

Sagebrush Ecosystem Program

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STATE OF NEVADA Sagebrush Ecosystem Program

Fall 2020 Adaptive Management Trigger Summary

Summary:

Through the summer of 2020 the Sagebrush Ecosystem Technical Team worked with members of a statewide technical team to collect data necessary to assign triggers to Population Management Units (PMU) which had habitat warnings consistent with the Nevada Greater Sage Grouse Conservation Plan (hereafter referred to as “the State Plan”) adaptive management process. The statewide technical team assigned triggers on October 6th, 2020. This document is intended to inform stakeholders about the process which led to assigned triggers.

Members of the statewide technical team are listed in table one.

Trigger Description:

The State Plan includes an adaptive management process which includes both warnings and triggers associated with sage grouse habitat and populations. In this process, habitat warnings occur with new wildfires greater than 1,000 acres, or new permitted anthropogenic disturbances (figure 1). These warnings result in professional judgement of whether a trigger is warranted. The statewide technical team (table 1) is responsible for determining those triggers. Population triggers are identified and supplied by statewide U.S. Geological Survey modeling efforts. After the identification of triggers, a stakeholder driven process is initiated which involves a causal factor analysis and the development of management recommendations given to the appropriate land management agency. See the Sagebrush Ecosystem Program’s adaptive management plan¹ for more detailed information.

The statewide technical team assembled data relating to total male lek attendance, fire occurrence (3 years previous), habitat suitability (HSI), Resistance and Resilience, and range-wide genetic connectivity to determine a relative score for each population management unit associated with each habitat warning. This relative score was not prescriptive. Professional knowledge of impacts, recovery, and current conditions along with the score was used to come to a consensus on PMUs that warrant a trigger and potential conservation actions or management responses. These data are attached at the

¹ <http://sagebrusheco.nv.gov/uploadedFiles/sagebrushconvgov/content/Resources/AdaptiveManagementDocument.pdf>

end of this document in appendix A. Population triggers are analyzed by the U.S. Geological Survey and are updated periodically. See attached adaptive management plan for more information on the population trigger analysis.

Trigger Summary:

Table 2 lists the PMUs which have habitat triggers. Population trigger data was not available and not assessed for 2020.

Adaptive Management Response Team (AMRT):

Local group involvement will be limited in 2020/2021. Responses given by the AMRTs in 2019 are still being initiated, and the lack of current population data make it difficult to assess population trends. The Statewide Technical Team met in the October of 2020 and assigned 4 habitat triggers in addition to habitat triggers from 2019. The next steps include local meetings that will be held in late 2020 to assemble additional information to assist in implementing previous recommendations, as well as requesting management recommendations for the 4 additional habitat triggers.

Table 1. Members of the Statewide Technical Team.

Organization	Position
BLM-Nevada	Wildlife Biologist/ Sage Grouse Implementation Coordinator
BLM-California	Sage Grouse Implementation Coordinator
U.S. Forest Service	Wildlife Biologist/ Sage Grouse Coordinator
U.S. Fish and Wildlife Service	Biologist
SETT	Program Manager
Nevada Department of Wildlife	Upland Game Staff Specialist
Nevada Association of Counties	Natural Resources Specialist
University of Nevada-Reno	Sage Grouse Biologist
U.S. Geological Survey	Sage Grouse Biologist
Nevada Division of Forestry	Deputy Administrator of Operations
University of Nevada-Reno	Range Ecologist
BLM-Nevada	Fuels Specialist

Table 2. Summary of Triggers in each affected PMU.

	<i>Year Identified</i>	<i>PMU</i>	<i>Trigger</i>	<i>Conservation Planning Area</i>
1	2019	Lone Willow	Habitat Trigger	North Central
2	2019	Virginia/Pahrah	Habitat Trigger	Washoe/Modoc
3	2019	Desert	Habitat Trigger	Elko Stewardship
4	2019	Santa Rosa	Habitat Trigger	North Central
5	2019	Tuscarora	Habitat Trigger	Elko Stewardship/South Central
6	2019	North Fork	Habitat Trigger	Elko Stewardship
7	2020*	Shoshone	Habitat Trigger	South Central
8	2020	South Fork	Habitat Trigger	Elko Stewardship
9	2020	Buffalo/Skedaddle	Habitat Trigger	Washoe-Lassen-Modoc
10	2020*	Cortez	Habitat Trigger	South Central

* PMU was identified as a population trigger in 2019 and has existing management recommendations.

