

# SAGECON SUMMIT 2019

## Oregon Sagebrush: Status, Trends and Ongoing Efforts



Oregon SageCon Partnership  
October 4, 2019



## Oregon Sagebrush: Status, Trends and Ongoing Efforts

The following slides present the status, trends and ongoing efforts related to sagebrush and sage-grouse conservation in Oregon, from the SageCon Partnership Annual Summit, October 3-4, 2019.

The SageCon Partnership is developing a SageCon Dashboard, which will provide this information and more in 2020. These slides preview the information that will be available in the dashboard. Some data shown here is preliminary.

More information about SageCon: <https://oregonexplorer.info/topics/sage-grouse>



“numerous federal agencies, the 11 states in the range, and dozens of public and private partners [undertook] an extraordinary campaign to protect, restore and enhance important sage-grouse habitat to preclude the need to list the species”

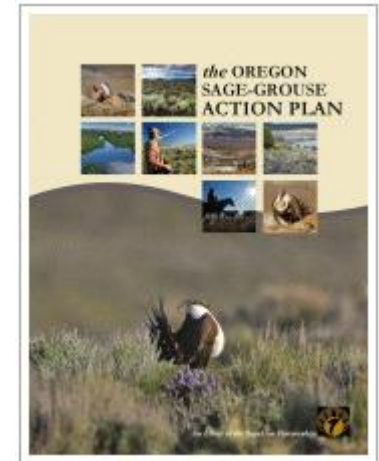
DOI news release Sep 22, 2015

ODFW Sage-Grouse Conservation Strategy (2011)



Oregon Greater Sage-Grouse  
BLM Resource Management Plan  
(2015, amended 2019)

Oregon State Sage-Grouse  
Action Plan (2015)



## Where does Oregon stand four years after implementing these plans?

- ✓ Sagebrush habitat
- ✓ Sage-grouse populations
- ✓ Human development
- ✓ Conservation actions
- ✓ Monitoring and research
- ✓ Technical resources
- ✓ Local capacity building



# The Challenges and Threats

- ❖ **Sagebrush habitat condition** has declined in Oregon and throughout much of the western US.
- ❖ **Sage-grouse populations** have been in decline as a result of habitat loss and other threats.
- ❖ **Human development** poses a threat to sage-grouse range-wide.

# The Efforts and Opportunities

- ❖ In response to these threats, the **SageCon Partnership** was formed as a collaborative group to address issues affecting sagebrush ecosystems.
- ❖ **Conservation actions** are occurring at an unprecedented level across federal, state and private lands to address threats.
- ❖ New rules to steer **development** away from priority sage-grouse habitat and **mitigate** impacts have resulted in no new habitat loss due to development.
- ❖ New **tools and resources** aid in planning and conservation of sagebrush habitat.

Access these slides from:

<https://oregonexplorer.info/topics/sage-grouse>

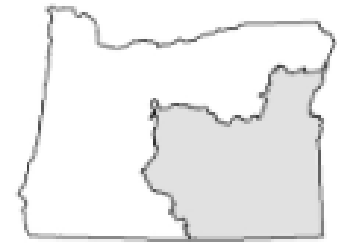


*SageCon Summit 2019*



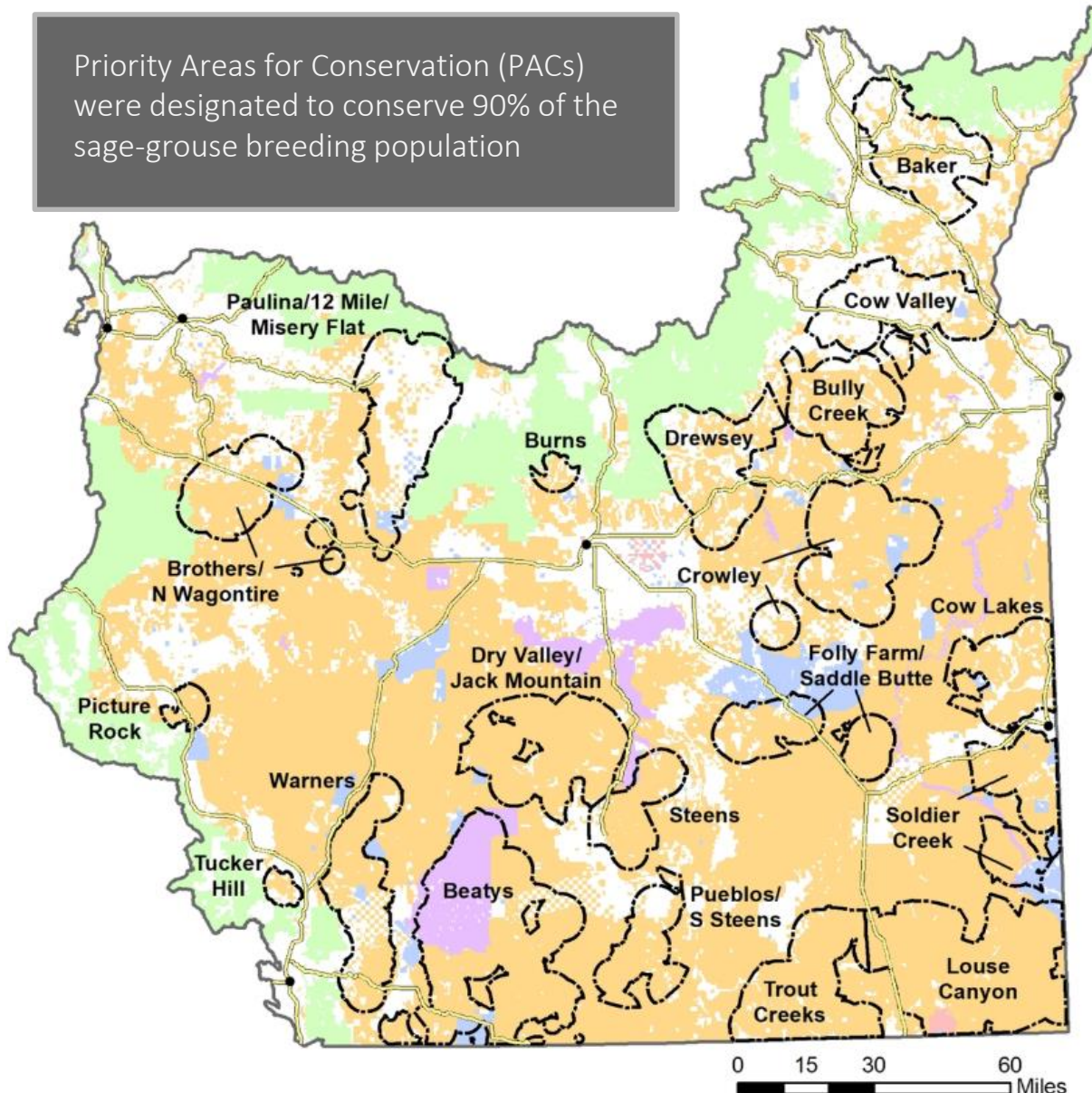


# Sagebrush and Sage-Grouse Habitat in Oregon



Priority Areas for Conservation (PACs) were designated to conserve 90% of the sage-grouse breeding population

PACs are synonymous with core habitat



## Ownership

- BLM Bureau of Land Management
- FS Forest Service
- State
- Private
- Other
- Tribal

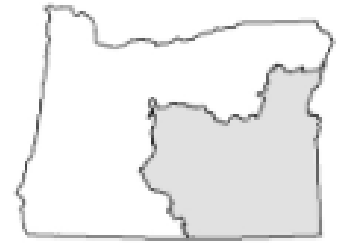
Priority Area for Conservation (PAC)

Highway

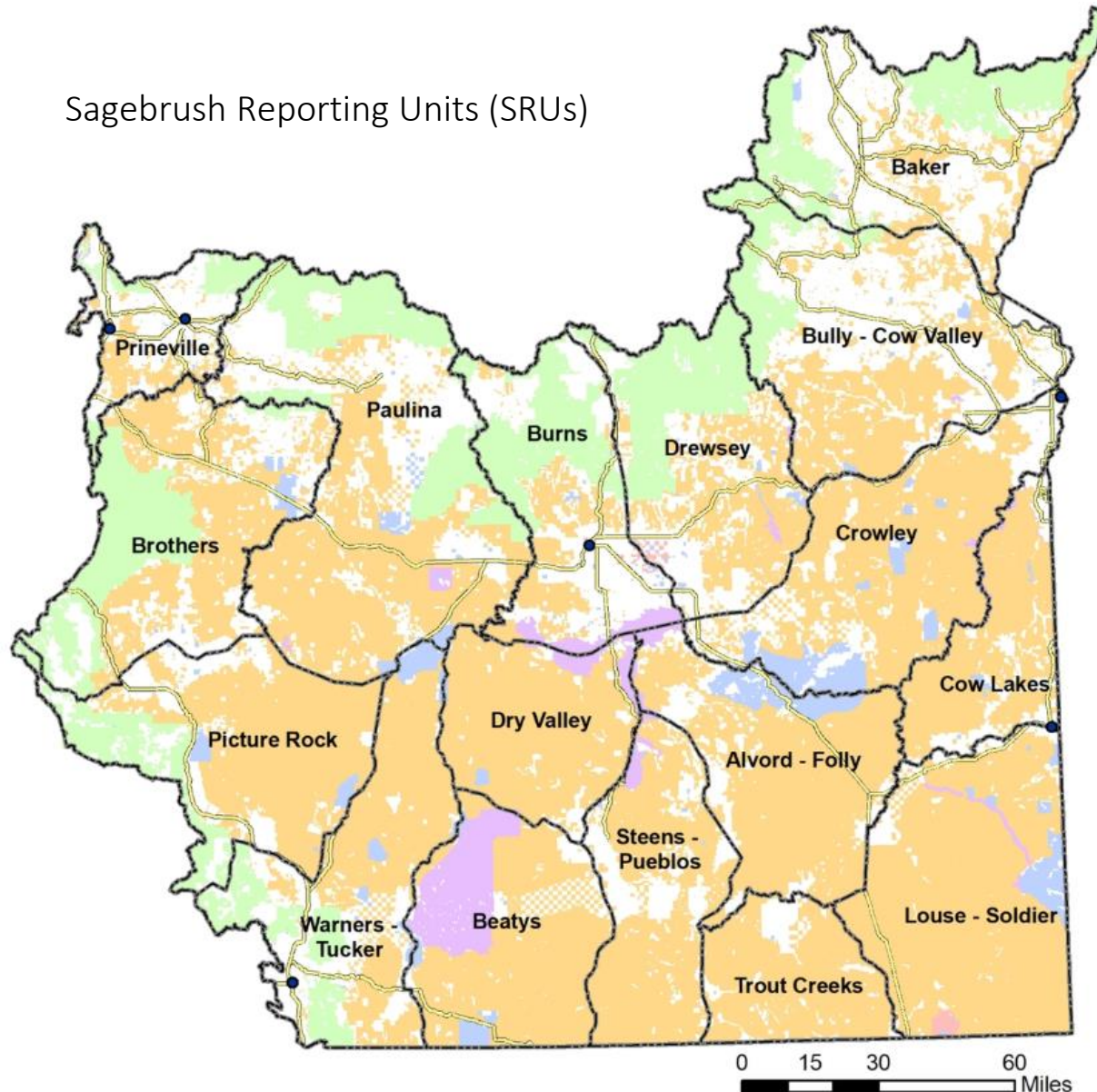
Town



# Sagebrush and Sage-Grouse Habitat in Oregon



## Sagebrush Reporting Units (SRUs)



### Purpose of SRUs

- Cover all lands
- Contain one or two sage-grouse PACs
- Large enough to protect landowner privacy

### Ownership

- BLM Bureau of Land Management
- FS Forest Service
- State
- Private
- Other
- Tribal

