



State of Nevada Conservation Credit System

2017 PERFORMANCE REPORT

December 2017

STATE OF NEVADA CONSERVATION CREDIT SYSTEM

The *Performance Report* is an annual product of the Nevada Conservation Credit System (CCS). The Sagebrush Ecosystem Technical Team (SETT) produces the report for the Sagebrush Ecosystem Program (SEP), and the SETT and Sagebrush Ecosystem Council (SEC) use the report to inform future improvements to the Credit System.

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FROM THE SAGEBRUSH ECOSYSTEM TECHNICAL TEAM

Significant milestones in the implementation of the Nevada Conservation Credit System (CCS) were achieved in 2017. Most notably, the first credit transfer was approved with 2,514 of 4,177 awarded credits officially transferred to fulfill the current mitigation obligation for Kinross Gold Corporation's Bald Mountain Mine on November 9th. The SETT applauds Kinross Gold Corporation for utilizing the CCS to ensure their mitigation achieves net conservation gain and is thrilled to support this significant contribution to the conservation of greater sage-grouse in the State of Nevada.

Other major implementation milestones in 2017 include the approval of credits available for sale from two additional credit projects, securing contracts with landowners to seed fund the generation of credits from five more credit projects, and the adoption of program improvements through the annual continual improvement process.

The Sagebrush Ecosystem Program also expanded partnerships with state and federal agencies in 2017 that will be necessary for effective long-term implementation of the CCS. Highlights include working with the Natural Resources Conservation Service to use Regional Conservation Partnership Program funding to improve greater sage-grouse habitats and kick-start credit projects.

This is the first annual CCS Performance Report, which aims to provide a summary of the program's achievements over the past year. In addition to informing the Sagebrush Ecosystem Council, implementation partners and all stakeholders on the achievements of the CCS, the report sets out to continue the Sagebrush Ecosystem Program's commitment to transparency and continual improvement.

We express our gratitude and appreciation for the many partners that work to support the implementation and success of the CCS, including landowners and mitigation buyers, and implementing agency partners – Bureau of Land Management, Natural Resources Conservation Service, Nevada Department of Conservation and Natural Resources, Nevada Conservation Districts Program, Nevada Department of Wildlife, Nevada Department of Agriculture, Nevada Division of Forestry, U.S. Fish and Wildlife Service, and U.S. Forest Service.

Kelly McGowan

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INTRODUCTION • PERFORMANCE REPORT & CREDIT SYSTEM OVERVIEW

2017 PERFORMANCE REPORT

The CCS's 2017 *Performance Report* provides a summary of the program's achievements over the past year including a synthesis of key outcomes from credit and debit projects as well as program operations. This annual report is essential in supporting the program's transparency and to focus on rigorous outcomes.

CREDIT SYSTEM OVERVIEW & GOVERNANCE

The CCS is a market-based compensatory mitigation program that aligns the objectives of landowners, industry, and the State of Nevada. The CCS ensures that negative impacts to greater sage-grouse habitat from anthropogenic disturbances (*debits*) are fully offset by long-term habitat enhancement and protection (*credits*) that results in a net benefit for Greater Sage-grouse in the State of Nevada.

The CCS preserves the state's ecological, cultural and economic integrity by providing important contributions to the preservation of the sagebrush ecosystem while increasing business certainty to industry, and providing an opportunity for ranches to fund additional stewardship of their land and diversify their incomes. The program is designed to accommodate many regulatory mechanisms. The figure below illustrates the use of the CCS by key participants – resource managers, mitigation buyers and credit developers.

The CCS uses a governance structure, which includes

- **Oversight Committee** – Sagebrush Ecosystem Council
- **Administrator** – Sagebrush Ecosystem Technical Team
- **Science Committee** – Scientists and experts with critical knowledge of the sagebrush ecosystem in the State of Nevada

