

# Greater Sage-Grouse Periodic Status Review and Recommendation

Derek Stinson  
WL Biologist, Diversity Division – Wildlife  
Program



# Periodic Status Review Process and Timeline

## Listing Process Guided by WAC 220-610-110

- Periodic review of status every 5 years – last Sage Grouse PSR 2016
- February 2020 - solicit data and information from the public and work on initial draft
- September 2020 - 90 public comment period on draft
- Listing “...solely on the basis of the biological status of the species being considered, based on the preponderance of scientific data available.”
- Endangered species are “... seriously threatened with extinction throughout all or a significant portion of its range within the state”



# Greater Sage-Grouse in Washington: Status review, 2020



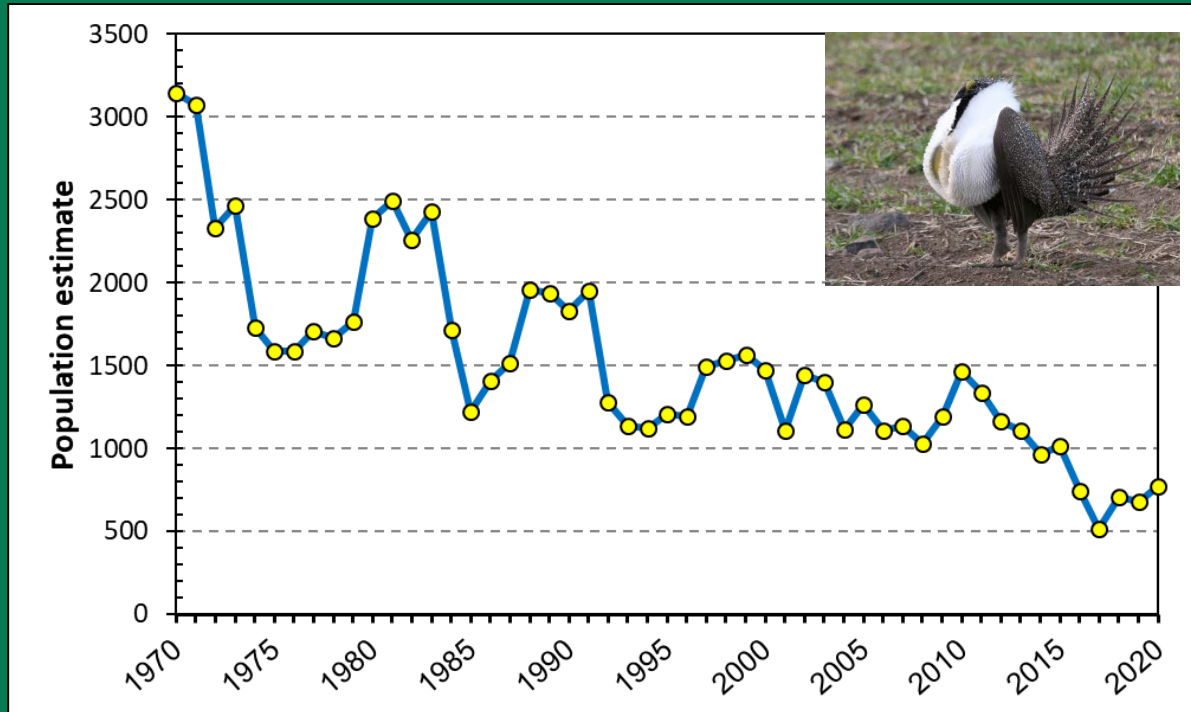
# Historical decline and habitat loss



- Unregulated hunting
- Habitat conversion of good soil
- Degradation of remaining habitat



