



# State of Nevada Sagebrush Ecosystem Program

## SEMI-ANNUAL REPORT



December 2020

Eureka Livestock Credit Project in Eureka County. (SETT)

## STATE OF NEVADA SAGEBRUSH ECOSYSTEM PROGRAM

The *Semi-Annual Report* is a product of the Nevada Sagebrush Ecosystem Program (SEP). The Sagebrush Ecosystem Technical Team (SETT) and Sagebrush Ecosystem Council (SEC) submit this document biennially to report on the status of Greater Sage-grouse and the sagebrush ecosystem in Nevada, the Progress of the Nevada Conservation Credit System (CCS), as well as other strategies, programs, or projects carried out in pursuant of NRS 321.592 and NRS 321.594.

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*The Sagebrush Ecosystem Council's mission is to maintain and restore a functional and resilient sagebrush ecosystem to benefit all species while allowing for various land uses. This will be accomplished by working through a diverse coalition of public and private stakeholders.*

[sagebrusheco.nv.gov](http://sagebrusheco.nv.gov)

# LATE 2020 PROGRAM UPDATES



*Fox Mountain, Washoe County near the Estill Ranch Credit Project.  
(SETT)*

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# CONSERVATION CREDIT SYSTEM • BACKGROUND

- As required by the 2013 legislation establishing the SEP immediately began development of a system to mitigate authorized adverse impacts (disturbances) to sagebrush ecosystems in the State.
- After a year of robust engagement with stakeholders and scientific community, the Council unanimously adopted the Conservation Credit System as the mitigation program in December 2014.
- A primary goal expressed by all stakeholders was to develop a system that, based on best available science, could be used consistently to both quantify authorized adverse impacts to Greater Sage-grouse habitat (debits) and quantify the value of preservation and restoration projects (credits). To achieve this goal, the Habitat Quantification Tool (HQT) was developed and consequently approved by the Council.
- The 2015 Legislature appropriated funds to be used for grants to “kick start” credit projects. Funding was awarded initially in 2016 and, in addition, several landowners began credit projects on their own without any state funding.
- The transfer of credits began in 2017. However, transfers stalled upon the issuance of Instructional Memorandum (IM) by the Department of Interior in (insert month/year) directing that the Bureau of Land Management (BLM) could only require mitigation on federal lands if there was a state regulation requiring it.
- Because the vast majority of disturbances occur on lands managed by the BLM, Nevada became more at risk of having the Greater Sage-grouse listed as threatened or endangered species due to lack of regulatory mechanisms to mitigate disturbances.
- In answer, the Sagebrush Ecosystem Council immediately began work on a regulation requiring mitigation on public lands. A permanent regulation was passed in 2019.
- A combination of continuous program engagement and the adoption of the regulation has resulted in a significant increase in credit project development and CCS mitigation transactions.
- Nevada began development of the mitigation program after many other western states with Sage-grouse habitat had begun development of their systems. Nevada is considered a regional leader in the implementation of a conservation credit system or habitat exchange, being one of the first to have finalized several transactions.

# CONSERVATION CREDIT SYSTEM • LATE 2020 UPDATES

## In 2020:

- Seven mitigation transactions were finalized using the CCS.
- These transactions involved the sale of 1,078 credits from five private land credit developers that encompass 4,480 acres of high value sage-grouse habitats which will be conserved for a minimum of 30 years.
- Five credit project proponents finalized their CCS management plans that conserve nearly 50,000 acres (16,810 credits).
- It is anticipated that five additional credit projects (>30,000 acres) will be completed in early 2021.
- All 17 credit project proponents submitted their annual monitoring and management reports to the SETT for review.
- To date, 17 debit projects representing various industries used the HQT to quantify their debits and 11 proposed debit project proponents will use the HQT in 2021.
- In consultation with the SETT, four debit projects altered their designs to minimize their impacts and mitigation obligations.



