



State of Nevada
Sagebrush Ecosystem Program
SEMI-ANNUAL REPORT

December 2019

**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.

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LATE 2019 PROGRAM UPDATES



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LATE 2019 PROGRAM UPDATES • CCS PERMANENT REGULATIONS

- December of 2018 began with an Executive Order by Governor Sandoval (December 7th) directing the Sagebrush Ecosystem Council (SEC) to adopt regulations requiring the Nevada Conservation Credit System (CCS) to be used for compensatory mitigation when anthropogenic disturbances impact greater sage-grouse habitat.
- The temporary regulation was adopted by the SEC on April 29, 2019, and filed with the Secretary of State on June 3rd.
- Permanent regulations were adopted by the SEC on October 3, 2019, and passed by the Legislative Commission on October 30th.
- The regulation outlined the requirements of mitigation for disturbances on both federal and state lands and the process required to fulfill mitigation obligations.
 - The regulations also listed exemptions, which limited the scope in which mitigation is required, and include:
 - Activities that are in compliance with authorized land uses that were signed prior to December 7, 2018,
 - Direct and indirect impacts of projects or actions located on private or local government-owned lands,
 - Exploration activities causing surface disturbance of five (5) acres or less,
 - And others.

APPROVED REGULATION OF THE SAGEBRUSH ECOSYSTEM COUNCIL

LCB File No. R024-19

Filed October 30, 2019

EXPLANATION – Matter in *italics* is new; matter in brackets [~~omitted material~~] is material to be omitted.

AUTHORITY: §§1-19, NRS 232.162.

A REGULATION relating to the greater sage-grouse; setting forth certain requirements related to the maintenance of sagebrush ecosystems and the conservation of the greater sage-grouse; and providing other matters properly relating thereto.

Legislative Counsel's Digest:

Existing law creates the Sagebrush Ecosystem Council within the State Department of Conservation and Natural Resources and requires the Council to establish a program to mitigate damage to sagebrush ecosystems in this State by authorizing a system that awards credits to persons, federal and state agencies, local governments and nonprofit organizations to protect, enhance or restore sagebrush ecosystems. (NRS 232.162) On December 7, 2018, Governor Sandoval issued Executive Order 2018-32 which requires the Council to adopt regulations requiring compliance with the credit system.

Sections 16 and 17 of this regulation require, with limited exception, a person or entity that proposes an activity or project on public lands that will cause an adverse impact to the greater sage-grouse or habitat of the greater sage-grouse to: (1) submit to the Sagebrush Ecosystem Technical Team certain information about the proposed activity or project; (2) work with the Sagebrush Ecosystem Technical Team to avoid and minimize disturbances prior to mitigation; and (3) have a verifier quantify such impact in the form of debits. Once the impact to the greater sage-grouse or habitat of the greater sage-grouse is quantified and approved by the Program Manager of the Team, the person or entity is required to mitigate the adverse impact on the greater sage-grouse or habitat of the greater sage-grouse by: (1) acquiring from or transferring a sufficient number of credits in the Nevada Conservation Credit System established by the Council to offset the number of debits; or (2) developing a mitigation plan that will generate enough credits to offset the debits. Section 17 requires that any such mitigation plan be approved by the Sagebrush Ecosystem Council and sets forth certain criteria that the Council must consider in determining whether to approve the mitigation plan.

Section 18 of this regulation requires, under certain circumstances, that the Program Manager of the Sagebrush Ecosystem Technical Team issue to the person or entity that is proposing the activity or project a certificate of mitigation that sets forth: (1) the number of credits that the person or entity will acquire from or transfer to the Nevada Conservation Credit

LATE 2019 PROGRAM UPDATES • NV CONSERVATION CREDIT SYSTEM

As of December 2019:

