



# The State of Sage- Grouse - 2016

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# Outline

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- How we monitor sage-grouse populations
- 2016 monitoring effort
- 2016 population trend
- 2016 habitat trend
- Ongoing research
- Future Direction

# Lek Monitoring – Ground Surveys

- March 15 – April 30
- 30 min before – 2 hrs after sunrise
- Collaboration between ODFW, BLM, USFWS, Volunteers
- Subset of leks counted multiple times



Introduction

Population  
Monitoring  
Methods

2016  
Monitoring  
Effort

2016  
Population  
Trend

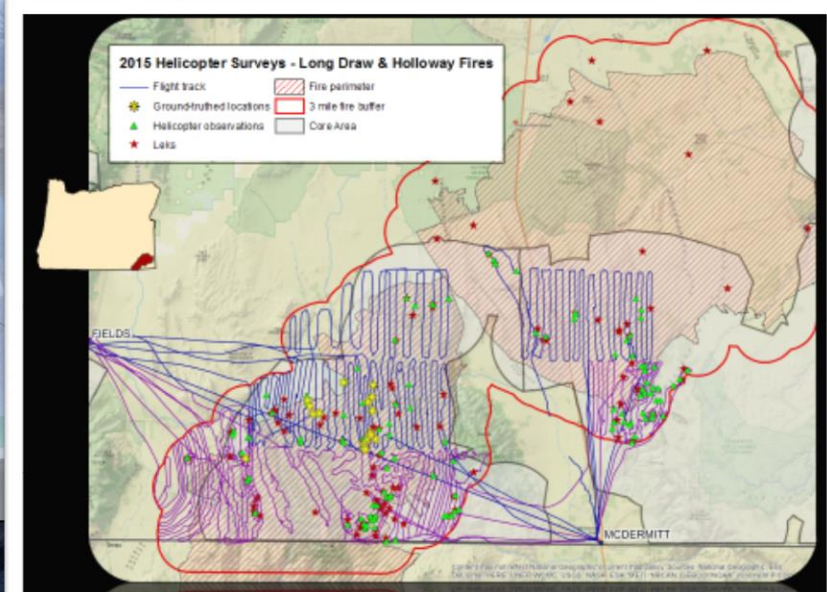
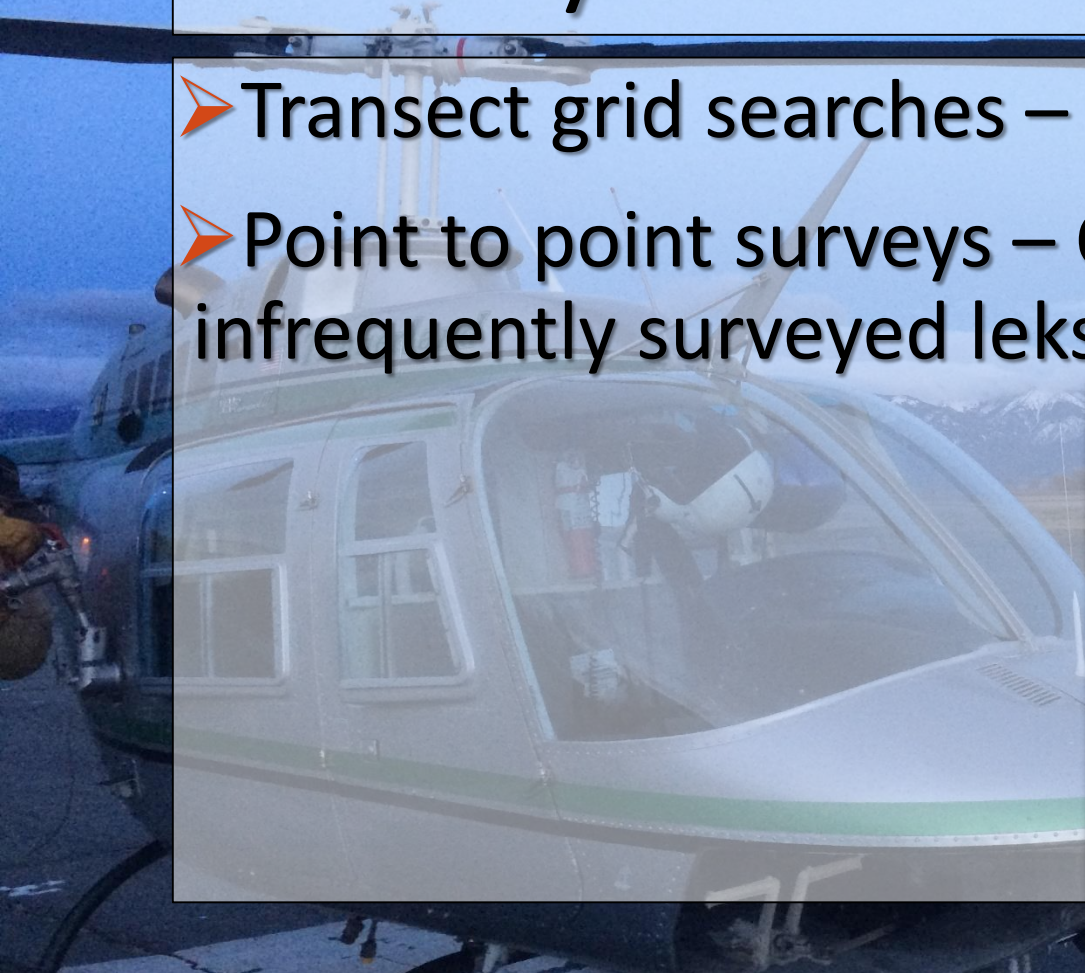
2016  
Habitat  
Trend

