

From: [Apa, Tony](#)
To: [Christian Hagen](#); [Knick, Steven T](#); [David Naugle](#); [Deibert, Pat](#)
Cc: [Kemner, Don](#); [Shawn P. Espinosa](#); JasonRobinson@utah.gov; [Morales, Raul](#)
Subject: Citations for NIT product
Date: Monday, September 12, 2011 3:22:16 PM
Attachments: [NIT_ConservationMeasures_PlanningStrategy_0902_2011_draftScience_Citations.docx](#)

Hey Everyone,

I've been putting out other brush fires with regards to my day job and haven't had much time with this. I've tried to identify those biological recommendations that may need a scientific citation. I've taken my hand at highlighting as well and those things I flagged are in grey. I'm working on an introductory part on certainty of conclusions and inference space with regards to science without relating it to any study in particular and run it by everyone. If we don't have the science I'm assuming it will be our best professional judgement.

So, if you could get each of you to take a shot and identify a research citation that supports the biological recommendation along with the full citation I would greatly appreciate the help. Many of you were authors/editors of the SAB and/or an editor of a recent book, so you will have a much better handle on the recent literature than I. I will put together the literature cited and then can incorporate those citations into a more "final document" along with the literature cited.

I would like to get this to Raul before COB Thursday. Thanks in advance.

Tony Apa

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Colorado Parks & Wildlife
Northwest Region Service Center
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970.255.6196 (office)
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From: [Sell, Robin A](#)
To: [Morales, Raul](#)
Subject: NTT Science review
Date: Friday, September 16, 2011 6:33:49 AM

Hi Raul-

I know you are working to pull together a revised NTT document. Tom R mentioned it might be sent out for a quick NTT review before going to the National Policy Team- that would be great! My question, and maybe a suggestion... I don't feel like we really got into (or had time to discuss) the current science out there on SG... so I would like to propose that the researchers and biologists on the NTT – maybe a few other bios if appropriate- meet again in the next few months (maybe Nov/Dec) for about 3 days to have a frank discussion on various studies/papers out there... the good, bad & ugly so to speak. It would not have to hold up the current document we have worked on- the Policy and Regional ID teams can continue to work on their tasks- but a more concentrated and defensible overview of the science (all of it, to our ability) would be great justification for the RMP effort and an invaluable tool for more localized NEPA and project/management implementation. It would also help CO/UT with the upcoming GUSG listing – we will be referencing the same data sources anyway. My thought is, we can pull together the straight science side of things by end of January- do it right- and it will still inform and support 1) ongoing planning in all stages, and 2) cumulative effects report efforts. People can continue to move forward on the other teams, if we find with a more robust review of the science we need to tweak a few recommendations- there should still be time to do so, and I think it will better support and defend criticism down the line.

I will be in the office until at least 1pm today if you want to discuss quickly. The reality, the science folks were not going to have this kind of discussion with program leads in the group, and our timeline did not allow this review and scrutiny. But I think this kind of full disclosure will really benefit the Bureau, FWS, and SG down the road. Let me know what you think.

Robin
303.239.3723

From: [Sell, Robin A](#)
To: [Morales, Raul](#); [Mermejo, Lauren L](#); [J](#)
Subject: quick review of NTT document
Date: Monday, September 19, 2011 11:51:47 AM
Attachments: [2011_0916 NTT ConservationMeasures PlanningStrategy NTT ReviewDraft_RAS.doc](#)

Raul et al-

I know you guys have done a lot of good work on the document, and I did a reaaaaallly quick review- (attached).

A couple of quick points from memory- Not sure we can say we did a review of existing literature and I don't think Tony's group embarked on that, they were trying to fill in holes for citations etc. The 'new way' to discuss or calculate surface disturbance has merit, but leaves me with lots of questions as well – not sure you can make changes, 'cause I don't know who worked on it or based on what model.