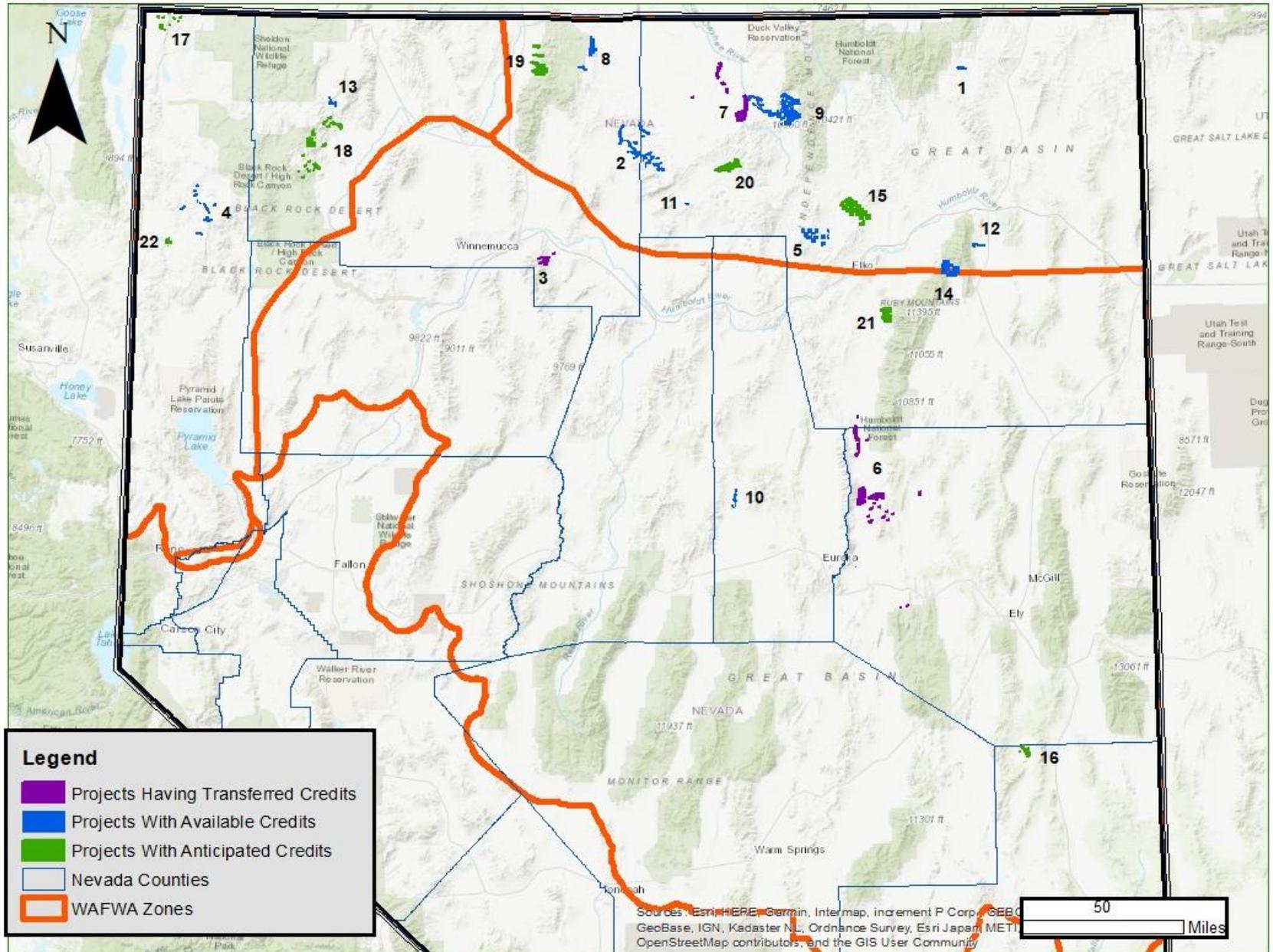
*High up in the area of the Foster Ranch Credit Project in Humboldt County. (SETT)*

