



# State of Nevada Conservation Credit System

## 2023 PERFORMANCE REPORT

## 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.

### NEVADA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

James Settlemeyer (Director)

Dominique Etchegoyhen (Deputy Director)

Charlie Donohue (Administrator, Nevada Division of State Lands)

### SAGEBRUSH ECOSYSTEM TECHNICAL TEAM

Kathleen Steele (SEP Program Manager)

Cheyenne Acevedo (Nevada Department of Wildlife)

Justin Lambert (Nevada Division of Forestry)

Sarah Hale (Nevada Division of State Lands)

Vacant (Nevada Department of Agriculture)



### SAGEBRUSH ECOSYSTEM COUNCIL

Chris MacKenzie, Chair (Board of Wildlife)

Jake Tibbitts, Vice-Chair (Local Government)

Kyle Davis (Mining)

Steve Boies (Ranching)

Daphne Emm Hooper (Tribal Nations)

Mathew Johns (Energy)

Bevan Lister (Agriculture)

William Molini (Conservation and Environmental)

Sherman Swanson (General Public)

#### Ex-Officio Members

James Settlemeyer (Nevada Department of Conservation and Natural Resources)

Heidi Ramsey (U.S.D.A. Natural Resources Conservation Service)

Bill Dunkelberger (U.S. Forest Service)

Vacant (U.S. Fish & Wildlife Service)

Julian Goicoechea (Nevada Department of Agriculture)

Jon Raby (Bureau of Land Management)

Alan Jenne (Nevada Department of Wildlife)

**For information and questions about the Nevada Conservation Credit System, please contact:**

**Kathleen Steele**

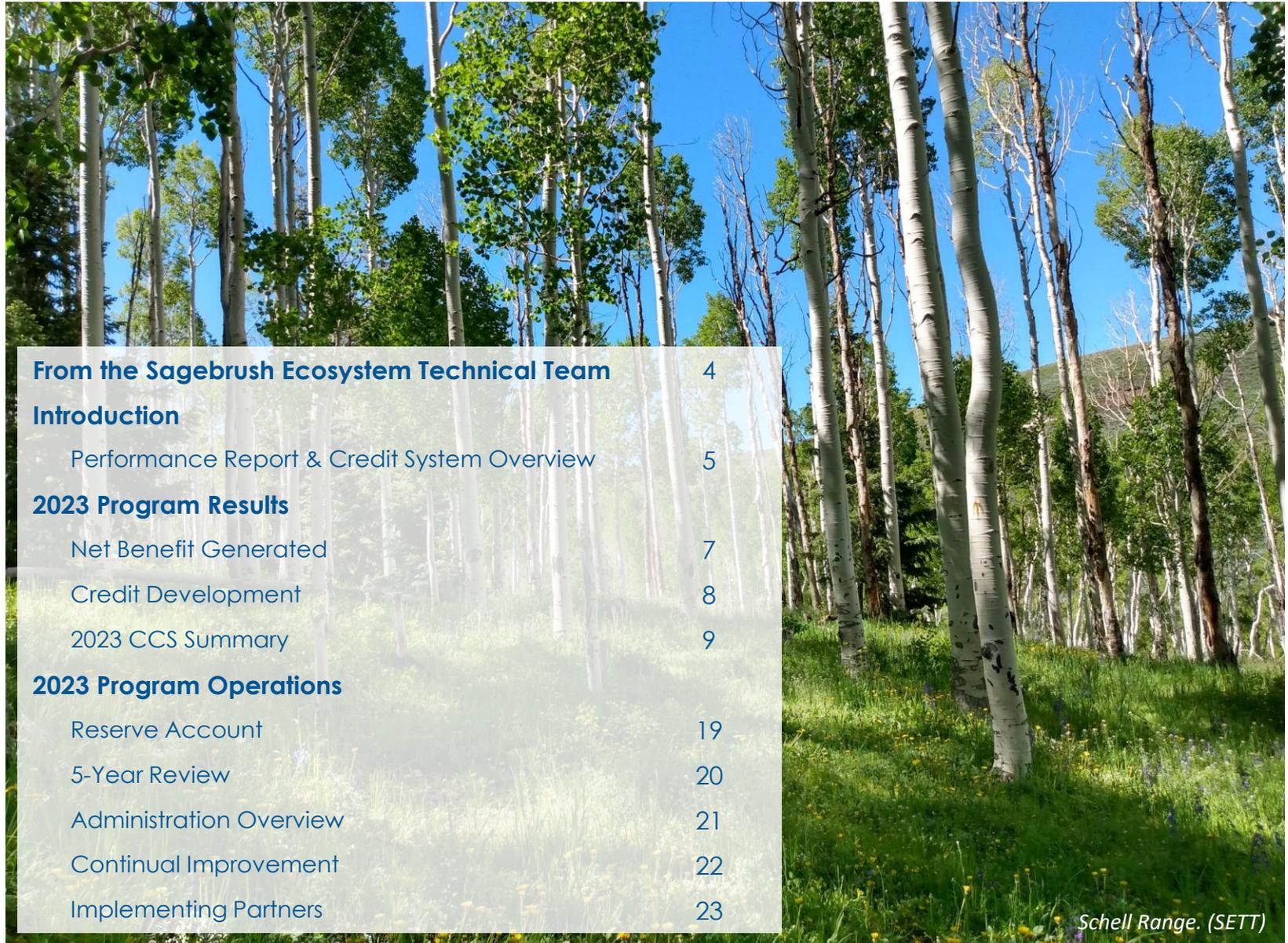
Program Manager

Nevada Sagebrush Ecosystem Program

[ksteele@sagebrusheco.nv.gov](mailto:ksteele@sagebrusheco.nv.gov)

(775) 687-2005

# TABLE OF CONTENTS



<b>From the Sagebrush Ecosystem Technical Team</b>	4
<b>Introduction</b>	
Performance Report & Credit System Overview	5
<b>2023 Program Results</b>	
Net Benefit Generated	7
Credit Development	8
2023 CCS Summary	9
<b>2023 Program Operations</b>	
Reserve Account	19
5-Year Review	20
Administration Overview	21
Continual Improvement	22
Implementing Partners	23

# FROM THE SAGEBRUSH ECOSYSTEM TECHNICAL TEAM

The annual CCS Performance Report provides a summary of the program's mitigation achievements over the past year. In addition to informing the SEC and all stakeholders on the achievements of the SEP relevant to mitigation and the CCS, the report highlights the continued commitment of the Sagebrush Ecosystem Program (SEP) to function transparently and implement mitigation uniformly.

In 2019, the Sagebrush Ecosystem Council (SEC) adopted a permanent mitigation regulation that was subsequently passed by the Legislative Commission. This regulation requires compensatory mitigation for greater sage-grouse using the Nevada Conservation Credit System (CCS). Mitigation is required for certain man-made disturbances on public lands as defined within the Nevada Greater Sage Grouse Conservation Plan. The CCS was intended to ensure consistent and durable mitigation in Nevada.

Due to the regulation, the Sagebrush Ecosystem Program (SEP) has seen a significant increase in the number of Debit Projects entering the CCS. Forty-two debit projects entered our radar in 2023, primarily renewable energy projects - some became CCS projects and others did not qualify for the system. This brought the total number of active debit projects in the CCS to 89. An additional seven mitigation transactions occurred in 2023. These transactions achieved net conservation gain encompassing 1,093 acres of greater sage-grouse habitat in Nevada, bringing the total number of acres conserved to just under 30,000.