- Sagebrush Reporting Unit (SRU)
- Highway
- Town







# The Challenges and Threats





**5.5 million** acres of “state A” functioning sagebrush habitat



**5.1 million** acres impaired by invasive grasses

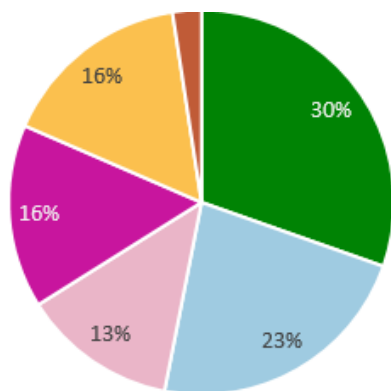


**3.3 million** acres impaired by juniper encroachment



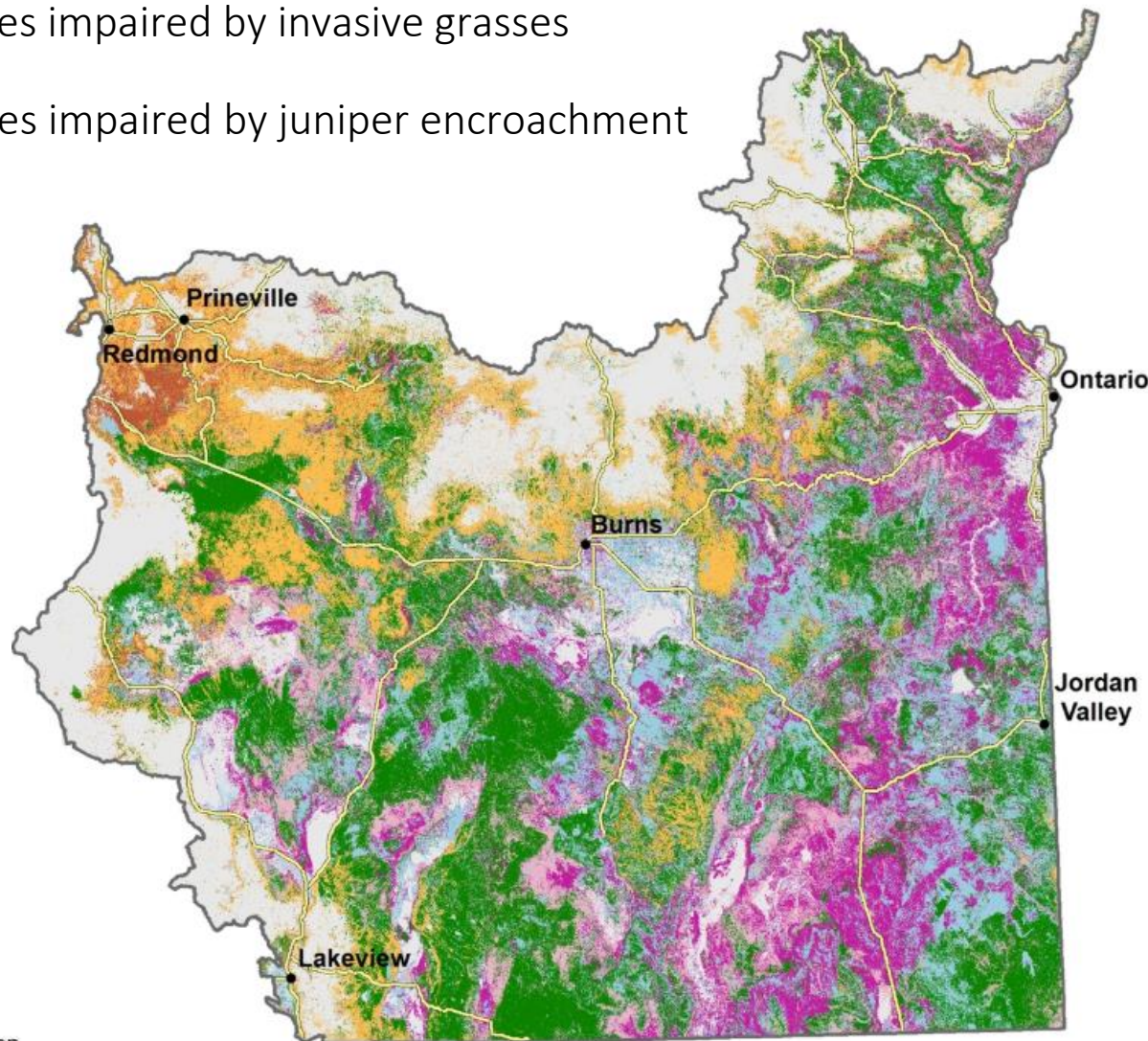
*Habitat condition summary based on threat-based model “ecostates”*

*All sagebrush rangelands*



**Ecostate**

- A: Good Condition Sagebrush
- B: Good Condition Grassland
- C: Poor Condition Sagebrush
- D: Poor Condition Grassland
- C: Juniper Encroachment
- D: Juniper Encroachment with Poor Condition
- Non-Rangeland



More information about threat-based models: [SageSHARE.org](http://SageSHARE.org)

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**2.8 million** acres of “state A” functioning sagebrush habitat\*



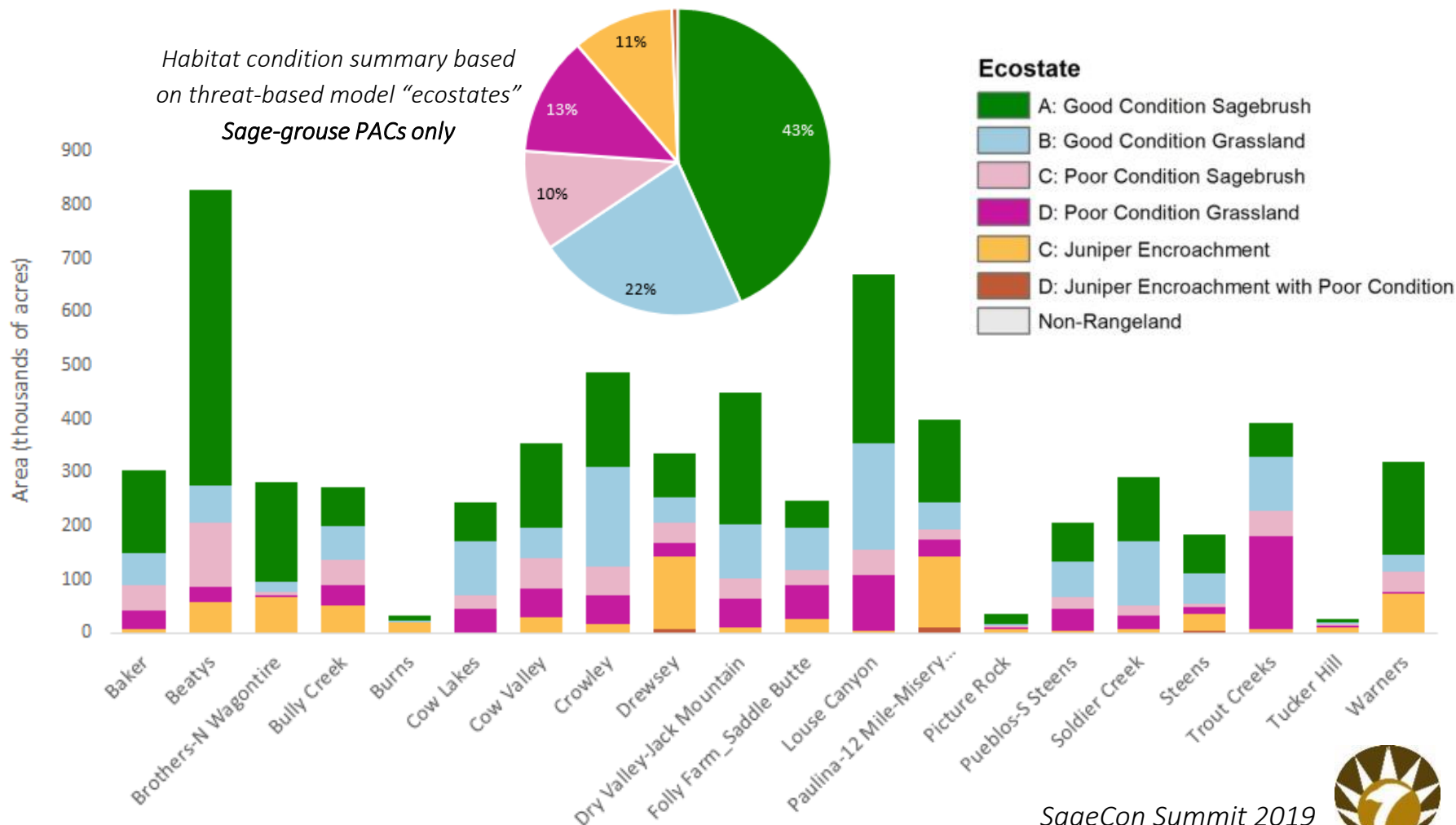
**1.5 million** acres impaired by invasive grasses\*



**700,000** acres impaired by juniper encroachment\*

\*in sage-grouse priority habitat (PACs)

*Habitat condition summary based on threat-based model “ecostates”  
Sage-grouse PACs only*



PAC: Sage-Grouse Priority Area for Conservation

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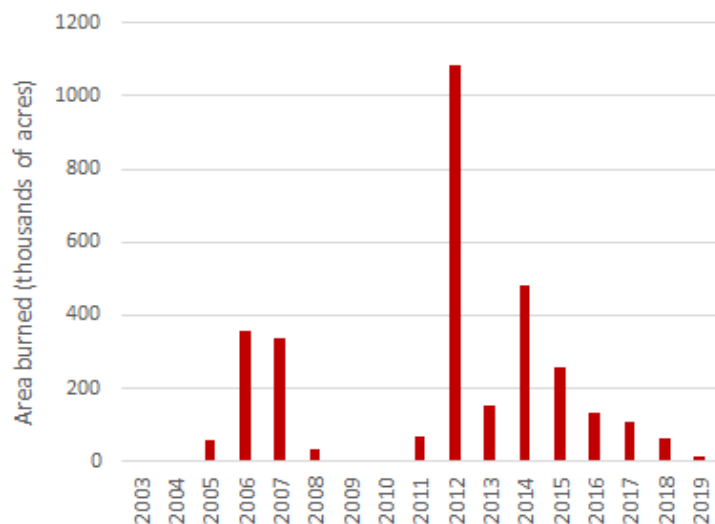




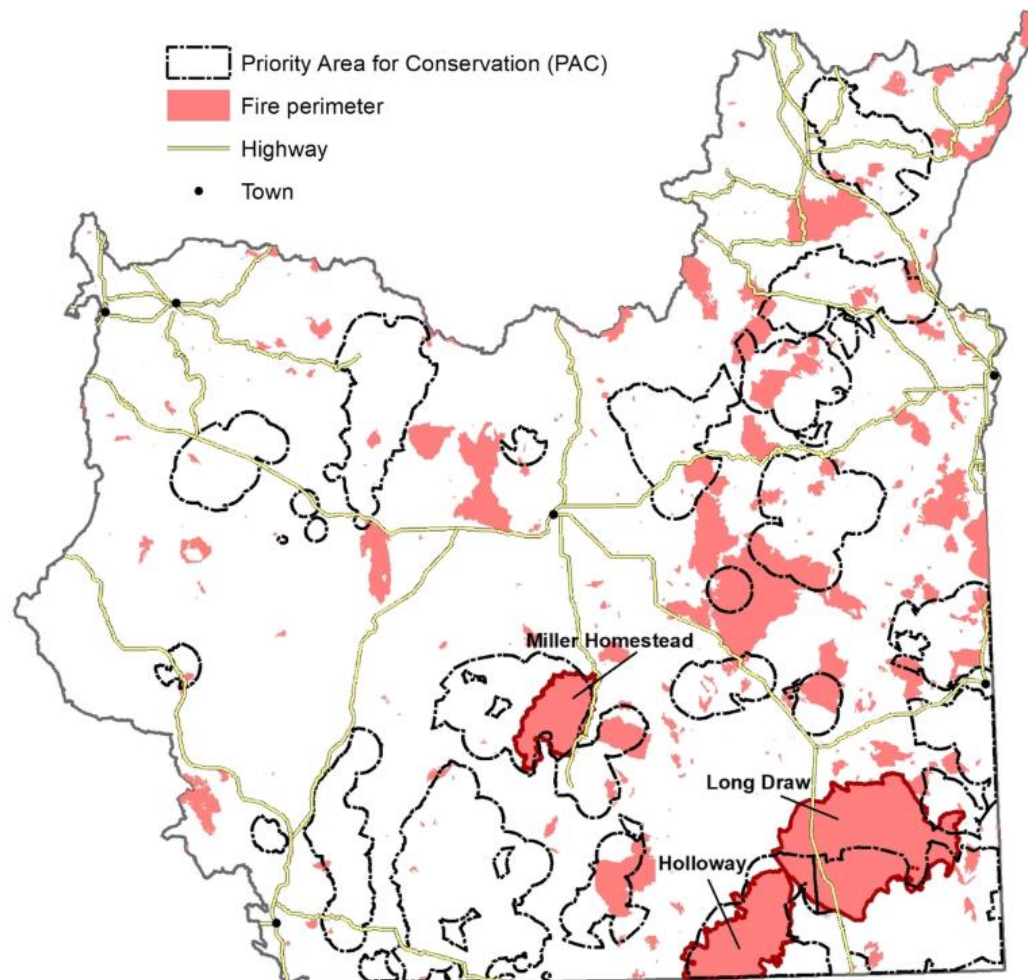
# 3.1 million acres of rangelands burned in Oregon (2003-2019\*)



\*2019 acres reported here are incomplete



- 1.3 million acres burned in PACs
- 277,000 acres have burned multiple times
- Largest fires occurred in 2012





## 2 PACs tripped BLM adaptive management triggers due to sagebrush habitat loss

2018 adaptive management triggers (2019 data available in early 2020)



### BLM soft habitat triggers

- Sagebrush habitat (>5% sagebrush, <5% trees) drops below 65% of sagebrush capable area in a PAC

### BLM hard habitat triggers

- Sagebrush habitat drops below 30% of sagebrush capable area in a PAC
- >5% decline in sagebrush habitat in one year in a PAC

