

**From:** [Berglund, Jeff](#)  
**To:** [Deibert, Pat](#)  
**Cc:** [Jesse DElia](#)  
**Subject:** Re: Road Recommendations  
**Date:** Tuesday, November 26, 2013 3:19:40 PM  
**Attachments:** [347.png](#)

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Thanks Pat! I appreciate you slogging through that email. I started thinking about that issue at 3:00 when the dog needed out...I'm sure I'll catch up with you next week - you'll be seeing the next version of our comments on the MT plan (and I got a little creative in parts so definitely need a consistency course check). Jodi should be getting her edits back to me today. It's technically due to the state Dec 4.... Speaking of that, Jodi just called and wanted me to ask you if there's a specific comment letter format to the state that we should be using. Do you know if that's the case? Thanks and Happy T-day to you as well!

Jeff

On Tue, Nov 26, 2013 at 3:10 PM, Deibert, Pat <[pat\\_deibert@fws.gov](mailto:pat_deibert@fws.gov)> wrote:

Jeff - Great catch on the density. I had a brain short circuit thinking that 0.09 and 0.01 were only 0.01 different (meaning I read 0.01 as 0.1). So I do think we should go with the Knick levels as a recommendation. Thanks for clarifying that and whacking me upside the head!

I also agree with you on distance - I think the recommendations are biologically sound. I do have one caveat - we need to make sure that we aren't contradicting the recommendations from the NTT, or at least if we are, provide the rationale. I am about to get very familiar with that document again, so I will take a look.

Please remind me if I forget to get back to you on this. I have lost all sense of responsibility in the last few days, even if I accomplish the stated task (and the holiday break won't help!).

I generally OCD on chocolate or beverages. No concerns with your OCD (although I am a little sad for you 😊).

Thanks and good turkey!

P

On Tue, Nov 26, 2013 at 8:32 AM, Berglund, Jeff <[jeff\\_berglund@fws.gov](mailto:jeff_berglund@fws.gov)> wrote:

OK - I'm really, truly sorry for my OCD with this issue, but I'm playing devil's advocate and anticipating questions BLM / State will have and am still a bit hesitant with these recommendations due to the questions below:

Road Density - the results in Wisdom don't appear to be all that consistent with the results in Knick; particularly where secondary roads are concerned. In Wisdom, the mean road density value (based on roads on 1:100K-scale census maps) w/in 18 km of occupied leks was 0.09 km/sq km. Also, they say (p.471), "*Primitive and secondary roads may also be underestimated in current spatial layers. Our distance and density-based road analysis might have changed with a more accurate inventory*" In Knick, mean road density w/in 5 km of active leks was 0.1 km/sq km for interstate highways, 2.0 km/sq km for highways,

and 66.6 km/sq km for secondary roads. High lek HSI scores ( 0.60) were associated with large-scale densities of <1.0 km/sq km of secondary roads, 0.05 km/sq km of highways, and 0.01 km/sq km of interstate highways. Given the data and road mapping issues, my concern is that applying the 0.09 density limitation to scales finer than that under which the data were derived could be problematic - that road density could well be currently exceeded in most areas once secondary and primitive roads are considered. Would it be more appropriate to either offer this as an "above and beyond" recommendation, or perhaps go with the mean density values in Knick instead?

Distance - In Wisdom, mean distance between historical grouse locations in occupied range and roads was 400 m - so we're looking at asking for that 400 m (0.25 mi) road buffer from leks (minimally) and breeding habitat (ideally). Given that most nesting occurs w/in 4 miles of leks, what we would really be asking for in breeding habitat is a 400 m buffer on a 4-mile buffer (in the absence of mapping actual nesting habitat, which no one has done). So that's a very significant recommendation. Again, should we recommend the 400m road buffer from leks for minimum COT consistency, and offer the breeding habitat buffer as an above and beyond measure?

I think for both of these recommendations, we need to be very clear about what we recommend for minimal COT compliance (where's our hard line), and what we're recommending beyond that to increase conservation and our confidence in whatever plan we're reviewing. Thanks again for bearing with me - please let me know if I'm out in left field here or clearly misinterpreting something. If it's easier to call in response, please do!!

Jeff

On Mon, Nov 25, 2013 at 3:27 PM, Deibert, Pat <[pat\\_deibert@fws.gov](mailto:pat_deibert@fws.gov)> wrote:  
core-wide. It would be tough to get a 400 m buffer from a core area, but I think its a realistic ask on the density.

On Mon, Nov 25, 2013 at 3:25 PM, Berglund, Jeff <[jeff\\_berglund@fws.gov](mailto:jeff_berglund@fws.gov)> wrote:  
True enough. So then recommend density limitation in breeding habitat also, or core-wide?

On Mon, Nov 25, 2013 at 3:05 PM, Deibert, Pat <[pat\\_deibert@fws.gov](mailto:pat_deibert@fws.gov)> wrote:  
I would start with all breeding habitat first, then reduce to leks. Might as well ask for dessert first!

On Mon, Nov 25, 2013 at 3:02 PM, Berglund, Jeff <[jeff\\_berglund@fws.gov](mailto:jeff_berglund@fws.gov)> wrote:  
Thanks - sounds good. So "minimally at leks, but preferably applied to breeding habitat" (all in core) - then also the density recommendation in core (correct?). I'll have another question in a bit regarding the MT state plan, but wanted to be sure I understood this concept first. Thanks!

On Mon, Nov 25, 2013 at 2:50 PM, Deibert, Pat <[pat\\_deibert@fws.gov](mailto:pat_deibert@fws.gov)> wrote:  
Good question Jeff. My recommendation would minimally be leks, but would prefer breeding habitat based on some of the work that came out of Wyoming around energy development. So lets go with that!

p

On Mon, Nov 25, 2013 at 1:13 PM, Berglund, Jeff <[jeff\\_berglund@fws.gov](mailto:jeff_berglund@fws.gov)> wrote:

Hi guys. In reviewing our BLM consistency call notes from last week, I had a question about our proposed road recommendations. Wisdom et al. (2011) is cited with a respect to a 400m road siting distance recommendation - however, we don't specify what we're trying to keep the roads 400m away from. The study was just based on historic "locations" - not any specific habitat (nesting, winter, etc.). So, are we recommending 400m from leks, core areas, important habitats, all of the above? We should specify. The density limitation recommendation is a bit easier to get arms around, but when we start talking distances, we need a reference point. Any thoughts? Thanks!

Jeff

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got leks?

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