- In late 2019, a Conservation Credit System (CCS) improvement involving a process to analyze exploration drilling mitigation requirements was approved by the SEC and incorporated into the program documents and tools:
- Other proposed improvements to the CCS planned for review by the SEC in December of 2019 involve:
 - The development of credits on public lands.
 - Phased mitigation to allow for flexibility in offsets.
- Nearly 80,000 acres from both self-funded and grant-funded stewardship and conservation activities generating conservation credits within the system.
 - Conservation actions on these projects to date have included weed and pinyon-juniper treatments; forb, perennial grass, and sagebrush establishment; and various meadow improvements.
 - More than 8,500 credits are available to offset disturbances, with more than 20,000 additional credits anticipated being available within a few months.
- Four landowners have also expressed interest in developing new credit projects on more than 20,000 acres through the state solicitation process. Awarded recipients will receive funding to implement the Habitat Quantification Tool (HQT), develop management plans, and improve habitats. Those credits will likely become available on the market in Fall 2020.
- Proponents of several anthropogenic disturbances that will be impacting greater sage-grouse habitat are using the CCS this year in direct response to the recent adoption of the mitigation regulation. Two mitigation offsets have been completed in the CCS to date. In both instances the debit proponent used their private credits for their offset. A purchase of credits between different parties appears likely to occur in early 2020.
- Preparations are being made by the SETT for the 5th Annual CCS Certified Verifier Training in January of 2020. 45 environmental consultants representing 23 Western organizations attended last year.



LATE 2019 PROGRAM UPDATES • OTHER PROGRAM EFFORTS

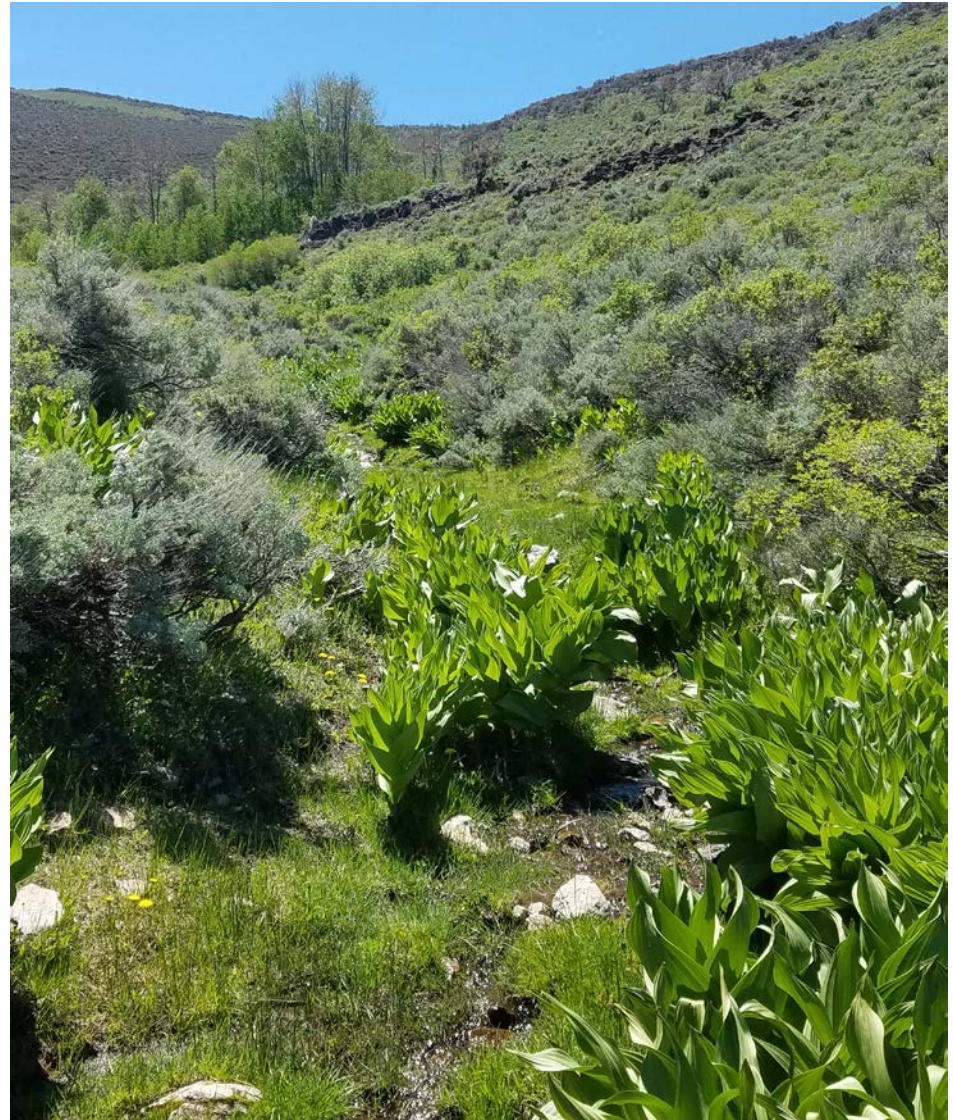
Other efforts of the Sagebrush Ecosystem Technical Team June through December of 2019 included:

