



State of Nevada Sagebrush Ecosystem Program

SEMI-ANNUAL REPORT

December 2021

Sunset near Secret Pass in Elko 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 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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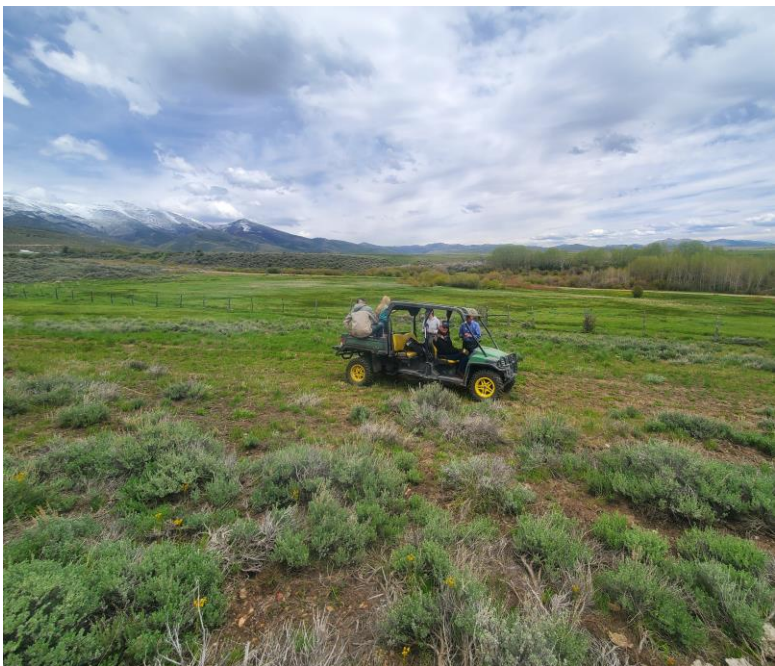
Jon Raby (Bureau of Land Management)

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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

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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 2021 UPDATES

In 2021:

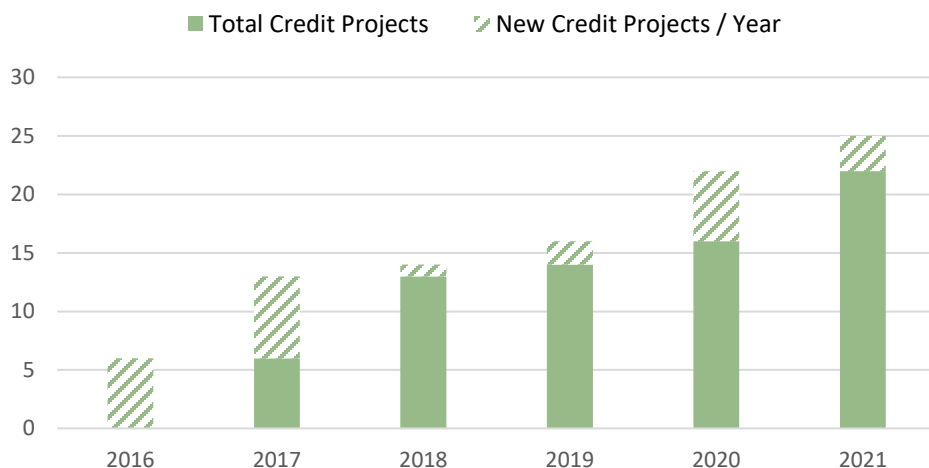
- Ten mitigation transactions occurred using the CCS with now more than 20 since the first in 2017.
- These transactions from 2021 involved transfers of nearly 300 credits from five private land credit developers that encompass more than 1,500 acres of high value sage-grouse habitats to be conserved for 30 years or more.
- All current credit project proponents completed annual monitoring.
- Three new credit projects are near completion and conserve approximately 5,000 acres and account for nearly 3,000 credits.
- The SETT visited four landowners as part of the programs five-year assessment.
- Several landowners met with the SETT to discuss entry of land into the CCS.
- The SETT conducted several desktop HQT assessments on behalf of debit project proponents. Some, if developed, may generate debits in the thousands.
- In consultation with the SETT, at least four debit projects altered designs to minimize impacts and mitigation obligations.



