From:	Dan Ashe
To:	Carol Schuler
Cc:	James Lyons; Neil Kornze; Steven Ellis; Edwin Roberson; Anne E Kinsinger; Noreen Walsh; Gary Frazer
Subject:	Re: Fire and sage grouse
Date:	Saturday, April 26, 2014 6:32:50 AM

Hello Carol. Thanks for this. I've copied Noreen Walsh and Gary Frazer. As this will be a key element in our listing decision, I'd like to put this ball into the court of the folks who are designing that decision framework, which includes Sarah Converse.

Noreen will also better appreciate how we can integrate the work that has been done through WAFWA (Ken Mayer, et al).

There is an "instant element" of this, as we attempt to advise the BLM, USFS and state planning processes. What is the best advice we can give them to inform their efforts to address fire as a significant threat to GSG? I'll leave that to you all for now.

But in my conversation with Anne, I was turning my mind's eye to our listing decision and my own questions about how we will fairly and thoroughly analyze this threat. We will need to have the best trend data available. We will need to put that into the spatial context of Priority Areas for Conservation (PACs) and General Habitat. We will need a model to project those trends into the foreseeable future, integrating what we know about trends for invasive species (e.g., cheat grass, etc), and effects of changing climate (soil moisture, fire frequency and intensity, etc), to get a "best available" picture of a status quo scenario of fire as a threat/disturbance. Absent further changes in management and control of invasive species and fire, what does this scenario reveal about GSG in a foreseeable future? Then, it seems we will need to run the model showing scenarios of potential actions. What actions are proposed in the BLM, USFS and state plans? How certain are we of their implementation? How effective will they be if implemented? The latter two questions are essentially assumptions, so we will need bounds for these. Then, it seems, we can see and assess alternative scenarios showing fire effects under varying actions and assumptions.

I'm sure I've missed or mischaracterized significant aspects of this, but I'm growing concerned that we are putting lots of effort into informing planning efforts, and appropriately so, but we need to begin turning toward how we will analyze all of this. Fire, invasives and climate change being major sources of uncertainty. We need some weighty thought and effort on this.

Thanks.

Dan.

Dan Ashe
Director, U.S. Fish and Wildlife Service

On Apr 25, 2014, at 3:34 PM, Carol Schuler <cschuler@usgs.gov> wrote:

> Jim – I wanted to follow-up on our conversation last week about the need for mapping efforts that bring together information on fire history and potential with sage-grouse

information. This should also be the start of addressing some of the needs Dan expressed to Anne in a conversation a few weeks ago.

In a discussion with our fire scientists, it looks like there are a number of cartographic models that could be done fairly quickly. One's that came to mind include the following:

- Maps of leks/habitat with fire histories
- Maps of leks/habitat with fire potential
- Maps of leks/habitat with landscape change/treatment history
- Areas of habitat quality/fire risk to high quality habitat
- Probability of successful restoration activities (based on chronosequence analyses)

As a next step, it would be helpful to bring together a few of the key USGS, BLM, and FWS folks for a call to better articulate the questions we're trying to answer. This will help ensure that what we would be producing would be on target. Can we talk next week about who should be included in this early discussion?

I thought you would also be interested in knowing that the Forest Service (Fire Modeling Institute) will soon be coming out with the 2014 fire potential maps. These updated maps will be very helpful in whatever we produce. You may already know this, but in case not. Talk to you soon.

Carol

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From: Lyons, James [mailto:james_lyons@ios.doi.gov]
Sent: Wednesday, April 16, 2014 1:21 PM
To: Carol Schuler
Cc: Neil Kornze; Steven Ellis; Edwin Roberson; Dan Ashe
Subject: Fire and sage grouse

Carol --

Thanks for keeping me in the loop on this work.

The map of sage grouse and fire I mentioned was from 12/31/12 and is apparently at:

blm.gov/wo/st/en/prg/more/sagegrouse/documents_and_resources.html

I look forward to working with you on this.

Jim

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