Three new credit projects were entered into the CCS this year, and one is waiting for next year to begin, accounting for nearly 20,500 new credits. This brings the total number of credit projects in the CCS to 25, as four credit projects withdrew from the system in the last three years. The total number of available or anticipated credits is just over 55,000. The Sagebrush Ecosystem Technical Team (SETT) also conducted 5-year qualitative assessments on two credit projects. This allowed the SETT to meet with project proponents on a more personal level, discuss the challenges and opportunities within the projects, and answer questions from the landowners. These meetings also allowed the families to provide input into management, maintenance, and additional conservation opportunities. The SETT also scheduled on-site meetings with prospective credit project proponents to address questions and opportunities in consideration of their private land entry into the CCS.

Two significant science updates were adopted into the CCS in 2023, updating the Habitat Suitability Indexes to incorporate selection and survival and replacing the standard Distance to Lek map with an Abundance and Space Use Index which highlighted source leks and gave a lesser value to more satellite leks. In addition, an improvement was adopted that accounts for the impacts to a lek on a larger scale than before.

We express our sincere gratitude and appreciation for the many partners who provided assistance, guidance, and support of the implementation of the CCS and the conservation of Nevada's sagebrush ecosystem.

Additional achievements not specifically related to conservation mitigation are highlighted in the SEP Semi-Annual Reports.

**Kathleen Steele**

Program Manager

Sagebrush Ecosystem Program

# INTRODUCTION • PERFORMANCE REPORT & CREDIT SYSTEM OVERVIEW

## 2023 PERFORMANCE REPORT

The CCS's 2023 *Performance Report* provides a summary of the program's achievements over the past year and includes key outcomes from credit and debit projects as well as the program in general.

## 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 conservation of the sagebrush ecosystem. The CCS also provides regulatory certainty to industry and provides an opportunity for landowners 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

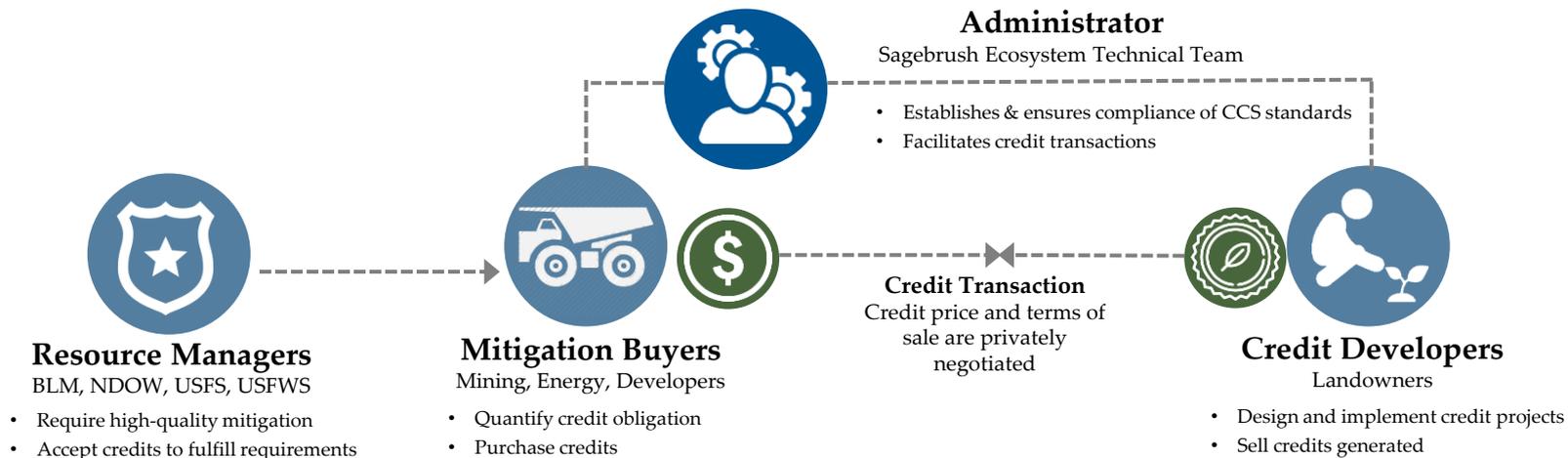


FIGURE 1: Credit System Operations

# 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 industry and landowners, and streamlines administrative operations. The standards include consistent ways to measure habitat loss and gain, as well as clearly defined provisions to ensure durability of credits through time. 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

# 2023 PROGRAM RESULTS • NET BENEFIT GENERATED

The goal of the CCS is to offset impacts from certain anthropogenic (man-made) disturbances with habitat enhancements and protections resulting in a net benefit for Greater Sage-grouse habitats in the State of Nevada.

The CCS ensures net benefit to Greater Sage-grouse habitat in multiple ways. The CCS uses a scientifically rigorous Habitat Quantification Tool (HQT) to assess both debit (degradation of habitat) and credit (conservation of habitat) projects. Mitigation ratios applied to the three habitat management zones (Priority, General, and Other) and a five percent factor added to debit projects occurring within any management zone ensures more functional-acres are gained than lost, and standards are used to ensure habitat quality remains for the planned life of credit projects.

In addition to the mitigation ratio, the proximity ratio is multiplied to the final debit score to account for how far the offsetting credit project is located from the disturbance. The proximity ratio can increase the credit obligation (i.e., debits) from 0% to 15%. The purpose of the proximity ratio is to encourage mitigation to occur near to where habitat is being displaced or impacted.

The combination of mitigation and proximity ratios results in a net benefit for sage-grouse habitat in Nevada.

## 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** contribution of 5-14% of credits in excess of the amount needed to offset any disturbance is required at the time of sale/transfer within the CCS. Reserve account credits are maintained to ensure that credits lost (e.g. acts of nature) can be replaced as necessary, and provide durability as well as continued net benefits
- ✓ **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

# 2023 PROGRAM RESULTS • CREDIT DEVELOPMENT

## STATE OF NEVADA SEED FUNDING OF CREDIT PROJECTS

The SEP has facilitated successful solicitations for credit project development in 2016, 2017, and 2019 that attracted nearly 40 applications and resulted in seed funding to 13 credit project proponents totaling approximately \$2M. The funding was or will be used to quantify habitat quality, develop management plans, and implement on-the-ground habitat improvements.

The SEP utilized a Pay for Performance procurement strategy to solicit and provide seed funding to credit projects in 2016, 2017, and 2019. 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 by landowners using the funds follows each sale of credits per their funding agreement. 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 credits per dollar of state funds awarded, and minimized financial risk and uncertainty for the state. This procurement strategy also allows for a revolving fund which will continue to fund new projects.