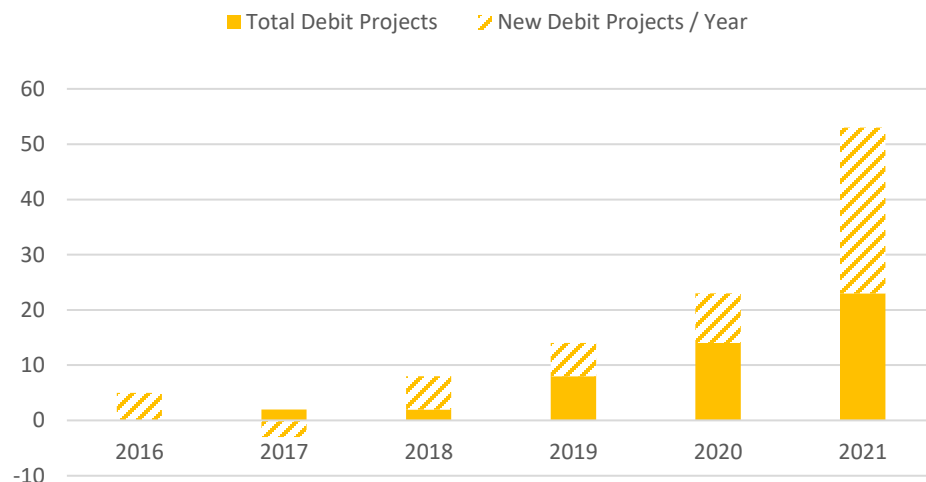
High up on Coleman Valley Ranch near the California and Oregon borders. (SETT)

CONSERVATION CREDIT SYSTEM • THE CCS THROUGH THE YEARS

Cumulative Credit Projects 2016 - 2021

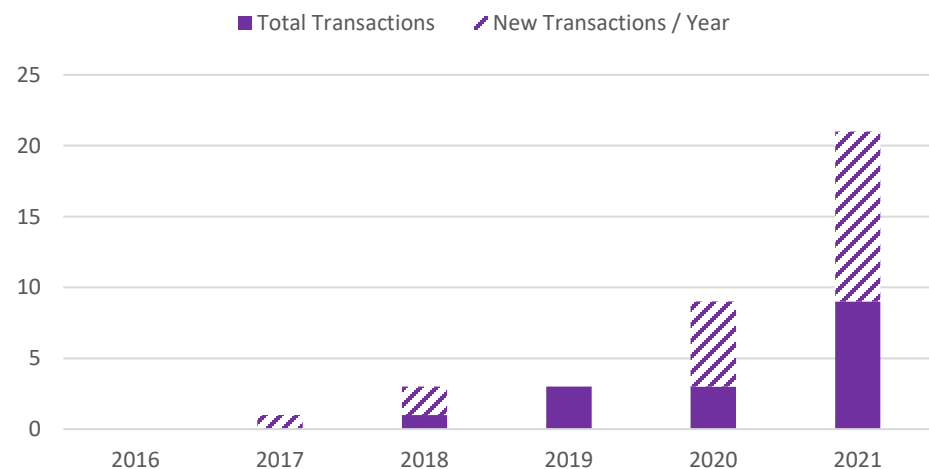


Cumulative Debit Projects 2016 - 2021*



* 2017, prior to the regulation, reflects debit projects that entered the system previously, then withdrew.

