

# NEVADA SAGE-GROUSE LEK COUNTS: EFFORT AND TRENDS

Sagebrush Ecosystem Council

August 3, 2017

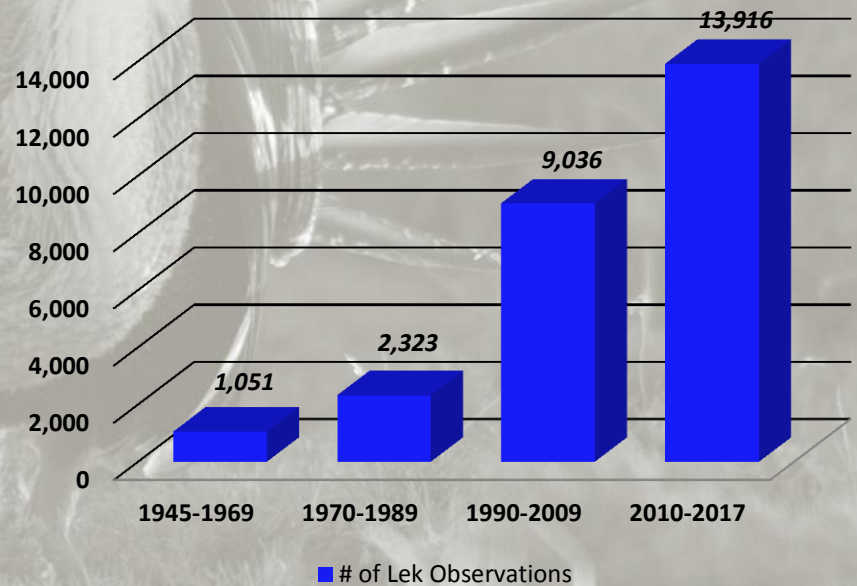




# Nevada Lek Database

- 2,220 lek locations in Database;
- 1,886 leks in Nevada;
- 26,373 total observations from 1945 through 2017

Number of Lek Site Visits



# Lek Status

- 674 known active leks in Nevada;
- 226 pending active leks (need one more survey with 2 or more males within a 5-yr. period);
- 330 inactive leks;
- 542 unknown status leks

## DEFINITIONS:

Active – 2 or more males observed at least twice in the last 5 years

Pending Active – 2 or more males observed only once in the last 5 years

Inactive – 0 or 1 males observed during every visit (minimum 2 visits) in the last 5 years

Historic – 0 or 1 males observed during every visit (minimum 5 visits) in the last 30 years

Unknown – no other conditions have been met



# 2017 Lek Count Effort

- 942 leks surveyed;
- 1,725 lek visits conducted;
  - 1,212 visits conducted via ground observation;
  - 499 visits conducted via helicopter observation;
  - 14 visits conducted via infrared survey (fixed wing)
- 44 new leks added to the statewide database in 2017





# 2017 Lek Count Results

- **Peak Male Attendance = 9,828** (Sum of peak male attendance from each individual lek)
  - Peak male attendance 2016 = 10,070
- **Trend Leks (n=159 surveyed in 2017)**
  - Average male attendance = 25.4 in 2017 (28.2 in 2016)
  - 10% Decline From 2016
  - 4.4% below LTA of 26.6 (1965-2016)
  - 2.1% greater than 20-yr. avg of 24.9