\* Cow Lakes PAC has tripped both habitat and population triggers







**13,800** estimated sage-grouse population in Oregon

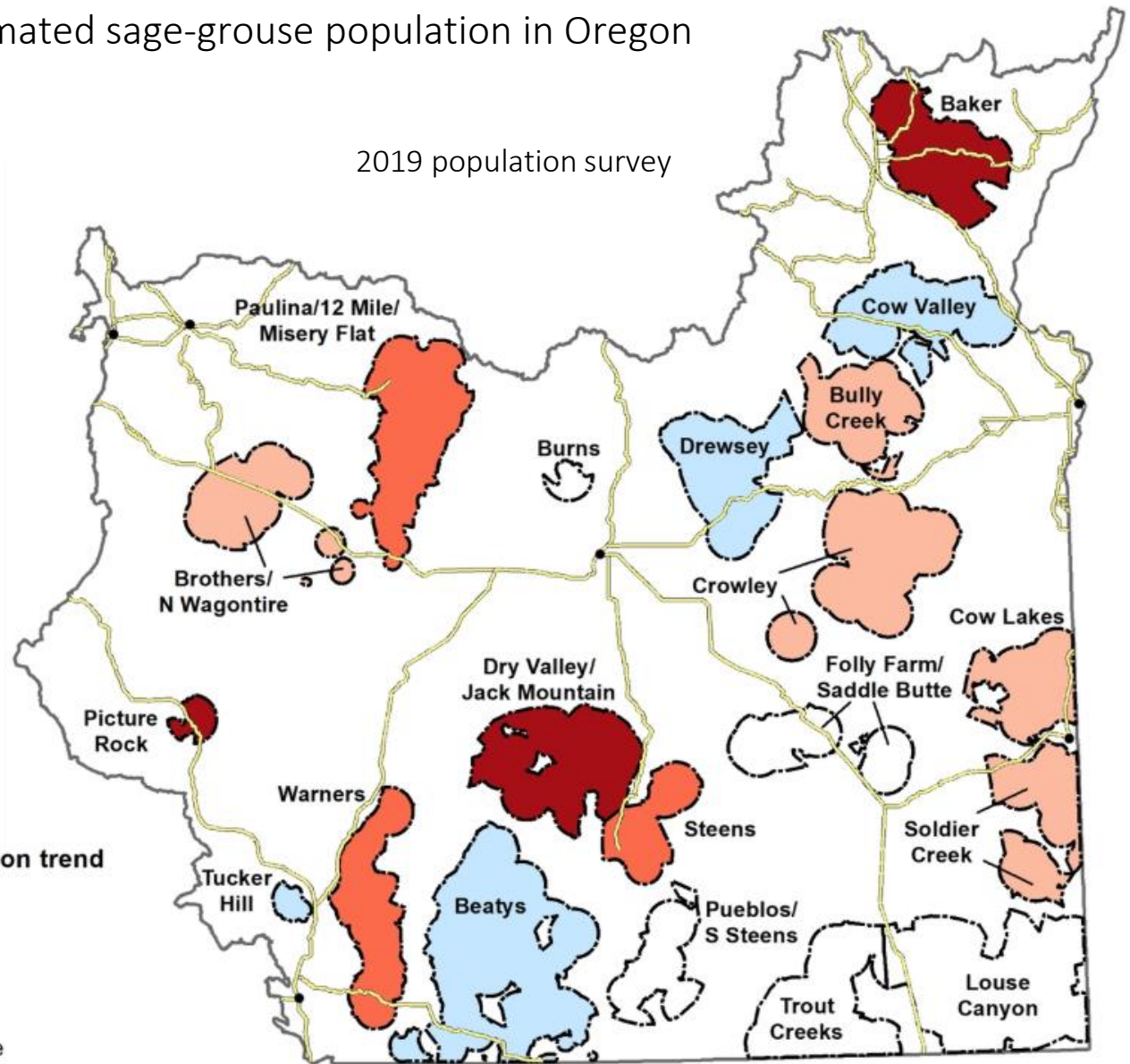
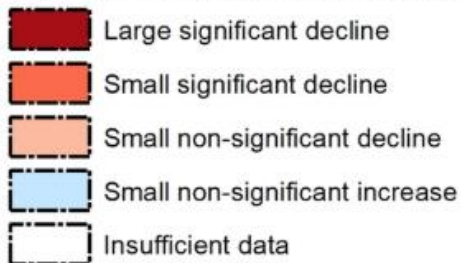
Baseline target:  
30,000 birds (2003)

2019 population survey



— Highway  
• Town

**Sage-grouse long-term population trend**





**25%** sage-grouse population decline from 2018-2019

Weather conditions may have depressed lek attendance rates in 2019

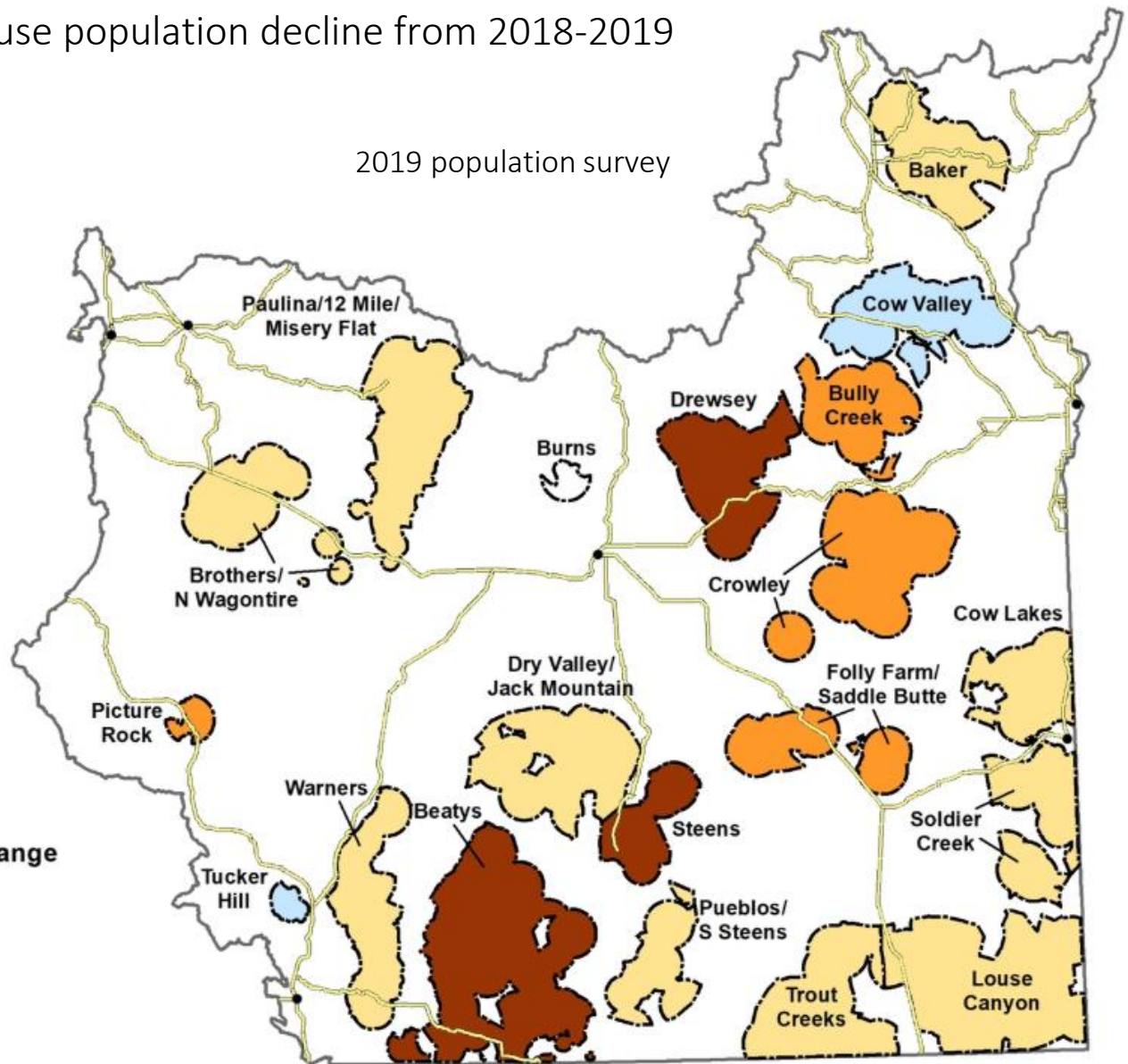
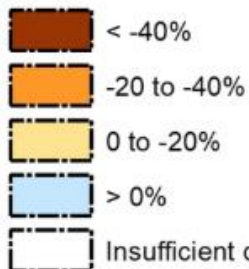
2019 population survey



— Highway

• Town

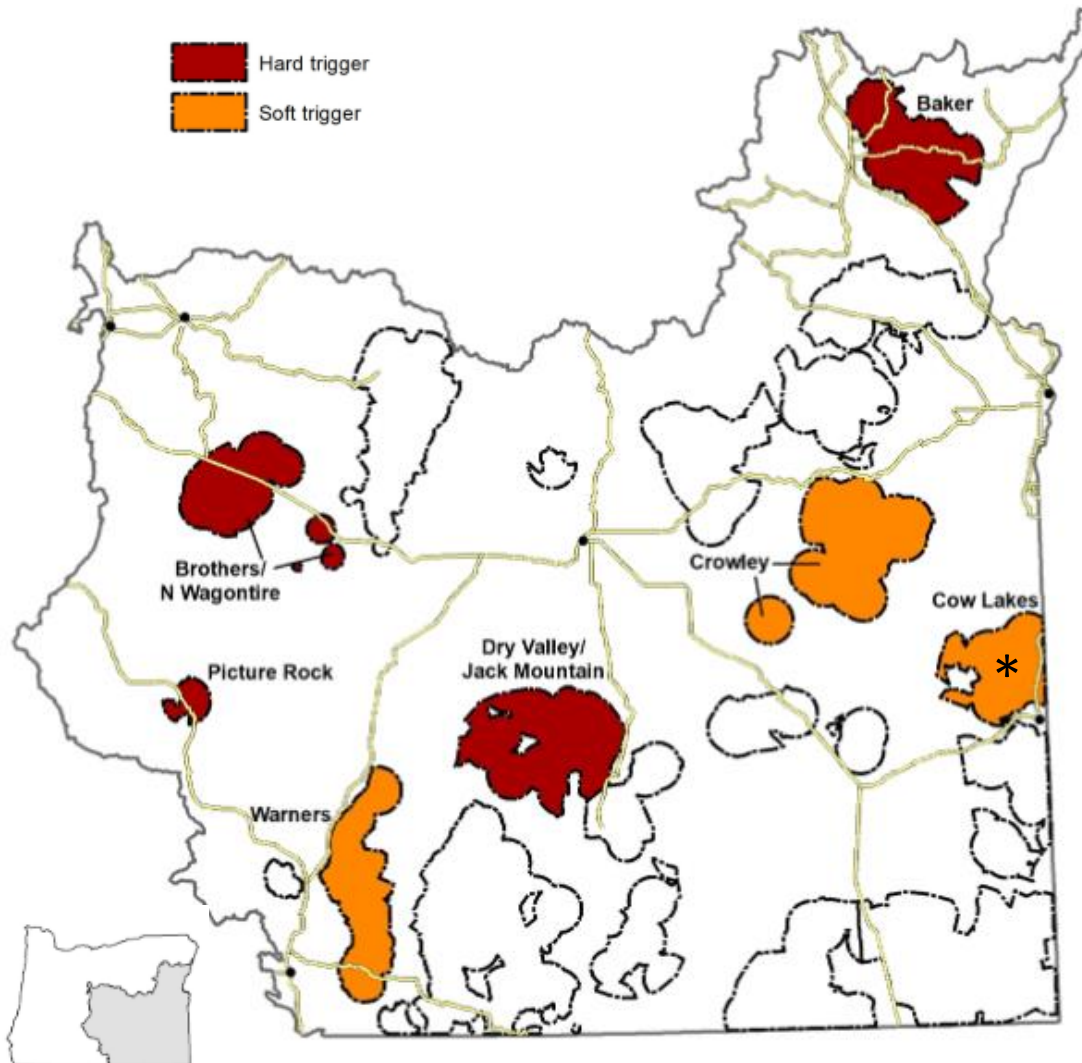
**2018-2019 male attendance change**





## 7 PACs tripped BLM adaptive management triggers due to population decline

2018 adaptive management triggers (2019 data available in early 2020)



### BLM soft population triggers

- Annual population drops by  $\geq 40\%$  in a single year
- Annual population drops by  $\geq 10\%$  for 3 consecutive years
- 5-yr running mean population drops below the lower 95% C.I.

### BLM hard population triggers

- 5-yr running mean population drops below lower standard deviation (for PACs with adequate data)
- Annual population declines by a total of 60% or more over 2 consecutive years (for PACs with inadequate data)
- Soft trigger for habitat and population within the same PAC

\* Cow Lakes PAC has tripped both habitat and population triggers

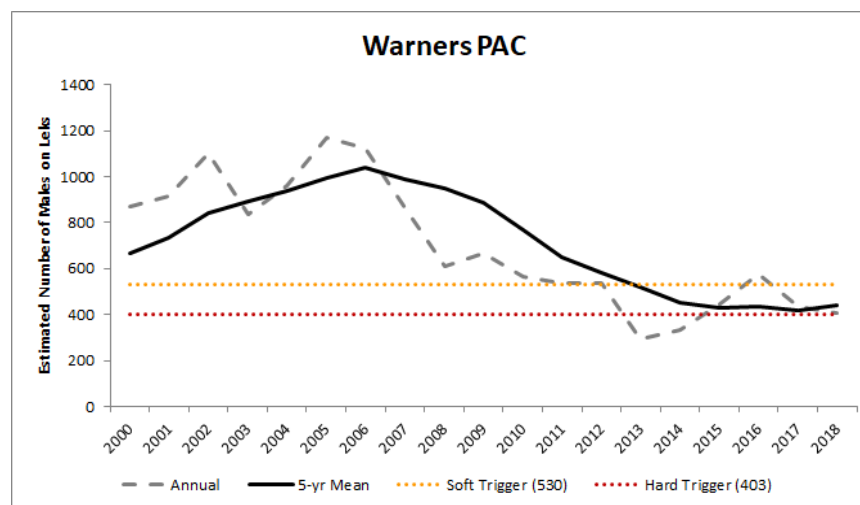
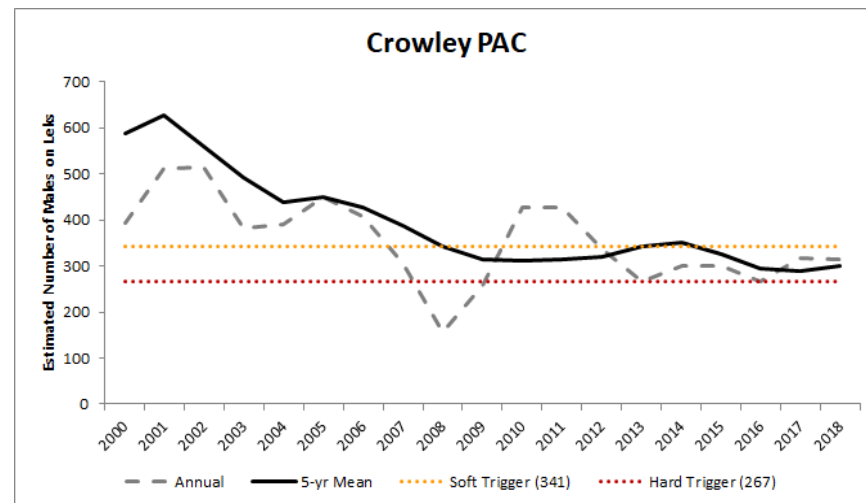
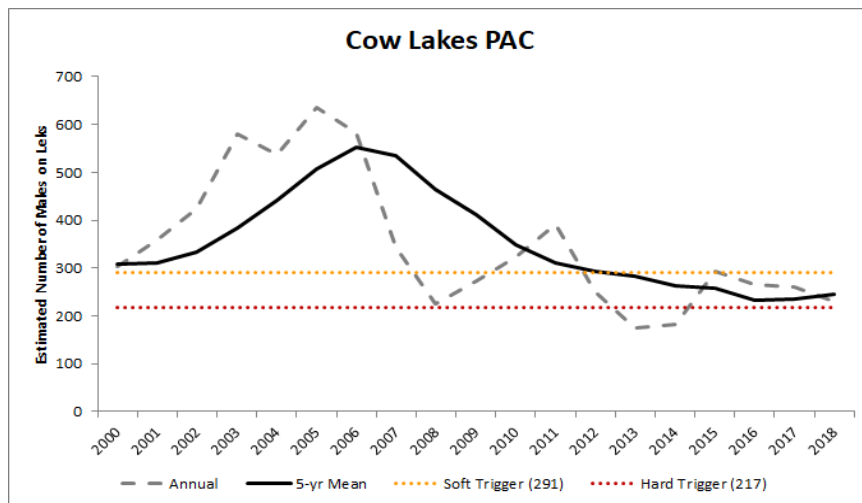






