

The Greater sage-grouse Listing Decision



Purpose of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)

"The purposes of this Act are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved,..."

ENDANGERED SPECIES ACT OF 1973

AN ACT To provide for the conservation of endangered and threatened species of fish, wildlife, and plants, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Endangered Species Act of 1973".



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Listing Process: Petitions

Petition submission: *Anyone!*

Evaluation :

- Examine adequacy and reliability of information presented
- "Reasonable person" standard



What's next?

- If there is a positive petition finding, move onto a status review
- Status review evaluates all available scientific and commercial data
- Includes examination of the 5 listing factors identified in the Endangered Species Act



Listing Factors

- A. Present or threatened destruction, modification, or curtailment of habitat or range
- B. Overuse for commercial, recreational, scientific or educational purposes
- C. Disease or predation
- D. Inadequacy of existing regulatory mechanisms
- E. Other natural or manmade factors affecting the species continued existence



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Listing Factors

(continued)

A species need only meet
one of the listing criteria
to be considered
for listing

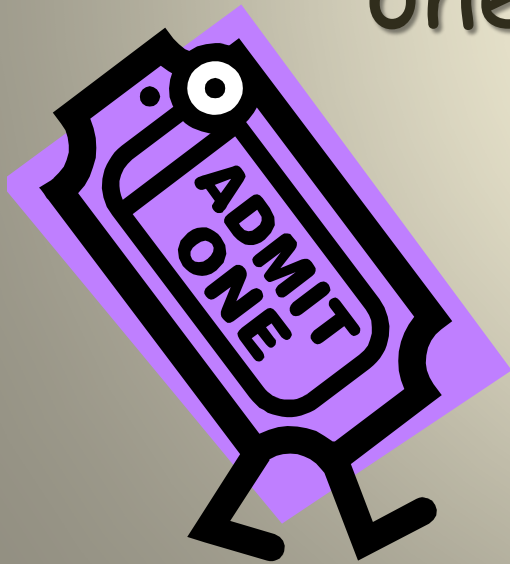




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Status Review Outcomes

- **Warranted** - Listing proposal will be drafted; species a candidate
- **Warranted, but precluded** - Listing is warranted, but precluded by higher priority actions; species a candidate
- **Not warranted** - Review does not support a listing action; species not a candidate

Petition Summary

1999 - 2003: FWS
received 8 petitions



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- 1999 - Columbia Basin populations
- 2001 - Mono Basin population (and 2005)
- 2002 - Western subspecies
- 2002 - Greater sage-grouse range-wide
- 2002 - Eastern subspecies
- 2003 - Greater sage-grouse range-wide (2)



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Results :

Columbia Basin

- Candidate for listing
- Status assessed on regular basis

3 range-wide petitions

- Combined into one finding
- 90-day positive finding
- Negative 12-month finding

Remaining petitions were determined to lack sufficient information to warrant examining the petitions further

Challenges to findings

Bi-State

Settlement agreement
to conduct new finding

Eastern/Western subspecies

- Eastern legal challenges dismissed
- Western legal challenges - remanded decision

