



# BI-STATE SAGE-GROUSE ACTION PLAN

*10-Year Update*



Photo Credit: Bob Wick



Photo Credit: Bob Wick

# OUTLINE

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- Bi-State Sage Grouse Background
- 2012 Action Plan Accomplishments
- USGS Scientific Results: 10-Years of BSSG Monitoring and Conservation
- Discussion

# BI-STATE SAGE-GROUSE

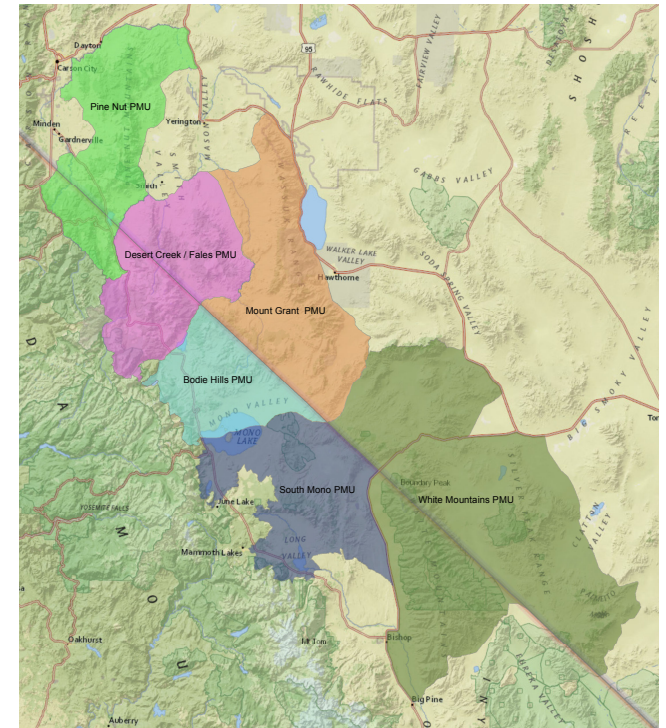
- Genetically distinct from other greater sage-grouse populations
- Considered a Distinct Population Segment by the Fish and Wildlife Service
- Bi-State sage-grouse is currently being reviewed for a listing as federally threatened by USFWS
- Greater sage-grouse is currently being reviewed for a potential state listing as threatened or endangered by the State of California



O'Donnell et al. 2022 Ecology and Evolution

# BI-STATE REGION

- 6 population management units represent localized breeding populations
- Delineated in 2001 by the NV Governor's Sage-Grouse Conservation Team



# LOCAL AREA WORKING GROUP

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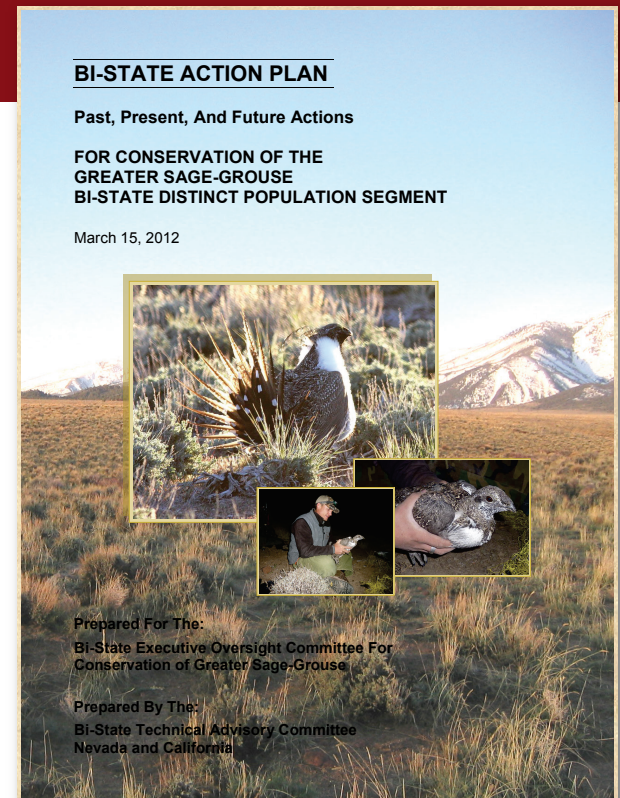