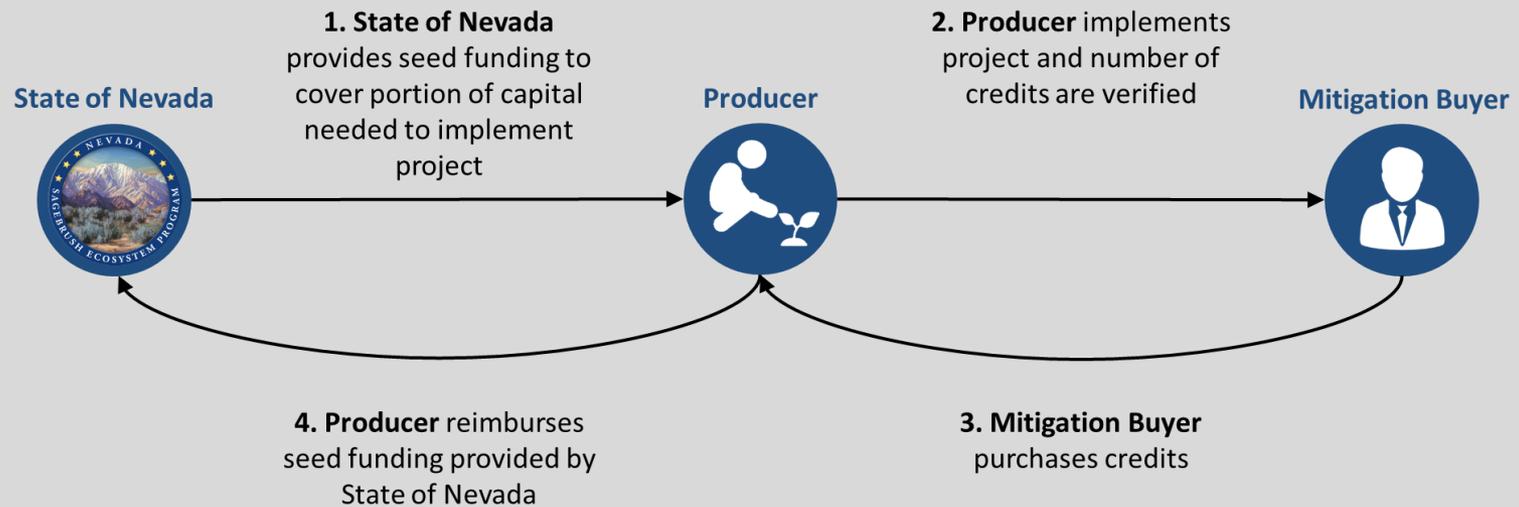


FIGURE 4: Illustration of the Pay for Performance procurement strategy utilized by the State of Nevada

# 2023 PROGRAM RESULTS • TRANSACTIONS

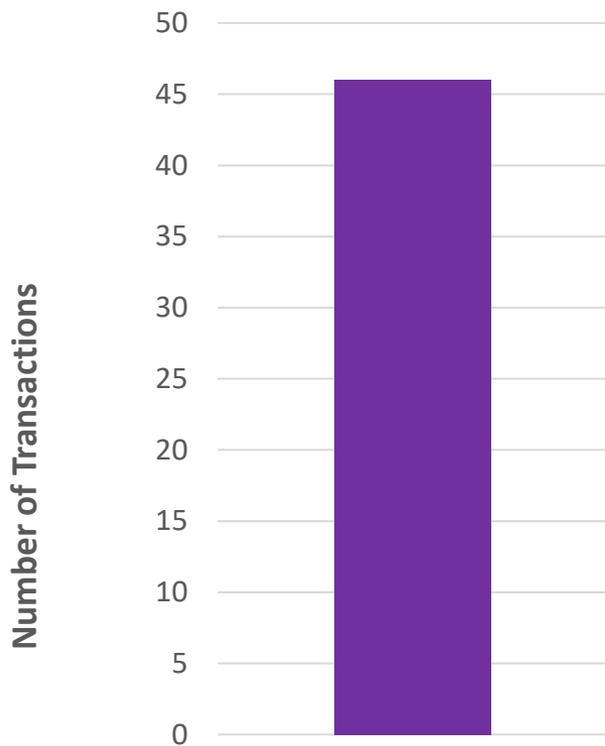


FIGURE 5: Number of total Transactions

TABLE 1: Description of all transactions through the CCS as of December 2023

- Reserve account contributions associated with transfers are excluded from this table. Proximity factors associated with the transactions are included.
- \*\* "Acres Included in other Transaction" refers to acres already accounted for in a previous transaction, as all credits within a Credit Project map unit are required to be managed in their entirety, regardless of the number of credits transferred within.

DEBIT PROJECT	CREDITS TRANSFERRED OR SOLD	CREDIT PROJECT	ACRES CONSERVED**	WAFWA MGMT. ZONE
<b>Transactions*</b>				
<b>Bald Mountain Mine</b>	2,514	Tumbling JR Ranch	9,717	III
<b>Greater Phoenix Mine</b>	243	West IL Ranch	6,279	IV
<b>Greater Phoenix Mine - Philadelphia Canyon</b>	5	West IL Ranch	Acres Included in other Transaction	IV
<b>Coeur Rochester Mine</b>	467	Crawford Cattle - Sonoma	1,498	III
<b>Coeur Rochester Mine</b>	186	Crawford Cattle - Snowstorms	1,313	IV
<b>Baltazor Geothermal</b>	292	Crawford Cattle - Snowstorms	1,033	IV
<b>Midas Exploration</b>	22	Estill Ranch	346	V
<b>Avocado Exploration</b>	44	Crawford Cattle - Snowstorms	254	IV
<b>Newcrest Exploration Phase I</b>	3	Cottonwood Ranch	13	IV
<b>Fish Springs Solar</b>	59	Heguy Ranch	26	IV
<b>Western Oil Exploration</b>	5	Crawford Cattle - Snowstorms	Acres Included in other Transaction	IV
<b>Jerritt Canyon Exploration</b>	45	Cottonwood Ranch	103	IV
<b>Snow Canyon Mine Closure</b>	2	Cottonwood Ranch	Acres Included in other Transaction	IV
<b>Twin Creeks Mine - Sage Tailings</b>	35	West IL Ranch	Acres Included in other Transaction	IV
<b>Tungsten Mountain Solar</b>	5	Crawford Cattle - Snowstorms	1,332	IV
<b>Dixie Meadows Geothermal</b>	104	Crawford Cattle - Snowstorms	Acres Included in other Transaction	IV
<b>South Railroad Exploration</b>	9	Heguy Ranch	Acres Included in other Transaction	IV
<b>Peterson Mountains Mine</b>	1	Heguy Ranch	Acres Included in other Transaction	IV
<b>White Pine Hydropower Pump Exploration</b>	9	Secret Pass Ranch	226	III, IV
<b>Cherry Creek Tower</b>	3	Secret Pass Ranch	Acres Included in other Transaction	III, IV

# 2023 PROGRAM RESULTS • TRANSACTIONS

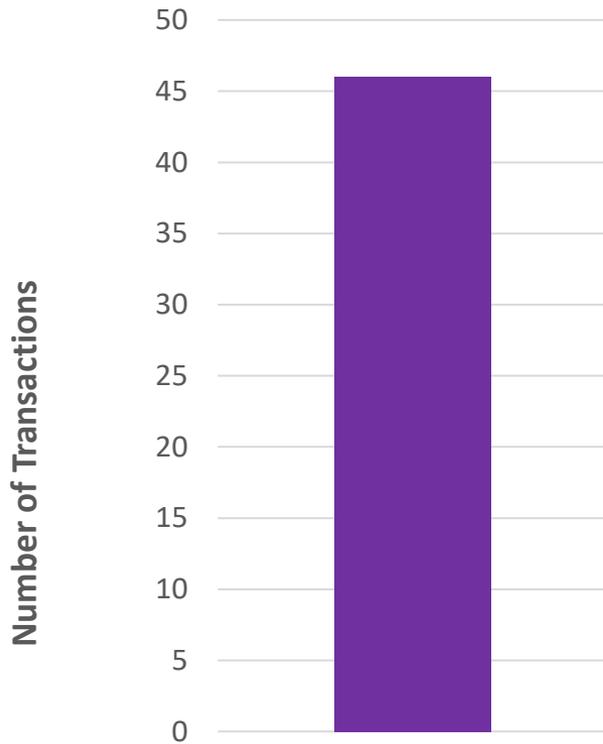


FIGURE 5: Number of total Transactions

TABLE 1: Description of all transactions through the CCS as of December 2023

- Reserve account contributions associated with transfers are excluded from this table. Proximity factors associated with the transactions are included.
- \*\* "Acres Included in other Transaction" refers to acres already accounted for in a previous transaction, as all credits within a Credit Project map unit are required to be managed in their entirety, regardless of the number of credits transferred within.