# Nevada Sage-grouse Trend Lek Attendance (1997 - 2017)

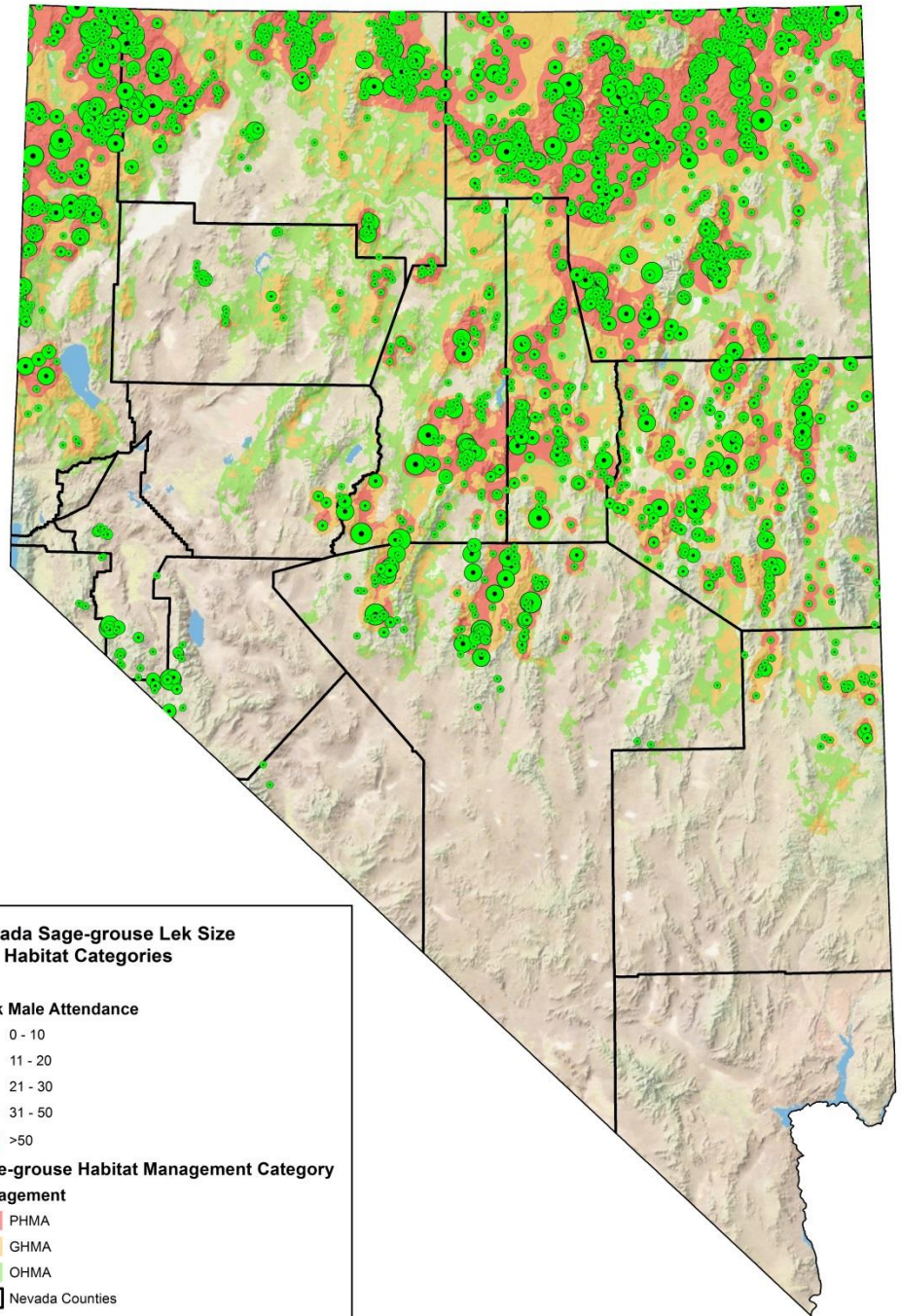
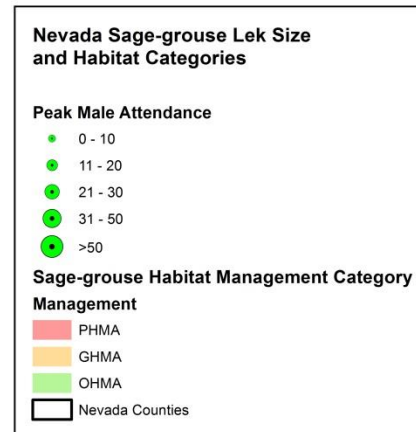
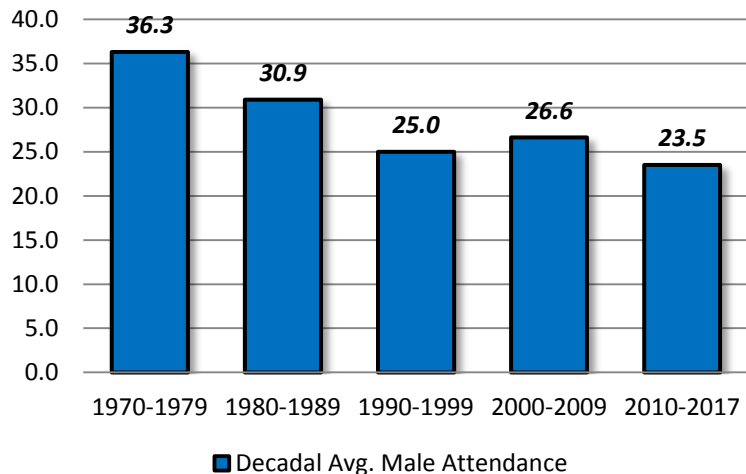