- **Federal, state, and local government agencies**  
*USFS, BLM, CDFW, NDOW, NRCS, USFWS, LADWP, State Parks, California & Nevada Counties*
- **Native American Tribes & representatives**  
*Paiute, Shoshone, and Washoe Tribes, BIA, agency Tribal liaisons*
- **Non-profit organizations**  
*Eastern Sierra Land Trust, Eastern Sierra Interpretive Association, Walker River Basin Conservancy*
- **Private landowners, ranchers, and interested citizens**

# 2012 ACTION PLAN

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- Updated and expanded upon the 2004 Action Plan
- Roadmap to conserve the Bi-State sage-grouse
- Addresses threats and priorities in each PMU individually as well as across the entire area
- In 2014 partners committed \$45M toward implementation of the Action Plan over a 10-year period
- Overarching strategy where each organization is responsible for planning and compliance and decision making for each action



# 2012 ACTION PLAN



- Priorities are adaptive and aim to:
  - Implement a coordinated interagency approach
  - Incorporate science-based adaptive management
  - Address regulatory mechanisms
  - Minimize and eliminate risk
  - Improve and restore habitat
  - Monitor sage-grouse populations
  - Maintain stakeholder involvement

# BI-STATE-WIDE ACCOMPLISHMENTS

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- Implemented 89% of the Bi-State Action Plan
- Allocated \$37.6M in conservation funding
- Improved 143,000 acres of habitat
- Evaluated success through the monitoring of 816 vegetation plots
- Radio-marked and tracked 945 sage-grouse across all PMUs
- **37% increase in Bi-State sage-grouse population success\***

\*from research by Pete Coates et al at USGS



# OBJECTIVES

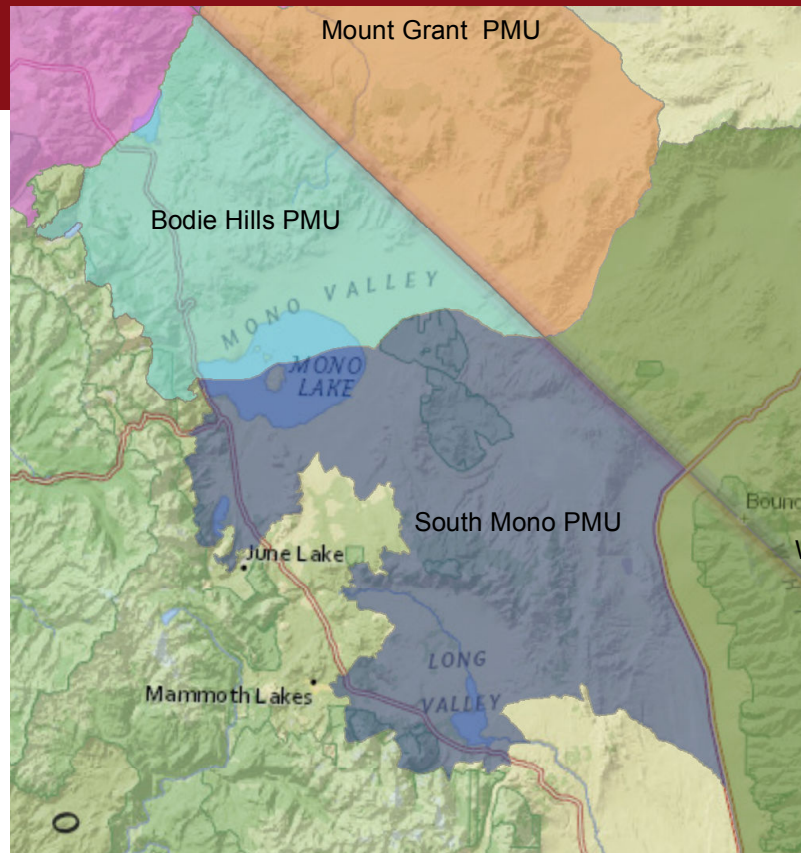
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- One decade later...
  - Time to update the threats and conservation priorities for each PMU
  - Have major threats changed?
  - What are priority conservation actions moving forward?

