



# State of Nevada Sagebrush Ecosystem Program

## SEMI-ANNUAL REPORT



June 2020

**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 Sagegrouse 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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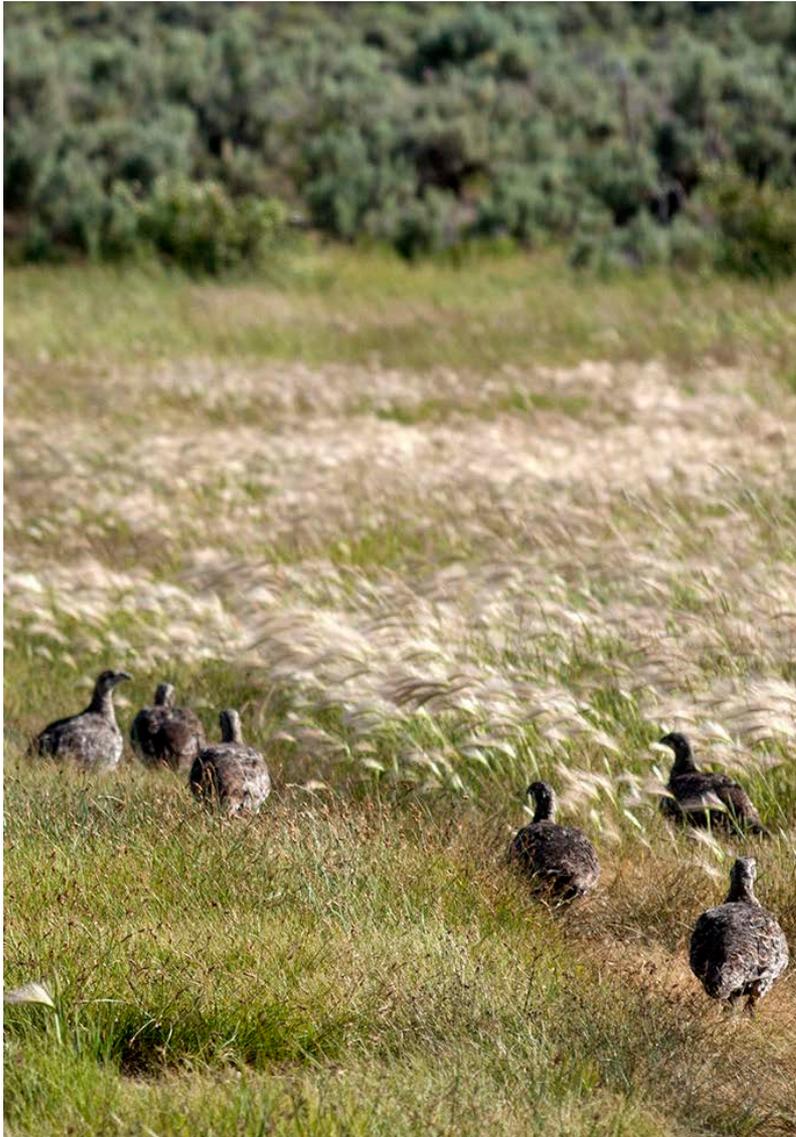
Jon Raby (Bureau of Land Management)

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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)

# JUNE 2020 PROGRAM UPDATES



*GRSG near the Cottonwood Ranch Credit Project. (Gary Reese)*

<b>Nevada Conservation Credit System (CCS)</b>	4
1 <sup>st</sup> Mitigation Transaction Across Parties	
Other CCS Implementation Updates	
Credit Project Update & Map	
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Threats to Sagebrush Ecosystems & GRSG	

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- The first private mitigation transaction took place during quarantine, a collaboration between a debit project proponent, Coeur for the Coeur Rochester Mine Expansion, and a privately owned ranch, Crawford Cattle.
- After removing a powerline from project plans, the expansion of Coeur Rochester, an open pit gold and silver mine, had a credit obligation for 605 credits. Some were purchased outside of the PMU, which elevated the obligation.
- Ultimately, 653 credits were purchased accounting for 2,814 relevant acres from the Crawford Cattle Sonomas and Snowstorms credit projects that are now committed to be conserved for 30 years to complete the mitigation offset.
- The goals of these credit projects are to:
  - Improve the spring sources and creek/meadow complexes, provide sustainable rangeland health, improve sagebrush ecosystems habitats for GRSG and other wildlife, including upland birds, Lahontan cutthroat trout, and mule deer.
- Long-term commitments include:
  - Annual monitoring, periodic assessment and verification, financial assurances and additional credits contributed to the reserve account, and all actions in the management plan including maintenance of grazing management infrastructure, further fencing and seeding of specific meadow areas, weed treatment actions, and grazing as described therein.
- A state seed grant recipient, Crawford Cattle has returned the proportion of funds the State invested in the credits sold, which will be used to seed additional conservation projects.