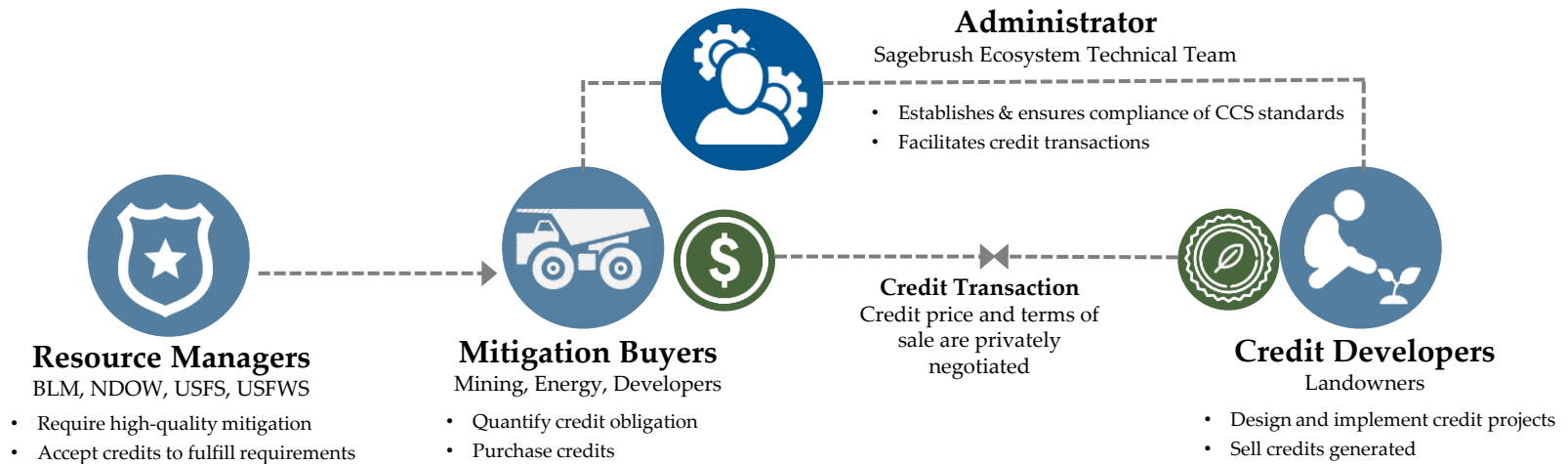


FIGURE 1: Credit System Operations

INTRODUCTION • CREDIT SYSTEM OVERVIEW CONT.

HABITAT ASSESSMENT & DURABILITY STANDARDS

The Credit System defines standards to ensure mitigation achieves net conservation gain, provides business certainty to landowners and mitigation, and streamlines administrative operations. The standards include consistent metrics for assessing habitat loss and gain, as well as clearly defined provisions to ensure durability such as financial assurances. All credits awarded fulfill these standards. Figure 2 depicts the primary elements of a credit.

For additional background and details on the CCS, please see the latest version of the [CCS Manual](#) and [HQT Methods Document](#) on the [CCS website](#).



FIGURE 2: Composition of a CCS Credit

CONTINUAL IMPROVEMENT

Making continual improvements to the CCS is crucial to ensure the Credit System fulfills participant needs and achieves program objectives over time. The CCS uses a transparent, structured continual improvement approach to identify important opportunities for program improvement and implement approved improvements every year.



FIGURE 3: CCS Continual Improvement Process

2017 PROGRAM RESULTS • NET BENEFIT GENERATED

The goal of the CCS is for impacts from anthropogenic disturbances to be offset by habitat enhancement and protection **resulting in a net benefit for Greater Sage-grouse habitat** in the State of Nevada.

The CCS ensures net benefit to Greater Sage-grouse habitat by using a scientifically rigorous habitat quantification tool to assess both debit and credit projects, mitigation ratios to ensure more functional-acres are gained than lost, and several standards to ensure credits are additional and durable.

Cumulative net benefit generated by the CCS is illustrated in Figure 4. Net benefit is calculated as the difference between total functional-acre loss and functional-acre gain for credits transferred to offset debits mitigated to date. In 2017, total functional-acre loss was 2,095 and functional-acre gain was 2,583 related to mitigation obligations fulfilled, which includes 310 functional-acres associated with credits deposited into the reserve account. Therefore, net benefit in 2017 was 488 functional-acres. An additional 1,709 of functional-acre gain was associated with credits awarded but not yet transferred to fulfill mitigation obligations, and thus do not contribute to reported net benefit at this time.

Net benefit is reported here based on functional-acres in order to understand the functional habitat gained; however, other reporting in this report is based on credits and debits, the currency of the CCS.

Standards that Ensure Net Benefit

- ✓ **Consistent metrics** are used to measure both credits and debits
- ✓ **A mitigation ratio** ensures that functional-acres gained are greater than functional-acres lost
- ✓ **A reserve account** of credits that are not used to offset debits is maintained to ensure that credits are available to offset credit projects that fail so the CCS would still achieve net benefit
- ✓ **Advanced mitigation** is required to replace habitat before impacts occur
- ✓ **Additionality provisions** that ensure credits are based on habitat enhancement and protection that were not funded by public sector investments

