

## Greater Sage-Grouse Species Report Outline: w/ Tasks 4-27-2015

### Introductory and Background Section

Section:	Assigned To:	Status:
<b>Chapter: Executive Summary</b>	Amy Nicholas	
<b>Chapter: Introduction</b> <ul style="list-style-type: none"> <li>Regulatory History (including all FR notices and litigation - <i>Include summary that lead to the 2010 finding</i>).  → Table of the new information and timelines of major achievements. E.g. Buffer report, Logic for developing this landscape strategy. Introducing concepts and terms, like a "consultation history."</li> </ul>	Originally: Sarah Backsen	Potentially remove all together?  Done except for summary of regulatory information and landownership data
<ul style="list-style-type: none"> <li>Process for 2015 Status Review</li> </ul>	Sarah Backsen	Low Priority, needs updating
<b>Chapter: Species Description, Range, and Distribution (Amy Nicholas and Craig Hansen)</b>	Amy, Craig, Pat	Draft Complete 4/30
<ul style="list-style-type: none"> <li>Species Description Where to work the population information.</li> </ul>	Amy/Pat	Draft Complete 4/30
<ul style="list-style-type: none"> <li>Taxonomy → Pat removed a lot of the old stuff.</li> </ul>	Pat	Draft Complete 4/30
<ul style="list-style-type: none"> <li>Genetics Paragraph placeholder → Pat did a brief overview (two paragraphs). Uniqueness, connectivity, Holly and Craig will incorporate connectivity etc. with Pat's overview.</li> </ul>	Pat	Draft Complete 4/30
<ul style="list-style-type: none"> <li>Life history and ecology All life stages: breeding, nesting, brood rearing, wintering, movement/migration</li> </ul>	Pat?	Draft Complete 4/30
<ul style="list-style-type: none"> <li>Historical Range</li> </ul>	Amy?	Draft Complete 4/30
<ul style="list-style-type: none"> <li>Current Range/Distribution</li> </ul>	Amy?	Draft Complete 4/30
<ul style="list-style-type: none"> <li>Annual Lek Counts/Surveys Population Trends etc.</li> </ul>	Amy?	Draft Complete 4/30
<ul style="list-style-type: none"> <li>Management Zone Discussion/Description (one for each management zone with reference to</li> </ul>	Pat/Craig/Amy?	Draft Complete 4/30

**Comment [AB1]:** Pat – we weren't sure how much of these are complete based on what you did last week – could you fill out?

Section:	Assigned To:	Status:
<p>populations contained within)</p> <ul style="list-style-type: none"> <li>• Strongholds map – where does it go, is it regulatory?</li> <li>• COT Report go here?</li> <li>• For Reg mechs, it's PACs and Birds, Threats is Occupied Range and Birds. Introduce that the MZs are our unit of analysis (look for old writeup, Unit of Analysis). Pat has a basic description.</li> <li>• Perhaps copy COT report description from Bi-state.</li> <li>• Abundance model is run by MZ. FRAMEWORK FOR THIS SET THIS WEEK. NEED BY MAY 1. HIGH PRIORITY.</li> <li>• Trends and Cycles. Pat will work on and will coordinate with Craig and Holly on connectivity.</li> </ul>		
<ul style="list-style-type: none"> <li>○ MAPS FOR ALL SP. REPORT WILL COME OUT IN LIST</li> </ul>	<p>GIS Team</p> <p>Lief will upload product list based on Sp. Report Outline</p>	<p>Pat is identifying/revising needs – will work with Lief</p>
<p><b>Chapter: Land Ownership and Management</b></p> <ul style="list-style-type: none"> <li>○ Will revisit with Reg Mechs.</li> </ul>	<p>Jesse</p>	<p>90 percent done, Jesse working on now. High priority; Pat will incorporate when Jesse is done.</p>

## Impacts Analysis .

### Habitat Loss and Fragmentation

Section:	Assigned To:	Status:
<p><b>Chapter: ALL THREAT CHAPTERS</b></p> <ul style="list-style-type: none"> <li>• ADD INFO RE: STATE PLAN and CCAA INFO</li> <li>• DOUBLE CHECK DESCRIPTION OF THREAT IN 2010 IS SOLID</li> <li>• ADD CED INFORMATION</li> <li>• IDENTIFY GAPS</li> <li>• ADD INDIRECT AOI INFORMATION</li> </ul>	<p>Craig and Angela</p> <p>Amy</p> <p>Holly</p> <p>Dawn</p> <p>Lief</p>	
<p><b>Chapter: (Tier 1) Wildfire (Altered Fire Regime)</b></p> <ul style="list-style-type: none"> <li>• Has chunks of reg mechs. List of IMs (Instructional Memos, with qualifiers) → need to summarize.</li> <li>• Summary needs to be in there by May 1.</li> </ul>	<p>Review: Steve</p> <p>Original writing: Genevieve Skora</p>	<p>Steve reviewed, working with Genevieve on questions.</p>

