AGENDA

Montana Sage Grouse Oversight Team

May 24, 2023 9:00 a.m. - 1:00 p.m.

DNRC Headquarters, Big Sky Room / Zoom Video Conference Meeting

9:00 - 9:30: Call to Order and Administrative Matters, Michael Freeman, MSGOT Chair

- Introductions and Video Conference Logistics
- **Executive Action**
    - Approve Minutes - October 27, 2022

9:30 - 10:00: Proposed Rule Change

- Program
- MSGOT Discussion

10:00 - 11:00: Net Present Value Review

- Program
- MSGOT Discussion

11:00 - 11:30 Break

11:30 - 12:30: Update Grant Applicants

- Montana Land Reliance – Perpetual Easement
    - High Ridge Land
    - Johnson Properties
    - Denbury PRM Mitigation
- Program
    - Schultz -Gran Prairie – Conservation Lease
    - Haywire Ranch – Conservation Lease
    - Nowlin Ranch – Conservation Lease
- MSGOT Discussion

12:30 - 12:45

- Bureau of Land Management - Land Use Plan Update

12:45 - 1:00: Public Comment on Other Matters

NOTE: Agenda item times are approximate. Actual times may vary by up to one hour. Attendees who may need services or special accommodations should contact Therese Hartman (406-594-2671 or thartman@mt.gov) at least five working days before the meeting.

MONTANA SAGE GROUSE OVERSIGHT TEAM AGENDA ITEM BRIEF SHEET

DATE: MAY 24 , 2023

AGENDA ITEM: RULE MAKING CHANGE FOR HQT TECHNICAL MANUAL

ACTION NEEDED: EXECUTIVE ACTION TO APPROVE THE PROPOSED EDITS TO THE HQT TECHNICAL MANUAL

SUMMARY:

The Sage Grouse Program detected a technical error in the HQT Technical Manual that affects the computations necessary for updating the HQT Basemap. The HQT Basemap currently in use (v1.0 2018) was developed based on an extensive and rigorous stakeholder process during 2017 and pre-dates the publication of the HQT Technical Manual (October 2019).

Specifically, the error concerns the mathematical incorporation of the Unsuitable Lands designations within the HQT Basemap. The stakeholder process and subsequent 2018 HQT Basemap incorporates Unsuitable Lands through *multiplication* with Anthropogenic variables. However, the HQT Technical Manual incorporates Unsuitable Lands through *averaging* with Habitat and Population variables. This difference has major implications on the assessment of impacts for proposed projects within designated sage-grouse habitat as averaging results in higher base values, and thus, higher impacts assessed for development projects.

DETAILS:

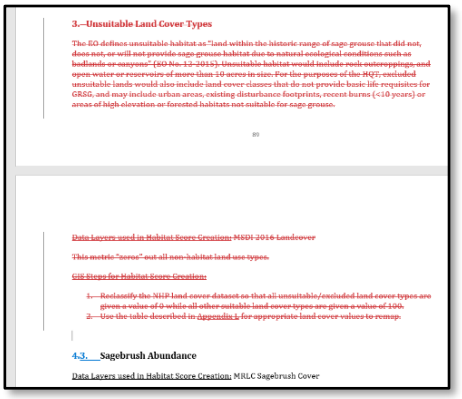
The HQT Basemap is composed of many GIS pixels that each contain a value ranging from 0 to 1. When multiplication is applied to values <1, the resulting value is overall lower due to the power of multiplication (e.g., any number multiplied by zero = zero). When averaging is applied, the resulting value reflects the central tendency of the numbers averaged. Overall, if Unsuitable Lands is included through averaging, those areas will result in a value >0. But, if Unsuitable Lands is included through multiplication, those areas will remain 0 in the HQT Basemap, thereby not contributing to impacts.

PROGRAM RECOMMENDATION:

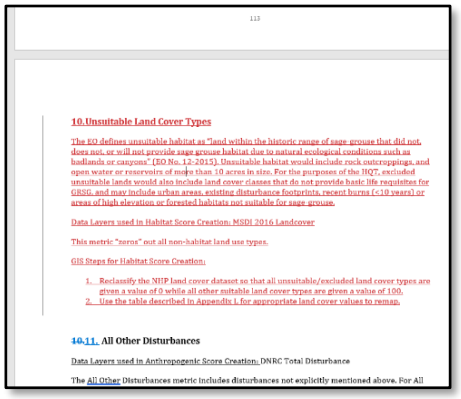
The Sage Grouse Program proposes to change the HQT Technical Manual to reflect the stakeholder intent of incorporating Unsuitable Lands with the Anthropogenic variables. The Sage Grouse Program recommends addressing this correction now in order to provide an updated and accurate HQT Basemap for Montana citizens. By implementing this correction, the Sage Grouse Program would:

1. Provide a consistent approach for updating the HQT Basemap,
2. Follow the recommendations provided by the original stakeholder process, and
3. Avoid the perpetuation of errors.

The correction of this technical error is considered a major change and thus requires rule-making. The Sage Grouse Program is also taking the opportunity to rectify grammatical errors and typos (considered minor changes not requiring rule-making) found within the HQT Technical Manual.



Within Appendix A, remove Unsuitable Land Cover Types from the Population and Habitat Variables section on page 89 and add Unsuitable Land Cover Types to the Anthropogenic Variables section on page 114.



MONTANA SAGE GROUSE
Habitat Conservation Program

Rule Making Change:

HQT Technical Manual

Montana Sage Grouse Oversight Team Meeting

24 May 2023

MONTANA SAGE GROUSE
Habitat Conservation Program

HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

- Executive Order 12-2015:

> Unsuitable Habitat – is land within the historic range of sage grouse that did not, does not, nor will not provide sage grouse habitat due to natural ecological conditions such as badlands or canyons.

- 2017 stakeholder process included Unsuitable Lands to prevent those areas from contributing to project impacts/mitigation.

HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

- Executive Order 12-2015:

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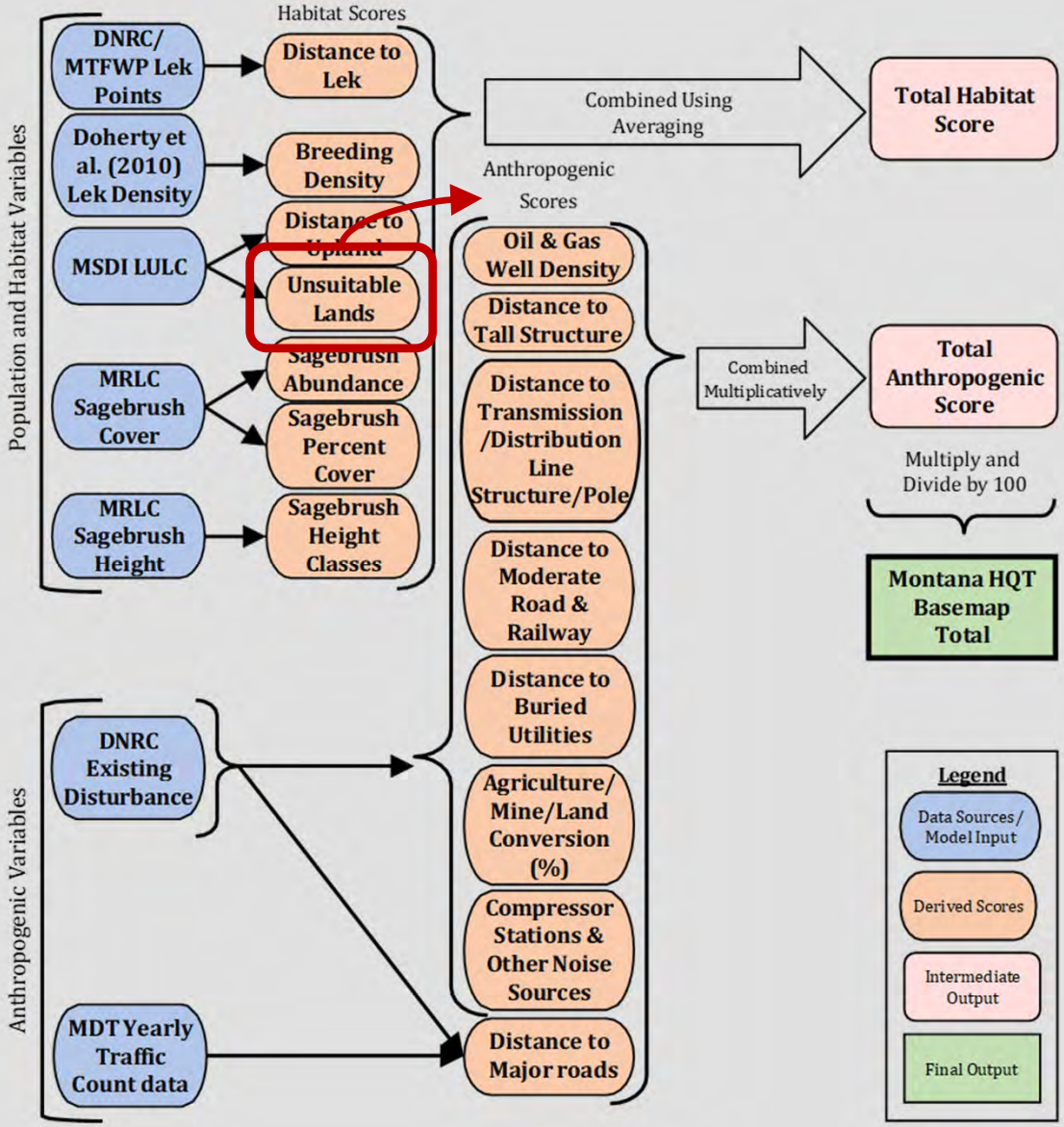
- 2017 stakeholder process included Unsuitable Lands to prevent those areas from contributing to project impacts/mitigation.
- **Current status:**
  1. The current HQT Basemap (v1.0 2018) preserves the 0 value for unsuitable lands.
  2. The Technical Manual (published in 2019) describes a workflow for the basemap that would result in some value greater than 0 for unsuitable lands and result in debits or credits generated in such areas.

HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types



- GIS pixel values
  - Scale: 0 to 1
  - **Suitable = 1**
  - **Unsuitable = 0**
- Multiplication vs. averaging of values

HQT Technical Manual:

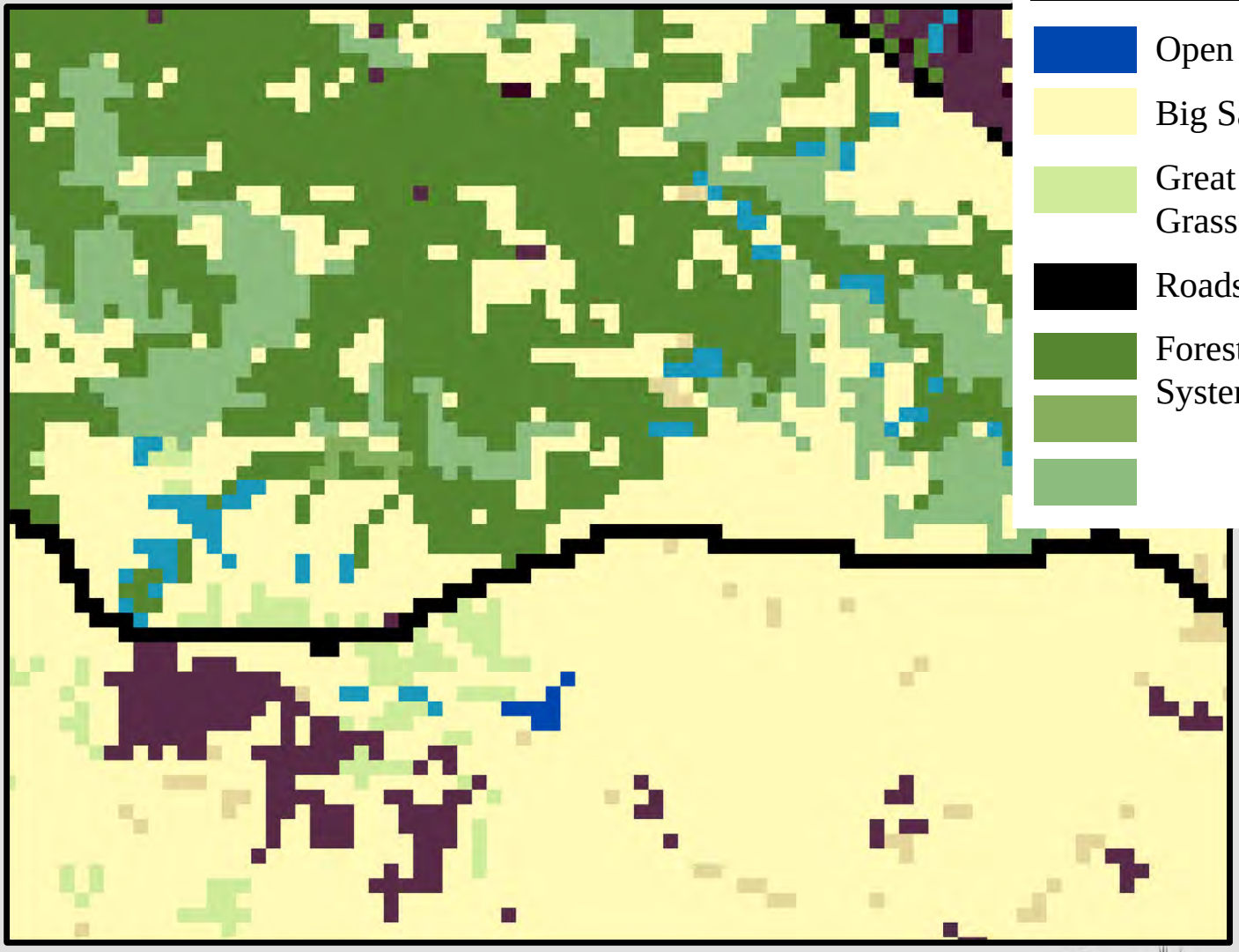
Incorporation of Unsuitable Land Cover Types

Conifer Cover Example: Imagery

HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

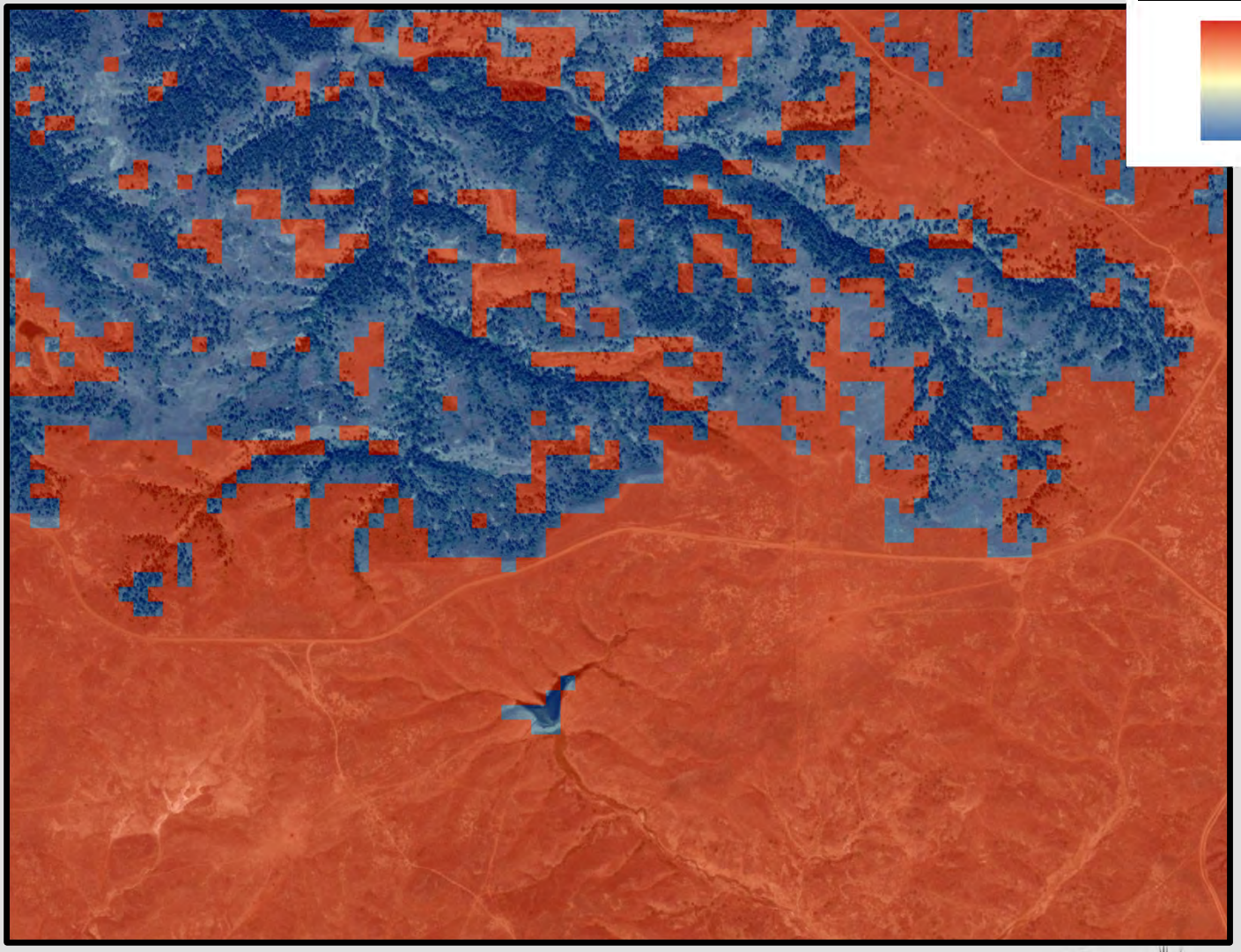
Conifer Cover Example: Land Cover



HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

Conifer Cover Example: Unsuitable Land



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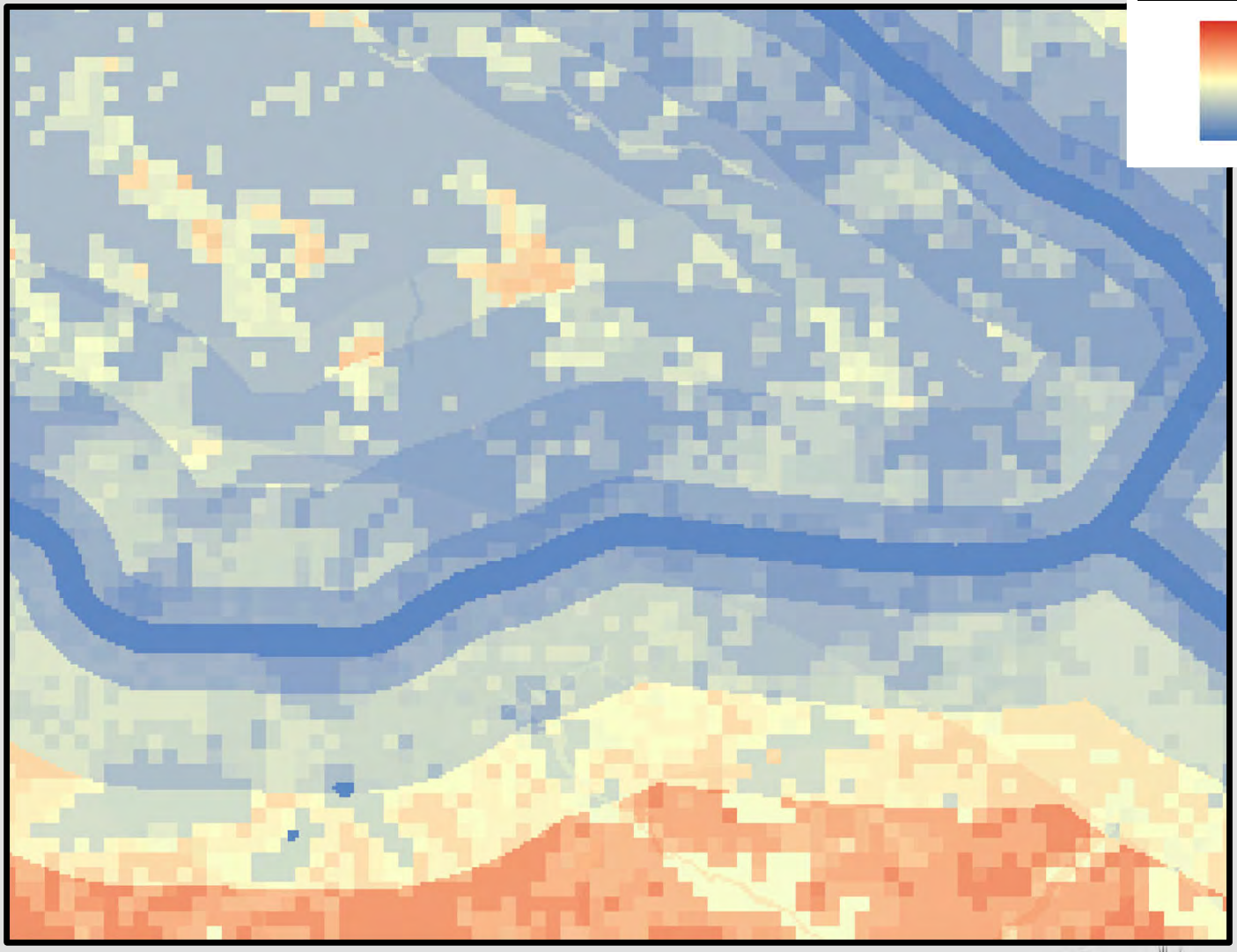
HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

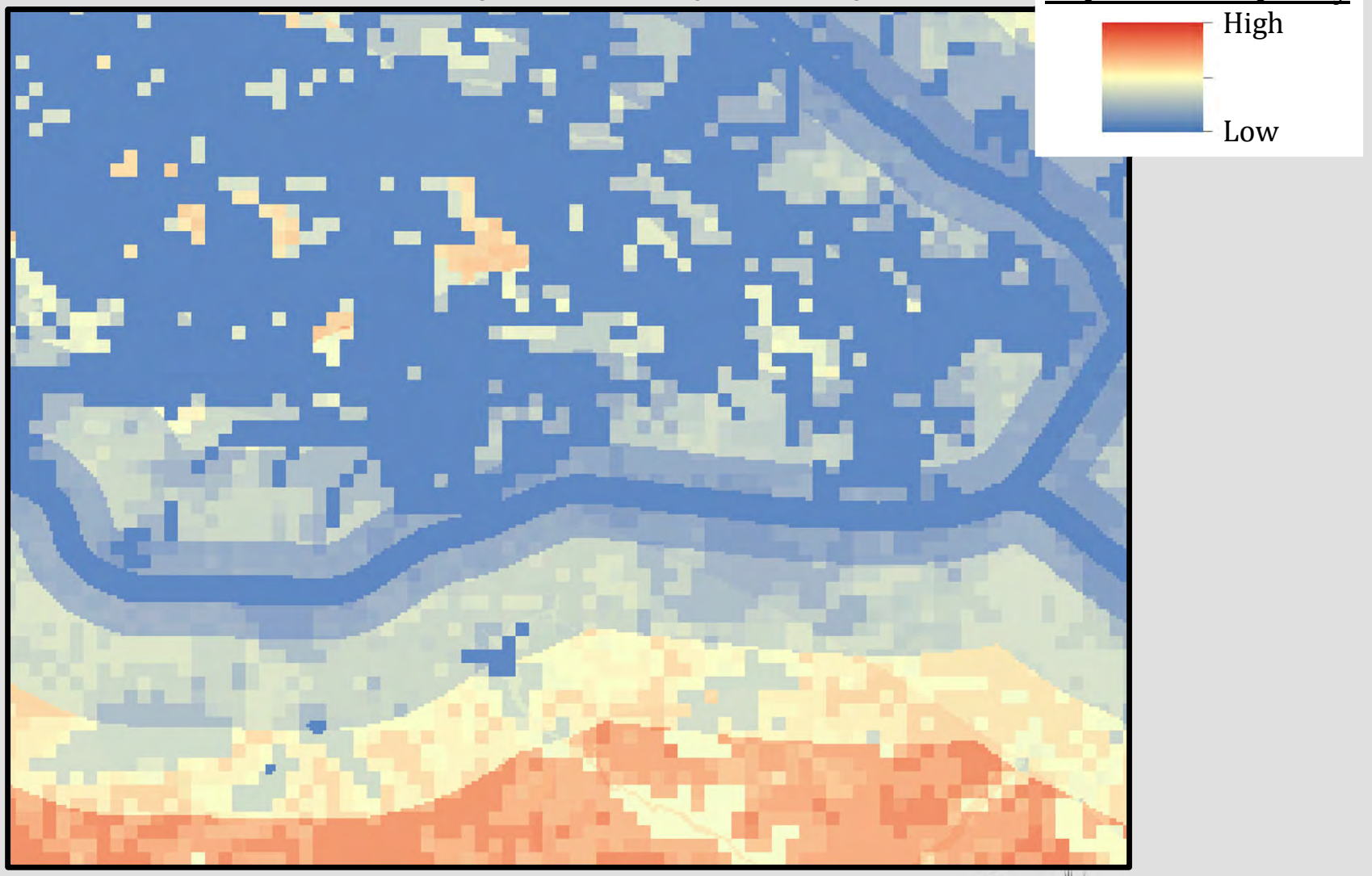
Conifer Cover Example: Basemap – Averaging



HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

Conifer Cover Example: Basemap – Multiplication



HQT Technical Manual:

