



BLM Adaptive Management Strategy for Greater Sage-Grouse in Oregon

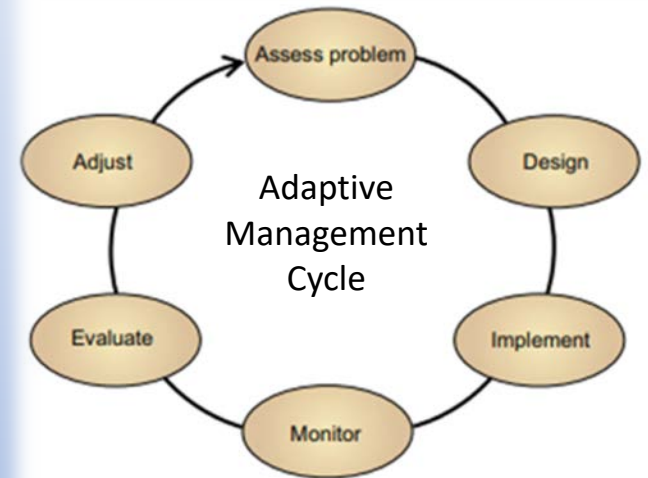
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- Oregon BLM's Sage-Grouse Adaptive Management Strategy
- Population and habitat thresholds and triggers
- Status of the 2021 triggers
- Causal Factor Analysis results



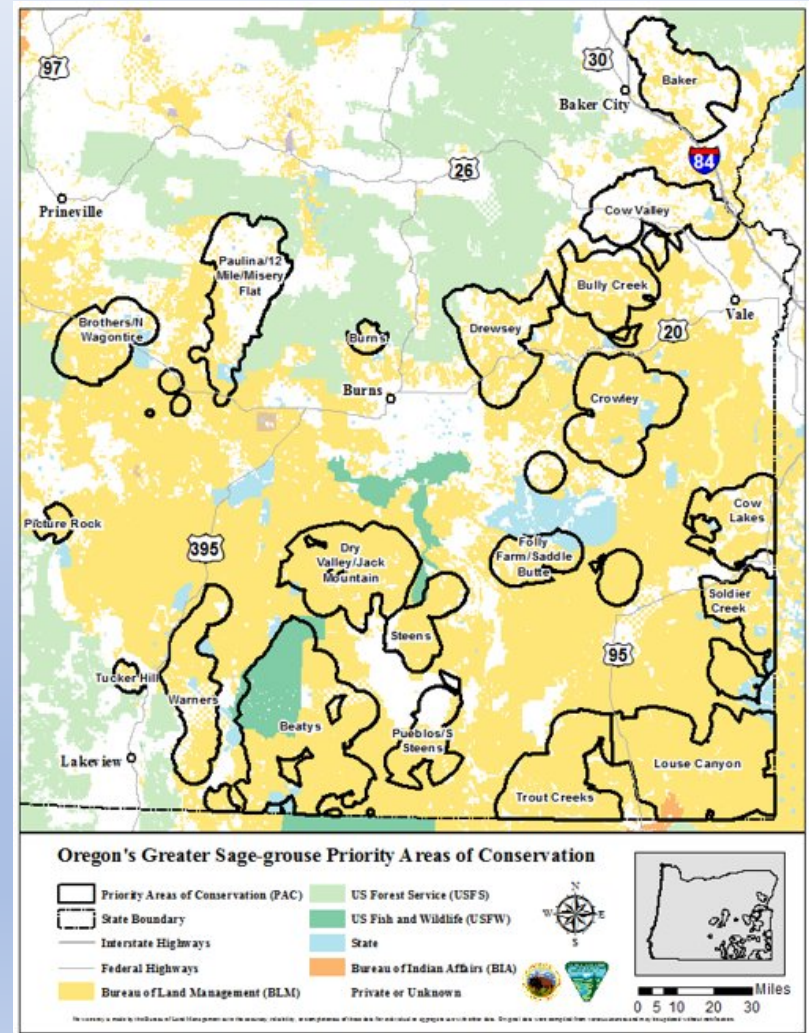
Oregon BLM's Sage-Grouse Adaptive Management Strategy

