From:	Davis, Dawn
To:	Wiechman, Lief
Cc:	Pat Deibert; Jesse D"Elia; Steve Abele
Subject:	Re: Source Data for Status Review Maps - for future Species Report appendix - Invitation to edit
Date:	Monday, March 30, 2015 10:23:09 AM
Attachments:	03.29.15 LW - Comments on Sp. Report Maps - DMDadditions.docx

---

Some of my initial thoughts...

On Sun, Mar 29, 2015 at 5:39 PM, Wiechman, Lief <lief_wiechman@fws.gov> wrote:

> SLT,
>
> Attached is a spreadsheet with links to the maps the GIS Team has already created. Not all of these were contained in chapters we reviewed. The GIS Team is in the process of automating the maps they make and calculations, etc. and as part of this now would be a good time to provide comments on aesthetics, as well as consistency. I've also attached a document with my rough comments/questions on the products already created. If you can, please review (it's about 10 maps) and get comments back to me by COB Tuesday (I'll present to GIS Team on Wednesday).
>
> LW
>
> ***Lief Wiechman***
> **Sage-grouse Ecologist**
> **U.S. Fish & Wildlife Service**
> **Mountain-Prairie Region**
> **Cell: 307.214.8426**
> **Office: 307.772.2374 x236**
> **lief_wiechman@fws.gov**
>
> ---------- Forwarded message ----------
> From: **Lara Juliusson (via Google Sheets)** <lara_juliusson@fws.gov>
> Date: Mon, Mar 23, 2015 at 12:15 PM
> Subject: Source Data for Status Review Maps - for future Species Report appendix - Invitation to edit
> To: lief_wiechman@fws.gov
> Cc: ed_turner@fws.gov, james_lindstrom@fws.gov, Rich_Young@fws.gov
>
> lara_juliusson@fws.gov has invited you to **edit** the following spreadsheet:
>
> Source Data for Status Review Maps - for future Species Report appendix
>
> All - Unless the SLT changes how they'd like to cite detailed source data information, we should plan to enter our source data into the

Source(s) column of this spreadsheet. This will be the basis for a map/analysis appendix in the species report, as discussed with the authors and Amy a few months ago.

Open in Sheets

Google Sheets: Create and edit spreadsheets online.

--

Dawn Davis, Ph.D.
Certified Wildlife Biologist ®
U.S. Fish and Wildlife Service, Pacific Regional Office
911 NE 11th Avenue, 4th Floor, Portland, OR 97232
Office: 503.231.6194; Cell: 503.784.7429; FAX: 503.231.6243
dawn_davis@fws.gov

Species Report Maps – Comments/Edits
3.27.15
Draft – Deliberative

GRAZING MAPS (3):

Why populations? Why not occupied range? Population boundaries are drawn by the states independently of any consistent rule set. Likely contain expanses of non-habitat, so we should be selective as when we use them and for what purpose. Agreed – we should have consistency in how this is presented across all threats.
I like how the background within MZs appeared to be lighter than outside.

Bi-State – I'd like to take the cross hatch and clip it to the Bi-State Popl'n boundary – or – change the color slightly from the rest of the range (and maybe do this for Canada as well), and then add a parenthetical note stating these areas were excluded from calculations (as we do on the tables). Let's discuss with the group. Agreed – for example the mining map has bi-state represented with cross-hatching. The same should be true for Canada, particularly if we are not identifying specific threats in Canada because the information will not likely be available to incorporate into our analysis.

We've clipped Gunnison range to most/all of these maps - Should probably do here as well. I think it's easy to get some of the southern GRSG poplns in CO mixed up with a couple of GUSG unless you're really familiar. Agreed – again I think we need to develop a ruleset that will be applied consistently across all maps.

COAL MAPS (1):

We'll need to decide if we want to label the MZs with text? Or simply cover that with one map early in the species report, and then refer to it in text after…? This looks to be the only map with MZ labels. Should we be identifying the buffer radius distance for the indirect areas of influence? We'll describe the AOIs in the text, but the distance, bight be helpful. I like have the MZs labeled – makes for an easy reference rather than having to refer back to a previous map or to narrative.

Is separate or include in the mining maps?

INFRASTRUCTURE MAPS (1):

What's the difference between FCC Towers and FAA Obstacles… could those be combined (different symbology/colors) and have 1 maps. Agreed – perhaps a map depicting all vertical structures?