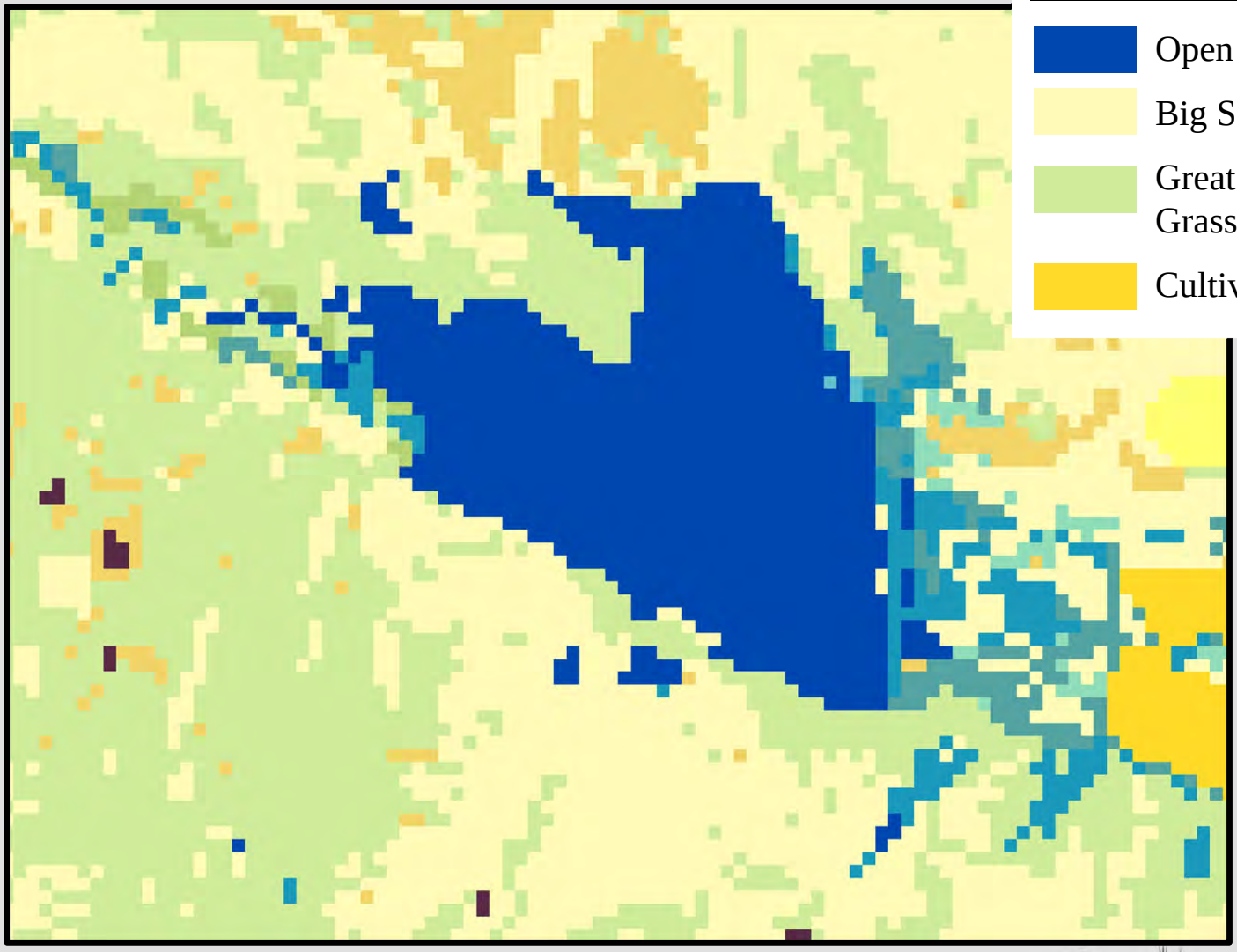
Incorporation of Unsuitable Land Cover Types

Open Water Example: Imagery

HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

Open Water Example: Land Cover



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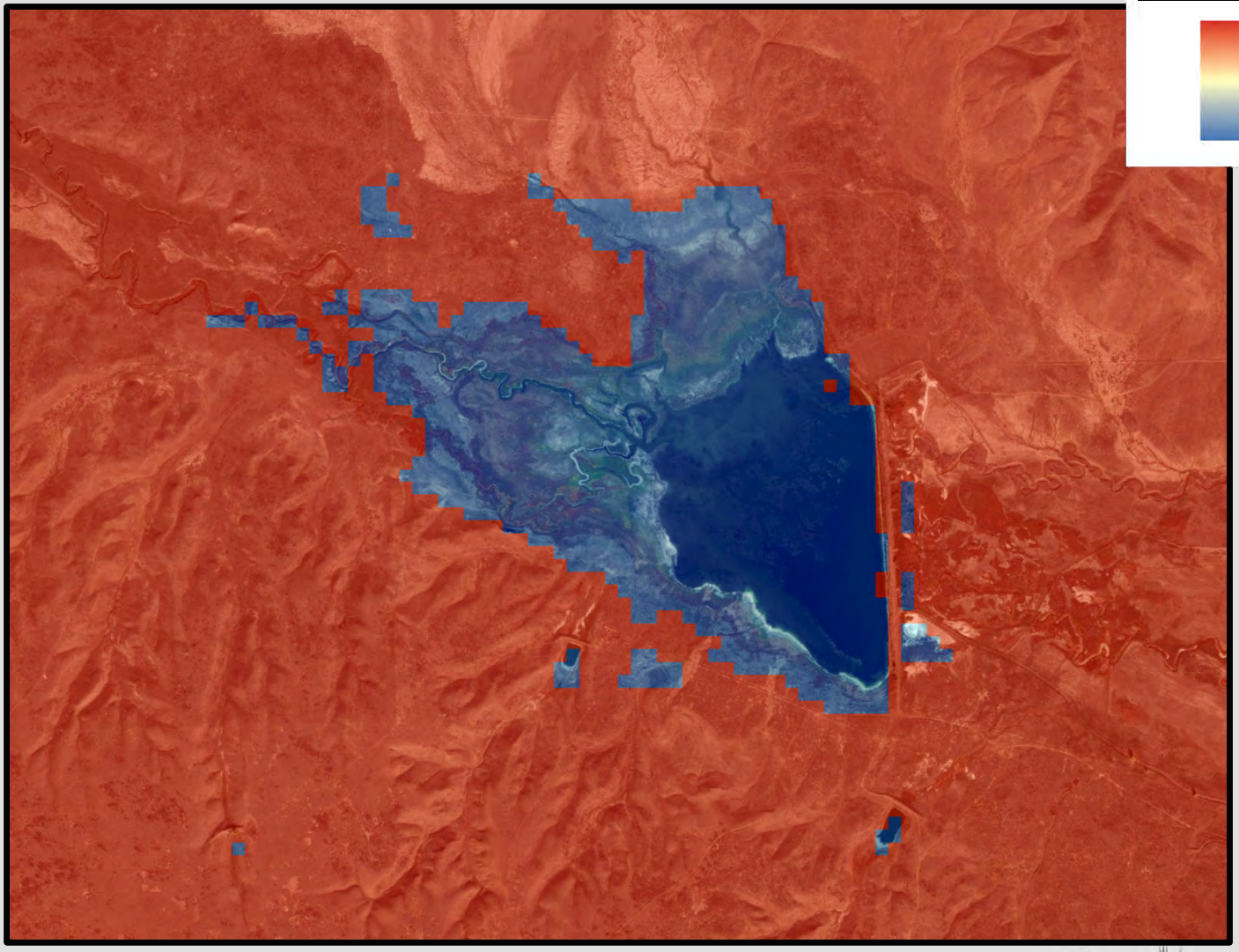
HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

Open Water Example: Unsuitable Land



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HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

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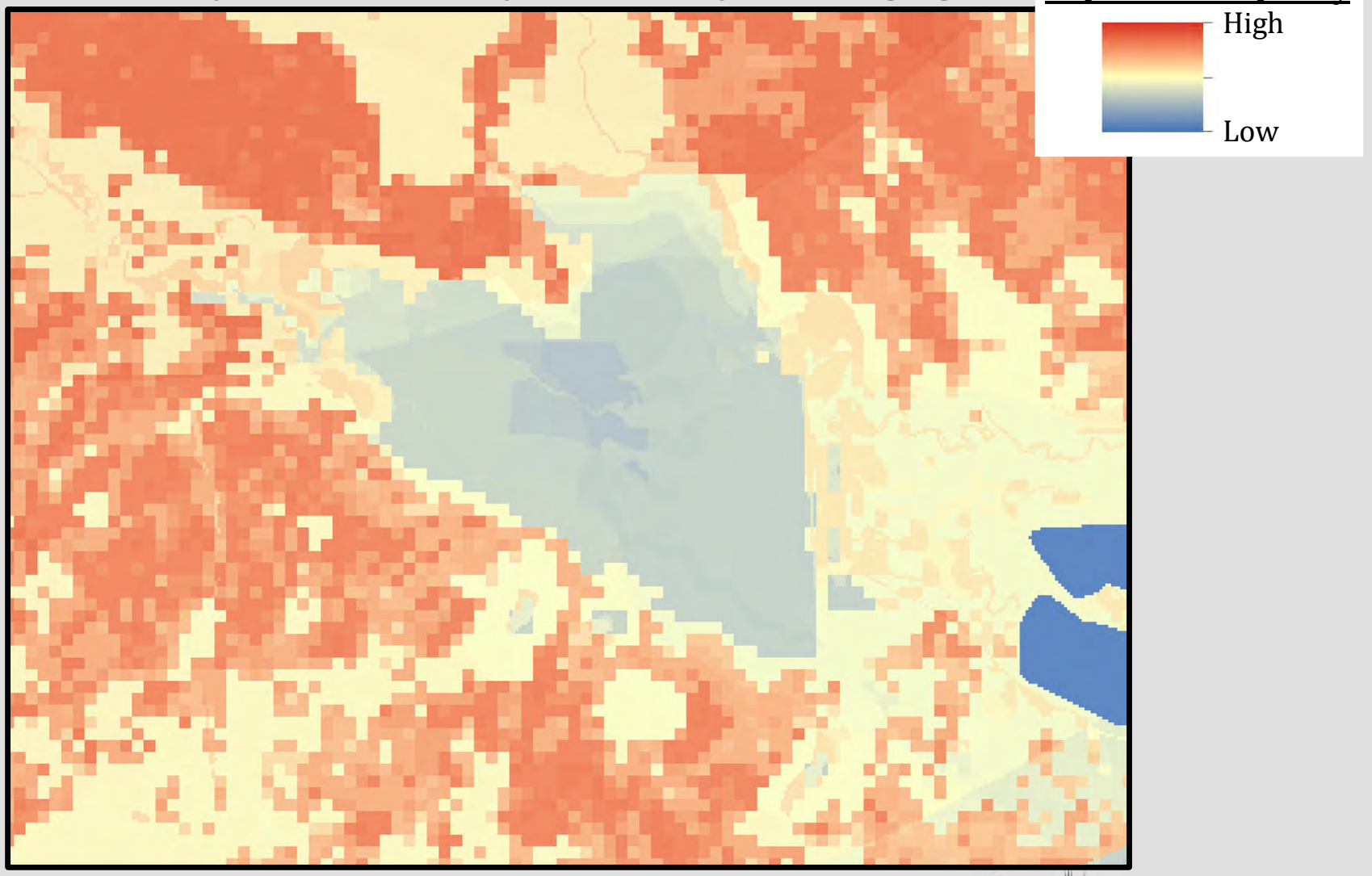
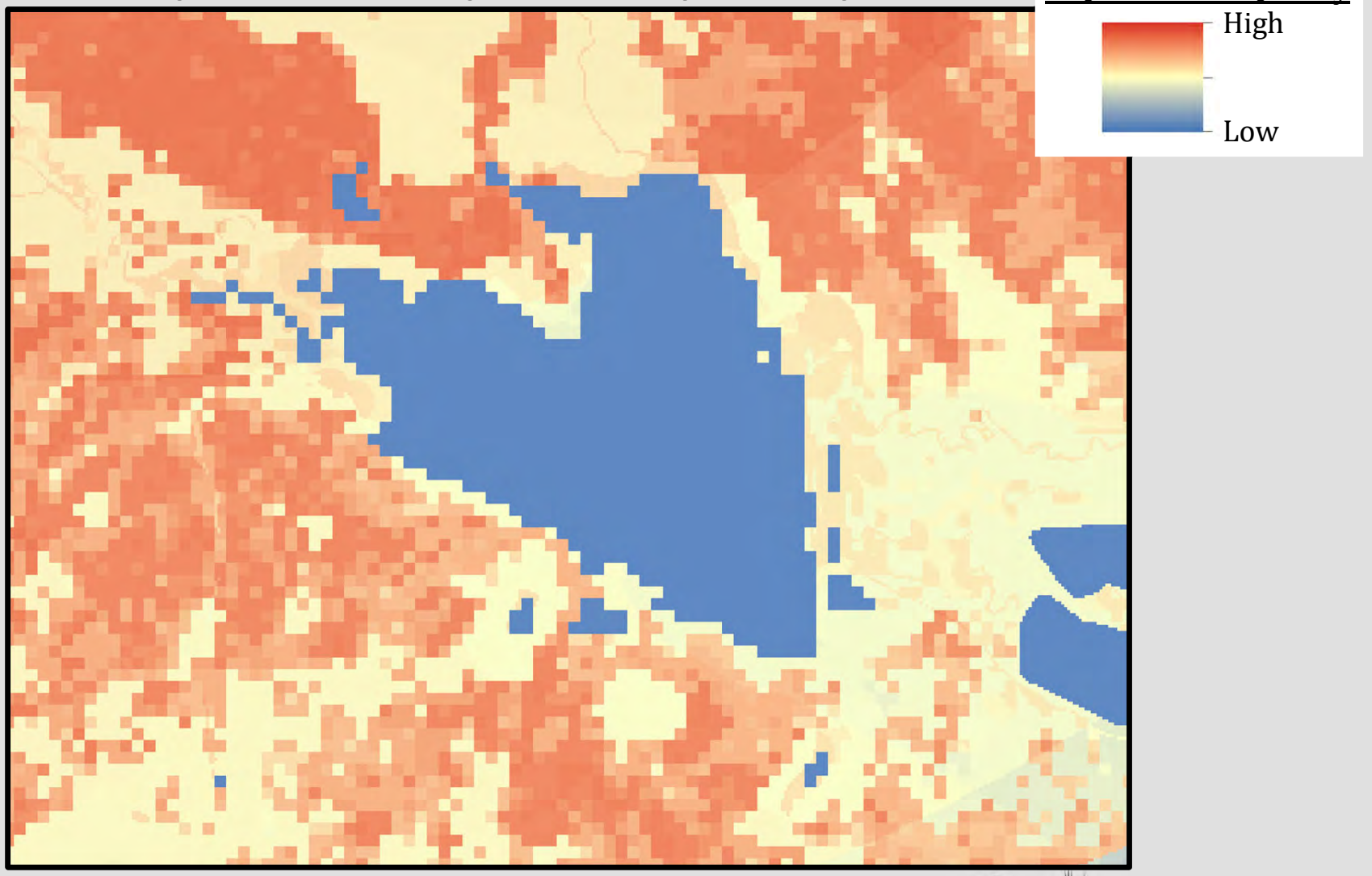


HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

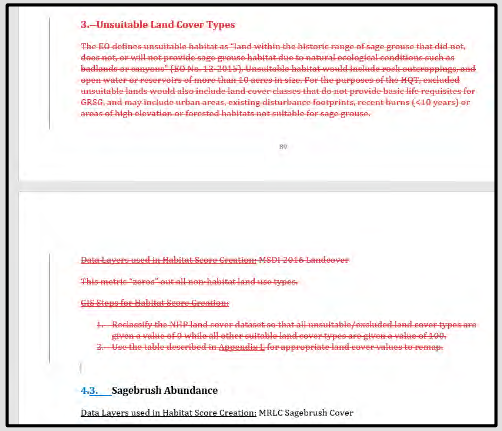
Open Water Example: Basemap – Multiplication



HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

- Propose editing the Technical Manual to reflect the 2017 Stakeholder process and the 2018 HQT Basemap:



~~3.—Unsuitable Land Cover Types~~

~~The EO defines unsuitable habitat as "land within the historic range of sage grouse that did not, does not, or will not provide sage grouse habitat due to natural ecological conditions such as badlands or canyons" (EO No. 12-2015). Unsuitable habitat would include rock outcroppings, and open water or reservoirs of more than 10 acres in size. For the purposes of the HQT, excluded unsuitable lands would also include land cover classes that do not provide basic life requisites for GRSG, and may include urban areas, existing disturbance footprints, recent burns (<10 years) or areas of high elevation or forested habitats not suitable for sage grouse.~~

~~89~~

~~Data Layers used in Habitat Score Creation: MSDI 2016 Landcover~~

~~This metric "zeros" out all non-habitat land use types.~~

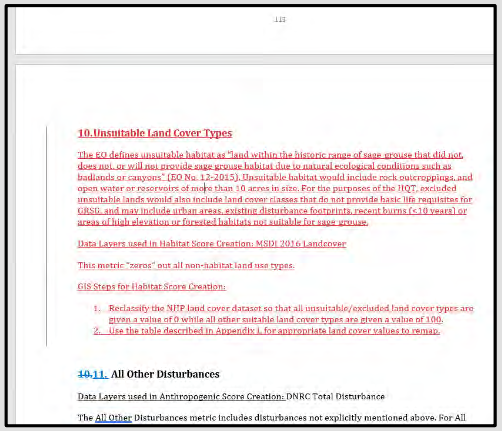
~~GIS Steps for Habitat Score Creation:~~

1. ~~Reclassify the NITP land cover dataset so that all unsuitable/excluded land cover types are given a value of 0 while all other suitable land cover types are given a value of 100.~~
2. ~~Use the table described in Appendix L for appropriate land cover values to remap.~~

~~4.~~3. Sagebrush Abundance

Data Layers used in Habitat Score Creation: MRLC Sagebrush Cover

Within Appendix A, remove Unsuitable Land Cover Types from the Population and Habitat Variables section on page 89 and add Unsuitable Land Cover Types to the Anthropogenic Variables section on page 114.



10. Unsuitable Land Cover Types

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1. Reclassify the NITP land cover dataset so that all unsuitable/excluded land cover types are given a value of 0 while all other suitable land cover types are given a value of 100.
2. Use the table described in Appendix L for appropriate land cover values to remap.

~~10.~~11. **All Other Disturbances**

Data Layers used in Anthropogenic Score Creation: DNRC Total Disturbance

The All Other Disturbances metric includes disturbances not explicitly mentioned above. For All

- No impacts to past and current projects as they are based on the 2018 HQT Basemap
- Results of proposed change:
  1. Provide a consistent approach for updating the HQT Basemap;
  2. Follow recommendations provided by the original stakeholder process; and
  3. Avoid the perpetuation of errors.

HQT Technical Manual:

Incorporation of Unsuitable Land Cover Types

MSGOT Discussion

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Habitat Conservation Program

MONTANA SAGE GROUSE OVERSIGHT TEAM AGENDA ITEM BRIEF SHEET

MAY 24, 2023

AGENDA ITEM: MSGOT DISCUSSION TO RE-EVALUATE APPLICATION OF 3% DISCOUNT (NET PRESENT VALUE)

ACTION NEEDED: EXECUTIVE ACTION TO MODIFY THE 3% DISCOUNT (NET PRESENT VALUE) APPROACH AND IMPLEMENTATION PROCESS

Background:

The 3% discount method (Net Present Value) was introduced in October 2018 just prior to adoption of Montana's Mitigation System in December 2018. As the Mitigation System incorporates time, the impetus for the discount method was to address high mitigation costs associated with long-term projects (e.g., bentonite) opting to offset their impacts through a contribution to the Stewardship Account.

The Net Present Value (NPV) concept accounts for the future decreased value of a dollar's current investment power. Based on a BLM publication, 3% was selected for the discount rate to apply to $13/debit to decrease the cost of the debit by 3% per year for the life of the project. This results in a variable average cost per debit based on the project's duration.

Since the implementation of the 3% discount method, the Program has accumulated almost 5 years of data and experience. In an attempt to preserve the solvency of the Stewardship Account and provide equivalent evaluation methods for conservation and development projects, the same cost method of $13 and 3% NPV was applied to conservation projects in October 2022. Impacts of the 3% discount method include:

1) greater financial relief based on project duration for development projects, thereby incentivizing long-term development projects and
2) decreases to the average cost/credit based on project duration for conservation projects, thereby incentivizing short-term conservation projects.

In total, these impacts introduce challenges for the State's ability to effectively balance development impacts with conservation benefits. Montana's Mitigation System provides a heavy emphasis on adaptively managing the Mitigation System where we learn from our prior decisions and adjust (e.g., adapt) by weighing and balancing the observed outcomes, including the credit and debit price and the discount method:

Recalibrating MSGOT Credit Price through Time*: In the early stages of creating a mitigation marketplace, there will be uncertainties around supply, demand, and appropriate pricing. As markets mature and more information becomes available, prices will recalibrate through time as the track record of transactions accumulates. Adaptive management evaluations will inform this process. (Policy Guidance, Section 4.2)*

Successful mitigation systems appropriately align disturbances across the landscape and through time with conservation activities. When the duration of disturbances and conservation activities become misaligned, mitigation systems are challenged in achieving balance. For Montana's Mitigation System, that balance of no net loss of sage grouse habitat is currently being challenged through the inappropriate application of the 3% discount method.

3% Discount Review:

application of the Net Present Value to credit and debit pricing

Montana Sage Grouse Oversight Team Meeting

24 May 2023

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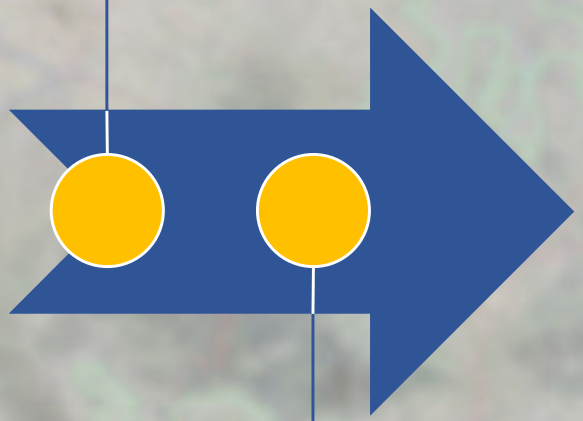
3% Net Present Value:

A BRIEF HISTORY OF THE STEWARDSHIP ACCOUNT



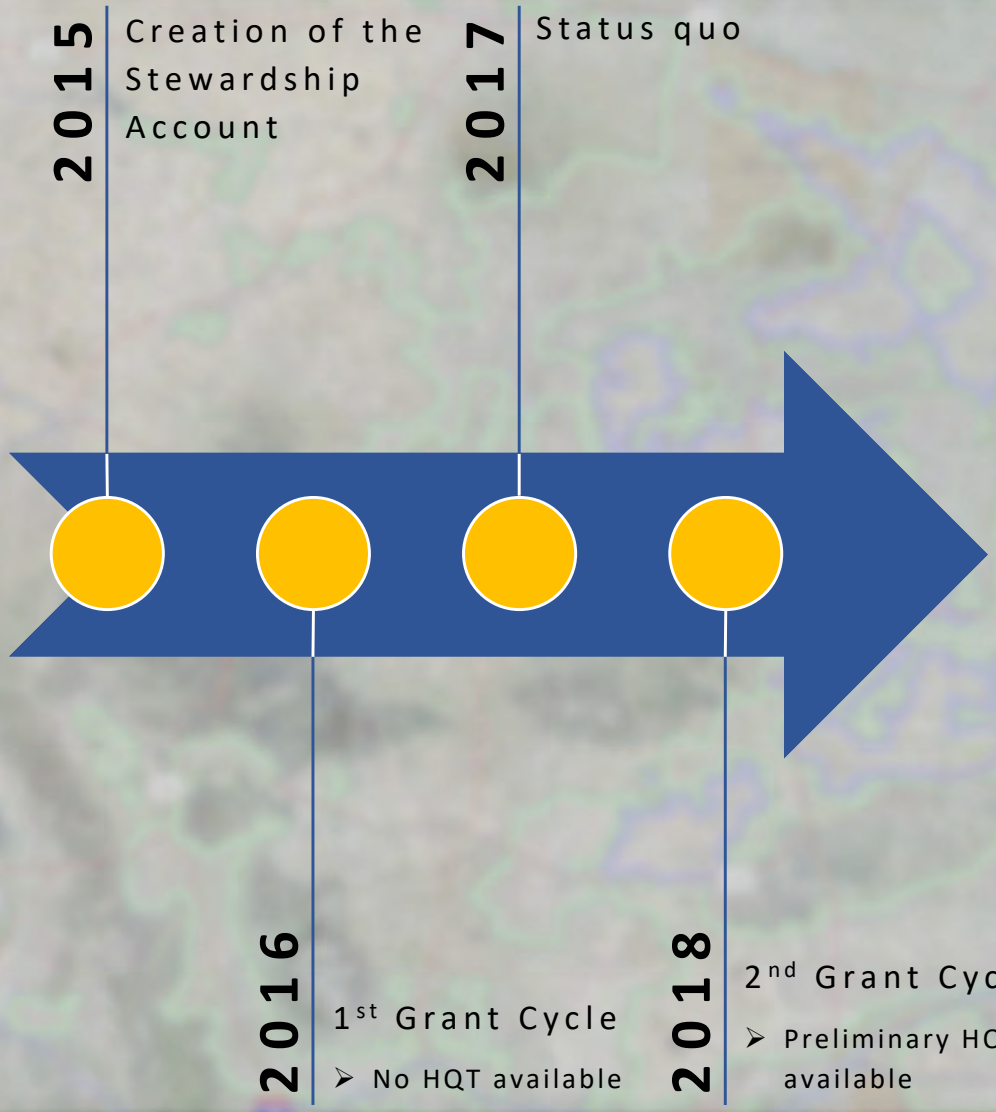
2015 Creation of the Stewardship Account

2016 1st Grant Cycle

- No HQT available

3% Net Present Value:

A BRIEF HISTORY OF THE STEWARDSHIP ACCOUNT



MONTANA SAGE GROUSE
Habitat Conservation Program

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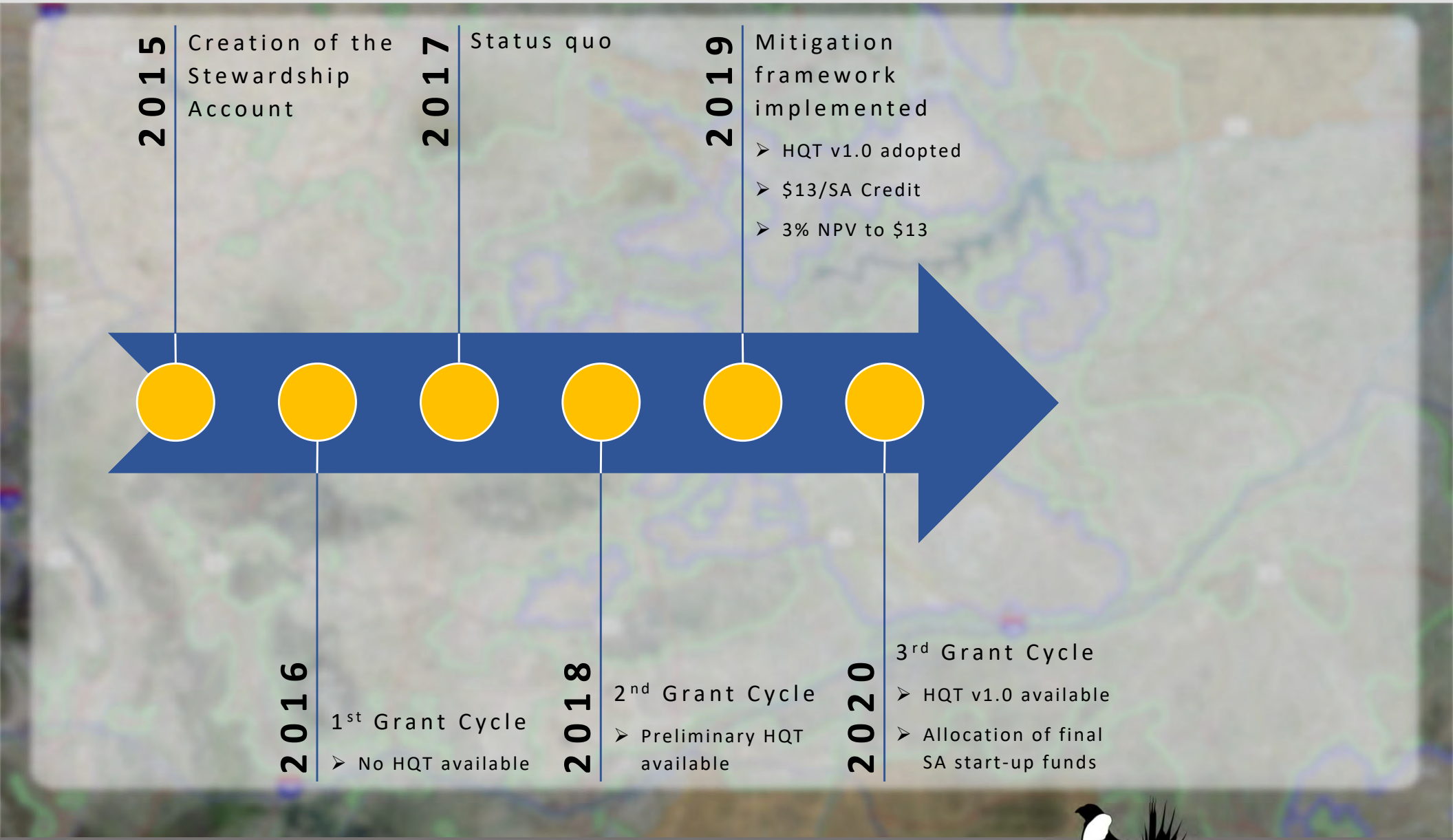

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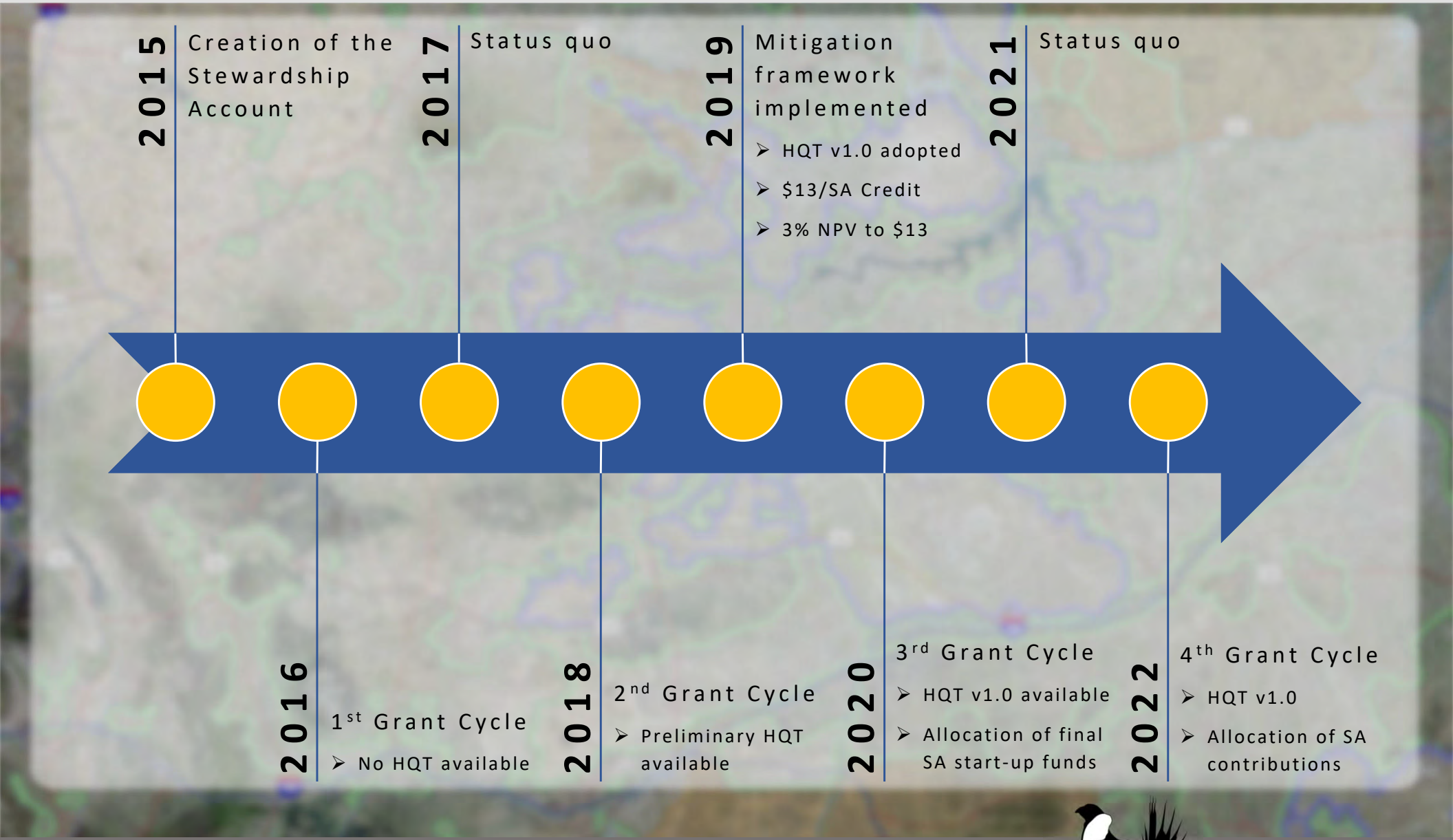

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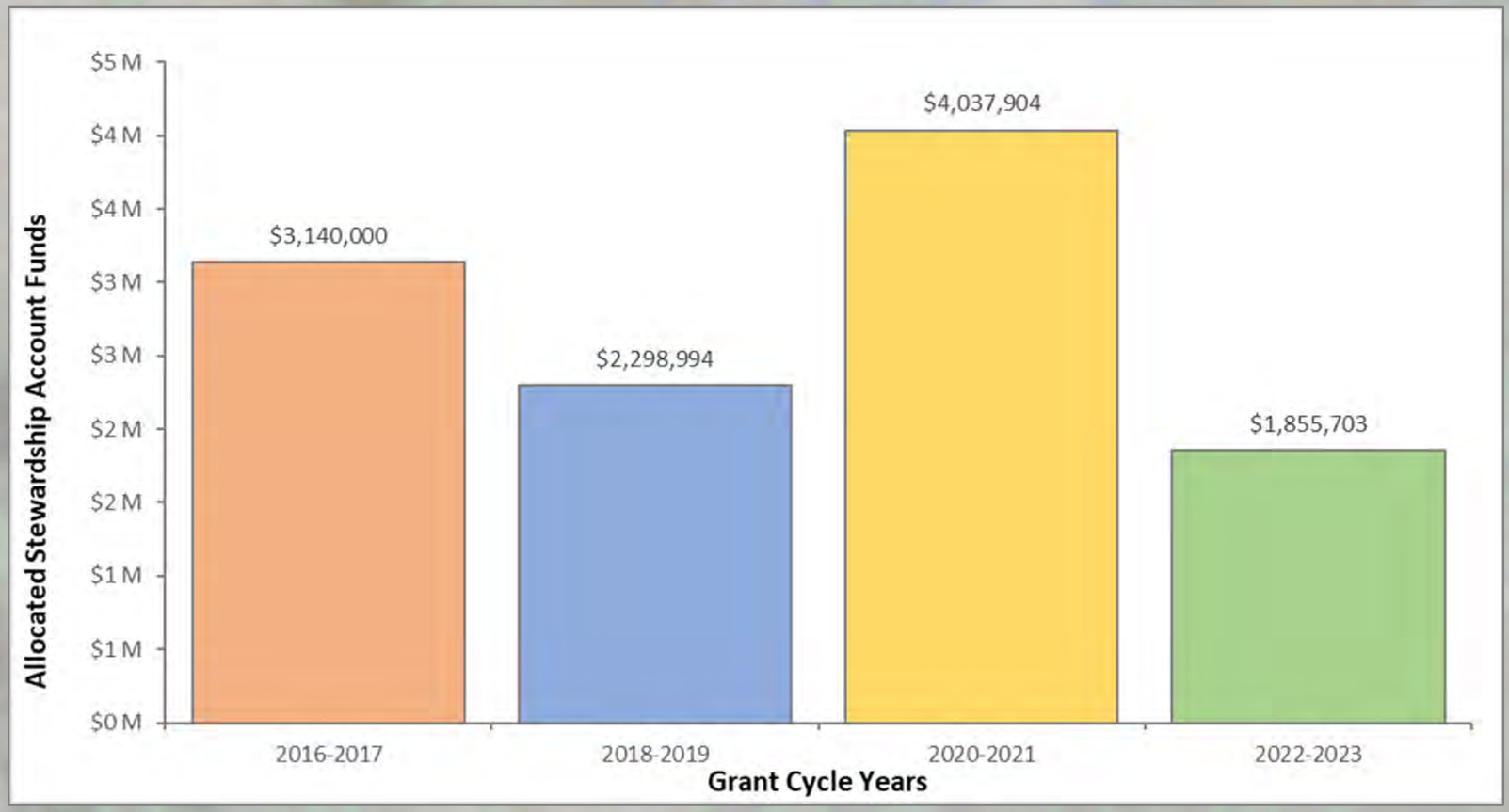
3% Net Present Value:

CURRENT STATUS

- Stewardship Account funds allocated by Stewardship Account grant cycle:



MONTANA SAGE GROUSE
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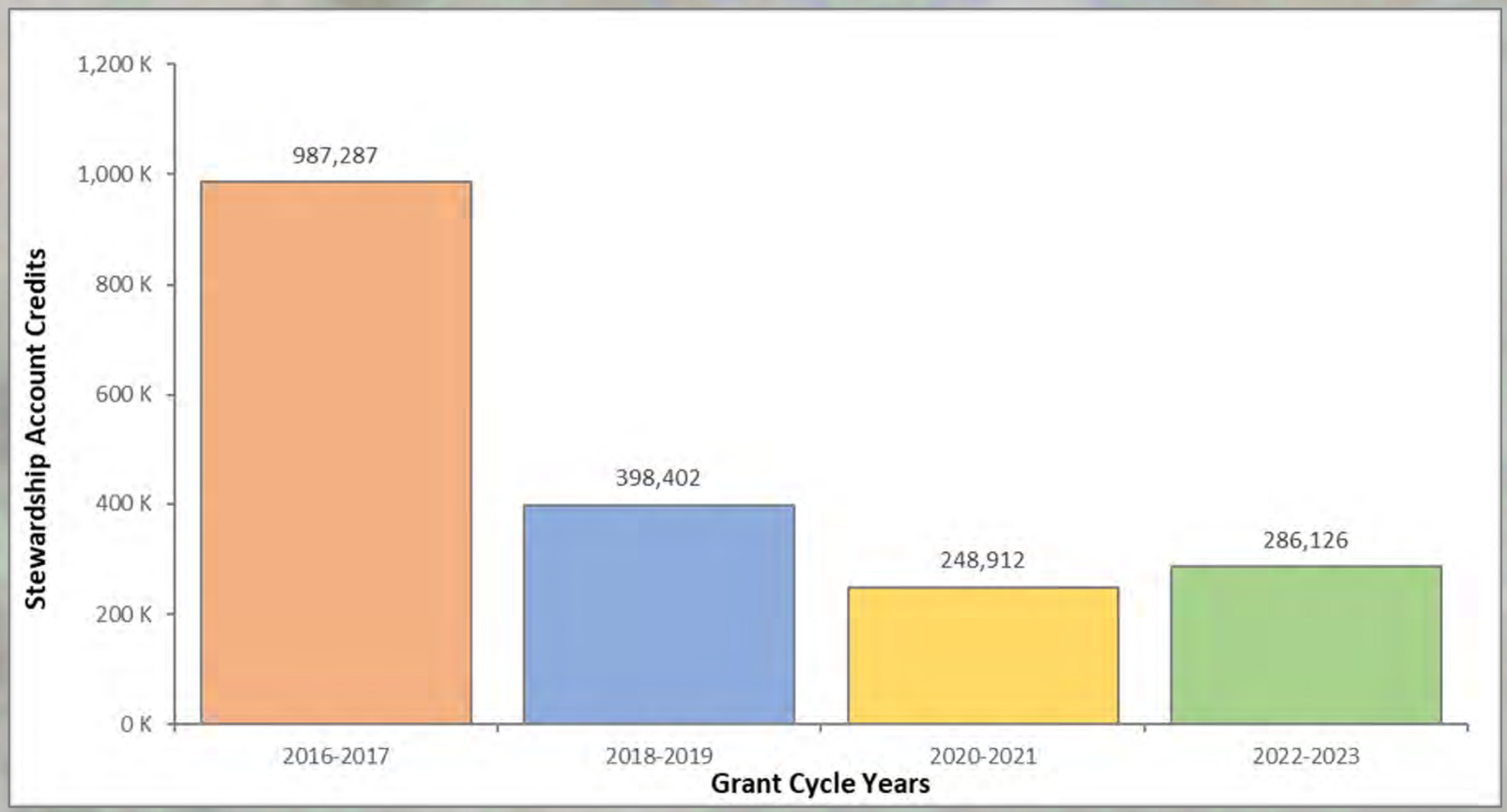
3% Net Present Value:

CURRENT STATUS

- Total credits generated for each Stewardship Account grant cycle:



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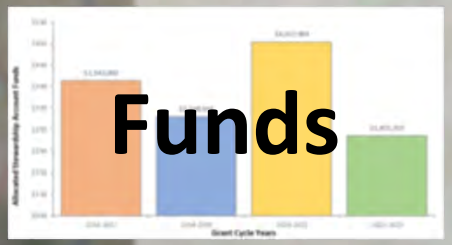
Habitat Conservation Program

3% Net Present Value:

CURRENT STATUS

- Cost per credit for each Stewardship Account grant cycle:



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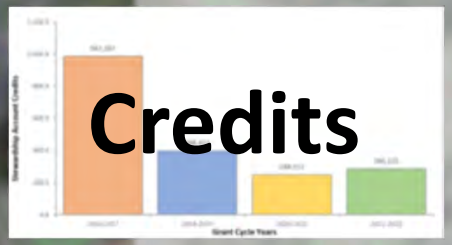

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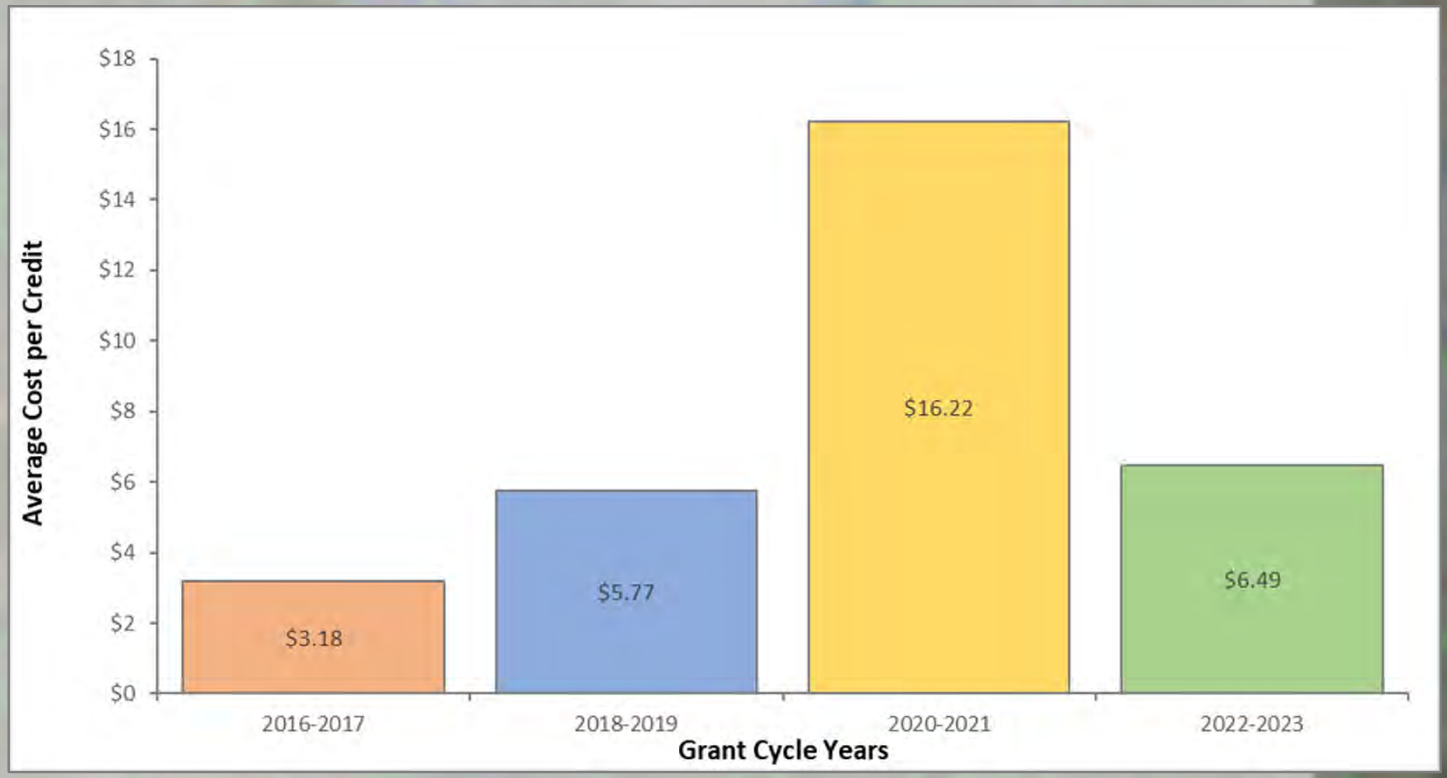
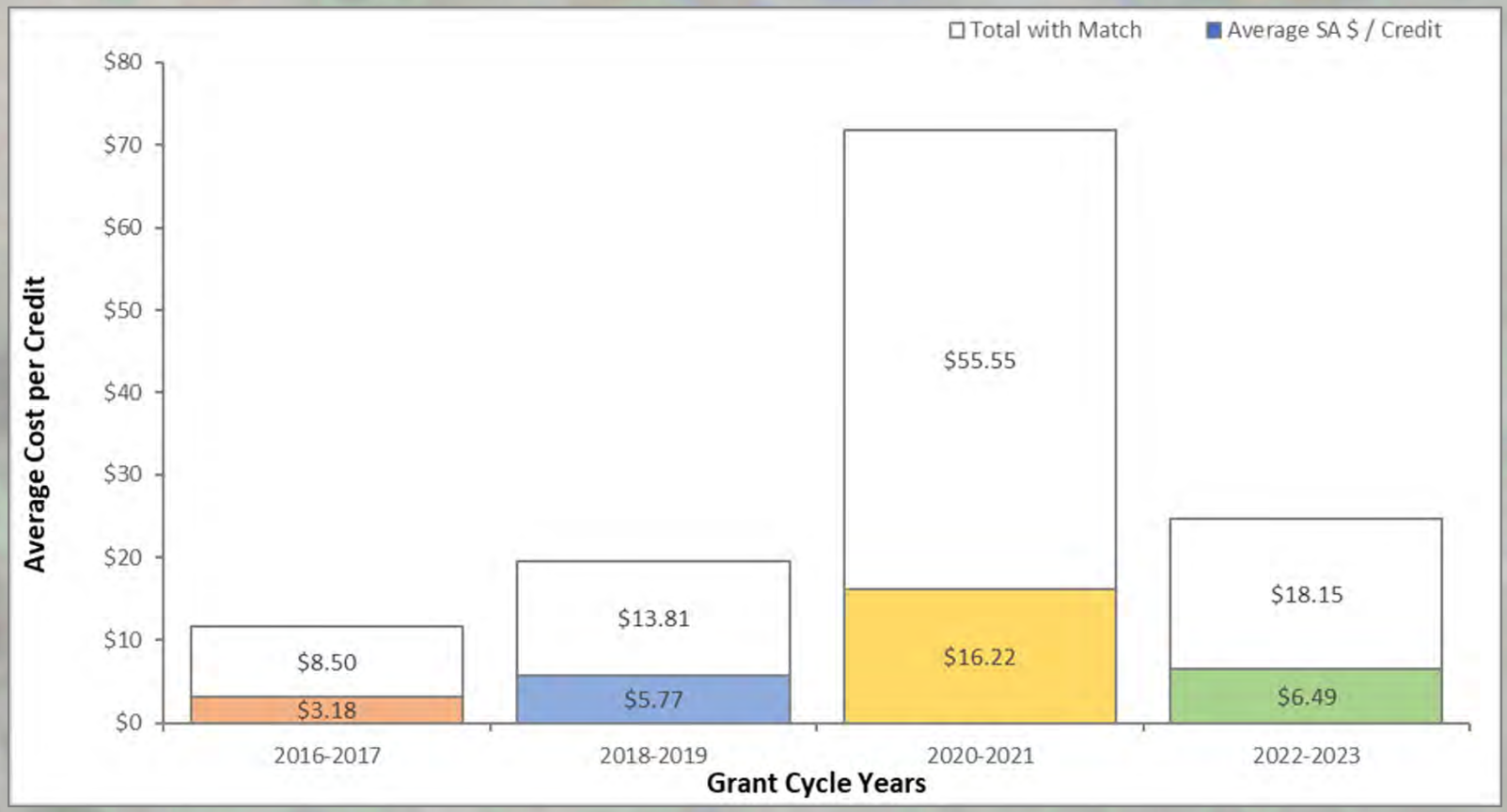


MONTANA SAGE GROUSE
Habitat Conservation Program

3% Net Present Value:

CURRENT STATUS

- Cost per credit for each Stewardship Account grant cycle by funding source:



MONTANA SAGE GROUSE
Habitat Conservation Program

3% Net Present Value:

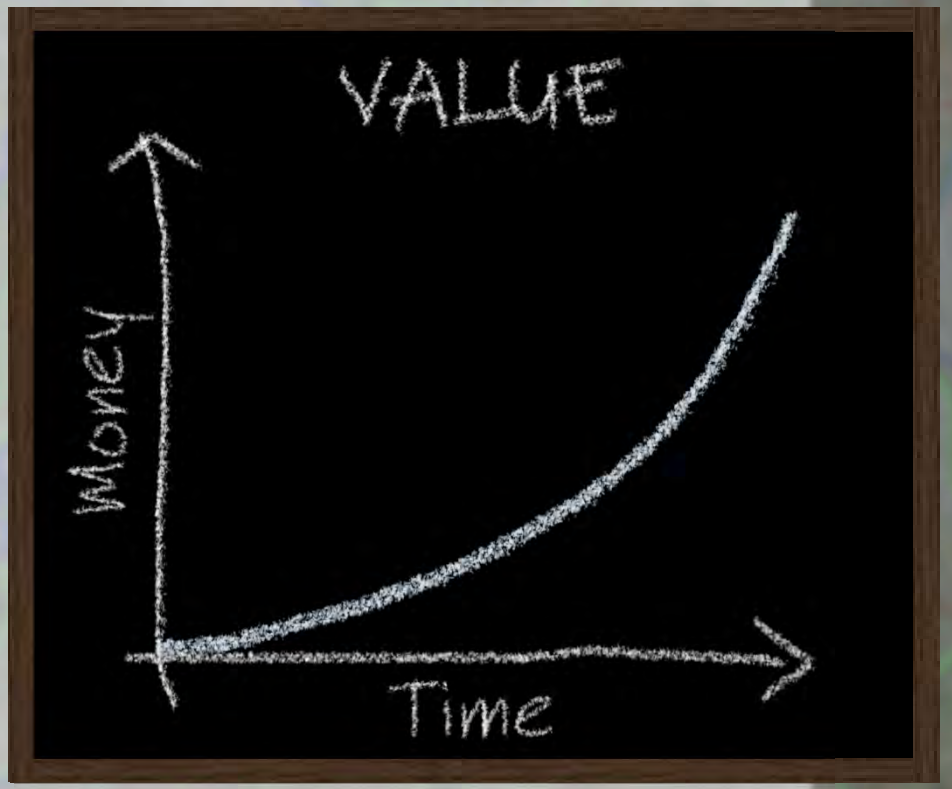
WHAT IS IT?

- Net Present Value = NPV

$$Value\ of\ money\ now > value\ of\ future\ money$$

- Sum of present value of future cash flows

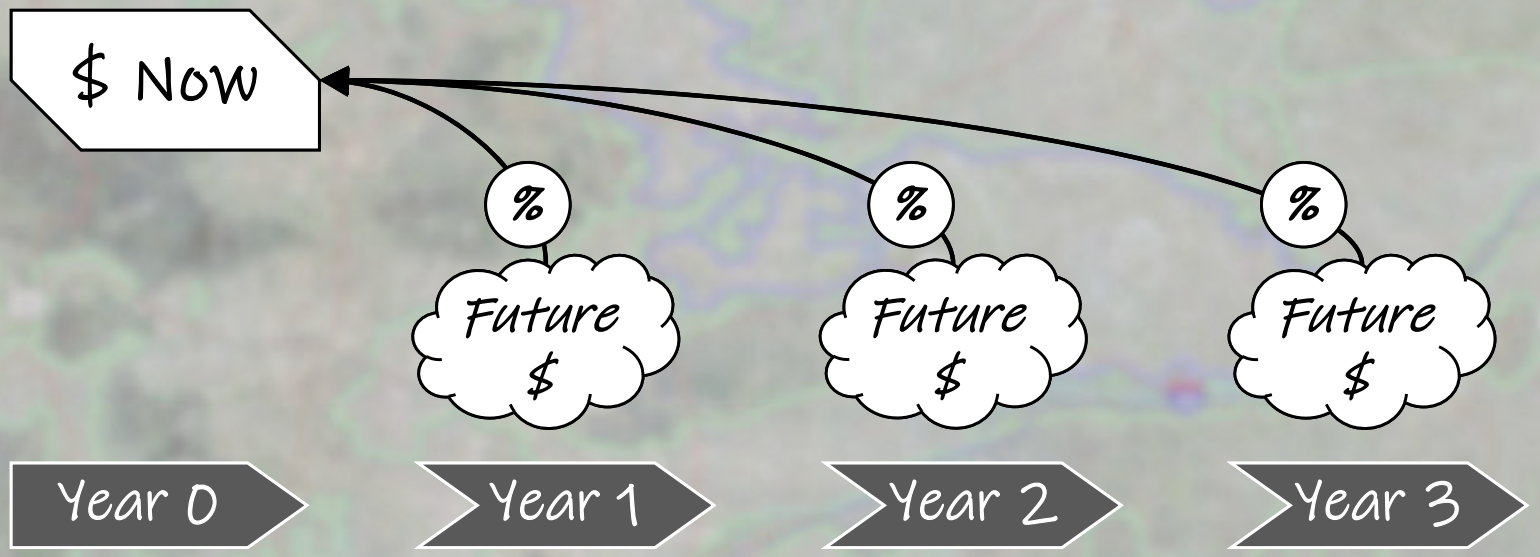
- Main use: Investment planning



3% Net Present Value:

HOW DOES IT WORK?