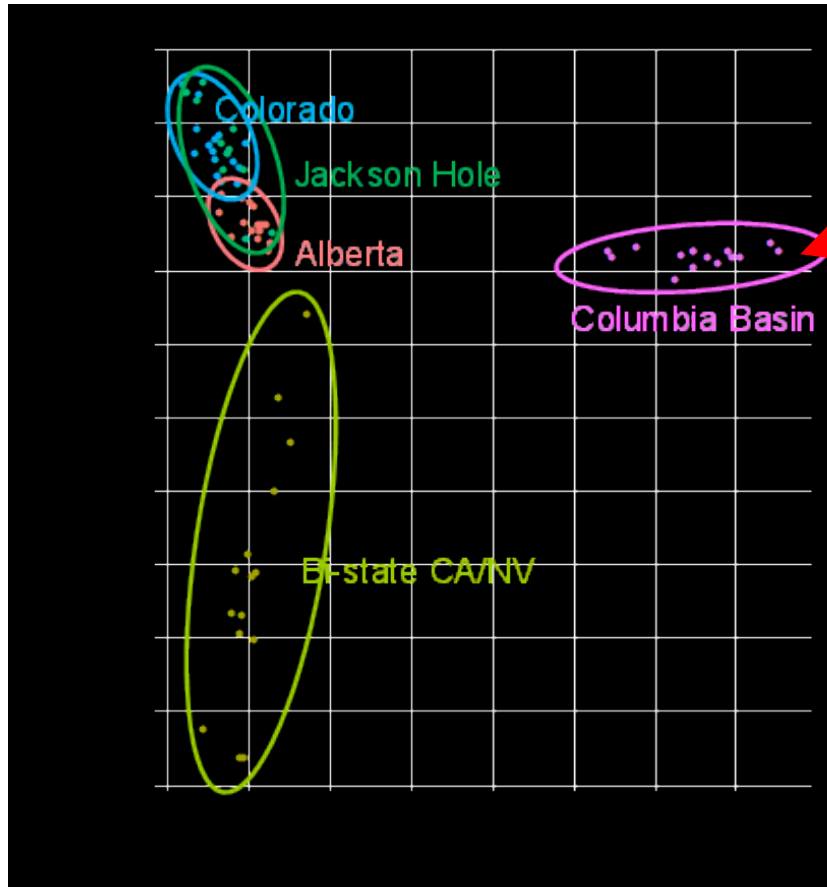
# GREATER SAGE-GROUSE IN WASHINGTON



- State: Listed as threatened by WDFW in 1998
- Federal status: DPS and candidate 2001-2015
  - *FWS 2015: Rangewide "not warranted"; Columbia Basin, not listable entity*

# Washington's Sage-Grouse

Genomic analysis: "highly differentiated" (Oh et al.2019)