### 3 PACs tripped BLM adaptive management population soft triggers

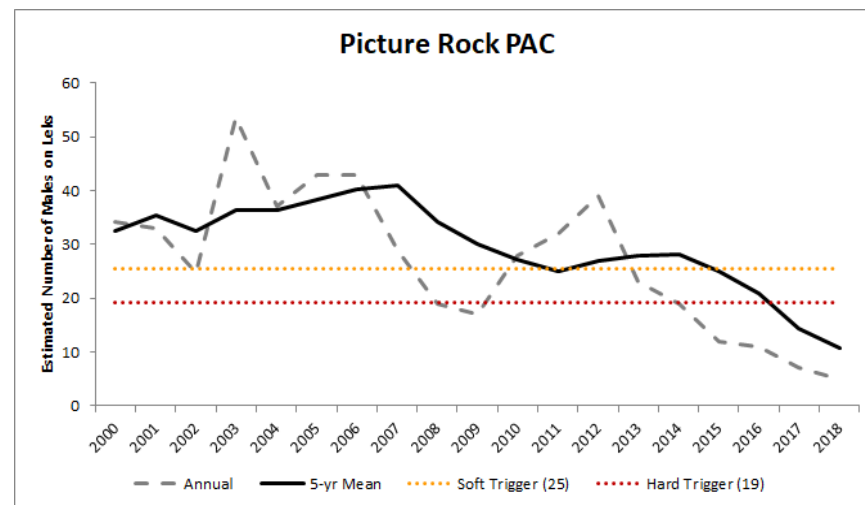
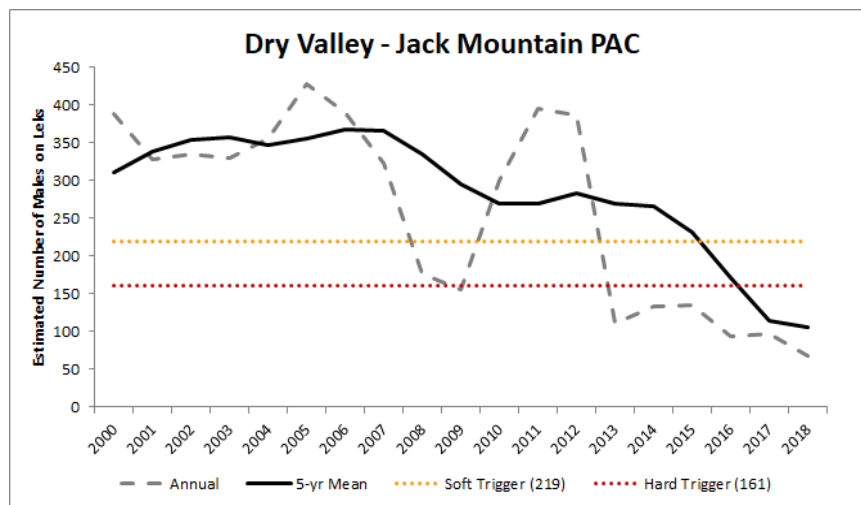
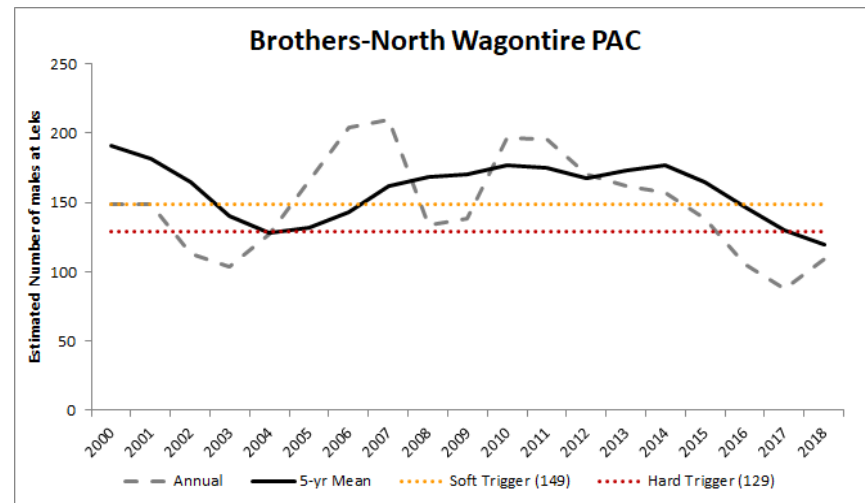
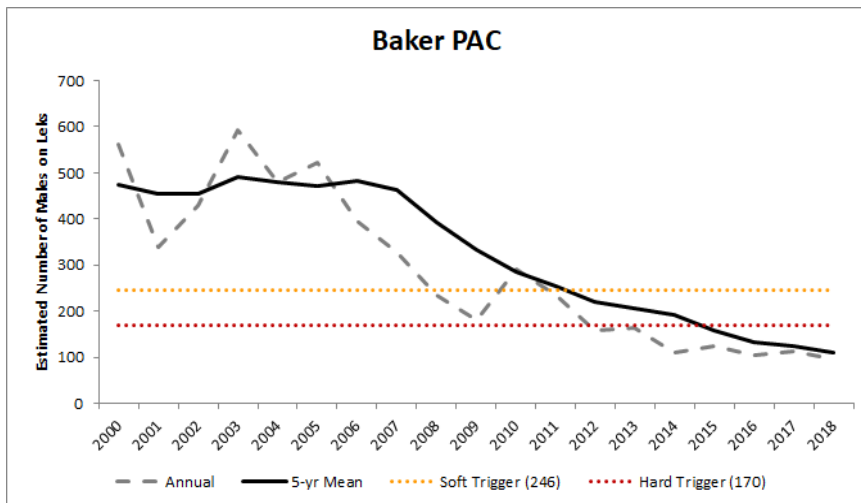
2018 adaptive management triggers (2019 data available in early 2020)





## 4 PACs tripped BLM adaptive management population hard triggers

2018 adaptive management triggers (2019 data available in early 2020)





## 9 BLM adaptive management hard trigger responses

### What happens when a hard adaptive management trigger is tripped?

Required responses take effect on BLM-administered lands within affected PAC and remain in effect until the habitat or population levels rise above the trigger threshold.

| Minimize sagebrush loss   | Limit new ROW disturbance   | Reduce impacts of recreation   | Emphasize use of natives   |
|---|---|--|--|
| <ul style="list-style-type: none"><li>• Limit prescribed fire to treat sagebrush in areas &lt;12 inch precipitation</li><li>• No mechanical sagebrush treatments in winter habitat</li><li>• Limit broadcast burning of juniper</li></ul> | <ul style="list-style-type: none"><li>• No new geophysical exploration permits</li><li>• Exclusion of new ROW authorizations</li><li>• Prohibit road construction within 4 miles of active leks</li></ul> | <ul style="list-style-type: none"><li>• Restrict OHV use to areas &gt;2 miles from leks during breeding season</li><li>• Prohibit construction of recreational facilities within 2 miles of leks</li></ul> | <ul style="list-style-type: none"><li>• When reseeding closed roads, primitive roads, and trails, use appropriate native seed and transplanted sagebrush</li></ul> |

In 2018, there were no existing projects or pending authorizations where mandatory hard trigger responses were necessary.

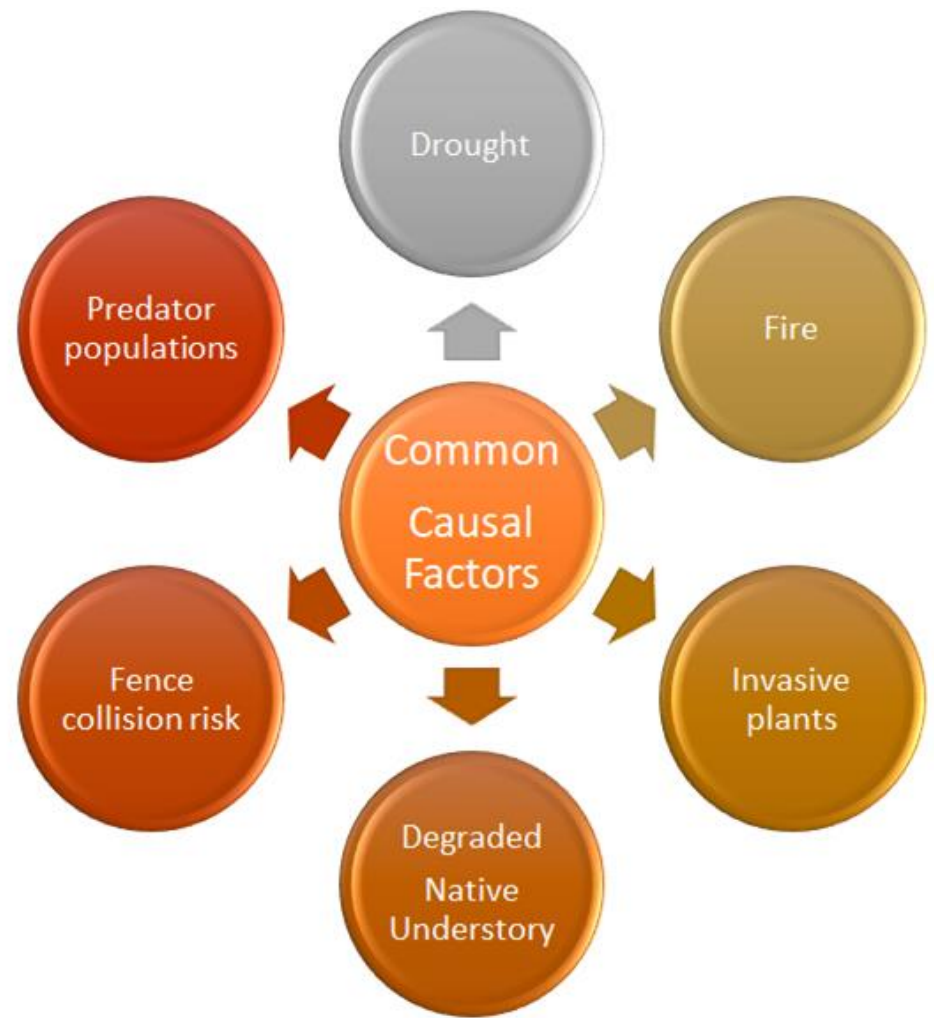






## 8 BLM adaptive management trigger causal factor analyses conducted

- ✓ Baker
- ✓ Brothers - North Wagontire
- ✓ Crowley
- ✓ Cow Lakes
- ✓ Dry Valley / Jack Mountain (draft)
- ✓ Picture Rock
- ✓ Trout Creeks
- ✓ Warners





0 development projects approved since 2015 requiring mitigation



Development thresholds: Development is limited to 3% of the area in each PAC, up to a 1% increase per decade



Mitigation hierarchy

1. Avoidance
2. Minimization
3. Compensatory mitigation

### Proposed development projects by County\*:

- Baker – Pleasant Valley ODOT quarry, Boardman to Hemingway transmission line
- Malheur – Calico gold mine, Eco-Site/T-Mobile communication tower
- Harney – Natures Advocate Road Expansion
- Lake – Hunter Communications fiber optic line
- Deschutes – Spencer Wells quarry, Millican Valley solar, Fox Butte Road solar

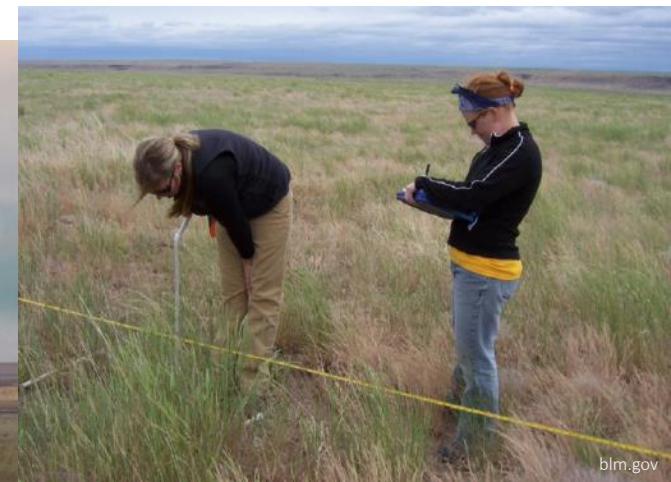
\* list current as of September 2019. May be subject to change.







# The Efforts and Opportunities



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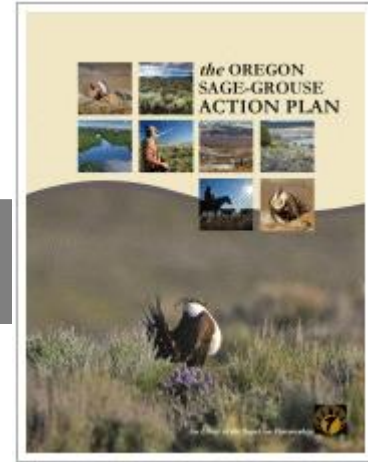






**30** organizations in Oregon involved in the SageCon Partnership

SageCon provides a forum for coordination across stakeholders in Oregon interested in sagebrush, sage-grouse and rural communities in sagebrush country.