Cumulative Transactions 2016 - 2021



Cumulative Debits Offset 2016 - 2021

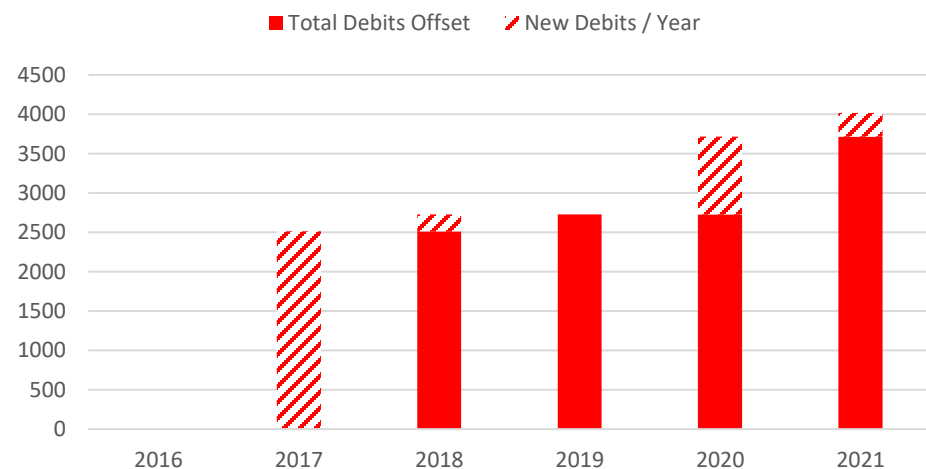


FIGURE 1: Conservation Credit System progress

CONSERVATION CREDIT SYSTEM • CURRENT MAP OF CCS PROJECTS

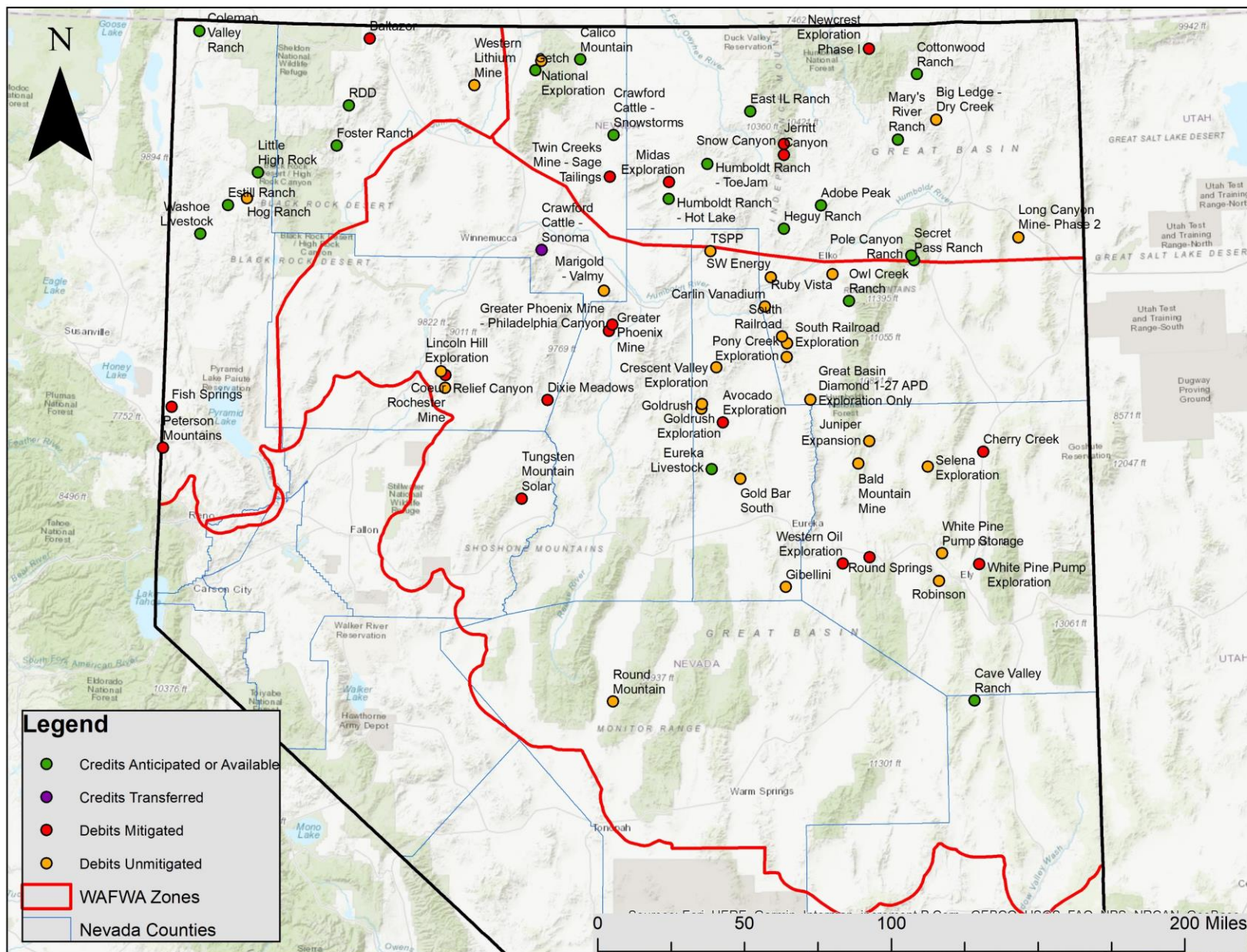
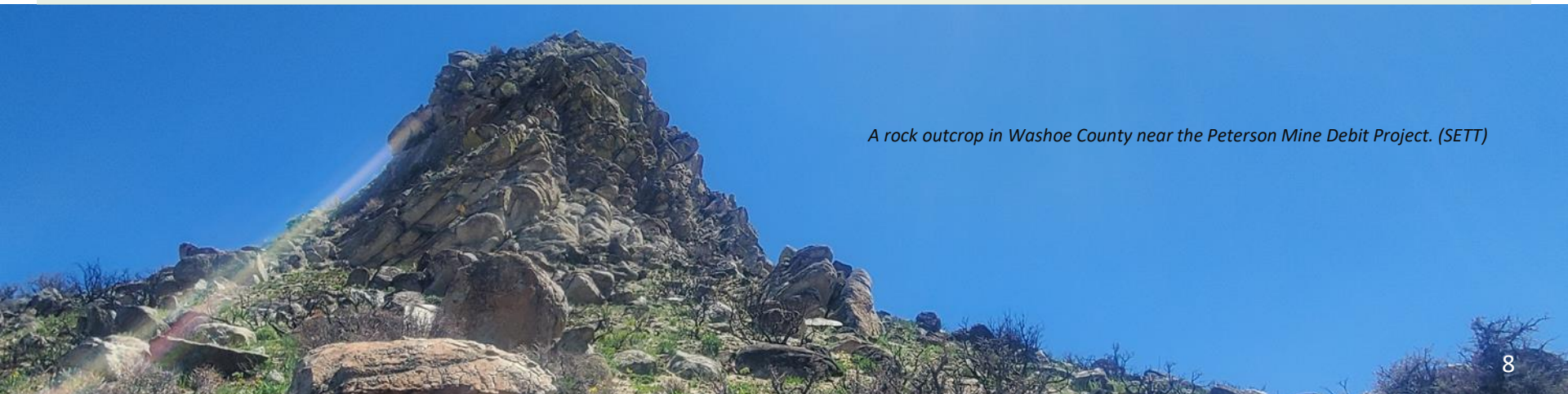


