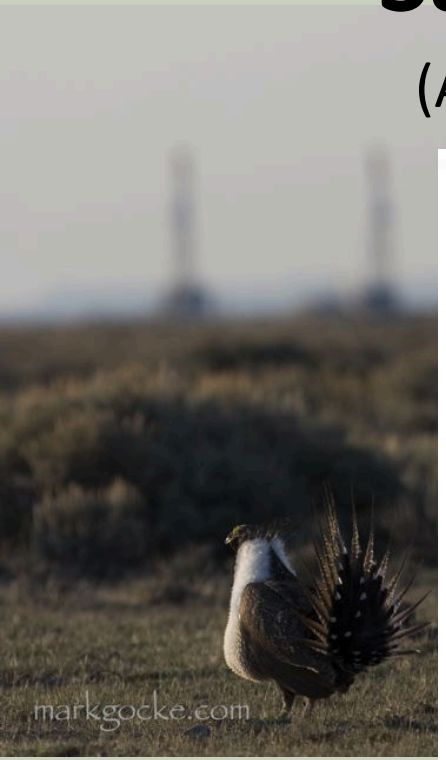
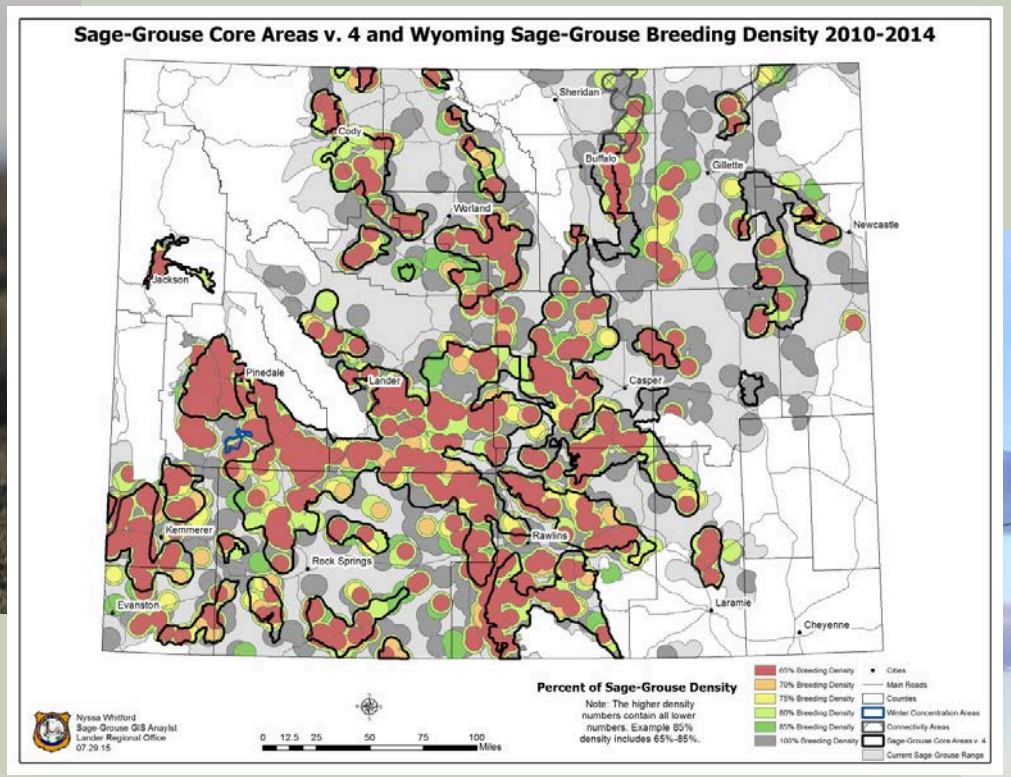
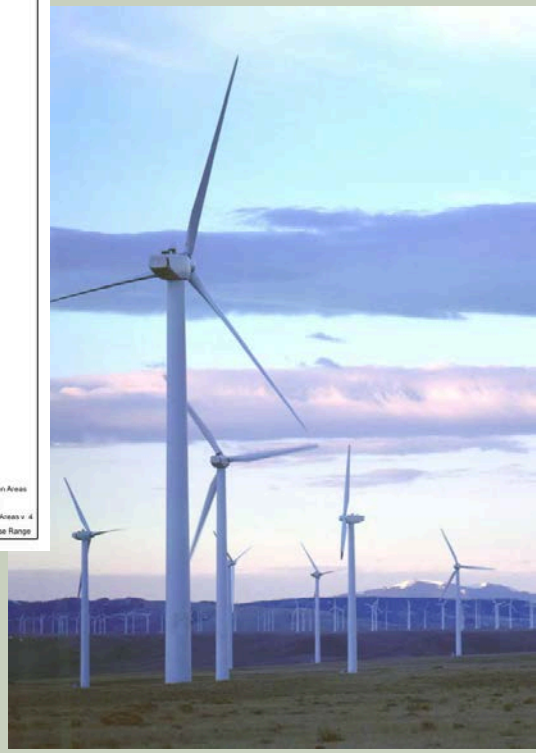
# Wyoming's Approach to Sage-Grouse Conservation