# CONSERVATION CREDIT SYSTEM • STATUS OF CREDIT PROJECTS

PROJECT NAME (# ON MAP)	CREDITS	COUNTY	ACRES CONSERVED	WAFWA MGMT. ZONE	STATE SEED FUNDED
<b>TRANSFERRED CREDITS</b>					
Cottonwood Ranch (1)	3	Elko	6	IV	Yes
Crawford Cattle – Snowstorms (2)	527	Elko, Humboldt	2,601	IV	Yes
Crawford Cattle – Sonoma (3)	467	Humboldt	1,498	III	Yes
Estill Ranch (4)	22	Washoe	346	V	No
Heguy Ranch (5)	59	Elko	26	IV	Yes
Tumbling JR Ranch* (6)	2,514	Elko, White Pine	5,868	III	Yes
West IL Ranch* (7)	248	Elko	158	IV	No
<b>TOTAL</b>	<b>3,840</b>		<b>10,503</b>		
<b>AVAILABLE CREDITS</b>					
Cottonwood Ranch (1)	708	Elko	1,002	IV	Yes
Crawford Cattle – Calico Mtn (8)	2,970	Humboldt	5,120	IV	Yes
Crawford Cattle – Snowstorms (2)	1,348	Elko, Humboldt	7,930	IV	Yes
East IL Ranch* (9)	8,873	Elko	23,721	IV	No
Estill Ranch (4)	618	Washoe	2,706	V	No
Eureka Livestock (10)	1,718	Eureka	1,623	III	Yes
Heguy Ranch (5)	707	Elko	6,464	IV	Yes
Humboldt Ranch - Hot Lake* (11)	694	Elko	198	IV	No
Johns Ranch (12)	164	Elko	1,073	IV	Yes
RDD (13)	740	Humboldt	1,094	V	Yes
Secret Pass Ranch (14)	3,642	Elko	10,269	III, IV	Yes
Tumbling JR Ranch* (6)	1,663	Elko, White Pine	3,882	III	No
West IL Ranch* (7)	2,180	Elko	1,539	IV	No
<b>TOTAL</b>	<b>26,025</b>		<b>66,621</b>		
<b>ANTICIPATED CREDITS</b>					
Adobe Peak* (15)	TBD	Elko	10,901	IV	No
Cave Valley Ranch (16)	TBD	Lincoln	1,769	III	No
Coleman Valley Ranch (17)	TBD	Washoe	1,137	V	Yes
Foster Ranch (18)	TBD	Humboldt	6,094	V	Yes
Getch Lands (19)	TBD	Humboldt	6,229	IV	No
Humboldt Ranch – ToeJam* (20)	TBD	Elko	5,330	IV	No
Owl Creek Ranch (21)	TBD	Elko	5,363	III	Yes
Washoe Livestock (22)	TBD	Washoe	799	V	No
<b>TOTAL</b>	<b>~12,900</b>		<b>37,622</b>		
<b>CUMULATIVE TOTAL</b>	<b>~42,765</b>		<b>114,746</b>		

\* Indicates credit projects intended for internal transfers.