# Lek Sizes

- Largest Lek – Bailey Creek  
34 (Elko County) **129 males in 2017**
- Second largest - IL Summit  
(Elko County) **102 males in 2017**

Nevada Sage-grouse Trend Leks  
Average Male Attendance - by Decade



# Nest and Brood Survival

## Nest Survival (2013-2016)

Study Area	Cumulative Survival
Tuscarora	<b>23.3%</b>
McGinness Hills	26.9%
Pan Mine	28.3%
Desatoya	<b>35.4%</b>
Desert Cr./Mt. Grant	28.5%
Virginia Mts.	28.6%

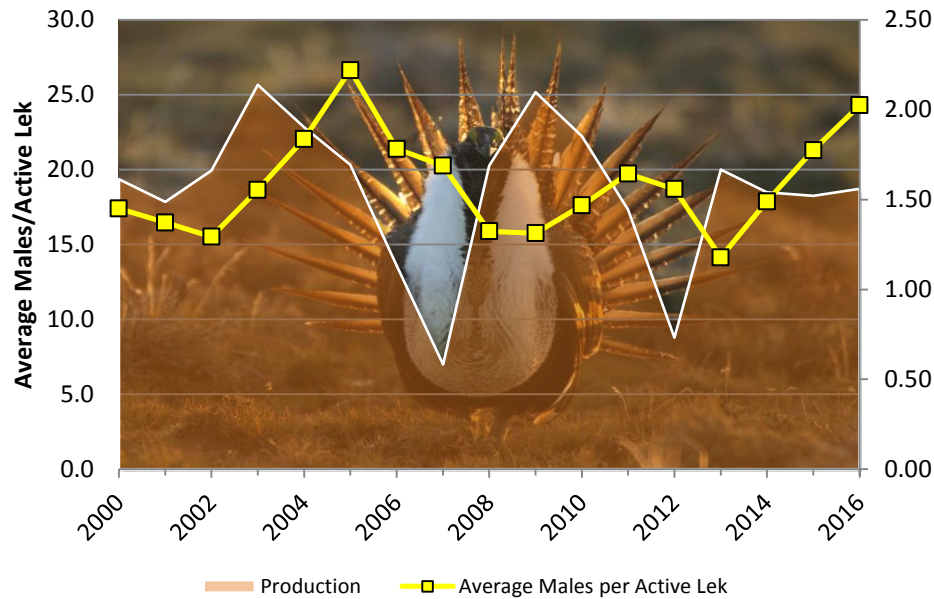
## Brood Survival (2013-2016)

Study Area	Cumulative Survival
Tuscarora	<b>67.6</b>
McGinness Hills	55.5
Pan Mine	57.3
Desatoya	<b>27.8</b>
Desert Cr./Mt. Grant	63.3
Virginia Mts.	55.1