Rangewide

- Finding remanded in 2007



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2010 Listing Decision



Biological Background Species

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

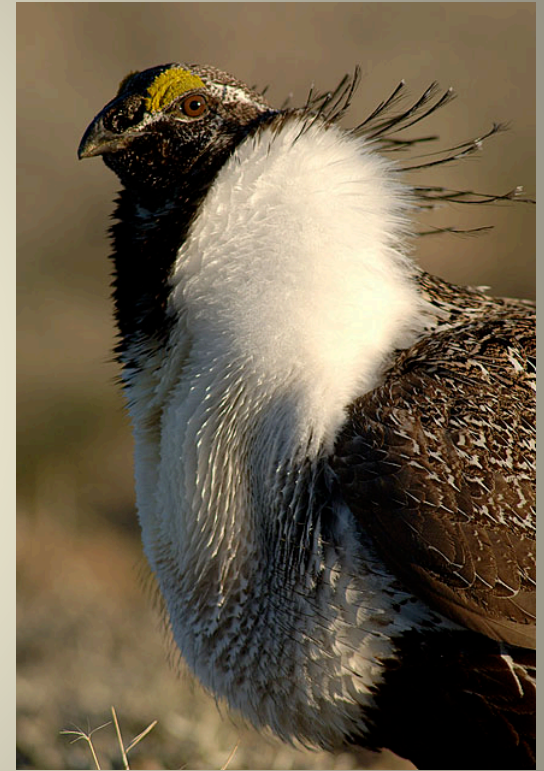


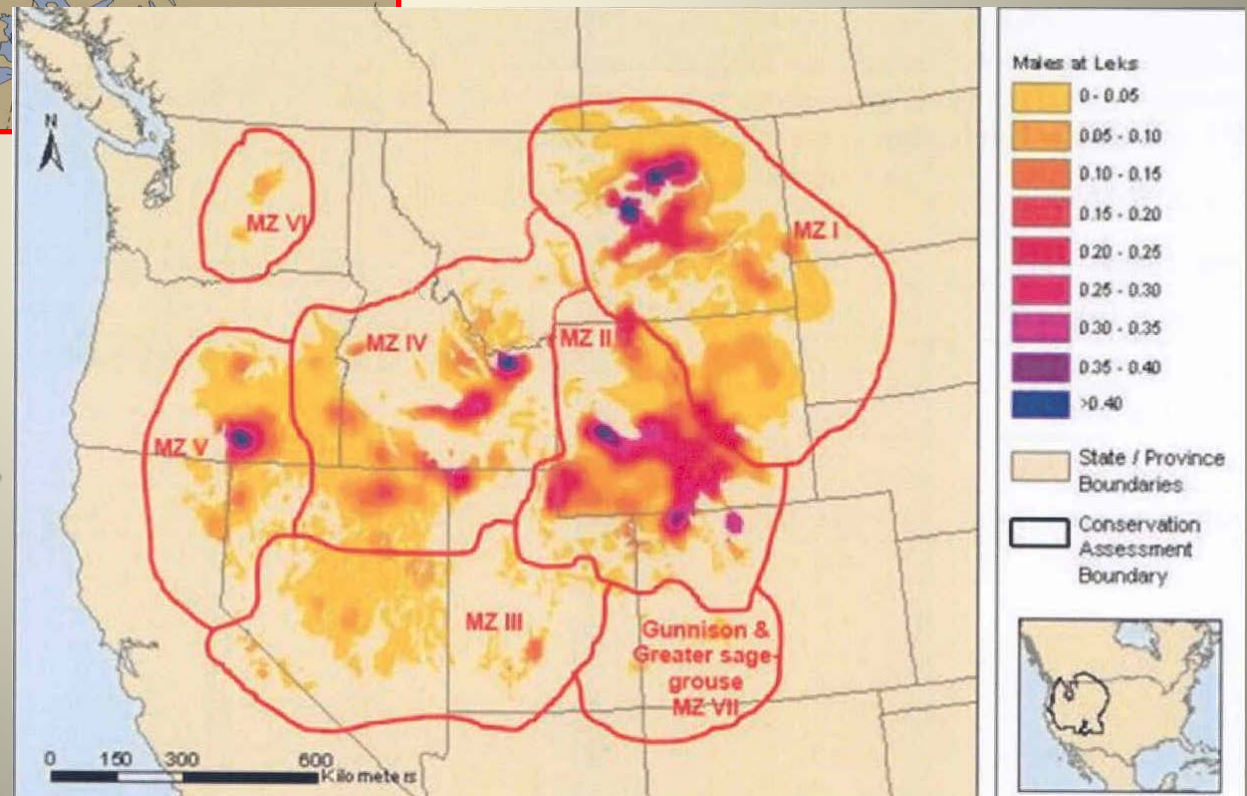
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Landscape scale species