Section:	Assigned To:	Status:
<b>Chapter: (Tier 1) Noxious Weeds and Invasives</b>	Review: Steve Original writing: Dawn Davis	Steve reviewed, had no suggestions, provided back to Dawn for Species Report slimdown.
<b>Chapter: (Tier 1) Conifer Encroachment</b> <ul style="list-style-type: none"> <li>There could be an Oregon model, summary of conservation efforts with risk from CEDs. NRCS is building the conifer model, model not done by May 1.</li> </ul>	Re-write/Review: Dawn Original writing: Jeff Everett Re-assigned: Dawn Davis	Lief will Review Re-write
<b>Chapter: (Tier 1) Agricultural Conversion</b> <ul style="list-style-type: none"> <li>Who is putting the modeling information in here after May 1?</li> </ul>	Review: Amy Original writing: Joy Gober Perhaps Lief and Dawn can work this in between May 4 <sup>th</sup> and 14 <sup>th</sup> .	Amy reviewed for completeness → Missing pieces (roads, why used predation buffer, but didn't tie back to predation, indirect buffer).
<b>Chapter: (Tier 1) Oil &amp; Gas</b>	Review: Dawn and Lief Original writing: Amy	Kevin D. add summary of model info?
<b>Chapter: (Tier 2) Mining</b>	Review: Amy Original writing: Ron Baxter	Amy reviewed → As written now, difficult to gauge impacts, and their location; chapter needs to connect the dots to sage-grouse and needs to be slimmed down.  Amy given chapter for edits  Back to Dawn/Lief COB 4/29.

Section:	Assigned To:	Status:
<b>Chapter: (Tier 2) Renewable Energy</b> <ul style="list-style-type: none"> <li>• Wind</li> <li>• Solar</li> <li>• Geothermal</li> </ul>	<b>Review:</b> Genevieve (wind), Dawn, Lief  <b>Original writing:</b> Lisa Solberg Schwab	Genevieve reviewed wind → Needs to be trimmed, tables combined.
<b>Chapter: (Tier 2) Infrastructure</b> <i>Road, Power Lines, Communication Towers</i>	<b>Review:</b> Steve Abele  <b>Original writing:</b> Heather McPherron	Steve Abele will review the week of 4-27.  Back to Dawn/Lief COB 4/29.
<b>Chapter: (Tier 3) Fences</b>	<b>Review:</b> ?  <b>Original writing:</b> Jennifer Siani	?  Craig and Angela adding state plan/CCAA info
<b>Chapter: (Tier 3) Grazing and Rangeland Management</b>	<b>Review:</b> Lief (and Dawn)  <b>Original writing:</b> Craig Hansen	? – Craig knows he needs to incorporate LHA data.  Pat will review
<b>Chapter: (Tier 3) Free-Roaming Equids</b>	<b>Review:</b> Steve  <b>Original writing:</b> Genevieve Skora	Steve sent questions to Gen.
<b>Chapter: (Tier 2) Urban and Exurban Development</b> <i>Landfills</i>	<b>Review:</b> Lief and Dawn  <b>Original writing:</b> Joy Gober	?
<b>Chapter: (Tier 3) Recreation</b>	<b>Review:</b> Lief and Dawn  <b>Original writing:</b> Angela Burgess	?
<b>Chapter: (Tier 3) Climate Change</b>	<b>Review:</b> SLT  <b>Original writing:</b> Holly Freifeld	?
<b>Chapter: (Tier 3) Drought</b>	<b>Review:</b> SLT  <a href="#">Original writing: Angela Burgess</a>	?

#### Overutilization

Section:	Assigned To:	Status:
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Section:	Assigned To:	Status:
<b>Chapter: (Tier 3) Hunting</b>	Review: Pat  Original writing: Amy Nicholas	Has to be done for now. Will revisit after 5/1.
<b>Chapter: (Tier 3) Scientific and Education Purposes</b>	Review: Pat  Original writing: Amy Nicholas	Amy finished.  Pat will review by 5/1

#### Disease and Predation

<b>Chapter: (Tier 3) Disease</b>	Review: Pat  Original writing: Holly Freifeld	Pat will review by 5/1
<b>Chapter: (Tier 3) Predation</b>	Review: Pat  Original writing: Lara Drizd	Is this a Tier 3? Elevate to Tier 2? Tie back to Habitat Loss and Fragmentation.  Pat will review by 5/1 – may require additional work

#### Other Threat Factors

<b>Chapter: (Tier 3) Small populations</b>	Review?  Original writing: Lief	Not yet complete, Low priority.
<b>Chapter: (Tier 3) Contaminants (Angela Burgess)</b> <i>Energy Development</i> <i>Other</i>	Review?  Original writing: Angela Burgess	?
<b>Chapter: (Tier 3) Military Activity</b>	Original writing: Pat?	Yakima Training Center is important. Pat waiting for update from Jessi on Yakima, Pat has new info on MT bombing range. Low priority.