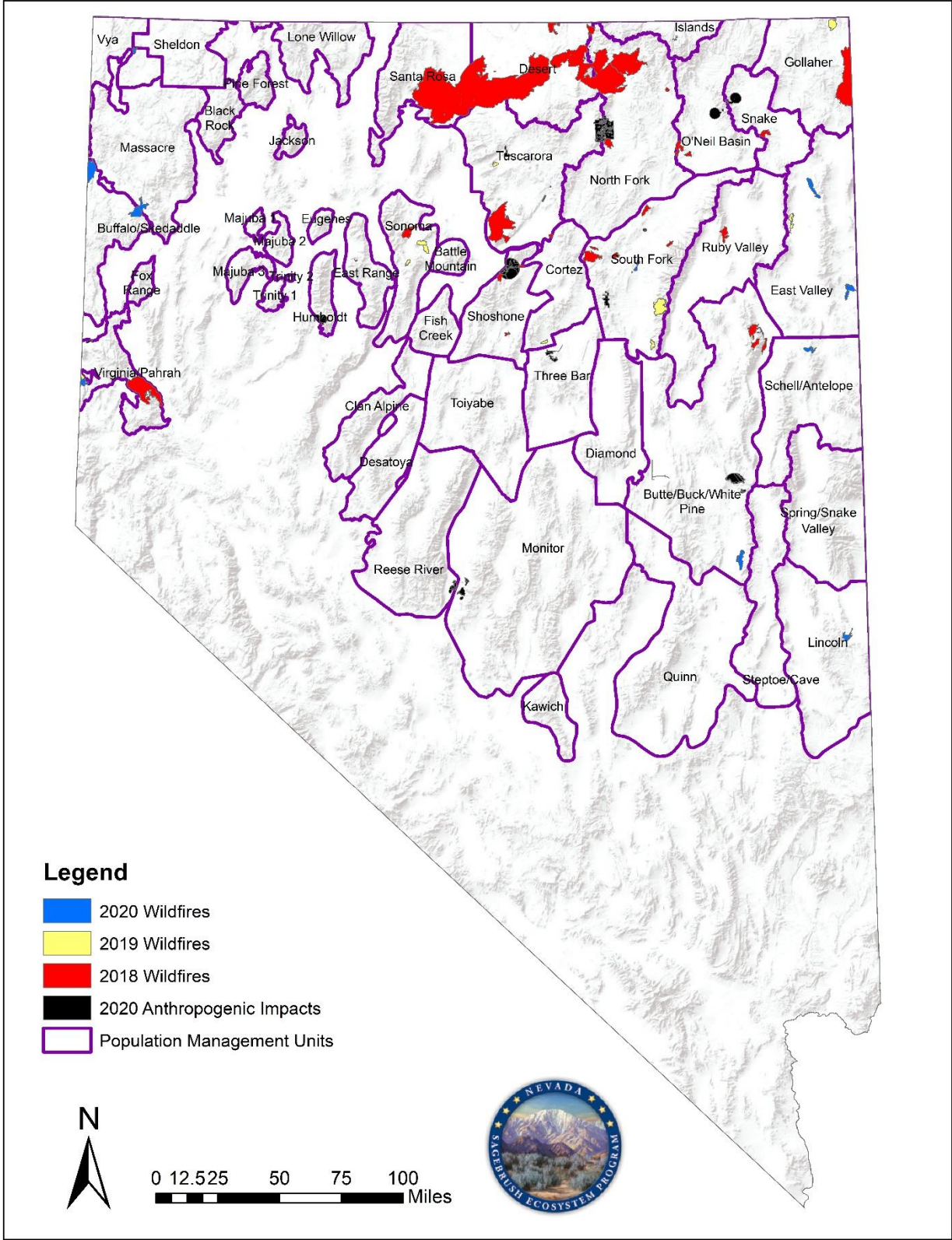


Figure 1. Impacts in the sagebrush ecosystem contributing to habitat warnings in 2020.