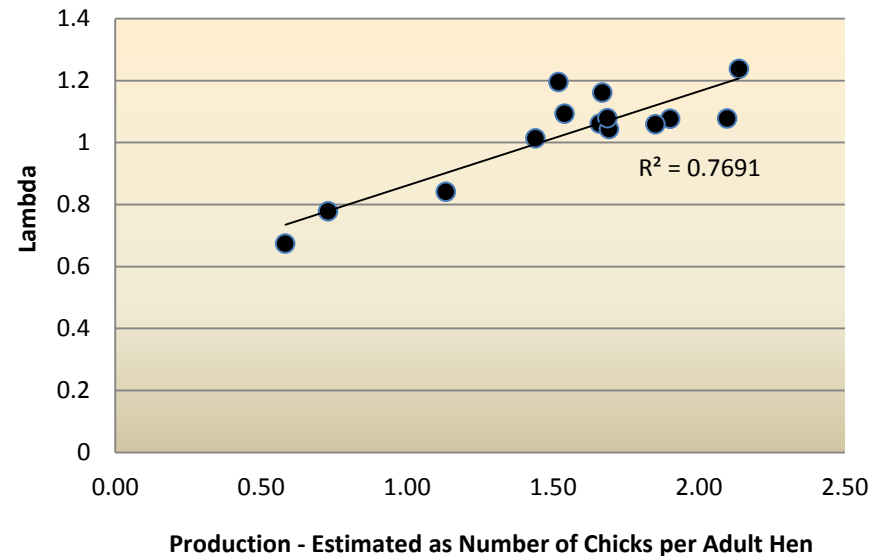
# Production and Lek Attendance

Sage-grouse Production and Lek Attendance in Nevada  
(2000-2016)