(A Shotgun Wedding of Science and Policy)



Tom Christiansen
Sage-Grouse Program Coordinator

# Sage-Grouse 101

Chicken-sized, upland game bird that mates on “leks”

Sagebrush “obligate”

# Sage-Grouse 101

**Require landscapes, not patches.**

# Sage-Grouse 101


**Sagebrush only food in winter**

# Sage-Grouse 101

**Long-lived with strong fidelity to leks and nesting areas**

# Sage-Grouse 101

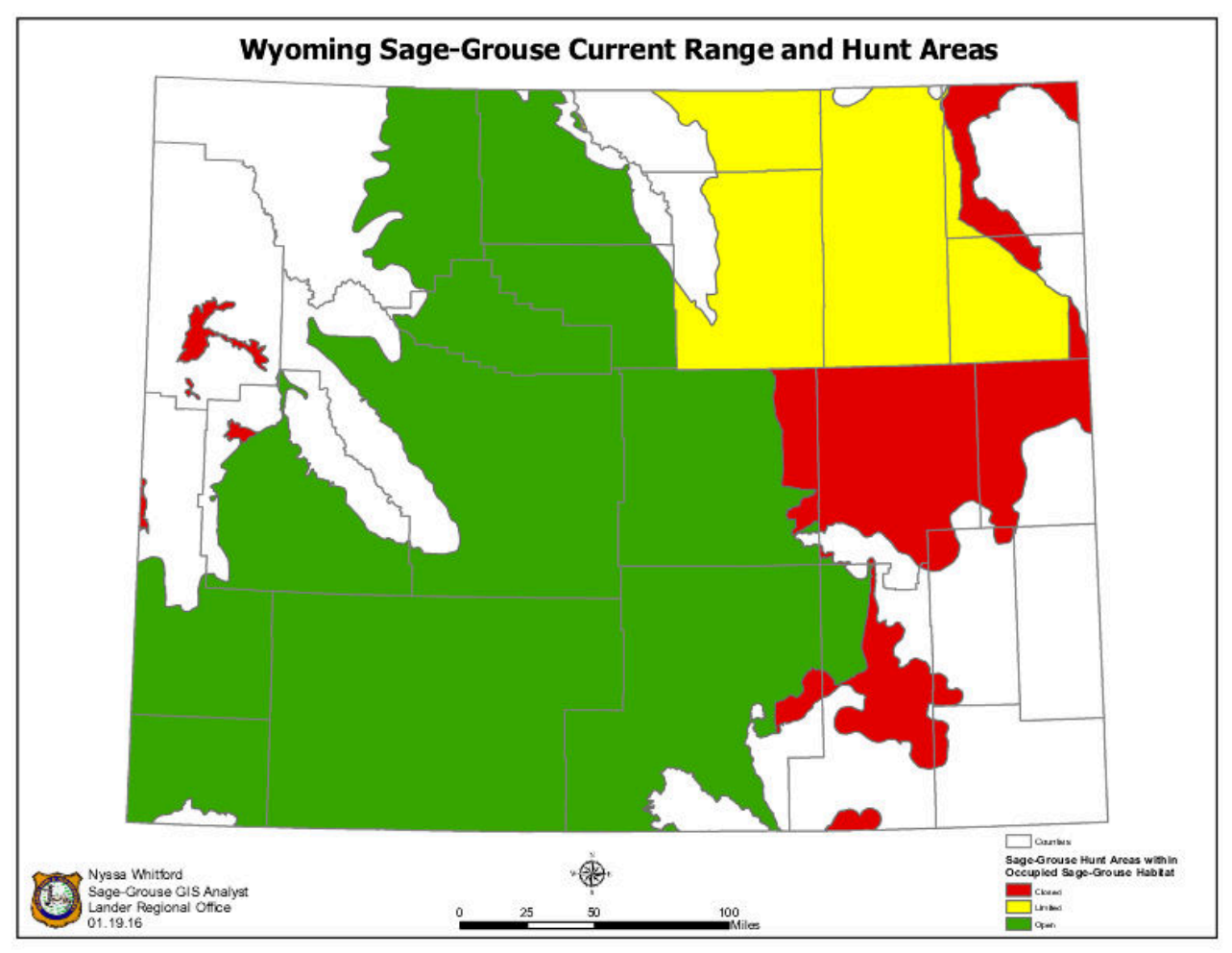