FIGURE 2: Map of the Conservation Credit System Projects

OTHER PROGRAM EFFORTS • LATE 2021 UPDATES

Other efforts of the Sagebrush Ecosystem Technical Team through December of 2021 included:

- Five virtual SEC meetings and an in-person SEC meeting that included a tour of CCS projects.
- Progress on the 3rd annual Adaptive Management process related to GRSG population and habitat warnings/triggers with a meeting soon to be scheduled with the statewide group.
- USGS and Environmental Incentives subgrant management for conservation planning tool development and improved application of the CCS.
- Weed maps, prioritization of annual invasive grass treatments, and meetings on Early Detection - Rapid Response.
- Collaborative efforts to conserve GRSG and sagebrush habitats, including representing the SETT on Nevada's Shared Stewardship Technical Advisory Committee, efforts to update the SEP Strategic Action Plan, and work with NDOW on the sagebrush conservation framework planning effort.
- ROGER (Results Oriented Grazing for Ecological Resiliency) meetings, Nevada Collaborative Conservation Network (NvCCN) meetings, and Nevada Association of Conservation Districts (NVACD) Annual Meeting.
- Nevada Creeks and Communities Team assistance with Proper Functioning Condition workshops.
- CCS project entries in the GRSG Conservation Efforts Database and the USFS SMART database.
- Conferences, meetings, and webinars related to GRSG, wildfire, invasive plants, mitigation, and mining.