- Difference between:
  - present value of future cash inflow
  - present value of future cash outflow
  - initial cash invested
- If:
  - NPV > 0 = good investment
  - NPV < 0 = bad investment

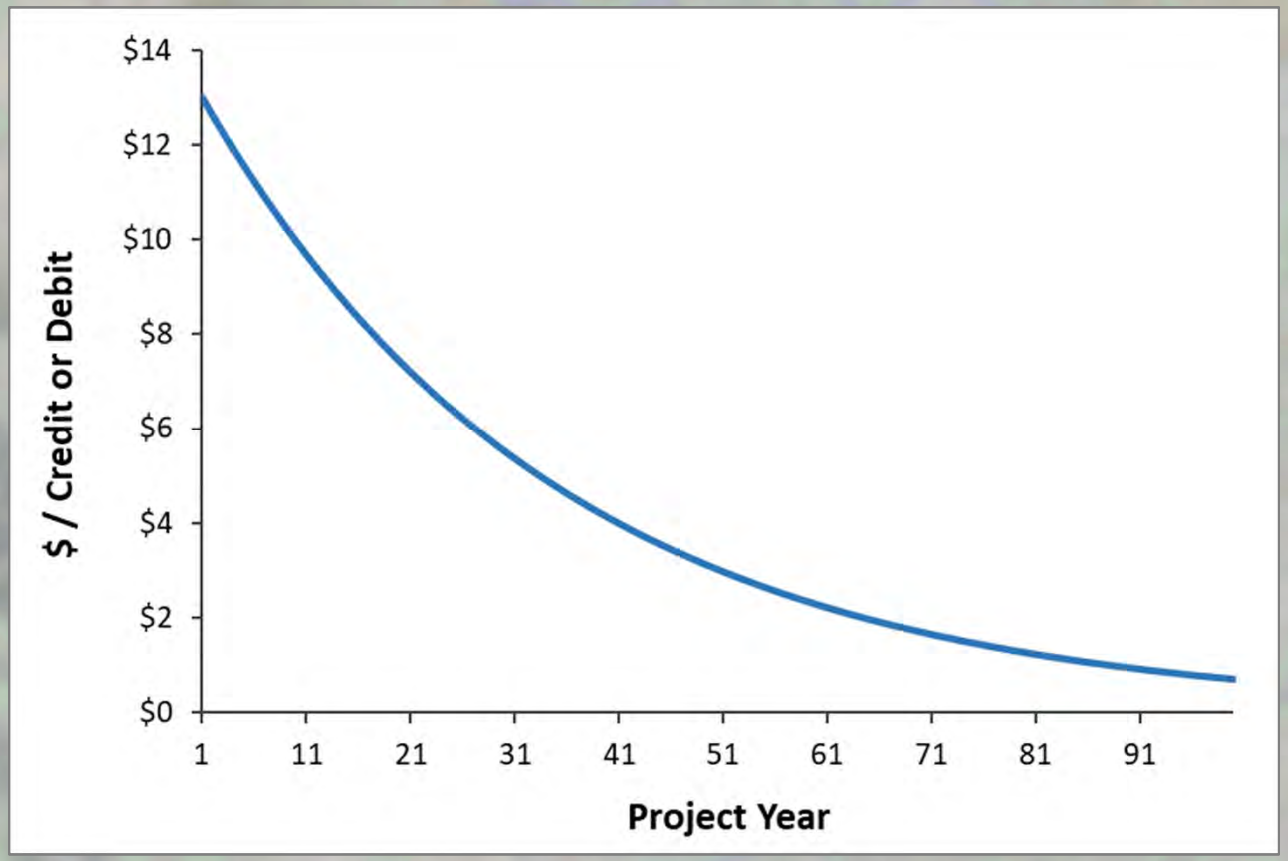


MONTANA SAGE GROUSE
Habitat Conservation Program

3% Net Present Value:

HOW IS IT BEING APPLIED?

- Decreases the base cost ($13) every year by 3%



MONTANA SAGE GROUSE
Habitat Conservation Program

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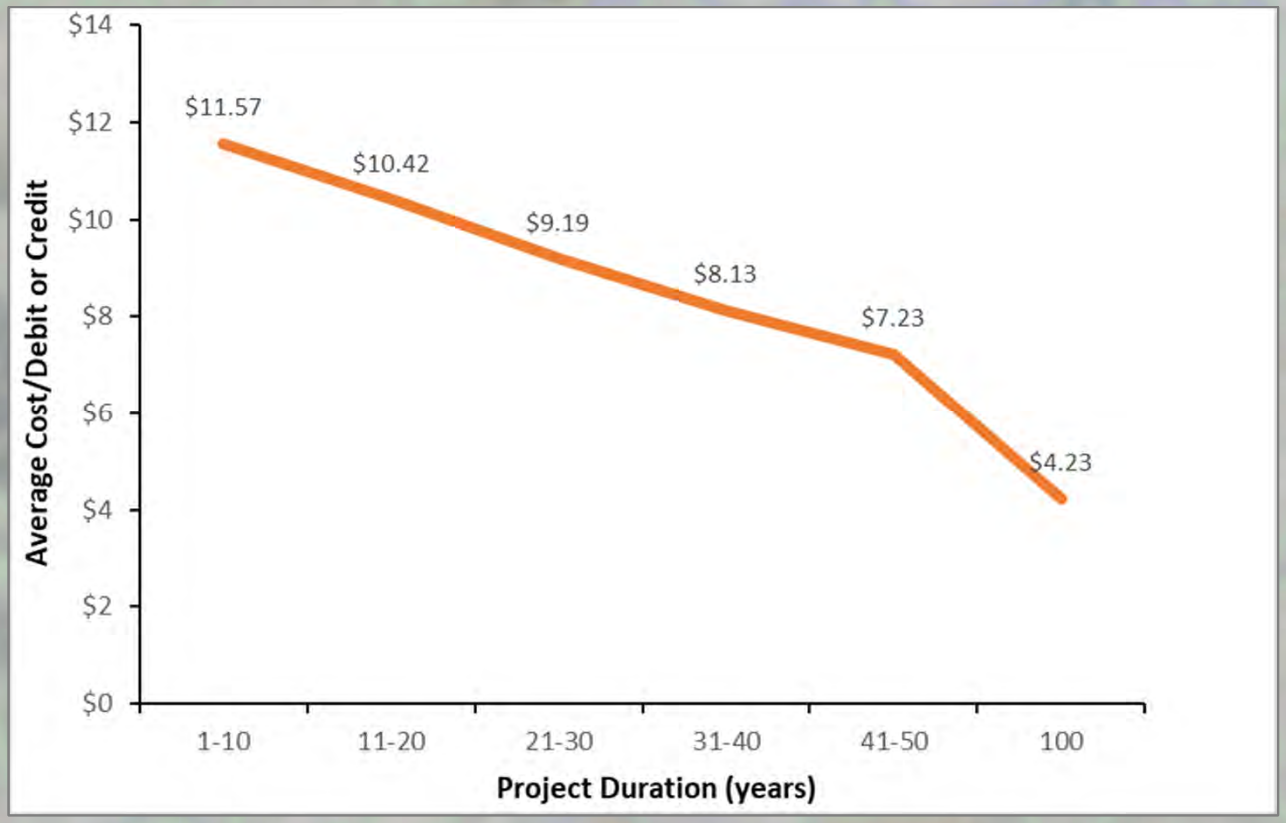
- Results in different average costs based on project duration:

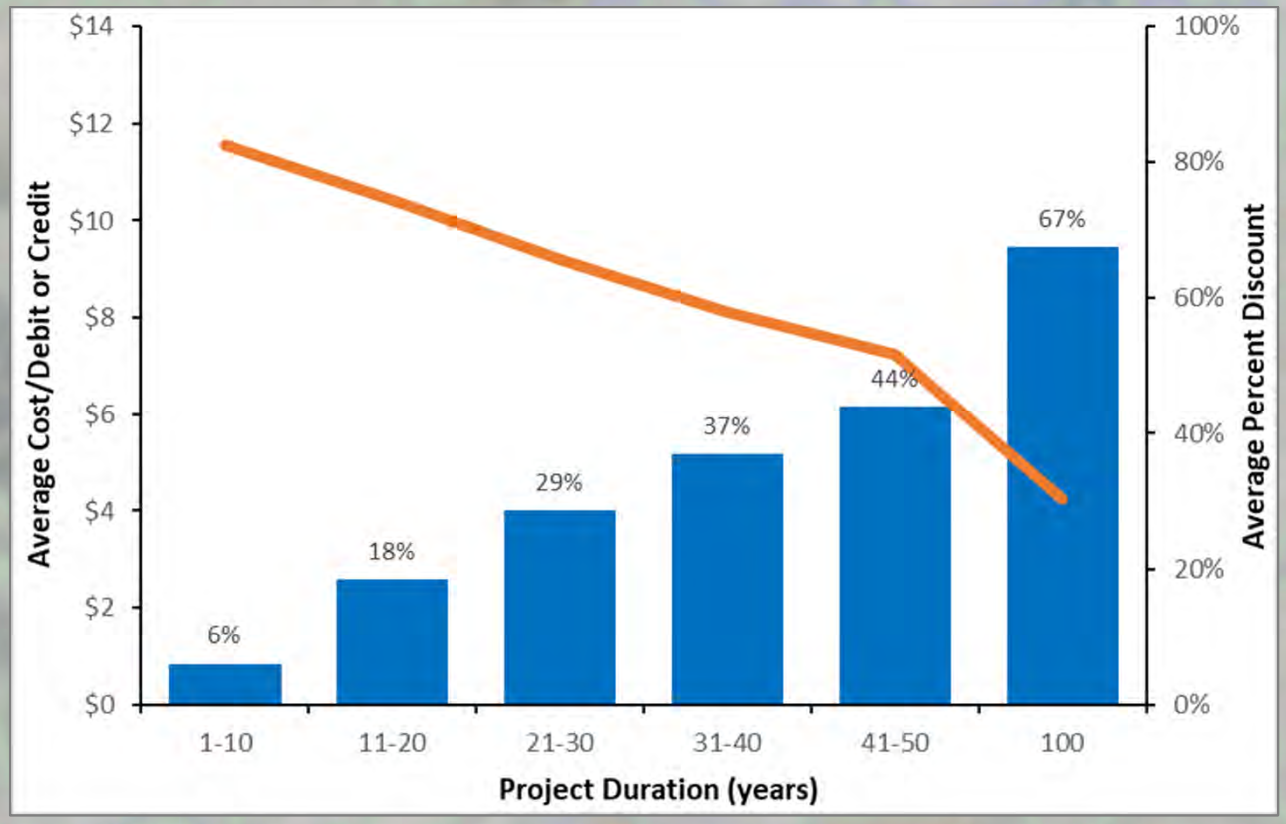


MONTANA SAGE GROUSE
Habitat Conservation Program

3% Net Present Value:

HOW IS IT BEING APPLIED?

- Decreases the base cost ($13) every year by 3%
- Results in different average costs based on project duration and **total percent discount**:

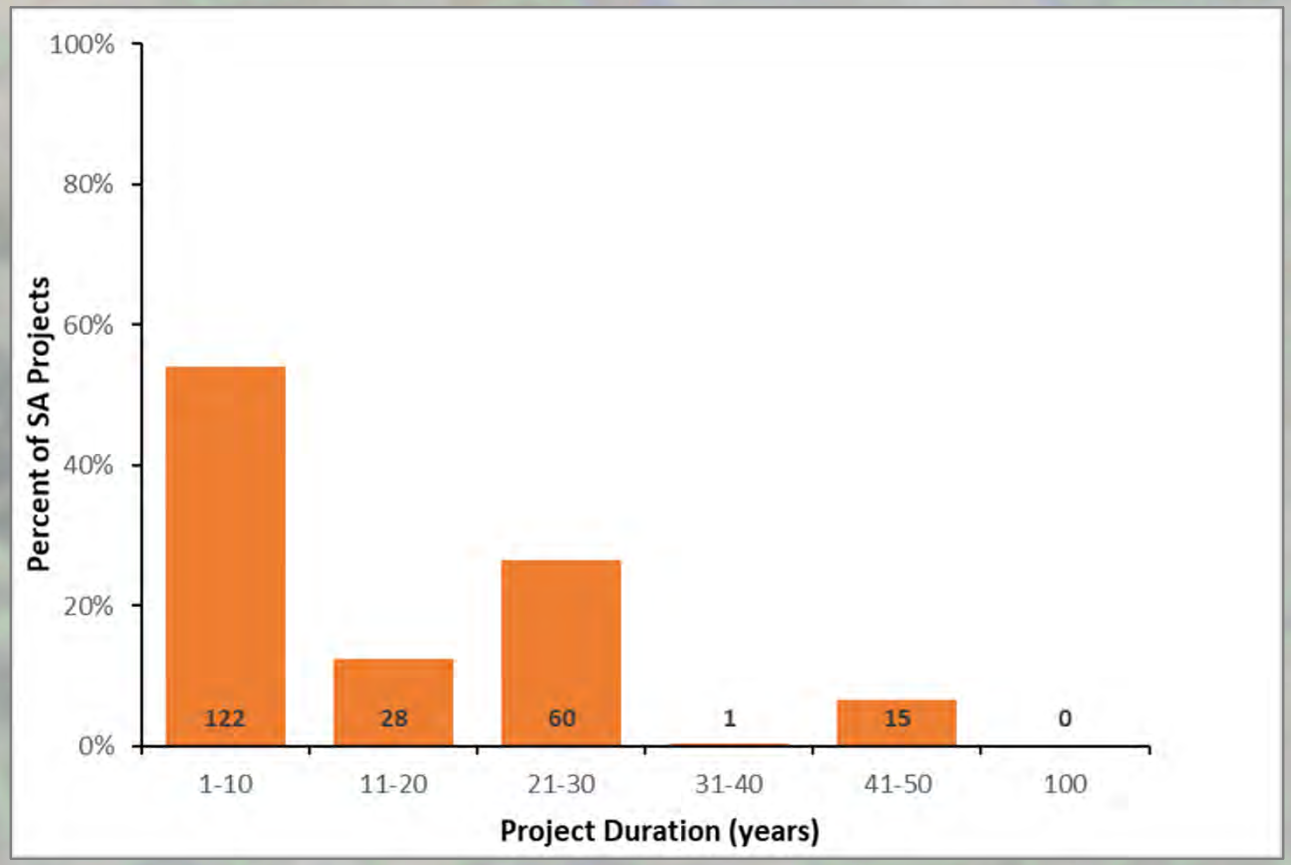


MONTANA SAGE GROUSE
Habitat Conservation Program

3% Net Present Value:

WHAT IS THE DATA SHOWING US?

- **Most development projects reviewed and that have made contributions to the Stewardship Account are <30 years in duration:**



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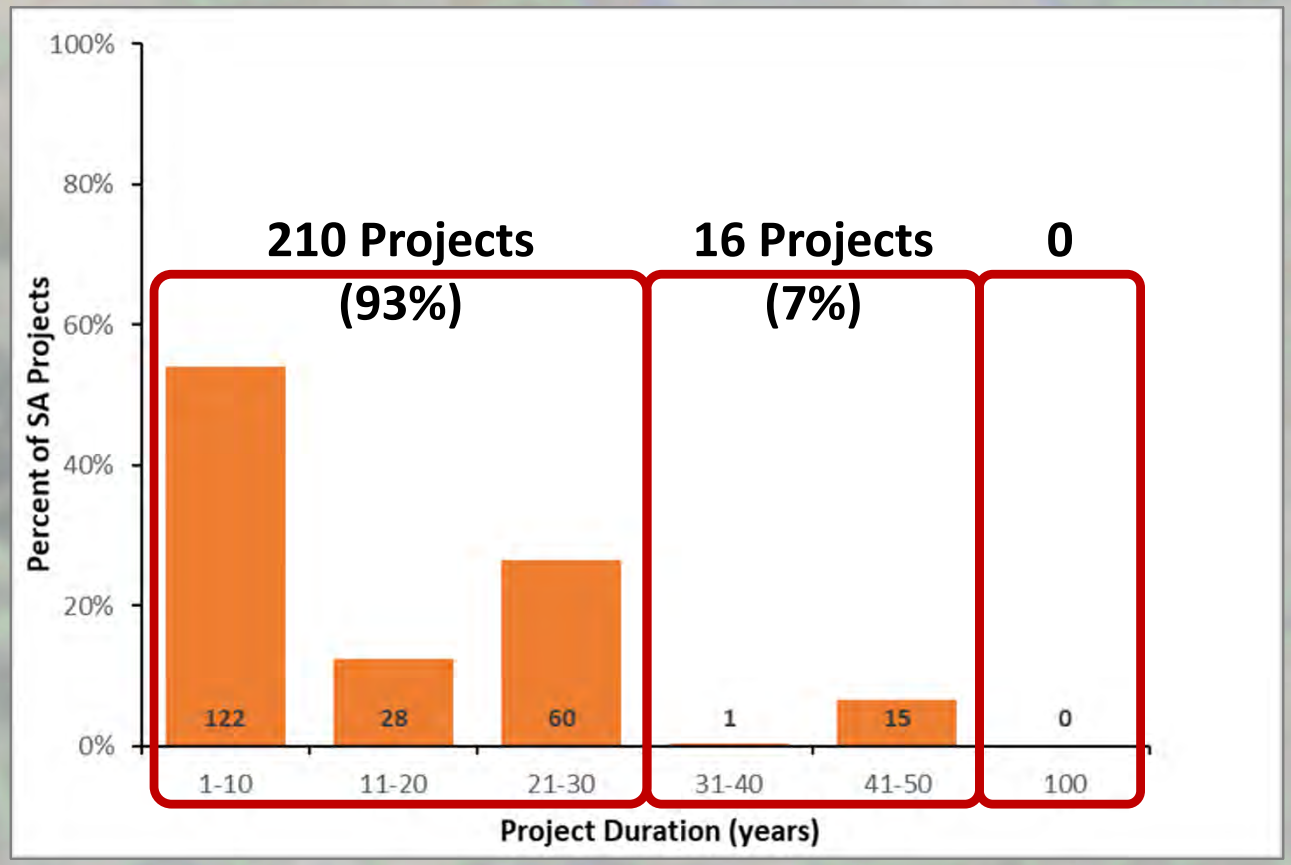

MONTANA SAGE GROUSE
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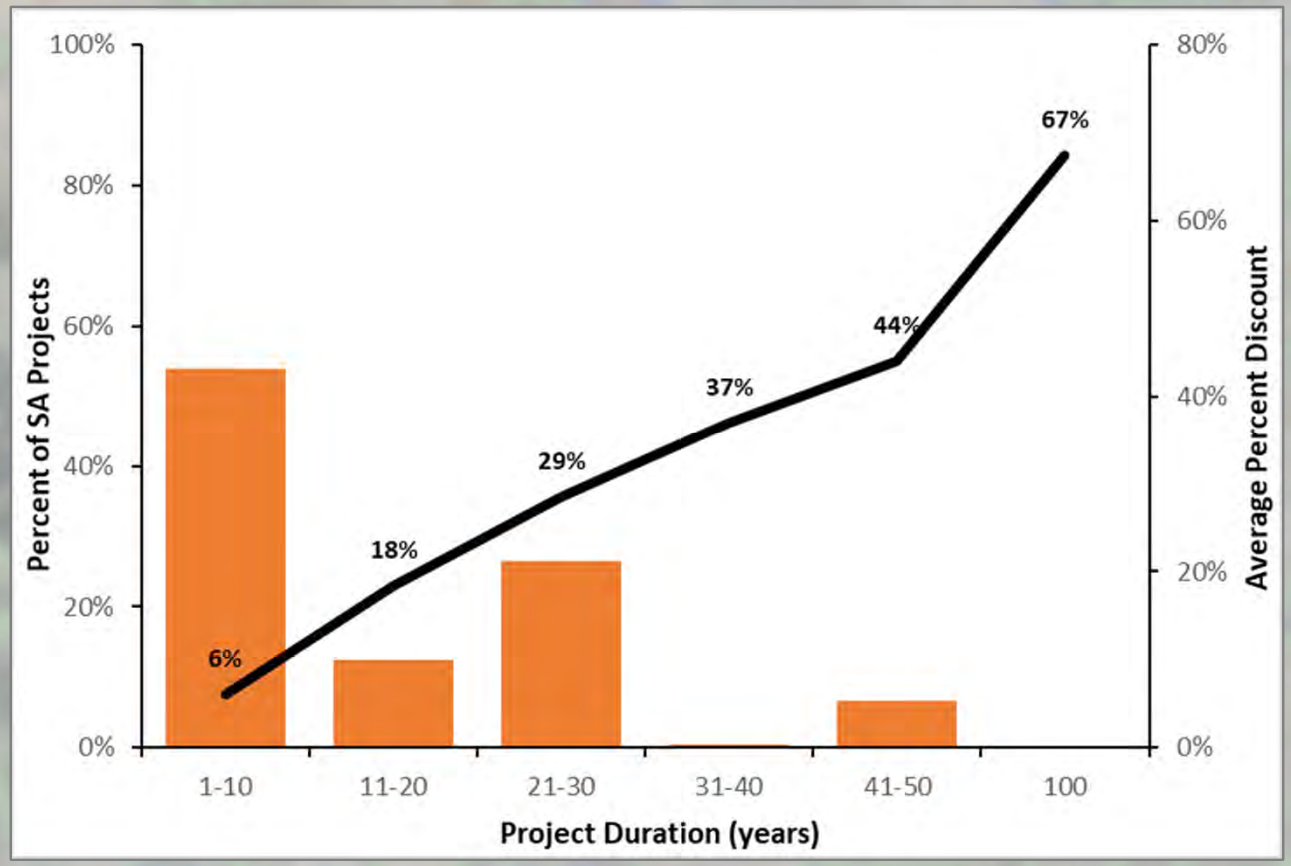
WHAT IS THE DATA SHOWING US?

- **Most development projects reviewed and that have made contributions to the Stewardship Account are <30 years in duration:**

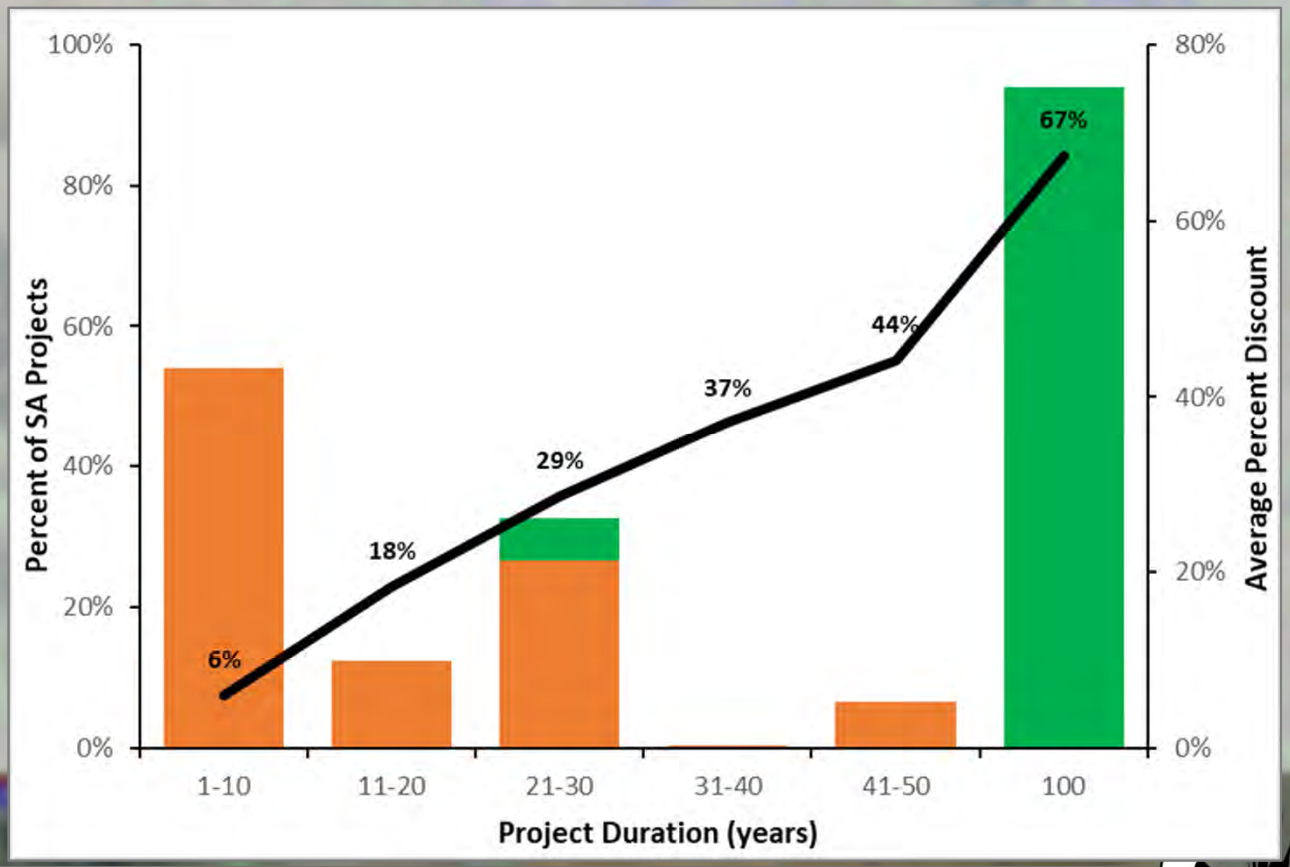


MONTANA SAGE GROUSE
Habitat Conservation Program

3% Net Present Value:

WHAT IS THE DATA SHOWING US?