## The Efforts and Opportunities

- ❖ Local capacity building
- ❖ Monitoring and research
- ❖ Conservation actions
  - Fire protection
  - Voluntary conservation agreements
  - Restoration treatments across the state
- ❖ Rolling up and interpreting monitoring information: Dry Valley and Drewsey
- ❖ Technical resources





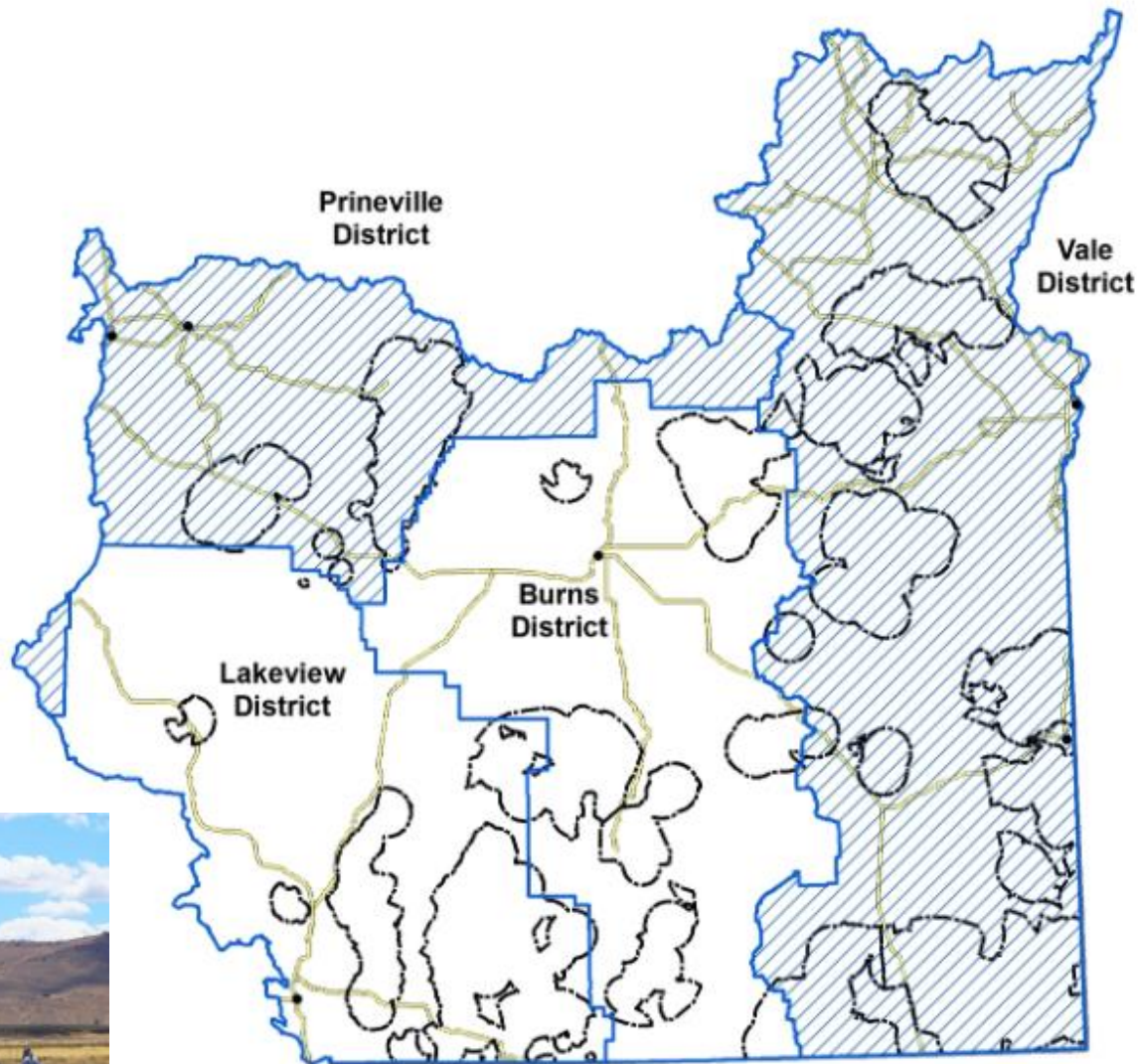
### 3 Local Implementation Team (LITs) coordination capacity



2 LIT coordinator positions

- Vale & Prineville
- Baker

- Local Implementation Team capacity
- Priority Area for Conservation (PAC)
- Highway
- Town



blm.gov







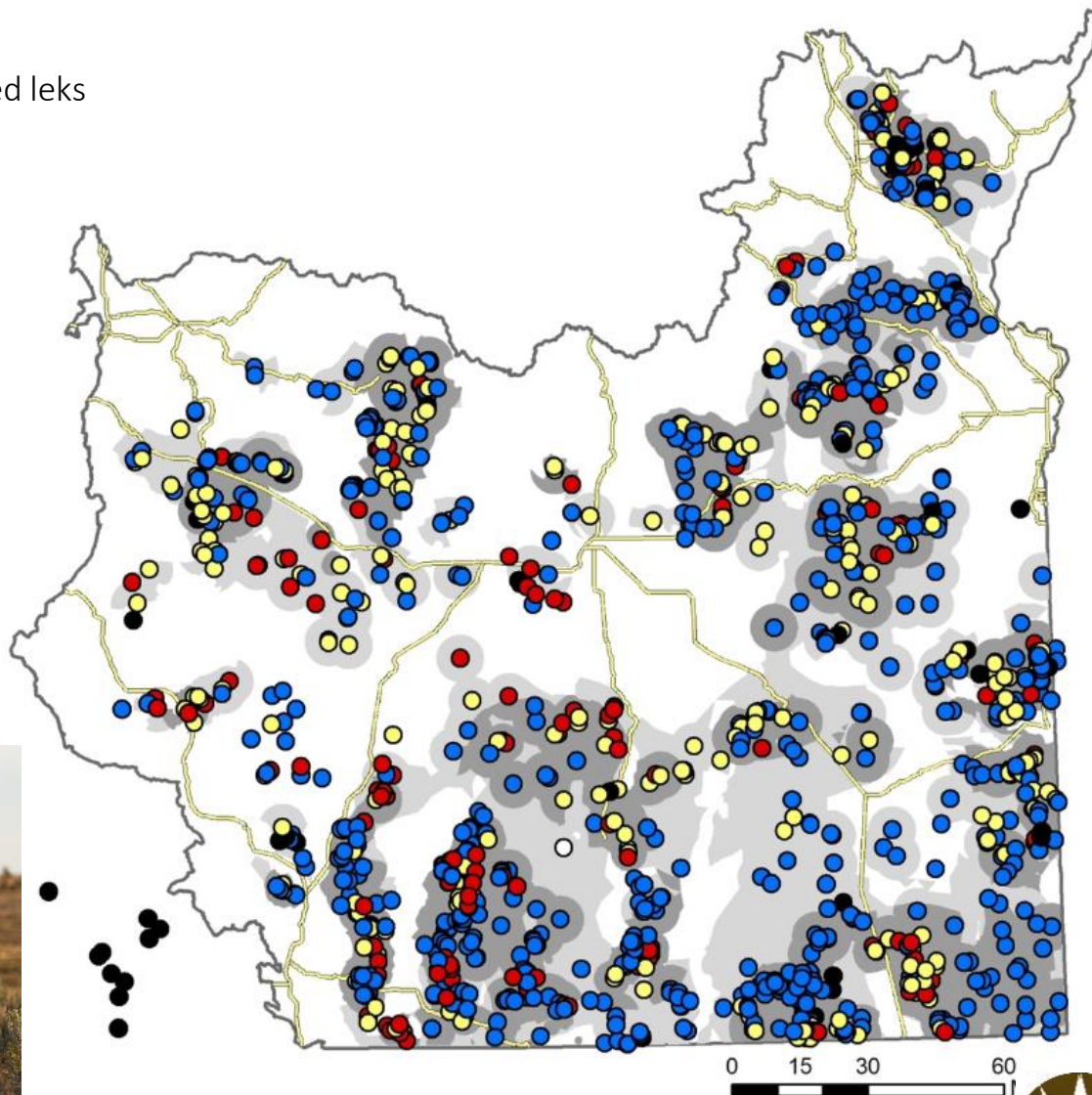
**489** lek complexes monitored in 2018 (~50% active)



**Lek conservation status** 1186 mapped leks

|                                       |            |     |
|---------------------------------------|------------|-----|
| <span style="color: yellow;">●</span> | Occupied   | 349 |
| <span style="color: blue;">●</span>   | Pending    | 630 |
| <span style="color: black;">●</span>  | Historic   | 49  |
| <span style="color: red;">●</span>    | Unoccupied | 157 |
| <span style="color: white;">○</span>  | No Data    | 1   |

- Core habitat
- Low density habitat
- Highway





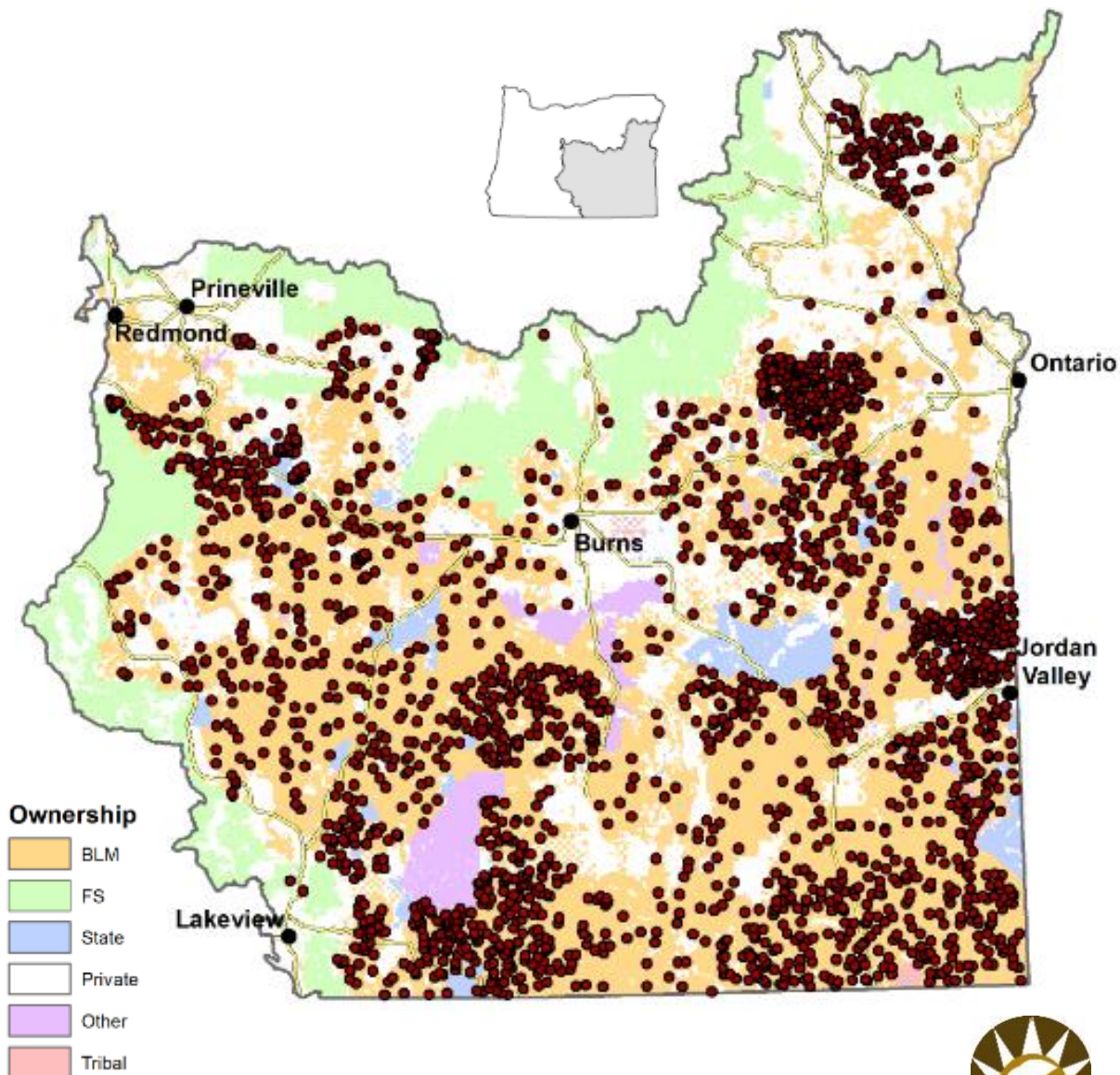
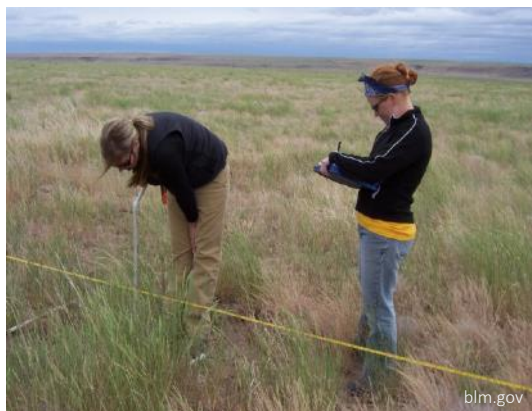


2290 inventory plots established on BLM rangelands

AIM plots (2016-2019)