#### Synergistic Impacts

Section:	Assigned To:	Status:
<b>Chapter: Threat Interactions</b>  <i>This chapter will describe synergistic relationships among threats described in chapters above. These relationships are identified in individual threat chapters under 'Compounding Effects'. This chapter will lead reader into cumulative threats discussion below.</i>	Dawn with assistance from Pat	Make sure chapters are consistent. Pick out the Top 5 interactions (e.g Fire and Invasives) maybe come up with a list. Look at Tier levels, a check. <del>Graphic not necessary. Worked on this.</del>

**Comment [LW 2]:**  
May want to change this title of the Chapter subsection to be consistent...

## Regulatory Mechanisms and Conservation Efforts

Section:	Assigned To:	Status:
<b>Chapter: Federal</b>	Jesse	Jesse has these Landownership percentages now. Yakima Training Center (WA State) DOE (in Idaho, CCA), NPS (Craters of the Moon). FWS (Arapaho NWR , etc), BLM and FS. Need to write up the PECE-like criteria.  Federal regulations → Jesse will pull this together next week. BLM and FS. Waiting on FO assistance sent (some back already) and GIS.
<b>Chapter: State</b>	Craig/Jesse	Plug in the FO text and tables. Craig completed summary table and some narratives (by State and by potential threat). Craig has his narratives posted to SP under the Plans/Reg Mech. Page, and will attempt a State narrative for this section. Jesse will review and incorporate.
<b>Chapter: Private</b> <b>Tribal</b> <b>Canada</b> <b>Local</b>	Jesse/Holly/Amy/Craig	Need to check the WGA report that was recently released.  Tribal → Jesse - The SLT is reaching out to Tribes that occupy more than 0.5 percent of the MZ (Wind River, Uinta and Ouray, Duck Valley, Summit Lake). Hunting regulations from Amy?  Canada → Holly – draft complete, waiting on small pieces of information.  Local → Craig.
<b>Chapter: Conservation Efforts</b> • FIAT Secretarial Order	Dawn	DONE and incorporated by Dawn → Fire and Invasives (Table that breaks down by project and MZ, acres). County weed management areas (table of proportion by MZ).

Section:	Assigned To:	Status:
<ul style="list-style-type: none"> <li>• CED Summary</li> </ul>	<p>Holly</p>	<ul style="list-style-type: none"> <li>• Compare to threat acreages (What goes here and what goes in each chapter). Phased process and numbers. Summary by early next week. Intro paragraphs for CED background. Explain the tables and maps. Done early next week, except for potential delays due to maps.               <ul style="list-style-type: none"> <li>○ Threat acreages are under construction (this goes into the threat chapters). Summaries by MZ and threat all of the projects deemed effective by the FWS. Almost done with summary table of all projects that the proponents deemed complete and effective.</li> <li>○ Holly is attempting to address overlap between zones and threats (multiple threats and occur in multiple MZs). Will have a clean number by threat across the range.</li> <li>○ Holly will send the GIS team information for a map of all complete and effective projects entered into the CED and NRCS data not entered into the CED.</li> </ul> </li> </ul> <p>Threat amelioration calculations for conifer, agriculture, and urbanization.</p>
<ul style="list-style-type: none"> <li>• CCA and CCAAs</li> </ul>	<p>Angela</p>	<p>Angela → DONE - summary information about CCAAs/CCAs complete, table similar to Craig's for BLM EISs complete (to document effectiveness for conservation measures by threat). Information summarized by threat to put in each threat</p>

Section:	Assigned To:	Status:
		chapter.
<ul style="list-style-type: none"> <li>SGI and Working Lands for Wildlife</li> </ul>	Jesse/Kathy/Angela/ Dawn/Lief	<p>Kathy provided summary, Angela in process of cleaning up and providing summary to Jesse.</p> <p>Dawn → Need to summarize by specific threat? Conifer, grazing, fences, ag conversion. Perhaps using their report. Dawn going to take Kathy's work and add threat specifics from SGI report.</p> <p>Lief → Going to make map of SGI data for conifer removal. See above under CED.</p>
<ul style="list-style-type: none"> <li>Conservation Banking</li> </ul>	Drue/Shaina/Lee	Done - summary
<ul style="list-style-type: none"> <li>Canada (Non-regulatory)</li> </ul>	Holly	draft complete, waiting on small pieces of information.
<ul style="list-style-type: none"> <li>Other (if needed)</li> </ul>	?	?

