DISCLAIMER

This presentation is intended to provide basic public information about the U.S. Fish and Wildlife Service's 12-month finding for the greater sage-grouse, conducted pursuant to the Endangered Species Act. It is not a comprehensive treatment of the finding or an exhaustive analysis of the species' status. Please refer to the actual published finding for the complete body of work and information related to the status of the species throughout its range.
Greater Sage-Grouse
12-month Finding

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Administrative Background

- Petitioned/Court Actions addressed in current action:
  - GSG, Bi-State (Mono Basin), Western subspecies
  - 2004/5 Greater sage-grouse finding
    - 90 Day Substantial due to factor A and D concerns
    - 12 month not-warranted
  - 2005 finding remanded December 2007

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Biological Background

Species

- Sagebrush obligate
  - food, cover, reproduction
- Long-lived, low reproductive rates
- Can be migratory
- High fidelity to seasonal habitats

Landscape scale species

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Sage-grouse distribution

Historic and current range
Population Trends

Estimated decline of 80 to 90% from pre-settlement numbers

Decline of 30% since 1985
Biological Background

Habitat

- Sagebrush is essential
  - Not all are equal habitat for grouse
  - Also need the healthy understory
- Long restoration times: 20 to > 100 years depending on species and conditions
- Fire kills sagebrush
- Seed banks do not persist
- We don’t know how to restore or “fix” it
Sage-grouse distribution

Sagebrush distribution
2005 Finding

- Primary threats identified by the expert panel were related to habitat loss and degradation (Factor A)
- Threats varied by portion of the range but all degraded and/or fragmented habitat
- Primary threats in the eastern portion of the range were anthropogenic factors (e.g., energy development and associated infrastructure)
- Primary threats in the western portion of the range were invasive species (e.g. annual grasses) and fire frequency that resulted.
2005 Finding
Changes since 2005

- Threats identified in 2005 remain but with additional new threats (e.g., wind power and West Nile virus).
- Scale and intensity of 2005 threats have increased and are exacerbated by the synergistic effects: e.g. disease and climate change.
- Much clearer understanding of how threats affect viability.
- Regulatory mechanisms on federal lands (60% of the extant habitat) have not been effective at addressing threats.
Primary Threat

Fragmentation

- **Energy Development**
  - NE WY: 79% decline in 12 years
  - No affect with ≤ 1 well pad per sq mi
    - Most fields 16-128 pads per sq mi

- **Invasive Species/Fire**
  - Historic fire cycle 200-350 years; now 70 to 158 years
  - In Great Basin: 27% of sage-grouse habitat has burned since 1980

- **Agriculture**
  - 19 % of SB in MT lost to AG
  - 84 % of SB in MT affected
Current Status and Threats

- New literature identifies 2 large strongholds that provide the landscape scale, contiguous habitats sage-grouse need (Wisdom et al., in press)
- Other areas are highly fragmented due to anthropogenic impacts, and low resiliency for returning to native vegetative states following disturbance
Insert Fragmentation Map

- Will segue to fragmentation is the issue
Summary

- In the foreseeable future habitat fragmentation results in remnant, highly dysfunctional isolated populations.
- Finding is warranted range-wide but is precluded by higher priority actions.

“The rapidity with which humans can transform an entire landscape through land use is significantly greater than the natural disturbances that previously influenced dynamics in sagebrush ecosystems”.

Knick et al., in press
Conservation Opportunity

Strategic Conservation can address primary threat(s)

- Need to conserve large intact expanses of habitat (Wisdom *et al.*.) with adequate connectivity (Knick and Hanser)

Examples:

- **Wyoming Core Area Strategy**
  - Protect areas important for long-term conservation and connectivity
  - Up to 82% of sage-grouse conserved on 23% of land surface
  - Montana, Nevada, Oregon pursuing similar approaches

- **Fire Response in Great Basin States by BLM**
  - Protect important sage-grouse habitats when fighting wildfires

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Collaborative Process

Western Association of Fish and Wildlife Agencies (WAFWA):

- Candidate species remain state managed
- Memorandum of Agreement (MOA) to conserve sage-grouse and sagebrush between states and Federal agencies
- WAFWA States and Western Governors Association are developing a legislative approach to promote long-term conservation of sagebrush habitats

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