### Assessment Inventory and Monitoring (AIM) data

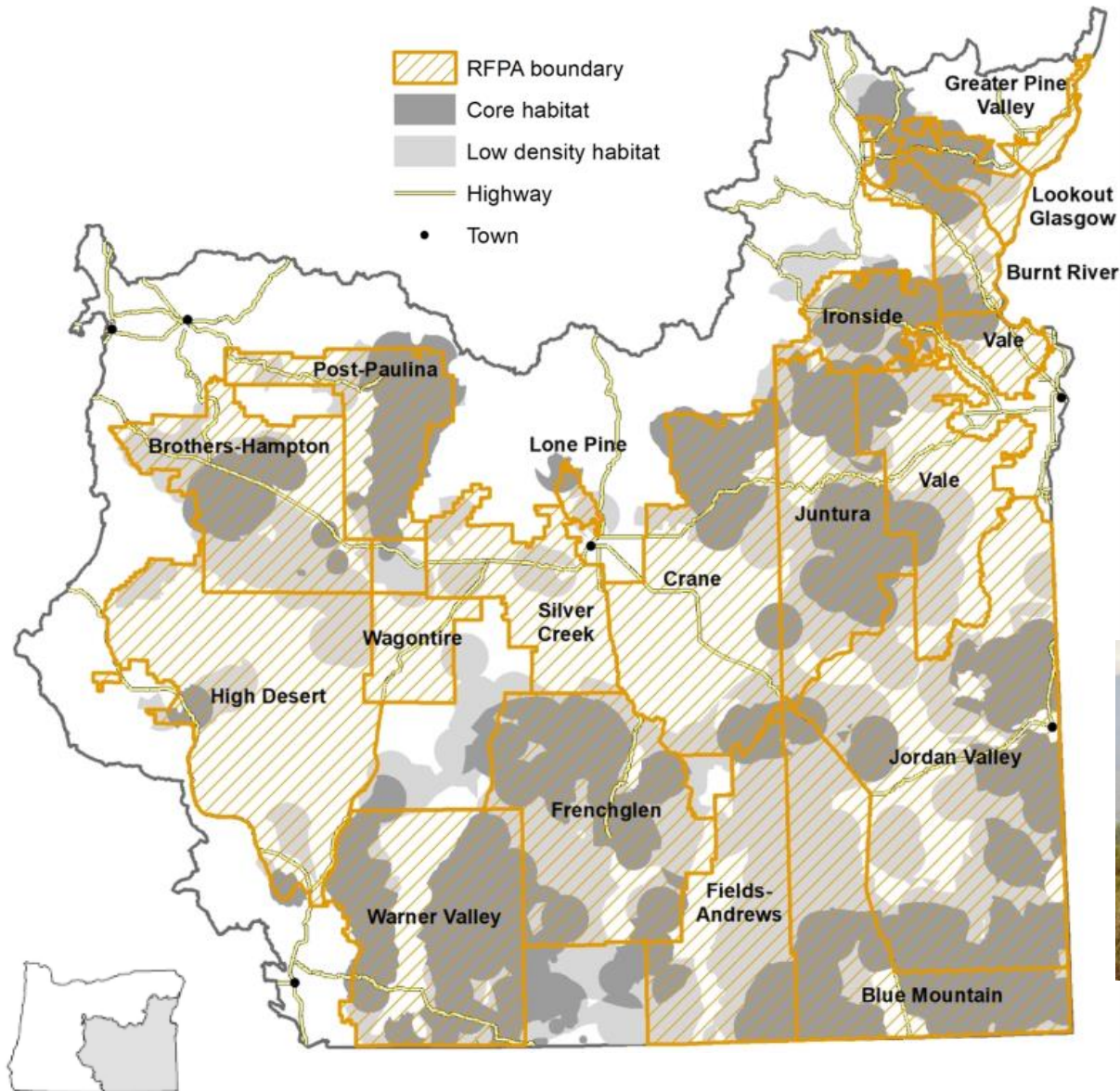
- Public data on status and trends
- Inform assessments
- Used to build remotely sensed maps
- Evaluate treatments





91% of sage-grouse core habitat protected by RFPAs

RFPAs: Rural Fire Protection Associations



24 total RFPAs

- Training
- Prevention
- Prescribed fire
- Rural fire readiness



Getty Images







**529,000** acres of private lands enrolled in CCAAs

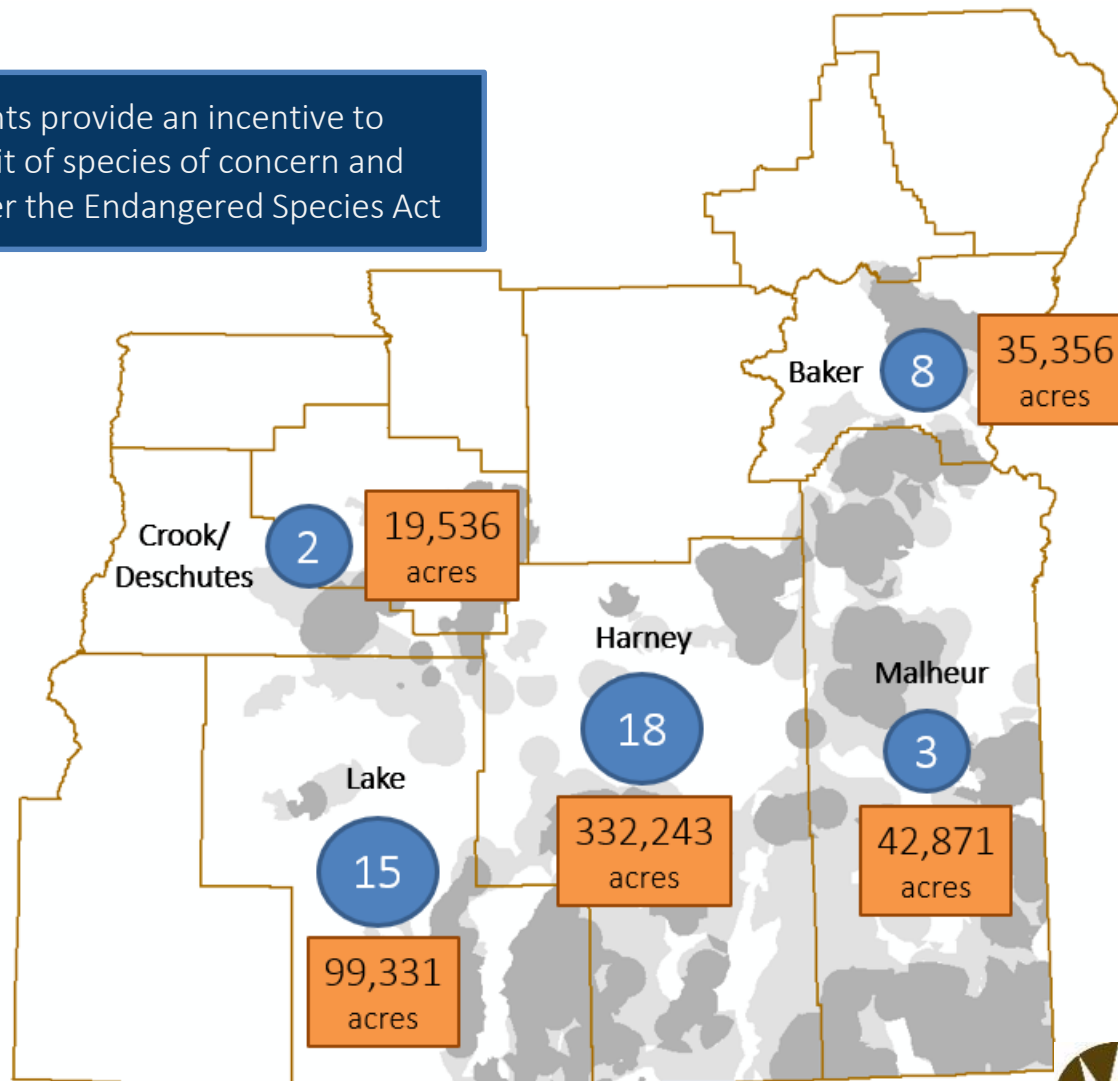
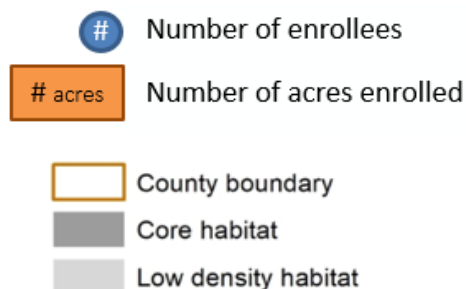


**46** private land enrollees

Voluntary conservation agreements provide an incentive to proactively manage for the benefit of species of concern and preclude the need for listing under the Endangered Species Act

Letters of intent to enroll private lands in CCAA

- 120 letters of intent
- >865,000 additional acres potentially enrolled



CCA: Candidate Conservation Agreement  
CCAA: Candidate Conservation Agreement with Assurances

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**713,000** acres of state lands enrolled in CCAAs



**589,000** acres of BLM lands enrolled in CCAs (97,000 in progress)

CCA: Candidate Conservation Agreement

CCAA: Candidate Conservation Agreement with Assurances





??????

acres treated to address invasive species\*



??????

acres treated to address juniper\*



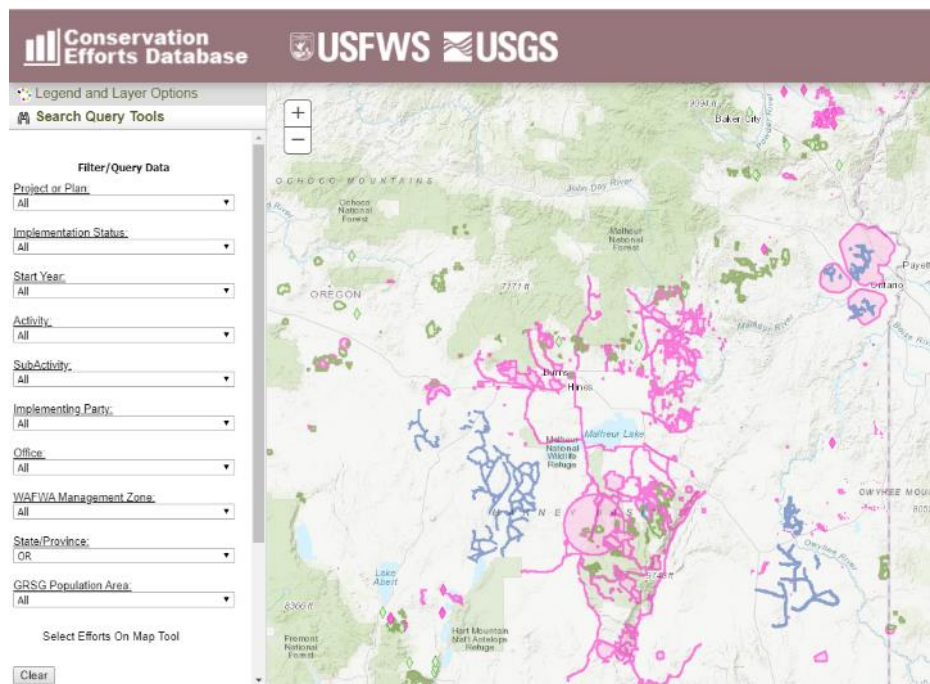
??????

acres treated to address other threats\*

\*Actual numbers available in early 2020!

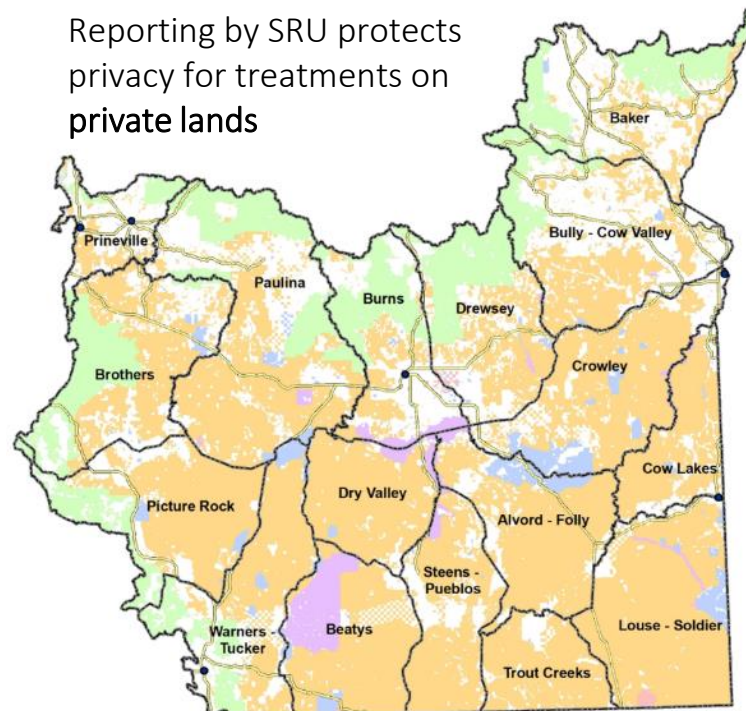


Conservation actions on **public lands** will be accessible through the SageCon Landscape Planning Tool

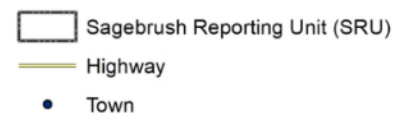
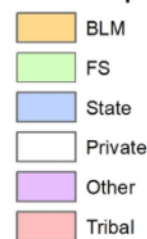


<https://conservationefforts.org/>

Reporting by SRU protects privacy for treatments on **private lands**



## Ownership



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 ?????? acres treated to address invasive species\*

 ?????? acres treated to address juniper\*

 ?????? acres treated to address other threats\*

\*All numbers on this slide are preliminary



BLM (2015- spring 2019) Bureau of Land Management

- **1.1 million** acres inventoried or treated for invasive grasses and noxious weeds
- **128,000** acres seeded
- **185,000** acres of juniper removal
- **1,500** acres of riparian restoration
- **36,000** acres of fuel breaks

OWEB (2014-2018) Oregon Watershed Enhancement Board

- **75,000** acres treated for invasive grasses and noxious weeds
- **6,700** acres seeded
- **40,000** acres of juniper removal
- **2,400** acres of riparian restoration

(Private lands only, excludes portions funded by NRCS)