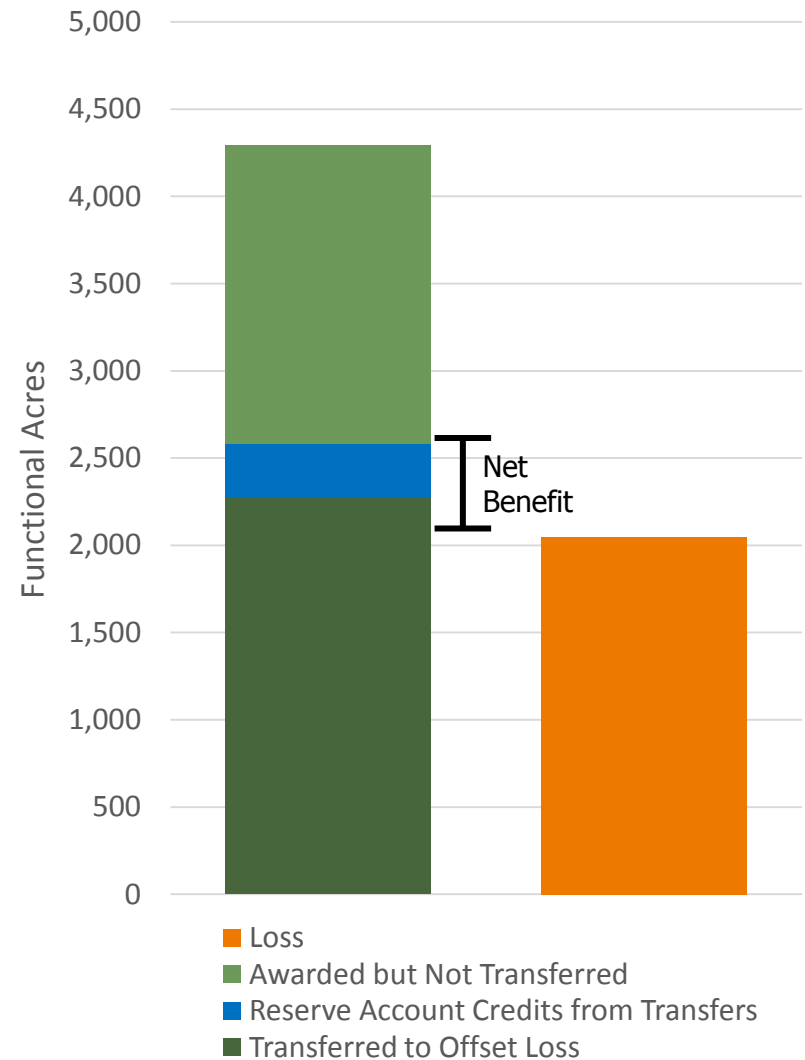


FIGURE 4: Cumulative Functional-Acre Loss, Functional-Acre Gain and Net Benefit generated by the Credit System (December 2017)

2017 PROGRAM RESULTS • CREDIT DEVELOPMENT

BACKGROUND

Credit development encompasses enhancement and/or restoration of habitat, quantification of credits that will be generated by the project, development of a management plan, securement of financial assurances and signing a participant contract. After determination of available credits, the sale price of credits is based on market value and determined in private negotiations between landowners and mitigation buyers. When credits are sold, they are transferred to fulfill a mitigation obligation, and landowners commit to achieving performance standards for the projects for at least a 30-year period. Landowners can continue agricultural and livestock operations compatible with Greater Sage-grouse habitat needs throughout the contract term.

Figure 5 contains awarded credits and credits in development as of December 2017 by credit development phase.

CREDIT PHASES

TRANSFERRED CREDITS

Credits are awarded when all requirements are fulfilled, including a participant contract signed by the Credit Developer and the SETT. They may have been transferred to fulfill mitigation obligations for a debit project or banked to fulfill future mitigation obligations. In addition, a portion of all credits generated are transferred to the reserve account.

AVAILABLE CREDITS

Available credits are based on verified habitat quantification tool scores and have an approved management plan, but do not have financial assurances or a signed Participant Contract. Therefore, they can be quickly awarded and transferred to fulfill mitigation obligations, but are not yet durable mitigation.

ANTICIPATED CREDITS

Anticipated credits are based on rough credit estimates and a commitment to generate credits for sale. For example, credits expected from projects receiving seed funding from the State of Nevada are reported as anticipated credits.

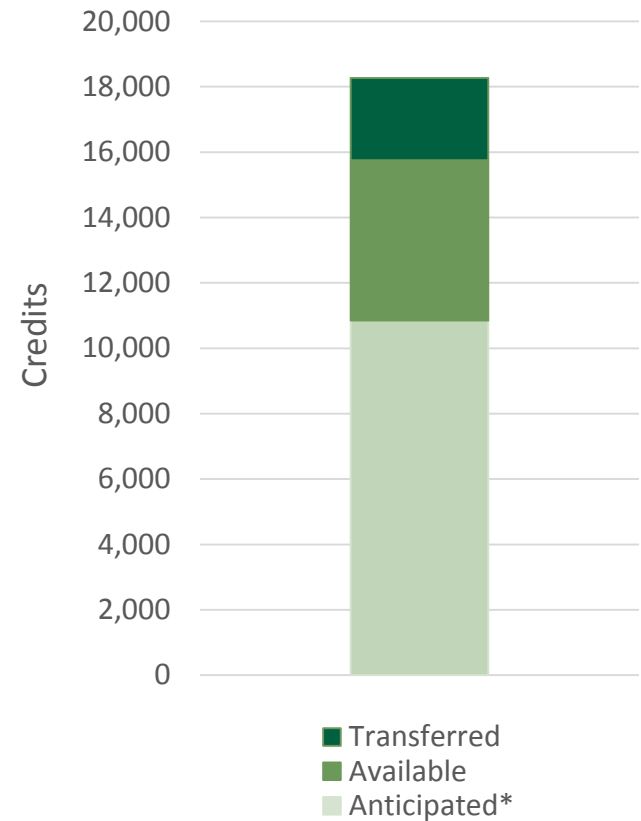


FIGURE 5: Credits by development phase as of December 2017**

*Anticipated credits are estimated based on the average credits generated per acre from awarded and available credits verified to date.

