

Montana Mitigation System Policy Guidance Document For Greater Sage-Grouse

Version 1.0

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Acknowledgements

The Montana Mitigation System Policy Guidance Document for Greater Sage-Grouse (Policy Guidance) was developed by the Montana Mitigation Stakeholders Team, hosted by the Montana Sage Grouse Conservation Program. This collaborative group met from September 2016 through May 2018 and provided significant input from a wide diversity of perspectives. This document does not represent the consensus opinions of that Team or the approval of any group or individual involved. Participants included:

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Contents of this Document

The Montana Mitigation System Policy Guidance document for Greater Sage-Grouse (Guidance or Policy Guidance) defines the processes and information necessary to create, buy, or sell mitigation credits suitable for meeting sage grouse mitigation requirements within the State of Montana. The State of Montana will apply these standards to mitigation credits developed under the Montana Sage Grouse Stewardship Account. All other entities engaged in the Montana Mitigation System are expected to apply identical standards and criteria to any other sage grouse mitigation mechanisms or projects that seek approval to create, buy, or sell credits for use in Montana.

The primary audiences of this Policy Guidance Document are the Montana Sage Grouse Habitat Conservation Program, the Montana Sage Grouse Oversight Team, state regulatory agencies, federal land management agencies, current and potential credit providers and project developers, and any third parties engaged in Greater Sage-Grouse mitigation in Montana.

This document is organized into seven major Sections, as follows.

Mitigation Policy Guidance Document Contents		
Section 1:	Overview and Roles	Introduces the purpose and need for and the goals of an integrated approach to sage grouse mitigation; summarizes the processes for generating and acquiring credits under the Policy Guidance; outlines the roles and responsibilities of organizations and individuals involved in credit production and use
Section 2:	For Credit Providers	Defines the detailed processes and requirements for generating mitigation credits for sage grouse habitat
Section 3:	For Project Developers	Defines the detailed processes and requirements for acquiring credits to offset impacts to sage grouse habitat
Section 4:	Administration and Adaptive Management	Outlines the processes and requirements for administration and adaptive management of the sage grouse mitigation program
Section 5	Glossary	Defines the terms and acronyms used in this Policy Guidance
Section 6	References	Lists the references used and relied upon by the Mitigation Stakeholders Group and cited in the Policy Guidance
Section 7	Appendices	Executive Order 12-2015 Exempt Activities not subject to mitigation Legal Descriptions of the four Montana Service Areas

TABLE OF CONTENTS

1. Introduction and Overview of the Montana Mitigation System	1
1.1 Montana’s Approach to Greater Sage-Grouse Mitigation.....	8
1.2 Parts of this Policy Guidance Document and How It Fits within the Mitigation System.....	13
1.3 Roles and Responsibilities	14
1.4 General Overview of Steps to Generate Credits and to Acquire Credits to Offset Impacts	18
1.4.1 To Create or Generate Credits.....	18
1.4.2 To Acquire Credits to Offset Impacts	19
2. For Credit Providers: Generating Credits for Compensatory Mitigation	21
2.1 Proposing a Crediting Project.....	22
2.1.1 Project Additionality and Baseline.....	26
2.1.2 Project Duration and Durability.....	30
2.1.3 Site Selection and Conservation Actions	31
2.1.4 Calculating Functional Acres Gained and Converting to Credits.....	34
2.1.5 Adjustments to Credit Amounts to Incentivize Conservation.....	36
2.2 Implementing and Verifying Conditions on Credit Sites	37
2.3 Project Approval and Credit Release	38
2.3.1 Approving a Mitigation Instrument.....	38
2.3.2 Registering Credits.....	39
2.3.3 Credit Release	40
2.3.4 Developing More than One Credit Type on the Same Parcel.....	41
2.4 Implementation, Verification, Tracking, and Adaptive Management	42
2.4.1 Site Performance Standards	42
2.4.2 Requirements for Monitoring Credit Sites and Verification of Credits.....	43
2.4.3 What Happens if Performance Standards are not Being Met.....	43
3. For Project Developers: Applying the Mitigation Sequence, Determining the Number of Debits, and Acquiring Credits	45
3.1 Proposing a Development Project that Will Impact Habitat and Create Debits	46
3.2 Application of the Mitigation Sequence and Consultation.....	49
3.3 Calculating Functional Acres Lost and Converting to Debits.....	50
3.3.1 Adjustments to Credit Requirements to Incentivize Voluntary Conservation, Consistency with Executive Order 12-2015, and Ensure Mitigation is Timely and Effective	53
3.3.2 Development Projects Utilizing Accelerated Reclamation Methods	59
3.3.3 Modified Approach to Mitigation Requirements for New Oil and Gas Development in the Cedar Creek Core Area and Elk Basin within the Carbon County Core Area	62
3.4 Four Montana Service Areas and Site Preference	65
3.4.1 Off-Site, Outside Zone of Influence Preference.....	67
3.4.2 Obtaining Credits from Sites where Credits are Stacked	67
3.5 Duration and In-Kind Definition.....	68
3.6 Purchasing or Creating Credits	68
3.6.1 Consideration of Economic Feasibility Constraints when Mitigation Obligations are High...	70
3.7 Enforcement.....	75
3.8 Implementation, Verification and Tracking.....	76
4. Administration and Adaptive Management	77
4.1 Participant Responsibilities.....	77

4.2 Pricing of Credits Created by MSGOT through Stewardship Account Grants and Determining the Average Credit Price for Financial Contributions when Sufficient Credits are not Available	79
4.3 Pricing of Credits Created by Third Parties Other than MSGOT.....	83
4.4 Adaptive Management.....	84
5. Glossary	88
6. References	95
7. Appendices	97
7.1 Activities Exempt from Mitigation Requirements Pursuant to Executive Order 12-2015.....	97
7.2 MSGOT Programmatic Exceptions.....	98
7.3 Description of Montana’s Four Service Area Boundaries	98
7.4 Application of the Present Value 3% Discount Compared to a Fixed \$13 per Credit to Determine the Cost of Credits Created by Stewardship Account Grants and the Average Price per Credit for Contributions to the Stewardship Account if Sufficient Credits are not Available	101

LIST OF TABLES

Table 2.1. Eligibility requirements for crediting projects.	25
Table 2.2. Summary of policy signal multipliers for credit projects to incentivize voluntary conservation of Montana’s sage grouse habitats.	37
Table 2.3. Documents required for final approval of credit site mitigation instruments.	39
Table 3.1. Activities that are reviewed under Executive Order 12-2015 that typically require a state permit or authorization or utilize state grant funds. Authorization by federal agencies are also likely required for these activities if they involve federal surface or federal minerals. Adherence to the mitigation hierarchy is required.	48
Table 3.2. Summary of Policy Signal Multipliers for development projects to incentivize voluntary conservation and consistency with Executive Order 12-2015. Larger, more complicated projects will be individually analyzed when traversing more than one habitat category, according to its direct and indirect footprint, and for each phase of the project to that multipliers can be adjusted accordingly.	60
Table 7.1. Cost estimates of 3% discount per year applied to hypothetical example project. This hypothetical project example has a five-year Construction phase, a 19-year Operations phase, and a 75-year Reclamation phase. The discounted annual cost per credit is applied to each individual year for the project for its full life (all phases) until the site returns to pre-project baseline condition.	101

LIST OF BOXES

Box 1.1. Habitats where this Policy Guidance is applicable.	7
Box 1.2. Key Mitigation Terms and Definitions.	11