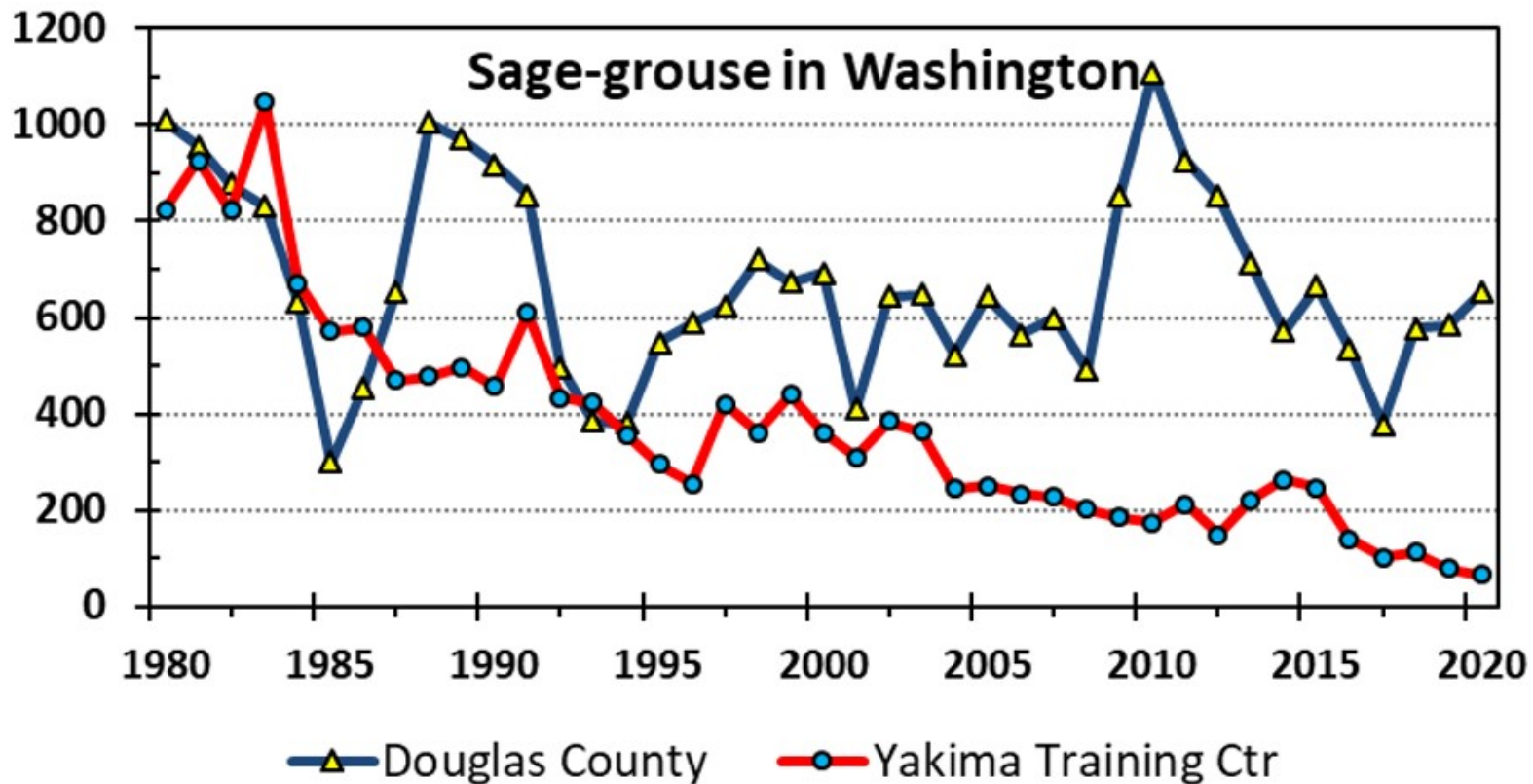
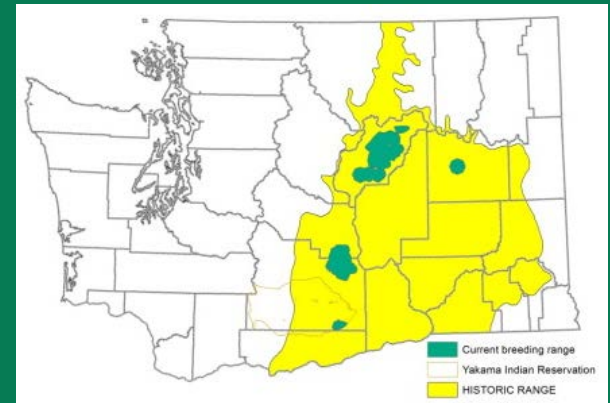