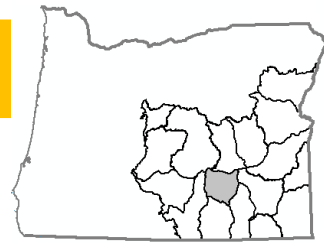




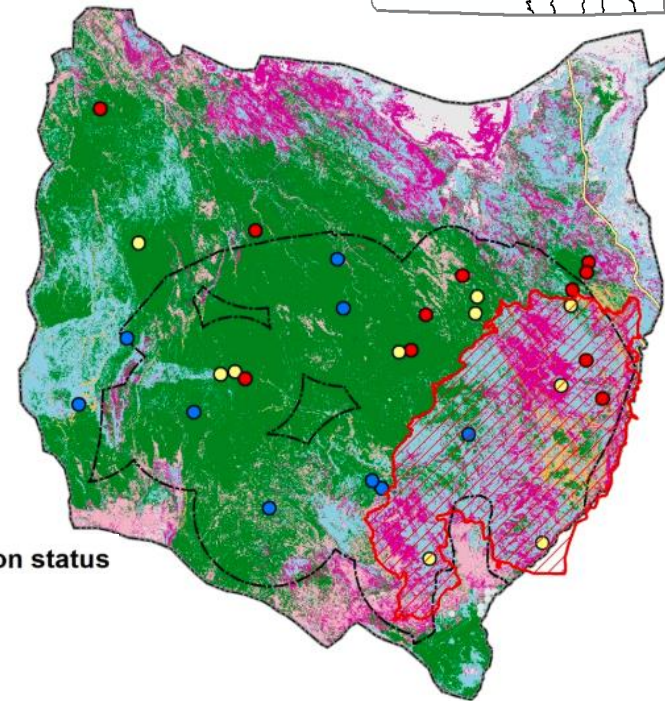
# DRY VALLEY SAGEBRUSH REPORTING UNIT

Dry Valley SRU: 970,000 acres

Dry Valley-Jack Mountain PAC: 449,410 acres



- ✿ 449,000 acres “state A” habitat
- 🌱 224,000 acres of invasive annual grass
- 🔥 168,000 acres burned (87% in 2012)
- 🦉 large long-term population decline (-12% in 2019)
- 🚶 30 leks (4 confirmed active in PAC)
- ⚠️ BLM adaptive management trigger (population)
- 🐔 low chick production (<1.5 chicks per hen)
- 🌿 post-fire rehabilitation and fuel breaks
- 📊 157 vegetation monitoring plots



## Lek conservation status

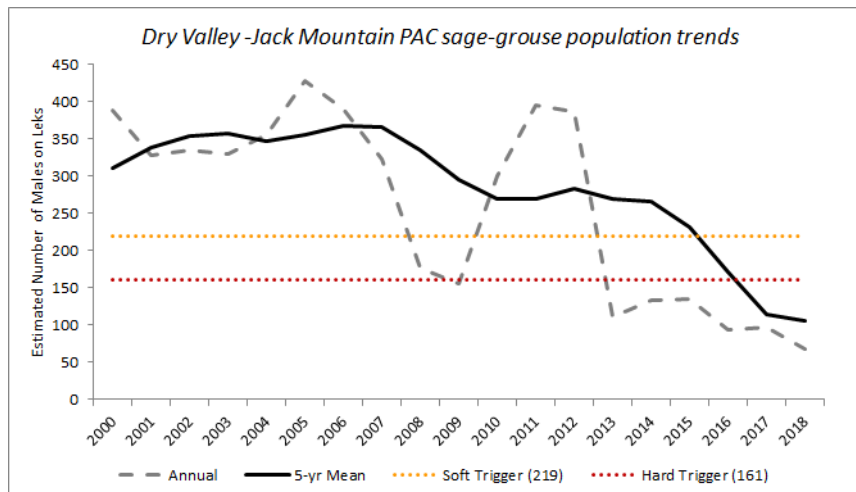
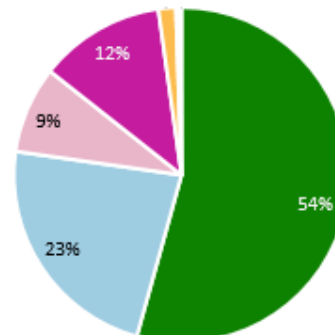
- Occupied
- Pending
- Historic
- Unoccupied

Miller Homestead fire (2012)

## Ecostate

- A: Good Condition Sagebrush
- B: Good Condition Grassland
- C: Poor Condition Sagebrush
- C: Juniper Encroachment
- D: Poor Condition Grassland
- D: Juniper Encroachment with Poor Condition
- Non-Rangeland

## Habitat condition in PAC

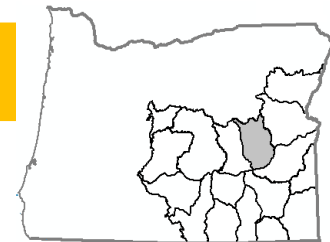


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# DREWSEY SAGEBRUSH REPORTING UNIT

Drewsey SRU: 1.4 million acres    Drewsey PAC: 368,549 acres



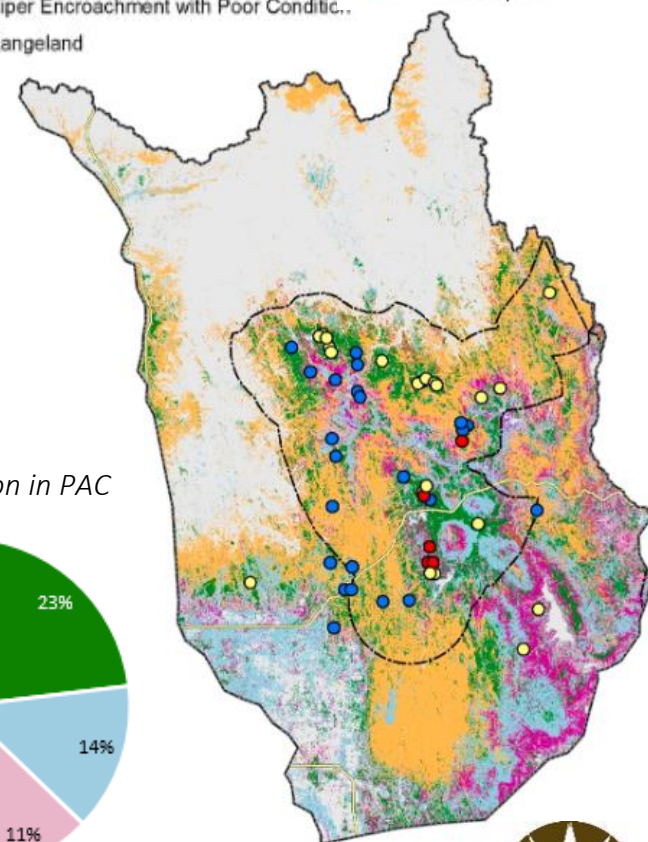
- 🌸 151,000 acres “state A” habitat
- 🌱 175,000 acres of invasive annual grass
- 🌲 329,000 acres of juniper encroachment
- 🔥 139,000 acres burned (2003-2018)
- 🦉 small long-term population increase (-48% in 2019)
- 🚶 50 leks (19 confirmed active in PAC)
- 🪚 Conifer removal on public and private lands
- 🗄️ 71 vegetation monitoring plots

## Ecostate

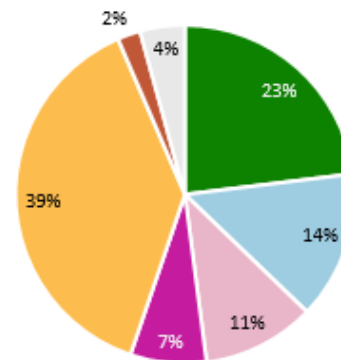
- 🟢 A: Good Condition Sagebrush
- 🟡 B: Good Condition Grassland
- 🟠 C: Poor Condition Sagebrush
- 🟠 C: Juniper Encroachment
- 🟡 D: Poor Condition Grassland
- 🟠 D: Juniper Encroachment with Poor Conditi...
- ⚪ Non-Rangeland

## Lek conservation status

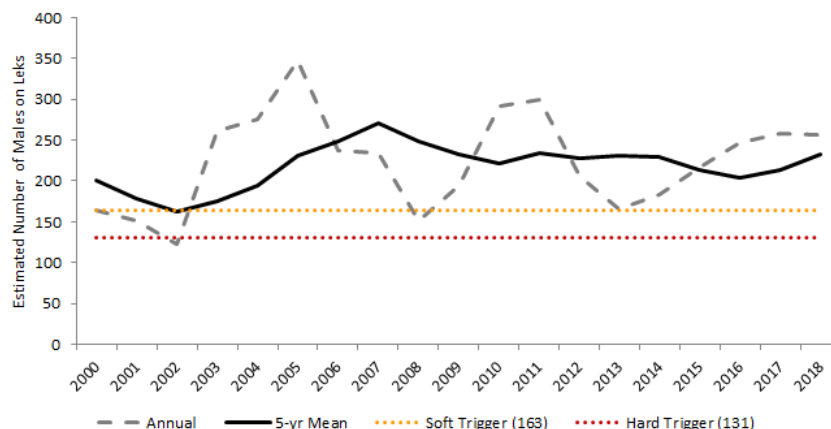
- 🟡 Occupied
- 🟢 Pending
- ⬤ Historic
- 🔴 Unoccupied



Habitat condition in PAC



Drewsey PAC sage-grouse population trends



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SageCon website with information, technical resources, and more!

Sage-Grouse


[INTRO](#)
[ARTICLES & STORIES](#)
[MAPS & TOOLS](#)
[REPORTS & PUBS](#)
[DATA](#)
[PHOTOS & VIDEOS](#)
[MORE](#)



*Eastern Oregon is home to over 15 million acres of sage-grouse habitat. The SageCon Partnership advances policies and actions that reduce threats to sage-grouse, sagebrush ecosystems and Oregon's rural communities.*

Source: Collage from the Oregon Sage-Grouse Action Plan

## 1.



**SageCon Dashboard**


Preliminary information on status, trends, and efforts to address threats to the sagebrush ecosystem and sage-grouse populations in Oregon.

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**EXPLORE RELATED:**

- SageCon news and updates
- 2016-2018 State Action Report
- Sage-Grouse FAQs and Resources

## 2.



**SageCon Tools Navigator**

Use the SageCon Tools Navigator to find SageCon web tools and technical resources for planning in Oregon's sagebrush country.

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**EXPLORE RELATED:**

- SageCon Landscape Planning Tool
- Sage-Grouse Development Siting Tool
- Rangeland Vegetation Maps

## 3.



**The Oregon SageCon Partnership**

The SageCon Partnership provides coordination across a broad-base of stakeholders in Oregon with an interest in sagebrush conservation.

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**EXPLORE RELATED:**

- Oregon Sage-Grouse Action Plan
- Plans, Policies and Programs
- BLM Sage-Grouse Planning

← Browse content



## Featured Content

### 1. SageCon Dashboard

(These slides are linked from here until full dashboard is ready)

### 2. SageCon Tools Navigator

Tools and Technical Resources

### 3. Other SageCon information

<https://oregonexplorer.info/topics/sage-grouse>

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# SageCon Tools Navigator

## SageCon Tools Navigator

### SageCon Web Tools



View, download, and query data related to sagebrush in Oregon using a web-based interactive map



Get information about siting development in southeastern Oregon and mitigation for sage-grouse

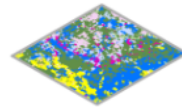


Track current levels of human development in mapped sage-grouse habitat in Oregon

### More Tools and Resources



Status, trends and ongoing work under the Oregon Sage-Grouse Action Plan



Resources for finding and using remotely sensed rangeland maps

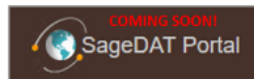


Access Oregon wildlife data through the ODFW Compass web tool



Find out more information about the SageCon Partnership

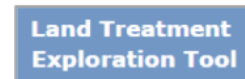
### Regional Tools and Resources



A collaborative platform to promote sharing of data and tools



Captures conservation actions to address threats to the sagebrush ecosystem



Tool for planning restoration and rehabilitation actions on public lands



Access to BLM data, resources and web tools, including AIM monitoring data



Resources and tools for monitoring rangeland ecosystems across the West



An interactive map to explore regional vegetation and wildlife habitat maps

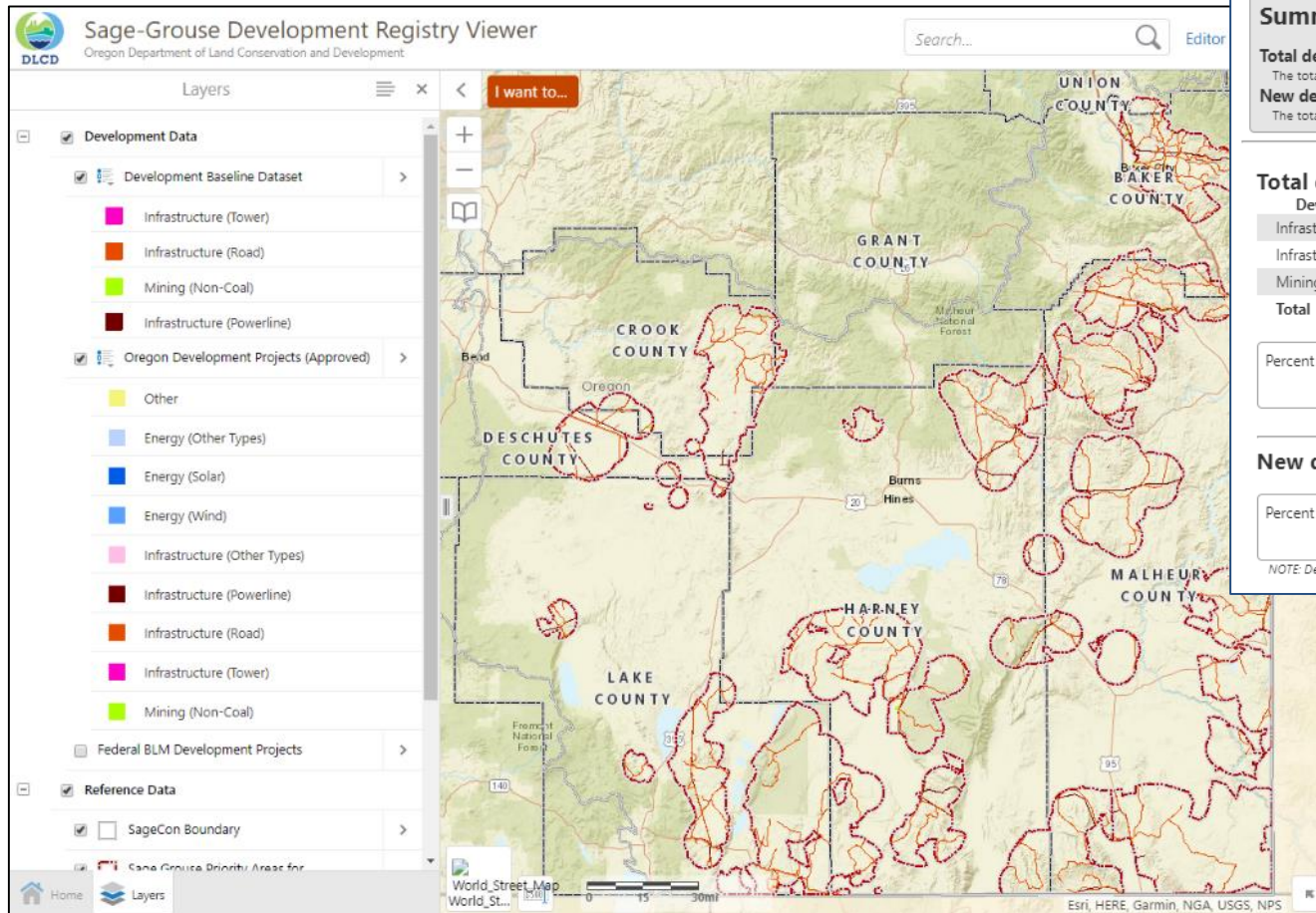
<https://oregonexplorer.info/content/sagecon-tools-navigator>