DEBIT PROJECT	CREDITS TRANSFERRED OR SOLD	CREDIT PROJECT	ACRES CONSERVED**	WAFWA MGMT. ZONE
<b>Transactions*</b>				
Round Springs Tower	3	Secret Pass Ranch	Acres Included in other Transaction	III, IV
Lincoln Hill Exploration	9	Heguy Ranch	Acres Included in other Transaction	IV
Round Mountain Mine	45	Tumbling JR Ranch	Acres Included in other Transaction	III
SW Energy Road	13	Cottonwood Ranch	Acres Included in other Transaction	IV
Big Ledge - Dry Creek Mine Closure	310	Mary's River Ranch	463	IV
Western Lithium Mine	550	Estill Ranch	1,901	V
Baker Ranch Powerline	1	Cottonwood Ranch	Acres Included in other Transaction	IV
Gold Bar South Mine	662	Heguy Ranch	3,397	IV
South Railroad Exploration	24	Heguy Ranch	Acres Included in other Transaction	IV
Beehive Telephone Fiber Optic	2	Heguy Ranch	Acres Included in other Transaction	IV
Gold Bar South Mine	127	Cottonwood Ranch	306	IV
White Pine Hydropower Pump Exploration	6	Secret Pass Ranch	Acres Included in other Transaction	III, IV
Bald Mountain Mine	462	Tumbling JR Ranch	Acres Included in other Transaction	III
Robinson Mine	201	Owl Creek Ranch	631	III
Marigold - Valmy Mine	59	Owl Creek Ranch	Acres Included in other Transaction	III
Great Basin Diamond 1-27 APD Exploration	5	Owl Creek Ranch	Acres Included in other Transaction	III
Crescent Valley Exploration	5	Crawford Cattle - Snowstorms	Acres Included in other Transaction	IV
Robertson Exploration One	7	West IL Ranch	Acres Included in other Transaction	IV
Goldrush Mine	2,037	West IL Ranch	Acres Included in other Transaction	IV

# 2023 PROGRAM RESULTS • TRANSACTIONS

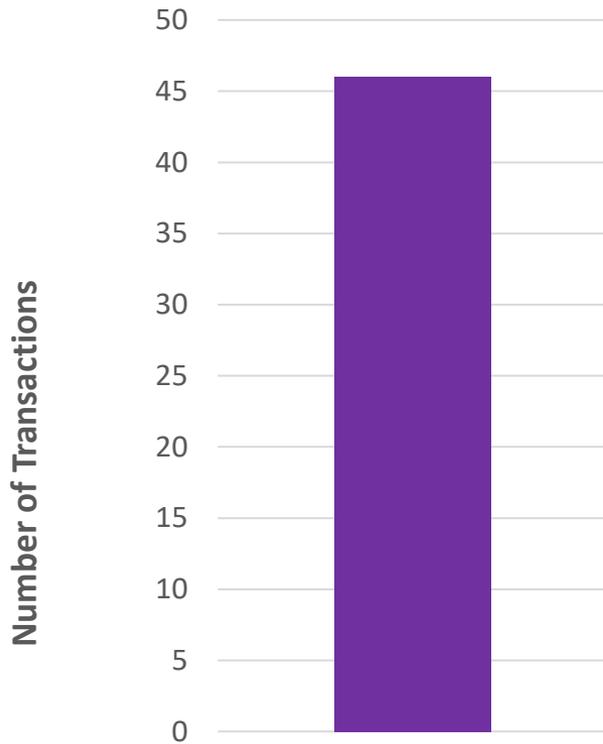


FIGURE 5: Number of total Transactions

DEBIT PROJECT	CREDITS TRANSFERRED OR SOLD	CREDIT PROJECT	ACRES CONSERVED**	WAFWA MGMT. ZONE
<b>Transactions*</b>				
Goldrush Exploration	26	West IL Ranch	Acres Included in other Transaction	IV
Goldrush Mine	601	East IL Ranch	486	IV
Marigold - Valmy Mine	332	Owl Creek Ranch	607	III
Green Springs Exploration	13	Owl Creek Ranch	Acres Included in other Transaction	III
Golden Lake Exploration	6	Owl Creek Ranch	Acres Included in other Transaction	III
Prospect Mine - Gullsil Expansion	12	Owl Creek Ranch	Acres Included in other Transaction	III
North Peak Exploration	1	Owl Creek Ranch	Acres Included in other Transaction	III
<b>Total</b>	<b>9,572</b>		<b>29,931</b>	

TABLE 1: Description of all transactions through the CCS as of December 2023

- Reserve account contributions associated with transfers are excluded from this table. Proximity factors associated with the transactions are included.
- \*\* "Acres Included in other Transaction" refers to acres already accounted for in a previous transaction, as all credits within a Credit Project map unit are required to be managed in their entirety, regardless of the number of credits transferred within.

# 2023 PROGRAM RESULTS • CREDIT SUMMARY

## BACKGROUND

Credit development involves quantification of habitat values (credits), enhancement or restoration of habitat, development of a management plan, securement of financial assurances and signing a participant contract. After available credits are determined, the sale price of credits is based on market value and determined through a private negotiation between landowners with credits available and debit project proponents needing credits to offset a disturbance. When credits are sold, the purchaser fulfills a mitigation obligation, and the credit seller commits to maintaining performance standards for the term of the contract. Landowners can continue agricultural and livestock operations compatible with Greater Sage-grouse habitat needs throughout the contract term.

## CREDIT TYPES

### TRANSFERRED CREDITS

Transferred credits refers to those credits that have been sold or transferred to a debit producer to satisfy their mitigation obligation.

### AVAILABLE CREDITS

Available credits are based on verified habitat quantifications and have an approved management plan. These credits are “available” for transaction.

### ANTICIPATED CREDITS

Anticipated credits are those credit projects in the initial stages of development that have not finalized a management plan. These credits are not “available” for transaction, yet.