- More likely to reneest
- Lay more eggs, and
- Males are 15% larger



# POPULATIONS IN WASHINGTON

- State population, Spring 2020  
~770 before September fires



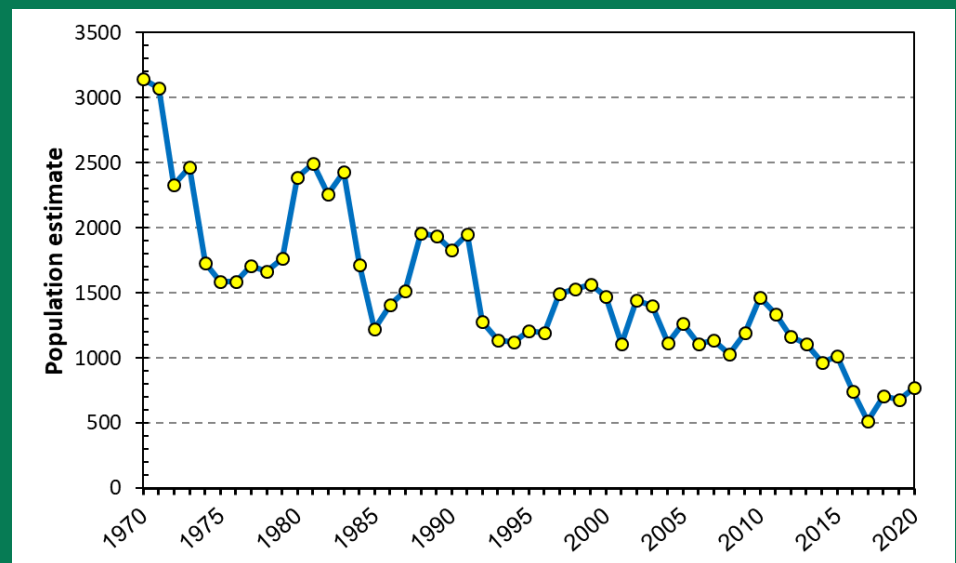
# Factors affecting sage-grouse: small population size

## Effective population ( $N_e$ ):

- The proportion of a population that can be expected to pass on their genetic information from one generation to the next (Frankham et al. 2002)

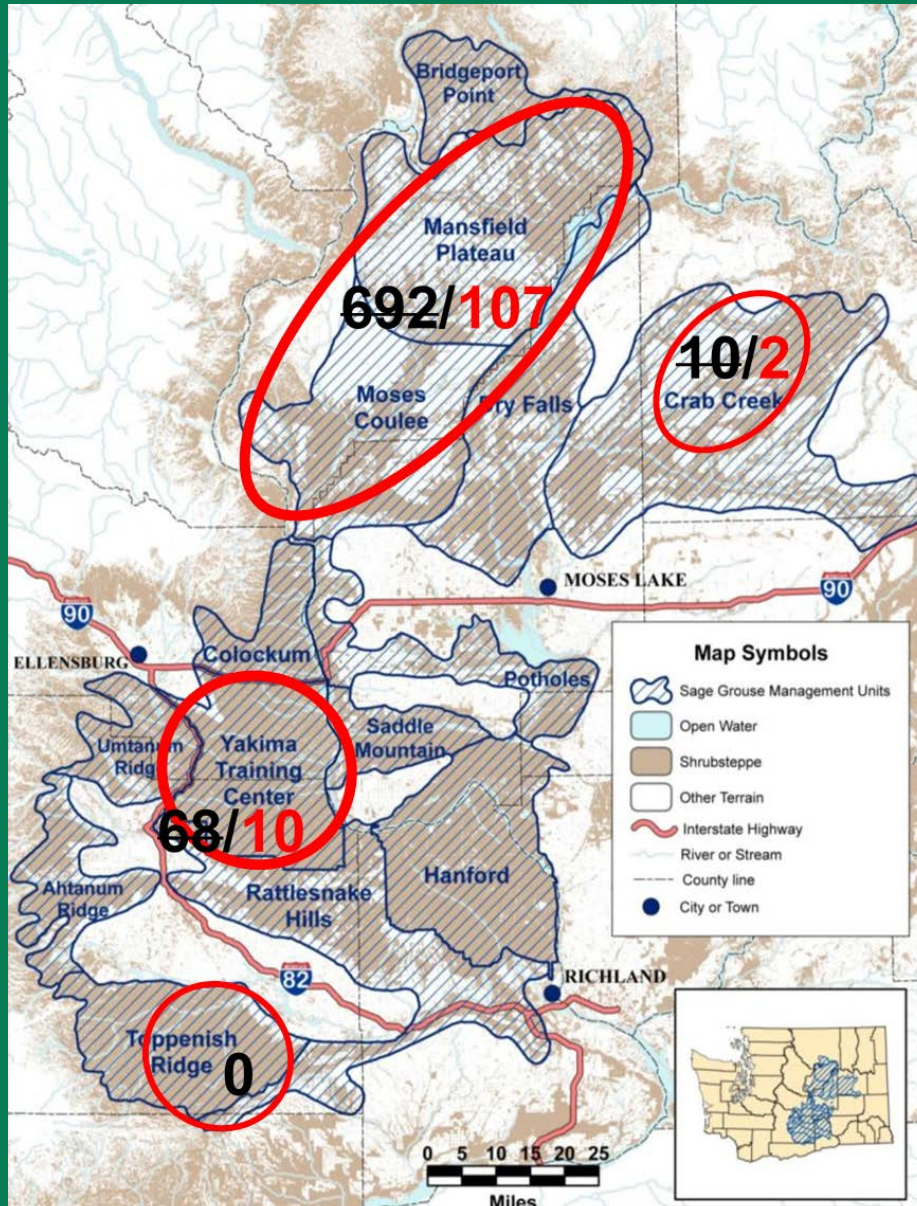
## $N_e$ affected by:

- Population fluctuations
- Lek mating system





# Effective populations ( $N_e$ )...



Sub-  
populations no  
longer  
genetically  
connected

# Factors affecting sage-grouse

## Small effective population size:

- Reduced genetic diversity
- Reduced egg hatchability
- Reduced fitness



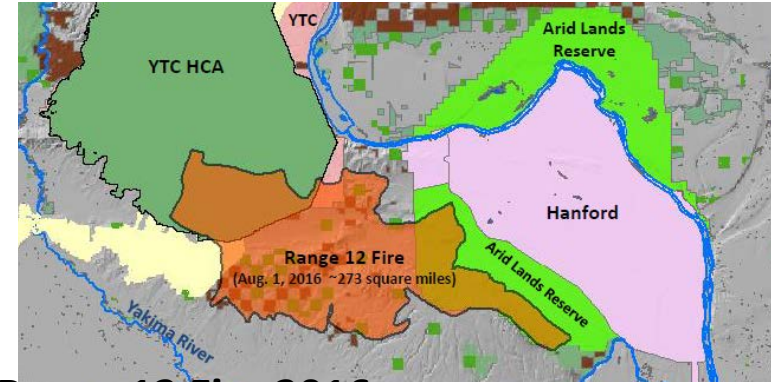
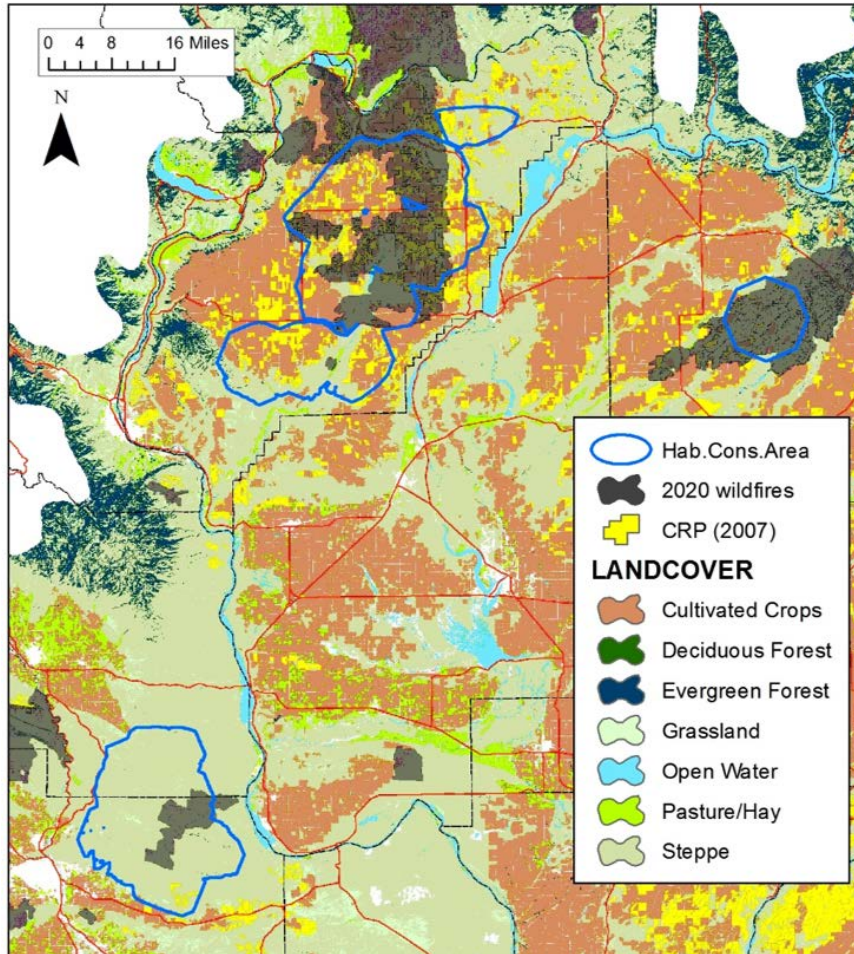
# September Fires...