*Part of Crawford Cattle's Snowstorms Credit Project included in the mitigation transaction. (Kelly McGowan)*

# • JUNE 2020 CCS UPDATES • OTHER CCS IMPLEMENTATION NEWS

As of June 2020:

- In addition to the Coeur & Crawford transaction, 5 other mitigation collaborations between debit and credit project proponents are advancing quickly with finalization expected this summer.
- 13 new debit projects are moving at various stages of the HQT process. In addition to mining companies, proponents of planned exploration, solar, geothermal, and pipeline projects are moving through the process to assess disturbance and, if necessary, fulfil their mitigation obligations.
- Another conservation impact has come through minimization of disturbance, as Raft River Rural Electric Cooperative now aims to bury multiple miles of powerline rather than rebuild it above-ground with mitigation avoidance a consideration.
- Over 113,000 acres of stewardship and conservation activities, both self-funded and grant-funded, have transferred, available, or soon-to-be-available credits. Nearly 11,000 credits are available to offset disturbances, and more than 25,000 credits are anticipated to be available within a few months. Five new credit projects, four of which are seed grant funded, are striving to complete work to quantify credits this field season. Conservation actions on credit projects to date have included weed and pinyon-juniper treatments; forb, perennial grass, and sagebrush establishment; and various meadow improvements.
- The 5th Annual CCS Certified Verifier Training was held by the SETT in January of 2020. Fifty Verifiers were certified representing 24 Western organizations.