- Appendix J in the 2015 Oregon Greater Sage-Grouse Approved Resource Management Plan Amendment (ARMPA)
- Structured decision-making process
- Dropping below a population or habitat threshold “trips a trigger”
- Two types of triggers
 - **Soft** indicate that management changes may be needed at the project level to reduce the likelihood of tripping a hard trigger
 - **Hard** indicate that immediate and more restrictive plan-level action is needed to address sage-grouse conservation objectives.
- Trigger reverses when population trend or acres of sagebrush habitat in a PAC rises above the threshold



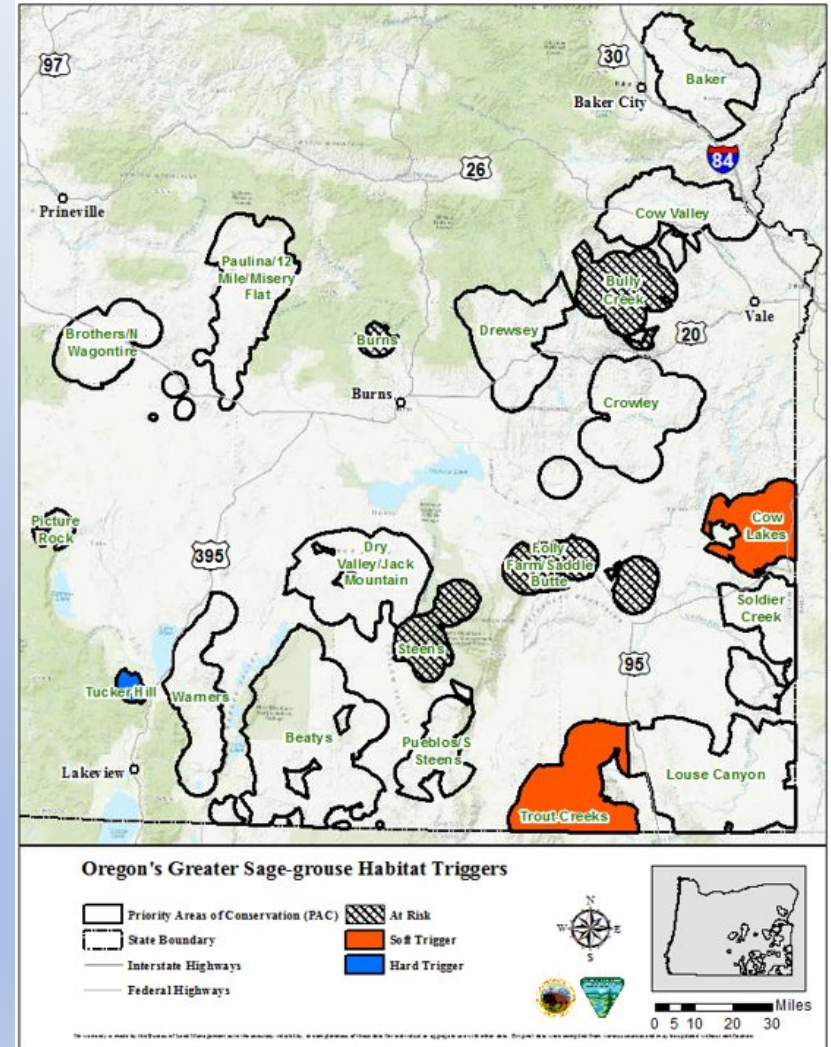
Oregon's Priority Areas for Conservation (PAC)

- BLM's Adaptive Management Strategy applies to BLM Priority Habitat Management Area (PHMA) within a PAC
- ODFW delineated Core Area Habitat in 2011 to conserve the highest priority sage-grouse habitat statewide
- ODFW grouped Core Area Habitat into 20 PACs
- BLM developed thresholds and triggers for sagebrush habitat and sage-grouse populations