Appendix A

Habitat warning list with trigger designations

2019 Habitat Triggers Still Current (no action on recommendations):

- Tuscarora
- North Fork
- Lone Willow
- Virginia/Pahrah
- Desert
- Santa Rosa

2020 Adaptive Management Habitat Warnings

PMU	MCAT	Habitat Affected by Anthro (% of total PMU acres)	3 year fire occurrence (% of total PMU acres)	Habitat Trigger?	Peak Male Attendance (% of Total) Weight = .28	Average Habitat Suitability Index Weight = .22	Normalized Resistance and Resilience Weight = .12	% Affected by fire (3yr) Weight = .22	Normalized Genetic Connectivity Score Weight = .14	Final Score	Notes
PMUs with Anthropogenic Disturbance											
Butte/Buck/White Pine	OHMA	1.22%	1.47%	No	5.95%	0.08969147	0.84749076	1.20%	0.27513839	0.1792346	
	GHMA	1.26%	1.86%								
	PHMA	0.01%	0.29%								
Humboldt	OHMA	8.99%	—	No	0.01%	0.127954906	0.660028268	0.00%	0.452325916	0.17071704	
	GHMA	0.86%	—								
	PHMA	—	—								
Islands	OHMA	0.02%	—	No	0.80%	0.17392843	0.481561291	0.00%	0.565935164	0.17752071	
	GHMA	0.00%	—								
	PHMA	0.00%	—								
Monitor	OHMA	2.30%	—	No	4.99%	0.057567515	0.807220243	0.00%	0.286558857	0.16362866	No, follow up next year with horse impacts if it comes up again, monitor Ann mine.
	GHMA	0.00%	—								
	PHMA	0.00%	—								
North Fork	OHMA	0.00%	3.92%	YES	13.83%	0.246465432	0.67318947	8.89%	0.577150129	0.2740849	
	GHMA	0.01%	5.12%								
	PHMA	0.14%	10.22%								
O'Neil Basin	OHMA	0.00%	0.00%	No	7.17%	0.25108662	0.678250614	0.62%	0.66514161	0.25117508	
	GHMA	0.00%	0.00%								
	PHMA	1.27%	0.73%								
Reese River	OHMA	2.01%	—	No	3.20%	0.074815834	0.761477634	0.00%	0.265636774	0.15397866	
	GHMA	0.00%	—								
	PHMA	0.00%	—								
Shoshone	OHMA	7.89%	1.27%	YES	0.67%	0.143759015	0.772581967	0.00%	0.349574782	0.17515508	Mining impacts are significant. Follow up with Jeremy Lutz. Recommendation exist previous
	GHMA	2.69%	1.36%								
	PHMA	6.63%	0.10%								
Snake	OHMA	0.00%	0.00%	No	2.15%	0.169247653	0.828865079	0.99%	0.722228977	0.2460035	
	GHMA	0.00%	3.74%								
	PHMA	3.65%	0.14%								
South Fork	OHMA	0.12%	3.04%	YES	3.40%	0.192790209	0.718450334	3.74%	0.422130729	0.20547858	Follow up with Matt Jeffers about management recommendations
	GHMA	0.15%	1.49%								
	PHMA	0.26%	6.08%								
Three Bar	OHMA	0.02%	—	No	2.11%	0.147270477	0.624807814	0.00%	0.552844176	0.19069252	No, but need to monitor Gold Bar mitigation actions. If no action, trigger might be needed next year.
	GHMA	0.01%	—								
	PHMA	0.01%	—								
Tuscarora	OHMA	0.00%	8.29%	YES	3.31%	0.201808402	0.744713887	9.70%	0.435381166	0.22534026	
	GHMA	0.30%	13.19%								