Ongoing  
Research

Future  
Directions

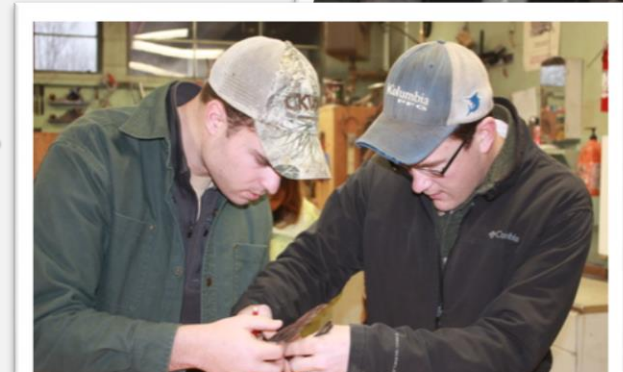
# Lek Monitoring – Aerial Surveys

- Transect grid searches – Locate new leks
- Point to point surveys – Confirm activity at infrequently surveyed leks



# Population Structure

- Lek counts – Male population index only
- Female population needed for population estimate
- Demographic data including male:female ratio collected from hunter harvested wings



# Population Estimation

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- Estimates at scale of BLM District, and statewide
- Estimate corrects for:
  - Uncounted leks
  - Male attendance rate
  - Male:female ratio
- Minimum estimate only



# 2016 Monitoring Effort - Objectives

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- Monitor >50% of occupied and pending leks in each PAC
- Conduct multiple counts on >50% of monitored leks