Habitat Triggers

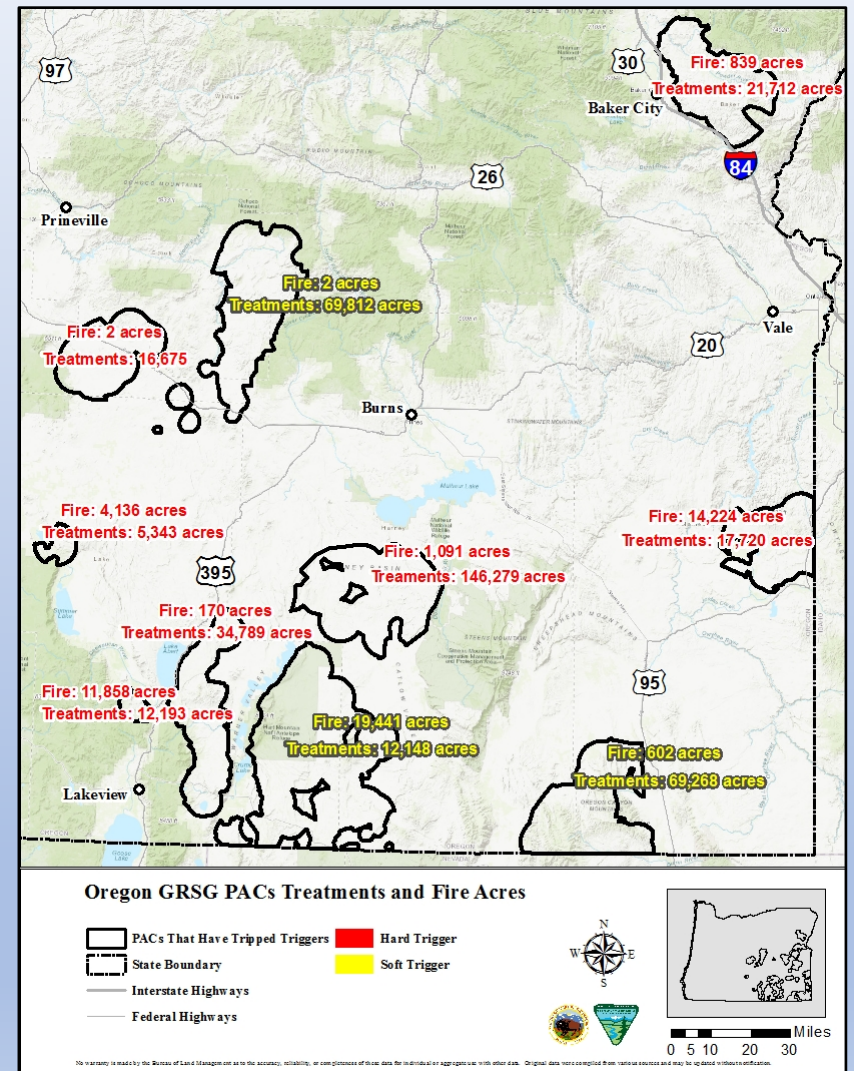
- Sage-grouse require landscapes supporting $\geq 65\%$ sagebrush cover
 - soft trigger 30-65% cover
 - hard trigger $<30\%$ cover or $>5\%$ loss in one year
- Primary factors reducing sagebrush cover: wildfire, juniper expansion, and historic sagebrush removal projects
- 1 PAC tripped hard trigger in 2021 due to the Cougar Peak fire removing 23% of available SG habitat
- 2 PACs tripped the soft habitat trigger (already tripped in 2015)
- 4 PACs are close to the 65% sagebrush cover threshold



Habitat Treatments

- 405,939 acres of BLM lands treated inside tripped PAC boundaries since 2015
- ~7.4 acres treated for every acre burned
- Additional acres treated on private lands