**Sage-Grouse = Prey**

**Humans subsidize many predators**

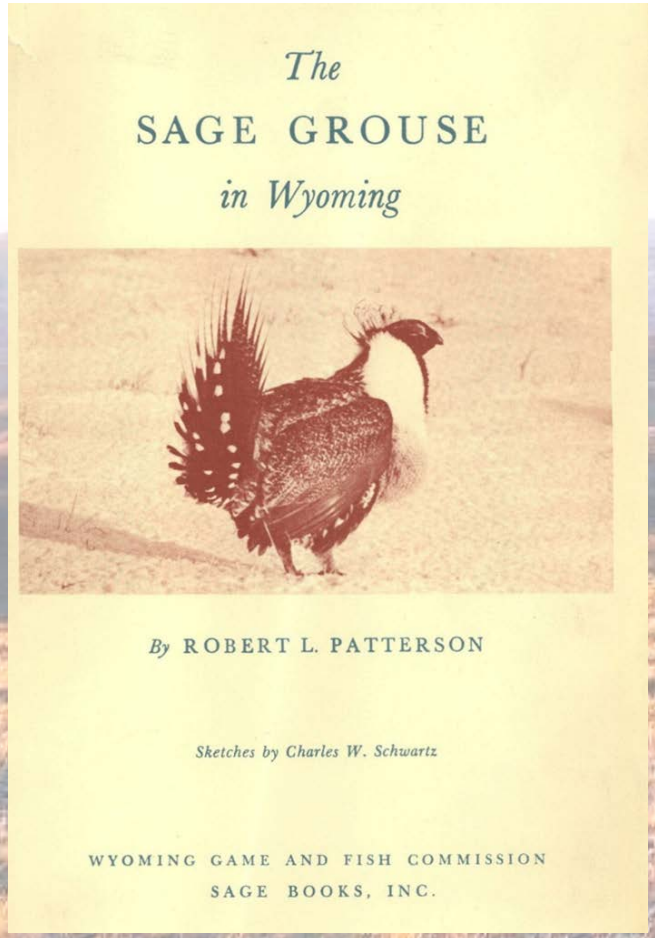
# Sage-Grouse 101

**Why still hunt?**

- **Not a threat**
- **Multiple Use**
- **Data**
- **Constituency**



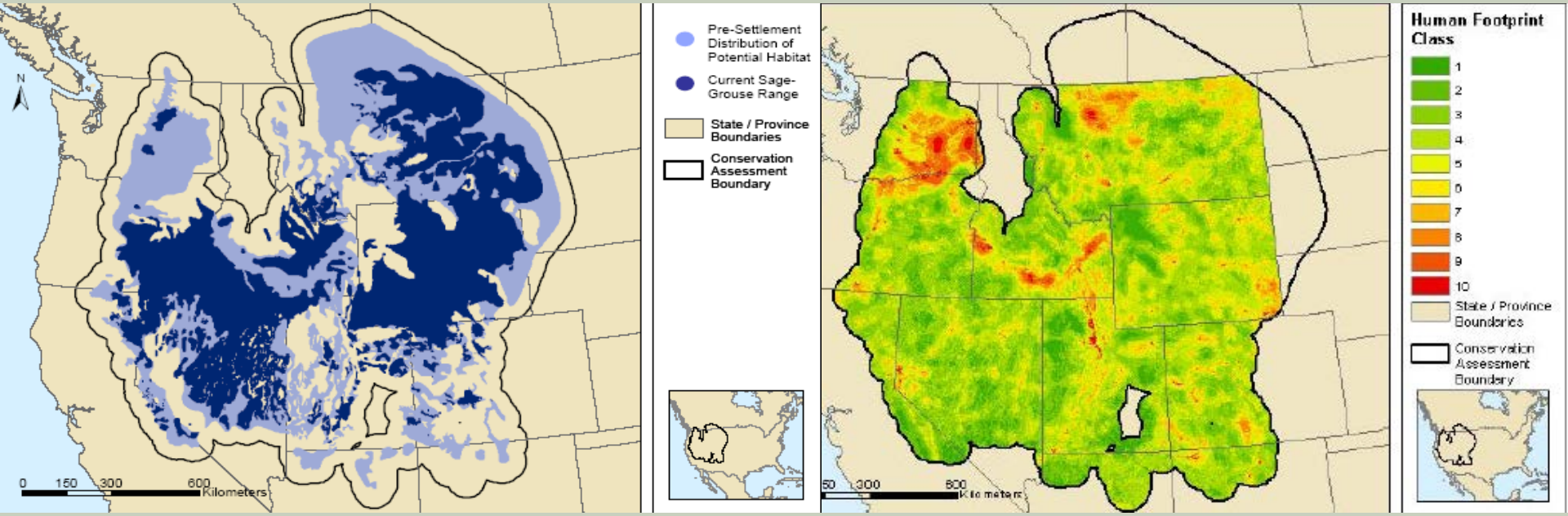
# Historical perspective…




**"The fate of sage grouse, as well as antelope and other associated wildlife species, will be dependent upon the degree of maintenance and preservation afforded the vast tracts of sage lands in the West." (p. 307)**