- Finished 1st annual Adaptive Management statewide technical team meetings to recommend BSU areas most in need of GRSG conservation efforts.
- Led local meetings around the state on the Biologically Significant Units triggered to allow local stakeholders to develop recommendations for actions that can taken to improve GRSG population and habitat issues.
- Continued collaborative efforts with federal and state agencies to improve GRSG habitat, coordinate conservation efforts, and work towards developing credits on public lands.
- Conducted outreach at various conferences, workshops, and other local meetings to encourage conservation of GRSG and their habitat in Nevada.
- Continued to take part in ROGER (Results Oriented Grazing for Ecological Resiliency) and Nevada Collaborative Conservation Network (NvCCN) meetings and workshops.
- Took part in various meetings related to wildfire, conservation efforts tracking, and mining.
- Participated in NDOM reclamation awards tour.
- Assessed opportunities and applied for funding that may assist the program in meeting its overall objective of conserving sagebrush ecosystems.



EARLY 2019 PROGRAM UPDATES • PLANS FOR THE COMING YEAR

- 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, and 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 additional field office meetings with BLM, USFS, and NDOW staff to foster greater awareness of the CCS, 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 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.
- Provide project data through the Conservation Efforts Database to assist in the greater sage-grouse 2020 assessment being conducted by the Western Association of Fish Wildlife Agencies on behalf of the U.S. Fish and Wildlife Service.
- Establish an annual summit with other Western States involved in sagebrush ecosystem conservation and Greater Sage-Grouse mitigation programs.



GREATER SAGE-GROUSE • POPULATION OVERVIEW

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. The 2019 lek survey season was challenging due to many areas receiving greater than 150 percent of average precipitation and snowpack lingered well into April and early May. Access conditions were difficult throughout most of northern Nevada from March through May of 2019. Given these conditions, 122 fewer leks were counted in 2019 (n=849) compared to 2018 (n=971). Forty-three percent of all known lek locations were surveyed in 2019, which exceeded the 2019 goal to survey 40% of the total lek locations. 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.

NDOW has identified a subset of leks considered “trend leks” that are consistently monitored multiple times each year. In 2019, 155 trend leks were monitored with a peak male attendance of 2,916. The number of trend leks monitored exceeded the number identified in objective b. (n=150). Mean trend lek attendance was 18.8 which was 8.3 percent less than the previous year and 28.8 percent less than the long-term average of 26.4 males per lek. Sage-grouse male attendance trends, and likely populations (considering the recent three-year decline in attendance), continue to decline across the 20-year period from 2000-2019 (Figure 1). This period includes three peaks (2006, 2012 and 2016) and four troughs (2002, 2008, 2013 and 2019). The 2019 attendance rate was the lowest observed since 2013.