Did the 1/640 acres density recommendation get dropped? Or did I just go over it too fast?

A few other points – poor sentences or clarity for example, may seem minor at this point- but may aid in thorough review if you can fix.

Thanks, Robin

From: Roberson, Edwin
To: Lueders, Amy L; Morales, Raul
Subject: Fw: Draft NTT report
Date: Wednesday, November 09, 2011 7:13:02 AM

FYI. SOL feedback.

From: Russell, Gregory
Sent: Wednesday, November 09, 2011 08:09 AM
To: Roberson, Edwin
Subject: RE: Draft NTT report

(b) (5)

From: Russell, Gregory
Sent: Wednesday, November 09, 2011 10:07 AM
To: Roberson, Edwin
Subject: FW: Draft NTT report

From: Morales, Raul
Sent: Monday, November 07, 2011 8:22 PM
To: Roberson, Edwin
Cc: Tague, Melvin J; Fielder, Dwight; Hallett, Hal; Russell, Gregory
Subject: Draft NTT report

Alas, the long awaited NTT report. A small team of us completed changes to the report that reflected some of the review comments made by outside scientist commissioned by NDOW Director, Ken Mayer(see 2nd and 3rd attachments). The outside scientists only reviewed the Conservation Measures section of the report and not the Policy recommendations. Our team also only addressed the quick comments made by the science team. Some of the "longer" term comments made by the science team (i.e. space and time) were not addressed and can be discussed by the National Policy Team at some point to determine the need for our Conservation Measures to address some of the science "short falls" brought up by the science team.

Raul Morales
Deputy State Director Resources, Lands and Planning
Bureau of Land Management
775-861-6464 (p)

From: [Wood, David](#)
To: [Morales, Raul](#)
Subject: RE: NTT Report
Date: Monday, November 14, 2011 11:31:26 AM

Hi Raul,

Thanks for the update and glad to see this report heading out to the NPT and others. I am trying to schedule some other sage-grouse planning meetings over the next few weeks so can you give me an idea of if I will be asked to be on the smaller team for the next steps of this and what dates I would need to reserve for that? Thanks!

David Wood
Conservation Biologist
MT/Dakotas BLM State Office
(406) 896-5246

From: Morales, Raul
Sent: Saturday, November 12, 2011 10:32 AM
To: Mermejo, Lauren L; Sell, Robin A; Rinke, Earl T; Wood, David; Rose, Jeffrey A; Pellant, Michael L; Quamen, Frank R; Bargsten, Travis D; Havlina, Douglas W; Figarella, Mary; Beecham, Charlie F; Knick, Steven T.; Deibert, Pat; 'dave.naugle@cfc.umt.edu'; 'sespinosa@ndow.org'; 'jasonrobinson@utah.gov'; 'tony.apa@state.co.us'; 'don.kemner@idfg.idaho.gov'; Perrin, Robert S; 'christian.a.hagen@state.or.us'; '(b) (6)'; 'happylabs@millelect.com'
Cc: 'Adair Muth'; Smurthwaite, Donald S; Fielder, Dwight; Tague, Melvin J; Rubado, Jessica A
Subject: RE: NTT Report

Woops, hit the wrong button!

The rest of the story.

During our several month wait I and others were able to address additional comments I had received from many of you to improve the report. Also, while we were waiting NDOW Director Ken Mayer commissioned an outside review of just the conservation measures by 6 scientist. A small team of NTT members addressed many of these scientist comments and rolled them into our latest draft NTT report (See attachment from Director Ken Mayer and the scientist comments).

The SOL wanted to keep the report as draft and that is why you will see the draft watermark on the plan. Their concern is that they are in negotiations with litigants on a separate lawsuit involving 16 BLM Land Use Plans and they wanted to make sure that our Policy recommendations section did not contradict or mess up these negotiations. As of last Wednesday when the National Policy Team (NPT) received the draft NTT report for the first time the solicitor on the call was feeling positive that our NTT report was not going to impede their negotiations, however, the SOL was waiting from staff comments on the report.