**Credits reported include credits transferred and credits available for sale. Reserve account contributions associated with transferred and required by future credit transfers are excluded.

2017 PROGRAM RESULTS • CREDIT DEVELOPMENT CONT.

STATE OF NEVADA SEED FUNDING OF CREDIT PROJECTS

After a successful solicitation of credit projects in 2016 that attracted 21 applications and resulted in seed funding four projects with approximately \$1M, the SEP facilitated another solicitation of credit projects in 2017 that attracted 11 applications and resulted in seed funding five more projects with approximately \$1M. The funding was or will be used to implement on-the-ground habitat improvements, develop management plans and quantify habitat quality.

The SEP utilized a Pay for Performance procurement strategy to solicit and provide seed funding to credit projects in 2016 and 2017. The seed funding contracts defined payments associated with key milestones, rather than reimbursement of costs as typically seen in traditional grants. Reimbursement of state funds and purchase of credits by Mitigation Buyers are based on credits generated under the seed funding contracts. The procurement strategy illustrated below incentivized Credit Developers to maximize credit generation at the lowest cost, allowed the SEP to fund the projects expected to generate the greatest number of CCS credits per dollar of state funds, and minimized financial risk and outcome uncertainty for the state.

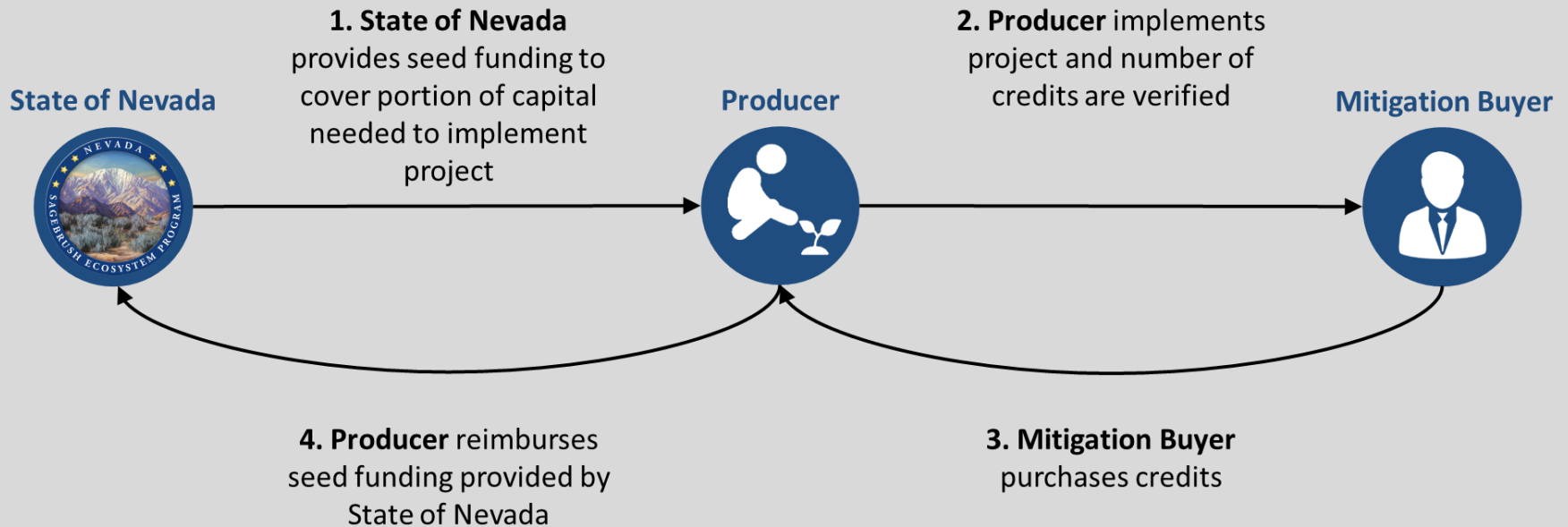


FIGURE 6: Illustration of the Pay for Performance procurement strategy utilized by the State of Nevada

A portion of this seed funding procurement strategy was designed with funding support from the NRCS Conservation Innovation Grant (CIG) program. In addition, the state was awarded a grant from NRCS's Regional Conservation Protection Partnership to provide additional funding to kickstart credit projects in 2017-2019.

2017 PROGRAM RESULTS • CREDIT DEVELOPMENT CONT.

CREDIT PROJECTS (AS OF DECEMBER 2017)

The map and table below depict all credit projects with awarded credits or currently committed to generate in the Credit System.