Historic and current range



Sage-grouse distribution

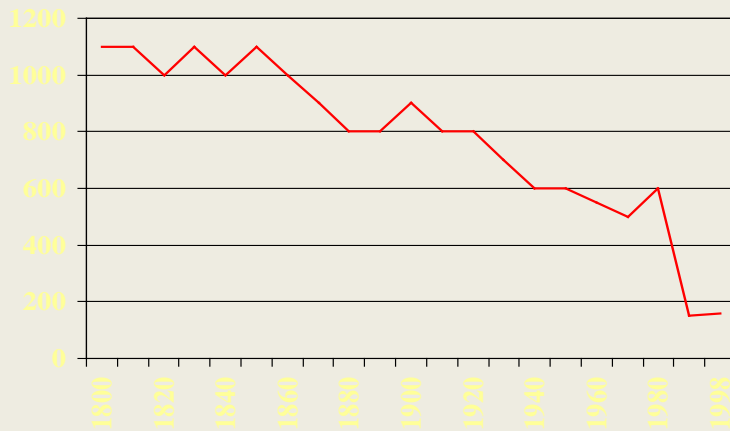


Population Trends

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

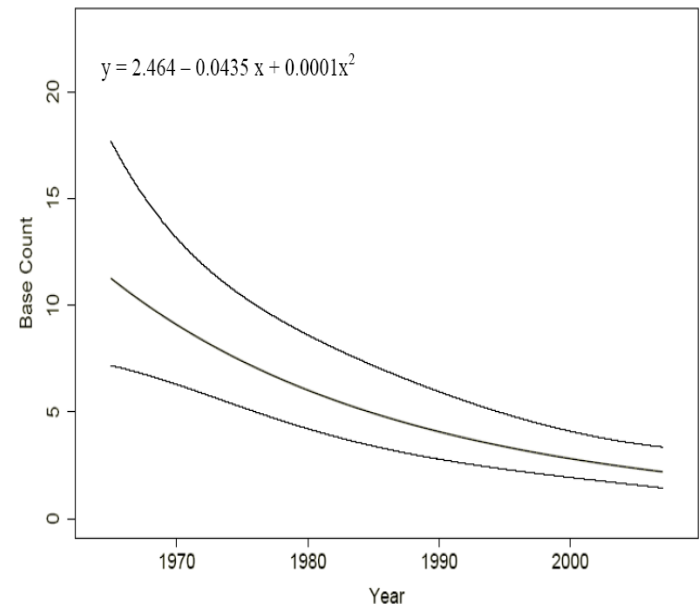
Decline of 30% since 1985

Population in Thousands



Year

WAFWA 1999 (1800 - 1998)



WAFWA 2008 (1965 - 2007)