A rock outcrop in Washoe County near the Peterson Mine Debit Project. (SETT)

PLANS FOR THE UPCOMING YEAR • LATE 2021 UPDATES

- 7th Annual CCS Verifier Training in January 2022.
- CCS credit project, debit project, and transaction management, as well as Cooperating Agency status for multiple NEPA planning processes.
- SEP Strategic Action Plan update.
- Sagebrush/Habitat conservation planning with NDOW.
- Federal land use plan amendments.
- The adaptive management process outlined in the NV Greater Sage-Grouse Conservation Plan, BLM, and USFS land use plans.
- Development of annual conference for credit and debit project participants.
- Discussions on an annual symposium with other Western States involved in sagebrush ecosystem conservation and GRSG mitigation.
- Implementation of additional conservation associated with the CCS and through existing agreements and grant opportunities.



Lightning North of Gerlach near the Estill Ranch Credit Project. (SETT)

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.

Table 1. Lek count summary from 2000 through 2020.

Year	No. of Males	Leks Surveyed	Active Leks	AVG/active lek
2002	5,093	652	321	15.9
2003	5,010	402	271	18.5
2004	7,472	505	321	23.3
2005	10,144	760	389	26.1
2006	11,229	737	433	25.9
2007	11,317	947	525	21.6
2008	7,550	786	438	17.2
2009	7,398	860	442	16.7
2010	7,402	752	411	18.0
2011	8,571	810	438	19.6
2012	9,953	935	523	19.0
2013	7,394	820	454	16.3
2014	9,063	934	512	17.7
2015	12,551	1,003	606	20.7
2016	13,366	1,048	586	22.8
2017	11,027	954	552	20.0
2018	9,184	971	551	16.7
2019	7,098	849	460	15.4
2020	2,306	394	182	12.7
2021	4,892	982	436	11.2
2000-2020 AVG.	8,577	772	435	19.1

Due to the Covid-19 pandemic, NDOW biologists and volunteers were challenged to count leks during the spring 2020 lek surveying season, however lek counts were conducted at normal capacity during 2021. A total of 982 leks were surveyed during 2021 (compared to only 394 in 2020), which is approximately 49% of the 2,002 known leks in Nevada. Of the leks surveyed, 436 were considered active (2 or more males). Peak male attendance rate for active leks average 11.2 males per lek, which is 41.4% below the 2000-2020 average of 19.1 males per lek. The attendance rate for 2021 is the lowest observed during the 2000-2021 period. The lek count summary from 2000-2021 is provided in Table 1.

Source: Nevada Department of Wildlife, Nevada Sage-grouse Conservation Project Final Performance Report. September 2021

TABLE 1: Lek count summary (2000–2021).

GREATER SAGE-GROUSE • SAGEBRUSH ECOSYSTEM & GRSG STATUS

GREATER SAGE-GROUSE POPULATION OVERVIEW

In 2021, NDOW and partners counted 157 trend leks, which exceeded the previous 20-year average of 152 trend leks counted per year. Average male attendance at trend leks was 9.9 during the 2021 spring breeding season, which was 47.2% below the 2019 average of 18.8 males per trend lek and 61.5% lower than the long-term average of 25.8 males per trend lek. Data from 2020 were not used for comparison due to low sample sizes. The 2021 trend lek attendance rate represents the lowest attendance rate ever recorded. Trend lek attendance is provided in Figure 3 from 2000-2021.

Source: Nevada Department of Wildlife, Nevada Sage-grouse Conservation Project Final Performance Report. September 2021