population will likely decline >50%



# Factors Affecting Sage-grouse in Washington

## Fires: Past and future loss of sagebrush



Range 12 Fire 2016

Grass Valley Fire, 2019

Pipeline Fire, 2019



# Factors Affecting Sage-grouse in Washington

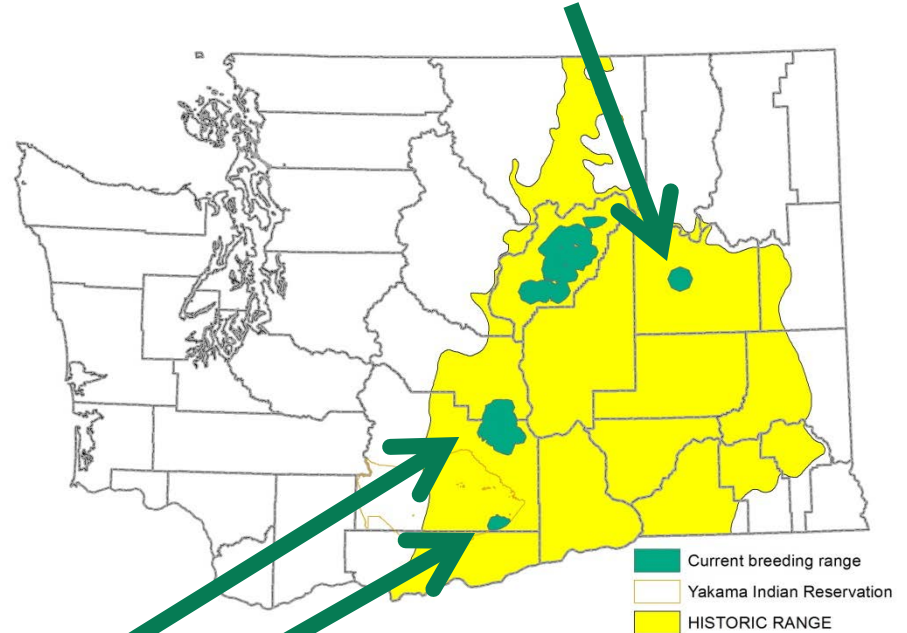


- Climate Change: increasing drought frequency, fires?
- Habitat fragments, degradation.
- High populations of predators.



# Conservation Actions: Translocation

Lincoln County reintroduce:  
2008-2015 (2020 fire fail)