LIST OF FIGURES

Figure 1.1. State of Montana sage grouse habitats designated in Executive Order 21-2015 where this mitigation Policy Guidance document applies.	2
Figure 1.2. Federal lands designated by BLM and USFS land use plans (or amendments) for sage grouse conservation where this mitigation Policy Guidance document applies and shown in pink and purple.	3
Figure 1.3. Montana’s Mitigation System seeks to incentivize voluntary conservation activity to increase the quantity and quality of sage grouse habitat while simultaneously incentivizing conservation by project developers through implementation of the mitigation hierarchy where impacts are offset. A mitigation marketplace provides a platform where conservation actors and developers exchange credits and debits.	6
Figure 1.4. Components of the Mitigation System and how they work together.	15
Figure 1.5. Overview of the steps followed by credit providers to create and sell credits (reading left to right in blue) and steps to followed by developers to obtain credits to offset impacts of the development project (reading right to left in green).	18
Figure 2.1. Schematic overview of the life of a credit from creation of functional acres to conversation to credits, approval, monitoring, and inclusion in the registry.	23
Figure 2.2. General process to determine the number of credits produced during the life cycle of a credit project using the HQT and applying this Policy Guidance (top row, in green).	36
Figure 3.1. Schematic overview of the process a project developer would follow to determine mitigation obligation and obtain the appropriate number of credits.	46
Figure 3.2. The HQT calculates the number of functional acres lost by analyzing the functional acres lost due to the direct footprint separately from the indirect impact area affected by the project. The total of functional acres lost is the sum of the functional acres lost due to the direct footprint plus the functional acres lost in the indirect impact area.	51
Figure 3.3. General process to determine the number of debits created by a development project for the life of the project using the HQT and applying this Policy Guidance (bottom row in tan).	53
Figure 3.4. Location of the Cedar Creek Core Area (right inset) and Elk Basin (left inset) within the Carbon County Core Area where the modified approach to the mitigation hierarchy requirements for new oil and gas development will be applied.	63

Figure 3.5. The Montana Mitigation System has four Montana Service Areas. See Appendix 7.3 for a narrative description of the boundaries.66

Figure 7.1. Comparison of annual cost per credit when applying the discount rate of 3% over the life of a hypothetical project example with application of a fixed constant \$13.00 per credit over the life of the same project. The area under the blue curve represents the total cost when applying the discount method. The area under the flat brown line represents the total cost when applying a fixed constant price of \$13.00 per credit over the life of the project.....104

Figure 7.2. Distribution of costs by project phase for a hypothetical example when applying the 3% discount rate for the entire life of the project.105

Figure 7.3. Distribution of costs by project phase for a hypothetical example when applying the fixed \$13.00 per credit method for the entire life of the project.105

1. INTRODUCTION AND OVERVIEW OF THE MONTANA MITIGATION SYSTEM

The Greater Sage-grouse (sage grouse) is an iconic species of the sagebrush-grassland habitats of Montana. Sage grouse are a public trust resource, managed and conserved by the State of Montana and its citizens. In 2010, sage grouse were considered a candidate for listing under the federal Endangered Species Act (ESA) across its range in 11 western states, meaning that federal protections were warranted but precluded by other higher priorities. Montana and 10 other western states developed conservation strategies to conserve sage grouse and sage grouse habitats.

While the species is common in the remaining high-quality habitat blocks, ongoing loss, fragmentation and degradation of sage grouse habitat prompted legislative and executive action at the state and federal level to ensure that the species and its habitat remain healthy and abundant, and that management authority for the species remains in state, rather than federal hands.

Because approximately 64% of sage grouse habitat in Montana is in private ownership, the State's strategy for conservation of sage grouse populations and habitats depends heavily on voluntary and collaborative efforts to conserve existing high quality habitat and restore and enhance lower quality habitat.¹ The threats to the species in Montana include habitat loss, degradation and fragmentation due to energy and other infrastructure development, conversion of native habitat to cultivated agriculture, wildfire, and encroachment by invasive annual plant species.

Through Montana's Executive Orders 12-2015 and 21-2015 (EO, EO 12-2015, or Order), the State of Montana established the Montana Sage Grouse Oversight Team (MSGOT) and the Montana Sage Grouse Habitat Conservation Program (Program) as the entities responsible for oversight, guidance, and staffing of the state's sage grouse conservation efforts. The EO applies to all programs and activities of state government and for individuals whose proposed activities occur within designated habitats (defined in Executive Order 21-2015; Figure 1.1) and require a state permit, technical assistance, or entail state grant funds.²

The Bureau of Land Management (BLM) and the U.S. Forest Service Beaverhead-Deerlodge National Forest (hereinafter USFS) also developed designated habitats and adopted specific sage grouse conservation provisions into agency-specific land use plans or amendments, respectively, in 2015 (Figure 1.2). The State of Montana and its federal agency partners endeavor to take an "all lands, all hands" approach and work collaboratively to maintain and enhance sage grouse habitats and populations and ensure adequate, consistent conservation across all land ownerships. The BLM and USFS will implement their respective land use plans as consistently as possible with the state's conservation strategy, but will adhere to their respective plans, federal law, regulations, and policies where deviations exist.

The State intends to sign a memorandum of understanding with the BLM and USFS outlining coordinated implementation of Montana's Mitigation System (this Policy Guidance and the

¹ Montana Executive Order 12-2015. "Executive Order Amending and Providing for Implementation of the Montana Sage Grouse Conservation Strategy," available at https://governor.mt.gov/Portals/16/docs/2015EOs/EO_12_2015_Sage_Grouse.pdf ("EO 12-2015"); *see also* the Montana Greater Sage Grouse Stewardship Act MCA §§ 76-22-101 et seq. (2017).

² Examples of activities in sage grouse habitat that would require a state permit and review under EO 12-2015 are: mining (bentonite, gravel, coal), electrical permits, water, air quality, septic, oil and gas, pipelines, transmission, wind or solar facilities, cell towers, roads; *see* Table 3.1.

accompanying HQT Technical Manual) as soon as possible after final adoption by MSGOT. The state and federal agencies aspire to provide a consistent and integrated approach to fulfilling mitigation requirements for impacts to designated sage grouse habitat on all private, state, and federal lands in Montana. This is because many activities on BLM or USFS lands also require state permits or regulatory approval from state agencies. Where federal land use plans and policies differ from Montana’s Mitigation System, the BLM and USFS will follow federal mitigation guidance, as appropriate.

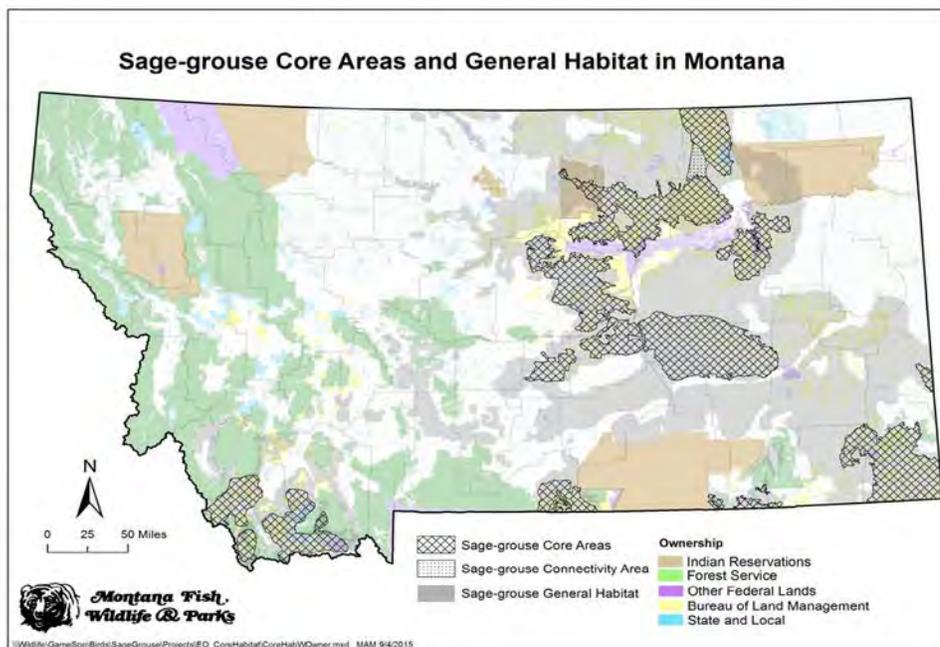


Figure 1.1. State of Montana sage grouse habitats designated in Executive Order 21-2015 where this mitigation Policy Guidance document applies.