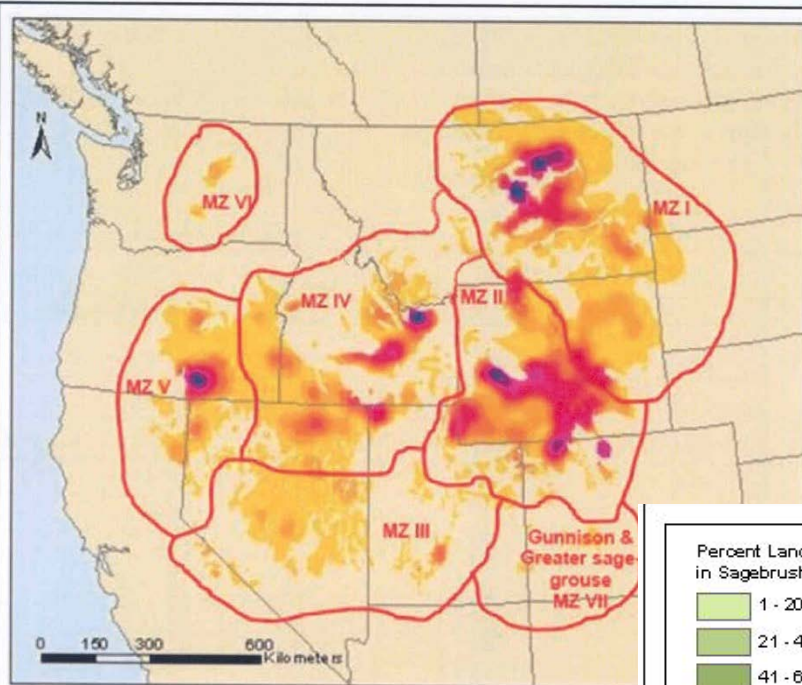
Biological Background

Habitat

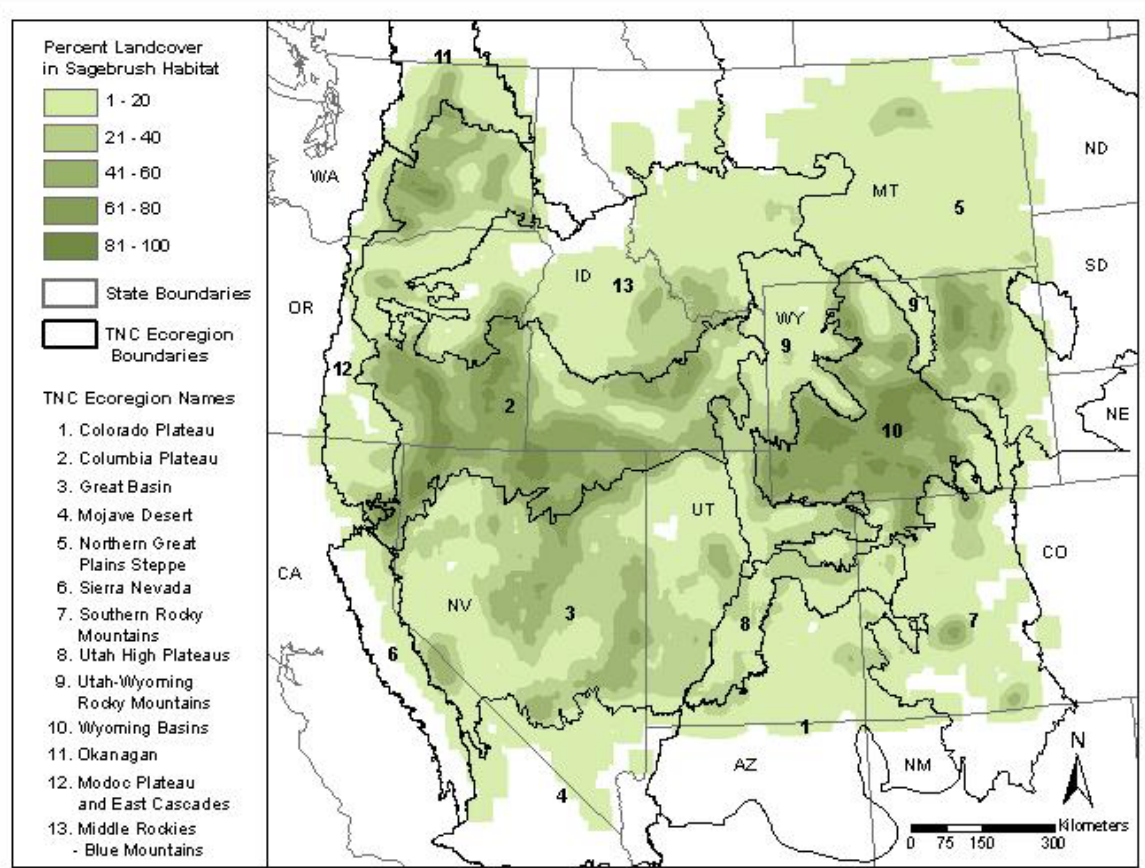


- Sagebrush is essential
 - Not all are equal habitat for grouse
 - Also need the healthy understory
- Long restoration times: 20 to > 100 years depending on species and conditions
- Fire kills sagebrush
- Seed banks do not persist
- We don't know how to restore or "fix" it

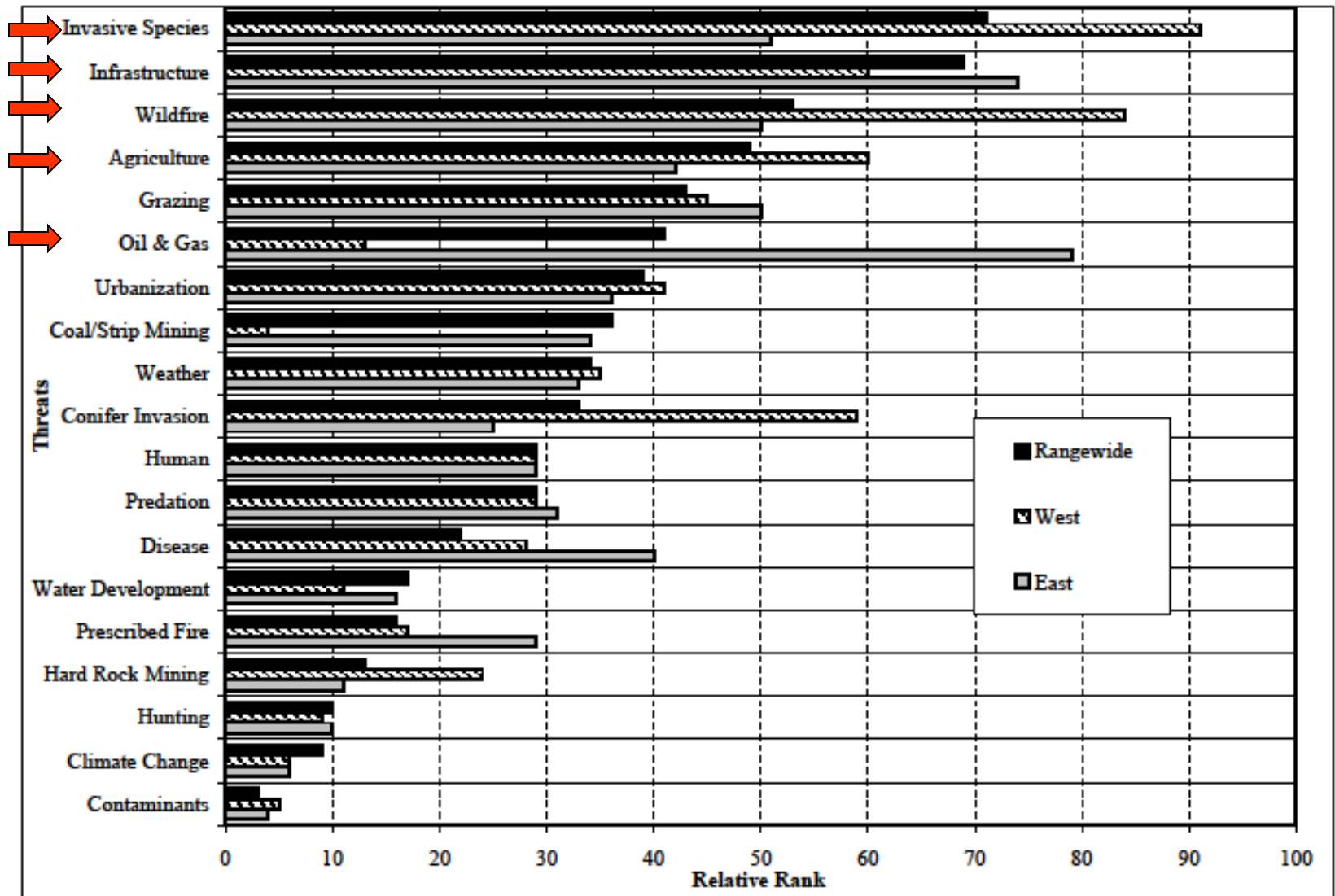
Sage-grouse distribution



Sagebrush distribution



2005 Finding



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.