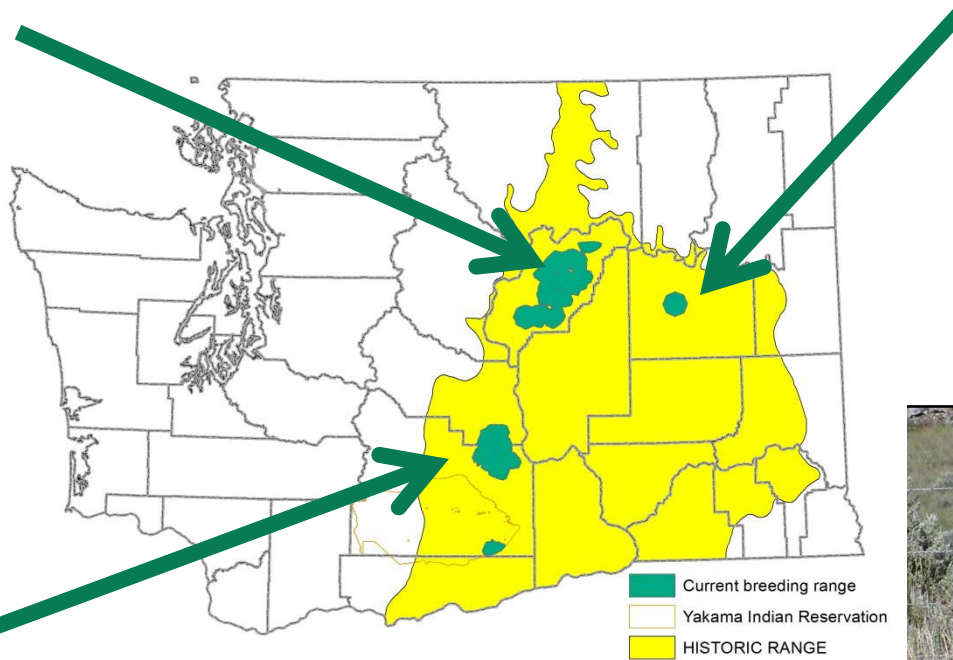
- YTC augmentation, not stopped decline
- Yakama Nation reintroduction failed



# Conservation Actions:

Sage-grouse/Sharptail  
S.A.F.E (CRP): >60,000ac

Lincoln County habitat restoration  
~2500 ac BLM/WDFW



YTC

- Aggressive fire suppression
- Vegetation restoration
- Raven nest removal

Fence marking (>200 miles marked/removed)

Powerline removal



# Conservation: Partner organizations

- Douglas County Foster Creek General Cons. Plan
- Sage-grouse Initiative
- BLM, universities, Spokane Audubon, ...
- Lincoln County Cons. Distr.



#### PAYMENT SCENARIOS:

Implement a rotational grazing system on a 3,000 acre ranch and receive between \$2.04/acre. That is \$6120 per year to implement grazing management and monitoring. PLUS, you get to use the forage after the deferral period.

— OR —

Rest 20 percent and defer an additional 20 percent of a 3,000 acre ranch and receive \$12.90/acre to a maximum of \$25,000 per year for implementation of grazing management, monitoring, and rest-and-deferment.

#### APPLICATION SUMMARY:

THE 2013 SAGE GROUSE INITIATIVE is a continuous sign up, and applications may be submitted at any time. Applications will

USDA'S NATURAL RESOURCES CONSERVATION SERVICE (NRCS) IS A LOCAL RESOURCE FOR INNOVATIVE CONSERVATION SOLUTIONS TO IMPROVE THE LAND AND PROTECT YOUR WAY OF LIFE.

Financial and technical assistance is available for ranchers in central and eastern Washington. There are different options to protect sage grouse habitat and improve range conditions for both existing grazed ranchlands and expired Conservation Reserve Program (CRP) lands.

Through the Working Lands for Wildlife (WLFW) and Environmental Quality Incentives Program (EQIP) Sage Grouse Initiative, ranchers can select a rest-and-deferment grazing strategy to provide optimal cover for sage grouse or a rotational grazing system to improve the plant health of the ranchlands and expired CRP lands.

