMPARISON OF THE EFFECTS ON SAGE GROUSE OF CONSTRUCTION AND OPERATION OF A SOLITARY BURIED PIPELINE TO OTHER FORMS OF ENERGY DEVELOPMENT.

Pipeline ROW inspections are conducted every 2 weeks by aircraft. FWP recommends timing of flights to be limited to afternoon hours between March 1 and June 15 each year to prevent multiple disruptions on the leks.

4.0 STRATEGY TO MINIMIZE POTENTIAL IMPACTS TO SAGE GROUSE FROM THE KEYSTONE XL PIPELINE PROJECT

As a part of MITIGATION II, a “qualified monitor” is tasked with responsibility to monitor sage grouse activities along the construction zones, and is to report to a designated Project contact. It is then up to the subjectivity of Project contact to decide whether or not conferring with specified agency biologists is warranted.

FWP recommends funding be provided for FWP to hire the “qualified monitor” that will report to FWP and BLM to ensure communications between the specified agency biologists with the designated Project contact and subsequent Project construction follow appropriate mitigation guidelines.

Because of FWP’s sage grouse survey expertise, FWP has the ability to hire qualified monitors that can help ensure that when all the mitigation planning processes are completed, that an advocate for the resource is actually present during construction. The result can be an opportunity to showcase an example of how large energy development projects can successfully be completed while environmental concerns are met.

We appreciate the systematic approach of determining where Constraint I and Constraint II would be applied. However, around some leks, this approach results in a pattern of small fragmented sections of pipeline that could be worked on 2 hours after sunrise from March 1 through June 15 and other sections that could not be worked on until after June 15. In these fragmented areas, the time in which the ROW would be active near sage grouse leks could actually be drawn out over a longer duration causing logistical problems for the company and may inadvertently increase disruption to the birds. FWP offers a more balanced approach and recommends the following comments on each lek along the pipeline route.

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Lek Specific Mitigation Comments

1) Leks where proposed mitigation could be reduced due to level of lek importance or other habitat characteristics (11 leks)

- 746- Eliminate constraint II ✓
- 753- Eliminate constraint II ✓
- 619- Eliminate constraint II ✓
- 658- Eliminate constraint I and II ✓
- 795- Eliminate constraint I ✓
- 1428/1725- Eliminate constraint I ✓
- 1801- Eliminate constraint I and II ✓
- 1837- Eliminate constraint I ✓
- 1430- Eliminate constraint II ✓
- 1805- Eliminate constraint II ✓

2) Leks where proposed mitigation is adequate (6 leks)

- 744 ✓
- 1739 ✓
- 1894 ✓
- 799 ✓
- 1838 ✓
- 1437 ✓

3) Leks that are large or in areas of critical habitat where proposed mitigation is inadequate (5 leks)

- 656 = 31 males in 2010
- 1298 = Is part of 656
- 1781 = 41 males in 2010
- 662 = 27 males in 2010
- 1840 = important lek on the outskirts of heavily developed oil and gas field, critical to long term maintenance of local population

New Information

The statewide database will be updated by November 1st with the spring 2010 surveys and will be available to KXL at that time. There are at least two new leks that were found along the survey route that need to be incorporated into the plan.

1. SG20-106 = 8 males in 2010 (47.42366 lat, -106.78873 long)
2. FA-067 = 5 males in 2010 (46.29263 lat, -104.215 long)

Further Mitigation Needed

- Large leks and critical habitats

- FWP recommends a higher level of on-site and/or off-site mitigation to minimize or compensate for the potential impacts to the 5 most important leks along the pipeline route. These leks are critical to the long term maintenance of the population.
- Pump station
 - FWP recommends a higher level of off-site mitigation to compensate for the direct (acres disturbed) and indirect (noise/fragmentation) effects to the habitat around the pump stations.
- Weed control
 - FWP recommends a mitigation fund for future weed control.
- Monitoring the effects

Section 3.0 highlights difference between how the construction and operation of the Keystone XL Pipeline is different than other energy development projects. Section 4.0 highlights differences in energy development stipulations set forth by the BLM, MFWP, USFWS, and SDGFP as discussed in detail in Appendix A, as rationale to justify proposed constraint and mitigation measures.