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Primary Threat Habitat 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

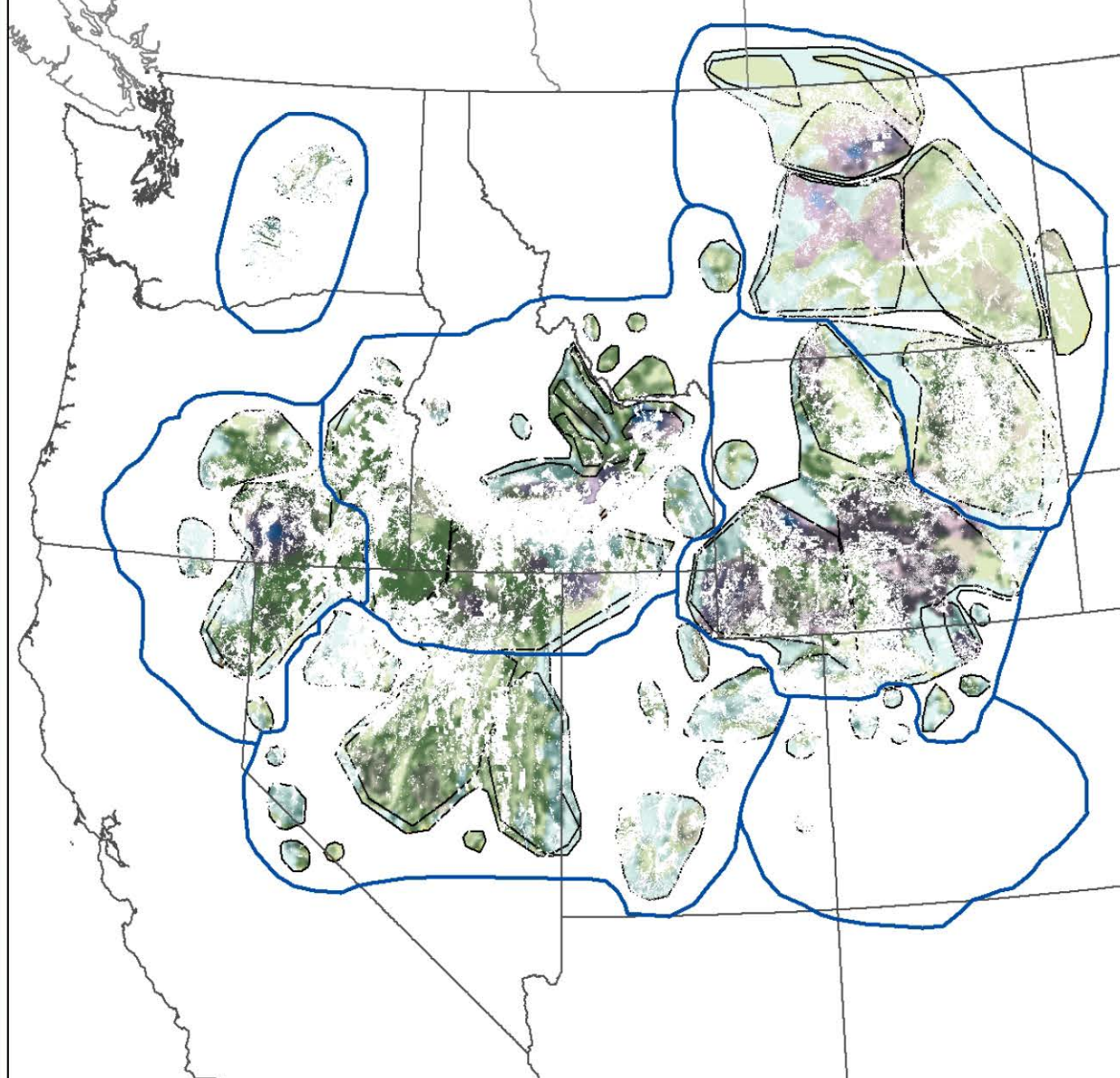
- Historic fire cycle 200-350 years; now 70 to 158 years
- In Great Basin: 27% of sage-grouse habitat has burned since 1980