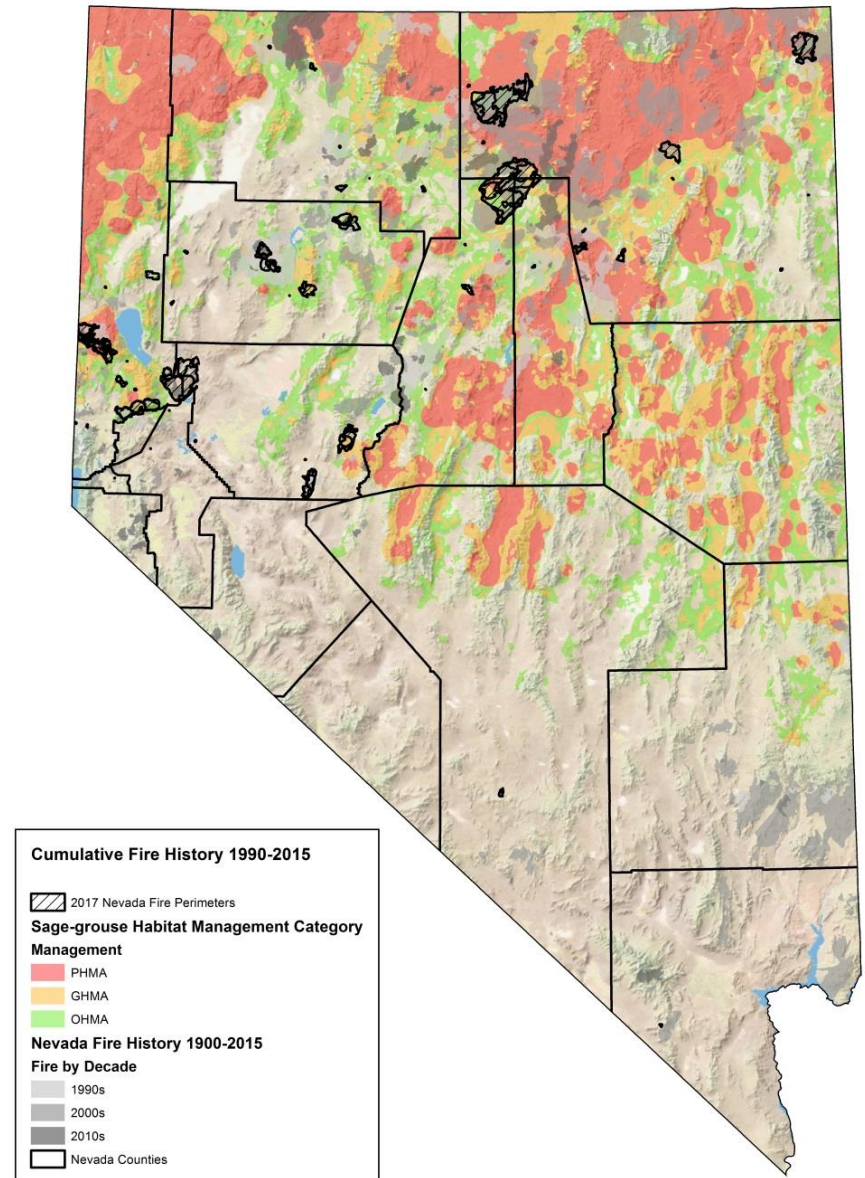
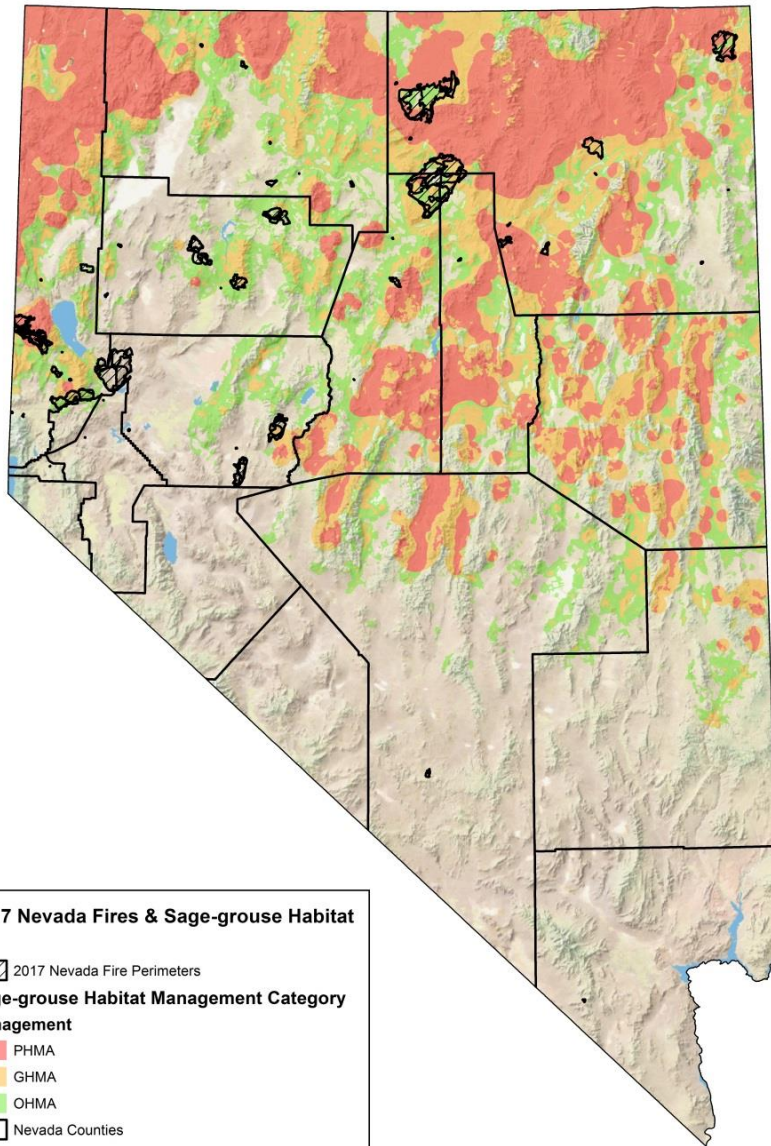