- Most development projects reviewed and that have made contributions to the Stewardship Account are <30 years in duration
- **Most funded conservation projects are 100 years in duration:**

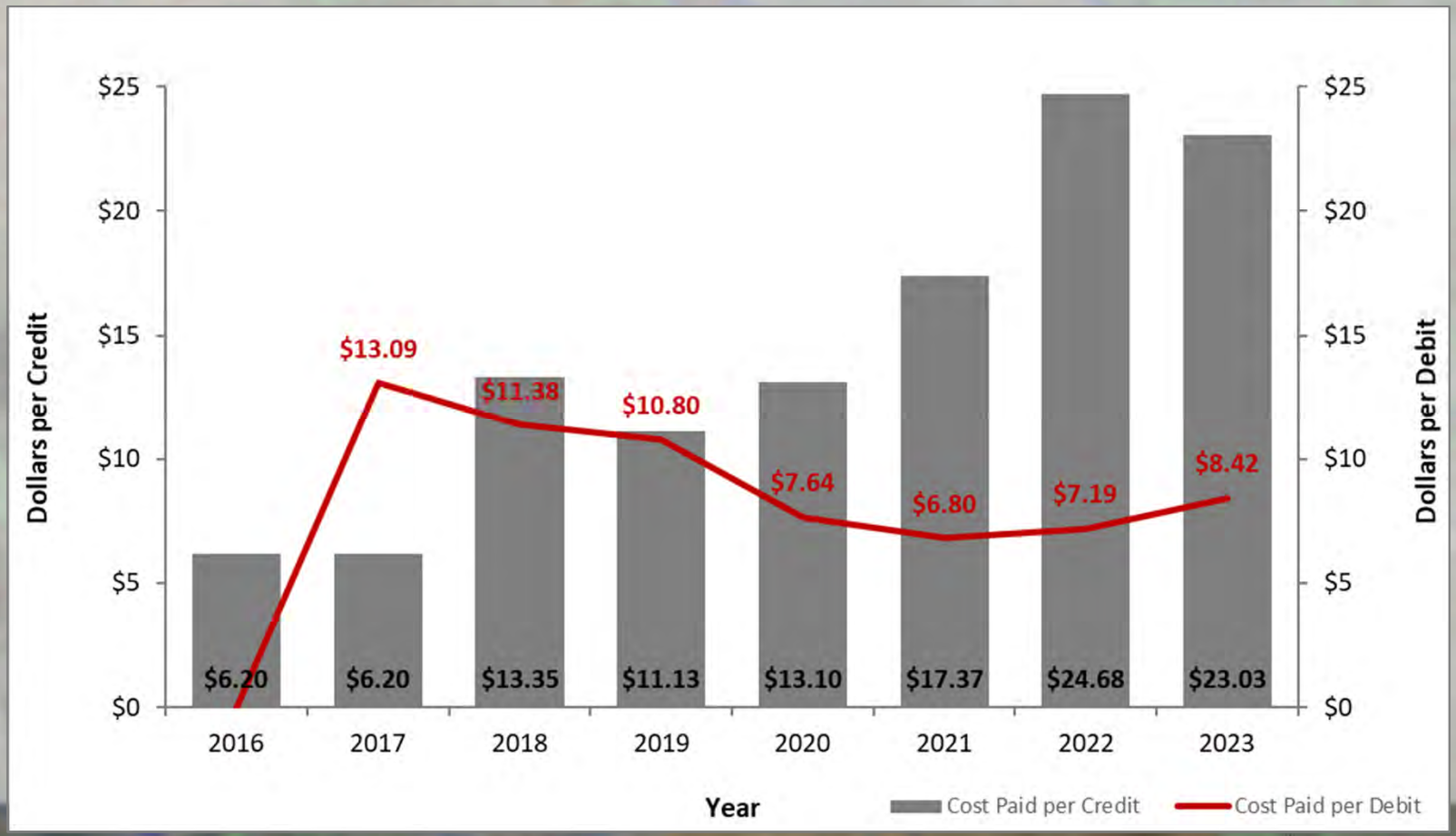


MONTANA SAGE GROUSE
Habitat Conservation Program

3% Net Present Value:

WHAT IS THE DATA SHOWING US?

- Average $/Credit paid for closed Stewardship Account grant projects and average $/Debit for development project contributions to the Stewardship Account:



MONTANA SAGE GROUSE
Habitat Conservation Program

3% Net Present Value:

THE CHALLENGE

➢ **Problem:**

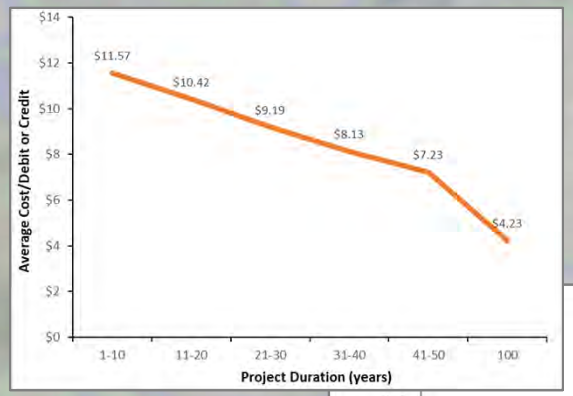
- **Creates an imbalance of impacts to habitat by incentivizing long-term disturbances and short-term conservation.**
- **The Stewardship Account is struggling to purchase credits with funds generated from debits.**

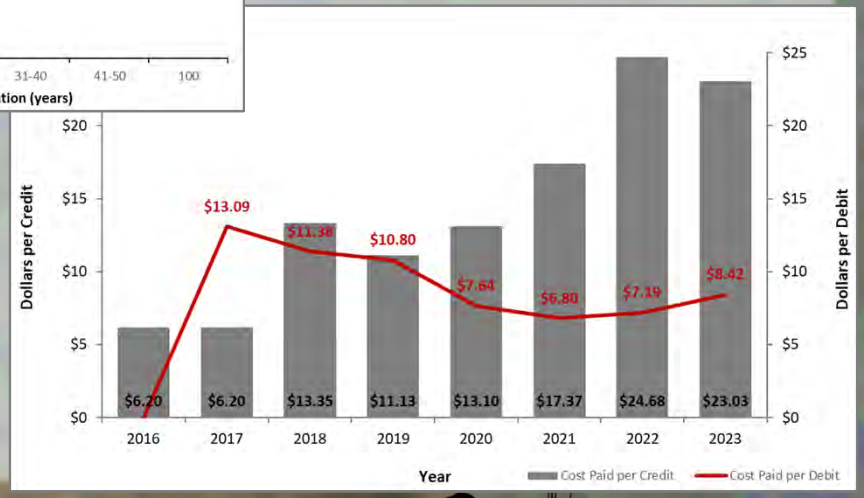
Short-term Projects
- 1 to 10 Years
- $13–$11.42

Medium Duration Projects
- 11 to 30 Years
- $11.26–$8.75

Long-term Projects
- 31 to 50 Years
- $8.64–$6.89

Conservation Easements
- 100 Years
- $4.23





MONTANA SAGE GROUSE
Habitat Conservation Program

3% Net Present Value:

THE CHALLENGE

- **Problem:**
  - Creates an imbalance of impacts to habitat by incentivizing long-term disturbances and short-term conservation.
  - The Stewardship Account is struggling to purchase credits with funds generated from debits.
- **Objectives:**
  1. **Optimize loss/gain of habitat**
  2. **Minimize impacts to SA solvency**
  3. **Maintain ability to offset impacts entrusted to State by developers**

3% Net Present Value:

THE CHALLENGE

- **Problem:**
  - Creates an imbalance of impacts to habitat by incentivizing long-term disturbances and short-term conservation.
  - The Stewardship Account is struggling to purchase credits with funds generated from debits.
- **Objectives:**
  1. Optimize loss/gain of habitat
  2. Minimize impacts to SA solvency
  3. Maintain ability to offset impacts entrusted to State by developers
- **Options:**
  1. **No Action – implication: unsustainable + more appropriation**
  2. **Adjust pricing mechanism – implication: sustainable without appropriation**
     1. **Apply same pricing to both credits and debits**

3% Net Present Value:

PROGRAM REQUEST

- **Request: stakeholder driven process**
  1. **Hire third-party economists**
  2. **Engage stakeholder process**
  3. **Bring options and potential solutions to MSGOT**

3% Net Present Value

MONTANA SAGE GROUSE
Habitat Conservation Program

Project Updates May 24th meeting.

Brad Hansen – Montana Land Reliance

5/9/2023

High Ridge Land, LLC (Chris Pfister)

Montana Land Reliance (MLR) is pleased to report that Chris Pfister was successful in his 2023 NRCS EQIP application. The EQIP funding, totaling $305,000, will be used to cover a portion of the cost of restoring the ranch from a cheatgrass monoculture to native rangeland. MLR has also secured additional funding for the purchase of a conservation easement on the property.

MLR requests that MSGOT contribute $553,205 towards restoration work and $120,611 towards the conservation easement. These figures represent an investment of $13/credit, which is in line with what MSGOT has indicated it would be willing to pay. If funded, the High Ridge Land project will generate approximately 159,000 credits in the central service area.

This project represents an excellent opportunity for MSOGT to fund restoration work that creates habitat "uplift," which is an important component of the sage grouse conservation program in Montana. The conservation easement will ensure that the state's investment in habitat restoration is protected moving forward.

Bruce Johnson & Dan/Mary Ann Johnson

MLR has secured additional matching funds for the proposed Bruce Johnson and Dan & Mary Ann Johnson conservation easements in Rosebud, County. With this newly available match, MLR requests that MSGOT reconsider funding the Johnson projects at $13/credit. This presents the state an opportunity to acquire 120,000 much-needed credits in the central service area, while not paying more than $13/credit.

Prior to the June MSGOT meeting, MLR will submit a revised application with a funding request of $171,395 for the Bruce Johnson easement and $335,237 for the Dan & Mary Ann Johnson easement, plus project costs. Both proposed conservation easements are entirely within core sage grouse habitat.

LO Ranch

In 2022, Denbury Resources, Inc. approached MLR with the goal of partnering on a permittee-responsible conservation easement. Denbury had accrued debits in Carter County and wanted to offset those debts with conservation work in the same general vicinity.

MLR approached the owners of LO Ranch, who were excited about the opportunity to conserve their land. LO Ranch is located north of Alzada, Montana, along Montana Highway 323. The ranch is a working cow/calf operation and has been in the same family for several generations. The property is entirely within core sage grouse habitat and supports seventeen leks. The conservation easement will protect 6,212 acres and provide Denbury with approximately 338,000 credits.

Due diligence, including appraisal, baseline report, mineral report, and easement negotiations, are scheduled to be completed by the end of summer 2023 or sooner.

MONTANA SAGE GROUSE OVERSIGHT TEAM AGENDA ITEM BRIEF SHEET

MAY 24, 2023

AGENDA ITEM: CONSERVATION LEASE UPDATES, CONSERVATION FEES, TITLE CO. FEES AND CHANGES TO PROJECTS

ACTION NEEDED: EXECUTIVE ACTION TO APPROVE THE CONSERVATION DISTRICT FEES, TITLE COMPANY FEES AND PROJECT CHANGES

SUMMARY:

Conservation District Costs:
The Conservation District fees were not known during the October 27, 2022 meeting when MSGOT was asked to consider three conservation leases. The Petroleum Conservation District has provided the Program with costs to hold the lease and conduct annual monitoring. Approval of those fees is requested.

Title Report:
Since the October meeting a number of changes have occurred concerning the conservation leases. While the Program was preparing lease agreements mistaken land descriptions were discovered. To address this the Program recommends a Title Report be included for all conservation leases with the initial application. A Title Report would provide the Program with assurances of the landowner's property boundaries. In the future the cost of the Title Report may be included in the grant request. DNRC legal recommends a Title Policy (insurance policy) be taken out to protect our interests. We also recommend having a title company conduct the closing and record the necessary document filings.

For the three conservation lease projects currently in review, the Program recommends the cost for these Title Policies and closing costs be in addition to the grant amount paid for the easement as project costs. Flying S Title & Escrow provided the Program with an estimate of their range of fees for the leases we would want to cover.

Conservation Lease Amount covered with a Title Insurance Policy	Title Insurance Policy		Closing Fees	Document Fees	Recording Fees
Example			$700 min		
$290k	$1000		$900	$150	$8/page
$525K	$1800		$1200	$150	$8/page

Project Changes:
Additionally, Mr. Schultz has decided not to implement the restoration and conifer removal portions of the Schultz Gran-Prairie Ranch Project and change the timeframe. This project will now consist of a 20-year conservation lease only.

New Habitat Quantification Tool calculations were done for each of the conservation leases to reflect changes from the October 27, 2022 calculations. A detailed description of the changes are attached.

Montana's Greater Sage-Grouse

2022 Grant Cycle Proposed Projects

MONTANA SAGE GROUSE
Habitat Conservation Program

October 2022 Stewardship Account Grants
Fourth Grant Cycle
Funding Availability and Debits

- Available funds in Stewardship Account: $4,703,885.00
- Debits needing to be offset:830,504.81

- Grant requests funded in October: 2,140,169.68
- Credits: 289,903.12

- Stewardship Account funds remaining: 2,848,181.86
- Debits remaining: 540,601.69

Credit/Debit Balance Metrics	Totals (Constant)		Total Grants Funded (Dynamic)		Remainder (Dynamic)	
Total Stewardship Account Funds	$ 4,703,885.00	Cost per Credit	$ 1,855,703.14	Cost per Credit	$ 2,848,181.86	Cost per Credit
Total Debits to be offset	830,504.81	$5.66	289,903.12	$6.40	540,601.69	$5.27

Submitted Grant Projects	Project Name		Bruce Johnson Ranch	D&M Johnson Ranch	High Ridge LLC	Roen Ranch	Brewer Ranch	Schultz-Gran Prairie	Nowlin Ranch	Haywire Ranch
	Project ID		4771	4770	4768	4767	4759	4736	4843	4861
Project Details	Activity Type(s)		Preservation - CE	Preservation - CE	Preservation - CE; Restoration	Preservation - CE; Restoration	Preservation - CE	Preservation - CL; Restoration	Preservation - CL	Preservation - CL
	Physical Acres		2,402.37	7,052.49	2,295.85	3,607.62	5,549.76	8,190.12	4,410.85	4,518.64
	Duration		100.00	100.00	100.00	100.00	100.00	22.50	15.00	15.00
HQT Results	Raw HQT Score (Fxn Acres Gained)		92,065.07	198,079.44	154,173.61	136,424.87	150,046.47	70,257.92	29,422.76	26,000.13
	Fxn Acres/Physical Acre/Year		0.38	0.28	0.67	0.38	0.27	0.38	0.44	0.38
Request	Funds Requested		$ 340,800.00	$ 1,464,300.00	$ 1,069,800.00	$ 623,000.00	$ 370,300.00	$ 588,646.20	$ 238,295.33	$ 332,487.49
HQT Scenarios	Option 1A - Status Quo: 40% Baseline	Total Credits	36,826.03	79,231.78	134,888.13	55,825.80	60,018.59	30,108.21	11,769.10	10,400.05
		HQT Cost	$ 155,814.36	$ 335,237.05	$ 570,724.27	$ 237,181.96	$ 253,944.26	$ 294,377.52	$ 125,418.60	$ 110,829.16
		$/Credit	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00
		Credits/Yr	368.26	792.32	1,348.88	558.26	600.19	1,338.14	784.61	693.34
		FxA/PA/Yr	0.15	0.11	0.59	0.15	0.11	0.16	0.18	0.15
		Yes/No?								
	Option 1B - Status Quo Plus: 40% Baseline + Lek Multipliers	Total Credits	40,508.63	79,231.78	153,552.38	66,955.08	96,029.74	57,201.15	22,361.30	31,200.16
		HQT Cost	$ 171,395.80	$ 335,237.05	$ 649,694.44	$ 284,466.54	$ 406,310.82	$ 561,504.20	$ 238,295.33	$ 332,487.49
		$/Credit	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00
		Credits/Yr	405.09	792.32	1,535.52	669.55	960.30	2,542.27	1,490.75	2,080.01
		FxA/PA/Yr	0.17	0.11	0.67	0.19	0.17	0.31	0.34	0.46
		Yes/No?						y	y	y
	Option 2A - Baseline Bump: 50% Baseline	Total Credits	46,032.54	99,039.72	139,845.68	69,288.88	75,023.24	36,847.57	14,711.38	13,000.07
		HQT Cost	$ 194,767.96	$ 419,046.32	$ 591,700.12	$ 294,389.96	$ 317,430.32	$ 360,172.77	$ 156,773.24	$ 138,536.45
		$/Credit	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00
		Credits/Yr	460.33	990.40	1,398.46	692.89	750.23	1,637.67	980.76	866.67
		FxA/PA/Yr	0.19	0.14	0.61	0.19	0.14	0.20	0.22	0.19
		Yes/No?								
	Option 2B - Baseline Bump Plus: 50% Baseline + Lek Multipliers	Total Credits	50,635.79	99,039.72	159,253.56	83,110.78	120,037.18	70,557.14	27,951.62	39,000.20
		HQT Cost	$ 214,244.75	$ 419,046.32	$ 673,816.67	$ 353,116.13	$ 507,888.51	$ 692,538.26	$ 297,869.16	$ 415,609.36
		$/Credit	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00	$ 13.00
		Credits/Yr	506.36	990.40	1,592.54	831.11	1,200.37	3,135.87	1,863.44	2,600.01
		FxA/PA/Yr	0.21	0.14	0.69	0.23	0.22	0.38	0.42	0.58
		Yes/No?				y				
Other	Include?	Total Credits:	40,508.63	79,231.78	153,552.38	66,955.08	96,029.74	57,201.15	22,361.30	31,200.16
		Funds to Allocate	$ 340,800.00	$ 1,464,300.00	$ 1,069,800.00	$ 623,000.00	$ 370,300.00	$ 588,646.20	$ 238,295.33	$ 332,487.49
		Base $/Credit	$ 25.85	$ 56.78	$ 21.40	$ 28.58	$ 11.85	$ 13.79	$ 13.00	$ 13.00
		Credits/Yr	405.09	792.32	1,535.52	669.55	960.30	2,542.27	1,490.75	2,080.01
		FxA/PA/Yr	0.17	0.11	0.67	0.19	0.17	0.31	0.34	0.46
		Yes/No?					y			

Stewardship Application's Proximity to Other Applications

MONTANA SAGE GROUSE
Habitat Conservation Program

Project Information

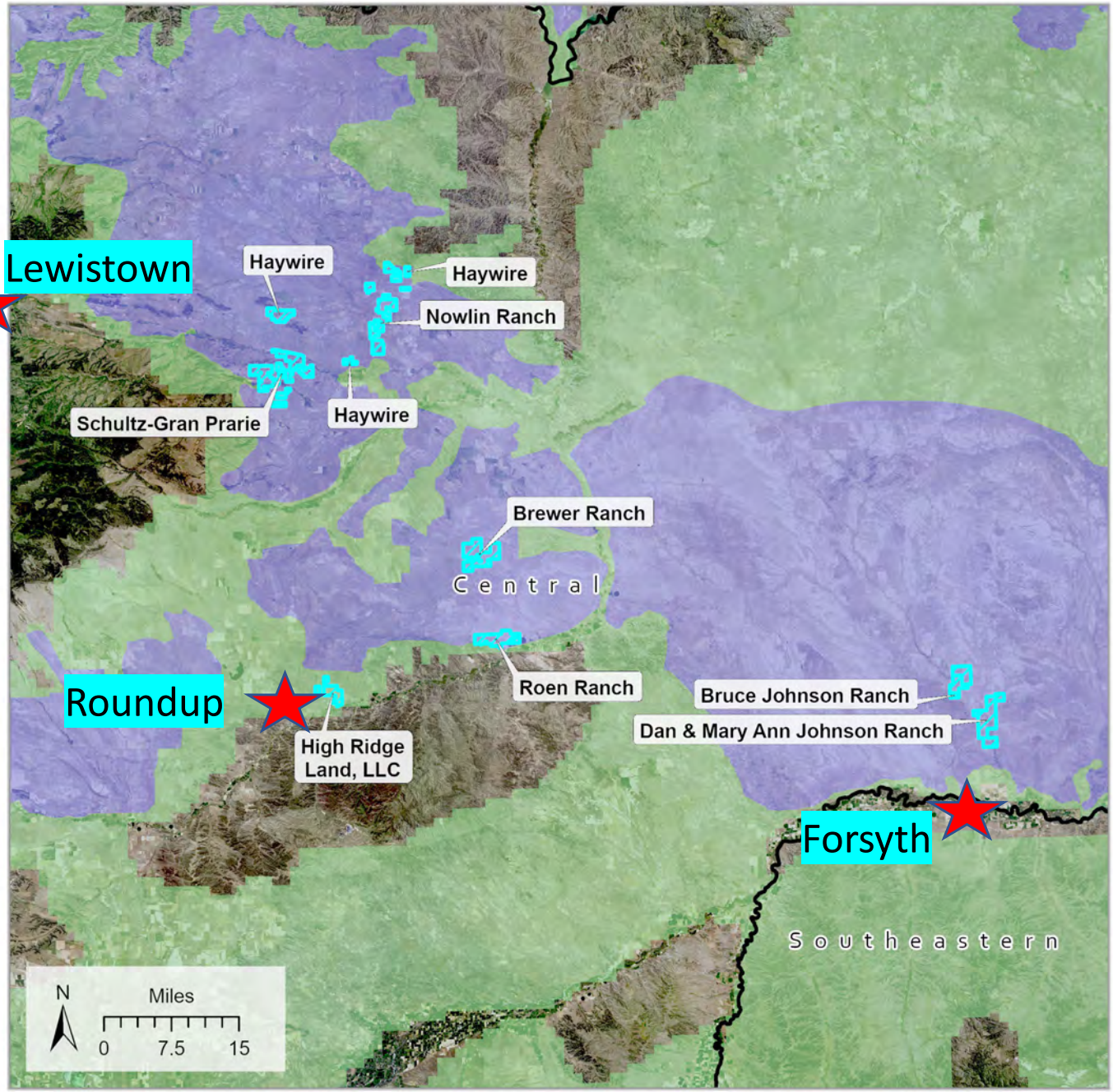
Stewardship Application

Habitat Designation

EO-Core Area

EO-General Habitat

Map Created: 20 September 2022
Imagery: 2021 NAIP



Stewardship Application's Proximity to Closed Stewardship Grants

MONTANA SAGE GROUSE
Habitat Conservation Program

Project Information

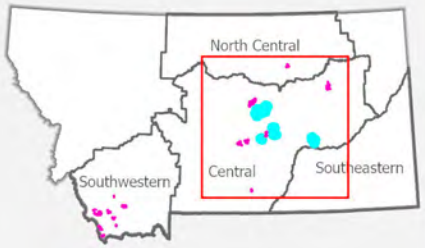
Stewardship Application

Closed Stewardship Grant

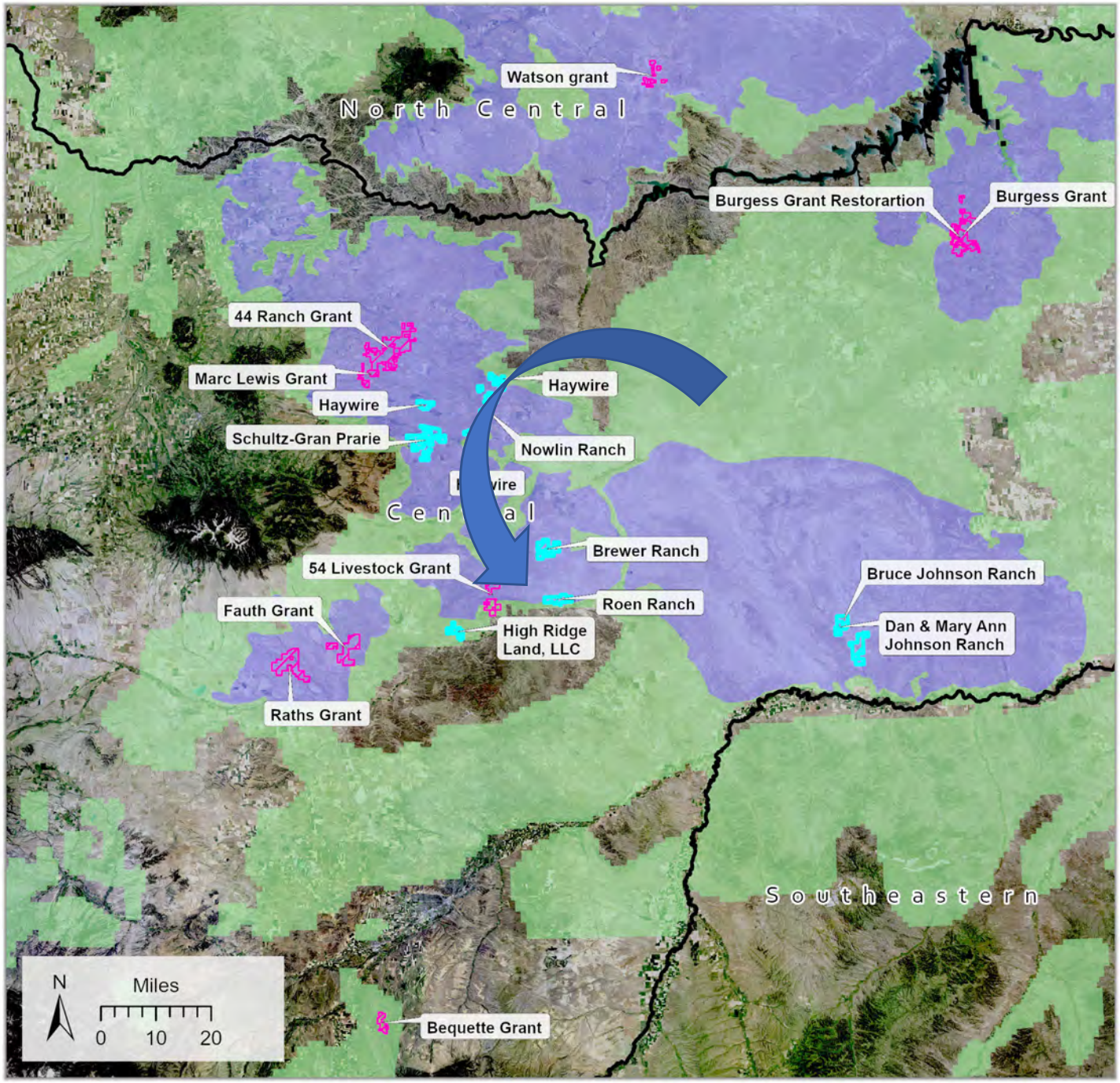
Habitat Designation

EO-Core Area

EO-General Habitat



Map Created: 20 September 2022
Imagery: 2021 NAIP



Stewardship Application's Proximity to Closed Stewardship Grants

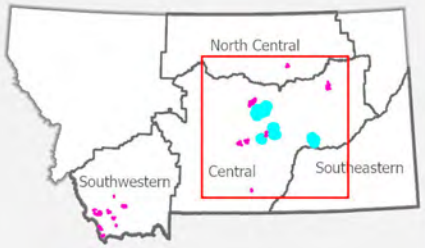
MONTANA SAGE GROUSE
Habitat Conservation Program

