Sage-grouse in Utah 2011
an overview
Presented to County Commissions/Councils
Jan—March 2011
Lorien Belton USU/EXT
Todd A. Black USU/EXT
Niki Frey USU/EXT
Terry Messmer USU/EXT
Jason Robinson UDWR
Outline

- Basic sage-grouse biology/ecology
  - What is a sage-grouse, what it needs where it lives, sage-grouse history

- 2009 Utah sage-grouse state wide plan
  - What is the state wide plan, state level actions/strategies

- Local working group plans
  - What it is, what we have been doing actions/strategies

- History and listing decision 2010
  - Candidate species, What this means for Utah and the County
What is a sage-grouse

‘cock’ SAGR

‘chick’ SAGR

‘hen’ SAGR

SAGR lek

SAGR nest/eggs
What is a sage-grouse—Lek

- A *lek* is a gathering of males, of certain animal species, for the purposes of competitive mating display.
- Utah’s SAGR lek typically mid March through early May.
- Leks are very traditional some leks in UT have been monitored/counted for over 50 years.
- Center point for population, population estimates and trends, hunting permit allocation
Number of male sage-grouse counted in Utah

Increased counts in the past 10 years probably reflect increased searching effort, new leks, and increases in populations
Sage-grouse core areas
Sage-grouse—nesting habitat

- Most hens nest within 4 miles of a ‘lek’
- Most nest under sagebrush
- ‘Clutch’ average ~8/nest
- ‘Nest success’ ~50%
Survival rates are generally 50-70% for adults, much lower for chicks.

Generally need 2.25 juveniles/hen for increasing to stable population.

Precipitation has a large influence on survival rates.

A variety of mortality factors including: Predation (raptors, canids, corvids, badgers), hunting, and disease.
Sage-grouse needs/habitat

- Sage-grouse need sagebrush
  - Large tracts/unfragmented
  - Eat sagebrush Oct--March
  - Grocery stores where they have a variety of Grasses/forbs=insects
  - Thermal escape cover winter
  - Not all sagebrush is good habitat
    - Black sage vs. big sage season of use
Historical distribution is based on the distribution of sagebrush habitat in Utah and early observations by early settlers and explorers. Utah’s SAGR populations were likely connected through these large tracts of sagebrush which have been lost by fires, habitat conversion, development, and invasive species such as cheat grass and pinion/juniper encroachment. Presently SAGR populations are highly fragmented across Utah.
Declining throughout western U.S

- Occupy 56% of pre-settlement habitat (Schroeder et al. 2004)
- Utah has suffered loss of habitat and populations

Utah’s SAGR populations were likely connected through these large tracts of sagebrush which have been lost by fires, habitat conversion, development, and invasive species such as cheat grass and pinion/juniper encroachment. Presently SAGR populations are highly fragmented across Utah.
2009 UT SAGR state wide plan

- 2 Species of sage-grouse in Utah
  - Gunnison sage-grouse (SJC)
  - Greater sage-grouse
- This plan addresses Greater SAGR
  - Existing plan for GUSAGR
- UT adopted 1st plan in ‘02
- This is an update/revision of that ‘02 plan
  - Assistance from a specially chartered Sage-grouse Plan Advisory Committee
<table>
<thead>
<tr>
<th>Name</th>
<th>Organization/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dave Olsen</td>
<td>UDWR; Upland Game Coordinator</td>
</tr>
<tr>
<td>Jason Robinson</td>
<td>UDWR; Upland Game Project Leader</td>
</tr>
<tr>
<td>Anita Candelaria</td>
<td>UDWR; Notes/Secretary</td>
</tr>
<tr>
<td>Allan Smith</td>
<td>Private lands/ranching</td>
</tr>
<tr>
<td>Steve Madsen</td>
<td>Bureau of Land Management</td>
</tr>
<tr>
<td>Clint McCarthy</td>
<td>U.S. Forest Service</td>
</tr>
<tr>
<td>Kim Christy</td>
<td>School and Institutional Trust Lands Administration</td>
</tr>
<tr>
<td>Jan Anderson</td>
<td>Utah Farm Bureau</td>
</tr>
<tr>
<td>Joan DeGiorgio</td>
<td>The Nature Conservancy/NGO</td>
</tr>
<tr>
<td>Terry Messmer</td>
<td>Utah Local Working Groups/Universities</td>
</tr>
<tr>
<td>Dave Dahlgren</td>
<td>Upland Game Advisory Committee/Research</td>
</tr>
<tr>
<td>Ernie Perkins</td>
<td>Utah Wildlife Board</td>
</tr>
<tr>
<td>Jim Gaskill</td>
<td>Utah Regional Advisory Committee</td>
</tr>
<tr>
<td>Brian Maxfield</td>
<td>UDWR; Region biologists</td>
</tr>
<tr>
<td>Susan White</td>
<td>Utah Division of Oil, Gas, and Mining</td>
</tr>
<tr>
<td>Tom Clayson</td>
<td>Anadarko Petroleum Corporation</td>
</tr>
<tr>
<td>Year</td>
<td>Event Description</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1996</td>
<td>San Juan County local working group (SWOG) formed for the Gunnison Sage-grouse.</td>
</tr>
<tr>
<td>1997</td>
<td>Parker Mountain local working group (PARM) formed for Greater Sage-grouse.</td>
</tr>
<tr>
<td>2002</td>
<td>Utah’s Strategic Management Plan for sage-grouse was approved by the Wildlife Board</td>
</tr>
</tbody>
</table>

Sage-grouse management must be a cooperative effort between federal and state land management agencies, Utah Division of Wildlife Resources, Tribal governments, private landowners, grazing and livestock interest, and other interested groups.
Local working group plans

• Formalize (a process), facilitate, and coordinate the sage-grouse local working group process in Utah.