# Current/Historic Sage-grouse Range

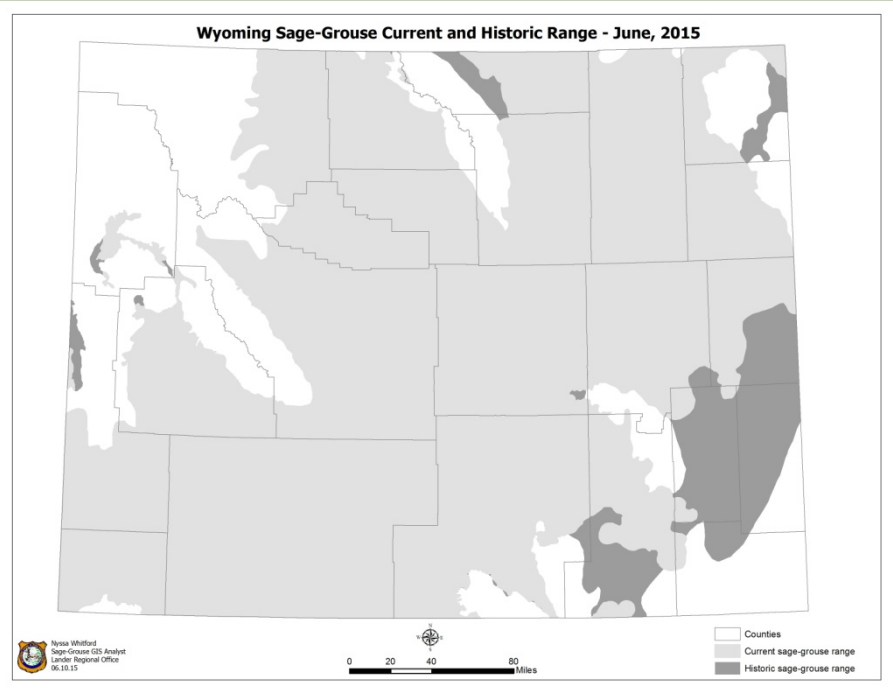
# Human Footprint

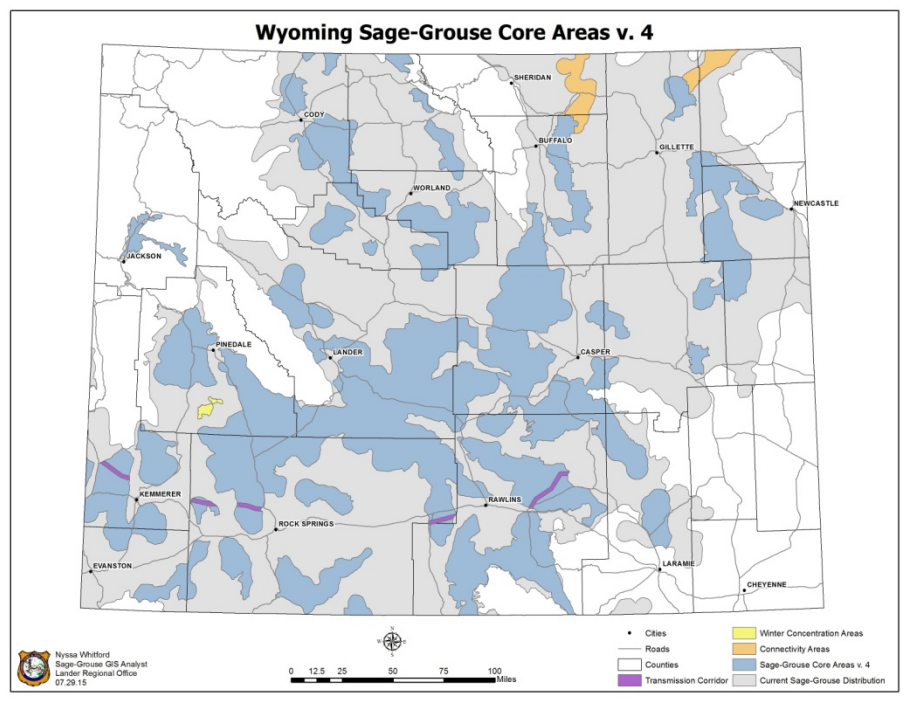



- **Wyoming has 26% of the current rangewide habitat occupied by 37% of the rangewide grouse population** (Doherty et al. 2010).
- **90% of historic range in Wyoming is still occupied – compared to 56% rangewide**
- **Wyoming habitats are generally more intact**