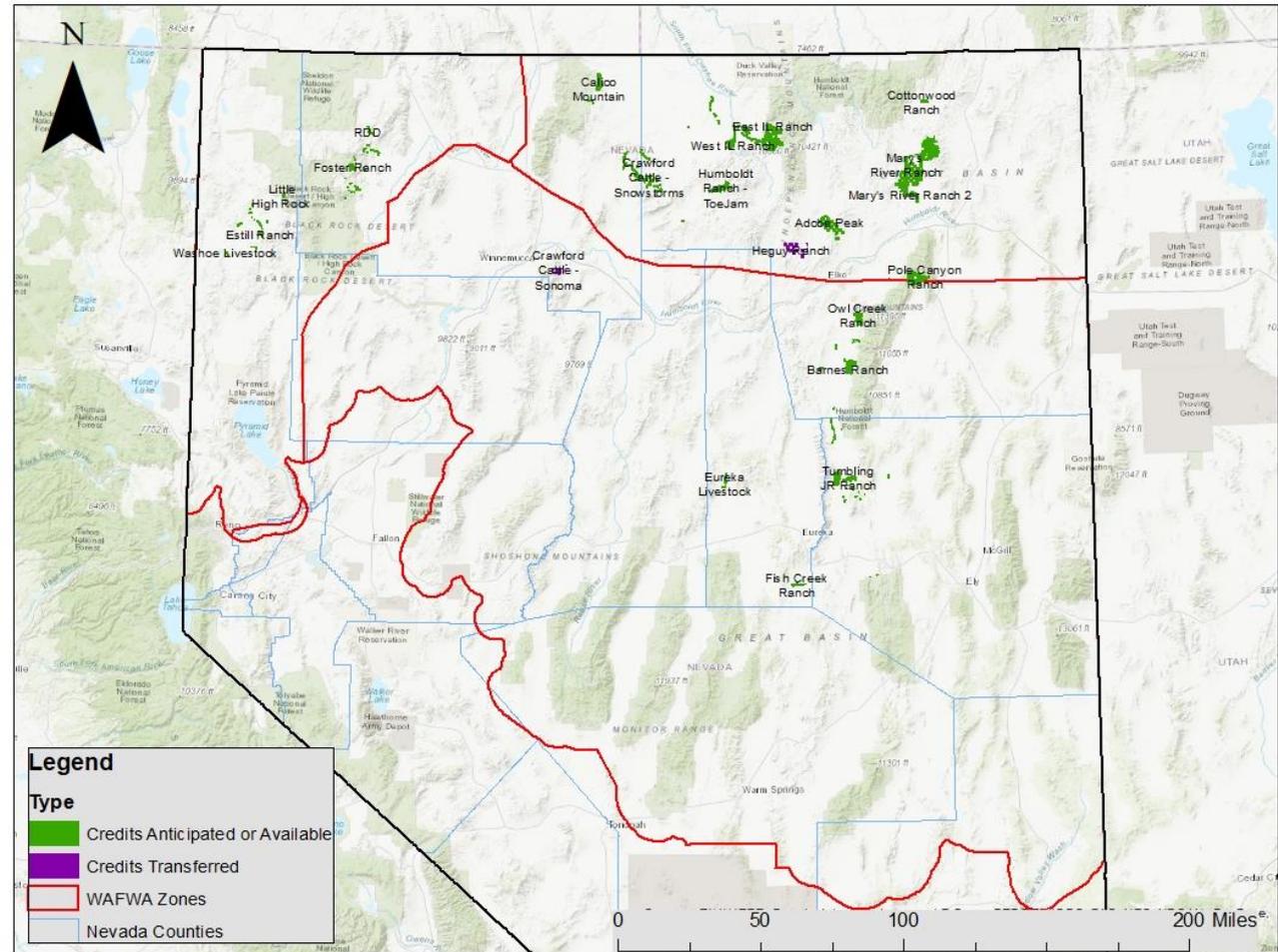


FIGURE 6: Map of all credit projects. Credits Transferred refers to Credit Projects that have completely transferred all available credits.

# 2023 PROGRAM RESULTS • CREDITS AVAILABLE

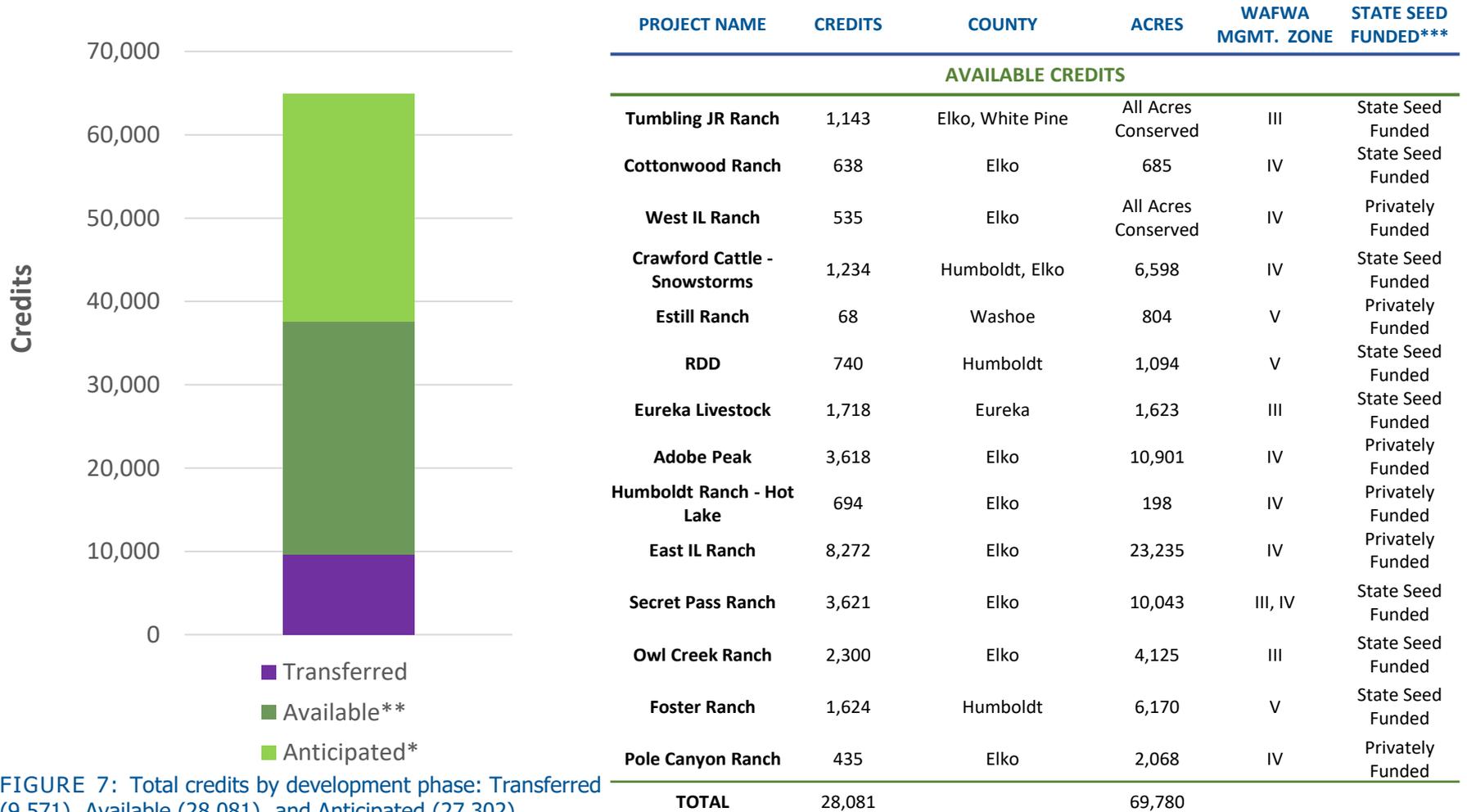


FIGURE 7: Total credits by development phase: Transferred (9,571), Available (28,081), and Anticipated (27,302)

TABLE 2: Description of all credit projects with available credits in the CCS as of December 2023

\* Anticipated credits are estimated, but not finalized or eligible for transfer/sale.

\*\* Available Credits are finalized and eligible for transfer/sale to mitigate for anthropogenic disturbances.

\*\*\* Projects receiving state seed funding also included varying amounts of matching funds from the landowners.