All states within sage grouse range rely upon mitigation as a fundamental part of their approach to conservation, which along with compensatory mitigation advanced by the federal land management agencies, was highly relevant to the USFWS 2015 finding that sage-grouse did not warrant listing under the federal Endangered Species Act³ because impacts to habitat would be offset by conservation actions and maintain sufficient habitat.

Montana’s EO and the federal land use plans contemplate development and mitigation. With some minor differences, the respective state and federal approaches put forth elements that:

- outline stipulations and a review process for land uses and activities occurring in designated sage grouse habitat; and
- require newly-proposed land uses and activities to avoid, minimize, and reclaim impacts to sage grouse habitat to the extent feasible, and to provide compensatory mitigation for any remaining impacts, including those that are indirect or temporary.⁴

³ See 80 Fed. Reg. 59858, 59875 (Oct. 2, 2015).

⁴ A 2015 document, “State of Montana Review of State Regulatory Authority over Activities in Sage Grouse Country” clarifies the intent of Executive Order 12-2014 and the state’s authority to implement it.

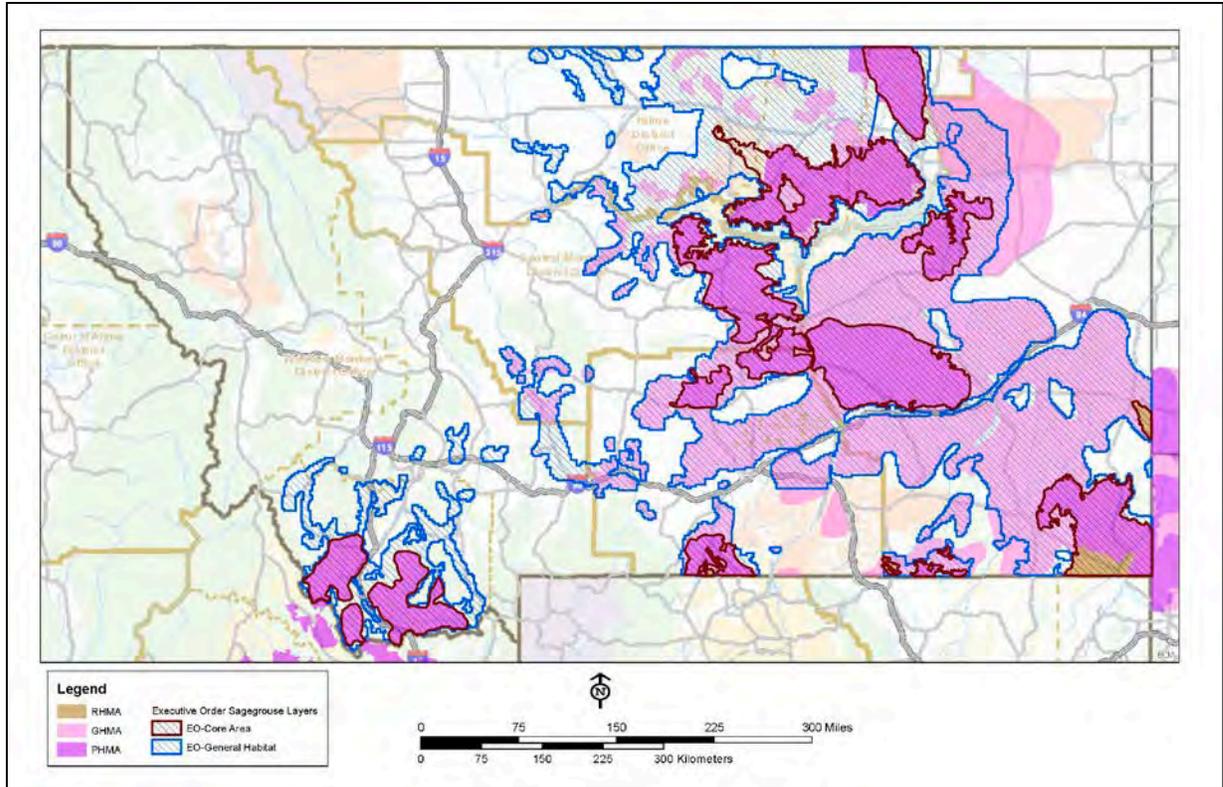


Figure 1.2. Federal lands designated by BLM and USFS land use plans (or amendments) for sage grouse conservation where this mitigation Policy Guidance document applies and shown in pink and purple.

In 2015, the Montana Legislature found that it was in Montana’s best interests to enact the Montana Greater Sage-Grouse Stewardship Act to “provide competitive grant funding and establish ongoing free-market mechanisms for voluntary, incentive-based conservation measures that emphasize maintaining, enhancing, restoring, expanding, and benefiting sage grouse habitat and populations on private lands, and public lands as needed that lie within Core Areas, General Habitat or Connectivity areas.”⁵

Montana’s Greater Sage-grouse Stewardship Act (Stewardship Act or Act) provided further guidance on developing a consistent approach to meeting compensatory mitigation requirements in the state. Specifically, the Montana Legislature found that “allowing a project developer to provide compensatory mitigation for the debits of a project is consistent with the purposes of incentivizing voluntary conservation measures.”⁶ Taken together, the Act and EO 12-2015 establish Montana’s Mitigation System (Figure 1.3). This Policy Guidance, the HQT Technical Manual, federal land use plans and mitigation policies, and accompanying state administrative rules or federal regulations outline how the System will be implemented.

⁵ MCA §§ 76-22-101(1)-(2) and generally et seq. (2017).

⁶ MCA § 76-22-111 (2017).

The legislature also established the Sage Grouse Stewardship Account (Stewardship Account), a special revenue fund dedicated to maintaining and improving sage grouse habitat and populations. The Act requires the majority of state funds from the Stewardship Account to be awarded to projects that generate credits for compensatory mitigation, effectively establishing a revolving fund for advance funding of credit-producing projects.⁷

This Policy Guidance outlines Montana’s approach to mitigation for impacts to sage grouse habitat (Montana’s Mitigation System or System) identified in Executive Order 21-2015, which itself is based on sage grouse distribution and delineates the most important areas for conservation. The Policy Guidance is based upon Executive Orders 12-2015 and 21-2015 and the Greater Sage-grouse Stewardship Act. Montana’s Mitigation System is not only informed by the best available science, it is required to incorporate new science as it becomes available. The System draws on findings and science from the U.S. Fish and Wildlife Service’s (USFWS) Conservation Objectives Report (COT),⁸ the 2015 USFWS Not Warranted Finding,⁹ and the recommendations of the Montana Greater Sage-grouse Habitat Conservation Advisory Council. These sources describe the key threats to sage grouse and their habitat and offer biologically-based strategies for management and conservation in both the short and long-term. Lastly, the approach is based on deliberations of the Montana Mitigation Stakeholders Team (Stakeholders Team).