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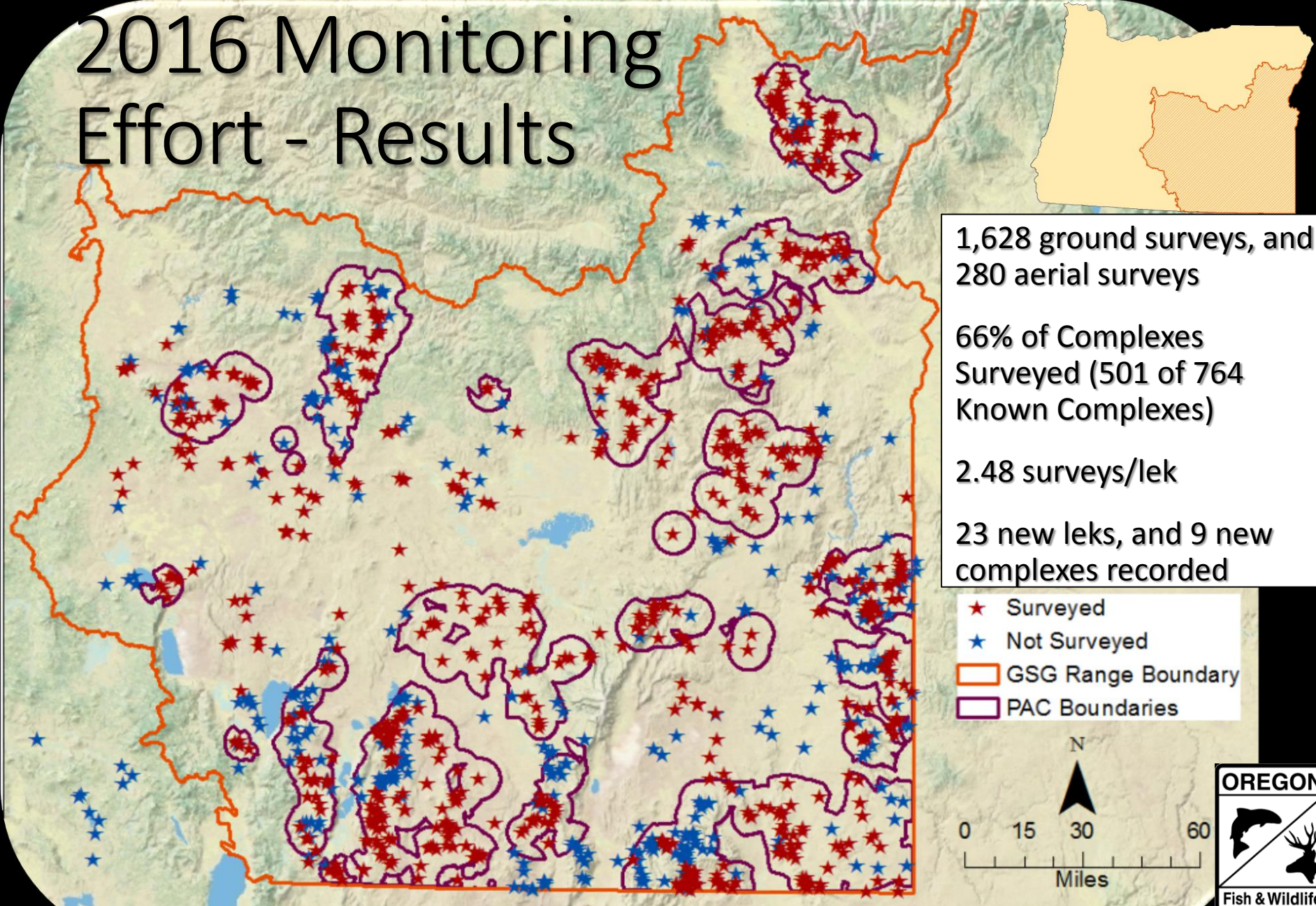
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# 2016 Monitoring Effort - Results