# 2023 PROGRAM RESULTS • CREDITS ANTICIPATED



*Banded orb weaving spider. (SETT)*

PROJECT NAME	CREDITS	COUNTY	ACRES	WAFWA MGMT. ZONE	STATE SEED FUNDED
<b>ANTICIPATED CREDITS</b>					
Eureka Livestock	TBD	Eureka	1,623	III	State Seed Funded
Washoe Livestock	TBD	Washoe	799	V	Privately Funded
Humboldt Ranch - Toejam	TBD	Elko	5,330	IV	Privately Funded
East IL Ranch	TBD	Elko	23,721	IV	Privately Funded
Calico Mountain	TBD	Humboldt	5,120	IV	State Seed Funded
Little High Rock	TBD	Washoe	322	V	Privately Funded
Fish Creek Ranch	TBD	Eureka	1,180	III	Privately Funded
Zunino Ranch	TBD	Elko	3,219	III	Privately Funded
Barnes Ranch	TBD	Elko	4,981	III	Privately Funded
Mary's River Ranch 2	TBD	Elko	54,833	IV	Privately Funded
<b>TOTAL</b>	~27,300		101,128		

TABLE 3: Description of all credit projects that have yet to finalize credits in the CCS as of December 2023

# 2023 PROGRAM RESULTS • CREDIT SPOTLIGHT

## FEATURED PROJECT – MARY’S RIVER RANCH

Mary’s River Ranch is a ranch in Elko County in the Snake Mountains. The project area is primarily used for grazing cattle and producing hay. However, the livestock operation also relies on BLM grazing allotments. The project area consists primarily of the Mary’s River riparian corridor, an adjacent flood-irrigated hay meadow, and small portions of sagebrush upland. The current management practices within the upland focus on maintaining sagebrush cover with a perennial herbaceous understory to provide cover and feed for sage grouse, other wildlife, and livestock. The flood-irrigated hay meadow is managed specifically for forage production. The Mary’s River riparian corridor is managed to maintain healthy hydrologic condition, as well as wildlife habitat and overall ecological health. Both the livestock and hay operations are certified organic. The on-going management objectives are to maintain good quality wildlife habitat and productive forage for livestock, as well as generate Greater Sage-grouse habitat mitigation credits. The goal of the project is to utilize grazing as an adaptive management tool to enhance vegetation heterogeneity within the project area for the benefit of wildlife and livestock. As of 2021, the entire 2,699-acre ranch is contracted to be managed for conservation for the next 30 years. Wright Land Company LP was a project partner in this endeavor.

### SITE DESCRIPTION



- Livestock and hay producing ranch
- Breeding and late brood-rearing habitat over the entirety of the project area
- Project area of nearly 2,699 acres located entirely in PHMA
- Awarded 1,751 credits, which is 0.65 credits / acre

### MANAGEMENT ACTIONS



- Implementation of an approved grazing plan
- Implementation of recommended haying strategy
- Implementation of noxious weed and invasive grass treatments
- Maintenance of fencing infrastructure
- Maintenance of irrigation and infrastructure
- Conducting forb and grass seeding



Mary’s River Ranch Credit Project 2022. (Western Biological)

# 2023 PROGRAM RESULTS • DEBIT SUMMARY

The CCS is a mitigation tool used to offset impacts to Greater Sage-grouse from certain anthropogenic (i.e., man-made) 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 uses a mitigation hierarchy (Avoid, Minimize, Mitigate) within or near sage-grouse habitat management areas. Impacts from proposed anthropogenic disturbances are analyzed for potential avoidance first. If avoidance is not possible, then opportunities are examined to aid in minimizing impacts, and finally any residual unavoidable impacts (*debts*) are mitigated using the CCS. The CCS also applies financial incentives that support avoidance and minimization.

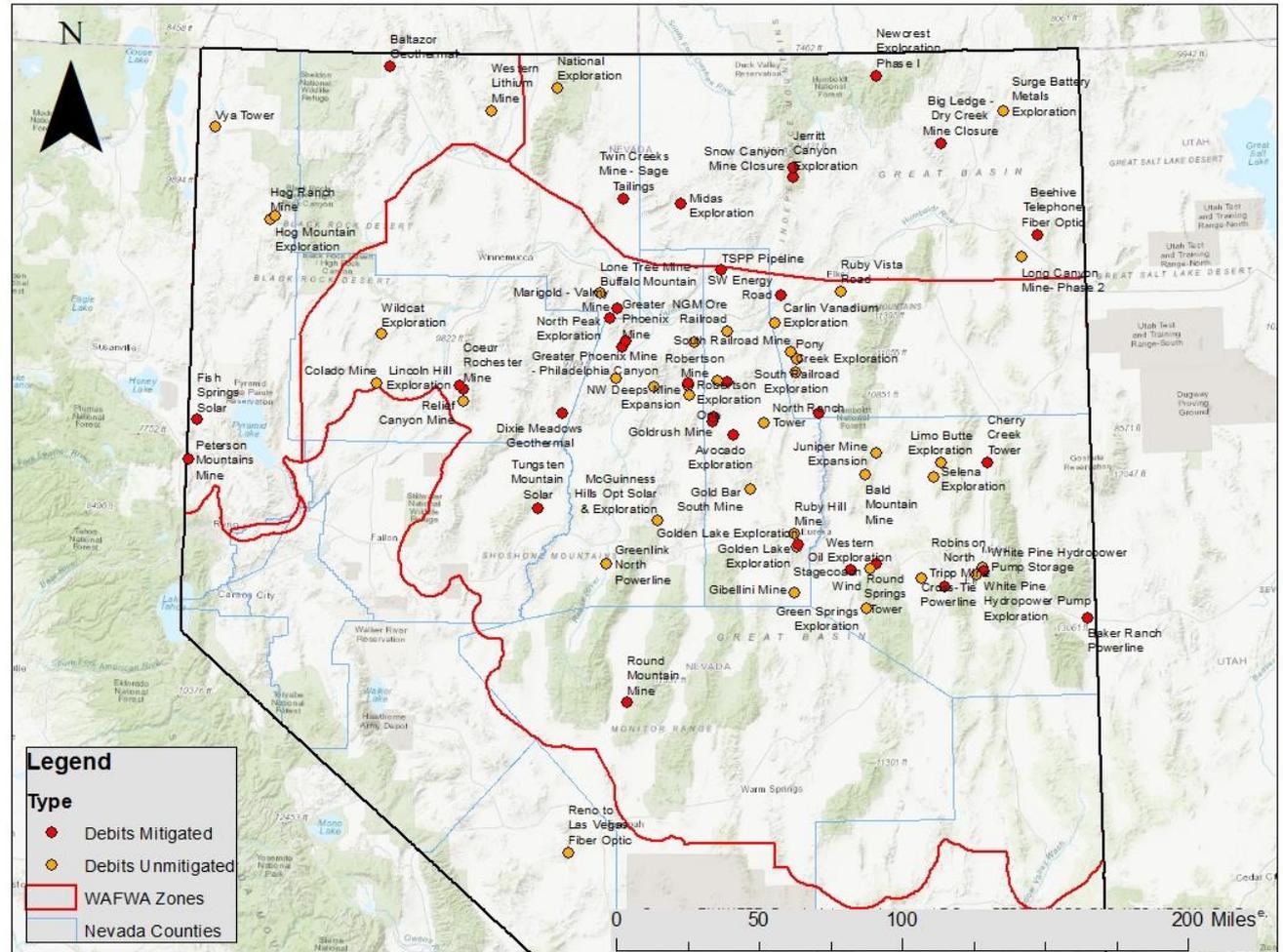


FIGURE 8: Map of all debit projects having offset disturbance through the CCS mitigation or anticipated to be offset in the future.

## 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 seek authority to conduct business on federal lands. Once approved, they use the CCS to fulfill their mitigation obligation, if applicable. Project proponents can use the CCS to verify mitigation (*credits*) that they generate themselves or they can acquire credits from other credit developers in Nevada.