Agriculture

- 19 % of SB in MT lost to AG
- 84 % of SB in MT affected



Conservation Planning for Primary Threats



Sage Grouse Mgt. Zones

**Percent Sage Brush
By Sage Grouse Population**

% High

% Low

Males at Leks

High

Low

High

Low

- Introduced Annual Grass

- Oil and Gas

**Non-Producing Leases
and**

- Fires 1980 to 2008

- Oil and Gas Fields

- Oil and Gas

Producing Leases

- Agricultural Land

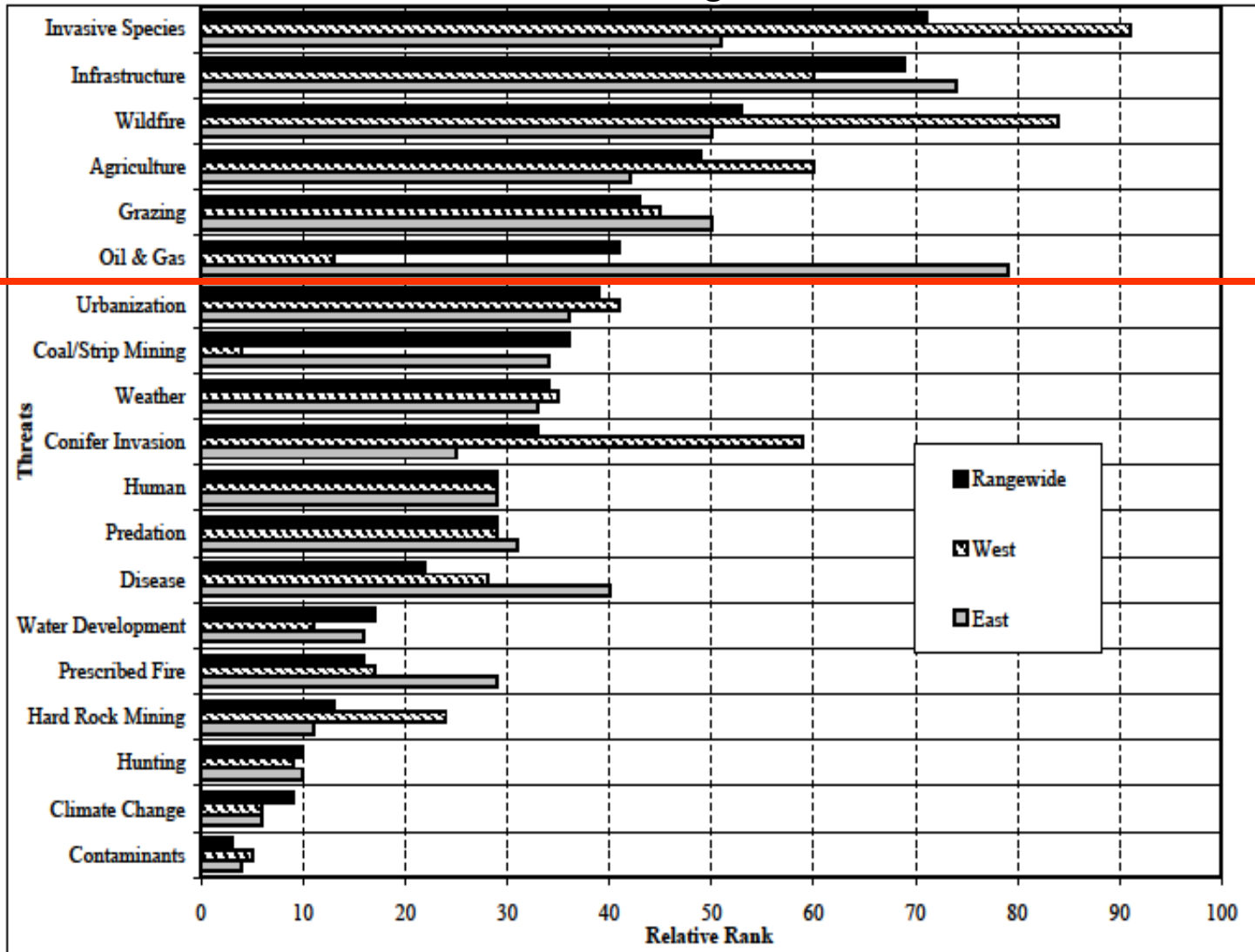
N 0 75 150 225 300 Miles

Map Date: 10/14/2009

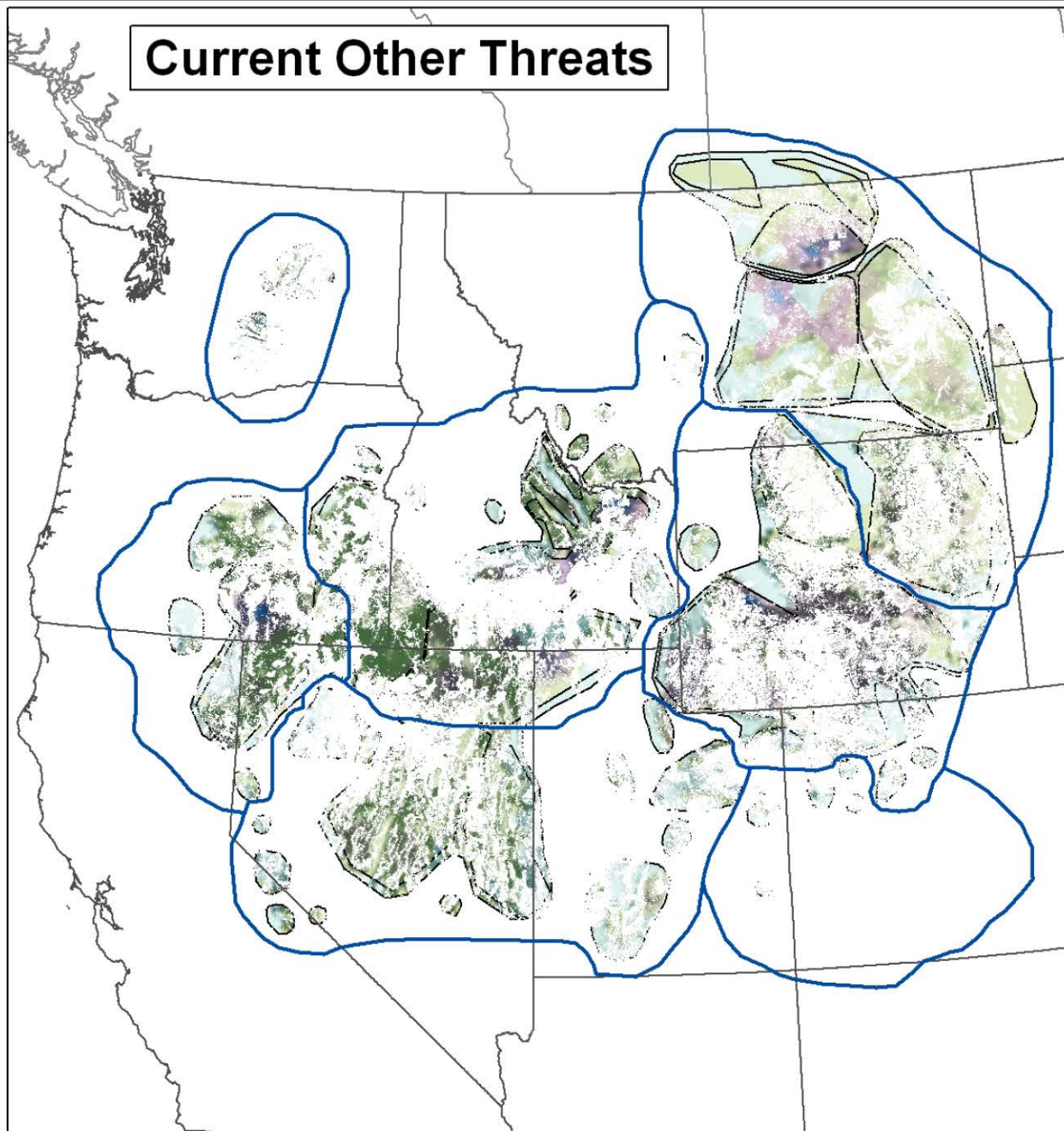
Created by: U.S. Fish and Wildlife Service, WY ES Field Office
Date: 10/14/2009
Source: U.S. Fish and Wildlife Service | Western Association of
Fish and Wildlife Agencies' Sage Grouse Conservation Planning
Framework Team | U.S. Forest Service | Geospatial Multi-Agency
Cooperation | Sam Limerick (Energy Information Administration) |
Steve Hanser (USGS-FRESC, Snake River Field Station) | WVA
Dept. of Fish and Wildlife, ID Dept. of Fish and Game, National
Sage Grouse Conservation Framework Planning Team, USGS
Forest and Rangeland Ecosystem Science Center | Bureau of
Land Management | U.S. Bureau of the Census | Government of
Canada Map
Projection: North American Datum 1927 Albers

Secondary/Synergistic Threats

2005 Finding



Current Other Threats



Sage Grouse Threats

 Sage Grouse Mgt. Zones

Percent Sage Brush

By Sage Grouse Population

 % High

 % Low

Males at Leks

 High







 Low

- Pinyon-Juniper
- Other Exotic
- Introduced Annual Grass
- Oil and Gas Non-Producing Leases
- Fires 1980 to 2008
- Oil and Gas Fields
- Oil and Gas Producing Leases
- Agricultural Land

