

From: [Deibert, Pat](#)
To: [Stein, Theodore](#)
Cc: [Drue DeBerry](#)
Subject: Re: USGS study
Date: Monday, February 23, 2015 9:51:51 AM
Attachments: [image.png](#)

perfect response!

I feel unneeded and that's just fine by me!!!! 🙄

On Sun, Feb 22, 2015 at 5:08 PM, Stein, Theodore <theodore_stein@fws.gov> wrote:

just fyi

Looks like the USGS mitigation study is nearing publication.

The outreach is still concerning. Details below.

Service comment, if asked, is that we're reviewing the study, we welcome new research into mitigation techniques and we will consider this along with the best available information as part of our status review.

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----- Forwarded message -----

From: **Stein, Theodore** <theodore_stein@fws.gov>
Date: Sun, Feb 22, 2015 at 5:01 PM
Subject: USGS study
To: Gavin Shire <gavin_shire@fws.gov>

Gavin

I had serious concerns about the outreach when it was first shared last month, but I did not detail them to you because it appeared that folks were working behind the scenes to advise the USGS.

It looks like USGS made some minimal changes to the outreach but I want to flag several serious concerns I have with the latest version.

Bottom line: The press release states this study demonstrates mitigation in natural gas fields benefits grouse generally.

In reality, the most effective treatment in the study is of no use to mitigate impacts from the most common types of drilling currently happening in the study area or across the range.

I would think we owe it to USGS to explain

- 1) what they should expect some reporters to key on and
- 2) that they should expect an attack on their credibility by enviro groups who will do their own outreach to reporters

If I were at USGS, I would recommend

- Kill the outreach entirely. Do not draw attention to the study.
- Prepare a response that explained this is one study relevant to one type of energy development that is common in one part of the range and that USGS will continue to fund research that attempts to quantify the success of mitigation techniques in other types of energy fields.

Discussion:

This study was done on coal-bed methane development in the Powder River Basin, where CBM was formerly the dominant play. Oil drilling is now the dominant play.

Discharge impoundments are a common feature of coal-bed methane plays. Discharge impoundments are not required for tight sands NG or shale-oil plays.

CBM plays are limited in extent and uneconomic at present. Drilling for oil is the most prevalent new development type generally and in the Powder River Basin. (See graf at bottom of page for comparison of natural gas and oil rig counts)

The lede in the news release suggests the results are applicable to natural gas fields generally when the treatment technique is only really applicable to CBM plays specifically. In addition, the low price of natural gas makes NG development much less economical - and less of a threat to GRSB than oil development.

Natural Gas production in the PRB dropped 40% in 2011-13.
Oil production rose over 50% in the same period

Here are some specific concerns

1) Conflict of interest. The first two named authors work for [Big Horn Environmental Consultants](#), specializing in energy field mitigation. *"...our analysis helps to conserve important habitats, while achieving economically viable resource extraction."* The intro to the study says *"There is a great need" to develop effective mitigation treatments.* The conclusions about the success of the other mitigation techniques studied are equivocal and the outreach appears to overstate the applicability of the findings. (Forget for a moment our strong recommendation to avoid new disturbance in GRSB habitat)

2) Burying the lede: The study confirms nest success is highest in undeveloped areas. The outreach downplays the significance of this finding.

3) Confirmation bias:

The outreach says: *"Some on-site mitigation techniques **increased the number of surviving greater sage-grouse nests** relative to areas where they were not applied."*

More correct: *"Enhanced mitigation techniques **reduced mortality** associated*

*with energy development **compared with standard drilling restrictions.***

Just as accurate: *"Nesting losses were higher everywhere in areas of natural gas development.*

Enhanced mitigation in the study area did not eliminate the reduction in nest success compared to unaltered areas."

4) Overstatement of findings

Press release headline:

Science-Based Mitigation Techniques Benefit Greater Sage-Grouse

Accurate headline:

Eliminating Impoundments Reduced Sage-Grouse Nest Losses in CBM play

5) Overstatement of findings II

News release:

"Although we did find that nests located in areas outside of energy development had the highest survival rates, which agrees with the larger body of sage-grouse research, **properly targeted mitigation techniques can benefit greater sage-grouse nest survival,**" said [Kirol](#).

Actual study

"After dissecting the components of a NG field, we found that minimizing **NG reservoir construction was the most consequential mitigation practice** in relation to nest survival."

5) Overstatement of findings iII:

Press release:

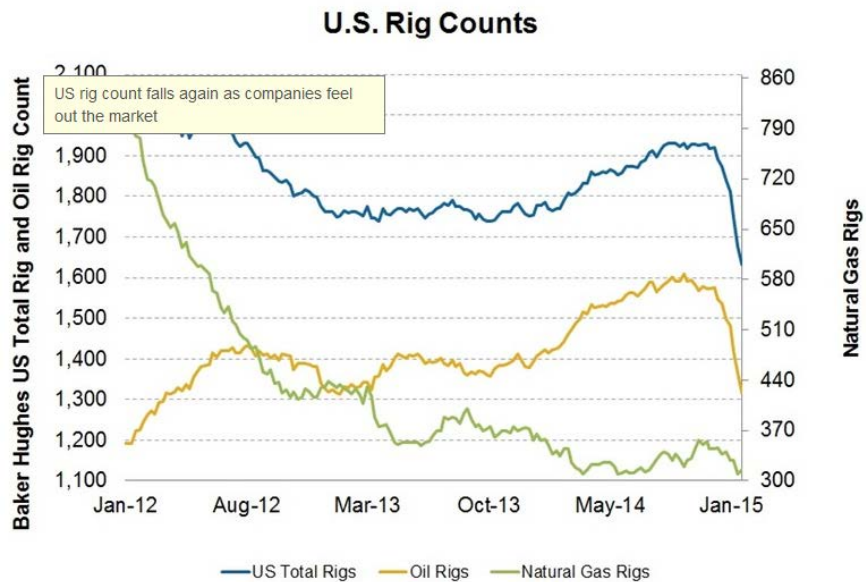
"Greater sage-grouse nests found in natural gas development **areas** where **mitigation actions** were taken to offset impacts had higher nest survival..., than similar areas where such actions were not taken, according to research by the U.S. Geological Survey and others."

Actual study:

"Our findings suggest that **reduced construction of reservoirs** for holding NG discharge water was **the on-site mitigation measure** that had the greatest positive benefit to nest survival of sage-grouse in NG development areas."

"Our results also support the conclusion that undisturbed habitats yield the highest nest survival estimates when compared to altered habitats."

Happy to discuss further if you wish.



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got leks?

U.S. Rig Counts

Baker Hughes US Total Rig and Oil Rig Count