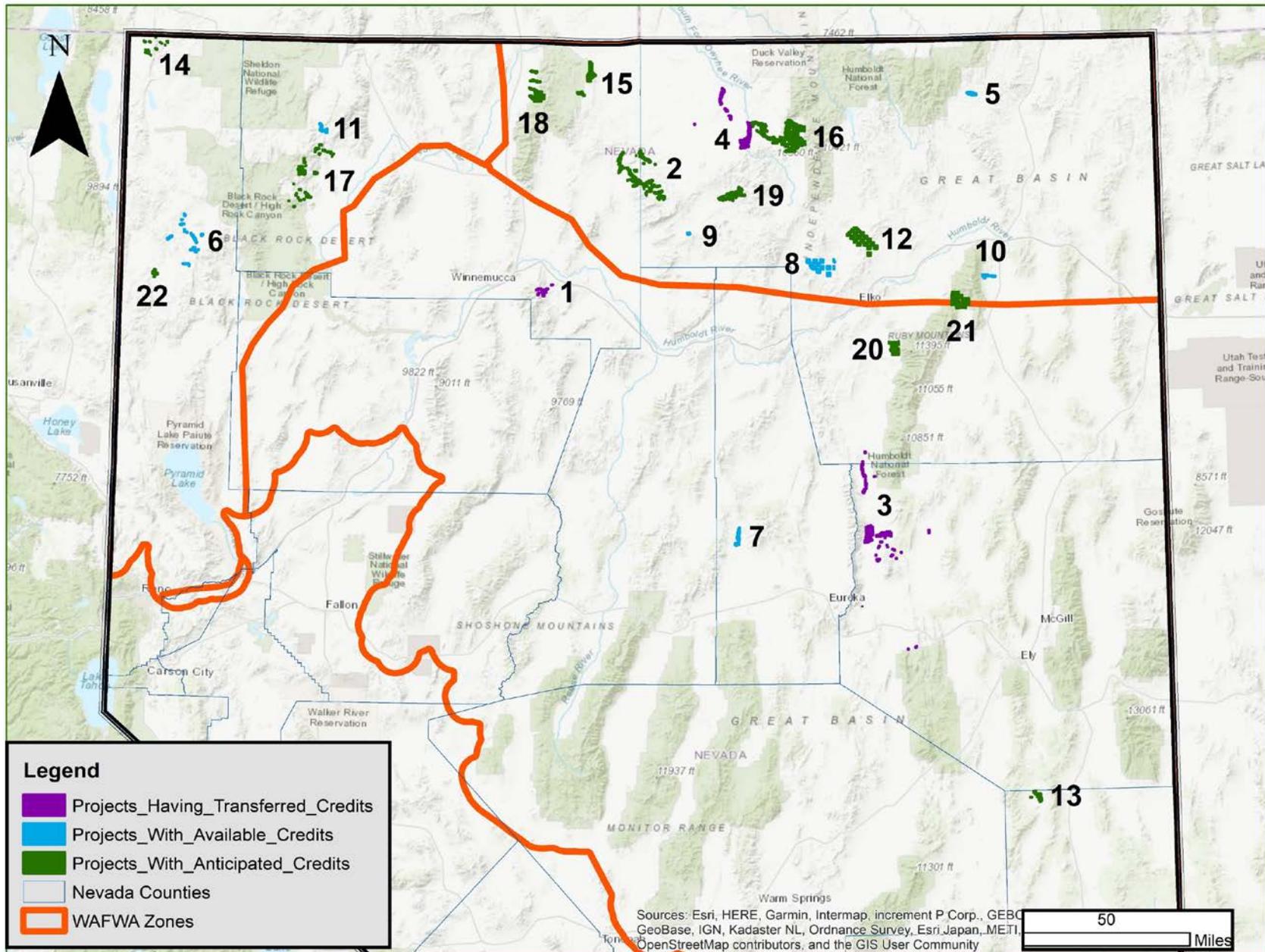


# JUNE 2020 CCS UPDATES

# • STATUS OF CREDIT PROJECTS

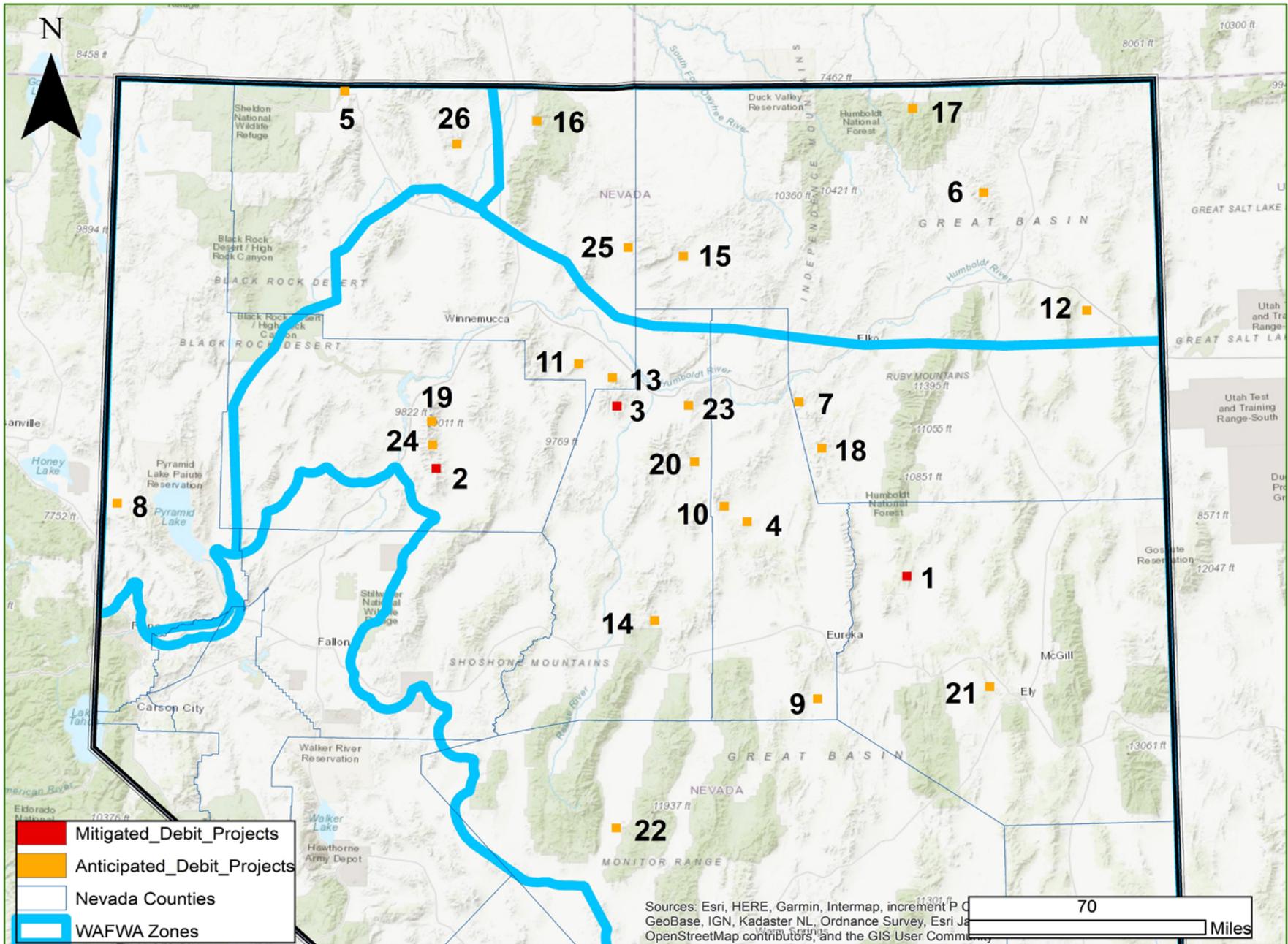
PROJECT NAME (# ON MAP)	CREDITS*	COUNTY	ACRES CONSERVED	WAFWA MGMT. ZONE	STATE SEED FUNDED**
<b>TRANSFERRED CREDITS</b>					
Crawford Cattle – Sonoma (1)	467	Humboldt	1,498	III	Yes
Crawford Cattle – Snowstorms (2)	186	Elko, Humboldt	1,313	IV	Yes
Tumbling JR Ranch* (3)	2,514	Elko, White Pine	5,868	III	Yes
West IL Ranch* (4)	248	Elko	158	IV	No
<b>TOTAL</b>	<b>3,415</b>		<b>8,837</b>		
<b>AVAILABLE CREDITS</b>					
Cottonwood Ranch (5)	711	Elko	1,008	IV	Yes
Crawford Cattle – Snowstorms (2)	1,689	Elko, Humboldt	9,218	IV	Yes
Estill Ranch (6)	640	Washoe	3,052	V	No
Eureka Livestock (7)	1,718	Eureka	1,623	III	Yes
Heguy Ranch (8)	766	Elko	6,490	IV	Yes
Humboldt Ranch - Hot Lake* (9)	694	Elko	198	IV	No
Johns Ranch (10)	164	Elko	1,073	IV	Yes