Montana envisions that all mitigation efforts and particularly compensatory mitigation will contribute toward the stated goal of keeping sage grouse populations healthy and under state management so that a listing under the federal Endangered Species Act is not warranted or the USFWS does not find that listing is warranted but precluded (i.e., should be listed but listing is precluded by other higher proprieties; a “candidate” for listing). Furthermore, Montana is statutorily required to consider applicable USFWS policies such as the voluntary prelisting conservation programs, Greater Sage Grouse Range-wide Mitigation Framework (2014), and other applicable USFWS mitigation policies.¹⁰ The statutory requirement to be “consistent” with federal sage grouse policies was amended in 2017 to require the mitigation approach be developed “in consideration of” USFWS policies relevant to sage grouse conservation.

To that end, the mitigation stakeholders, the Program, and MSGOT have considered applicable USFWS policies. Participants in Montana’s Mitigation System should be aware that this Policy Guidance document and the HQT Technical Manual are largely consistent with a newly-revised USFWS policy pertaining to voluntary pre-listing conservation actions through implementation of mitigation or compensatory measures (voluntary pre-listing policy).¹¹ However, some deviations do exist, such as the mitigation standard (Montana’s “no net loss, net gain preferred” herein vs. “net conservation benefit” as defined in the voluntary pre-listing policy).

Montana’s Mitigation System will not require consistency with USFWS mitigation policies, including the Policy Regarding Voluntary Prelisting Conservation. Under the prelisting policy, individual conservation actions (credit projects) must occur under a state-administered conservation

⁷ MCA §§ 76-22-101 et seq. (2017).

⁸ U.S. Fish and Wildlife Service. 2013. Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report. FWS, Denver, Colorado. (Often referred to as the COT Report).

⁹ 80 Fed. Reg. 59858 (Oct. 2, 2015).

¹⁰ MCA § 76-22-111(2) (2017).

¹¹ U.S. Fish and Wildlife Service. 2018. Part 735, U.S. Fish and Wildlife Service Manual, Chapter 1. Policy Regarding Voluntary Prelisting Conservation. Available at: <https://www.fws.gov/policy/735fw1.html>.

program that includes the requirements outlined in the prelisting policy in order for such actions to meet, and for their credits to be recognized under this policy. However, credit providers and developers may voluntarily comport with the prelisting policy, in the event that implementers of Montana's sage grouse conservation program voluntarily elect to achieve consistency with the policy at some point in the future. Credit providers and developers may also voluntarily and consider the prelisting policy and other federal mitigation policy to gain a sense of predictability with regard to how mitigation projects and credits may be considered by USFWS and other federal agencies. The Program, MSGOT and federal agencies will work collaboratively with both credit providers and developers who desire to be consistent with the federal policies on a case by case basis.

There are several advantages to a conservation program and underlying conservation actions being consistent with federal policies:

1. The USFWS would recognize mitigation efforts undertaken when analyzing habitat and population status during any future ESA status review, response to a petition, or conservation assessment of sage grouse when considering whether federal ESA protections were warranted. Montana's interests are best served when all conservation and mitigation actions can be considered and credited during a future formal status review.
2. Credit providers and developers would be subject to significantly less risk that new, different or additional compensatory mitigation requirements would be imposed if sage grouse were listed in the future because, by definition, qualifying conservation actions consistent with federal policy would be reviewed and implemented before any such listing occurred (as presently required by the USWS Policy Regarding Voluntary Prelisting Conservation Actions). While the prelisting policy does not prevent the USFWS from encouraging or recommending an alternative mitigation or compensatory measure in circumstances where it is determined to clearly produce a better, more certain environmental outcome, such circumstances are expected to be the rare exception to the preference to use existing credits from voluntary prelisting conservation actions.
3. Under the prelisting policy, in the event a species is eventually listed as threatened or endangered under ESA, the USFWS would treat qualifying voluntary prelisting conservation actions undertaken by credit providers and developers in two ways. For non-federal actions that would harm a listed species and require an incidental take permit under ESA Section 10, credits from prelisting conservation actions could be carried forward and treated as mitigation to offset the impacts to that species from a development action. Second, for federal actions affecting a listed species and requiring consultation under ESA section 7, credits from voluntary prelisting conservations already undertaken could be used to offset the adverse effects of the federal action.

Montana aspires to implement a mitigation approach that would not require substantive changes should sage grouse become listed as a candidate, threatened, or endangered species under ESA.

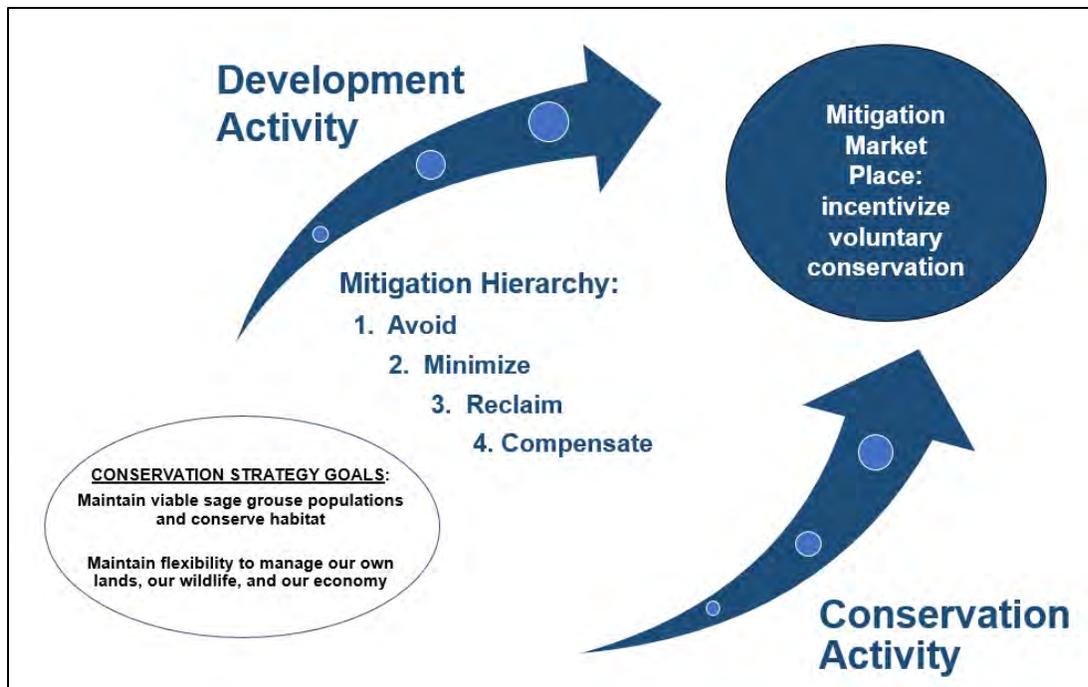


Figure 1.3. Montana’s Mitigation System incentivizes voluntary conservation activity to increase the quantity and quality of sage grouse habitat while simultaneously incentivizing conservation by project developers through implementation of the mitigation hierarchy where impacts are offset. A mitigation marketplace provides a platform where conservation actors and developers exchange credits and debits based on free market principles.