# BODIE HILLS & SOUTH MONO PMU

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# PMU SPECIFIC THREATS

Key threats to sage-grouse and their habitat identified in the 2012 Action Plan

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## Bodie Hills PMU

## Risk Level

- |                                    |          |
|------------------------------------|----------|
| • Wildfire                         | High     |
| • Conifer encroachment             | High     |
| • Existing infrastructure (linear) | Moderate |
| • Urbanization                     | Moderate |
| • Invasive species (cheatgrass)    | Low      |
| • Mineral exploration              | Low      |
| • Predation                        | Low      |
| • grazing (wild horses)            | Low      |
| • Grazing (permitted livestock)    | Low      |
| • West Nile Virus                  | Low      |
| • Licensed Hunting                 | Low      |
| • Recreation                       | Low      |

# PMU SPECIFIC THREATS

Key threats to sage-grouse and their habitat identified in the 2012 Action Plan

<u>South Mono PMU Risks</u>	<u>Risk Level</u>	<u>South Mono Risks cont.</u>	<u>Risk Level</u>
• Wildfire	High	• Invasive species (cheatgrass)	Low
• Benton Crossing Landfill	High	• West Nile Virus	Low
• Recreation and human disturbance	High	• Geothermal development	Low
• Urbanization	High	• Wind development	Low
• Existing infrastructure (linear)	Moderate	• Grazing (permitted livestock)	Low
• Conifer encroachment	Moderate	• Grazing (wild horses)	Low
• Surface water management	Moderate	• Licensed hunting	Low
• Predation	Low		

# ACCOMPLISHMENTS

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## SOUTH MONO PMU (579,483 acres)

- 2,926 acres of post-wildfire restoration
- Closure of the Benton Crossing Landfill
- 1,246 acres of seasonal road closures during lekking
- 52.8 miles of permanent road closures in critical habitat
- 2,305 acres protected through conservation easements
- 5.7 miles of fence removal, modification and marking
- 6,275 acres of conifer expansion treatment
- Implement LADWP's Adaptive Management Plan in Long Valley
- Raven monitoring and egg oiling to reduce predation
- 5 acres of invasive weed treatment
- 4 projects to improve permitted livestock grazing management



# ACCOMPLISHMENTS

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## BODIE HILLS PMU (349,630 acres)

- 825 acres of post-wildfire restoration
- 7,713 acres of conifer expansion treatment
- 1,690 acres of sagebrush and meadow restoration
- 32 miles of fence removal, modification, and marking
- 11,624 acres protected through conservation easements
- 170 acres of invasive species removal
- Monitoring of the Montgomery Pass wild horse herd
- 32 projects to improve livestock grazing management





# HAS ALL THIS WORK BENEFITTED THE SAGE GROUSE?

- Data was collected between 2012 and 2020

Treatments evaluated included:

- Conifer removal
- Sagebrush restoration
- Meadow restoration
- Fence modifications
- Road closures



# OVERALL EFFECTIVENESS

Combined impacts of conservation actions on sage-grouse are positive and increase over time

- Preliminary results from USGS analysis suggest that conservation actions in the Bi-State have been effective at increasing sage-grouse abundance by 4.4% per year and a 37% increase in abundance since 2012





# DOES OILING RAVEN EGGS IMPROVE SAGE-GROUSE NEST SURVIVAL?

- Data was collected between 2016 and 2021

## Raven eggs treatments

- Oiled (treatment)
  - Watered (control)
- 
- Sage-grouse nest survival was evaluated at 2 treatment sites and 4 control sites