These contrasts between the construction and development of cross-country large-diameter pipelines with findings from other scientific studies among other energy developments as described in detail in Section 3.0, and subsequent arguments suggesting impact expectations to sage grouse as best described in the final paragraph of Section 3.0:

“In summary, cross-country large-diameter buried pipelines like the Keystone XL Pipeline Project would be expected to have fewer and/or less severe effects to sage grouse than do more intensive energy developments. In contrast to the standardized buffer constraints and seasonal restrictions that may be applicable for other energy developments, the short duration of pipeline construction combined with its narrow linear footprint relative to the surrounding landscape provides an opportunity to customize temporal and spatial construction constraints to protect individual leks and nesting habitat based on site-specific information.”

This summary provides the basis and rationale highlighting the need for a scientific study to evaluate the impacts that the construction and operation of the Keystone XL Pipeline has on the surrounding landscape’s resources, including the short and long-term effects on sage grouse populations. This study could clean up different stipulations set forth by different agencies as highlighted in Appendix A, and could better define strategy design for minimizing impacts on sage-grouse from potential future large diameter buried pipeline construction as discussed in Section 4.0. This study could also help showcase how large energy development projects can be successfully implemented while being environmentally compatible.

FWP recommends financial support to fund a scientific study that evaluates the impacts that the construction and operation of the Keystone XL Pipeline has on the surrounding landscape's resources. (See attached draft proposal)

We look forward to further opportunities to work through this process so that we can conserve wildlife while allowing for efficient construction of the pipeline, which is an important energy development project in the state of Montana. Please feel free to contact me if you have any questions or if FWP can provide further clarification.

Sincerely,

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Project Title/Concept

Assessing the effects of construction and development of a cross country large diameter pipeline to sage grouse populations

Project Need, Purpose, and Objectives

Domestic demand for energy development and transport will continue to increase over the next decade. Oil and gas development have been shown to have a negative effect on sage grouse populations, prompting state wildlife and federal regulatory agencies to develop more restrictive development stipulations near lek locations and other important habitats. The effects of a large diameter buried pipeline have not specifically been studied, but in the absence of better information, development restrictions to protect sage grouse from oil and gas activity are being applied to other surface disturbing activities.

It is hypothesized that *“cross-country large-diameter buried pipelines like the Keystone XL Pipeline Project would be expected to have fewer and/or less severe effects to sage grouse than do more intensive energy developments. In contrast to the standardized buffer constraints and seasonal restrictions that may be applicable for other energy developments, the short duration of pipeline construction combined with its narrow linear footprint relative to the surrounding landscape provides an opportunity to customize temporal and spatial construction constraints to protect individual leks and nesting habitat based on site-specific information.”* (WESTECH Environmental Services, 2010). This provides the basis and rationale highlighting the need for a scientific study to evaluate the impacts that the construction and operation of the Keystone XL Pipeline has on the surrounding landscape’s resources, including the short and long-term effects on sage grouse populations. This study could clean up different stipulations set forth by different agencies, and could better define strategy design for minimizing impacts on sage-grouse from potential future large diameter buried pipeline construction. This study could also help showcase how large energy development projects can be successfully implemented while being environmentally compatible.

Here we propose a research project designed to answer the questions:

- (1) How does the development and construction of a large diameter pipeline and the associated infrastructure affect sage grouse populations and
- (2) How do measures designed to mitigate or change the impact of development and construction and the associated infrastructure affect sage grouse populations?

Study Design

We propose to use male lek attendance data as a measure of population change. Existing information would allow for the development of a Before-After-Control-Impact (BACI) study design, such that the effects of pipeline construction, development, and mitigation on sage grouse can be quantified relative to control areas and pre-development time periods. To accomplish this, we propose to count leks in areas without pipeline construction, with less restrictive mitigation measures, and with more restrictive mitigation measures before, during, and after construction.

We propose to work at three paired sites in the Montana. Each paired site would include multiple impact and multiple control leks in areas that would provide reasonably close juxtaposition of sage grouse populations. The three paired sites would be distributed along the route in North Valley County, McCone County, and Fallon County. Leks counts would be conducted at each lek for at least three years post construction and areas would be compared for differences in male lek attendance. Further refinement of study leks would need to be taken once the final mitigation measures are decided upon for each lek and a more refined study plan could be drafted at that time.

Funding and Partnerships

Opportunities exist to pull in several partner agencies and companies to answer these important questions. Potential partners include the TransCanada, Bureau of Land Management, Montana, Fish, Wildlife and Parks, and other members of the pipeline construction industry.

References:

WESTECH Environmental Services, Inc. 2010. An approach for implementing mitigation measures to minimize the effects of construction and operation of the Keystone XL pipeline project on greater sage grouse. Prepared for Trow Engineering Consultants, Tallahassee, Florida.

DEQ/FWP/TransCanada

Sage grouse meeting

10.13.2010

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