NRCS may be able to help you implement the following conservation activities:

- Cross-fencing and water development for grazing management

## Multiple Species General Conservation Plan for Douglas County, Washington



Prepared by:

Foster Creek Conservation District  
P.O. Box 428  
203 South Rainier  
Waterville, Washington 98858

October 2014





# CONSERVATION ACTIONS: RESEARCH

Landscape Ecol  
DOI 10.1007/s10980-015-0214-4

RESEARCH ARTICLE

## Empirical validation of landscape resistance models: insights from the Greater Sage-Grouse (*Centrocercus urophasianus*)

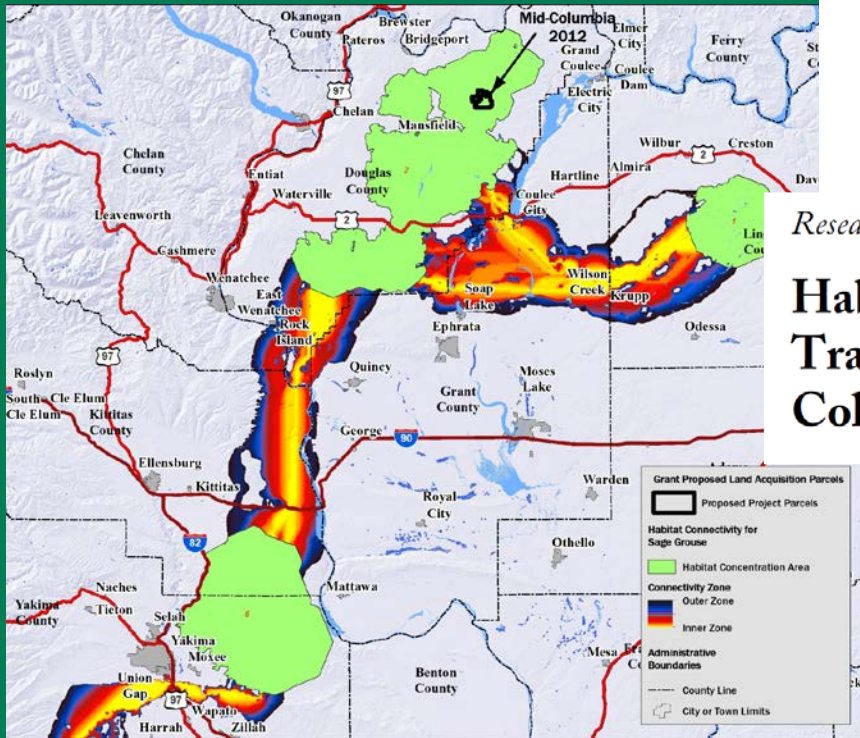
Andrew J. Shirk · Michael A. Schroeder ·  
Leslie A. Robb · Samuel A. Cushman

Research Article

## Habitat Selection and Use by Sympatric, Translocated Greater Sage-Grouse and Columbian Sharp-Tailed Grouse

## Effects of Post-Release Movements on Survival of Translocated Sage-Grouse

KYLE EBENHOCH,<sup>1,2</sup> Washington State University, School of the Environment, 1230 Webster Hall, Pullman, WA  
DANIEL THORNTON, Washington State University, School of the Environment, 1230 Webster Hall, Pullman, WA  
LISA SHIPLEY, Washington State University, School of the Environment, 1230 Webster Hall, Pullman, WA  
JEFFREY A. MANNING, Washington State University, School of the Environment, 1230 Webster Hall, Pullman, WA  
KEVIN WHITE, Joint Base Lewis-McChord, Yakima Training Center, 970 Firing Center Road, Yakima, WA



# Conclusion

- Population declined >50% since 2010
- Effective population sizes: <<107, 10, and 2
- Extinction of JBLM-YTC and Lincoln County population likely



# Recommendation

- Up-list the sage-grouse to Endangered



# Public Comments:

- Received 1,257 letters in support of up-listing to 'E' and recovery actions (most were copies of two form letters from members of organizations)
- One letter opposed to uplisting, expressing the fear that it would lead to ESA listing and more burdens for landowners



# What is the effect of uplisting ?



## Brighter spotlight on the conservation of the species

Emphasis, prioritization, and focus of resources

WDFW and conservation partners – e.g., YTC, NRCS, NGOs, the public

## Priority Habitat and Species List – No change

All sensitive, threatened, endangered, candidate are PHS species and reflected in recommendations for GMA and CAO

## Slight change in penalties for take of individuals



# Questions?