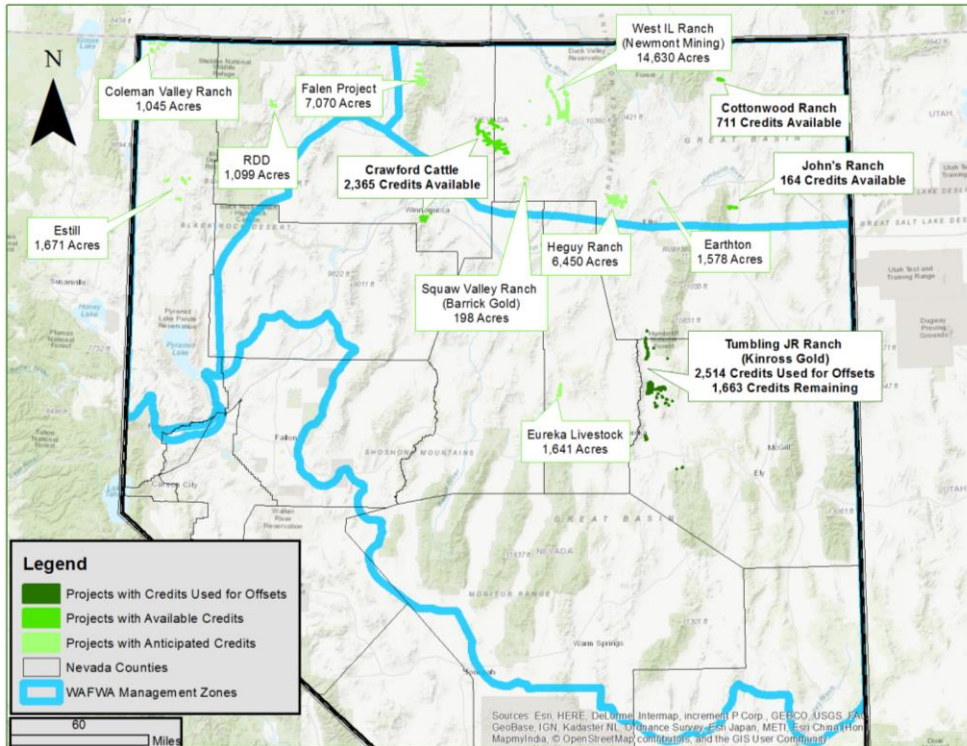


FIGURE 7: Map of all credit projects (December 2017)

PROJECT NAME	CREDITS*	COUNTY	ACRES CONSERVED	WAFWA MGMT. ZONE	STATE SEED FUNDED**
TRANSFERRED CREDITS					
Tumbling JR Ranch	2,514	Elko, White Pine	5,868	III	Yes
AVAILABLE CREDITS					
Tumbling JR Ranch	1,663	Elko, White Pine	3,882	III	Yes
Cottonwood Ranch	711	Elko	1,009	III	Yes
Crawford Cattle	2,365	Humboldt, Elko	11,134	III, IV	Yes
John's Ranch	164	Elko	1,073	III	Yes
ANTICIPATED CREDITS					
RDD	TBD	Humboldt	1,155	V	Yes
Eureka Livestock	TBD	Eureka	1,641	III	Yes
Coleman Valley Ranch	TBD	Washoe	1,045	V	Yes
Squaw Valley Ranch	TBD	Elko	198	IV	Yes
West IL Ranch	TBD	Elko	14,630	IV	Yes
Heguy Ranch	TBD	Elko	6,450	IV	Yes
Earthton Holdings	TBD	Elko	1,578	IV	Yes
Estill Ranches	TBD	Washoe	1,671	V	No
Falen	TBD	Humboldt	7,070	IV, V	No

TABLE 1: Description of all credit projects (December 2017)

*Credits listed are credits transferred and used to offset debits for projects listed under Transferred Credits, and credits available for sale for projects listed under Available Credits. Reserve account contributions associated with transferred and required by credits not transferred are excluded from this table.

**Projects receiving state seed funding were dependent on varying amounts of match funding from the landowners. In some cases, landowners covered the majority of the total cost to generate credits.

2017 PROGRAM RESULTS • CREDIT DEVELOPMENT CONT.

FEATURED PROJECT – COTTONWOOD RANCH

Cottonwood Ranch is one of the first credit projects contracted to generate credits available to sale using state seed funding. The SEP expresses its gratitude to Cottonwood Ranch, and all other credit projects listed on the previous page, for enrolling in the CCS and its intent to generate mitigation to offset impacts to Greater Sage-grouse habitat.



SITE DESCRIPTION

- Family-owned working livestock ranch
- High-quality meadow and late brood-rearing habitat
- Minimal manmade disturbances nearby
- Property is in and surrounded by Priority Habitat Management Area (PHMA)



MANAGEMENT ACTIONS

- Seeding of forbs and perennial grasses
- Planting sagebrush
- Treating soils to improve fertility
- Renovating irrigation infrastructure



REASONS FOR PARTICIPATING

- Improve operations and land management
- Technical and financial assistance to overcome learning curve of implementing conservation practices and enrolling in the CCS
- Long-term financial stability to enable the property to remain a working family ranch



“If we are going to get the change in land management that is needed in some instances, there needs to be a way to have compensation that helps landowners get through the learning curve for change. The Credit System is going to help us do improvements that we would not have been able to do. It would have been very difficult for us to go through the whole process without the great assistance we received from the Sagebrush Ecosystem Technical Team and Conservation District specialists.”