Project Information

- Stewardship Application
- Closed Stewardship Grant

Habitat Designation

- EO-Core Area
- EO-General Habitat



Map Created: 20 September 2022
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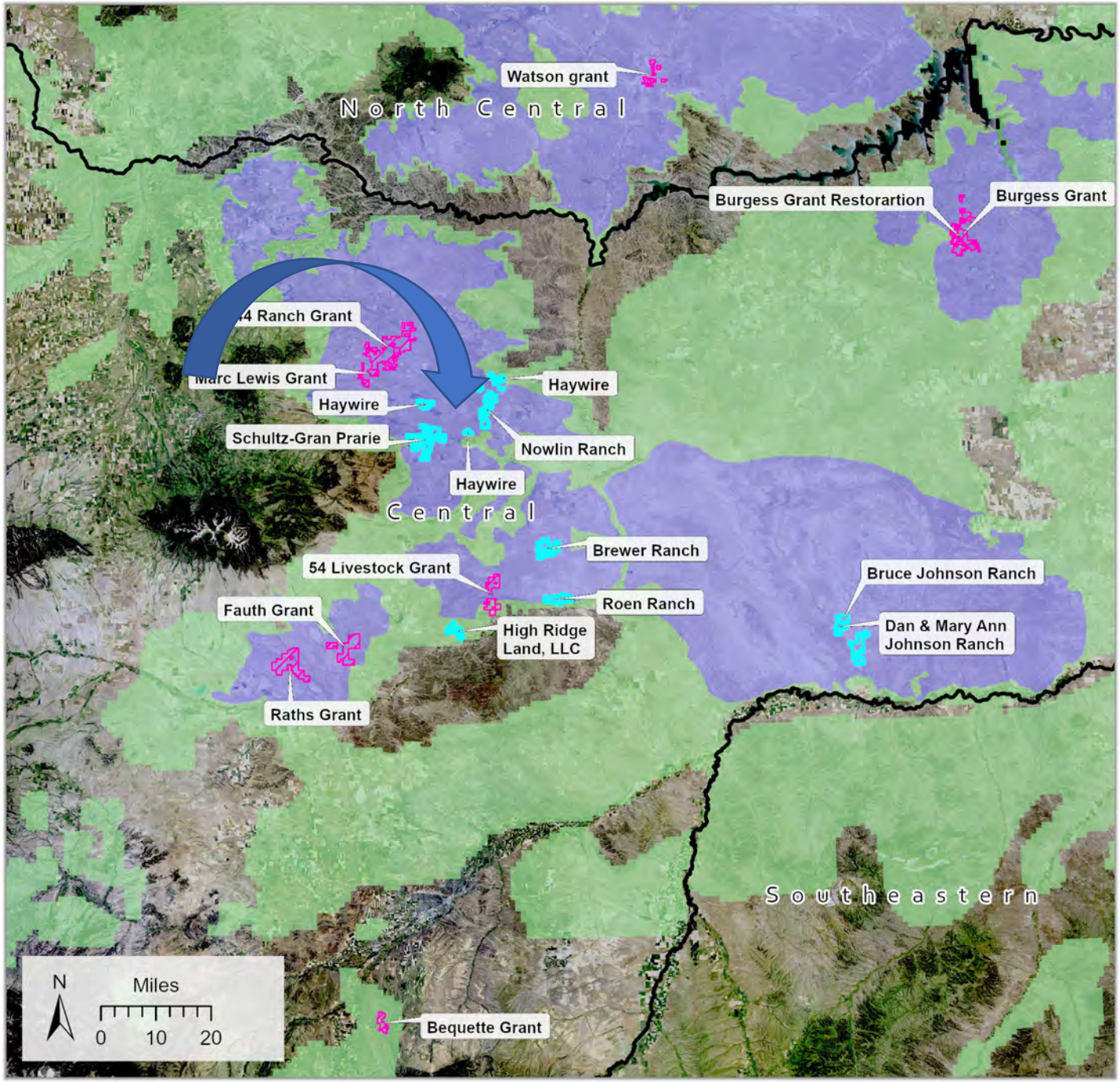
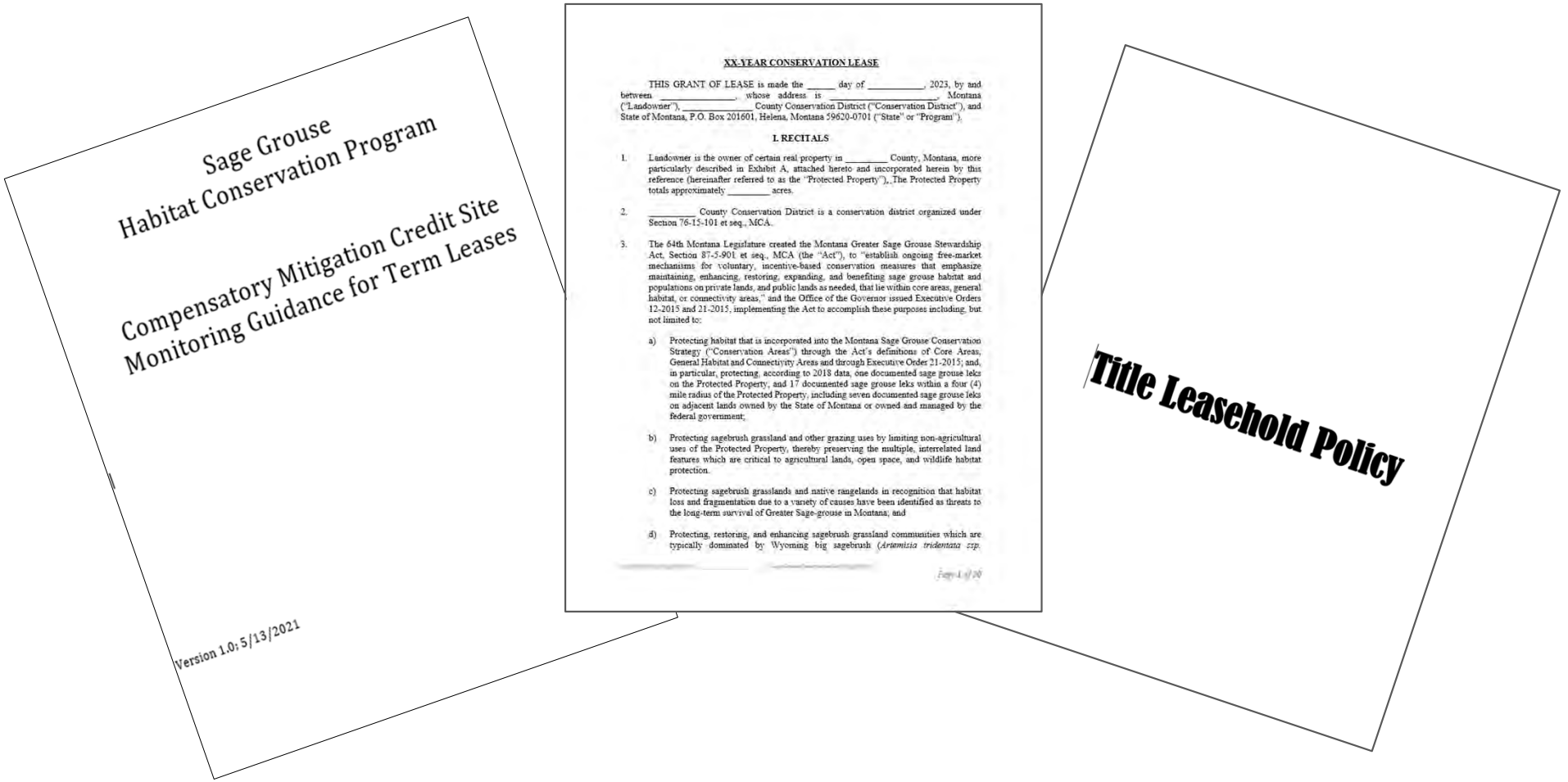


Conservation Leases – Project Costs



Title Insurance or Title Report

Leasehold Policy for liability
Title Search with Title insurance –Protects us and covers loss from title defects
Closing fees and Recording Lease with County
e-filing fee

Title Report
Title Search – without protection

Conservation Lease Updates

Schultz Gran Prairie Ranch

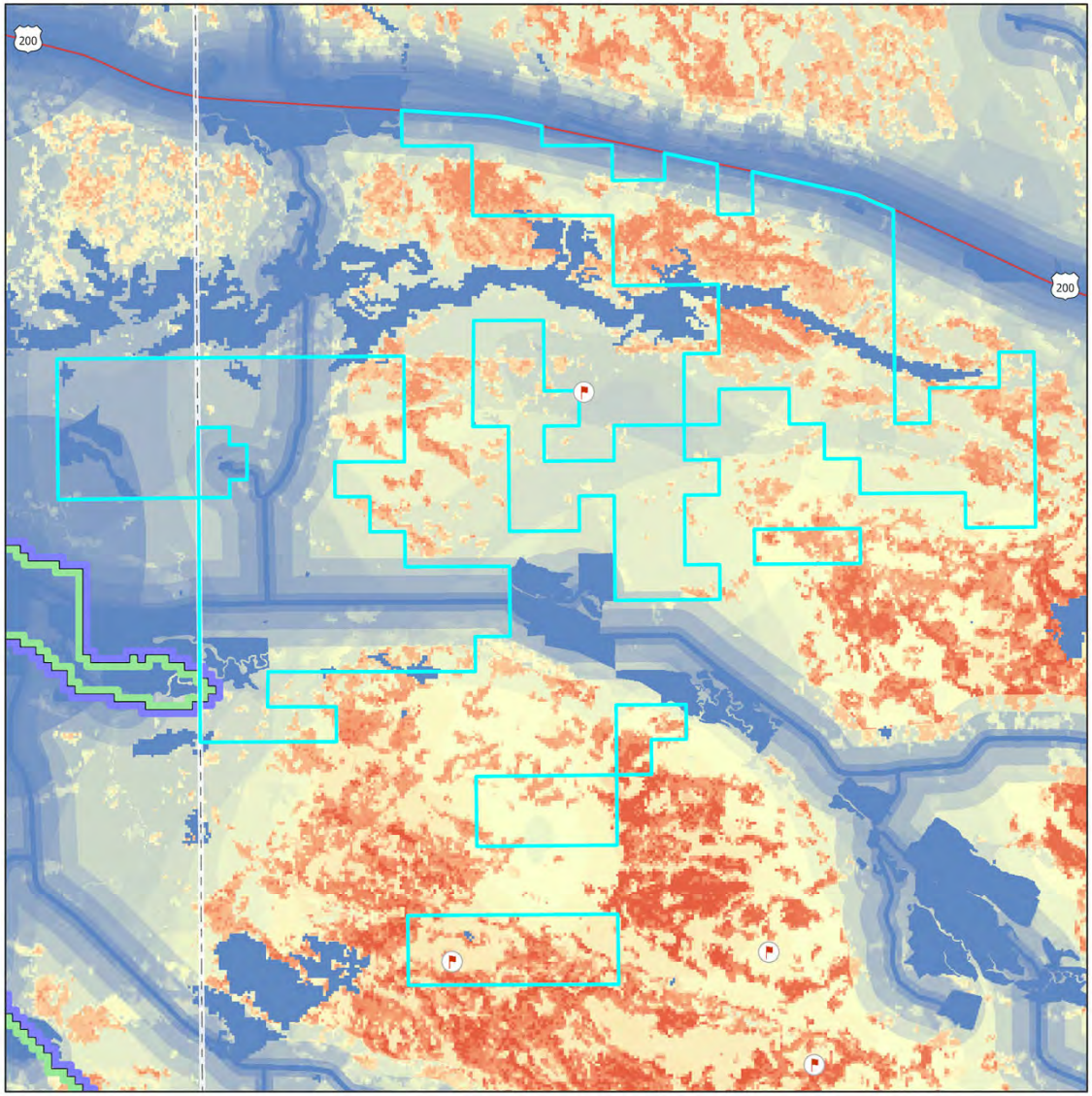
	October 2022 - Project Metrics	Changes - Project Metrics
Physical Acres	8190.12	8023
Duration	20 and 25 years	20 years
Total credits with multipliers	57,201.15	55,725.81
MSGOT approved SA Grant	$561,504.20	$555,055.21

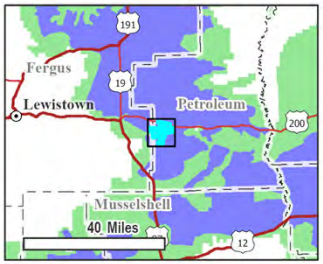
Adjusted Schultz Gran Prairie Project Costs

Conservation Lease	$555,055.21
Petroleum Conservation District	$14,450.00
Title Report/Policy	$1400 to $3500*
Approx. Total Costs	**$573,000.00**

Figure 1: Project #4736 - Schultz-Gran Prairie Term Lease

MONTANA SAGE GROUSE
Habitat Conservation Program





HQT Project Metadata

HQT Date: 21 February 2023
Years for Implementation: 0 Years
Years for Maintenance: 20 Years

Miles
0 0.75 1.5

N

NHS Interstate
Major Road

Proposed Activity
Lek Points

Habitat Quality
High
Low

EO-Core Area
EO-Connectivity Area
EO-General Habitat

Haywire Ranch

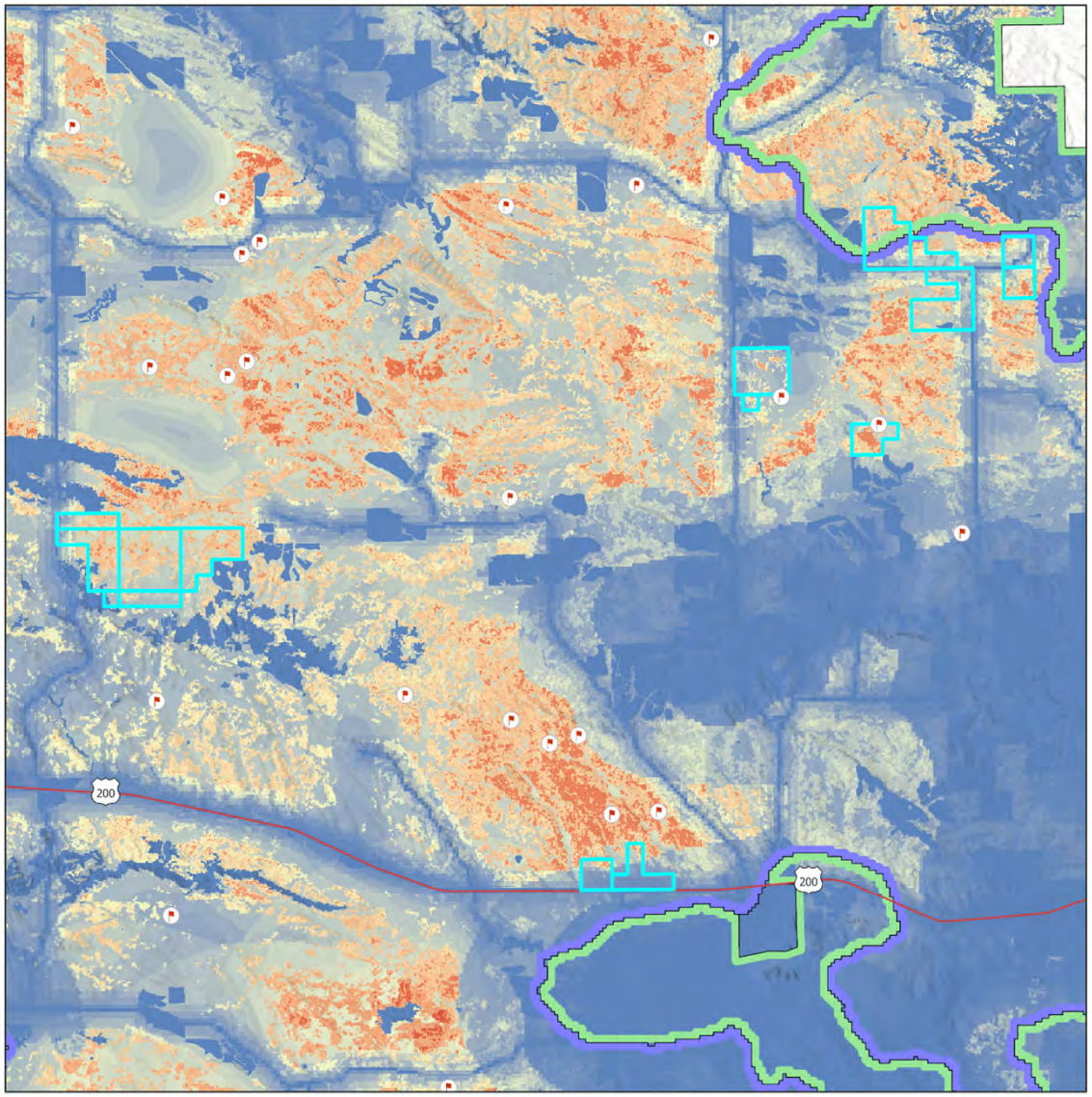
	October 2022 - Project Metrics	Changes - Project Metrics
Physical Acres	4518	4317
Duration	15 years	15 years
Total credits with multipliers	31,200.16	27,211.93
MSGOT approved SA Grant	$332,487.49	$289,986.60

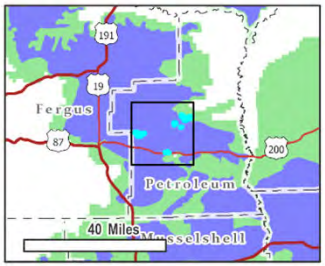
Adjusted Haywire Ranch Project Costs

Conservation Lease	$289,986.60
Petroleum Conservation District	$12,400.00
Title Policy/Report	$800 to $2600*
Approx. Total Costs	**$305,000.00**

Figure 2: Haywire Ranch Conservation Lease

MONTANA SAGE GROUSE
Habitat Conservation Program





HQT Project Metadata

HQT Date: 19 January 2023
Years for Implementation: 0 Years
Years for Maintenance: 15 Years

0 1.5 3 Miles

N

NHS Interstate
Major Road

Proposed Activity
Lek Points

Habitat Quality
High
Low

EO-Core Area
EO-Connectivity Area
EO-General Habitat

Nowlin Ranch

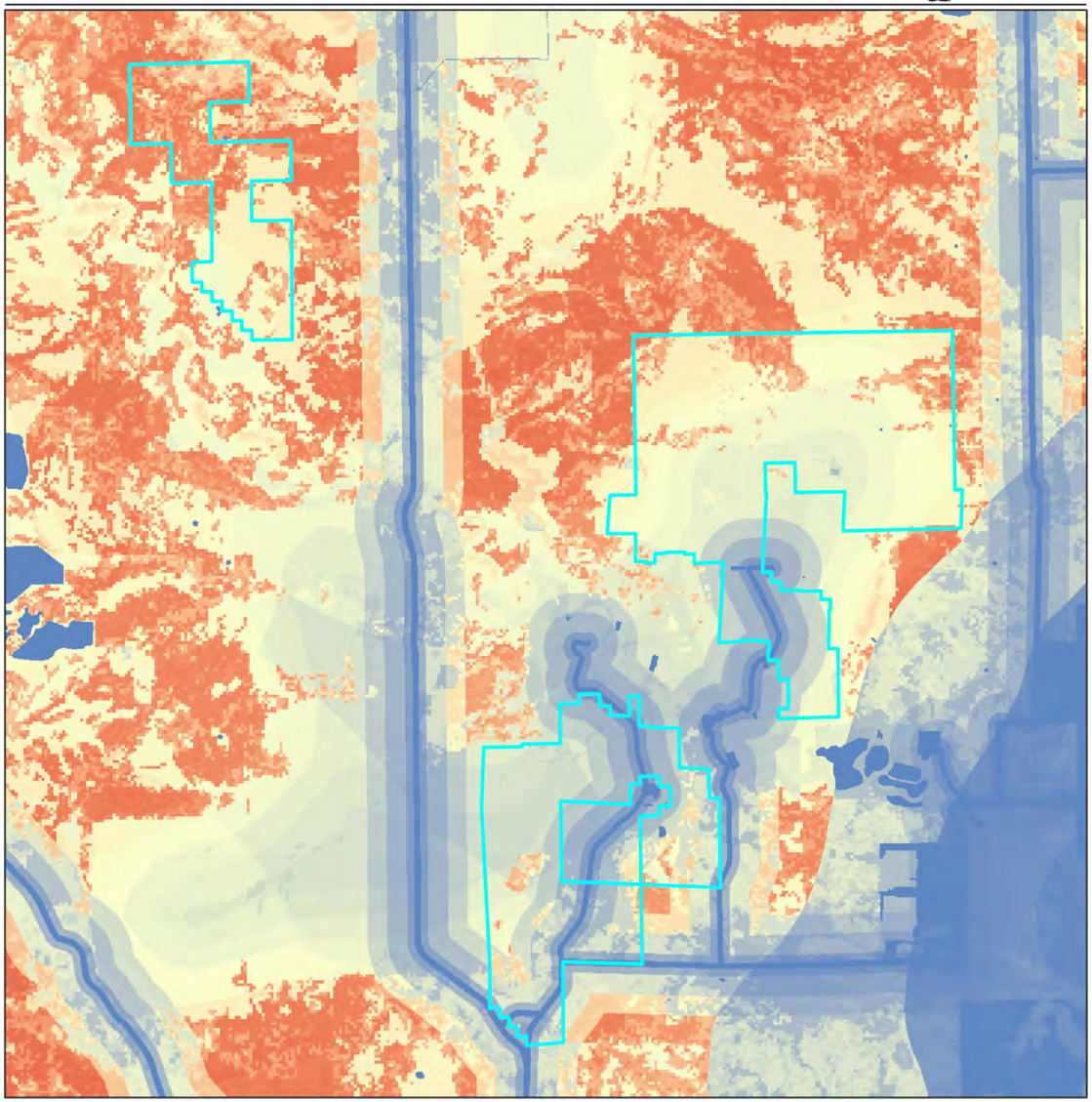
	October 2022 - Project Metrics	Changes - Project Metrics
Physical Acres	4410	3624
Duration	15 years	15 years
Total credits with multipliers	22,361.30	21,025.75
MSGOT approved SA Grant	$238,295.33	$224,062.90

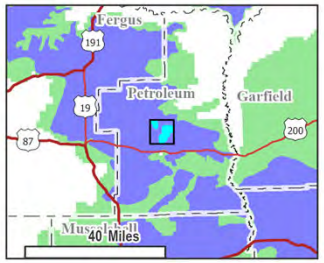
Adjusted Nowlin Ranch Project Costs

Conservation Lease	$224,062.90
Petroleum Conservation District	$9,250.00
Title Policy/Report	$750 to $2600*
Approx. Total Costs	**$235,900.00**

Figure 3: Nowlin Ranch Conservation Lease

MONTANA SAGE GROUSE
Habitat Conservation Program





HQT Project Metadata

HQT Date: 07 March 2023
Years for Implementation: 0 Years
Years for Maintenance: 15 Years

0 0.65 1.3 Miles

N

NHS Interstate
Major Road

Proposed Activity
Lek Points

Habitat Quality
High
Low

EO-Core Area
EO-Connectivity Area
EO-General Habitat

Sagegrouse.mt.gov

MONTANA SAGE GROUSE
Habitat Conservation Program

SCHULTZ-GRAN PRAIRIE RANCH:

The original Schultz-Gran Prairie Ranch conservation lease project approved for funding on October 27, 2022, included 8,190 acres of deeded private land that included some area in a 20-year conservation lease and the remaining area in a 25-year conservation lease. Restoration activities were also included in the project, including reseeding and conifer removal (115 acres and 120 acres, respectively). The total Stewardship Account Grant amount awarded on October 27, 2022, was $561,504.20 (plus Conservation District fees).

UPDATED CONSERVATION LEASE INFORMATION

Project Information

Project Name	Schultz-Gran Prairie Ranch
Project ID	4736
Activity Type	Conservation Lease
County	Petroleum, Fergus
Service Area	Central
Project Duration	20 years
Physical Acres:	
Core Area	*8,015 acres*
General Habitat	*8 acres*
Total	**8,023 acres**

Updated HQT Results

Date of HQT Run	February 21, 2023
Total Credits	**55,725.81**
Total Stewardship Account Grant Amount	**$555,055.21**
HQT Metrics:	
Functional Acres Gained/ Physical Acre/Year	*0.39*
Credits Generated/ Physical Acre/Year	*0.35*

Conservation District Fees

Conservation District	Petroleum County CD
Monitoring Requirements:	
Years of Monitoring	*20 years*
Hours/Year	*16 hours/year*
Miles/Year	*36 miles*
Total Fees	**$14,450.00**

Since then, the conservation lease has been modified in several ways, including the spatial data, project duration, and activity types. The modifications to the spatial data resulted in a decrease in the total physical acres from 8,190 to 8,023. The modifications to the project duration changed from a partial 20-year and 25-year lease to all physical acres being in the conservation lease for a total of 20 years. Lastly, the October 2022 approved version of the project contained preservation and restoration conservation activities. The modification occurring to the activity types included the removal of the restoration activities due to low grant funding allocated for the restoration activities. After accounting for these modifications, the Program updated the HQT Results for this project, which include an updated Total Stewardship Account Grant Amount of $555,055.21 which results in a total of 55,725.81 credits over 20 years on 8,023 acres of land (Figure 1).