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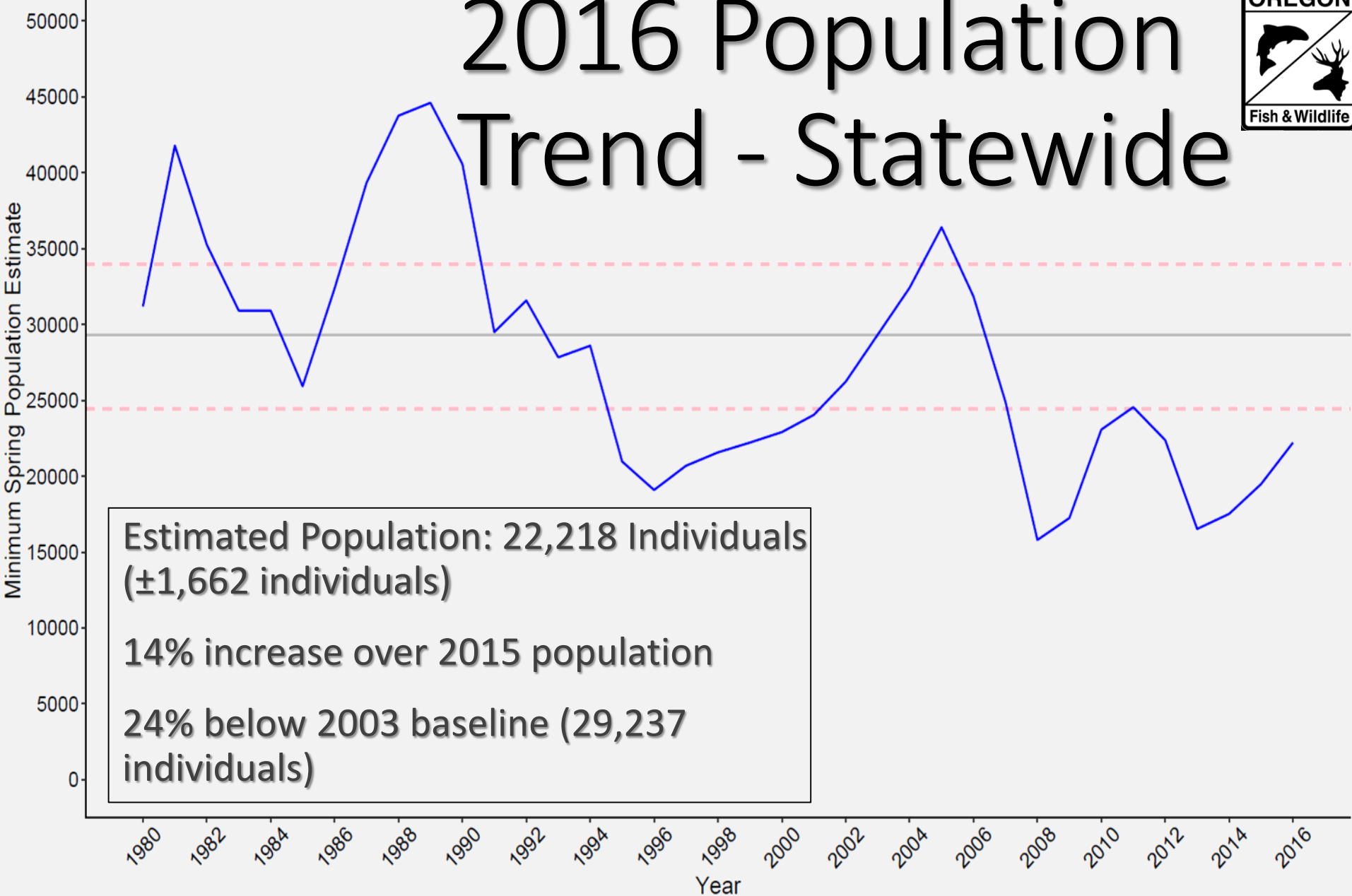
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# 2016 Population Trend - Statewide