The principles and elements of Montana’s overall Conservation Strategy and specifically the Mitigation System are derived from and informed by:¹²

- State guidance, including but not limited to:¹³
 - Montana Executive Orders 12-2015, and 21-2015;
 - The Montana Greater Sage-Grouse Stewardship Act of 2015, as amended in 2017;
 - Montana’s 2015 Review of State Regulatory Authority over Activities Sage Grouse Country;
 - The Governor’s 2013-2014 Advisory Council Recommendations Report (January 29, 2014) prepared pursuant to Executive Order 2-2013 (issued February 20, 2013); and
 - Management Plan and Conservation Strategies for Sage Grouse in Montana (2005).
- Federal guidance, including, but not limited to:¹⁴
 - Sage grouse provisions included in BLM and USFS land use plans or amendments;

¹² See Section 6, References, for a more complete list; see also the *HQT Technical Manual*.

¹³ USFWS’s PECE Evaluation for the Greater Sage-Grouse Executive Order in Montana (Sept. 9, 2015) pursuant to USFWS Policy for Evaluation of Conservation Efforts When Making Listing Decisions (68 Fed. Reg. 15100 (March 28, 2003)).

¹⁴ MCA § 76-22-111(2) (“all mitigation undertaken pursuant to this section must be taken in consideration of applicable United States fish and wildlife sage grouse policies”) (2017).

- Bureau of Land Management’s (BLM’s) Manual Section 1794 and Mitigation Handbook;¹⁵
- U.S. Fish and Wildlife Service Greater Sage Grouse Range-Wide Mitigation Framework (2014);¹⁶
- U.S. Fish and Wildlife Service Policy Regarding Voluntary Prelisting Conservation Actions issued May 31, 2018 (735 FW 1, Policy Regarding Voluntary Prelisting Conservation; this policy supersedes Director’s Order No. 218, January 1, 2017);¹⁷
- U.S. Fish and Wildlife Service Mitigation Policy (1981);¹⁸
- Council on Environmental Quality Regulations;¹⁹ and
- The USFWS’s Candidate Conservation Agreements with Assurances Final Rule.²⁰

Box 1.1. Habitats Where the Montana Mitigation System and this Policy Guidance Apply.

For the purposes of Montana’s Mitigation System and this Policy Guidance, “sage grouse habitat” includes sage grouse Core Areas, Connectivity Area, and General Habitat as defined and mapped in Montana’s Executive Orders 12-2015 and 21-2015 and also defined in the Act.²¹ See Figure 1.1.

BLM land use plans covering BLM lands in Montana designated areas as Priority Habitat Management Areas (PHMA), General Habitat Management Areas (GHMA), and Restoration Habitat Management Areas (RHMA). USFS land use plans also designated sage grouse habitats for conservation and these areas are named and classified similar to BLM. See Figure 1.2.

With some deviations, boundaries for state-designated habitats are the same as for BLM and USFS. Collectively, these designated areas are expected to support the sage grouse populations under current and/or likely future conditions. The applicable state or federal habitat designation boundaries will be observed for purposes of implementing mitigation in Montana, respectively.

Figures 1.1 and 1.2 above provide a coarse-scale map of Montana’s designated sage grouse habitats. Documentation of detailed information on the actual presence of sage grouse on a site is not required so long as a credit site or proposed development project is located within one of the mapped and designated habitat areas. See Figure 3.5 for delineated Service Areas within designated sage grouse habitats.

¹⁵ U.S. Bureau of Land Management Manual Section 1794 - Mitigation and Handbook H-1794-1 Mitigation (2016), available at <https://www.blm.gov/policy/im-2017-021>. Rescinded December 22, 2017 via DOI Secretarial Order 3360. Replaced with IM No. 2008-204 mitigation policy which has not been updated or replaced as of June 29, 2018.

¹⁶ U.S. Fish & Wildlife Service, Greater Sage-Grouse Range-Wide Mitigation Framework (2014), available at http://www.fws.gov/greatersagegrouse/documents/Landowners/USFWS_GRS%20RangeWide_Mitigation_Framework_20140903.pdf.

¹⁷ U.S. Fish and Wildlife Service. 2018. Part 735, U.S. Fish and Wildlife Service Manual, Chapter 1. Policy Regarding Voluntary Prelisting Conservation. Available at: <https://www.fws.gov/policy/735fw1.html>.

¹⁸ 46 Fed. Reg. 7656 (Jan. 23, 1981) (replaces withdrawn U.S. Fish and Wildlife Service mitigation policies; establishes resource value categories with designation criteria, mitigation goals, and guidelines).

¹⁹ National Environmental Policy Act regulations pertaining to mitigation hierarchy. See 40 CFR § 1508.20.

²⁰ 81 Fed. Reg. 95053 (Dec. 27, 2016); see also 82 Fed. Reg. 8501 (Jan. 26, 2017) (delaying effective date until March 21, 2017, in accordance with a White House memo instructing agencies to postpone effective dates of any published regulations for 60 days if those regulations have not yet taken effect as of Jan. 20, 2017).

²¹ See <https://sagegrouse.mt.gov/About> and MCA § 76-22-103 (2017).

Box 1.1 Continued.

A site level assessment will be voluntary, but encouraged, for development projects to further refine results of habitat functionality calculations by the Habitat Quantification Tool (HQT). A site level assessment will be required for all proposed credit sites. Site level assessments provide the opportunity to consider fine scale site features.

1.1 Montana's Approach to Greater Sage-Grouse Mitigation

The goal of Montana's Greater Sage-Grouse Conservation Strategy is to maintain viable sage grouse populations and conserve habitat so that Montana maintains flexibility to manage its own lands, wildlife and economy and so that a listing or designation as a candidate species under the federal Endangered Species Act is not warranted in the future. Mitigation is one tool, among many, included in Montana's conservation toolbox. When mitigation is timely and effective, habitat loss and fragmentation due to development is offset so that the quantity and quality of habitat for sage grouse is maintained. This goal is complementary to goals and objectives set forth in BLM and USFS land use plans, respectively.

An important aspect of EO 12-2015 is the recognition that the federal listing of sage grouse could have significant adverse effects on the economy of the State of Montana. In recognition of that fact, maintaining the species will require effective conservation strategies across all property ownerships. The Strategy aims to balance development with conservation, promote Montana's economy, and conserve sage grouse and their habitats to prevent a future federal listing. Mitigation is an important tool to balance development with conservation so as to maintain sufficient quality and quantity of habitat and prevent a future federal listing.

Implementation of the full mitigation hierarchy or mitigation sequence - avoidance, minimization, reclamation, and compensation using a systematic approach directly and effectively addresses the threat of habitat loss, degradation, and fragmentation while at the same time allowing development and economic activity in Montana's sage grouse habitats.

Incorporation of the full mitigation hierarchy into Montana's overall conservation strategy is based on recommendations of the citizen-member Montana Sage-grouse Habitat Conservation Advisory Council. The Advisory Council considered the science of sage-grouse conservation, landowner rights and concerns, and the economic need for continued natural resource development in sagebrush habitats. Their final 2014 recommendations reflected a compromise between conservation and development. The council members acknowledged that impacts to sage grouse habitat could occur even if all of their recommendations were followed. However, they regarded the mitigation hierarchy as an integral facet of the strategy to offset those impacts, including compensatory mitigation which is the primary focus of this document.

Avoiding impact from a proposed development project altogether by not taking a certain action or parts of an action is preferred. This means that an activity would not contribute to habitat loss or fragmentation, or exacerbate threats previously identified as contributing to sage grouse population declines. An example would be siting a project completely outside of designated sage grouse habitats or siting a project in General Habitat instead of Core Habitat. Avoidance of impacts

is the most proactive approach to achieving Montana's broader goals to maintain sage grouse populations, habitats, and state management authority for this public trust species. However, avoidance of all impacts is neither realistic or possible.