# CONSERVATION CREDIT SYSTEM • MAP OF CREDIT PROJECTS

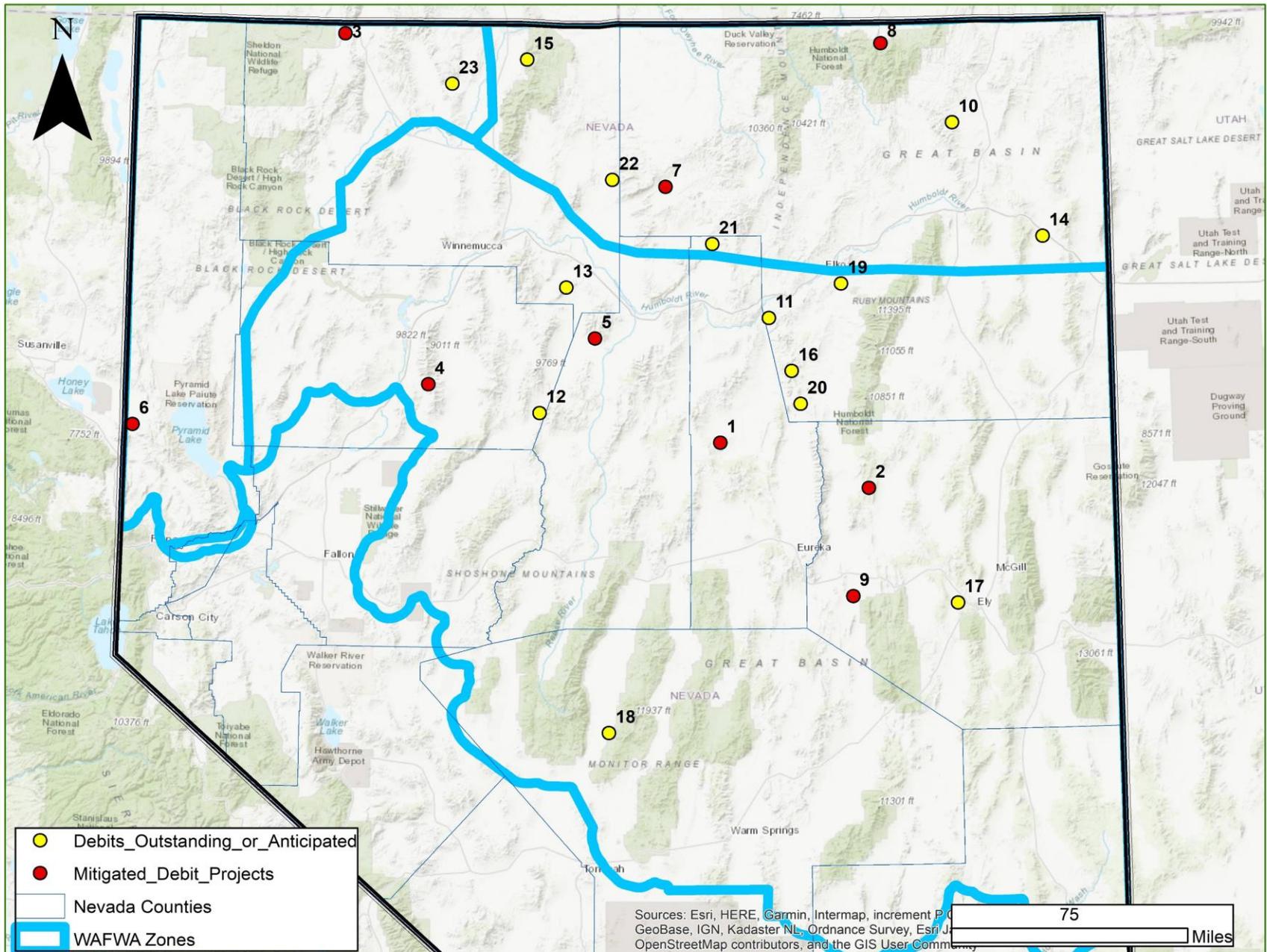


See the table on the previous page for corresponding project numbers and further detail.

# CONSERVATION CREDIT SYSTEM • STATUS OF DEBIT PROJECTS

PROJECT NAME (# ON MAP)	TOTAL DEBITS*	COUNTY	ACRES OF DIRECT IMPACT	WAFWA MGMT. ZONE
<b>DEBITS MITIGATED</b>				
Avocado Exploration (1)	38	Eureka	68	III
Bald Mountain Mine – Phase 1 (2)	2,514	White Pine	2,521	III
Baltazor (3)	254	Humboldt	0	V
Couer Rochester (4)	607	Pershing	2,567	III
Greater Phoenix (5)	211	Lander	513	III
Greater Phoenix – Philadelphia Expansion (5)	4	Lander	203	III
Fish Springs Solar (6)	51	Washoe	10	V
Midas Exploration (7)	19	Elko	50	IV
Newcrest Exploration – Phase 1 (8)	3	Elko	10	IV
Western Oil (9)	14	White Pine	24	III
<b>TOTAL</b>	<b>3,715</b>		<b>5,966</b>	
<b>DEBITS OUTSTANDING/ANTICIPATED</b>				
Bald Mountain Mine – Later Phase (2)	2,737	White Pine	2,745	III
Big Ledge – Dry Creek (10)	310	Elko	59	IV
Big Ledge – Tabor Creek (10)	383	Elko	263	IV
Carlin Vanadium Exploration (11)	62	Elko	0	III
Dixie Meadows (12)	284	Pershing	10	III
Lone Tree Mine – Buffalo Mtn (13)	TBD	Humboldt	0	III
Long Canyon Mine – Phase 2 (14)	1,956	Elko	815	III, IV
National Exploration (15)	28	Humboldt	40	IV
Pony Creek Exploration (16)	131	Elko	150	III
Robinson (17)	183	White Pine	51	III
Round Mtn (18)	41	Nye	264	III
Ruby Vista (19)	1	Elko	2	III
South Railroad Exploration (20)	98	Elko	122	III
TSPP (21)	4	Elko, Eureka	1	IV
Twin Creeks Mine – Sage Tailings (22)	33	Humboldt	0	IV
Western Lithium (23)	1,375	Humboldt	5,169	V
<b>TOTAL</b>	<b>≥7,626</b>		<b>9,691</b>	
<b>CUMULATIVE TOTAL</b>	<b>≥11,341</b>		<b>15,657</b>	

# CONSERVATION CREDIT SYSTEM • MAP OF DEBIT PROJECTS



See the table on the previous page for corresponding project numbers and further detail.