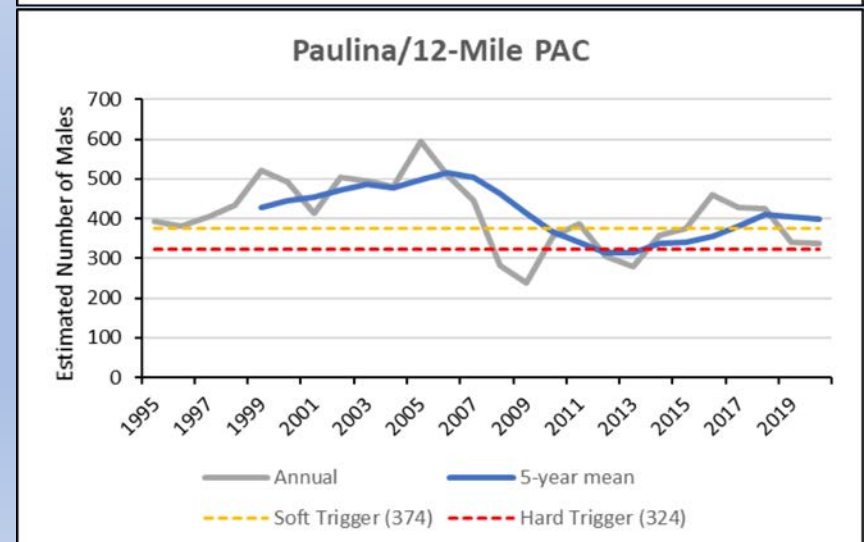
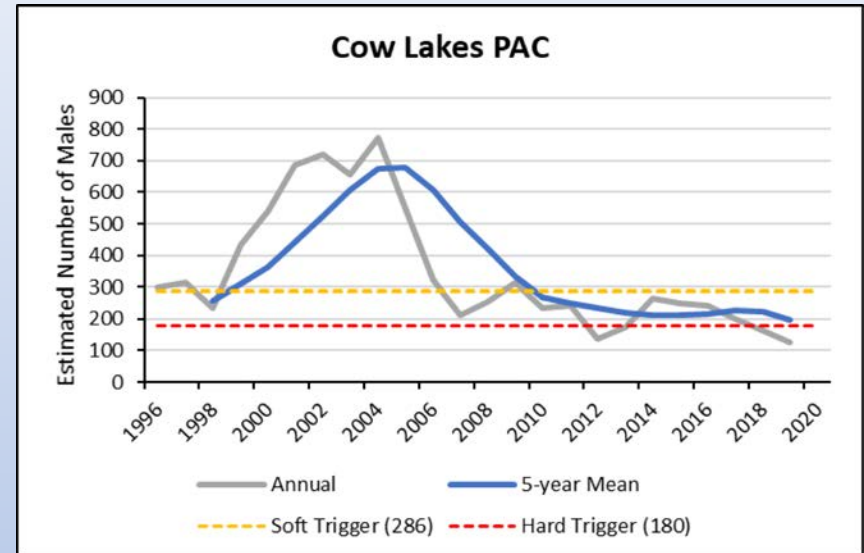
Hard Trigger	Treatments (acres)	Fire (acres)
Brothers Wagontire	16,675	2
Tucker Hill	12,193	11,858
Warners	34,789	170
Dry Valley Jack Mountain	146,279	1,091
Cow Lakes	17,720	14,224
Baker	21,712	839
Picture Rock	5,343	4,136
Soft Trigger	Treatments (acres)	Fire (acres)
Paulina 12 mile	69,812	2,707
Beatys	12,148	19,441
Trout Creeks	69,268	602



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Population Triggers

- Population **thresholds** are based on variation in the annual population estimate (grey line)
- Population **triggers** are based on the floating 5-year mean annual population estimate (blue line) relative to population thresholds (yellow and red dotted lines)
- Large decline in a single year or smaller declines over consecutive years also can trip a soft population trigger