RDD (11)	740	Humboldt	1,094	V	Yes
Tumbling JR Ranch* (3)	1,663	Elko, White Pine	3,882	III	No
West IL Ranch* (4)	2,180	Elko	1,539	IV	No
<b>TOTAL</b>	<b>10,965</b>		<b>29,177</b>		
<b>ANTICIPATED CREDITS</b>					
Adobe Peak* (12)	TBD	Elko	10,901	IV	No
Cave Valley Ranch (13)	TBD	Lincoln	1,769	III	No
Coleman Valley Ranch (14)	TBD	Washoe	1,137	V	Yes
Crawford Cattle – Calico Mtn (15)	TBD	Humboldt	5,114	IV	Yes
East IL Ranch* (16)	TBD	Elko	23,721	IV	No
Foster Ranch (17)	TBD	Humboldt	5,070	V	Yes
Getch Lands (18)	TBD	Humboldt	6,229	IV	No
Humboldt Ranch – ToeJam* (19)	TBD	Elko	5,330	IV	No
Owl Creek Ranch (20)	TBD	Elko	5,244	III	Yes
Secret Pass Ranch (21)	TBD	Elko	10,492	III, IV	Yes
Washoe Livestock (22)	TBD	Washoe	799	V	No
<b>TOTAL</b>	<b>~26,262</b>		<b>75,806</b>		
<b>CUMULATIVE TOTAL</b>	<b>~40,642</b>		<b>113,820</b>		

\* Indicates credit projects intended for internal transfers.