## OTHER PROGRAM EFFORTS • LATE 2020 UPDATES

Other efforts of the Sagebrush Ecosystem Technical Team through December of 2020 included:

- Held three (virtual) Sagebrush Ecosystem Council meetings.
- Led the 2nd annual Adaptive Management meetings related to GRSG population and habitat warnings/triggers and submitted the report to local work groups and state and federal agencies.
- Managed sub-grants to USGS and Environmental Incentives to conduct new science and improve the application of the CCS.
- Completed weed maps, prioritization for annual invasive grass treatments, and held meetings on improving Early Detection Rapid Response.
- Continued participation in collaborative efforts to conserve GRSG and sagebrush habitats, including representing the SETT on Nevada's Shared Stewardship Technical Advisory Committee.
- Participated in ROGER (Results Oriented Grazing for Ecological Resiliency), Nevada Collaborative Conservation Network (NvCCN) meetings, and Nevada Association of Conservation Districts (NVACD) Annual Meeting.
- Assisted the Nevada Creeks and Communities Team with teaching Proper Functioning Condition in workshops.
- Entered/updated credit projects into the Conservation Efforts Database and the USFS SMART database.
- Participated in conferences, meetings, and webinars related to GRSG, wildfire, invasive plants, mitigation, and mining.

*Hinkey Summit area in Humboldt County,  
West of the Calico Ranch Credit Project.  
(SETT)*



# PLANS FOR THE COMING YEAR • LATE 2020 UPDATES

- 6<sup>th</sup> Annual CCS Verifier Training in January.
- Overseeing credit project development and management and conducting Five-Year Qualitative Assessment site visits.
- CCS debit project oversight, serving as a Cooperating Agency in the avoid, minimize, mitigate analysis, NEPA processes, and regulating all mitigation transactions.
- Raising greater awareness of the CCS and the mitigation regulation with agencies, program participants, industries, and landowners.
- Organizing an annual conference for credit and debit project participants.
- Working toward an annual sharing/learning symposium with other Western States involved in sagebrush ecosystem conservation and GRSG mitigation.
- Developing, prioritizing, and encouraging the implementation of additional conservation practices within the CCS and through existing agreements and grant opportunities.
- Implementation of the adaptive management process outlined in the NV Greater Sage-Grouse Conservation Plan, BLM, and USFS land use plans.