2019 Habitat Triggers Still Current (no action on recommendations):

Tuscarora
 North Fork
 Lone Willow
 Virginia/Pahrah
 Desert
 Santa Rosa

2020 Adaptive Management Habitat Warnings

	PHMA	0.23%	8.16%									
Virginia/Pahrah	OHMA	0.00%	5.86%	YES	1.05%	0.226076363	0.908254929	12.10%	0.275553231	0.22687092		
	GHMA	0.00%	22.84%									
	PHMA	0.76%	0.00%									
PMUs with Wildfire Disturbance Only												
Buffalo/Skedaddle	OHMA	—	0.67%	YES	2.97%	0.214981756	0.808287561	4.91%	0.342767468	0.21141	Medusahead treatments are needed (treatment/reseeding) northern area. Fuelbreaks as well. Follow up to figure out where good pockets are and implement the previous years recommendations	
	GHMA	—	0.43%									
	PHMA	—	7.32%									
Cortez	OHMA	—	0.19%	YES	1.21%	0.199301702	0.729218662	0.32%	0.267751785	0.17291904		
	GHMA	—	0.08%									
	PHMA	—	0.56%									
Desert	OHMA	—	22.58%	YES	3.13%	0.204304738	0.751730017	25.12%	0.477374643	0.26601617		
	GHMA	—	19.11%									
	PHMA	—	29.51%									
East Range	OHMA	—	0.14%	No	0.00%	0.120078002	0.707162715	0.10%	0.489853856	0.18006823		
	GHMA	—	0.00%									
	PHMA	—	—									
East Valley	OHMA	—	2.94%	No	0.64%	0.071007637	0.93052401	2.81%	0.200793972	0.16338848		
	GHMA	—	2.55%									
	PHMA	—	2.49%									
Gollaher	OHMA	—	0.55%	??	3.43%	0.156253376	0.751912279	8.14%	0.578752935	0.23315068	Follow up again with Local group	
	GHMA	—	9.34%									
	PHMA	—	10.08%									
Lincoln	OHMA	—	0.00%	No	0.96%	0.060010412	0.860603206	0.74%	0.154830985	0.14246015		This is one to try and incorporate additional ranking variables
	GHMA	—	1.97%									
	PHMA	—	0.08%									
Massacre	OHMA	—	0.01%	No	5.84%	0.287773219	0.87543237	0.45%	0.698397346	0.28348366	Pursue population recs.	
	GHMA	—	0.01%									
	PHMA	—	0.68%									
Ruby Valley	OHMA	—	0.00%	No	2.11%	0.098611966	0.783840114	0.70%	0.361986131	0.17387753		
	GHMA	—	1.47%									
	PHMA	—	0.89%									
Santa Rosa	OHMA	—	16.75%	YES	5.64%	0.178494275	0.795309764	27.78%	0.574953073	0.29211473		
	GHMA	—	3.14%									
	PHMA	—	41.04%									
Schell/Antelope	OHMA	—	0.00%	No	2.70%	0.08897663	0.857890234	0.46%	0.345074387	0.17939322		
	GHMA	—	1.19%									
	PHMA	—	0.00%									
Sheldon	OHMA	—	0.00%	No	4.25%	0.329720129	0.692726452	0.03%	0.264180931	0.20461081		
	GHMA	—	0.00%									

2019 *Habitat Triggers* Still Current (no action on recommendations):

- Tuscarora
- North Fork
- Lone Willow
- Virginia/Pahrah
- Desert
- Santa Rosa

2020 Adaptive Management Habitat Warnings

	PHMA	—	0.03%							
Sonoma	OHMA	—	6.45%	No	1.14%	0.148449598	0.816683093	4.01%	0.45338145	0.20615364
	GHMA	—	1.22%							
	PHMA	—	3.21%							
Vya	OHMA	—	0.00%	No	2.51%	0.43662771	0.809258021	0.42%	0.732866413	0.30373447
	GHMA	—	0.00%							
	PHMA	—	0.52%							