Projects 2, 3, and 4 have transferred credits and available credits. See the Status of Credit Projects table for further details.

PROJECT NAME (# ON MAP)	TOTAL DEBITS	COUNTY	ACRES OF DIRECT IMPACT	WAFWA MGMT. ZONE
<b>DEBITS MITIGATED</b>				
Bald Mountain Mine – Phase 1 (1)	2,514	White Pine	2,521	III
Coeur Rochester (2)	653	Pershing	2,567	III
Greater Phoenix (3)	211	Lander	513	III
Greater Phoenix – Philadelphia Expansion (3)	4	Lander	390	III
<b>TOTAL</b>	<b>3,382</b>		<b>5,991</b>	
<b>DEBITS ANTICIPATED</b>				
Avocado Exploration (4)	38	Eureka	68	III
Bald Mountain Mine – Later Phase (1)	2,737	White Pine	2,745	III
Baltazor (5)	254	Humboldt	0	V
Big Ledge (6)	TBD	Elko	TBD	IV
Carlin Vanadium Exploration (7)	62	Elko	75	III
Fish Springs Solar (8)	51	Washoe	10	V
Gibellini (9)	TBD	Eureka, Nye, White Pine	TBD	III
Goldrush (10)	TBD	Eureka, Lander	TBD	III
Lone Tree Mine – Buffalo Mtn (11)	TBD	Humboldt	TBD	III
Long Canyon Mine – Phase 2 (12)	TBD	Elko	TBD	III, IV
McGinness Hills – Phase IV (14)	TBD	Lander	TBD	III
Midas Exploration (15)	19	Elko	50	IV
National Exploration (16)	TBD	Humboldt	TBD	IV
Newcrest Exploration – Phase 1 (17)	3	Elko	10	IV
Pony Creek Exploration (18)	28	Elko	150	III
Relief Canyon (19)	TBD	Pershing	TBD	III
Robertson (20)	TBD	Lander	TBD	III
Robinson (21)	TBD	White Pine	TBD	III
Round Mtn (22)	TBD	Nye	TBD	III
Scruffy Oz (23)	TBD	Lander	TBD	III
Spring Valley (24)	TBD	Pershing	TBD	III
Twin Creeks Mine – Sage Tailings (25)	33	Humboldt	0	IV
Western Lithium (26)	1,375	Humboldt	5,169	V
<b>TOTAL</b>	<b>4,600</b>		<b>8,277</b>	
<b>CUMULATIVE TOTAL</b>	<b>7,982</b>		<b>14,268</b>	



# JUNE 2020 PROGRAM UPDATES • OTHER PROGRAM EFFORTS

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

- Held three Sagebrush Ecosystem Council Meetings.
- Finished 1<sup>st</sup> annual Adaptive Management report (available at: [http://sagebrusheco.nv.gov/Adaptive\\_Management/2019/2019/](http://sagebrusheco.nv.gov/Adaptive_Management/2019/2019/)).
- Conducted other Adaptive Management work including kicking off the 2020 Adaptive Management Process.
- Began weed data sharing coordination with BLM/USFS/NDA and producing mapping products to highlight issues and prioritize actions.
- Conducted efforts related to managing subgrants to USGS and Environmental Incentives.
- Entered credit project information into the FWS/USGS Conservation Efforts Database for 2020 WAFWA GRSG Status Review.
- Continued collaborative efforts with federal and state agencies to improve GRSG habitat, coordinate planning and conservation efforts, and work towards developing credits on public lands.
- Took part in ROGER (Results Oriented Grazing for Ecological Resiliency) and Nevada Collaborative Conservation Network (NvCCN) meetings.
- Worked with the Nevada Creeks and Communities Team to put together and implement PFC Workshops.
- Conducted outreach at various conferences, workshops, and other local meetings to encourage conservation of GRSG and their habitat in Nevada.
- Took part in various meetings related to wildfire, conservation efforts tracking, and mining.
- Provided careful review and feedback on several federal land use planning documents.
- Assessed opportunities for funding that may assist the program in meeting its overall objective of conserving sagebrush ecosystems.