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

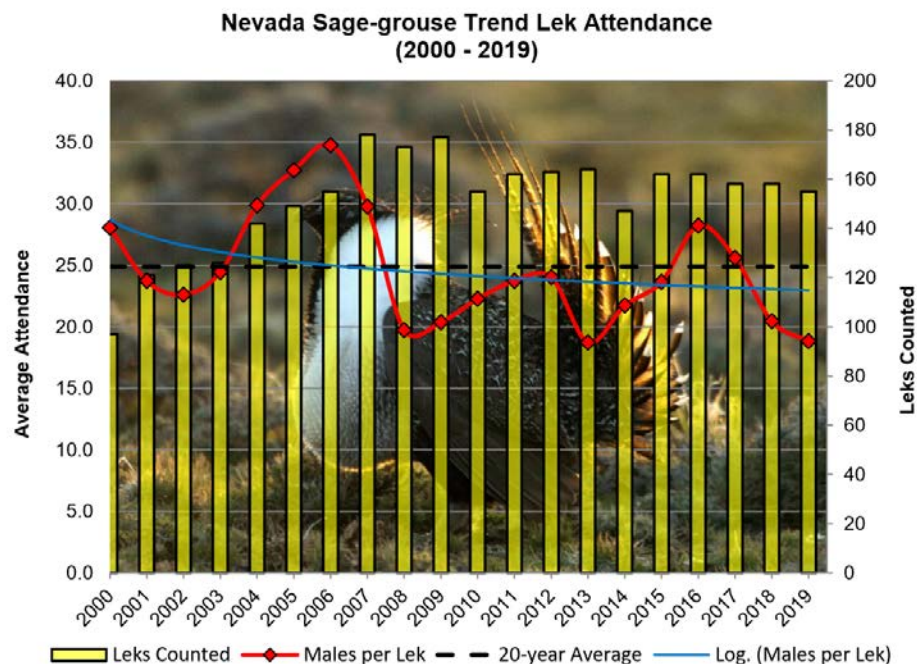


FIGURE 1. Nevada trend lek attendance (2000–2019).

GREATER SAGE-GROUSE • POPULATION OVERVIEW

GREATER SAGE-GROUSE POPULATION OVERVIEW

During each sage-grouse hunting season, Nevada Department of Wildlife places approximately 50 wing barrels for hunters to deposit harvested sage-grouse. The information obtained from these wings, such as age and sex, can help infer population demographics by estimating proportion of each age-class harvested. During the 2018 sage-grouse hunting season, 1,138 sage-grouse wings were collected representing an 11 percent decline from the number of wings collected in 2017 (n=1,278) (Figure 2). The number of wings collected was also 38 percent less than the long-term average of 1,834 wings. This was the fewest number of wings collected since 2014 (n=1,034).

From 2013-2016, production values ranged from a low of 1.52 (2015) to a high of 1.67 (2013) chicks per hen. These values led to the assumption that sage-grouse populations would be relatively stable or increasing during this period. This assumption seems to be supported by lek trends during this period; however, declines in lek attendance in 2017 and 2018 seem to be premature considering the productivity values. A previous study conducted in Nevada (Blomberg et al. 2012) suggested that male attendance rates could be affected by climate, which had a strong relationship with recruitment and adult survival; and vegetative conditions, particularly exotic grasslands, which also had a negative influence on recruitment, but also lowered male annual survival. This certainly may have influenced lek attendance in 2017 and 2019 due to well above average precipitation and snowpack during the winter of 2016-2017 and 2018-2019. However, the sharper declines observed in 2018 may have been due to extreme opposite conditions experienced in the winter of 2017-2018, which was mostly very dry and warm. The 2017 production value of 0.98 was predicted to lead to lower lek attendance rates in 2019 and further facilitate the overall declining population trend. Likewise, the 2018 production value of 0.89 is also expected to lead to lower lek attendance rates in 2020; however, the more favorable climate could facilitate increased adult male attendance and somewhat mitigate the observed decline.