-Agee Smith, Cottonwood Ranch

2017 PROGRAM RESULTS • DEBITS MITIGATED

The CCS is used to offset the impact to Greater Sage-grouse from anthropogenic disturbances, such as mines, geothermal facilities, energy development, transmission lines, and other temporary or permanent infrastructures which directly or indirectly impact Greater Sage-grouse habitat. Ranching and farming activities are not considered impacts and can contribute to conservation objectives.

MITIGATION HIERARCHY

The CCS works within the mitigation hierarchy in which anthropogenic disturbance impacts are avoided first, then minimized, and finally any residual unavoidable impacts (*debts*) are mitigated using the CCS. The CCS also applies financial incentives that supports avoidance and minimization.

FEDERAL AGENCY COLLABORATION

The State of Nevada, BLM and USFS have signed a memorandum of understanding detailing the collaborative implementation of the CCS. Project proponents permit anthropogenic disturbances on federal lands through federal land management agencies and then use the CCS to fulfill their mitigation obligation. Project proponents can use the CCS to verify mitigation (*credits*) that they generate themselves or acquire credits from other Credit Developers.

Figure 8 includes the debts offset using credits through the CCS as of December 2017, as well as debts expected to be offset using the CCS.

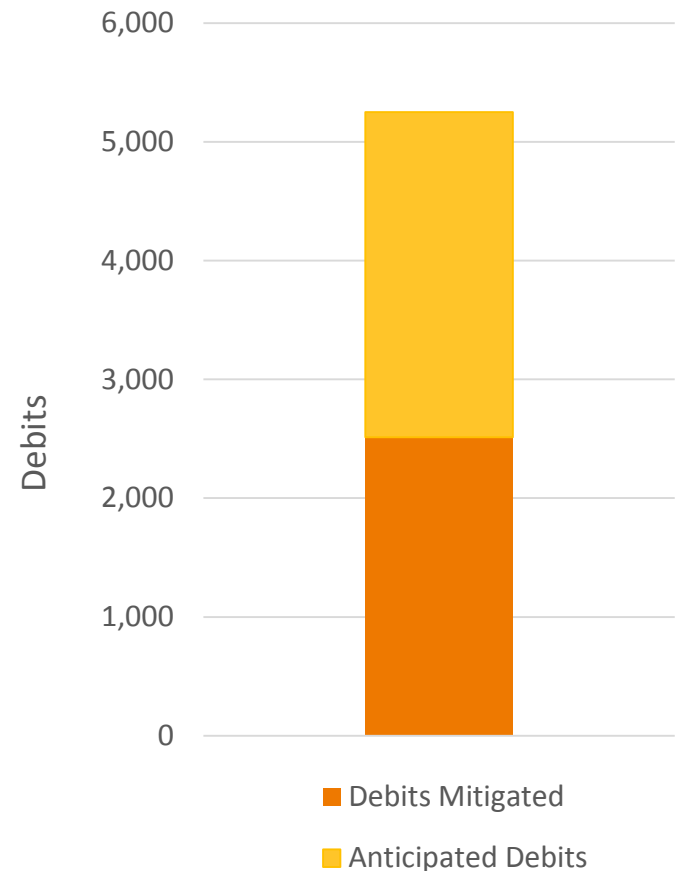


FIGURE 8: Debts mitigated or anticipated through the CCS (December 2017)

2017 PROGRAM RESULTS • DEBITS MITIGATED CONT.

DEBIT PROJECTS (AS OF DECEMBER 2017)

The map and table below depicts all debit projects that have used or are expected to use CCS credits to offset impacts to Greater Sage-grouse habitat from anthropogenic disturbance.