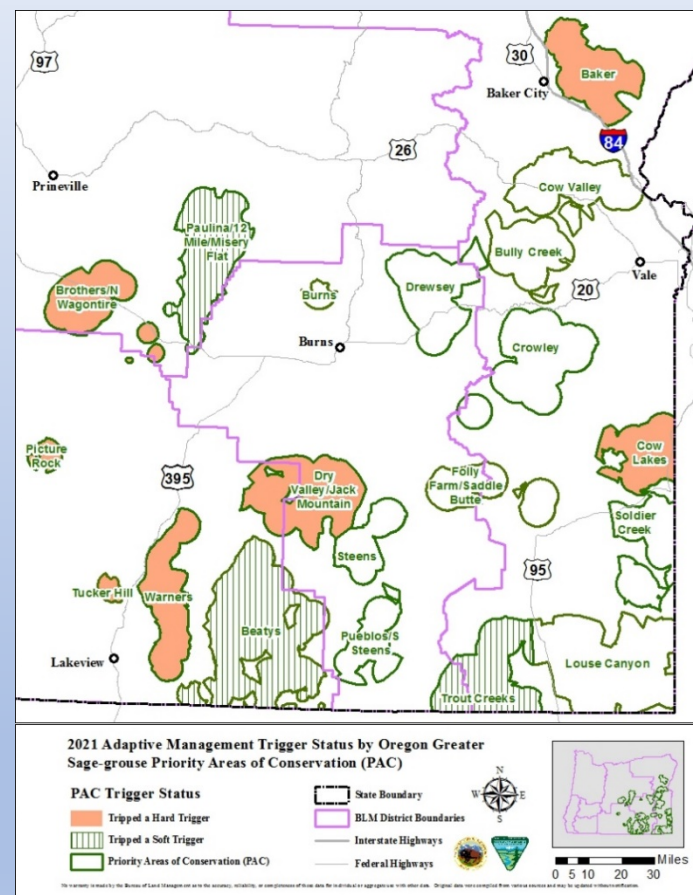


Population and Habitat Triggers

2016-2021

Oregon PAC Name	Known Leks	Annual Trigger Status (S=Soft, H=Hard)					
		2016	2017	2018	2019	2020	2021
Baker	66	H	H	H	H	H	H
Beatys	155				S	S	S
Brothers/N. Wagonfire	45	S	S	H	H	H	H
Bully Creek	41						
Burns	3						
Cow Lakes	56	H	H	H	H	H	H
Cow Valley	58						
Crowley	51	S	S	S	S		
Drewsey	44				S		
Dry Valley/Jack Mountain	26	S	H	H	H	H	H
Folly Farm-Saddle Butte	20						
Louse Canyon	67						
Paulina/12-Mile	61	S					S
Picture Rock	7	S	H	H	H	H	H
Pueblos-South Steens	30				S		
Soldier Creek	54					S	
Steens	15				S		
Trout Creeks	98	S	S	S	S	S	S
Tucker Hill	6						H
Warners	57	S	S	S	S	S	H

2021



What Happens When a Trigger is Tripped?

Causal Factor Analysis

- BLM prepares a Causal Factor Analysis report for every PAC that trips a soft or hard trigger in 2 or more consecutive years
- Interdisciplinary team documents and evaluates conditions and factors that may explain the trigger
- List of recommended actions for District Manager to consider. Some are immediately implementable while others require additional project-level NEPA before they can be implemented
- Hard Trigger responses take effect immediately on BLM-administered lands within the affected PAC and remain in effect until the habitat or population levels rise above the trigger threshold
- Annual reviews for new data and changing threats

Probable Causal Factors

Possible Causes or Factors	Baker	Brothers-Wagontire	Cow Lakes	Crowley	Dry Valley-Jack Mtn	Picture Rock	Warners
Fire	✓	✓	✓	✓	✓	✓	✓
Annual Grasses	✓	✓	✓	✓	✓	✓	✓
Drought	✓	✓		✓	✓	✓	✓
Infrastructure	✓	✓	✓	?			✓
Improper Livestock Grazing	?	?	?	?	?		
Predator Population Subsidies	✓	✓	?	✓			✓
Fence Collisions	✓		✓	✓		✓	✓
Wheatgrass seedings	✓		✓			✓	✓
Recreation	✓	?		?			✓
West Nile Virus	?	?	✓	?			
Isolated/small size	✓	✓				✓	
Conifer Encroachment		✓			✓		✓
Native Understory Condition	✓		✓	?			
Habitat Fragmentation	✓		✓	✓			
Wild Horses				✓	✓		
Agriculture	✓						
Energy Development		✓					
Historic Sagebrush Removal			✓				
Mining		✓					
Hunting Disturbance		✓					
SG Translocations							✓
Research Activities							✓



Thank You!

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