N 0 75 150 225 300 Miles



Map Date: 10/14/2009

Created by: U.S. Fish and Wildlife Service, WY ES Field Office
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 Source: U.S. Fish and Wildlife Service | Western Association of Fish and Wildlife Agencies' Sage Grouse Conservation Planning Framework Team | U.S. Forest Service | Geospatial Multi-Agency Cooperation | Sam Limerick (Energy Information Administration) | Steve Hanser (USGS-FRESC, Snake River Field Station) | WA Dept. of Fish and Wildlife, ID Dept. of Fish and Game, National Sage Grouse Conservation Framework Planning Team, USGS Forest and Rangeland Ecosystem Science Center | Bureau of Land Management | U.S. Bureau of the Census | Government of Canada Map
 Projection: North American Datum 1927 Albers

Regulatory Mechanisms

Considered all mechanisms including:

- Federal
- State
- County
- Conservation efforts

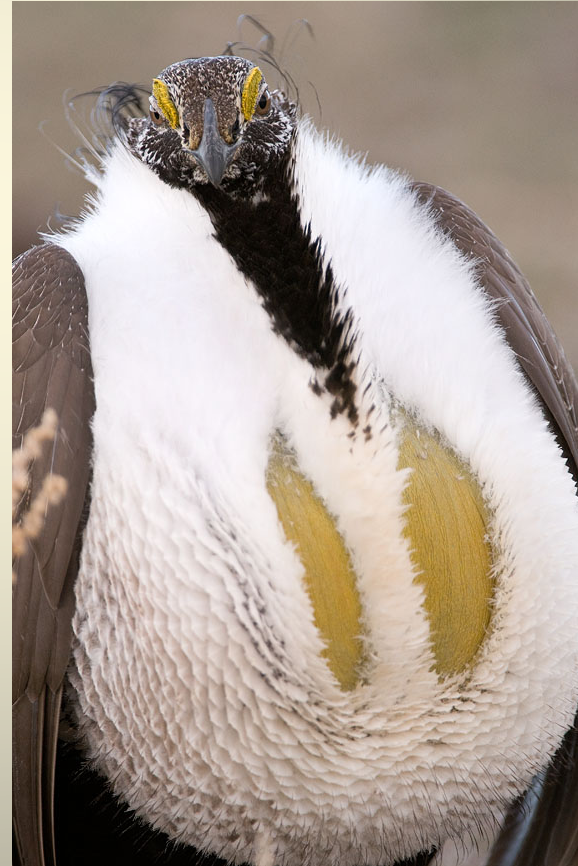


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Regulatory Mechanisms

WAFWA 2006 Conservation Strategy

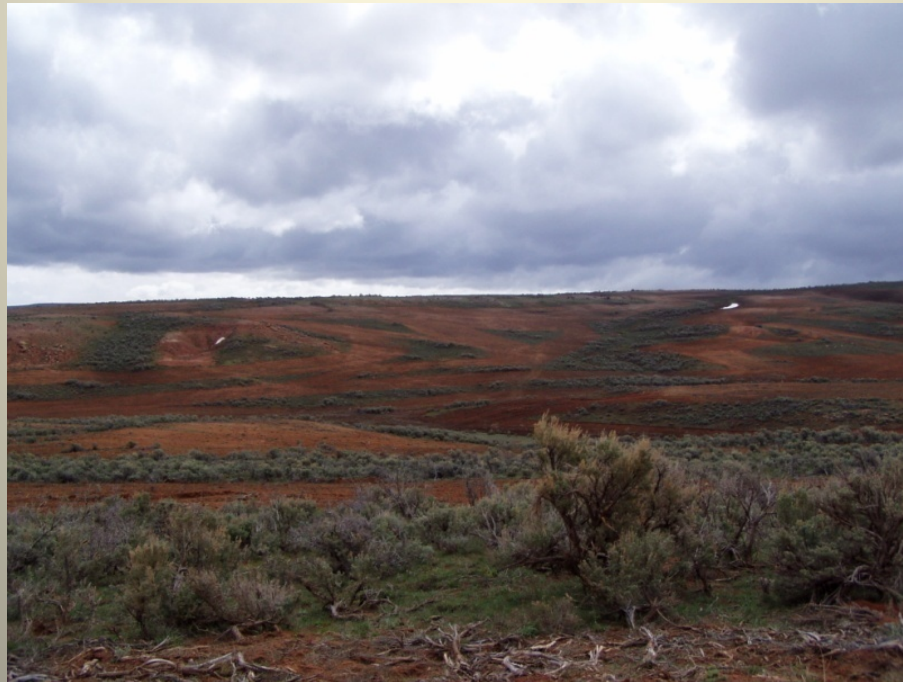
- Provided framework for long-term conservation of species & ecosystem
- "... and if implemented would have significant positive impacts" (75 FR 13981)
- Lacks regulatory authority and funding for implementation



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Regulatory Mechanisms

Current regulatory mechanisms are inadequate to protect sage-grouse habitats



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



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Questions?