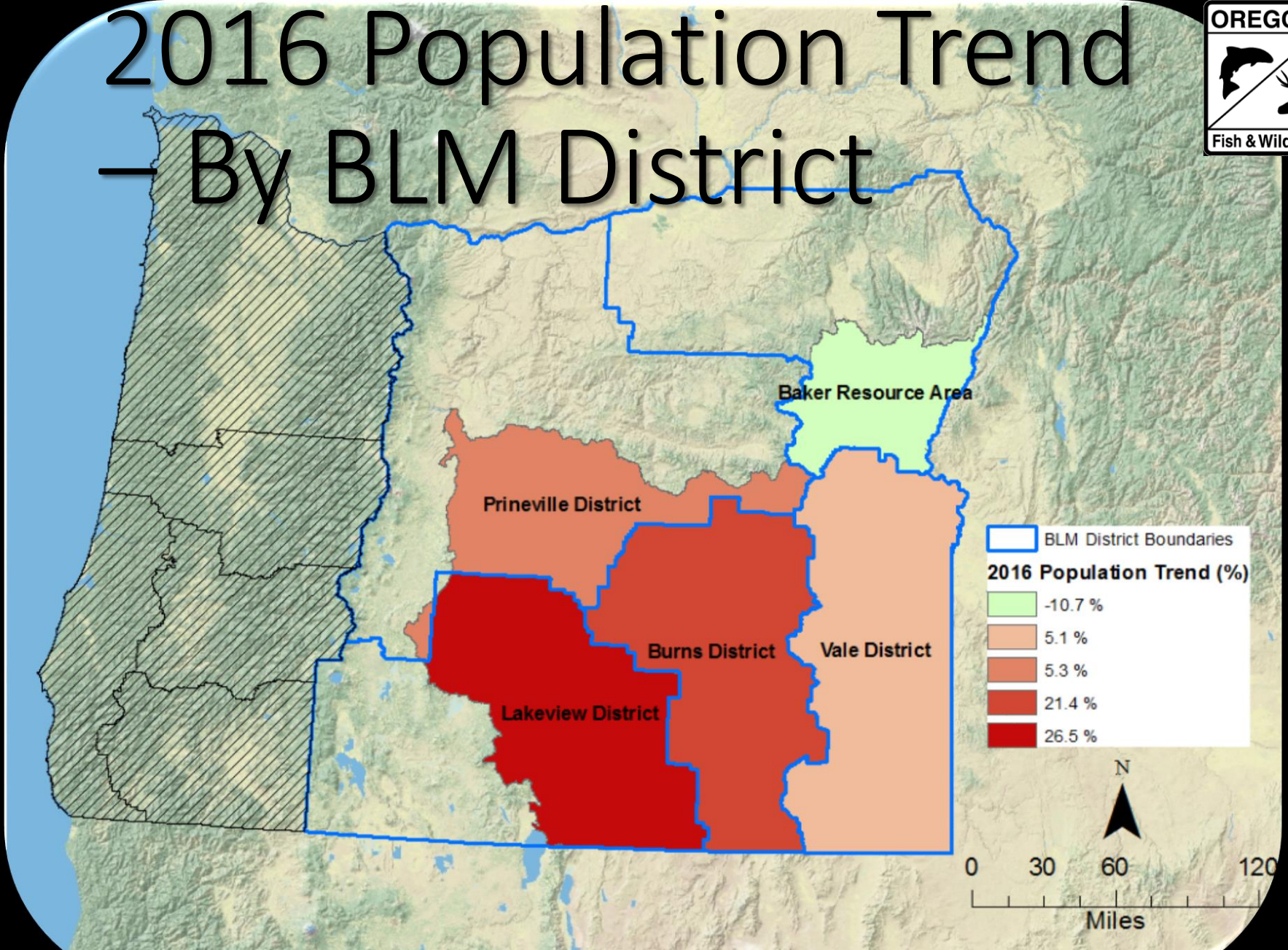
**Estimated Population: 22,218 Individuals**  
**(±1,662 individuals)**