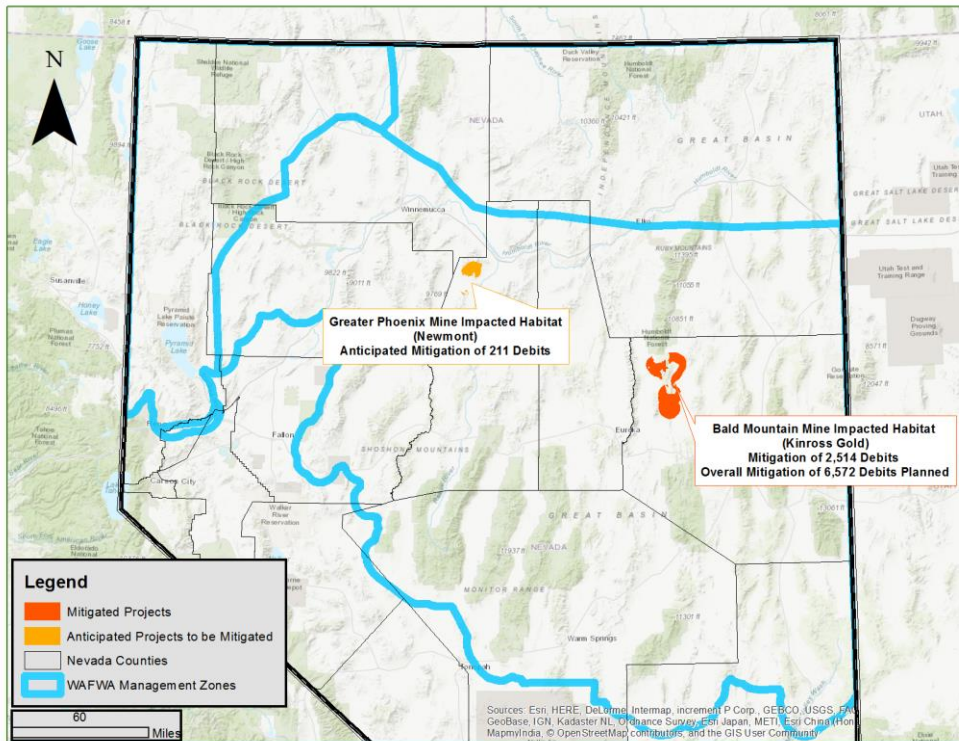


FIGURE 9: Map of debit projects participating in the CCS (December 2017). Project area includes sage-grouse habitat directly and indirectly effected by projects.

PROJECT NAME	DEBITS	COUNTY	ACRES OF DIRECT IMPACT*	WAFWA MGMT. ZONE
DEBITS MITIGATED				
Bald Mountain Mine (Phase 1)	2,514	White Pine	2,521	III
ANTICIPATED DEBITS				
Bald Mountain Mine (Expected)	2,737	White Pine	2,745	III
Greater Phoenix Mine	211	Lander	513	III

TABLE 2: Description of debit projects participating in the CCS (December 2017)

* Direct impact is the surface area of Greater Sage-grouse habitat disturbed by the debit project. The number of debits generated is dependent on the quality and quantity of habitat directly and indirectly effected by the disturbance. There is not a consistent direct ratio applied to each debit project based on acres alone.

2017 PROGRAM RESULTS • DEBITS MITIGATED CONT.

FEATURED PROJECT – BALD MOUNTAIN MINE

The Bald Mountain Mine is the first debit project to use credits from the CCS as its preferred mitigation alternative in its [Final Environmental Impact Statement](#). The SEP expresses its appreciation to Kinross Gold Corporation for using the CCS to ensure net benefit from their mining operation, and for working with the SETT to be the first debit project to use this new and innovative mitigation program.

Kinross Gold Corporation enrolled ranches under their ownership into the CCS to generate credits and fulfill their mitigation obligation. Since Kinross owned both the debit and credit projects, their mitigation could be considered Permittee Responsible Mitigation. Using the standards defined by the CCS ensured that their mitigation achieved net benefits and enabled Kinross to fulfill their mitigation obligation in less than two years.



MINE SITE DESCRIPTION

- Significant existing disturbance (roads, power lines and mining operation) related to existing mining operations
- Low habitat quality due to moderate habitat suitability, in particular in close proximity to the footprint of the project, and significant existing disturbance



PROJECT DESCRIPTION

- Plan to expand gold mining operation by 5,266 acres of direct surface disturbance, which will total 5,251 debits
- Current plan of operation includes 2,514 debits, and credits were transferred to offset those debits in November 2017



REASONS FOR PARTICIPATING

- Ensure net benefit related to impacts to Greater Sage-grouse
- Streamline mitigation approval process
- Increase cost and time certainty to fulfill mitigation obligation



2017 PROGRAM OPERATIONS • RESERVE ACCOUNT

A primary responsibility of the SETT is to manage the reserve account. The reserve account serves as an insurance mechanism for the overall CCS and ensures there are always more credits than debits in the CCS in the event of credit project failure due to intentional or unintentional reversals.

A percentage of credits generated by each credit project are transferred into the reserve account at the time that credits are transferred to a Credit Buyer's account. Credits in the reserve account may be used by the SETT to temporarily cover invalidated credits until invalidated credits are replaced through corrective actions and/or using financial assurance funds. Credits can be invalidated through a variety of ways, both intentional and unintentional, such as a new road or fire. The process of generating and using reserve credits is described in Figure 10.

Table 3 contains deposits, withdrawals and balance of the reserve account as of December 2017. A positive balance (column 4) confirms there are more credits than debits in the CCS. As of December 2017, no credits were withdrawn from the reserve account.

