

Greater Sage-Grouse Species Report Outline

Introductory and Background Section

Chapter: Executive Summary (Amy Nicholas)

Short (2-3 page) summary of the report.

Chapter: Introduction (Sarah Backsen)

- Regulatory History (including all FR notices and litigation)
Include summary that lead to the 2010 finding.
- Process for 2015 Status Review
- Species Report Overview

Chapter: Species Description, Range, and Distribution (Amy Nicholas and Craig Hansen)

- Species Description
- Taxonomy
- Genetics
- Life history and ecology
All life stages: breeding, nesting, brood rearing, wintering, movement/migration
- Historical Range
- Current Range/Distribution
- Annual Lek Counts/Surveys
- Management Zone Discussion/Description (one for each management zone with reference to populations contained within)
 - [\[Figure – WAFWA MZs, populations, and range map\]](#)
 - [\[Figure – PACs map\]](#)
 - [\[Figure – Strongholds map\]](#)
 - [\[Figure - Distribution models by MZ\]](#)
 - [\[Table - Numbers from Distribution models by MZ\]](#)
 - [\[Figure – Abundance models by MZ\]](#)
 - [\[Table - Numbers from Abundance models by MZ\]](#)

Chapter: Land Ownership and Management (Jesse D'Elia)

Summary (2-3 pages) of Ownership, and types of decisions and management actions (regulatory mechanisms) that are associated with each agency/owner

- [\[Figure - Land Ownership status by MZ\]](#)
- [\[Table – Land Ownership status by MZ\]](#)
- Federal Plans
 - USFS/BLM
 - LUP Amendments / Planning efforts
 - Disturbance Monitoring
 - Adaptive Management
 - Mitigation
 - FIAT
 - FWS/Refuges
 - NPS

- DOD/DOE
- Tribal Lands and Plans
- State Plans
- Private Lands
 - FWS CCAA
 - NRCS SGI

Impacts Analysis

Include threats table to indicate cumulative threats or threat interactions. All threats will use Management Zone as the common spatial scale/unit of analysis.

Habitat Loss and Fragmentation

Chapter: (Tier 1) *Wildfire (Altered Fire Regime)* (Genevieve Skora)

Chapter: (Tier 1) *Noxious Weeds and Invasives* (Dawn Davis)

Chapter: (Tier 1) *Conifer Encroachment* (Jeff Everett)

Chapter: (Tier 1) *Agricultural Conversion* (Joy Gober)

Chapter: (Tier 1) *Oil & Gas* (Amy Nicholas)

Chapter: (Tier 2) *Mining* (Ron Baxter)

Chapter: (Tier 2) *Renewable Energy* (Lisa Solberg Schwab)

Wind

Solar

Geothermal

Chapter: (Tier 2) *Infrastructure* (Heather McPherron)

Roads

Power Lines

Communication Towers

Chapter: (Tier 3) *Fences* (Jennifer Siani)

Chapter: (Tier 3) *Grazing and Rangeland Management* (Craig Hansen)

Chapter: (Tier 3) *Free-Roaming Equids* (Jennifer Siani)

Chapter: (Tier 2) *Urban and Exurban Development* (Joy Gober)

Landfills

Chapter: (Tier 3) *Recreation* (Angela Burgess)

Chapter: (Tier 3) *Climate Change* (Holly Freifeld)

Chapter: (Tier 3) *Drought* (Angela Burgess)

Overutilization

Chapter: (Tier 3) *Hunting* (Amy Nicholas)

Chapter: (Tier 3) *Scientific and Education Purposes* (Amy Nicholas or Other)

Disease and Predation

Chapter: (Tier 3) Disease (Holly Freifeld)

Chapter: (Tier 3) Predation (Lara Drizd)

Other Threat Factors

Chapter: (Tier 3) Small population and life history traits affecting population viability (Lief Wiechman)

Chapter: (Tier 3) Contaminants (Angela Burgess)

Energy Development

Other

Chapter: (Tier 3) Military Activity (Pat Deibert or Other)

Synergistic Impacts

Chapter: Threat Interactions (Dawn Davis, [assistance from Pat Deibert])

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.

(Examples: Fire and Invasives, Fire and Conifer, Anthropogenic disturbance and predators)

Regulatory Mechanisms and Conservation Efforts

Chapter: Federal (Jesse D'Elia)

Chapter: State (Jesse D'Elia)

Chapter: Private (Jesse D'Elia)

Chapter: Conservation Efforts

- Conservation Measures
- CED Summaries

Cumulative Effects

Chapter: Cumulative Threats and Amelioration by Management Zone (Steve Abele, with assistance from MZ Leads)

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.

Comment [LW 1]:

May want to change this title of the Chapter subsection to be consistent...

Comment [LW 2]:

Relative to the evaluation of conservation plans, each MZ subsection would include information from the following list (as appropriate):

- Laws, regulations, Policies and Management Plans
 - Federal Plans
 - BLM/FS LUP Amendments / Planning efforts
 - Disturbance Monitoring
 - Adaptive Management
 - Mitigation
 - FIAT
 - FWS (Refuges)
 - NPS
 - DOD/DOE
 - State Planning Effort
 - Private Lands
 - FWS CCAA
 - NRCS SGI
 - Tribal Lands
 - Canadian Federal and Provincial Laws and Regulations

Comment [LW 3]:

--- MZ 1 (Montana – Jeff Berglund / North Dakota Kevin Shelley [support from Wyoming and South Dakota])
--- MZ 2 (Wyoming – Lisa Solberg Schwab [Support from Montana, Colorado, Utah])
--- MZ 3 (Nevada – TBD / Utah – TBD) (potentially Jay Martini, Ron Baxter)
--- MZ 4 (Idaho – TBD [Support from Oregon, Nevada, Utah, Montana])
--- MZ 5 (Oregon – TBD [Support from Nevada, California])
--- MZ 6 (Washington – TBD) (potentially Jessi Gonzales, Heather)
--- MZ 7 (Colorado – TBD)

Overall Summary of Species Status

Chapter: Overall Summary of Species Status (SLT)

What's new and different since 2010 status determination?

Support Sections

REFERENCES CITED (*Lara Drizd*)

APPENDIX A — DEFINITIONS

APPENDIX B — ACRONYMS USED

APPENDIX C — OCCURRENCE TABLE (if too large to include in that section)

APPENDIX D — THREATS SUMMARY TABLE (if too large to include in that section)

APPENDIX E — CHANGES OVER TIME SUMMARY TABLE (if too large to include in that section)

APPENDIX F — MANAGEMENT ZONE (and POPULATION) MAPS

APPENDIX G — NON-REGULATORY MECHANISMS EVALUATED

Tools for Writers:

- Chapter Template (*Amy Nicholas*)
- Occurrence Table (*Amy Nicholas*)
- Threat Summary Table (*Amy Nicholas*)
- Changes over Time Summary Table (*Amy Nicholas*)