Minimizing impacts by limiting the degree or magnitude of the action and its implementation is the next step in the mitigation hierarchy. This means that even though an activity may contribute to habitat loss or fragmentation or be associated with activities previously identified as contributing to sage grouse population declines, the activity is undertaken in such a way as to minimize impacts to the extent possible. An example would be locating a new development project in an area where habitat is already considered low quality or impacted by existing development (e.g. co-location). Minimization of all impacts is often not possible.

Reclamation entails rectifying impacts of habitat loss or fragmentation by repairing, rehabilitating, or restoring the area affected by a development project. Reclamation is often required by state or federal permitting agencies and existing regulations, but also incorporated into the hierarchy.

Compensatory mitigation provides compensation for unavoidable, adverse residual impacts to sage grouse that remain after avoidance, minimization, and reclamation efforts. Compensatory mitigation actions are undertaken in advance of an impact through activities that preserve, enhance, restore, and/or establish habitat. The Advisory Council offered compensatory mitigation as a tool that the state and developers could use to offset impacts remaining after avoidance, minimization, and reclamation measures (i.e., the remaining, residual impacts), while still allowing development to proceed in sagebrush habitats.

The Stewardship Act and EO 12-2015 establish that Montana will observe the mitigation hierarchy for development projects that require state permits, authorizations, or utilize state funds in habitats designated as Core Areas, General Habitat, or Connectivity Areas. Following EO 12-2015 stipulations will largely address the avoidance, minimization and reclamation steps in the hierarchy, but permitted activities in designated habitat have the potential to contribute to habitat loss and fragmentation or exacerbate threats previously identified as contributing to sage grouse population declines even when those activities are consistent with EO 12-2015.

Mitigation is an important tool that incentivizes efforts to conserve habitat and to proactively plan development to have the least impact as possible and to account for impacts that may still occur using free market principles. Effective mitigation can promote both rangeland health, sustain agricultural activities on private lands compatible with sage grouse habitat requirements, and responsible economic development. See Box 1.2.

Montana's intent is to provide an approach to mitigation decision-making that incentivizes voluntary conservation to maintain, enhance, restore, expand and benefit sage grouse habitat and populations through free-market mechanisms. Specific goals in mitigation decision-making are to:

1. maintain viable sage grouse populations and habitat such that the species does not warrant listing or designation as a candidate species under the Endangered Species Act;
2. support rangeland health, balanced with economic development within sage grouse habitat; and

3. provide an approach that is flexible, predictable, transparent, equitable, and science-based so the State of Montana, federal agencies, and all parties engaged in the Mitigation System can make informed, proactive decisions.

Where questions, conflicts, or uncertainties arise in the application of this Policy Guidance, these goals should be used to guide case-by-case decisions by the responsible parties.

This Policy Guidance is part of the State of Montana's broader approach to avoiding, minimizing, and compensating for permitted activities that adversely impact sage grouse habitat (i.e., application of the mitigation hierarchy). It represents the efforts of the Montana Sage Grouse Oversight Team (MSGOT), and its Mitigation Stakeholders Team, which includes private, local, state, industry, and non-profit partners, as well as the BLM, USFS, and USFWS.

It is the intent and expectation that federal partners will work with the State to the extent practicable to implement a unitary Mitigation System for the convenience, transparency, predictability, and success of all participating parties. Some deviations may be necessary so federal land management agencies remain consistent with their land use plans. To the extent possible, MSGOT, the Program, and federal land management agencies will coordinate their implementation. Close coordination will be especially required where both state and federal authorizations are needed for development activity proposed on federal lands.

The Policy Guidance document defines the processes and information necessary for creating, buying, and selling mitigation credits within the Stewardship Account or any other sage grouse mitigation mechanisms or projects that seek approval to create, buy, or sell credits for use in Montana. More specifically, this Policy Guidance sets forth how the results of the habitat quantification tool (HQT) are applied in decision making. It will be the foundation for sage grouse mitigation under MSGOT, the Montana Sage Grouse Habitat Conservation Program (Program), and, pending formal agreement, the state's federal partners, consistent with the State's "all lands, all hands" approach to sage grouse conservation.

The Stewardship Act contemplated that an independent, third party would step forward to administer the Mitigation System. As of June 2018, that has not occurred. Until there is a third-party administrator, the state and federal agencies will endeavor to transparently implement this Policy Guidance and the accompanying HQT Technical Manual consistent with the stated goals.

In recent years, several different mechanisms, or market-based approaches, have emerged for meeting compensatory mitigation needs. It is a key premise of the State of Montana's approach, and of relevant federal policies, that all compensatory mitigation projects should be held to equivalent standards regardless of delivery mechanism.²² This Policy Guidance Document and the HQT Technical Manual assure that all mitigation credit opportunities and debit obligations will be determined and implemented consistently, regardless of the actual mechanism. For example, equivalent standards will be assured through application of the HQT which applies a consistent methodology and baseline habitat information to calculate both functional acres lost due to a development project and functional acres gained due to a conservation project.

²² See for example, Mitigation Policy of the US Fish and Wildlife Service at 81 CFR 224, p. 83479.

Box 1.2. Key Mitigation Terms and Definitions.

Mitigation refers to the process of first avoiding impacts to resources where practicable, then minimizing impacts that cannot reasonably be avoided, then rectifying and reducing impacts over time as possible (for example, through post-impact remediation of resources), and finally allowing for compensatory mitigation in the case of unavoidable impacts. Impacts that remain after application of the earlier steps and thus may require compensation are often referred to as residual impacts. Compensatory mitigation refers to replacing or providing substitute resources or environments to “offset” an impact.²³

The sequential application of these steps is often referred to as the **mitigation hierarchy or mitigation sequence**. The terms are used interchangeably. The formal definition means taking steps to:

1. avoid impacts by not taking a certain action or parts of an action;
2. minimize impacts by limiting the degree or magnitude of the action and its implementation;
3. rectify impact by repairing, rehabilitating, or restoring the affected environment;
4. reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action; and
5. compensate for impact by replacing or providing substitute resources or environments.

The purpose of sequencing is to analyze all reasonable options to first avoid and minimize impacts before allowing impacts that require compensatory mitigation – especially for important ecological areas and functions.

Montana’s stated goals provide for a flexible approach that allows those engaged in Montana’s Mitigation System to take creative approaches to either conservation or offsetting impacts to development, respectively, in service to Montana’s Conservation Strategy. Accordingly, Montana recognizes four different mechanisms through which a project developer can fulfill compensatory mitigation obligations. Developers can also employ any combination of mechanisms to fulfill a mitigation obligation.

The four mechanisms for compensatory mitigation in Montana are:

1. **Permittee-responsible mitigation projects**, in which the debit (impact) project developer is responsible for ensuring that compensatory mitigation activities (which may occur later in time at or away from the site of impact through indirect effects) are completed and successful. The permitted entity works directly with the Program and MSGOT (or federal agency) but undertakes all mitigation actions, retains liability and responsibility to ensure offsets are in place for the duration of the permitted activity.

Examples include working directly with a landowner or land trust organization to place a conservation easement or lease on the property, removing obsolete transmission lines and

²³ Definitions adapted from 40 CFR 1508.20.

poles or communications towers, permanently plugging and abandoning oil or gas wells that are no longer in production and unlikely to ever be converted back into production.

The HQT can calculate credits created by developers through permittee responsible initiatives because the same mathematical equations and data can be used to calculate functional acres lost when implementing new development (functional acres lost) as for removing existing disturbance (functional acres gained). Functional acres gained by removing infrastructure or implementing a preservation, restoration or enhancement activity can be converted at a 1:1 ratio to credits and applied to decrease the debit obligation or eliminate the obligation altogether if an equal number of credits are created as debits.