# 2023 PROGRAM RESULTS • DEBITS ANTICIPATED/OUTSTANDING

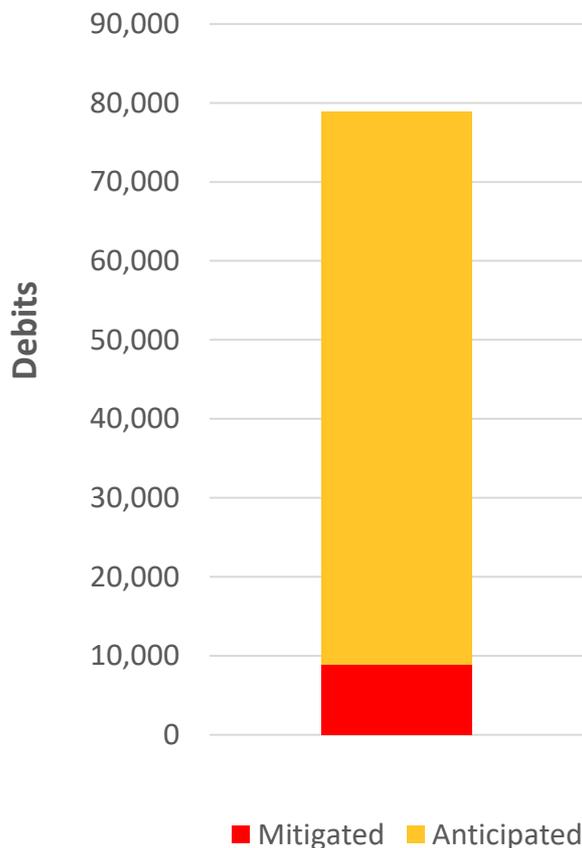


FIGURE 9: Total debits mitigated (8,827) and anticipated (70,027) through the CCS. Debits represent functional acres lost.

TABLE 4: Description of all debit projects participating in the CCS as of December 2023

- Direct impact refers to the disturbance footprint associated with a project. It does not account for the indirect impacts to Greater Sage-grouse habitats.

\*\* Anticipated debits only reflect projects that are in an advanced state of project planning.

PROJECT NAME	DEBITS	COUNTY	ACRES OF DIRECT IMPACT*	WAFWA MGMT. ZONE
<b>ANTICIPATED DEBITS**</b>				
Bald Mountain Mine	2,356	White Pine	5,734	III
Western Lithium Mine	875	Humboldt	5,169	V
Long Canyon Mine- Phase 2	1,676	Elko	815	III, IV
Lone Tree Mine - Buffalo Mountain	271	Humboldt	4	III
Gibellini Mine	1,961	Eureka, Nye, White Pine	328	III
Pony Creek Exploration	131	Elko	150	III
Robinson North Tripp Mine	183	White Pine	51	III
Relief Canyon Mine	33	Pershing	0	III
Carlin Vanadium Exploration	71	Elko	85	III
National Exploration	28	Humboldt	37	IV
Ruby Vista Road	2	Elko	2	III
South Railroad Exploration	41	Elko	126	III
Prospect Mine - Gullsil Expansion	20	Eureka	28	III
Rossi Mine	414	Elko	1,094	IV
South Railroad Mine	13,552	Eureka, Elko	1,173	III
Gold Bar South Mine	1,372	Eureka	210	III
Juniper Mine Expansion	869	Elko, White Pine	2,300	III
White Pine Hydropower Pump Storage	827	White Pine	860	III
Selena Exploration	39	White Pine	100	III
Hog Ranch Mine	5,831	Washoe	456	V
Greenlink North Powerline	4,466	Churchill, White Pine, Eureka	599	III
NGM Ore Railroad	2,926	Eureka, Lander, Elko	1,755	III, IV
Cross-Tie Powerline	3,458	White Pine	2,912	III
North Ranch Tower	188	Eureka	1	III
Beck Cottonwood Powerline	21	Eureka	1	III

# 2023 PROGRAM RESULTS • DEBITS ANTICIPATED/OUTSTANDING

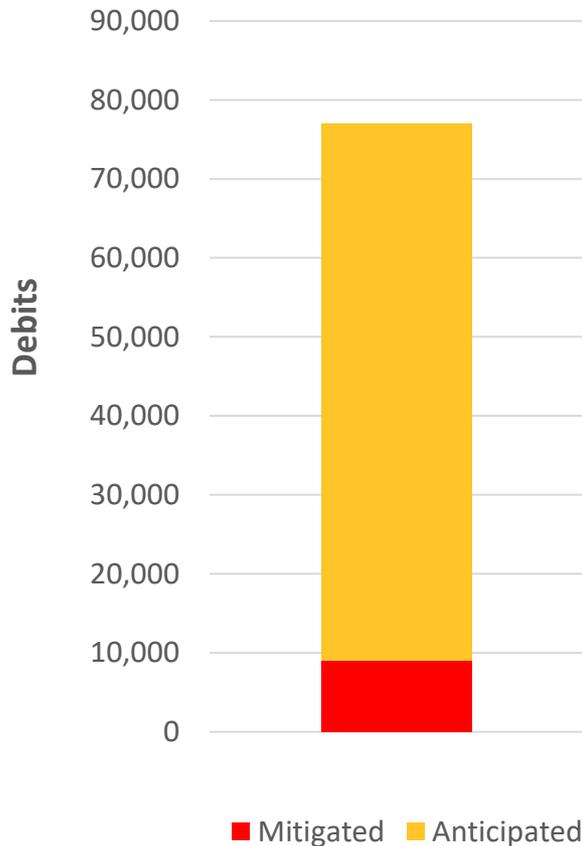


FIGURE 9: Total debits mitigated (8,827) and anticipated (70,027) through the CCS. Debits represent functional acres lost.

TABLE 4: Description of all debit projects participating in the CCS as of December 2023

PROJECT NAME	DEBITS	COUNTY	ACRES OF DIRECT IMPACT*	WAFWA MGMT. ZONE
<b>ANTICIPATED DEBITS**</b>				
Fox Mtn Tower	46	Washoe	1	V
Limo Butte Exploration	26	White Pine	200	III
McGuinness Hills Opt Solar & Exploration	13	Lander	235	III
Mountain View Exploration	2,550		0	
Pilot Peak Mine	92	Elko	228	III, IV
Murdock Mountain Phosphate Exploration	2	Elko	17	IV
Green Springs Exploration	62	White Pine	137	III
Whirlwind Exploration	5	Lander	29	III
Hog Mountain Exploration	90	Washoe	187	V
Reno to Las Vegas Fiber Optic	21	Washoe	8	V
Cove Helen Underground Mine	186	Lander	283	III
Hot Creek Other Medium	5,292	Nye	10,497	III
Crescent Valley Geothermal	1,056	Eureka, Lander	151	III
NW Deeps Mine Expansion	17	Eureka, Lander	156	III
Dry Creek Mine Expansion	242	Elko	0	III
Swift Exploration	126	Lander	200	III
Surge Battery Metals Exploration	90	Elko	220	IV
Railroad Valley Mine	3,452	Nye	1,205	III
Wildcat Exploration	89	Pershing	194	III
Stagecoach Wind	11,867	White Pine	443	III
Pantheon Solar	1,245	White Pine	1,745	III
<b>Total</b>	<b>68,180</b>		<b>40,122</b>	

- Direct impact refers to the disturbance footprint associated with a project. It does not account for the indirect impacts to Greater Sage-grouse habitats.

\*\* Anticipated debits only reflect projects that are in an advanced state of project planning.

# 2023 PROGRAM RESULTS • DEBIT SPOTLIGHT

## FEATURED PROJECTS – THACKER PASS MINE

The Thacker Pass Mine, operated by Lithium Nevada Corporation is located at the center of pass between east of Kings River Valley and west of the Quinn River Valley along Hwy 293. It will be an open pit mine and associated waste rock dump, a dry stack tailings facility, and other ancillary facilities. The mine site is over 53,800 acres of proposed disturbance and impacts 5 active or pending leks. Thacker Pass entered the System in 2018 and has generated 1,375 term debits with no permanent debits. In 2022, they offset a little over 1/3 of their obligation, totaling 500 debits, through Estill Ranch, a private ranch located in North Washoe County. Greater sage-grouse suitability varies throughout the analysis area and sagebrush ecosystems have been highly modified by wildfire with a subsequent invasion of annual grasses, primarily cheatgrass. Sage grouse signs were observed during the field analysis.