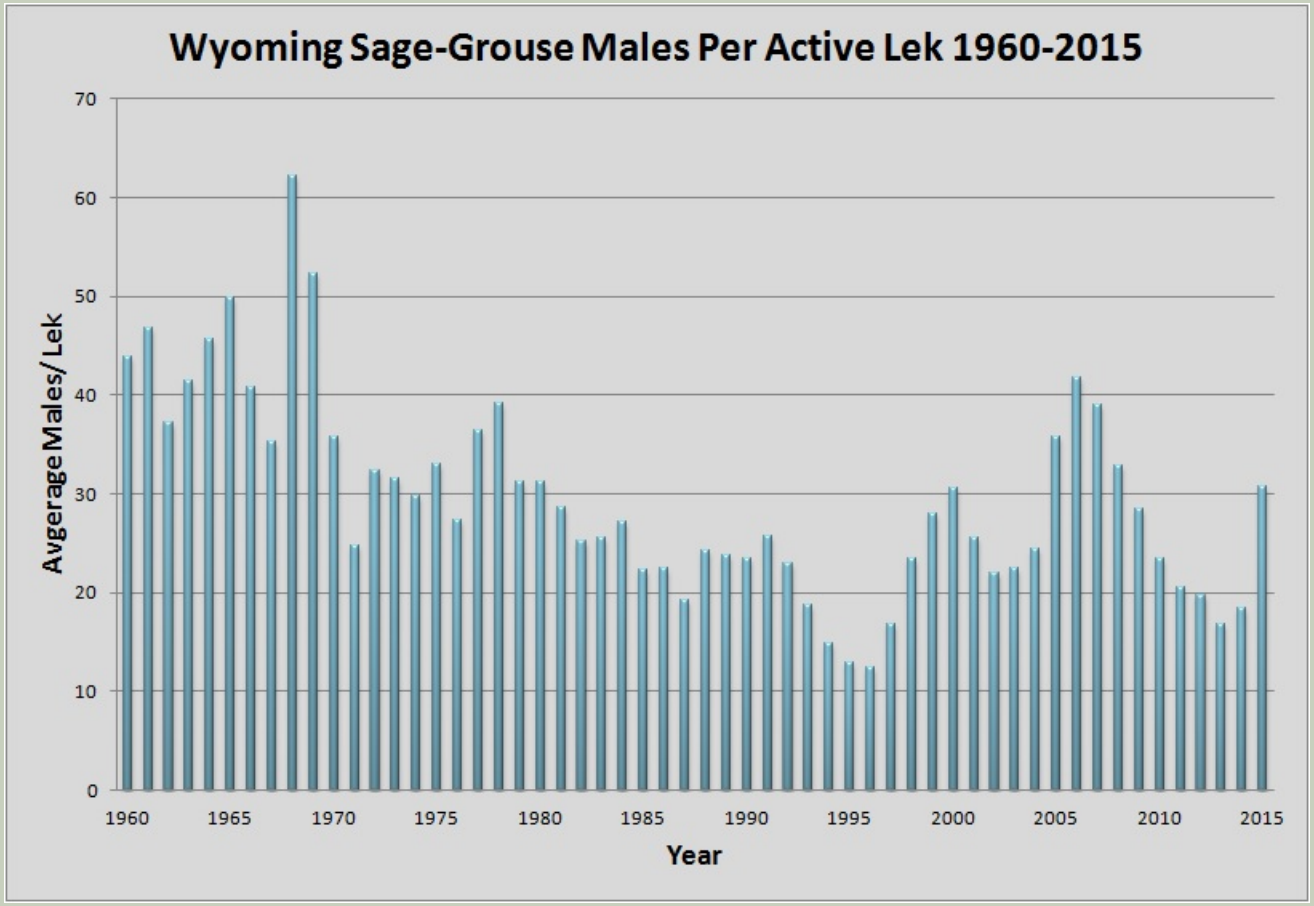
# Wyoming Sage-grouse - By the Numbers

- ~62 million acres in Wyoming
- ~48 million acres historic range
- ~43 million acres now occupied (90%)
- 25% of the state is “core” habitat
- 81% of Wyoming’s sage-grouse population is in core



# Sage-Grouse Population Trend



# Science Process

- Core Area Concept – Doherty et al. 2010a/b, 2011;
- Winter Concentration Areas – Doherty et al. 2008, Dzialak et al. 2013;
- Connectivity – Knick et al. 2011
- Buffers – Braun et al. 2002, Hess and Beck 2012, Holloran 2005, Manier et al. 2014;
- DDCT distances – Walker et al. 2007, Fedy et al. 2012;
- Road to lek distances – Lyons and Anderson 2003;
- Well pad density – Holloran 2005, Walker et al. 2007, Harju et al. 2010;
- Noise – Blickley et al. 2012a/b, Patricelli et al. 2013;
- Recruitment – Kaiser et al. 2006;
- Habitat treatment – Connelly et al. 2000a/b, Beck et al. 2009, Dahlgren et al. 2006, Slater 2003;
- Grazing – Cagney et al. 2010;
- Reclamation/Restoration – UW Wyoming Reclamation and Restoration Center

# Policy Process

- 2007: Governor Freudenthal's Sage-Grouse Summit & Implementation Team (SGIT)
- 2008: Governor's Executive Order – "Core Area" emphasis.
- 2010: Core Areas and EO revised
- 2010: Governor Mead elected
- 2011: Mead issued a new EO
- 2015: Core Areas and EO revised
- Each revision clarified details of the original EO but maintained the goal of preventing the need to list the bird as Threatened or Endangered, via a process of science-based regulations and incentives.