Also, at last Wednesday's NPT call I got another assignment on the NTT report that will involve a small number of NTT members. In the scientist review of our report you will notice one scientist's concern that our report could be challenged (blowback) by outside groups without a stronger

connection between our conservation measures to the available science. I have been tasked to bring the science folks from our NTT team together with an outside scientist to begin strengthening our connections. This will need to be accomplished prior to the publishing of the National Sage Grouse Planning Notice of Intent which is scheduled to be published mid-December. I will be contacting this small group of NTT individuals shortly.

The NPT will be releasing the NTT report to all of the BLM State Director's soon, if it hasn't happened already. The WO will be issuing an Instruction memorandum early this coming week that will direct the rest of the Bureau on how the NTT report will be used in the upcoming planning effort. At this point the NTT report will officially become public knowledge. The NPT has asked that I share with you the latest NTT report and to still keep as a close hold to the NTT team until the WO issues their IM.

I have also been working with Public Affairs to draft some talking points for the NTT report which I hope to finalize very soon.

While a report of this nature will not make everyone completely happy I would say that overall, the report seems to have been favorably received both internally and externally. The next step of strengthening the science in our report will no doubt make this report more robust and will lead to an excellent starting point for BLM's planning effort. Again, I am very proud of all our efforts that week we spent in Denver and afterwards putting the report together.

Please call or send me a note if you have any questions.

Thanks and have a great week.

Raul Morales
Deputy State Director Resources, Lands and Planning
Bureau of Land Management
775-861-6464 (p)

From: Morales, Raúl
Sent: Saturday, November 12, 2011 8:59 AM
To: Morales, Raul; Mermejo, Lauren L; Sell, Robin A; Rinkes, Earl T; Wood, David; Rose, Jeffrey A; Pellant, Michael L; Quamen, Frank R; Bargsten, Travis D; Havlina, Douglas W; Figarelle, Mary; Beecham, Charlie F; Knick, Steven T.; Deibert, Pat; dave.naugle@cfc.umt.edu; sespinosa@ndow.org; jasonrobinson@utah.gov; tony.apa@state.co.us; don.kemner@idfg.idaho.gov; Perrin, Robert S; christian.a.hagen@state.or.us; (b) (6) | happlylabs@millelect.com
Cc: Adair Muth
Subject: NTT Report

Hello fellow NTT members!

I want to give you the latest on our NTT report. Washington BLM finally received the Governor's letters that the solicitor's said we needed in order for me to forward our report to DC. The SOL wanted to make sure that there were no FACA issues related to the state agency involvement in our NTT report.

The NTT Report includes sections on Habitat Restoration and Monitoring of Habitats, however the prescriptions for rights-of-way are instead focused on identifying exclusion areas and avoidance areas thru Planning decisions. The Conservation Measures for rights-of-way should focus instead on opportunities for habitat restoration and monitoring, adaptive management and off-site mitigation. There are outstanding opportunities for significantly improving sage grouse habitats in Priority Habitat Areas by allowing rights-of-way in General Habitat Areas and allowing for off-site mitigation and restoration of lands disturbed to better sage grouse habitats. Many rights-of-way can be restored to better sage brush vegetation than previously existed.

Page 11 makes references to only a few literature citations that attempt to portray the impacts of rights-of-way on sage grouse. There really are no studies that have been completed that show this direct correlation and I am not aware of any Before/After/Control/Treatment (BACT) studies that have been completed specifically on linear rights-of-way or even more specifically on wind energy or renewable energy projects. Let's support efforts for some adaptive management, off-site mitigation and BACT monitoring in General Habitat Areas instead of identifying these lands as avoidance lands.