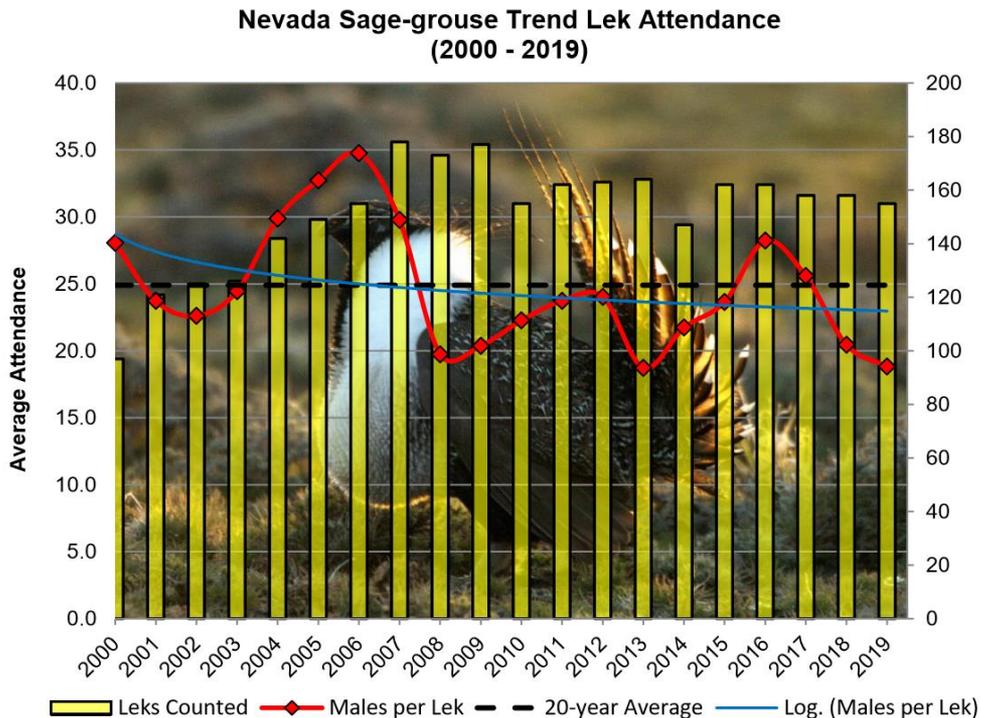


*Male greater sage-grouse silhouette. (Tatiana Gettelman)*

# GREATER SAGE-GROUSE • SAGEBRUSH ECOSYSTEM & GRSG STATUS

## GREATER SAGE-GROUSE POPULATION OVERVIEW

The Nevada Department of Wildlife, in conjunction with federal agency partners including the Bureau of Land Management (BLM), U.S. Forest Service (USFS), U.S. Geological Survey (USGS) and the U.S. Fish and Wildlife Service (USFWS), conducts sage-grouse lek counts and surveys annually. Techniques to monitor leks include traditional ground surveys using accepted protocols and aerial survey using rotary or fixed wing aircraft. Some fixed wing surveys are outfitted with cooled infrared camera technology (thermal imaging) with telephoto capabilities and flown at altitudes that minimize or negate disturbance to birds. Approximately 40% of the 1,981 known sage-grouse leks and approximately 75% of trend leks identified within the state are surveyed each year. Trend leks are a subset of total leks in Nevada that are monitored several times each year to enable a better trend estimate for sage-grouse populations in Nevada.



Due to the Covid-19 pandemic, NDOW biologists and volunteers were challenged to count leks during the spring 2020 lek surveying season. For the majority of the lek survey season, NDOW and other State biologists were unable to complete field surveys. Some volunteers, non-profit organizations, and others were able to conduct lek counts; however, 2020 lek data that was collected will not be robust enough to include in population trend analyses at this time. Trend lek attendance is provided in Figure 1 from 2000-2019.

FIGURE 1. Sage-grouse lek attendance (2000–2019).

# GREATER SAGE-GROUSE • SAGEBRUSH ECOSYSTEM & GRSG STATUS

## GREATER SAGE-GROUSE POPULATION OVERVIEW

U.S. Geological Survey developed a hierarchical population monitoring framework for Nevada and California that identified population triggers at several spatial scales (lek, neighborhood (lek) cluster, and climate cluster) using lek count data from 2003 through 2016 (Coates et al. 2017). The framework identified population boundaries based on factors such as groups of leks and regions where populations are influenced more by environmental conditions (Figure 2). It is within these boundaries that population trends are analyzed for decline to develop an early warning system. The early warning system detects populations at specific spatial scales that are in decline and likely in need of enhanced management, monitoring, and conservation practices being employed.

When updating the analysis to include 2017-2019 lek data, USGS expanded the NV/CA study range wide to incorporate other western states with sage-grouse populations. The updated analysis will also provide previous or historic population triggers statewide, which will assist in the causal factor analysis component of the adaptive management process. The analysis has been completed and is currently in the peer review process. We expect the publication and population triggers to be available for use in early 2021. The SETT will provide an update in the next semi-annual report describing the results of the population modeling and early warning system triggers for both population and habitat.

Coates, P.S., Prochazka, B.G., Ricca, M.A., Wann, G.T., Aldridge, C.L., Hanser, S.E., Doherty, K.E., O'Donnel, M.S. Edmunds, D.R., and Espinosa, S.P. 2017. Hierarchical population monitoring of greater sage-grouse (*Centrocercus urophasianus*) in Nevada and California – Identifying populations for management at the appropriate spatial scale: U.S. Geological Survey Open-File Report 2017-1089, 49p.