*The Cottonwood Ranch CCS Credit Project with Wells Conservation Camp planting big sagebrush to restore escape cover for GRSG. The seed was collected onsite and grown out at NDF's Washoe State Nursery. (Gary Reese)*

- Continue to implement the CCS and work with credit and debit project proponents navigating the CCS, train and assist verifiers to assess the planned disturbances and impacts of debit projects and the conservation values of credit projects, as well as implement mitigation offsets.
- Ensure new credit projects that are awarded seed funding move forward with habitat improvements and determination of credits through implementation of the habitat quantification tool.
- Conduct 1<sup>st</sup> pre-field and site visits as part of Five-Year Qualitative Assessment for 2016 credit projects in 2021 Spring.
- Participate in additional meetings with BLM, USFS, USFWS and NDOW staff to foster greater awareness of the CCS, Adaptive Management, and the mitigation regulation and its implementation.
- With the assistance of the science work group, develop prioritized areas for conservation to aid in the implementation of mitigation on private and public lands.
- Continue to implement and streamline the adaptive management process now defined in the Nevada Greater Sage-Grouse Conservation Plan, BLM, and USFS plans.
- Seek to put further conservation actions on-the-ground through partnerships and grant opportunities.
- Continue to provide data for greater sage-grouse 2020 assessment by Western Association of Fish Wildlife Agencies by sharing project data through the Conservation Efforts Database and other potential actions.
- Establish an annual sharing/learning meeting with other Western States involved in sagebrush ecosystem conservation and Greater Sage-Grouse mitigation.
- Implement the new tools developed within the CCS that encourage focused conservation efforts within credit projects.



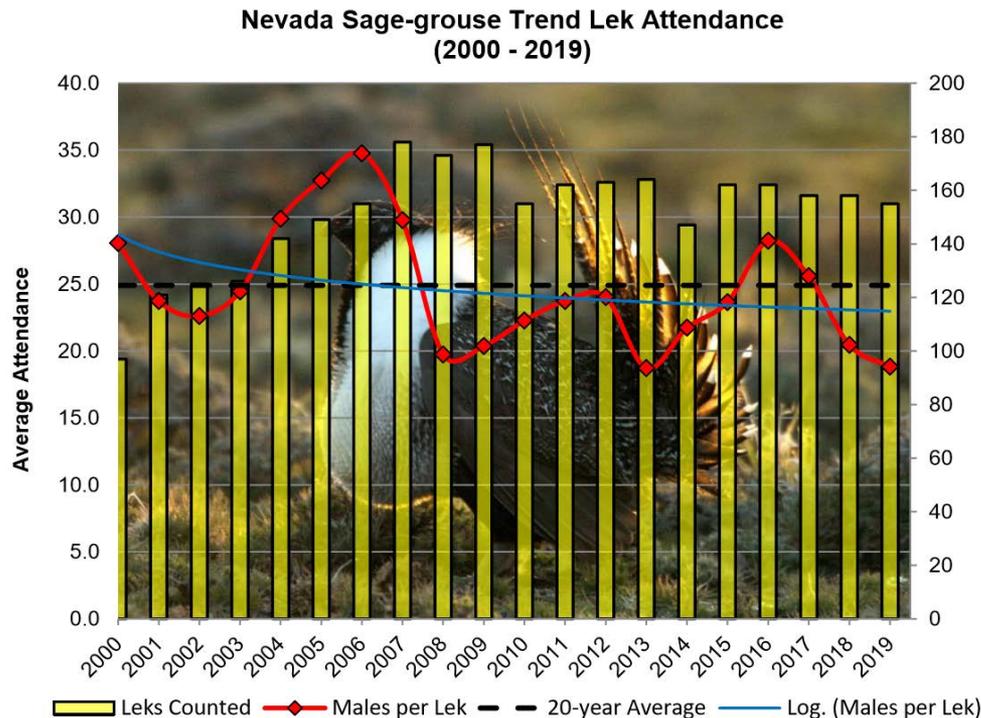
*Mountain big sagebrush seedling density from a sagebrush carcass cache on abandoned hay meadows, South Fork State Recreation Area. (Gary Reese)*

# GREATER SAGE-GROUSE • SAGEBRUSH ECOSYSTEM & GRSG STATUS

## GREATER SAGE-GROUSE POPULATION OVERVIEW

Each year the Nevada Department of Wildlife (NDOW) surveys approximately 40% of the 1,981 known sage-grouse leks and approximately 75% of trend leks identified within the state. 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 survey 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. However, some volunteers, non-profit organizations, and others were able to conduct some lek counts. An update for lek trends incorporating the 2020 data will be provided in the December report when all data have been compiled and analyzed. The figure and caption below describes the trend lek attendance from 2000-2019.