# Attachment B – Stipulations for Development

- 1 well pad/640 acres on average
- 5% surface disturbance/640 acres on average
- .6 mi NSO from lek perimeter
- Main roads 1.9 miles from lek perimeter
- Seasonal stips
- Overhead power and transmission corridor
- Noise
- Vegetation removal
- Sagebrush treatment
- Reclamation
- Monitoring
- Pre-existing oil & gas units
- Mining
- Connectivity corridors
- Underground rights-of-way
- Wind energy
- Undefined activities

# Wyoming's Core Area Strategy

- **The upshot - while existing land use rights should be recognized and respected, new development within core areas should be authorized only when it can be shown that the activity will not cause declines in sage-grouse populations.**

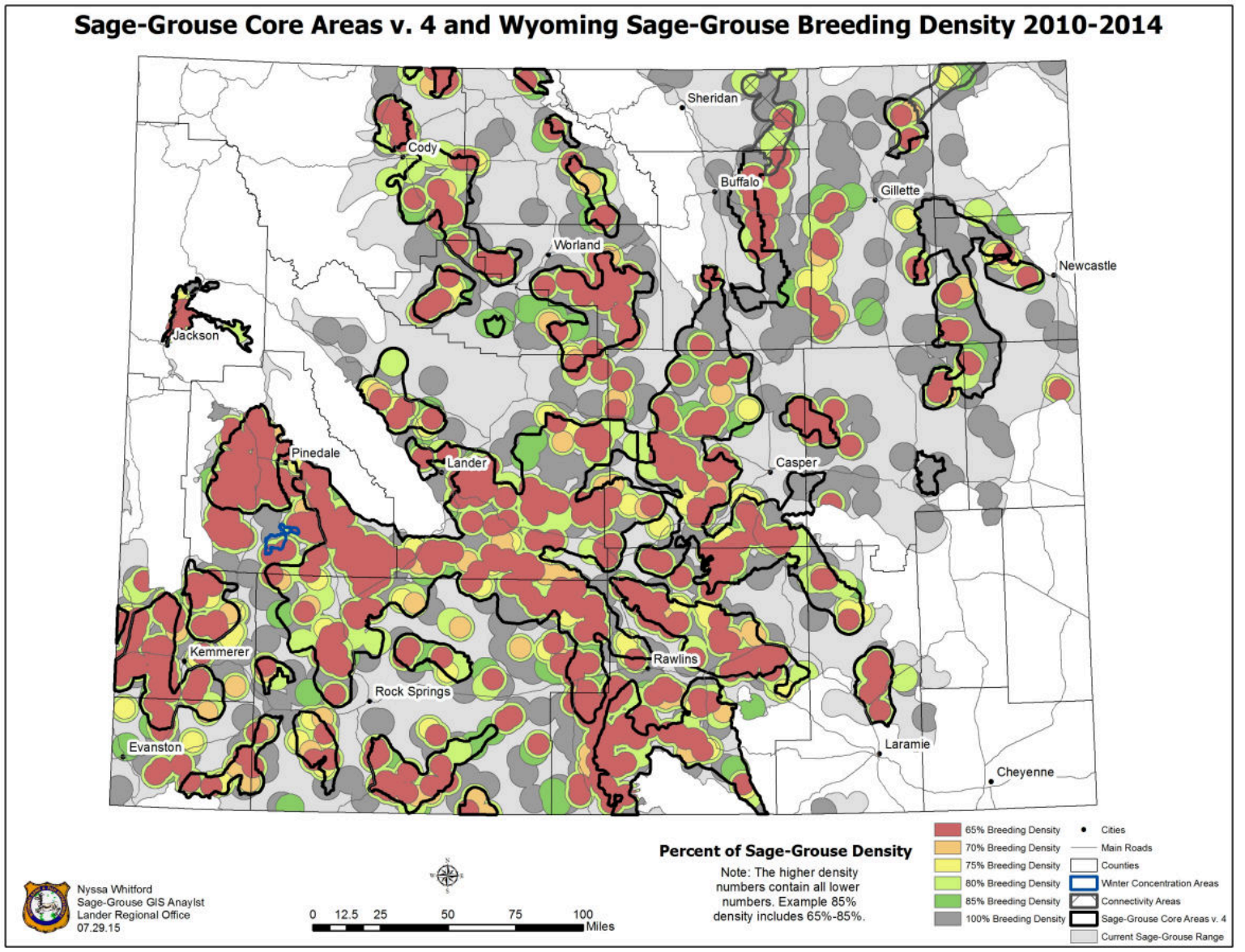
https://wgfd.wyo.gov/Habitat/Sage-Grouse-Management