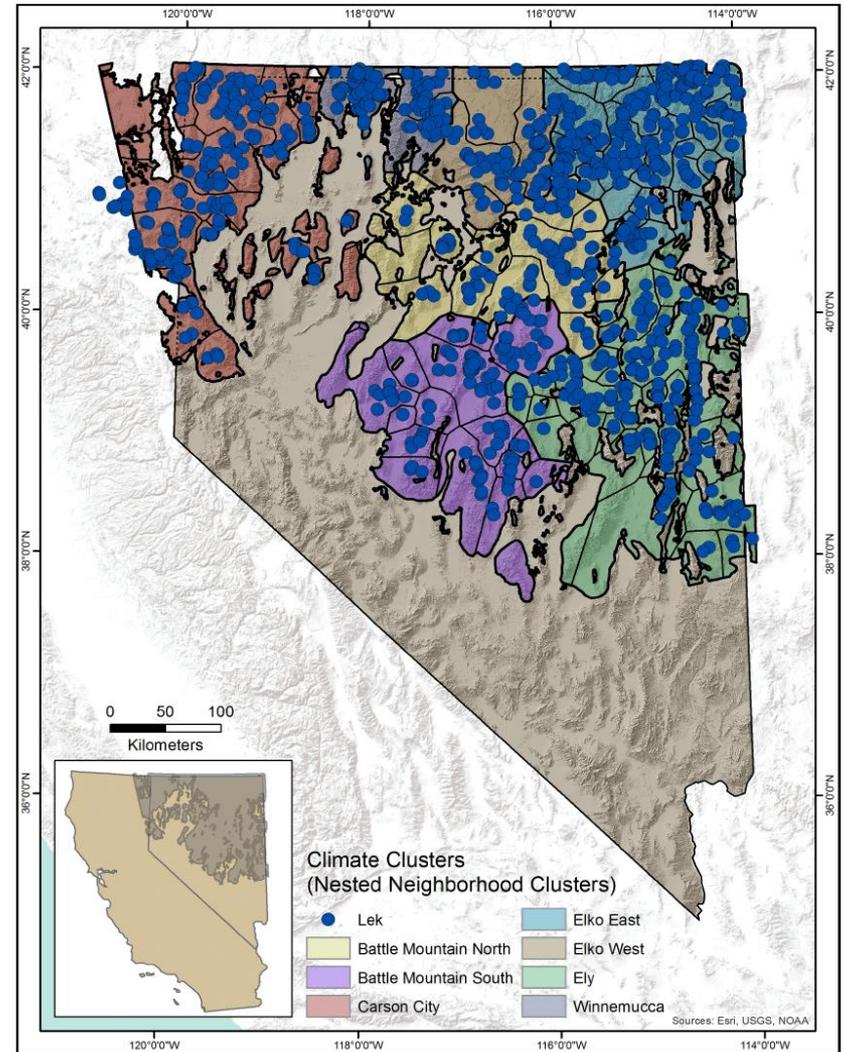


FIGURE 2. USGS map of lek locations, neighborhood clusters (black outlined polygons) and climate clusters (colored shaded areas) (Coates et al. 2017).

# GREATER SAGE-GROUSE • THREATS

## THREATS TO THE SAGEBRUSH ECOSYSTEM AND THE GREATER SAGE-GROUSE

Threats to GRSG are numerous but can be placed into categories that all affect GRSG habitat. Direct habitat loss from wildfire and invasive species and habitat fragmentation are the greatest contributing factors to declining populations.

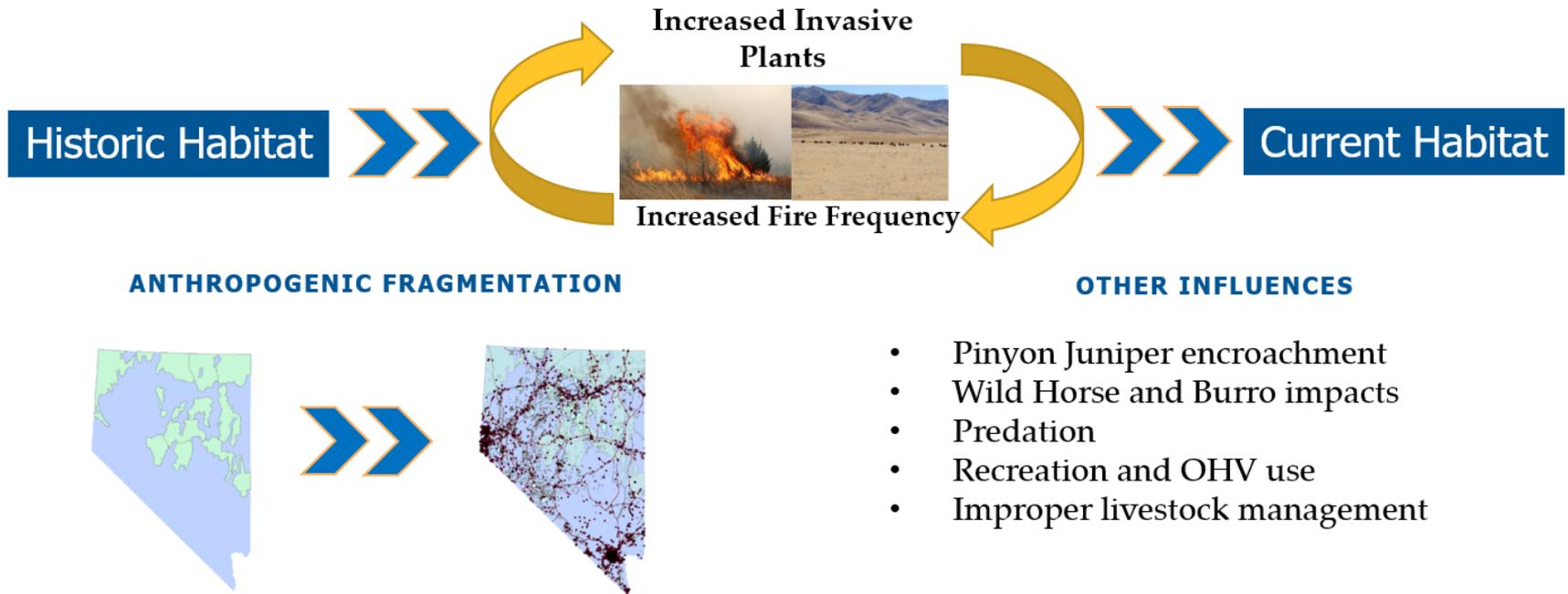


FIGURE 4: Threats to Sagebrush Ecosystems.