# RAVEN EGG OILING

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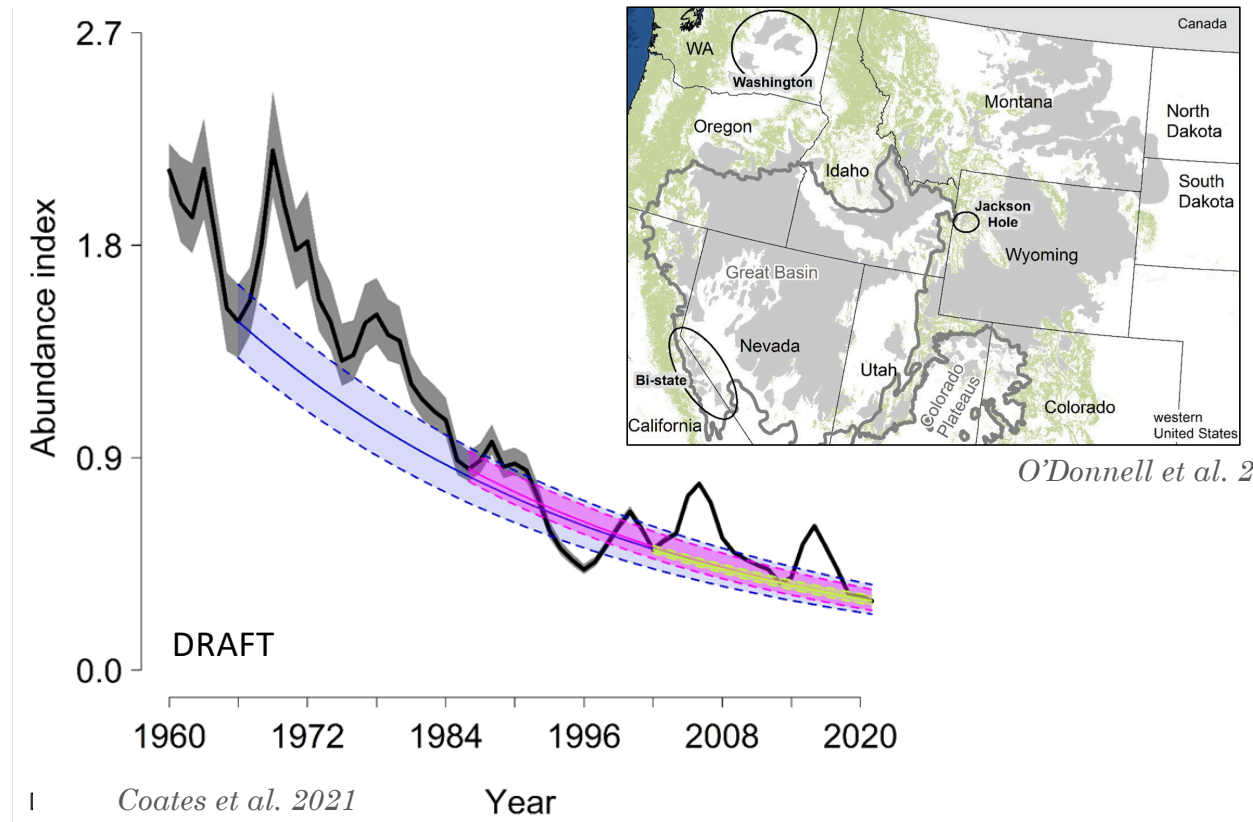
- Preliminary results from USGS analysis suggest that oiling of raven eggs significantly increases the probability of sage-grouse next survival