A total of 1,680 lek visits were conducted in 2019. Given that the survey period is approximately 75 days, just over 22 visits were made per day on average across the state. Peak male attendance at 460 active leks (two or more males) was 7,098, resulting in an average of 15.4 males per lek. The attendance rate was 7.8 percent less than the previous year's average of 16.7 and 21.8 percent less than the 2000-2018 average of 19.7 males per lek. The median attendance was 11.0 males per lek and the maximum count was 105 males.

*Source: Nevada Department of Wildlife, Greater Sage-grouse Conservation Program – FY1029, Final Performance Report.*

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

# GREATER SAGE-GROUSE • SAGEBRUSH ECOSYSTEM & GRSG STATUS

## GREATER SAGE-GROUSE POPULATION OVERVIEW

In addition to lek monitoring, NDOW collects hunter harvested sage-grouse wings to conduct a demographic analysis to estimate recruitment into the population. A total of 833 wings were collected during the 2019 Greater sage-grouse hunting season. The wing collection was down almost 27 percent for the prior year and 54.5 percent less than the long-term annual average of 1,834 wings. The collection represents the fewest number of wings collected by NDOW since more robust record keeping was initiated in 1996.

Production was estimated at 1.14 chicks per hen in 2019 which was an improvement over the last two years. Average production for the previous 10-year period was 1.47 and the long-term average is estimated at 1.52 chicks per hen. To sustain a stable to slightly increasing population (lambda value  $\geq 1.0$ ), production values need to exceed 1.56 chicks per hen. Recent low production values have decreased the average production values for both the 10-year and long-term to below population maintenance levels (Figure 2). Production levels from 2013-2016 were significant enough to maintain stable to even slightly increasing populations of sage-grouse, depending on adult survival; however, 2017-2019 production values are well below that needed to replace individuals and grow a population. This is now being reflected in recent year's lek counts.

Nest success values were also estimated from the examination of adult female wings and the molt pattern (progression through outer primary feathers). Statewide nest success values were estimated at 37 percent in 2019 and represented a 6 percent decline from the previous year. The 2019 nest success value was almost 8 percent lower than the long-term average of 44.7 percent.

Source: Nevada Department of Wildlife, Greater Sage-grouse Population Demography, unpublished summary by Shawn Espinosa.