Year	Chicks per Hen
2010	1.85
2011	1.44
2012	0.73
2013	1.67
2014	1.54
2015	1.52
2016	1.56

Influence of Sage-grouse Production on  
Population Growth Rates



# 2017 Fire Polygons & Cumulative Fire History

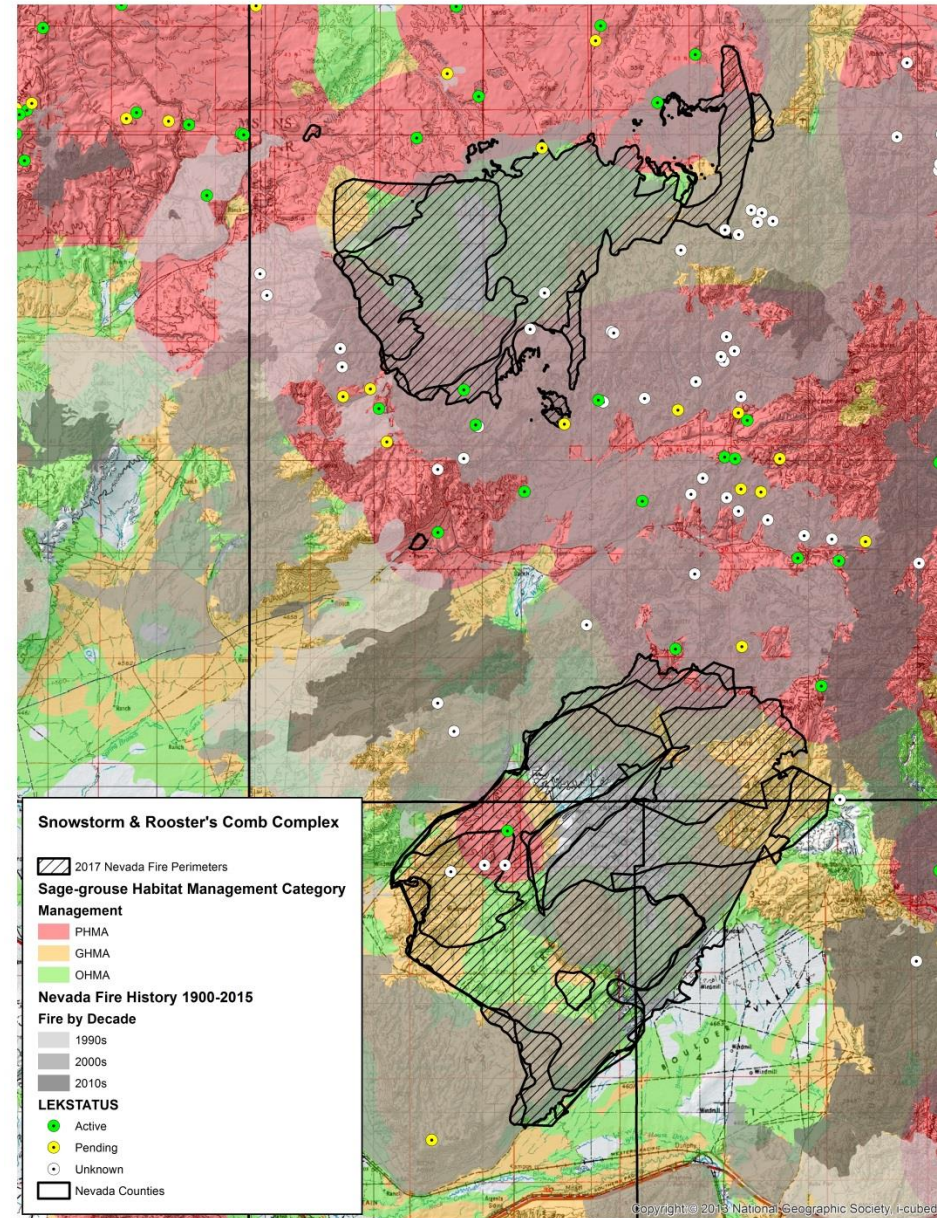
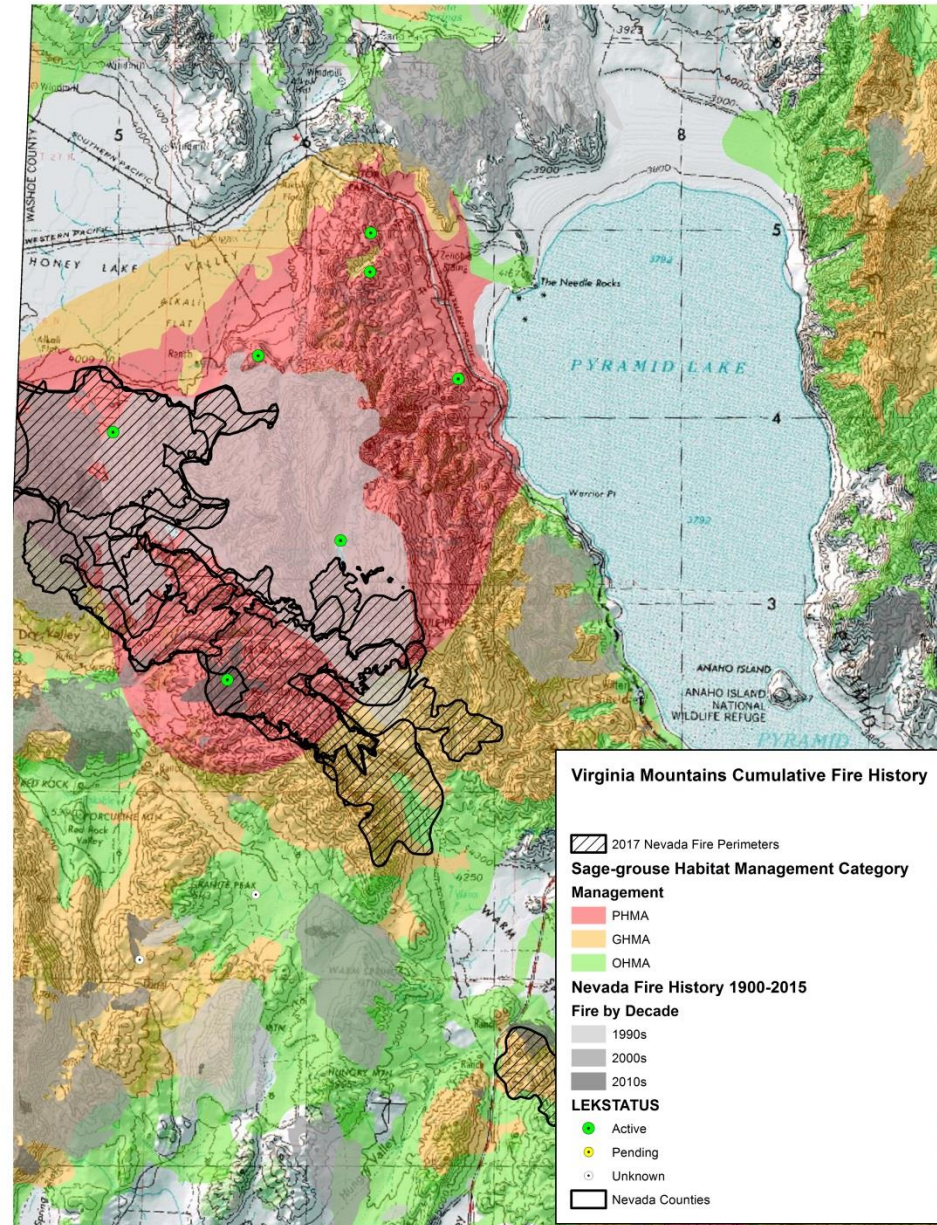




Long Valley Fire = 57,211 ac.

Four Seasons Complex = 99,705 ac.

Rooster's Comb Fire = 179,491 ac.





# Questions???