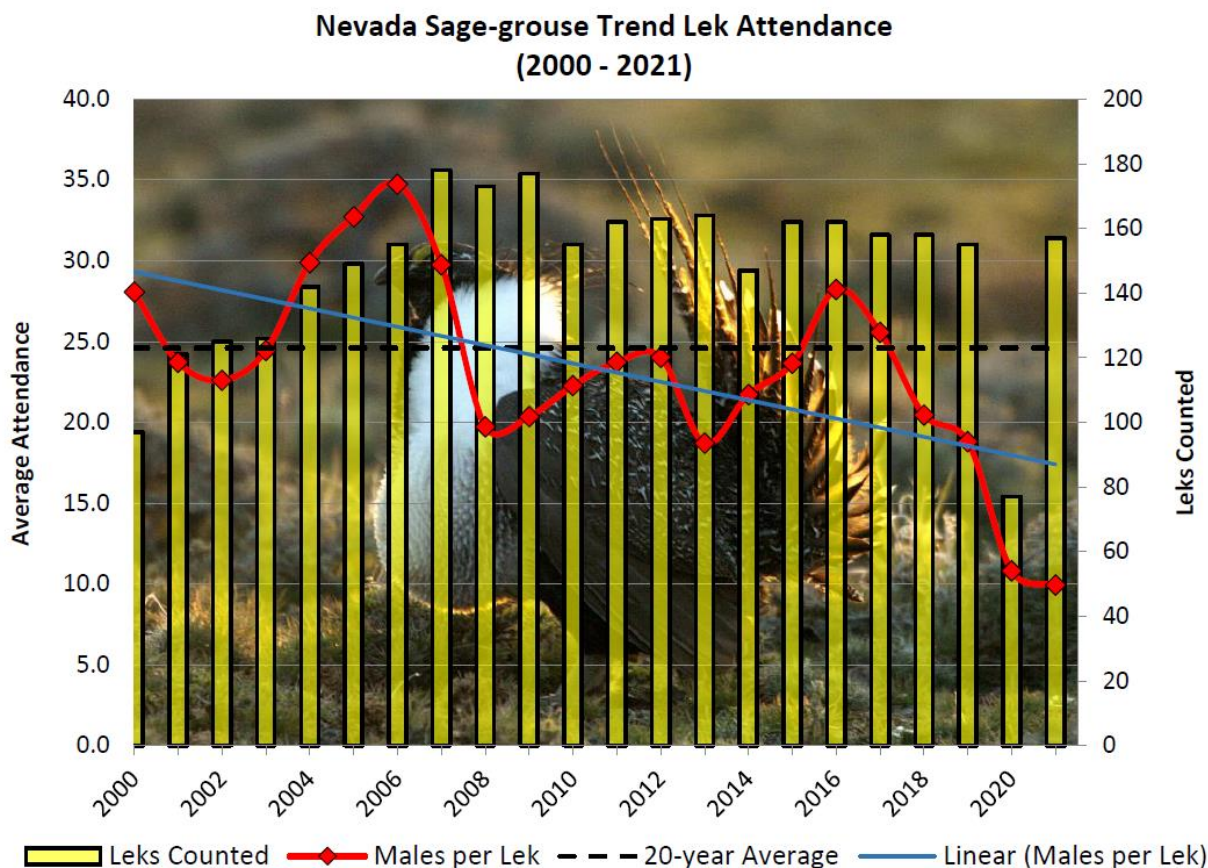


FIGURE 3: Sage-grouse lek attendance (2000-2021).

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.