**14% increase over 2015 population**

**24% below 2003 baseline (29,237 individuals)**



# 2016 Population Trend – By BLM District

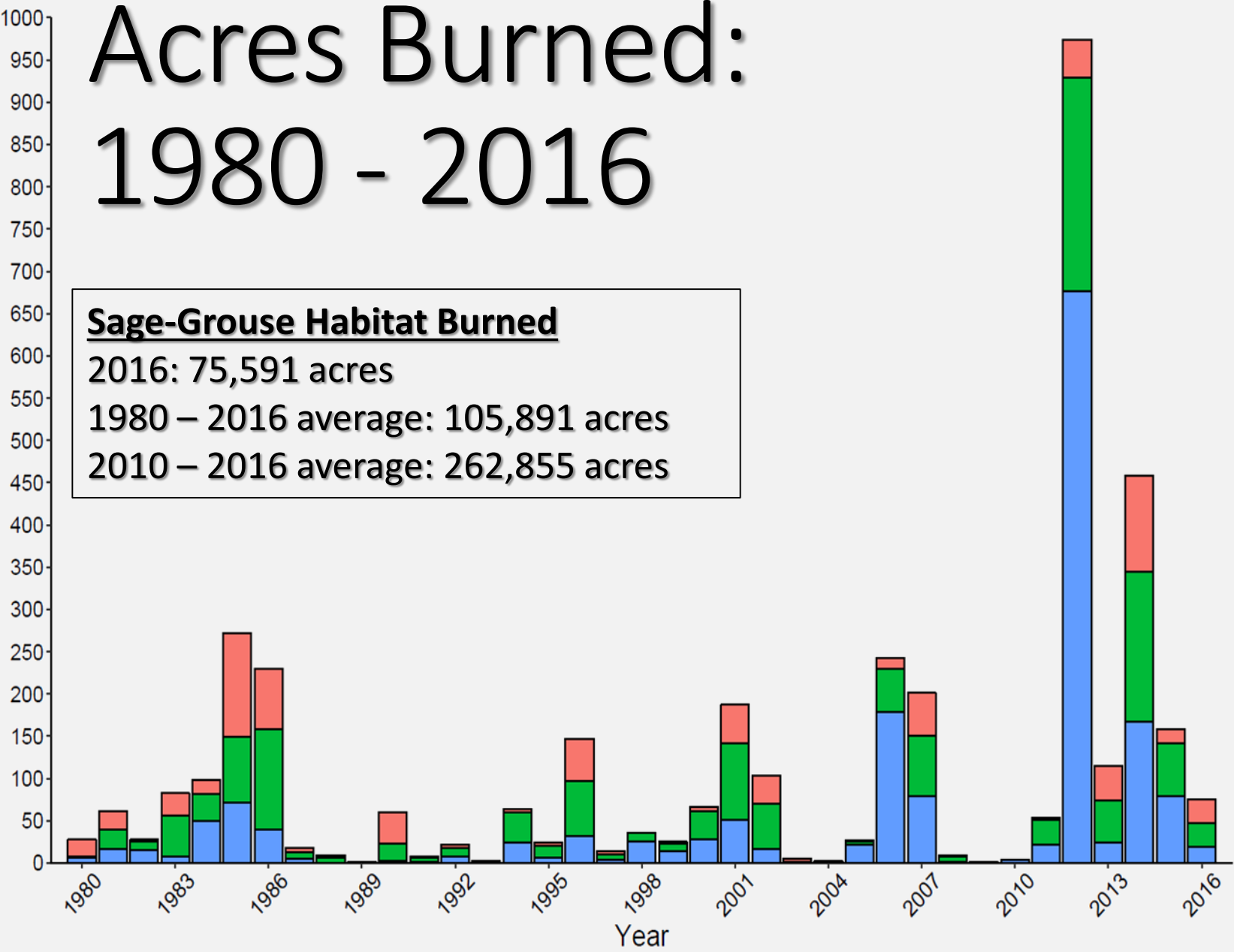




# Acres Burned: 1980 - 2016

Thousands of Acres Burnt

**Sage-Grouse Habitat Burned**  
2016: 75,591 acres  
1980 – 2016 average: 105,891 acres  
2010 – 2016 average: 262,855 acres

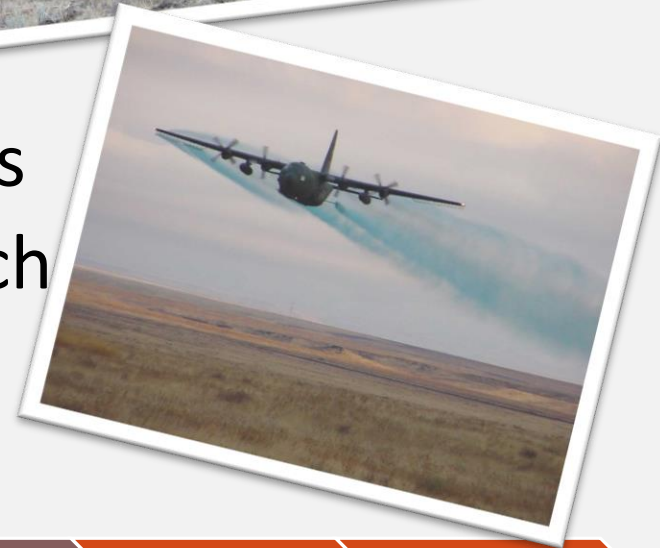
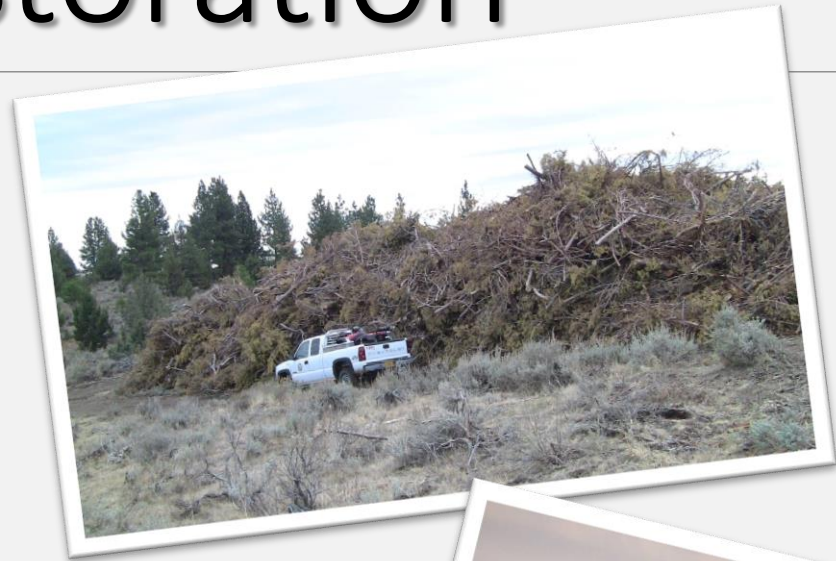


General Habitat  
Low Density  
PAC



# Habitat Restoration

- CCAA & CCA
- SGI 2.0
- Local BLM efforts
- ODFW funding
  - \$134k annual grass treatments
  - \$160k ARS native seed research



# Ongoing Research

- Warners juniper removal: 2009-Present
- Trout Creeks fire response: 2013-Present
- Dissertation and Thesis published 2016
- Additional Ph.D. students continuing research
- Results inform conservation actions, mechanisms of GSG response

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# Future Directions

- BLM Cooperative Agreement allows continued high survey effort
- State of the art population modeling
- Increased telemetry for seasonal range delineation