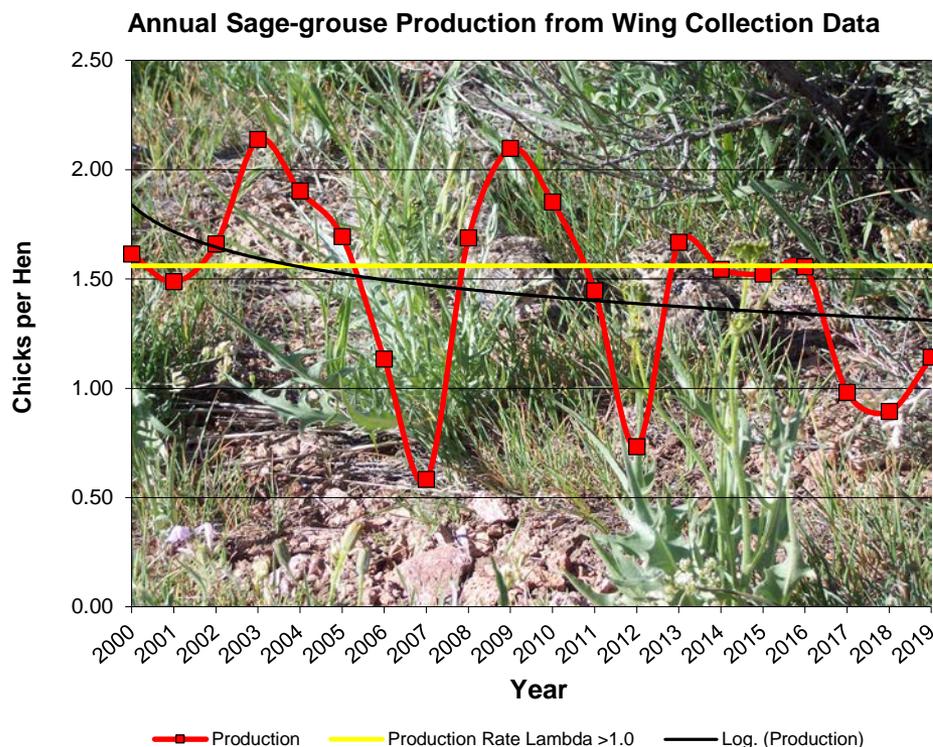


FIGURE 2. Sage-grouse production from wing data collection (2000–2019).

# GREATER SAGE-GROUSE • THREATS

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

Threats to the greater sage-grouse are numerous but can be placed into several categories that all affect the grouse's habitat. Direct habitat loss from wildfire and invasive species and habitat fragmentation are the greatest contributing factors to the declining grouse population.

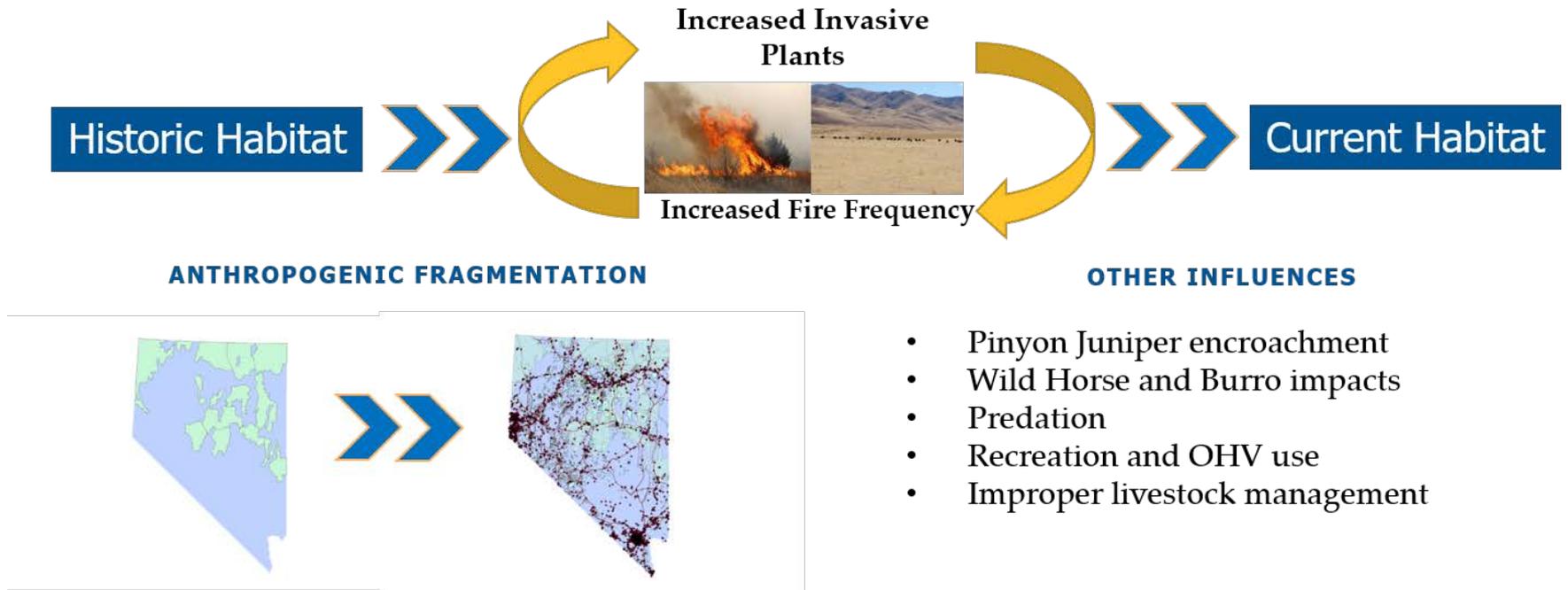


FIGURE 4: Threats to Sagebrush Ecosystems.

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.