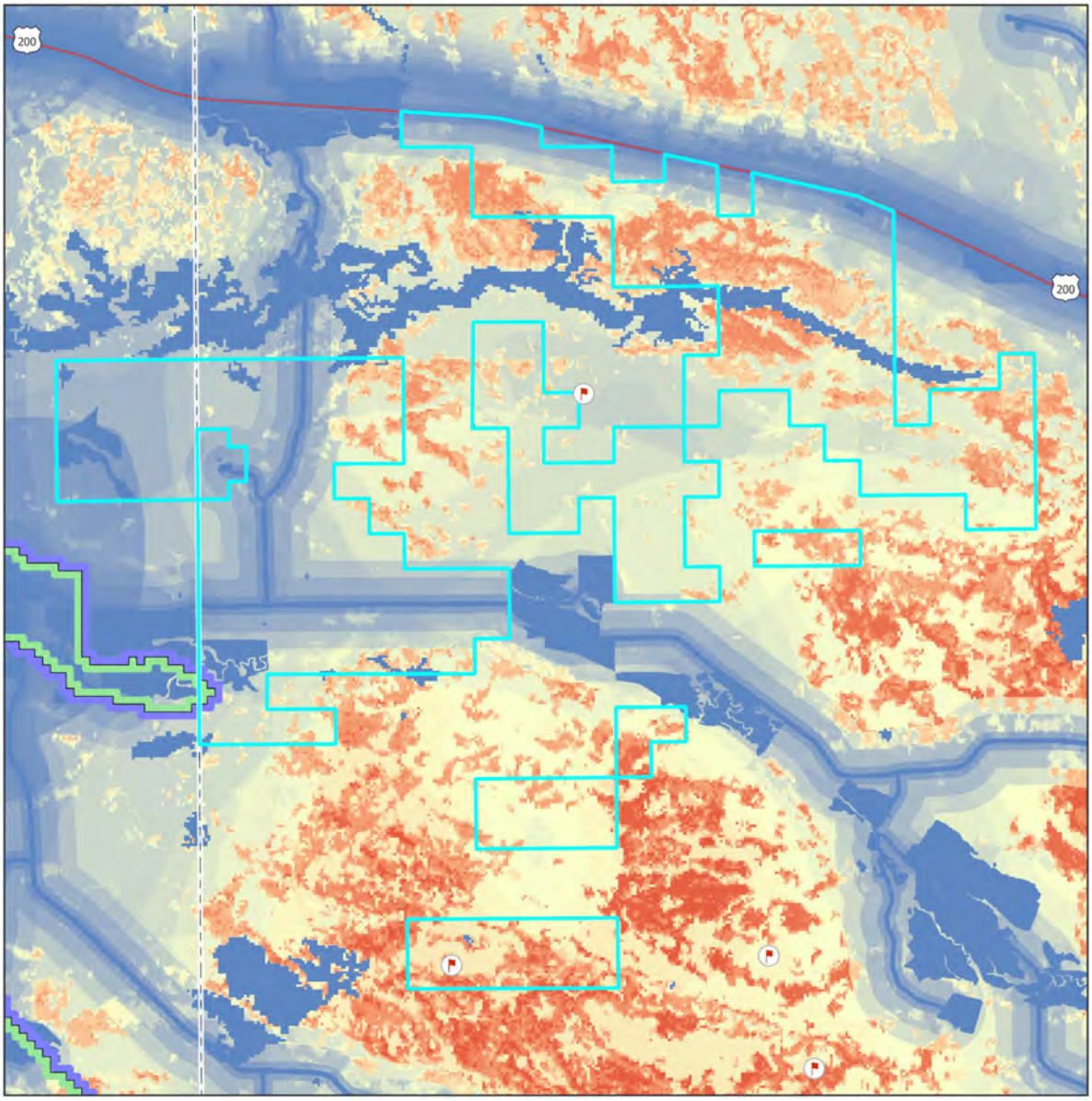
The HQT metrics changed slightly with these modifications, including a slight increase in the Functional Acres Gained per Physical Acres per Year metric from 0.38 to 0.39 due to some acres of low-quality land being removed from the lease for building envelopes. Similarly, Credits Generated per Physical Acre per Year that includes lek multipliers increased from 0.31 to 0.35.

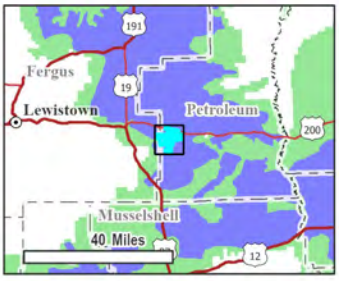
Property ownership for the Schultz-Gran Prairie Ranch Project includes John Nicholas Schultz (Nick Schultz), Marti K. Schultz (Nick's wife), and Nick's parents (John S. Schultz and Nancy J. Schultz).

The cost required for the Petroleum County Conservation District to hold the conservation lease and conduct the required monitoring for 20 years at approximately 16 hours/year to cover 36 miles is $14,450.

Figure 1: Project #4736 - Schultz-Gran Prairie Term Lease

MONTANA SAGE GROUSE
Habitat Conservation Program





HQT Project Metadata

HQT Date: 21 February 2023
Years for Implementation: 0 Years
Years for Maintenance: 20 Years

0 0.75 1.5 Miles

N

Proposed Activity

Lek Points

NHS Interstate

Major Road

Habitat Quality
High
Low

EO-Core Area

EO-Connectivity Area

EO-General Habitat

MONTANA SAGE GROUSE
Habitat Conservation Program

HAYWIRE RANCH:

The original Haywire Ranch conservation lease project approved for funding on October 27, 2022, included 4,518 acres of deeded private land for a 15-year conservation lease. The total Stewardship Account Grant amount awarded was $332,487.49 (plus Conservation District fees).

Since then, the boundary for the conservation lease has been modified, resulting in a decrease of the physical acres included in the project from 4,518 to 4,317. The duration for the conservation lease remains the same at 15 years. After accounting for the modifications to the boundary, the Program updated the HQT results for this project, which include an updated Total Stewardship Account Grant amount of $289,986.60 which results in a total of 27,211.93 credits over 15 years on 4,317 acres of land (Figure 2).

UPDATED CONSERVATION LEASE INFORMATION

Project Information

Project Name	Haywire Ranch
Project ID	4861
Activity Type	Conservation Lease
County	Petroleum
Service Area	Central
Project Duration	15 years
Physical Acres:	
Core Area	*4,064 acres*
General Habitat	*253 acres*
Total	**4,317 acres**

Updated HQT Results

Date of HQT Run	January 19, 2023
Total Credits	**27,211.93**
Total Stewardship Account Grant Amount	**$289,986.60**
HQT Metrics:	
Functional Acres Gained/ Physical Acre/Year	*0.39*
Credits Generated/ Physical Acre/Year	*0.42*

Conservation District Fees

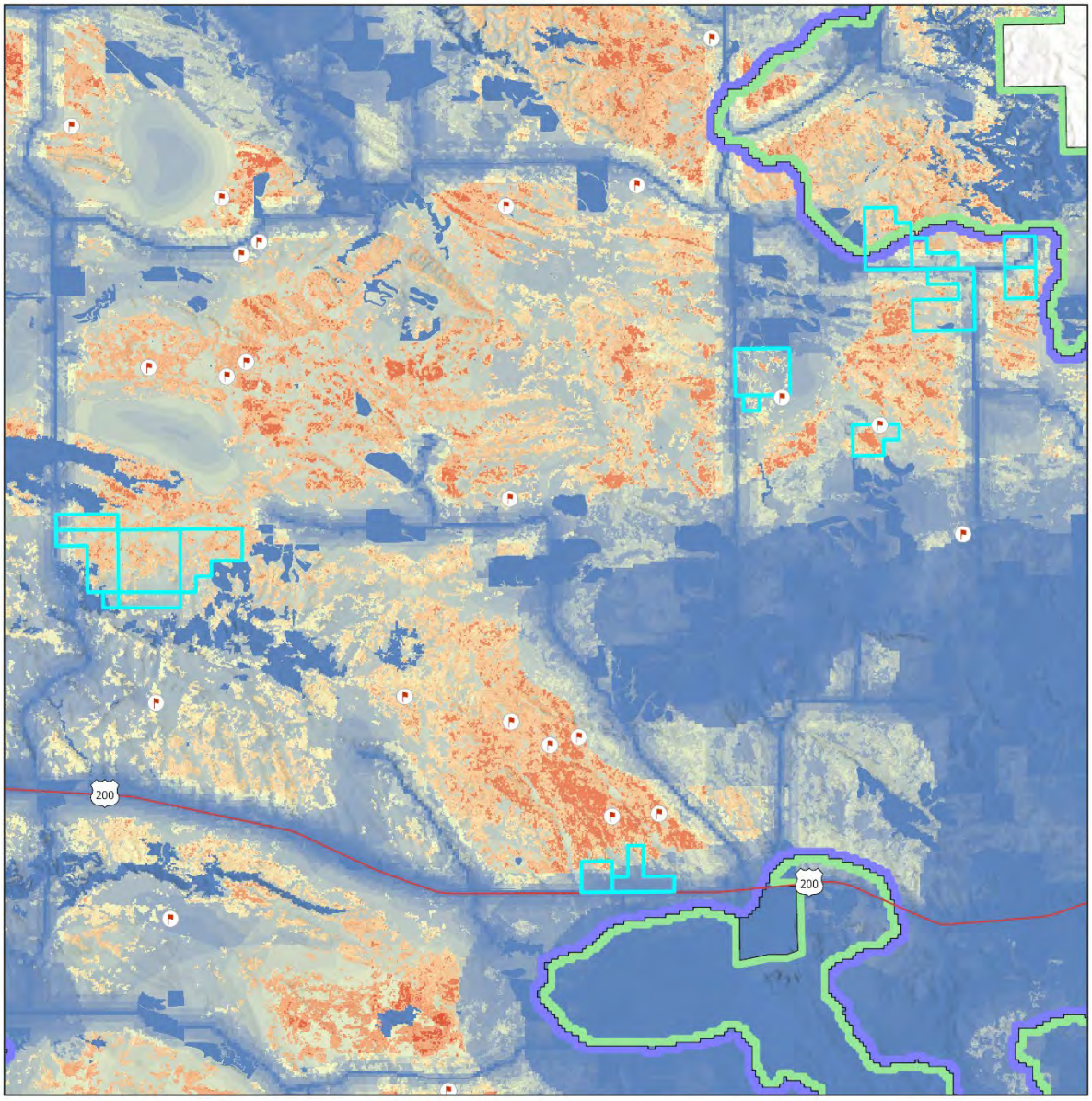
Conservation District	Petroleum County CD
Monitoring Requirements:	
Years of Monitoring	*15 years*
Hours/Year	*20 hours/year*
Miles/Year	*80 miles*
Total Fees	**$12,400.00**

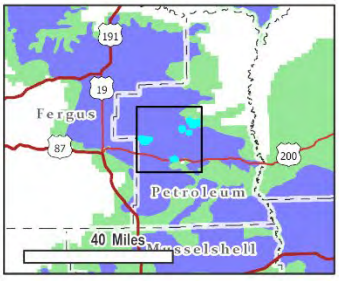
As a result, the HQT metrics changed slightly, including a slight increase in the Functional Acres per Physical Acre per Year metric from 0.38 to 0.39 due to some acres of low-quality land being removed for building envelopes. However, Credits Generated per Physical Acre per Year that includes lek multipliers decreased slightly from 0.46 to 0.42.

Property ownership for the Haywire Ranch Project includes Evert Brady.

The cost required for the Petroleum County Conservation District to hold the conservation lease and conduct the required monitoring for 15 years at approximately 20 hours/year to cover 80 miles is $12,400.

Figure 2: Haywire Ranch Conservation Lease





HQT Project Metadata

HQT Date: 19 January 2023
Years for Implementation: 0 Years
Years for Maintenance: 15 Years

0 1.5 3 Miles

N

NHS Interstate
Major Road

Proposed Activity
Lek Points

Habitat Quality
High
Low

EO-Core Area
EO-Connectivity Area
EO-General Habitat

MONTANA SAGE GROUSE
Habitat Conservation Program

NOWLIN RANCH:

The original Nowlin Ranch conservation lease project approved for funding on October 27, 2022, included 4,410 acres of deeded private land for a 15-year conservation lease. The total Stewardship Account Grant amount awarded was $238,295.33 (plus Conservation District fees).

Since then, the boundary for the conservation lease has been modified, resulting in a decrease of the physical acres included in the project from 4,410 to 3,624. The duration for the conservation lease remains the same at 15 years. After accounting for the modifications to the boundary, the Program updated the HQT results for this project, which include an updated Total Stewardship Account Grant amount of $224,062.90 which results in a total of 21,025.75 credits over 15 years on 3,624 acres of land (Figure 3).

UPDATED CONSERVATION LEASE INFORMATION

Project Information

Project Name	Nowlin Ranch
Project ID	4843
Activity Type	Conservation Lease
County	Petroleum
Service Area	Central
Project Duration	15 years
Physical Acres:	
Core Area	*3,624 acres*
General Habitat	*0 acres*
Total	**3,624 acres**

Updated HQT Results

Date of HQT Run	March 7, 2023
Total Credits	**21,025.75**
Total Stewardship Account Grant Amount	**$224,062.90**
HQT Metrics:	
Functional Acres Gained/ Physical Acre/Year	*0.46*
Credits Generated/ Physical Acre/Year	*0.39*

Conservation District Fees

Conservation District	Petroleum County CD
Monitoring Requirements:	
Years of Monitoring	*15 years*
Hours/Year	*16 hours/year*
Miles/Year	*15 miles*
Total Fees	**$9,250.00**

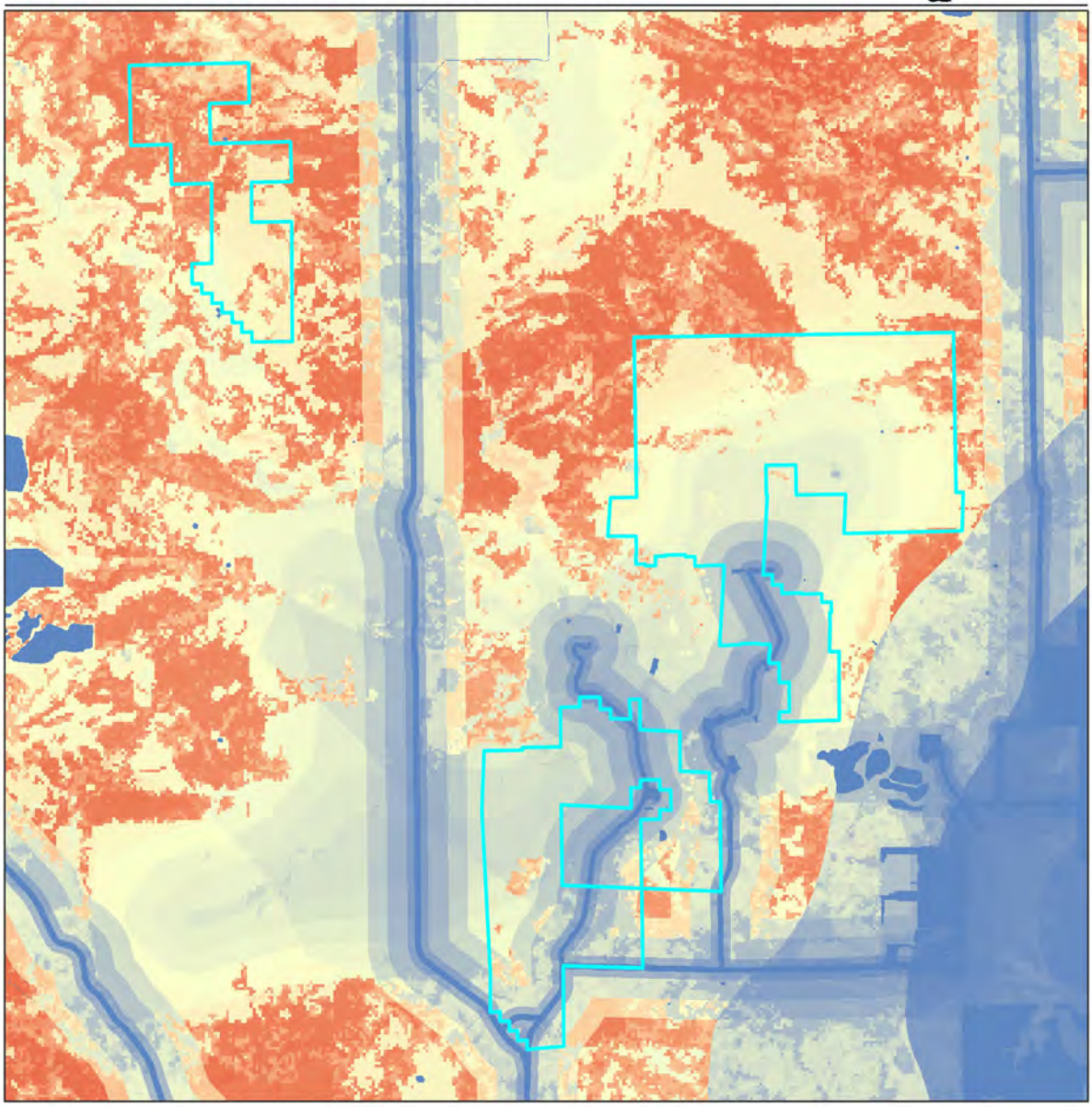
As a result, the HQT metrics changed slightly, including a slight increase in the Functional Acres per Physical Acre per Year metric from 0.44 to 0.46. Similarly, Credits Generated per Physical Acre per Year that includes lek multipliers increased slightly from 0.34 to 0.39.

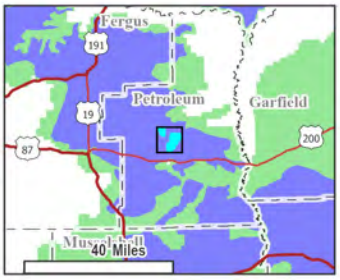
Property ownership for the Nowlin Ranch Project remains undetermined.

The cost required for the Petroleum County Conservation District to hold the conservation lease and conduct the required monitoring for 15 years at approximately 16 hours/year to cover 15 miles is $9,250.

Figure 3: Nowlin Ranch Conservation Lease

MONTANA SAGE GROUSE
Habitat Conservation Program





HQT Project Metadata

HQT Date: 07 March 2023
Years for Implementation: 0 Years
Years for Maintenance: 15 Years

0 0.65 1.3 Miles

N

NHS Interstate
Major Road

Proposed Activity
Lek Points

Habitat Quality
High
Low

EO-Core Area
EO-Connectivity Area
EO-General Habitat

MONTANA SAGE GROUSE
Habitat Conservation Program

U.S. Department of the Interior
Bureau of Land Management

Agenda Item 5

Greater Sage-Grouse Planning Amendments

Status and Strategy

Preliminary Planning Discussion

BLM MT/Dak Update to MSGOT: May 2023

Briefing Overview

1. Background
2. Current Planning Effort
3. Next Steps
4. Questions

BLM Land Use Plans

- Land Use Plans in the BLM
  1. Determine appropriate multiple uses
  2. Allocate resources and provide a strategy to protect resources
  3. Establish systems to monitor effectiveness
- RMP Amendments vs. Revisions
- Steps
  - Scoping → Draft → Public Comment → Final → Review/Protest → ROD

Current Planning Effort

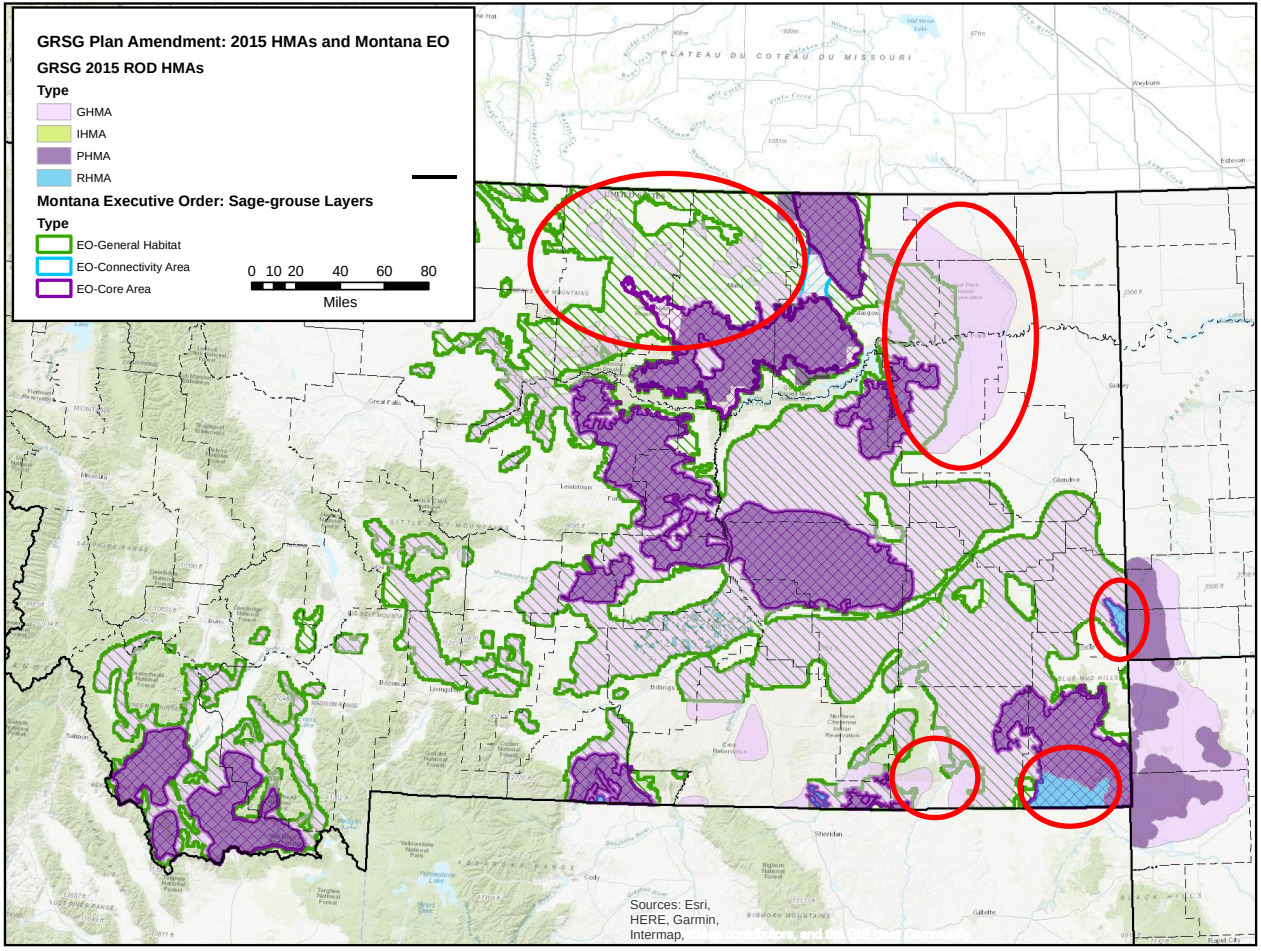
Building on the foundation of prior planning efforts we will incorporate new science and work to address concerning trends to improve GRSG conservation.

The goal of this effort is to provide BLM with locally relevant decisions that slow or stop the decline of GRSG populations through effective habitat management

Current Planning Effort

The BLM need to amend land use plans for GRSG:

- Incorporate recent developments in relevant science
- Evaluate ongoing sagebrush habitat challenges
- Consider consistency with state plans and DOI priorities
- Address court concerns and improve durability


GRSG Plan Amendment: 2015 HMAs and Montana EO
GRSG 2015 ROD HMAs
Type
GHMA
IHMA
PHMA
RHMA
Montana Executive Order: Sage-grouse Layers
Type
EO-General Habitat
EO-Connectivity Area
EO-Core Area
0 10 20 40 60 80
Miles
PLATEAU DU COTEAU DU MISSOURI
Sources: Esri, HERE, Garmin, Intermap,

Current Planning Effort: Progress

- Initiation (*Complete*)
  - Notice of Intent
  - Scoping
  - Cooperating Agencies
- Range of Alternatives (*Ongoing*)
  - Cross-cutting issues developed from scoping
  - Habitat Boundaries (updates since 2015)
  - State level issues
- Environmental Impact Statement (*Ongoing*)
  - Chapter outlines
  - Affected environment

Range of Alternatives: Concepts

U.S. Department of the Interior
Bureau of Land Management

Greater Sage-Grouse Planning

March 29, 2023 | Update Newsletter

Introduction

Greater sage-grouse (GRSG) depend on healthy sagebrush communities. The expansive sagebrush ecosystem on which this bird depends is managed by a mix of federal, tribal, state, and local agencies, as well as private landowners. Approximately half of GRSG habitat is managed by the Bureau of Land Management (BLM). State and Tribal-led efforts to conserve the species and its habitat date back to the 1950s. For the past three decades, state wildlife agencies, federal agencies, and many others in the range of the species have been collaborating to conserve GRSG and its habitats.

HMA Alternatives and Associated Allocations: Action Alternatives

Alt 3	Alt 4	Alt 5
Adjust habitat boundary with state and other feedback to capture current habitat	Adjust HMA boundaries with state and other feedback based on new information/science. Consider ACECs	Adjust HMA boundaries with state and other feedback based on new information/science.
All areas managed for GRSG would be priority. Most protective approach.	Adjust management to clarify approach and/or incorporate new info	For select issues, different approaches or values (e.g., no net loss vs. net gain)

See handout/newsletter for concepts and approaches.

Next Steps:

- Develop alternatives with cooperators – focusing on considering new data and management issues to stop GRSG habitat loss and population declines.
- Evaluate ACEC nomination(s) received during scoping.
- Analyze alternatives in EIS and release draft for public comment (90 days).
- Respond to comments, adjust alternatives, etc.


Questions/Discussion
markgocke.com

U.S. Department of the Interior
Bureau of Land Management

Greater Sage-Grouse Planning

March 29, 2023 | Update Newsletter

INTRODUCTION

Greater sage-grouse (GRSG) depend on healthy sagebrush communities. The expansive sagebrush ecosystem on which this bird depends is managed by a mix of federal, tribal, state, and local agencies, as well as private landowners. Approximately half of GRSG habitat is managed by the Bureau of Land Management (BLM). State and Tribal-led efforts to conserve the species and its habitat date back to the 1950s. For the past three decades, state wildlife agencies, federal agencies, and many others in the range of the species have been collaborating to conserve GRSG and its habitats.

The BLM is currently considering amendments to its resource management plans (RMPs) to enhance GRSG conservation through management of sagebrush habitats on BLM-administered lands in 10 states - California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah and Wyoming. Public scoping for this effort concluded more than a year ago.

The BLM is not inviting public comments on this newsletter. There will an opportunity for the public to review and comment on the Draft Environmental Impact Statement (EIS), inclusive of all its applicable context and details, when it is published later this year.

PLANNING BACKGROUND

In 2010, the US Fish and Wildlife Service (USFWS) determined that listing the GRSG under the Endangered Species Act of 1973 (ESA) was "warranted but precluded" by other priorities. The USFWS made this determination based on continued decline of GRSG habitats and on inadequacy of regulatory mechanisms guiding habitat management. In response, the BLM, in coordination with the United States Department of the Interior and the United States Department of Agriculture United State Forest Service (USFS), developed a management strategy that included updating GRSG management actions in its land use plans.