From: Perry, Jim

Sent: Tuesday, December 20, 2011 05:07 AM

To: Nedd, Michael D; Leverette, Mitchell; Berns Kim M; Brady, Ray A; Shoop, Robyn; Martin, Benjamin F; Lucero, Lucas J; Wells, Steven; Kniola, Benjamin E; Perry, Jim

Cc: Goodman, Jonathan D; Stout, Joseph R

Subject: RE: Planning IM and NTT Report

Mike,

Ben and I completed our review of the Planning IM and NTT Report. We did not receive any additional 300 program input, so we also looked at the ROW and Solids programs. Those programs might want to look through and verify our edits today, but otherwise, this quick review is good to go to Ed Roberson.

There is one really critical change that needs to be made in the Planning IM. I've discussed it with Dave Goodman – a planner and the primary author, and he agrees. Dave now needs to sell it to his team at their meeting today, so I've cc'd Dave.

Overall, the NTT Report conservation measures are complete game-changers for any actions within the Priority Habitats where there are valid existing rights and showstoppers for those actions where there are no valid existing rights.

Jim

Do you have some thoughts for me to pass along to Ray?

E. Dwight Fielder, Chief
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(202) 285-6845 (Cell)

From: Stout, Joseph R
Sent: Tuesday, December 20, 2011 8:35 AM
To: Roberson, Edwin; Fielder, Dwight; Rubado, Jessica A; Todd, Marci L
Cc: Goodman, Jonathan D
Subject: FW: Planning IM and NTT Report

FYI

Joe Stout
Planning and NEPA Branch Chief
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Washington DC
202-912-7275 (w)
202-658-8191 (bb)

From: Brady, Ray A
Sent: Tuesday, December 20, 2011 8:31 AM
To: Perry, Jim; Nedd, Michael D; Leverette, Mitchell; Berns Kim M; Shoop, Robyn; Martin, Benjamin F; Lucero, Lucas J; Wells, Steven; Kniola, Benjamin E
Cc: Goodman, Jonathan D; Stout, Joseph R
Subject: Re: Planning IM and NTT Report

I have reviewed the Planning IM and Conservation Measures for the rights-of-way activities on page 11-12 of the NTT Report. These planning prescriptions will be significant game changers and unworkable in my mind for the linear ROW program, including renewable energy rights-of-way (especially wind energy program).

The Conservation Measures are focused on identifying all lands within Priority Habitat Areas as "exclusion areas" for rights-of-way and all lands within General Habitat Areas as "avoidance areas" for rights-of-way. The biggest problem with this strategy is that if BLM is going to have any ability to move designated corridors and right-of-way applications out of Priority Habitat Areas (exclusion lands), we are going to have to have the ability to designate corridors and site rights-of-way within the General Habitat Areas. Identifying General Habitat Areas as avoidance areas (tens of millions of acres) is totally unworkable. We need to allow rights-of-way on these lands with mitigation opportunities that provide for off-site mitigation to improve habitat in the Priority Habitat Areas.

From: [Perry, Jim](#)
To: [Morales, Raul](#); [Fielder, Dwight](#)
Cc: [Kniola, Benjamin E](#); [Bargsten, Travis D](#); [Perry, Jim](#); [Wells, Steven](#)
Subject: RE: NTT Report and Transmittal Letter
Date: Thursday, December 22, 2011 6:28:14 AM
Attachments: [2011_1221_Final_NTT_Report_edits_made_by_NTT.docx](#)

Raul and Dwight,

Thanks for making those edits and for mentioning NSO in the Transmittal memo to the NPT!

I'm confused why the "Locatable Minerals" BMPs did not get changed to "Solid Minerals" in the Appendix?!

Last night's edits opens a new, very serious question.... It may be too late to address this in the report, but it is one we will need to address in our outreach to the field....

It appears to me the BLM is being unnecessarily set up for immediate failure across the priority habitats. Nearly all contain roads, pipelines, power lines, homes, farms, well pads, etc.... Science says 30 – 50% in non-sagebrush cover is okay (see quote below), but the NTT Report says 3% in anthropogenic features is the NTT recommended maximum (see quote below).