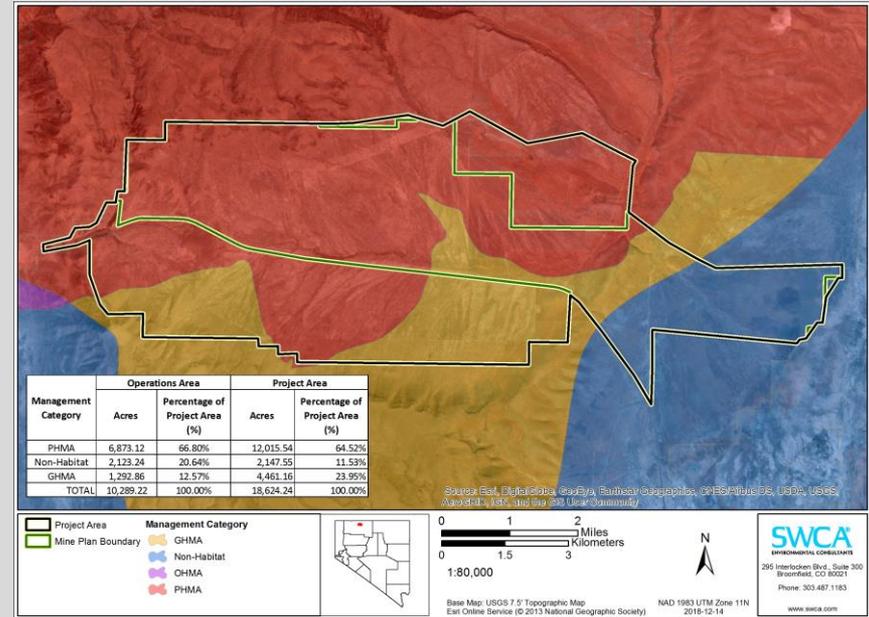
### MINE SITE DESCRIPTION

- Thacker Pass area has a healthy stand of sagebrush in the north and south. Invasive vegetation is prevalent within these stands occurring in higher density towards the proposed area of disturbance.
- Located primarily in both Priority (PHMA) and General Habitat Management Areas (GHMA) with some non-habitat.



### PROJECT DESCRIPTION

- A mine consisting of just over 53,800 acres of disturbance that generated a total of 1,375 term debits and 0 permanent debits.
- Project term of 50 years.



A transect assessed as part of the Thacker Pass Project. (SETT)

# 2023 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 CCS transactions 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 offset invalidated credits until they can be replaced through corrective actions or using credit developer financial assurance funds to purchase replacement credits for the remaining term. Credits can be invalidated either intentionally or unintentionally, such as a willful destruction or acts of nature. The process of generating and using reserve credits is described in Figure 9.

Table 3 represents the deposits, withdrawals and balance of the reserve account as of December 2023. A positive balance (column 4) confirms there are more credits than debits in the CCS. As of December 2023, no credits have been withdrawn from the reserve account.

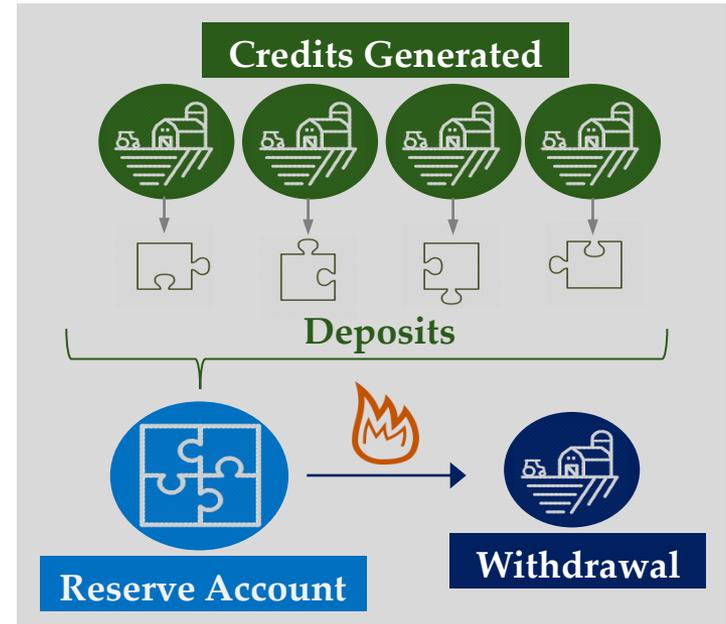


FIGURE 10: Reserve Account generation and use

TABLE 5: Reserve Account Ledger

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	412	N/A	412	N/A	N/A
West IL Ranch	357		357		
Crawford Cattle - Sonoma	58		58		
Crawford Cattle - Snowstorms	79		79		
Estill Ranch	71	N/A	71	N/A	N/A
Heguy Ranch	87	N/A	87	N/A	N/A
Cottonwood Ranch	19	N/A	19	N/A	N/A
Secret Pass Ranch	3	N/A	3	N/A	N/A
Mary's River Ranch	33	N/A	33	N/A	N/A
Owl Creek Ranch	67	N/A	27	N/A	N/A
<b>TOTAL</b>	1,186	N/A	1,186	N/A	N/A

## 2023 PROGRAM OPERATIONS • 5-YEAR REVIEW

Two credit projects were visited for their 5-Year Credit Project Qualitative Assessments in 2023. These visits are interactive reviews where the SETT conducts a detailed desktop review using the latest imagery and vegetation composition analysis provided through the Rangeland Analysis Platform. This gives the SETT a general idea of how the project has performed over the last five years without the need for on-the-ground measurements. The SETT visits with Project Proponents on site. During these face-to-face meetings, the SETT can review the desktop results, discuss how things are going within the project area, answer any programmatic questions, discuss a “next steps” plan, and get feedback regarding their view of the program. Many times, meetings consist of not only the project proponent, but the entire family, including the next generation who will likely manage the project in the coming years. After the review and discussions, the SETT tours the projects with the proponents and assists them with annual monitoring. This allows the proponent a chance to show uplift areas or areas of concern. It’s a great time to build relationships, have candid discussions regarding the projects, and to answer any questions or concerns about the program itself.

During these visits, the SETT was also able to meet with three other project proponents, some of whom needed assistance with the next steps in their project development and others who expressed interest in entering land into the program as credit developers. These assessments are important to maintaining relationships, gaining knowledge and perspectives of the land, people, management goals, and achieving mutually beneficial outcomes. One project is slated for a 5-year qualitative assessment in the spring/summer 2024.



*Nevada Gold Mines Tour. (SETT)*

# 2023 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

- Continue to provide information to the SEC as requested, and to serve as staff to assist them in fulfilling the statutory and regulatory obligations
- 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, work with credit developers to implement corrective actions as necessary, and manage the 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 (60 individuals were certified in 2023)
- Continued participation in collaborative, multi-jurisdictional meetings statewide



*Verifier Training 2023. (SETT)*

## 2023 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, verifiers, and agency staff 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). This year, two significant science updates were adopted into the CCS, utilizing new science and information from the lab of USGS' Pete Coates. The first was updating the Habitat Suitability Indexes to incorporate selection and survival. This identifies areas that may be good habitat, but survivability is low, based on various external factors. The second update was to replace the standard Distance to Lek map with an Abundance and Space Use Index, which increases value of source leks while reducing value to satellite leks. In addition, an improvement was adopted that increases the functionality of a site the closer it gets to a lek, with the hope to preserve leks or more adequately mitigate for the impacts to these rare and valuable sites.



*Range Camp at Berry Creek near Ely. (SETT)*

# 2023 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.