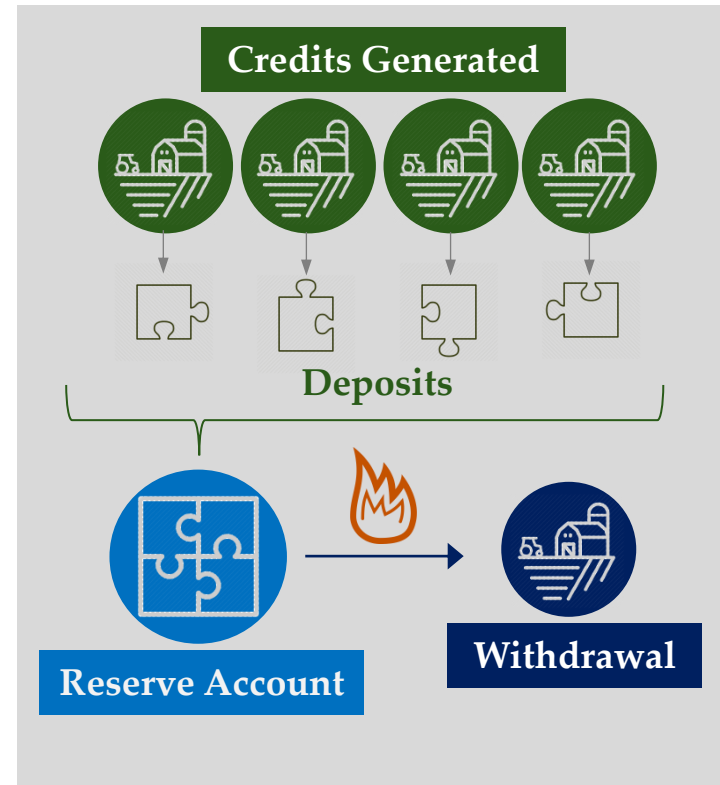


FIGURE 10: Reserve Account generation and use

CREDIT PROJECT NAME	RESERVE ACCOUNT DEPOSIT	RESERVE ACCOUNT WITHDRAWAL	RESERVE ACCOUNT BALANCE	REASON FOR INVALIDATED CREDITS (WITHDRAWALS ONLY)	INVALIDATED CREDITS REMEDIAL ACTION PLAN (WITHDRAWALS ONLY)
Tumbling JR Ranch	310	N/A	310	N/A	N/A

TABLE 3: Reserve Account Ledger

2017 PROGRAM OPERATIONS • ADMINISTRATION OVERVIEW

As the administrator of the CCS, the SETT is responsible for day-to-day operations of the CCS, as well as the many other responsibilities and initiatives of the Sagebrush Ecosystem Program. Key SETT responsibilities related to the CCS include the following.

PROGRAM ADMINISTRATION & COMPLIANCE

- Ensure consistent and accurate application of CCS policies and tools
- Award credits, verify debits and track credit transfers between credit and debit accounts
- Ensure long-term stewardship and periodic verification of credit projects
- Enforce contract compliance, implement corrective actions in response to intentional and unintentional reversals, and manage reserve account
- Maintain agreements and coordinate with implementing partners

CONTINUAL IMPROVEMENT & REPORTING

- Identify opportunities to improve the CCS based on new science findings, operational experience and changing policy context
- Develop improvement recommendations through analyzing alternatives and engaging science community
- Publish improvement recommendations with supporting rationale, and facilitate review and approval by the Sagebrush Ecosystem Council
- Publish program results in the Annual Performance Report

PARTICIPANT SUPPORT & OUTREACH

- Support Credit Buyers and Credit Developers through credit generation and debit verification
- Educate stakeholders, and encourage Credit Buyer and Credit Developer participation
- Train Verifiers



2017 PROGRAM OPERATIONS • CONTINUAL IMPROVEMENT

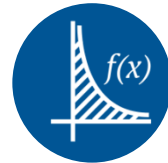
Implementing annual improvements to the CCS is a primary responsibility of the SETT and necessary to ensure that the program achieves its goals. The SETT actively engages program participants and verifiers throughout the year to understand how the program is working and where it could be improved. Once a year the SETT synthesizes findings related to CCS operations, achievements, challenges, and new, relevant science. The SETT develops improvement recommendations based on the findings, vets them with the science community and then they are considered for adoption by the Sagebrush Ecosystem Council (SEC).

Improvements of major significance adopted by the SEC and implemented by the SETT in 2017 are summarized below. Ten other improvements of moderate and minor significance were also approved by the SEC in 2017, and are detailed in the [2016 Findings and Improvement Recommendations Report](#).



PREFERRED CONSERVATION AREAS

Areas within SFAs were defined as Preferred Conservation Areas and Proximity Ratios were revised in order to incentivize enhancement and protection of both Greater Sage-grouse populations in close proximity to the debit project and Greater Sage-grouse strongholds in the State. This improvement is currently on hold due to changes with SFAs.



INDIRECT EFFECTS

The shape of the distance decay curves used to assess indirect effects from anthropogenic features were changed to use an exponential decay curve instead of a sigmoidal curve, and distance decay curve weights and distances for towers and power lines were revised to better reflect the best available science.



HABITAT SUITABILITY INDEX (HSI) SCORING

The method for incorporating HSI values into the Habitat Quantification Tool was revised to better reflect local-scale habitat quality.



POWERLINES

The indirect disturbance weight and distance for powerlines and towers were revised to reflect the best available science.

2017 PROGRAM OPERATIONS • IMPLEMENTING PARTNERS

The Sagebrush Ecosystem Program is grateful for the agency partnerships and support that is critical for program implementation and long-term success of the CCS.