Am I missing something, is it worded poorly, or is this a misapplication of professional judgment and science?

The report now makes this scientifically-based assertion:

Within priority habitat, a minimum range of 50-70% of the acreage in sagebrush cover is required for long-term sage-grouse persistence (Aldridge et al. 2008, Doherty et al. 2010, Wisdom et al. 2011).

That leaves an allowance of 30 - 50% in non-sage-brush cover. So how was the 3% maximum cap on surface anthropogenic features derived based on "professional judgment"? (see footnote) 3% is a long way from 30 – 50%

Manage priority sage-grouse habitats so that discrete anthropogenic disturbances cover less than 3% of the total sage-grouse habitat **regardless of ownership**. Anthropogenic features include but are not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells, geothermal wells and associated facilities, pipelines, landfills, homes, and mines. ⁱⁱⁱ

ⁱⁱⁱ Professional judgment as derived from Holloran 2005, Walker et al. 2007, Doherty et al. 2008, Doherty et al. 2011, Naugle et al. 2011a,b.

- In priority habitats where the 3% disturbance threshold is already exceeded from any source, no further anthropogenic disturbances will be permitted by BLM until enough habitat has been restored to maintain the area under this threshold (subject to valid existing rights).

The NTT bullet points above need to be removed from the report as it conflicts with science.

Jim

From: Morales, Raul
Sent: Thursday, December 22, 2011 1:03 PM
To: Perry, Jim; Fielder, Dwight
Subject: Fw: NTT Report and Transmittal Letter

Jim, your answer to your question this morning.

From: Dave Naugle [<mailto:dave.naugle@cfc.umt.edu>]
Sent: Thursday, December 22, 2011 10:52 AM
To: Morales, Raul
Subject: RE: NTT Report and Transmittal Letter

Raul,

You have it right...the 50-70% is a minimum acreage of sagebrush habitat necessary over broad scales to maintain a population. I'm not a big fan of setting "minimums" because that is then the number everybody tries to achieve. In reality, many cores surpass this 50-70% minimum because they were delineated around the best remaining habitats.

The non-sagebrush sites within cores may be naturally fragmented or the result of past anthropogenic impacts. Regardless, we cannot further litter the cores with additional anthropogenic impacts without expecting impacts to populations.

We got off track on the NSO and drainage issue because some view non-sagebrush habitat inside cores as a throw away developable area. But additional impacts anywhere inside cores increases cumulative impacts beyond the site of the new well pad. Thus the limit of 1 pad per square mile and a 3% cap on additional footprint.

We've progressed in our thinking past individual lek buffers to now delineate whole cores at appropriately large scales that encompass all seasonal habitats necessary to support a population. We will still see impacts from 1 pad per square mile and a 3% cap on new anthropogenic disturbances.

I hope these end up being acceptable losses that still respect valid existing rights. I suspect the NTT Team would be very leery of endorsing any additional impacts inside cores.

The NPT can determine if existing laws or other issues preclude NTT recommendations; but that is a policy issue not a technical one.

Happy holidays Raul,

Dave

From: [Perry, Jim](#)
To: [Morales, Raul](#); [Felder, Dwight](#)
Cc: [Kniola, Benjamin E](#); [Barsten, Travis D](#); [Wells, Steven](#); [Perry, Jim](#)
Subject: RE: NTT Report and Transmittal Letter
Date: Thursday, December 22, 2011 11:37:36 AM

Raul,

Here are two main points from Dave.... and both statements make sense and are fine with me. **But my question is not answered and my concerns remain. Is the NTT report in error? Please see my recommendation at the bottom.**

Dave said.....

"You have it right...the 50-70% is a minimum acreage of sagebrush habitat necessary over broad scales to maintain a population. "

"Thus the limit of 1 pad per square mile and a 3% cap on additional footprint."