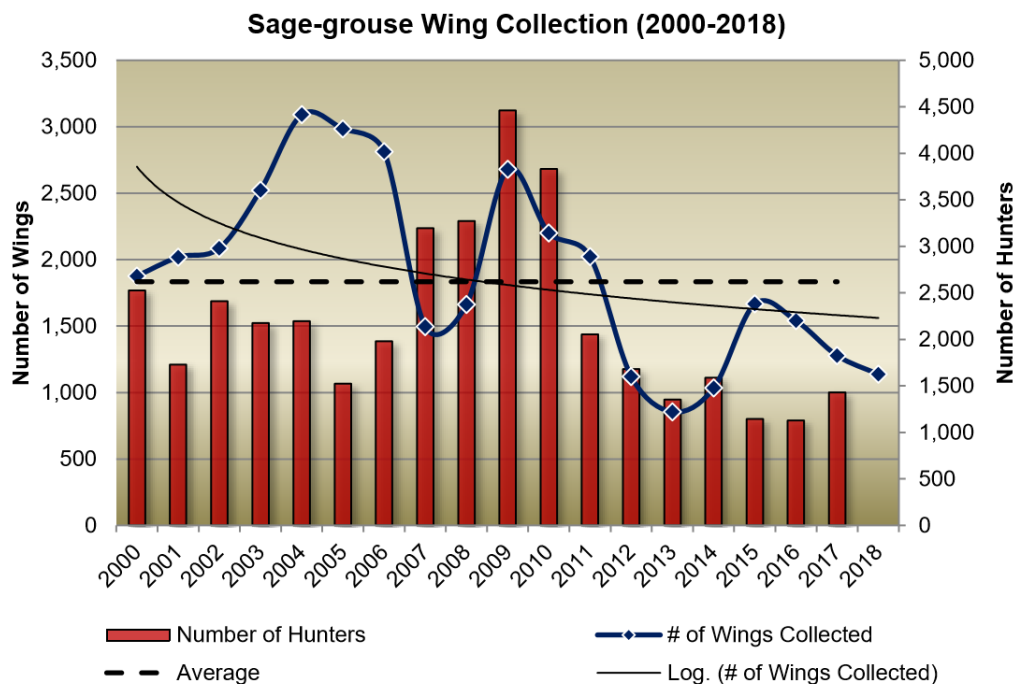


FIGURE 2. Greater sage-grouse wings collected during 2000-2018.

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

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.



ANTHROPOGENIC FRAGMENTATION



OTHER INFLUENCES

- Pinyon Juniper encroachment
- Wild Horse and Burro impacts
- Predation
- Recreation and OHV use
- Improper livestock management

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.

LATE 2019 • LOCAL AREA WORKING GROUP (LAWG) UPDATES

Lincoln LAWG works in partnership to improve sage-grouse habitat on all lands within Lincoln County.

- **2019 projects:** the private and public lands of the Wilson Creek Bench Complex were the focus of 2019 and included pinyon-juniper treatments; weed control; seeding; and installation of beaver dam analogs to rehabilitate meadows and riparian habitats.
- **Future goals:** improving streams/meadows, habitat connectivity, pinyon-juniper, raven control, and coordination with Utah for fuels management.
- **Resource needs:** continued habitat degradation by horses remains the biggest obstacle to success, although coordinating funding from multiple sources to put projects on-the-ground is a challenge due to funding and timing constraints, match requirements, and capacity.

North Central LAWG works in Humboldt, Pershing, and Churchill Counties to work in partnership to ameliorate the loss of critical habitat needed to sustain robust sage-grouse populations.

- **2019 projects:** the group completed beaver dam analogs to improve streams and meadows and other actions, and is soon meeting to make recommendations on how to address the local greater sage-grouse habitat and population triggers.
- **Future goals:** rangeland improvement projects and post-fire efforts as well as medusahead mapping with partners.
- **Resource needs:** a facilitator, project manager, reduced project timelines, consistency across agencies on NEPA, and dedicated people and funding.

Northeastern Nevada Stewardship Group LAWG facilitates the conservation of healthy ecosystems on all lands in Elko County by providing stakeholders with collaborative opportunities to actively manage and restore habitats.

- **2019 projects:** sagebrush cache studies, wetland and wildfire restoration actions, CCS landowner assistance, and the Sage-Grouse Experience.
- **Future goals:** conservation; education; meadow, stream, and rangeland health and uplift; native plant establishment; invasive species treatment.
- **Resource needs:** native seeds from the region at the quantity required for successful restoration are a significant resource need.

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

- **Recent projects:** outcome-based grazing demonstrations, Grazing Response Index trainings, development of spatially explicit tool.
- **Future goals:** maintain and expand group to better represent all of Nevada, continued progress on four focus areas.
- **Resource needs:** funds for Intermountain West Joint Venture match and for development/testing of spatially explicit map as conservation planning and monitoring tool.

Stewardship Alliance of Northeast Elko is a multidisciplinary conservation group working together to enhance sagebrush habitat in NE Elko.

- **Recent projects:** weed treatment; meadow protection through fencing and watering; soil amendments; and workshops/field tours.
- **Future goals:** leveraging organizational capacity and human/financial resources, bridging geographic barriers, scaling up projects to improve outcomes and costs, implementing long-term monitoring, completing preliminary planning for 26 O'Neil area projects, and updating SANE plans.
- **Resource needs:** Funding for capacity, sustainability, technical assistance, coordination; support for community-based conservation across state.