# GREATER SAGE-GROUSE POPULATIONS ARE DECLINING RANGEWIDE



University of Nevada, Reno

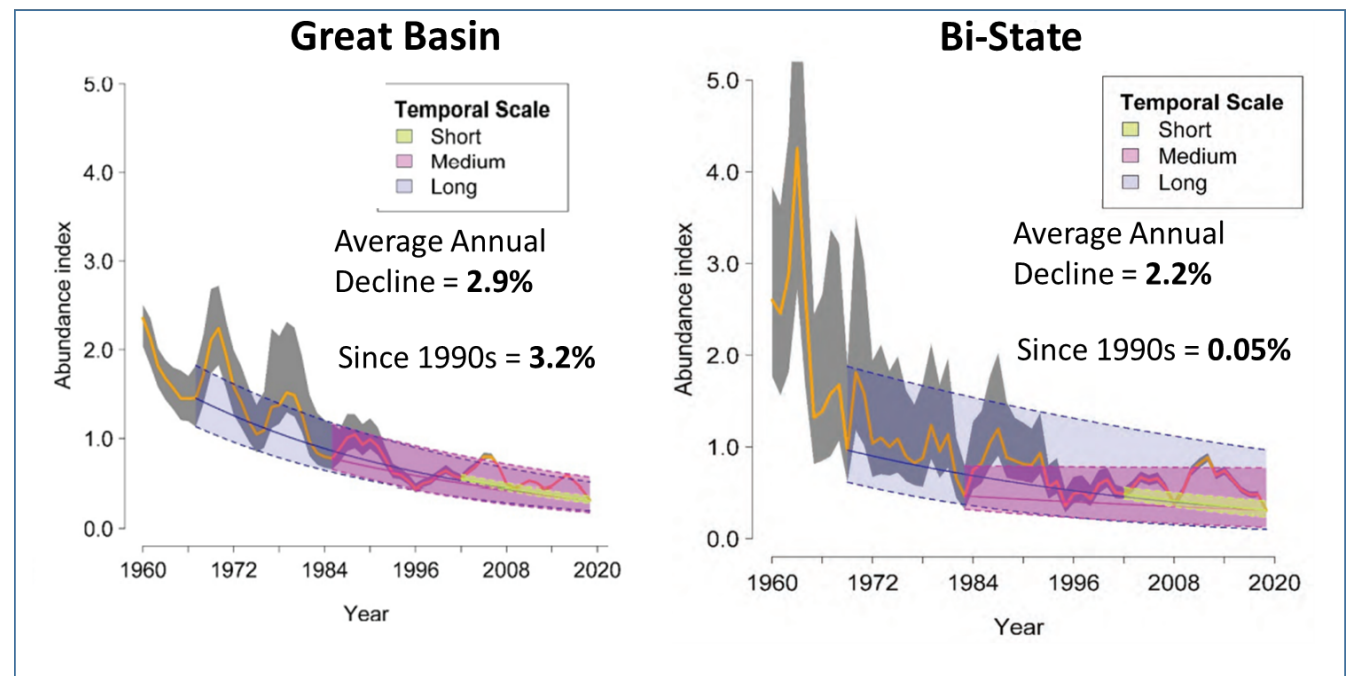
- Rangewide the greater sage-grouse has been experiencing an average annual decline of 2.9%



# BI-STATE POPULATION DECLINE HAS SLOWED OVER THE FEW DECADES



- Since the 1990's greater sage-grouse populations the Great Basin have declined 3.2% annually
- In that same time Bi-State sage-grouse populations have only declined 0.05%



Coates, P.S., et al. 2023. Data Report 2023-1175



## Acknowledgements

*Bi-State EOC, TAC, and LAWG  
Bureau of Land Management  
USDA Forest Service  
Nevada Department of Wildlife  
California Department of Fish and Wildlife  
U.S. Fish and Wildlife Service  
Western Association of Fish and Wildlife Agencies  
Tribal Natural Resource Committee  
Great Basin Bird Observatory  
Idaho State University  
University of Nevada Reno  
Colorado State University  
Mono County Committee  
L.A. Department of Water and Power*

# ADDITIONAL RESOURCES



**For more information:**

*Bi-State Sage Grouse Website*

[www.bistatesagegrouse.com](http://www.bistatesagegrouse.com)

*2012 Action Plan*

<https://www.bistatesagegrouse.com/general/page/2012-bi-state-action-plan>

*10-Year Accomplishment Report*

<https://www.bistatesagegrouse.com/general/page/bi-state-sage-grouse-10-year-accomplishment-report>

# ADDITIONAL RESOURCES

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## **10-Year Accomplishment Report**

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## **Bi-State Sage-Grouse Coordinator**

Contact: Tracy Misiewicz

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Phone: 760-920-6328

## **Online Survey**

<https://tinyurl.com/mr2pd9up>

## **Full Local Area Working Group Meeting**

Date: Tuesday, August 8, 2023

Time: 12 – 2pm

Location: Memorial Hall, Bridgeport, CA

# ACTION PLAN UPDATE DISCUSSION

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How have threats to the Bi-State sage-grouse changed since 2012?

What actions should be included in the updated Action Plan?