The key words from Dave are "additional footprint"

But here is what the NTT Report actually says in the quotes below. (Rather than 50% - 70% in sagebrush habitat (the minimum needed on a broad scale to maintain a population based on Science), the priority habitat must already, today, have over 97% in sagebrush habitat or else no development is permitted.) $100\% - 3\% = 97\%$

- Manage priority sage-grouse habitats so that discrete anthropogenic disturbances cover less than 3% of the total sage-grouse habitat regardless of ownership.....
 - "In priority habitats where the **3% disturbance threshold is already exceeded from any source, no further anthropogenic disturbances will be permitted by BLM** until enough habitat has been restored to maintain the area under this threshold (subject to valid existing rights)."
 - In this instance, an additional objective will be designated for the priority area to prioritize and reclaim/restore anthropogenic disturbances so that 3% or less of the total priority habitat area is disturbed within 10 years.

I do not understand the logic in this....at least not the way it is worded in the NTT report.

RECOMMENDATION:

The report should say something like, ..."the amount of sagebrush habitat in the priority habitat areas, as of the date of this plan amendment, is a baseline, and additional anthropogenic surface disturbances must not increase the anthropogenic surface footprint by more than 3% "

> 775-861-6464 (p)
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> From: Morales, Raul
> Sent: Wednesday, December 21, 2011 3:20 PM
> To: Roberson, Edwin; Nedd, Michael D; Walsh, Noreen
> Cc: Fielder, Dwight; Stout, Joseph R; Stout, Joseph R; Goodman, Jonathan D; Rubado, Jessica A
> Subject: NTT Report and Transmittal Letter
>
> The NTT Report and Transmittal letter have been updated to reflect the comments discussed on yesterday's NPT call. Most comments in The NTT report centered in the fluids minerals section and Appendix D and a few in the Travel and Transportation section.
>
> Merry Christmas to all and a Happy New Year.
>
> Raul Morales
> Deputy State Director Resources, Lands and Planning
> Bureau of Land Management
> 775-861-6464 (p)

From: [Fielder, Dwight](#)
To: [Morales, Raul](#)
Subject: FW: Follow up to Today's NPT call on the NTT report
Date: Wednesday, December 21, 2011 11:01:35 AM

I don't know how to respond to this and am thinking that I shouldn't.

E. Dwight Fielder, Chief
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From: pat_deibert@fws.gov [mailto:pat_deibert@fws.gov]
Sent: Wednesday, December 21, 2011 1:56 PM
To: Fielder, Dwight; Morales, Raul; 'dave.naugle@cfc.umt.edu'; Perry, Jim; Goodman, Jonathan D; Stout, Joseph R
Subject: Re: Follow up to Today's NPT call on the NTT report

The NTT is providing the science. That does not change with the laws that BLM works under.

From: "Fielder, Dwight" [dfielder@blm.gov]
Sent: 12/21/2011 10:15 AM MST
To: Pat Deibert; Raul Morales; "'dave.naugle@cfc.umt.edu'" <dave.naugle@cfc.umt.edu>; Jim Perry; Jonathan Goodman; Joe Stout
Subject: RE: Follow up to Today's NPT call on the NTT report

But, does the NTT really want to recommend something that is blatantly illegal? It seems to me that the caveat provided makes it clear that the NTT document IS a technical document that has not undergone a policy or legal review.

E. Dwight Fielder, Chief
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(202) 285-6845 (Cell)

From: pat_deibert@fws.gov [mailto:pat_deibert@fws.gov]
Sent: Wednesday, December 21, 2011 11:59 AM
To: Fielder, Dwight; Morales, Raul; 'dave.naugle@cfc.umt.edu'; Perry, Jim; Goodman, Jonathan D; Stout, Joseph R
Subject: Re: Follow up to Today's NPT call on the NTT report

I would only consider adding this to a cover memo. The report is a science document period.