## Cumulative Effects

Section:	Assigned To:	Status:
<b>Chapter: Cumulative Threats and Amelioration by Management Zone</b>	Steve, with assistance from MZ Leads.	
<p>MZ X (Template) Similar to 2010. Tables and Maps.</p> <p>1.0 Summarize current population size/population trend /habitat extent (<b>Brief – refer reader to appropriate section earlier in the document – differentiate habitat category when describing extent</b>) What is going on in this MZ to remind the reader. Tier to another section.</p>	Steve, with assistance from MZ Leads.	
<p>2.0 Summarize current threats (<b>existing footprint</b>).</p> <p>2.1 Table (<b>Current human footprint with altered indirect buffers</b>)</p> <p>2.11 All threats w/i MZ X</p> <p>2.12 Call out tier's</p> <p>2.13 Calculate % occurrence against 'habitat' and sum</p> <p>2.14 Calculate % fragmentation ???</p> <p>2.15 Call out interactions (<b>synergistic refer up to section</b>)</p>	<p>Steve, with assistance from MZ Leads.</p> <p>Lief will have maps/tables for 2.11, 2.13, 2.21</p> <p>Consider removing 2.12.</p>	2.14 might be calculated thru Knick's analysis.

### Comment [LW 3]:

This chapter is the discussion of cumulative threats and plans/action to ameliorate **by MZ**, as well as the status of sage-grouse in the MZ.

This chapter will identify all threats by MZ, relying on threat interactions described in previous chapter and spatial threat concentration information of primary threats. This allows an examination of primary threats that we have quantitative/spatial information for, and a concomitant examination of other threats tied to the primary threat by MZ.

Additionally, this chapter will describe the efforts implemented and planned to reduce or remove threats and risks on the landscape. Summaries of conservation actions would be summarized from CED, as well as evaluation of plans, policies, and regulatory mechanisms, broken down by MZ.

Lastly, this chapter will describe overall status of sage-grouse in each management zone, based on the cumulative threats and the plans/action aimed at ameliorating them.



Section:	Assigned To:	Status:
2.2 Map 2.21 Swiss cheese map ( <b>existing</b> )		
3.0 Summarize future potential threats ( <b>could marry 3.0 and 4.0</b> ) 3.1 Table ( <b>Projected human footprint in year 20xx</b> ) 3.12 ( <b>similar to 2.11–2.15</b> ) 3.2 Map 3.12 Swiss cheese map ( <b>future</b> )	Steve, with assistance from MZ Leads.	
4.0 Summarize CED/Reg mechanisms 4.1 Table 4.11 Efforts by threat 4.12 Reg mechs by threat (these will differ depending on habitat delineation ( <b>e.g., PHMA</b> )). 4.2 Map 4.12 What does the future look like given effort/regs  Notes: <b>Human footprint today vs Human footprint in future given conservation efforts and reg changes</b> <b>Need to call out phma and ghma to get at difference</b>	Steve, with assistance from MZ Leads.	

## Overall Summary of Species Status

Section:	Assigned To:	Status:
<b>Chapter: Overall Summary of Species Status</b> <i>What's new and different since 2010 status determination?</i>	SLT	Not started May 4 – May 14

## Support Sections

REFERENCES CITED	Lara Drizd	Where are the hardcopies (PDFs) going? What do the Chapter Authors put the Literature PDFs? Low Priority -
APPENDIX A — DEFINITIONS Glossary. Clarifying terminology.		
APPENDIX B — ACRONYMS USED	Erin?	

**Comment [DP4]:** I am adding an appendix describing MZ in more detail than is necessary for the text. Already uploaded to sharepoint

<b>APPENDIX C — OCCURRENCE TABLE</b> (if too large to include in that section) Reconsider. Low priority		
<b>APPENDIX D — THREATS SUMMARY TABLE</b> (if too large to include in that section) (Amy and Craig)	Amy and Craig?	
<b>APPENDIX E — CHANGES OVER TIME SUMMARY TABLE</b> (if too large to include in that section)		
<b>APPENDIX F — MANAGEMENT ZONE (and POPULATION) MAPS</b> Need by May 1	GIS Team	
<b>APPENDIX G — NON-REGULATORY MECHANISMS EVALUATED</b>		? Still needed?