2. **Mitigation or conservation banks**, in which a private entity develops a site or suite of sites that provides ecological functions that are translated into compensatory mitigation credits and made available to offset impacts occurring elsewhere. Developers work directly with the conservation bank administrator to ensure that adequate mitigation is in place within the conservation bank site or sites. Documentation that the mitigation is fulfilled is provided to the Program and MSGOT (or federal agency). Liability to ensure mitigation is in place for the duration of the permitted activities is transferred from the developer to the bank administrator. Credit providers developing conservation land banks who seek to be recognized by the USFWS if sage grouse ever become listed should refer to applicable USFWS policies and approval requirements.
3. **In-lieu fee**, in which a governmental or non-profit sponsor entity or provider uses compensatory mitigation funds to establish sites to offset impacts. Developers work with the governmental or non-profit entity to ensure that adequate mitigation is in place for the duration of the permitted activities. The project developer makes a payment into an in-lieu fee fund, with the result that impacts often occur prior to the establishment of compensatory mitigation sites. Mitigation offsets become the responsibility of the in-lieu fee program provider and liability is transferred from the project developer to the provider. The provider is responsible to ensure offsets are in place for the duration of the permitted activity. Presently, making a contribution into the Stewardship Account is an in-lieu fee mechanism if sufficient credits are unavailable through other mechanisms and the project developer does not wish to take a permittee-responsible approach.
4. **Habitat credit exchange**, in which a third party (i.e. an exchange administrator) establishes an environmental market clearinghouse, facilitating credit transactions between debit project developers and compensatory mitigation providers.²⁴ Credit site providers (e.g., private landowners) and developers work with the exchange administrator, who conducts buy-sell transactions with the respective parties. The exchange provider retains the responsibility and liability that credit sites are providing offsets are in place for the duration of the permitted activity.

The primary differences among these mechanisms include the relative timing of impacts and compensation; the roles and responsibilities of different public and private entities; and the contractual arrangement for which party carries liability for performance of compensatory mitigation through their duration. For example, in permittee-responsibility mitigation, the debit

²⁴ Adapted from Mitigation Policy of the US Fish and Wildlife Service at 81 CFR 224.

project developer typically maintains liability for mitigation performance, whereas mitigation and conservation banks involve the legal transfer of that liability to the credit provider. In-lieu fee programs and habitat credit exchanges typically involve some contractually-defined sharing of that liability between the in-lieu fee sponsor or exchange administrator and the credit provider (although in many in-lieu fee programs the sponsor entity is also the credit provider).

1.2 Parts of this Policy Guidance Document and How It Fits within the Mitigation System

This Policy Guidance works in concert with the HQT Technical Manual (Figure 1.4). The HQT Technical Manual describes the scientific method used to evaluate vegetation and environmental conditions related to the quality and quantity of sage grouse habitat. Specifically, it describes how the number of functional acres gained as a result of a conservation action or the number of functional acres lost as a result of a development activity, respectively, is calculated.

The results of the HQT calculation are expressed as functional acres gained or lost due to the proposed development or conservation activity, respectively. The calculation results are reported as the Raw HQT Score. The HQT calculations account for disturbance that already exists on the landscape *before* a new development project is proposed and analyzed because calculations are initiated from a baseline where habitat values are mapped, including areas where existing disturbance has already decreased habitat values. In that way, developers proposing new projects are only accountable for impacts to their particular proposal, and the Raw HQT Score for their project will be proportional and specific to the change in habitat value attributed to that particular proposal. As a corollary, newly-proposed credit sites are also compared to exactly the same baseline as newly-proposed development projects so that existing disturbance is already accounted for. Similarly, the Raw HQT Score for the new credit project will be proportional and specific to the change in habitat value attributed to that particular credit site proposal.

This Policy Guidance describes how the Raw HQT Score is applied in a decision framework to determine how many credits are available from a credit site or how many debits accrued from a development project. Credits and debits are then exchanged in the mitigation marketplace. More specifically, this Policy Guidance sets forth policies intended to incentivize voluntary conservation by entities engaged in conservation actions and by entities engaged in development through free-market principles, consistent with legislative intent expressed in the Act.

More specifically, this Policy Guidance will:

1. Describe the State's intent in establishing a mitigation approach, and outline roles and responsibilities related to sage grouse mitigation actions (Section 1);
2. Define standards and requirements for conservation crediting projects (Section 2);
3. Facilitate application of the full mitigation hierarchy to avoid and minimize development impacts to sage grouse populations and habitat to the extent required and practicable, reclaim unavoidable impacts where possible and appropriate, and ensure residual impacts are fully and effectively compensated (Section 3);
4. Identify tools for managing risk or uncertainty associated with mitigation actions that collaboratively engage landowners in conservation, including ensuring that compensatory

mitigation funds are sufficient to cover all costs of a successful mitigation project, and that an adequate reserve of credits is available to guard against unforeseen losses of habitat or failed mitigation sites (Sections 2 and 3); and

5. Establish administrative, adaptive management, and other processes to monitor the effectiveness and evaluate and track mitigation performance over time and improve the State's approach as needed (Section 4).
6. Define terms, provide the scientific foundation, and other supporting information in Sections 5, 6, and 7, respectively.

To further assist the reader, the sections of this Policy Guidance document are organized to provide the information needed for particular audiences:

- **All Mitigation Participants and the Interested Public:** stakeholders interested in the standards and processes for sage grouse habitat mitigation and the associated roles and responsibilities of participants (Sections 1 and 4);
- **Credit Providers:** entities generating credits²⁵ to be used as compensatory mitigation for impacts to sage grouse habitat (Sections 2 and 4);
- **Project Developers:** an entity proposing an action that will result in a debit²⁶ (Sections 3 and 4).

1.3 Roles and Responsibilities

This section provides a brief overview of different entities involved in the production and use of mitigation credits, and their roles and responsibilities under the Stewardship Account and other current or potential mitigation mechanisms. More detailed information is provided in Sections 2, 3, and 4.

Montana Sage Grouse Habitat Conservation Program (Program): Established by Montana Executive Order 12-2015 and administratively attached to the Montana Department of Natural Resources and Conservation, the Program is responsible for consulting with and providing guidance to other state agencies, permitting agencies, and project developers on how to satisfy requirements for impact avoidance, minimization, reclamation, and compensatory mitigation. The Program is also responsible for providing staff support for MSGOT in executing its responsibilities in overseeing implementation of mitigation outlined in EO 12-2015 and the Stewardship Act. Those responsibilities include evaluating grant applications to the state's Stewardship Account and making recommendations to MSGOT for funding awards from the Stewardship Account, oversight of projects selected for funding, and maintenance of a habitat quantification tool and registry of compensatory mitigation credits. The Program and MSGOT may designate or recognize a third-party to fulfill some of their respective responsibilities, upon MSGOT's approval.

²⁵ MCA § 76-22-103(4) (2017).

²⁶ MCA § 76-22-103(5) (2017).