• Work with all stakeholders to address population, habitat, and other issues.

• Complete, implement, monitor, and report on local sage-grouse conservation plans.

• Work with local stakeholders and state/federal agencies to identify, design, implement, and monitor management projects.

http://utahcbcp.org
Utah’s Community Based Conservation Program
“if its not good for the community its not good for wildlife”
Local working group plans

Each plan identifies threats to sage-grouse

- Development
- Loss of quality habitat
- Drought and weather
- Parasitism/disease
- Fire management
- Predation
- Hunting
- Livestock grazing
- Invasive plants
## Local working group plans

<table>
<thead>
<tr>
<th>Target</th>
<th>Key Attribute</th>
<th>Indicator</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Very Good</th>
<th>Current Status</th>
<th>Current Rating</th>
<th>Desired Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sage-grouse</td>
<td>Pop. Size</td>
<td>Average # males on leks</td>
<td>&lt;50</td>
<td>51-150</td>
<td>151-500</td>
<td>300+</td>
<td>75</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td>Sage-grouse</td>
<td>Winter Habitat</td>
<td>Sage height and cover</td>
<td>Never above snow</td>
<td>Sometimes above snow</td>
<td>Often above snow</td>
<td>Always above snow</td>
<td>Often above snow</td>
<td>Good</td>
<td>Good</td>
</tr>
</tbody>
</table>

- Indicator ratings represent a **range of variation** in the target.
- Use whatever information you have but **don’t be paralyzed by a lack of information or incomplete information**!
Local working group plans

- By ‘06/’07 all 10 GSAGR LWG had completed plans.
- By ‘06/’07 started a 10 year implementation phase of the plans.
- LWGs meet (min) 3x per year with one field tour
- LWGs review and assess the CAP part of the plan as specified
- LWGs modify plan as new information is gleaned through research
USU Extension has a website for the Community Based Conservation Program (CBCP):

- Local working group information
  - Local conservation plan
  - Meeting times
  - Research projects
- Research publications
- Annual progress reports
- Useful references and links

http://utahcbcp.org/
Local working group plans

- CaCoARM LWG SAGR Plan 2006—2016
- Aspects of SAGR Ecology & management
- Threats (10 of them)
- Actions/Strategies

http://www.utahcbcp.org/htm/groups/carbon
**Actions/Strategies**

13. **Strategy:** Through 2016, avoid locating oil and gas roads or pads near lek sites. Where impacts do occur, implement interim reclamation to well sites as soon as practical.
   - 13.1. **Action:** Participate in county planning efforts for oil and gas exploration and development to ensure that sage-grouse impacts are minimized.
   - 13.2. **Action:** Influence BLM/USFS/SITLA/private enterprise planning efforts to minimize impacts to sage-grouse.

**Partners:** NRCS, UDWR, USFS, BLM, SITLA, USU Extension, private partners

**Threats Addressed:** Renewable and non-renewable energy development, roads, power lines, fences, and other tall structures

**Aspects of Sage-grouse Ecology Addressed:** Seasonal habitat quality, connectivity of seasonal habitat types, connectivity of populations and subpopulations
Local working group plans

- Actions/strategies (18 listed)
- LWGs answering questions and gaining basic ecological information and understanding through research projects (2+ and still going)
History and listing decision 2010

- Classified as an upland game species by Utah Legislature
- Utah State Sensitive Species
- Tier II species under the Utah Wildlife Action Plan (2005)
- Petitioned for listing under the ESA
- January 2005, found listing was not warranted
- January 2005 finding was in error, issued a second 12-month review (2007)
- 12-month status review was up in December 2008—fast forward to...
- March 5th 2010;

The USFWS announced that a “protected status for the greater sage-grouse is warranted but precluded.” The decision means that the species could be listed, but because there are currently so many candidate species, the USFWS is unable to do so at this time.
What does this listing decision mean for Utah?
- Business as usual
- Data collection and monitoring
- Continue current management and implementation of the State Management Plan

How are we proceeding?
- Reported and reviewed annually by USFWS
- Still in implementation phase
- UDWR provides annual updates on sage-grouse status
- Continue with Local Working Group Efforts
What does this listing decision mean for the county?

- Emphasis on LWG plans
- Support to implement
- Become aware of this species and its habitat requirements
- Consider sage-grouse in all types of developments (urban, rural, oil, gas, transmission lines, mines, etc.)
- Know your resources (LWG, UDWR website and personnel, USU extension, BLM, USFS, etc.)