Information related to indirect AOIs is coming.

This is probably a good example of why we should change the 'occupied range' layer to a shade of grey or tan or something. Thinking maybe changing the water (oceans, Salt Lake) to a very like shade of blue (blue-grey), the US a slightly darker grey, and then the occupied range a lighted shade of grey – so the features (threats, conservation actions would pop and we could utilize more colors.

I think we would like to see a map of multiple types (Vertical [comm towers, met towers, transmission lines] and linear [railroads, pipelines, interstates, highways]) the infrastructure combined in addition to each of them depicted individually as you have already. Agreed – I think this would aid in our ability to assess cumulative impacts of these anthropogenic structures across the landscape. Should we include a

DRAFT

buffer of some specified range outside the occupied range that depicts/includes infrastructure? Might make a compelling story.

Question for the group: Should we be displaying any of the threats in Canada unless we have information for it all…? No.

MINING MAPS:

I think we've got a plan to discuss this data set, how it can be improved, and what are the steps needed to do so (re: LR2000, etc.) If we don't have those steps in mind/on paper, we should attempt to develop one very soon.

Combined with Coal…?

Are we going to differentiate by type (BLM Classes)
Perhaps, if the data is available, we could use different symbols/shapes if we have that data that differentiates.

We'll also have information related to indirect AOI.

Remove GUSG portion of the range. Is this in conflict with recommendations for grazing maps (above)?

HORSE MAPS:

Note to E.T.: per our conversation, is it possible to differentiate between BLM and FS on the areas/territories…?
Question for SLT: Not being able to display HMA, etc. over AMLs, how about BLM/FS Grazing allotments…?

It is not clear to me how depicting where HMAs occur across the range of GRSG aids in our impact analysis unless we can demonstrate what HMAs are over AML. For example, in some cases where the BLM has extrapolated population trends over the entire planning area the estimate can be misleading and does not truly represent HMAs that exceed population objectives.

URBAN MAPS:

Helpful to add a few major metropolitan areas for reference…? State Capitols and cities over 100,000… (we can be subjective with the population value)? Possibly adding Interstates…? Yes, agree this might help provide context.

WNV:

Add information from CDC to illustrate counties that have confirmed presence of WNV and increase color intensity by the number of years present between 2000-2005, 2005-2010, and 2010-2015. Take point data information and replace with individual points (offsetting slightly to over overlap).

Agreed. Research on sage-grouse in some states is limited, possibly minimizing the ability to identify mortalities from the disease, or recover infected birds before deterioration precludes testing so this map may not be a true depiction of the occurrence of WNv in GRSG. In addition, WNv may be detected and known to occur within a given year/area but not necessarily documented for a particular species. Often once WNv is detected there are reduced efforts to survey for the disease.

DRAFT

Replace populations with occupied range.

INVASIVES:
Will need to coordinate with the modeling team and utilize maps from WAFWA's R&R Matrix and those developed for fire. Spatial overlays from FIAT Assessments will be needed here.

CONIFER:
Let's discuss. After we receive NRCS's Conifer Removal Data, I believe we can begin to create a few draft maps. Perhaps with a very coarse-scale estimation from the BER (or BLM Monitoring Framework?), and overlay Conservation Effort data after we rolled it up to the same scale as the NRCS. Likely using randomly placed centroids/points on nearest public lands (to protect PII) and use variable sized concentric circles based on acreages associated with effort. We have to use multiple symbols to differentiate 'completed' from 'planned' and 'in-progress'.

FIRE:
Will have to use GeoMac and MTBS data to illustrate fires (split out by year), as well as conservation action data (split out by year).
Work with Modeling Team, to coordinate maps illustrated for WAFWA's R&R Matrix.
Coordinate with Dawn and Lief to acquire layers related to FIAT process as they're available (TBD).

OIL & GAS (PAST to PRESENT):
Assumingly we'll have point data illustrating all wells (producing and non-producing [if data available]) on the landscape.

WIND:
Assume we'll have point data for turbines…? If so, will this be covered by FAA and/or FCC data? Given wind production will not be modeled, possibly illustrating those areas (1) approved for ROW by BLM (using land use decision layer), and (2) high in wind development potential.

SOLAR:
Existing fields within occupied range… very similar to Wind.

GEOTHERMAL:
Existing fields within occupied range… very similar to Wind.

DRAFT