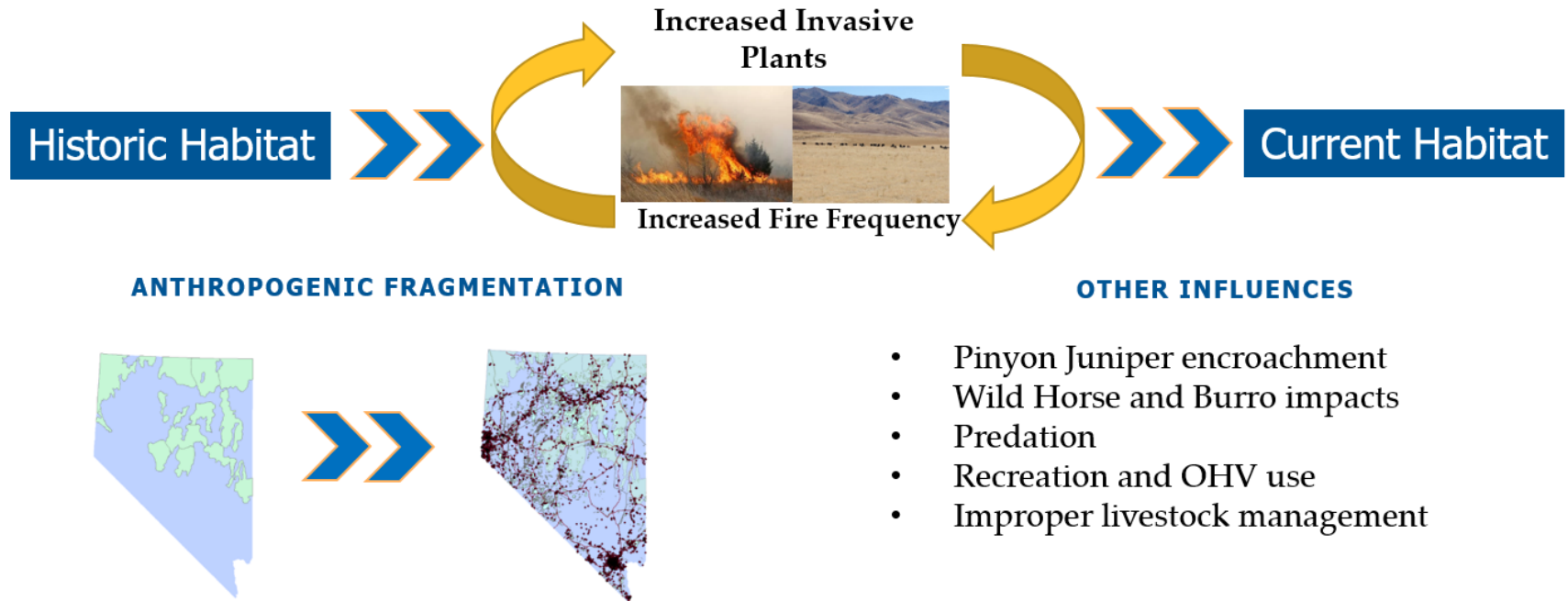


FIGURE 4: Threats to Sagebrush Ecosystems.

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 AND 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.

Covid-19 has reduced the ability of most of these groups in their normal setting with all partners represented.

The Nevada Collaborative Conservation Network (NVCCN): *A December 2021 update was not provided.*

ROGER (Results Oriented Grazing for Ecological Resilience): *A December 2021 update was not provided.*



With coordination by the Elko Stewardship LAWG, NDF, and the CD Program, inmate crews from Carlin and Wells Conservation Camps installed over 1,000 sagebrush caches in the 2019 Hunter Fire footprint with USFWS Partners Funding. (Gary Reese of NDF)

LOCAL AREA WORKING GROUP (LAWG) UPDATES

Bi-State Local Area Working Group (LAWG): *A December 2021 update was not provided.*

Buffalo-Skedaddle Local Area Working Group (LAWG):

- Recent projects: Planted over 16,000 sagebrush seedlings in various fire scars, aerially sprayed 7,000 acres with Imazapic for annual grass control, removed juniper on 5,500 acres.
- Future goals: Construct riparian restoration structures (BDAs and Zeedyks) on 4 different streams, continue spring improvements.
- Resource needs: Funding and capacity for project implementation.

Elko Stewardship Local Area Working Group (LAWG):

- Recent projects: Seeded Cedar Fire & continued rehab on Cherry, Corta, Owl, and Range Two fires, with Joint Chiefs and lek counts also in progress.
- Future goals: Site visits to plan additional project proposals.
- Resource needs: None noted.

Lincoln Local Area Working Group (LAWG): *A December 2021 update was not provided.*

North Central Local Area Working Group (LAWG):

- Recent projects: Noxious weeds and medusahead collaboration, stream improvement projects, horse removal efforts, adaptive management meetings and recommendations. A Joint Chiefs Initiative proposal was also submitted focused on the treatment of medusahead, restoration of meadows, reduction of fine fuels and community collaboration.
- Future goals: Get a facilitator, conduct noxious and medusahead efforts & additional rangeland improvement, upland and meadow habitat projects, and post-fire efforts.
- Resource needs: Facilitator/Project Liaison, dedicated funding & people, consistent NEPA approaches, cooperation from agencies, better LAWG outreach strategies.

SANE (Stewardship Alliance of Northeastern Nevada): *A December 2021 update was not provided.*

South Central Local Area Working Group (LAWG): *A December 2021 update was not provided.*