SageCon Summit 2019





# Sage-Grouse Development Registry



## PAC Development Impact Report

Data current as of 9/22/2019

### Beatys PAC

Total area of PAC: 841,398 acres

Baseline developed area: 1,262 acres, 0.15%

### Summary of PAC Development

**Total developed area: 1,262 acres 0.15%**

The total developed area is not allowed to exceed 3%.

**New developed area in decade: 0%**

The total developed area is not allowed to exceed 1% per decade.

### Total developed area

| Development Type       | Acres        | Percent      |
|------------------------|--------------|--------------|
| Infrastructure (Road)  | 1,225        | 0.15%        |
| Infrastructure (Tower) | 2            | 0.00%        |
| Mining (Non-Coal)      | 34           | 0.00%        |
| <b>Total</b>           | <b>1,262</b> | <b>0.15%</b> |

Percent of total developed area (limited to 3%)

**0.15%**

### New developed area in decade

Percent of new developed area in decade (limited to 1%)

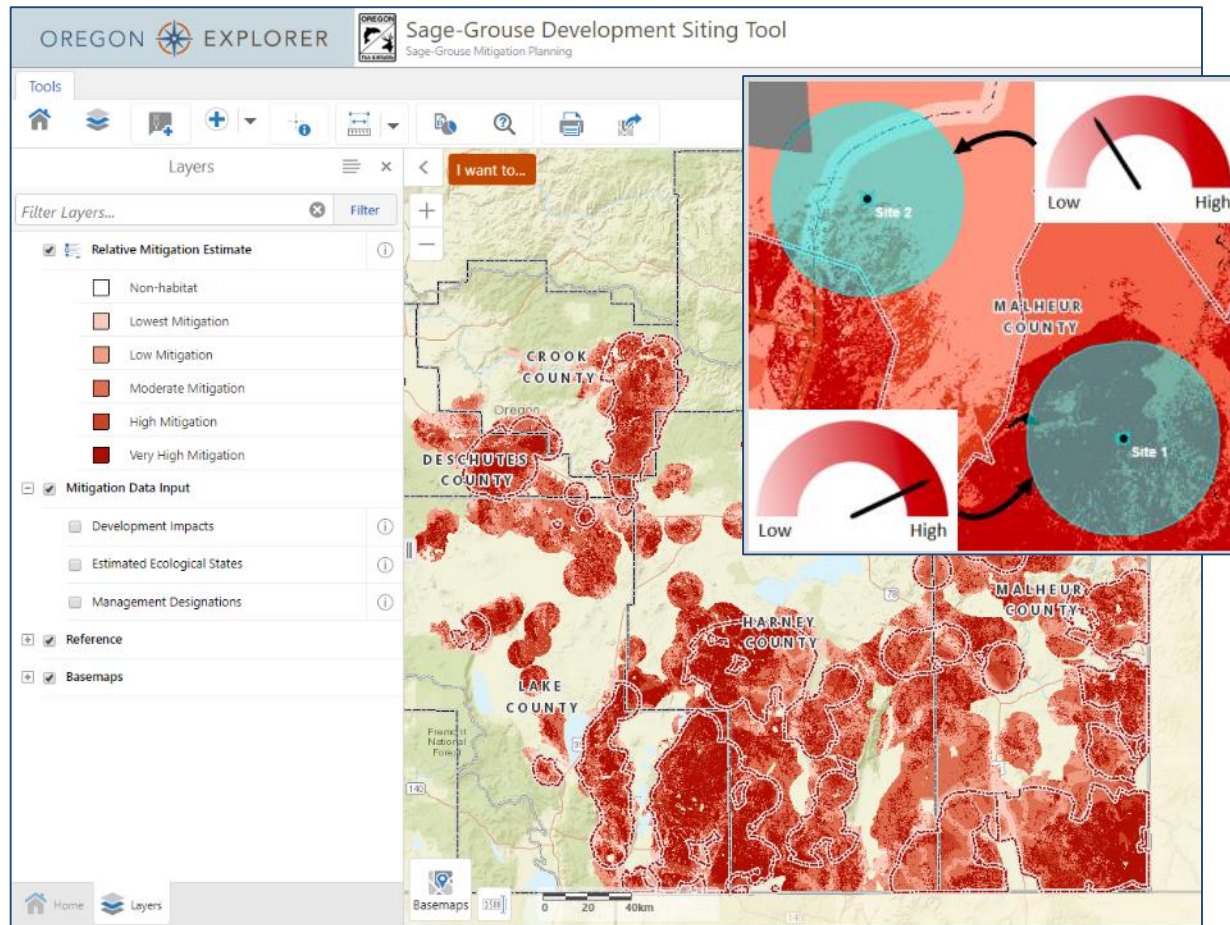
**0%**

NOTE: Decadal time period is August 13, 2015 through August 12, 2025





# Sage-Grouse Development Siting Tool



## Access information about the project area

### Project Area

#### Direct Footprint

Total Direct Footprint: 104 Acres  
Direct Footprint in Sage-Grouse Habitat: 104 Acres  
Direct Footprint in Close Proximity to a Lek: No

#### Indirect Impact Area

Total Indirect Impact Area: 22,749 Acres  
Indirect Impact in Sage-Grouse Habitat: 22,005 Acres  
Habitat Designation(s): Low density habitat

**Land Management/Ownership:** Private, Federal (BLM)

## Get your relative mitigation score

### Mitigation Hierarchy

**Avoidance:** Avoidance **may** apply in your identified area.

**Minimization:** See full report.

**Compensatory Mitigation:** 48 out of 100



## Find contact information

### Contact Information

County Planning Department  
Phone: 541-473-5185  
Address: 251 "B" St. West #12 Vale, OR 97918  
ODFW District:  
Phone: 541-889-6975  
Address: 3814 Clark Blvd. Ontario, OR 97914

## View report and download spatial data

[View Full Report](#)

[Shapefiles](#)

[KML/KMZ](#)







# SageCon Landscape Planning Tool



35 data layers

OREGON EXPLORER

SageCon Landscape Planning Tool  
Find and download data

Home

The SageCon Landscape Planning Tool allows users to view, download and query the most up-to-date geospatial data on sagebrush habitat in Oregon.

[Go To Layers >>](#)

[Download Data](#)

[Query Data](#)

[Help and tips for navigating the site.](#)

The Oregon SageCon Partnership has developed a suite of tools and resources for partners planning activities in sagebrush habitat in Oregon, accessible from the SageCon Tools Navigator.

This tool incorporates numerous data layers designed to offer guidance about sage-grouse habitat condition and threats within a landscape context. Data layers contain errors and vary in their accuracy and appropriate scales for use, and should not replace on-the-ground siting decisions. Data are provided as-is, and the entities in the SageCon Partnership are not liable for data errors or improper use of the data.

I want to...

Basemaps 0 10 20km

Layers

Filter Layers...

- ☒ Existing Condition
- ☒ Restoration Potential
- ☒ Wildfire
- ☒ Development Potential
- ☒ Management Boundaries
- ☒ Basemaps





# SageCon Landscape Planning Tool



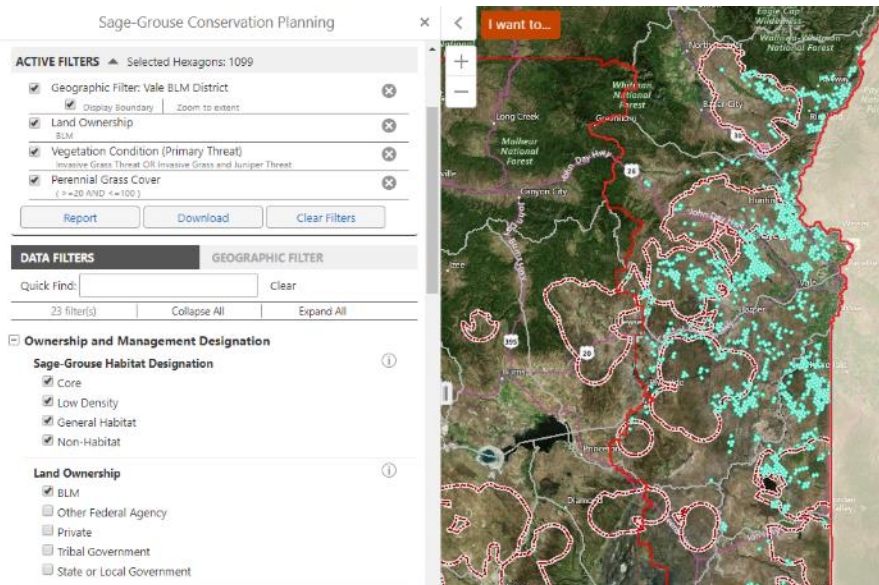
1.

Go To Layers ->

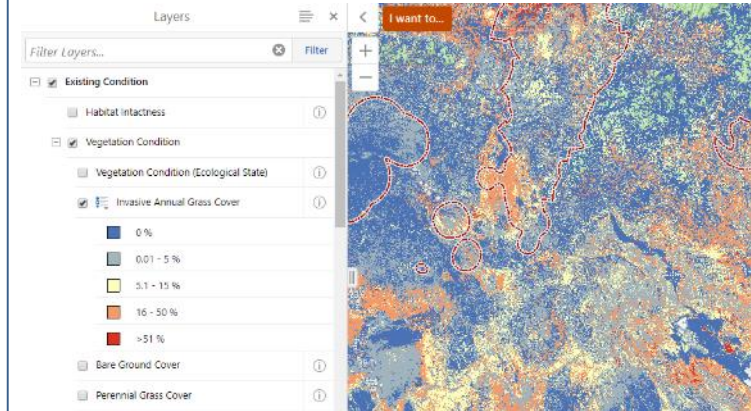
3.



Conduct a customized multi-criteria query



View data via interactive web map



2.



Download Data

Download data

- ☐ Energy Development Exclusion Zones
- ☒ Existing Development Impacts
- ☐ Fire and Invasives Threat Theme Score
- ☐ Fire Locations 1992 to 2017
- ☒ Habitat Intactness
- ☐ Heat Load Index
- ☒ Invasive Annual Grass Cover
- ☐ Land Ownership and Management
- ☐ Landscape Cover of Sagebrush








SageCon website with information, technical resources, and more!

Sage-Grouse


[INTRO](#) | [ARTICLES & STORIES](#) | [MAPS & TOOLS](#) | [REPORTS & PUBS](#) | [DATA](#) | [PHOTOS & VIDEOS](#) | [MORE](#)



Source: Collage from the Oregon Sage-Grouse Action Plan

*Eastern Oregon is home to over 15 million acres of sage-grouse habitat. The SageCon Partnership advances policies and actions that reduce threats to sage-grouse, sagebrush ecosystems and Oregon's rural communities.*

### 1.



**SageCon Dashboard**


Preliminary information on status, trends, and efforts to address threats to the sagebrush ecosystem and sage-grouse populations in Oregon.

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**EXPLORE RELATED:**

- ▶ SageCon news and updates
- ▶ 2016-2018 State Action Report
- ▶ Sage-Grouse FAQs and Resources

### 2.



**SageCon Tools Navigator**


Use the SageCon Tools Navigator to find SageCon web tools and technical resources for planning in Oregon's sagebrush country.

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**EXPLORE RELATED:**

- ▶ SageCon Landscape Planning Tool
- ▶ Sage-Grouse Development Siting Tool
- ▶ Rangeland Vegetation Maps

### 3.



**The Oregon SageCon Partnership**

The SageCon Partnership provides coordination across a broad-base of stakeholders in Oregon with an interest in sagebrush conservation.

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**EXPLORE RELATED:**

- ▶ Oregon Sage-Grouse Action Plan
- ▶ Plans, Policies and Programs
- ▶ BLM Sage-Grouse Planning

← Browse content



## Featured Content

### 1. SageCon Dashboard

(These slides are linked from here until full dashboard is ready)

### 2. SageCon Tools Navigator

Tools and Technical Resources

### 3. Other SageCon information

<https://oregonexplorer.info/topics/sage-grouse>

SageCon Summit 2019