In September 2015, the BLM and USFS adopted amendments and revisions to 98 RMPs across 10 western states. The amended goals, objectives, and actions in these RMPs included management of GRSG habitat on BLM-administered surface and mineral estates, as well as on National Forest System Lands. The purpose of these amendments was to address the various threats to GSRG across the range that were within the jurisdiction of the BLM and USFS. Collectively, these plans govern the management of 67 million acres of GRSG habitat on federal lands. Subsequently, the USFWS determined that the GRSG did not warrant listing under the ESA based in part on regulatory certainty from the federal RMP amendments and revisions.

In October 2017, the BLM initiated another planning process to consider changes to GRSG management actions to align with state plans. The subsequent Records of Decisions (RODs) for these state-specific

processes were issued in March 2019. The changes to GRSG management actions through the 2019 planning process varied by state. This resulted in multiple changes from the 2015 amendments in some states, fewer in others, and none in Montana and North and South Dakota.

In October 2019, the US District Court for the District of Idaho issued an order which temporarily enjoined the BLM from implementing the 2019 RODs. However, the court did not vacate the amendments or their Records of Decision. The BLM prepared supplemental EISs to address and clarify the issues identified in the Court's injunction. RODs associated with those supplemental EISs were signed in January 2021, though those RODs did not change management identified in the 2019 RODs. Until the court makes a final ruling on the merits of the case, the BLM is enjoined from implementing the amended actions from the 2019 RODs, and the actions contained in the 2015 RODs remain in effect.

The maps and language for the 2015, 2019, and 2021 planning efforts can be accessed through links on the BLM's GRSG website: www.blm.gov/programs/fish-and-wildlife/sagegrouse/blm-sagegrouse-plans.

GREATER SAGE-GROUSE POPULATION AND HABITAT TRENDS

Quantity and quality of habitat can affect the size and trend of the populations, as can non-habitat factors such as disruptive activities, drought. Recent data suggests we continue to observe declines in sagebrush habitats and sage-grouse populations throughout the range.

Each spring State wildlife agencies conduct lek counts to track GRSG populations. GRSG populations experience natural population fluctuations and monitoring indicates the most recent nadirs (low point of population cycles) are lower than the prior nadirs in most states. The U.S. Geological Survey[1] has also analyzed state-collected lek data and reported estimated range-wide population declines of 80 percent from 1966-2019 and of 37 percent from 2002-2019. While the study identified areas in the range where populations were stable to increasing, the researchers found that over 81 percent of areas throughout the range had declining populations since 2002.

For the 2015 GRSG planning effort the BLM worked closely with the States to identify population and habitat adaptive management triggers. If one of the triggers was met, the plans stated that management changes may be appropriate. The BLM's 2021 *Greater Sage-Grouse Plan Implementation Rangewide Monitoring Report for 2015-2020*[2] identified 42 population triggers that had been tripped through 2020. In almost half of the areas evaluated, a management change may help address the causal factor.

Sixteen habitat triggers were also tripped during the same period, with most the result of wildfires and the associated loss of sagebrush habitats:

[1] Coates, P.S., Prochazka, B.G., O'Donnell, M.S., Aldridge, C.L., Edmunds, D.R., Monroe, A.P., Ricca, M.A., Wann, G.T., Hanser, S.E., Wiechman, L.A., and Chenaille, M.P., 2021, Range-wide greater sage-grouse hierarchical monitoring framework—Implications for defining population boundaries, trend estimation, and a targeted annual warning system: U.S. Geological Survey Open-File Report 2020–1154, 243 p., https://doi.org/ 10.3133/ ofr20201154.

[2] Herren, V., E. Kachergis, A. Titolo, K. Mayne, S. Glazer, K. Lambert, B. Newman, and B. Franey. 2021. Greater sage-grouse plan implementation: Rangewide monitoring report for 2015–2020. U.S. Department of the Interior, Bureau of Land Management, Denver, CO.

- Analyses of west-wide satellite maps determined sagebrush availability across all land ownerships declined by approximately 3 percent (1.9 million acres) between 2012 and 2018.

- Nearly 60 percent of the sagebrush losses occurred on BLM-managed lands (approximately 1.1 million acres range wide).

The BLM also estimates the amount of disturbance from infrastructure across GRSG range. The Monitoring Report estimated that in Priority Habitat Management Areas (PHMA) – and Important Management Areas (IHMA) in Idaho – the percent of anthropogenic disturbance was less than one percent – below what literature has identified as the threshold where GRSG abandon leks.

Compared to PHMA and IHMA, disturbance from infrastructure in General Habitat Management Areas (GHMA) and other state-specific habitat management area designations is higher. Range-wide, disturbance estimates in these areas is approximately 1.58 percent.

NEW SCIENCE

Since 2015, hundreds of peer-reviewed scientific publications on GRSG and management of their habitats have been published. Some of these new publications are consistent with science that the BLM previously considered. A review of this new information found some of the BLM's current RMP management may be inconsistent with some of the new science. This includes the need to potentially modify habitat management areas to consider new GRSG biological information, and the effects of climate change that may affect plan durability.

PURPOSE OF AND NEED FOR PLANNING

More than 70 BLM RMPs include management for GRSG habitat conservation and restoration on approximately 67 million acres of GRSG habitat that the BLM manages across 10 western states. Managing for healthy and resilient sagebrush habitat is considered essential to the long-term health of GRSG populations that continue to experience pressure from a variety of factors, including invasive grasses, wildfire, drought exacerbated by climate change, and development.

This planning process is needed to address the continued GRSG habitat losses and declines in GRSG populations, to consider the recent developments in relevant science (including providing for durable planning decisions when considering the effects of climate change), to address concerns raised by the courts, and to address the issues related to GRSG management raised through scoping.

The purpose of this action is to consider targeted amendments that respond to changed conditions, to provide the BLM with locally relevant decisions that accord with range-wide GRSG conservation goals, and to provide continuity in managing GRSG habitats based on biological information versus political boundaries. In addition, this effort will address issues identified through litigation, including range-wide cumulative effects.

The BLM has an obligation to initiate proactive conservation measures to reduce threats to species like GRSG. The goal for this BLM planning effort is to conserve and manage GRSG habitats to support persistent, healthy GRSG populations, consistent with the BLM's sensitive species policy and in cooperation with state governments and other conservation partners. It also seeks to maintain existing habitat connectivity between GRSG populations.

ISSUES IDENTIFIED THROUGH SCOPING

The BLM refined the list of issues from the Notice of Intent based on input received during the public scoping period. That list can be found in chapter 3 of the Scoping Report, available on the project's ePlanning site: https://eplanning.blm.gov/eplanning-ui/project/2016719/570.

Working from that list of issues, the BLM reviewed the management decisions from the 2015 and 2019 plans and determined that not all the decisions needed to be reconsidered in this effort. For example, management associated with fire and invasives was extensively addressed in prior plan amendments.

SUMMARY DESCRIPTION OF PRELIMINARY RANGE OF ALTERNATIVES

The following table presents a high-level conceptual summary of the BLM's preliminary draft range of alternatives for this planning process. It is a high-level snap-shot of the agency's work at a specific point in time in the planning process. The specific alternative language is still being developed by the BLM in coordination with its cooperating agencies.

The BLM is not inviting public comments on the draft summary alternative language in this newsletter. This table is presented solely as part of a public update on the planning process. The entirety of the alternatives, including the specific text and all applicable context, will be provided later this year in the Draft EIS. When that document is completed, the BLM will provide it for public review and invite the public to provide comments in conformance with the National Environmental Policy Act.

Alternative 1 (from 2015)	Alternative 2 (from 2019)	Alternative 3	Alternative 4	Alternative 5
Resource Management Plan Greater Sage-Grouse (GRSG) Goal/Objective				
All states include language to maintain and enhance sagebrush habitats with the intent of conserving sage-grouse populations. The exact language varies by state.	Same as Alt 1.	Conserve and manage greater sage-grouse habitats to support persistent, healthy populations, consistent with BLM's sensitive species policy and in coordination with state wildlife agencies. Conservation and management should maintain existing connectivity between GRSG populations.	Same as Alt 3.	Same as Alt 3.
Key Component/Management Issue: Habitat Management Area Alignments and Associated Major Land Use Allocations				
Affirms Habitat management area (HMA) boundaries from 2015 amendments (as maintained). Maintains Sagebrush Focal Areas (SFAs) from 2015 amendments.	Affirms HMA boundaries from 2019 amendments. SFAs removed in UT, WY, NV, and ID. SFA remain in MT and OR UT removed GHMA, though there were no allocations specific to GHMA from the 2015 amendments, so there are no allocation changes from its removal.	All areas managed for GRSG would be PHMA. Some states are considering expanding HMAs to include areas of adjacent non-habitat, unoccupied historic habitat, or areas with potential to become habitat as PHMA.	The BLM is coordinating with state wildlife agencies to consider adjustments to existing HMA boundaries based on a review of how those boundaries relate to new information and science. Areas nominated as areas of critical environmental concern (ACEC) that BLM evaluated to meet the regulatory criteria would be considered for designation and management.	The BLM is coordinating with state wildlife agencies to consider adjustments to existing HMA boundaries based on a review of how those boundaries relate to new information and science. Could also consider adjustments based on balancing the various multi-use opportunities across the landscape while continuing to provide for GRSG needs. No ACEC(s) No SFAs

Summarized <u>PHMA</u> (and ID IHMA) allocations:
• Fluid minerals:
  ○ Most states are NSO (PHMA and IHMA) and/or have seasonal restrictions. WY and MT are also subject to density and disturbance limits. CO is closed within 1 mile of lek.
• Salable minerals:
  ○ Most states closed in PHMA and IMHA, but open for new free use permits (except ID). WY has seasonal restrictions, and WY and MT subject to
	Summarized <u>PHMA</u> (and ID IHMA) allocations:
	• Fluid minerals – Same as Alt 1, except CO has no closed areas.
	• Salable minerals – Same as Alt 1, except ID allows consideration of new free use permits and NV added exception criteria to the closure.
		Summarized <u>PHMA</u> allocations:
		• Fluid minerals – Closed to leasing
		• Salable minerals – Closed
			Work on the HMA boundaries and associated allocations is ongoing. They will largely be based on Alts 1 and 2, with adjustments based on HMA review, presence of a potential ACEC, or other state-specific considerations. Details are still being determined.	Work on the HMA boundaries and associated allocations is ongoing. They will largely be based on Alts 1 and 2, with adjustments based on HMA review, or other state-specific considerations. Details are still being determined.

Alternative 1 (from 2015)	Alternative 2 (from 2019)	Alternative 3	Alternative 4	Alternative 5
density and disturbance limits. • Non-Energy minerals: o All states closed but can consider expansion of existing leases. WY has seasonal restrictions, and WY and MT subject to density and disturbance limits. o IHMA (ID) open in Known Phosphate Lease Areas.	• Non-Energy minerals – Same as Alt 1, except NV added exception criteria to the closure.	• Non-Energy minerals – Closed		
• Coal: o CO, MT/DK, UT, and WY state that PHMA would be "essential habitat" for unsuitability evaluation. ID, NV/CA, and OR did not address coal due to absence of the mineral.	• Coal – Same as Alt 1, except in UT where essential habitat would be identified as part of future unsuitability criteria.	• Coal: o CO, MT/DK, UT and WY would be same as UT Alt 2.		
• Locatable minerals – Recommendation to withdraw all SFAs from location and entry under the United States mining laws.	• Locatable minerals: Recommendation for SFA withdrawal removed except in MT/DK which did not do a 2019 amendment.	• Locatable minerals – Recommendation to withdraw PHMA from location and entry under the United States mining laws		
• Rights-of-Way (ROW): o All states are Avoidance for major ROWs. All states avoidance for minor ROWs except WY which is open with buffers and mitigation.	• ROW – Same as Alt 1 with additional exception criteria added in NV.	• ROW – Exclusion (outside of designated corridors)		
• Wind: o PHMA is exclusion except in WY where PHMA is avoidance or open if no impact to GRSG. IHMA is avoidance. OR is Avoidance in Lake, Harney, and Malheur Counties.	• Wind – Same as Alt 1 with additional exception criteria added in NV.	• Wind – Exclusion		
• Solar: o PHMA is exclusion (utility scale only in ID, NV/CA	• Solar – Same as Alt 1, except NV added exception criteria to the closure.	• Solar – Exclusion		

Alternative 1 (from 2015)	Alternative 2 (from 2019)	Alternative 3	Alternative 4	Alternative 5
and OR) except in WY where solar was not addressed. ID IHMA is Avoidance. ○ OR is Avoidance in Lake, Harney, and Malheur Counties. • Livestock grazing – PHMA (and ID IHMA) are available. • Trails and Travel – Limited to existing roads and trails, with cross-country use allowed where suitable based on local conditions (e.g., sand dunes, rocky areas, etc.). **Summarized <u>GHMA</u> allocations:** • Fluid minerals – ○ Closed within 1 mile of leks (CO, OR) ○ NSO within 2 (CO), 1 (OR) or 0.25 (WY) mile of leks. UT is NSO but distance varies by office. ○ Controlled Surface Use (seasonal restrictions and/or buffers) in ID, NV/CA OR, WY • Salable minerals – Most states have minimization measures. • Non-Energy minerals – Most states have minimization measures. • Coal: No state mentioned coal management in GHMA. • Locatable minerals – No GHMA is recommended for withdrawal. • ROWs – ○ CO, NV/CA, and OR Avoidance for major ROWs. ○ ID and UT open to major ROWs with minimization measures.	• Livestock grazing – Same as Alt 1. • Trails and Travel – Same as Alt 1. **Summarized <u>GHMA</u> allocations:** • Fluid minerals – same as Alt 1, except CO changed the closure to NSO. • Salable minerals – Same as Alt 1. • Non-Energy minerals – Same as Alt 1. • Coal – Same as Alt 1. • Locatable minerals – Same as Alt 1. • ROWs – Same as Alt 1.	• Livestock grazing – Unavailable • Trails and Travel – Same as Alt 1. **Summarized <u>GHMA</u> allocations:** Not applicable to this alterative, as there would be no other HMA types.		

Alternative 1 (from 2015)	Alternative 2 (from 2019)	Alternative 3	Alternative 4	Alternative 5
○ WY is open to major ROWs. ○ All states are open to minor ROWs with mitigation (WY does not require mitigation). • Wind - ○ CO, MT/DK, NV/CA, and OR are Avoidance ○ ID, UT and WY are open. • Solar - ○ CO, MT/DK and OR are Avoidance ○ NV/CA and UT are Exclusion ○ ID and WY are open. • Livestock grazing – available for livestock grazing. • Trails and Travel – Limited to existing roads and trails, with cross-country use allowed where suitable based on local conditions (e.g., sand dunes, rocky areas, etc.).	• Wind – Same as Alt 1, NV/CA added exception criteria to the avoidance. • Solar – Same as Alt 1. • Livestock grazing – Same as Alt 1. • Trails and Travel – Same as Alt 1.			
Key Component/Management Issue: Mitigation				
• CO, ID, MT/DK, NV/CA, OR, UT: Require and ensure mitigation that achieves a net conservation gain in all HMA types. • In WY: Same as others in PHMA. No mitigation requirements in GHMA.	• MT/DK, NV/CA and OR same as Alt 1. • BLM does not require compensatory mitigation but will enforce state mitigation policies and programs • CO and ID provide mitigation resulting in no net loss. • UT and WY removed the net conservation gain requirement. • CO, ID, NV/CA, OR, UT and WY specify that compensatory mitigation would be voluntary unless required by laws other than FLMPA or by the State.	All states: • Same as Alt 1 with avoidance emphasized. Compensatory mitigation would need to fully offset any residual effects on habitat function and value. Compensatory mitigation efforts must be sufficient to fully offset both direct and indirect residual impacts at the scale necessary to meet the RMP GRSG goals and objectives.	All states: • Mitigation will maintain habitat values (i.e., no net loss; all habitat designations), unless the state applies a higher standard. • If long-term trends (two nadirs) indicate a decreasing population, or if an adaptive management trigger is tripped, compensatory mitigation would be required to demonstrate an improvement in habitat services beyond merely replacing what was lost. Additional compensatory mitigation may be required where triggers have been tripped.	All states: • Mitigation will maintain habitat values (i.e., no net loss; all habitat designations), unless the state applies a higher standard. If activities are not avoided or addressed through minimization, any remaining impacts will be addressed through compensation. Compensatory mitigation would need to fully offset any residual effects on habitat function and value and must be sufficient to fully offset both direct and indirect residual impacts at the scale necessary to meet the

Alternative 1 (from 2015)	Alternative 2 (from 2019)	Alternative 3	Alternative 4	Alternative 5
			Compensatory mitigation would need to fully offset any residual effects on habitat function and value and must be sufficient to fully offset both direct and indirect residual impacts at the scale necessary to meet the RMP GRSG goals and objectives.	RMP GRSG goals and objectives.
Key Component/Management Issue: Application of Habitat Objectives				
• CO, ID, MT/DK, NV/CA, UT, includes general narrative associated with the habitat objective tables that notes the indicators and values from table would be considered when authorizing activities in GRSG habitat. With WY and OR these states note the values would be used during the land health evaluation process to help determine if the standard applicable to GRSG habitat is being met. • MT/DK and UT includes language that the values may be adjusted based on local factors, data, or updated science. • UT includes a qualitative desired condition separate from the quantitative values in the table.	• CO, ID, MT/DK, NV/CA, UT, includes general narrative associated with the habitat objective tables that notes the indicators and values from table would be considered when authorizing activities in GRSG habitat. With WY and OR these states note the values would be used during the land health evaluation process to help determine if the standard applicable to GRSG habitat is being met. • ID, MT/DK, NV/CA, OR, and UT includes language that the values may be adjusted based on local factors, data, or updated science. • ID and UT include a qualitative desired condition separate from the quantitative values in the table.	All States: The habitat objectives would identify the desired outcome for habitat on BLM-administered lands in all GRSG HMAs: management of activities to support suitable GRSG habitat at multiple scales, supporting connected mosiacs of sagebrush to provide seasonal habitats and dispersal. The specific tables identifying indicators and benchmarks that various scientific publications throughout the range have identified as guidelines for habitat managers would be retained in the monitoring appendix as a tool through which suitability is informed.	Same as Alt 3.	Same as Alt 3.
Key Component/Management Issue: Disturbance Cap				
• CO, ID, NV/CA, OR, UT, Dakotas: 3% cap does not include fire or agriculture. In ID the cap can be exceeded in utility corridors if benefit to GRSG. Cap applies at both biologically significant unit (BSU)-scale and at proposed project analysis area within PHMA.	• CO, ID, NV/CA, OR, UT, Dakotas: 3% cap does not include fire or agriculture. In ID the cap can be exceeded in utility corridors if benefit to GRSG. In UT the cap can be exceeded if will benefit GRSG. The cap is applied at the BSU and project scale except in ID which just applies it at the BSU scale.	All states: • 3% cap for new and pre-existing authorizations (subject to valid existing rights) in the project analysis area and within Habitat Assessment Framework (HAF) Fine-Scale boundaries while honoring valid existing rights. Cap would include	All states: • 3% cap in the project analysis area in PHMA, applicable only to infrastructure. • 3% cap in PHMA in the HAF Fine-Scale boundaries, applicable only to infrastructure. Loss of habitat from wildfire and agriculture would be addressed	• All states: 3% cap in PHMA in the HAF Fine-Scale boundaries. Applicable only to infrastructure. • WY and MT: 5% cap at the project analysis area in PHMA. Includes fire and agriculture. • All other states: 3% cap at project analysis area in

Alternative 1 (from 2015)	Alternative 2 (from 2019)	Alternative 3	Alternative 4	Alternative 5
• MT, WY: 5% cap at the project area scale in PHMA. Includes wildfire and agriculture.	• MT, WY: Same as Alt 1.	infrastructure, fire, and agriculture.	through the sagebrush availability objective already included by all states, as well as the habitat objectives.	PHMA. Does not include fire or agriculture. Loss of habitat from wildfire and agriculture would be addressed through the sagebrush availability objective already included by all states, as well as the habitat objectives.
Key Component/Management Issue: Fluid Mineral Development and Leasing Objective				
• CO, ID, ND, NV/CA, OR, UT, WY, parts of MT/DK (Dillon, Billings, HiLine, Miles City, ND, SD): Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMAs and GHMAs, or within the least impactful areas within PHMA and GHMA if avoidance is not possible. • No similar objective in Lewistown or Butte.	• CO, ID, OR, and MT/DK offices: Same as Alt 1. • UT, NV/CA: Removed the objective. • WY: Leasing allowed in PHMA, and if the BLM has a backlog of Expressions of Interest for leasing, the BLM will prioritize work first in non-habitat followed by lower habitat management areas (e.g., GHMA). Clarified for fluid mineral development on existing leases that could adversely affect GRSG populations or habitat, the BLM would work with the lessees, operators, or other project proponents to avoid, reduce, and mitigate adverse impacts consistent with lessees' rights.	All states: • The leasing prioritization objective would not be applicable since all PHMA would be closed to new leasing, and all HMAs would be PHMA.	All states: • Clarify the objective associated with fluid mineral leasing on what should be considered when determining whether to offer a parcel of GRSG HMA for leasing. • Adjust the objective to focus on how fluid mineral development associated with existing leases could be prioritized in a manner that minimizes adverse impacts to GRSG and its habitat to the extent compatible with the lessees' surface use rights (43 CFR 3101.1-2).	All states: • Remove the leasing objective. Determining whether to offer a parcel for lease would consider the goals, objectives, and allocations in the RMP. Any offered lease would include the GRSG stipulations included in the RMP.
Key Component/Management Issue: Fluid Mineral Leasing Waivers, Exceptions, and Modifications				
• CO, ID, MT/DK, NV/CA, OR, UT: No waivers or modifications. An exception can be considered if action is alternative to action on nearby parcels that would be more harmful to GRSG (with partner agency approval). • WY: Waivers, exceptions, and modifications available at the discretion of the authorized officer, in coordination with	• MT/DK, OR, and WY are same as Alt 1. • ID is similar to Alt 1 but removed the requirement for concurrent approval from other agencies. • CO, NV/CA and UT developed state-specific exceptions, modifications, and waivers.	All states: • All PHMA would be closed to leasing, so no waiver, exception, or modification would be needed.	All states: • Include exceptions, modifications, and waivers for fluid mineral stipulations, but clarify that they can be excepted, modified or waived if the authorized officer determines the factors leading to the inclusion of the stipulation have changed sufficiently to make the protection longer justified, or if the proposed operations	Same as Alt 4.

Alternative 1 (from 2015)	Alternative 2 (from 2019)	Alternative 3	Alternative 4	Alternative 5
WGFD, if no adverse impact to GRSG.			would not cause unacceptable impacts to GRSG or its habitat.	
Key Component/Management Issue: Minimizing Threats from Predation				
• All states include some language related to reducing opportunities for avian predators (e.g., references in an objective, a management action, Required Design Feature or Best Management Practice). • NV/CA, UT, and WY include language to minimize predator subsidies, and encouraging coordination with other partners on predator management. • CO, NV/CA, and UT discuss habitat management to provide GRSG concealment from predators.	• Same as Alt 1, except UT added language addressing corvid nests.	All states: Desired condition on public lands is to manage habitat so predation is at natural levels. Measures could include the following: • Managing for suitable habitat (objectives) by managing for sufficient hiding cover. • Reducing or eliminating anthropogenic subsidies. • Managing public lands to stop, slow, and/or discourage the incursion of novel predators. • Requiring predator management plans for new developments to minimize and monitor/report predation issues. • Working with partners on direct reduction of predator numbers where conditions warrant.	Same as Alt 3.	Same as Alt 3.
Key Component/Management Issue: Improper Livestock Grazing				
All states: • GRSG management areas are available for livestock grazing, except OR, where all or portions Research Natural Areas would be unavailable. • Prioritize monitoring and renewal of grazing in SFAs and PHMAs outside of SFAs. • Include/adjust permit terms and conditions needed to meet land health standards and GRSG habitat objectives. • Require thresholds and responses to address and respond to future conditions in new fully processed permits.	All States: Same as Alt 1, except: • UT: all actions addressing were addressed outside the RMP so removed prioritization. • WY: clarifications on grazing in riparian areas, management of range improvements, application of land health standards to GRSG, and prioritization (removed SFAs). • ID: Clarifications to applying the habitat objectives to land health standards were made. • NV: Clarifications to applying the habitat objectives to land	PHMA would be unavailable for livestock grazing.	All states: • GRSG management areas are available for livestock grazing, except in OR, where all or portions of 13 key RNAs would be unavailable. Within HMAs, management will focus on: • Managing livestock grazing to meet the land health standards, as informed by the site-scale HAF suitability. • New grazing permits in portions of PHMA, GHMA, and IHMA where site-scale habitat is unsuitable would	Same as Alt 4, potentially focusing thresholds and responses on the areas with the greatest potential to impact GRSG.

Alternative 1 (from 2015)	Alternative 2 (from 2019)	Alternative 3	Alternative 4	Alternative 5
• Language related agency considerations if a permittee voluntarily relinquishes a permit or lease.	health standards were made. Prioritization in SFAs was removed. • OR: Livestock grazing in the 13 key RNAs was returned to language that pre-dated the 2015 amendments.		incorporate terms and conditions, as well as thresholds and responses, to move towards providing suitable habitat.	
Key Component/Management Issue: Wild Horse and Burro Management				
All states (where wild horses and burros overlap with GRSG): • Manage wild horse and burro populations within established appropriate management levels (AML). • Incorporate GRSG habitat objectives into wild horse and burro management (e.g., herd management area plans, AML, etc.) monitoring, and gather prioritization (SFA, then PHMA, then GHMA).	• Same as Alt 1, except removal of references to SFAs and removal of the reference to GHMA in UT.	All states: • In those PHMAs with existing herd management areas, wild horses and burros would be removed.	All states: • Same as 1, with references to SFAs removed. • Considering whether potential ACEC(s) management would include removing wild horse and burro herd management areas in the Herd Areas that overlap the potential ACEC(s).	All states: • Same as 1, with references to SFAs removed.
Key Component/Management Issue: Adaptive Management				
All states: • If a hard trigger is tripped, more restrictive management would be required. • The BLM will also undertake any appropriate plan amendments or revision if necessary. There is no consistency in how triggers are calculated across the range. Metrics, thresholds, and timeframes and spatial scales vary state by state. Similarly, the responses associated with adaptive management triggers varies by state.	Same as Alternative 1, though some states applied strategies to improve the process based on lessons learned during implementation between 2015 and 2019, including the addition of “un-triggers”.	None. There is no additional management space within which to adjust to at the RMP level other than more proactive measures, which are dependent on budget and staffing.	The BLM is working with federal (habitat) and state (population) biologists across the GRSG range to develop consistent calculation for adaptive management triggers.	Same as Alternative 4.