# USF&WS Threats

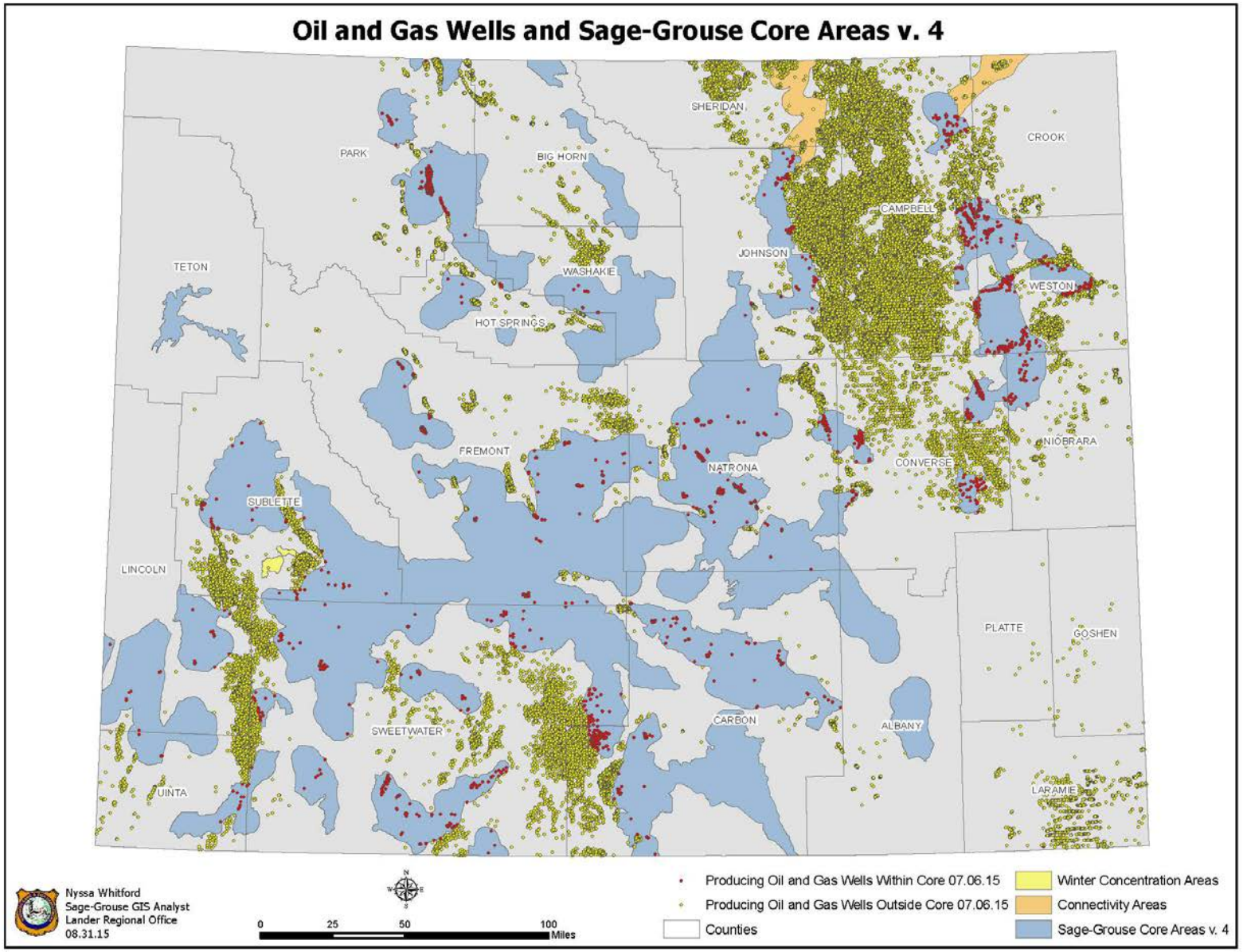
- Habitat loss and fragmentation.
- Past regulatory mechanisms did not effectively addressed the threats.

## But…

- The USFWS listing decision document supports Wyoming's Core Area Policy as a potentially effective regulatory mechanism if it is implemented as planned.




**Core Area V.4 captures 81% of males on leks and associated nesting habitat on <25% of the surface area of the state.**




**Oil & Gas Wells – 7.7% in core V.2.; down to 4.9% in V.3; down to 4.4% in V.4 (even though core acres increased).**

**“Largest single-species conservation effort ever.”**