As habitat loss from wildfire and cheatgrass continue along with fragmentation, post-fire restoration and pre-suppression actions to reduce wildfire frequency as well as appropriate mitigation of other impacts and preservation of intact landscapes become even more important to conservation of Nevada's sagebrush ecosystems and greater sage-grouse habitats.

# NVCCN & ROGER UPDATES

*The SEP also provides information and updates for NVCCN, ROGER, and the LAWGs, which are all relevant to the sagebrush conservation efforts in Nevada.*

**The Nevada Collaborative Conservation Network (NVCCN)** is a statewide effort to build a network that serves to promote, coordinate, and support locally-led conservation efforts. The primary objective of NVCCN is to promote effective conservation of Nevada's ecosystems and economic viability of Nevada's communities through grassroots conservation. NVCCN provides structure to support local, diverse stakeholder groups working to achieve conservation by incorporating best science and local knowledge through a collaborative planning and implementation approach. NVCCN serves as a bridge between various groups that are already operating at the local, state and federal levels to enhance and expand locally-led conservation efforts.

- 2020 updates: Via Zoom, held two meetings as planned as well as check-ins. A workshop is planned for Spring of 2021.
- Future goals: Maintaining and expanding group, as well as hiring an NVCCN Coordinator to manage group and associated work groups, expand participation, assist with logistics, and build local capacity to move NVCCN and NV collaborative community-based conservation efforts forward.
- Resource needs: Continued support, participation and commitment from all parties, and continued political and financial support from CDs.

**ROGER: Results Oriented Grazing for Ecological Resilience** is a rancher-led collaborative to achieve land management objectives that conserve sagebrush ecosystems and support ranching.

- 2020 updates: Via Zoom, held quarterly meetings. A field tour is planned for Maggie Creek Ranch in July of 2021.
- Future goals: With assistance from recent funding to provide a coordinator, the group is focused on communicating its accomplishments, charting its future course, refining coordinator's scope of work, continued progress on four focus areas, and maintaining and expanding group to better represent all of Nevada.
- Resource needs: Funds for development/testing of spatially explicit map as conservation planning and monitoring tool, and continued support and commitment from all parties, including the Governor and Congressional Offices.

# LOCAL AREA WORKING GROUP (LAWG) UPDATES

**The South Central LAWG** works in South Central Nevada with a focus in recent years on GRSG as well as soil and water conservation.

- 2020 updates reported on for the Eureka CD part of the LAWG: Meetings held monthly. A successful meeting of the South Central Adaptive Management Response Team (AMRT) facilitated by Jake Tibbits with over 30 stakeholders led to recommendations. 2,000 acres of PJ were maintained or cleared in GRSG priority areas. Significant weed control efforts.
- Future goals: Completing the post-Resource Needs Assessment Conservation Action Plan within Eureka County by 2021, assist in getting AMRT recommendations implemented in Eureka County by 2021.
- Resource needs: Funding and capacity for CDSs to complete GRSG projects. A full-time coordinator to implement AMRT recommendations. Improved timeliness of triggers to allow for timely recommendations actions.

**The Stewardship Alliance of Northeast Elko** is a multidisciplinary conservation team working together to conserve sagebrush habitat in NE Elko.

- 2020 updates: A successful meeting of the SANE Adaptive Management Response Team (AMRT), facilitated by SETT member Ethan Mower, led to reconsideration of triggers in the area.
- Future goals: Continuing to leverage organizational capacity and human/financial resources, scale up projects to improve outcomes and costs, implement long-term monitoring, and completing planning and completing local projects.
- Resource needs: Funding for capacity, sustainability, technical assistance, coordination; financial support for community-based conservation.

**The Elko Stewardship LAWG** works in the central Elko area on sagebrush ecosystem related efforts.

- 2020 updates: Wild horse gathers in Maverik HMA were performed. Sagebrush caches installed in Lamoille and Hunter fire.
- Future goals: Publication of factsheet for sagebrush cache methods is planned.
- Resource needs: None reported.