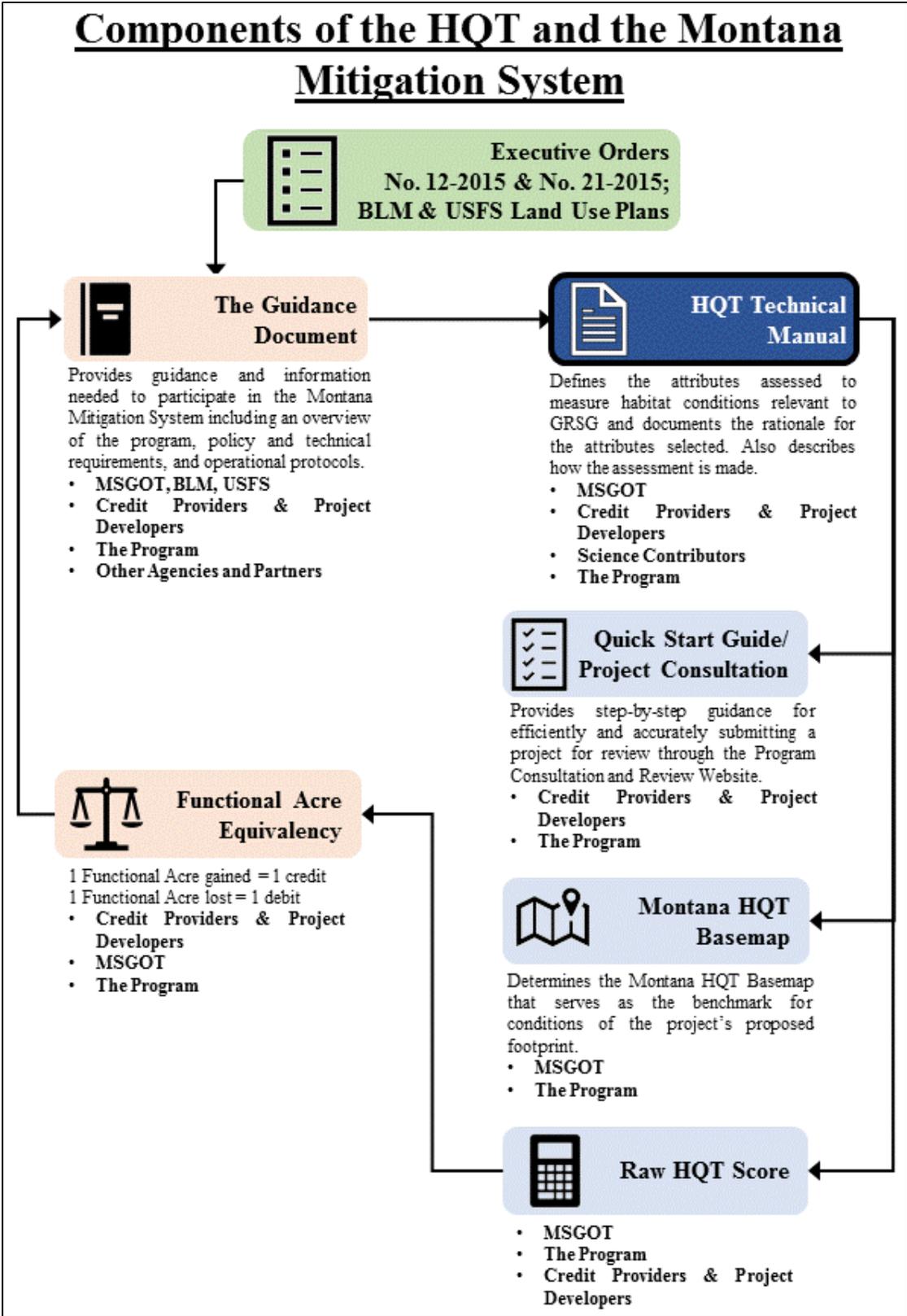


Figure 1.4. Components of the Mitigation System and how they work together.

Montana Sage Grouse Oversight Team (MSGOT): Established under the Stewardship Act of 2015,²⁷ MSGOT provides oversight and direction to the Program in implementing its mitigation responsibilities under the Act and relevant executive orders. Its responsibilities include reviewing and approving compensatory mitigation plans, rulemaking, tracking and annual reporting of compensatory mitigation outcomes, assuring the Stewardship Account is reimbursed when credits created from Stewardship Account funds are sold, and receiving payments for credits it tracks. MSGOT is also responsible for selecting grant applications for funding from the state's Stewardship Account.

State or Federal Permitting Agencies: Under EO 12-2015, "All new land uses or activities that are subject to state agency review, approval, or authorization shall follow avoidance, minimization, reclamation, and compensation requirements outlined in the order."²⁸ State agencies reviewing, approving, or authorizing these new land uses or activities or awarding state grant funds for projects in sage grouse habitat must consult with the Program to ensure these requirements are met. Regulatory authority still resides with the respective permitting agency, while the Program develops the mitigation approach collaboratively with project developers and the permitting agency or agencies. Mitigation is often addressed in documents prepared to fulfill requirements of the Montana Environmental Policy Act, other agency-specific statutes, state administrative rules, or policies.

In parallel fashion, BLM, USFS, USFWS, or other federal agencies authorize new or amended uses of federal lands or the federal mineral estate. Decision authority for uses of federal lands or minerals resides with the federal land management agency. The federal agency, the Program, and the project developer also work collaboratively when federal permits or authorizations are required. Mitigation is often addressed in documents prepared to fulfill requirements of the National Environmental Policy Act, other federal statutes, regulations, or policies. The State of Montana intends to enter into a formal agreement with relevant federal agencies to ensure mitigation requirements of those federal agencies for actions in Montana sage grouse habitat can be met through the standards and processes outlined in this Policy Guidance.

Interagency Review Team (IRT): As needed due to project complexity or size, the Program will convene a team of staff and subject matter experts from all relevant permitting agencies to coordinate mitigation requirements, standards, and expectations for both debiting projects and crediting actions, and to provide efficient consultation with multiple permitting agencies. This team would include any permitting agencies with decision authority over a particular development project but may also include other resource management agencies such as Montana Fish, Wildlife, and Parks or USFWS in an advisory role. The USFWS role may be more than advisory if the project occurs on USFWS-administered lands or is subject to USFWS approval such as a conservation bank. Interagency Review Teams may also be employed when a state or federal agency is conducting environmental analyses to prepare environmental assessments or environmental impact statements under the Montana Environmental Policy Act or the National Environmental Policy Act, respectively. The team should either include developers, or at a minimum, collaborate and communicate regularly with developers.

²⁷ MCA § 2-15-243 (2017).

²⁸ Montana Executive Order 12-2015, Attachment A, paragraph 10, page 3.

Project Developer who creates debits as result of impacts: An entity seeking to undertake a new or amended land use or activity in sage grouse habitat that receives state funding or is subject to state agency review, approval, or authorization, is responsible for consulting as needed with the Program and all relevant permitting agencies to determine necessary avoidance, minimization, reclamation, and compensatory mitigation requirements. In similar fashion, a project developer may require federal authorization from a federal agency such as the BLM or USFS. For some types of development projects and depending on the location, both state permits, and federal authorization may be required.

The project developer may meet any compensatory mitigation requirements for residual impacts by purchasing credits from credit site providers (e.g., habitat exchange administrator or conservation banker) or other approved mechanisms, making a contribution to the Stewardship Account if sufficient credits are not available, or conducting permittee-responsible mitigation that meets the standards and processes outlined in this Policy Guidance. The project developer holds responsibility for performance of any compensatory mitigation projects or credits used to offset impacts, unless that responsibility is contractually transferred to another party (e.g., the credit provider).

Credit Provider: An entity that undertakes voluntary preservation, restoration, or enhancement actions in sage grouse habitat to generate credits to offer as mitigation for impacts to sage grouse habitat. A credit provider may be a landowner, land trust, private mitigation banker, or other private or public entity. Multiple parties may be involved in creation of credits (for example, a landowner and land trust, credit aggregator, or conservation banker). For credits to be used to meet mitigation requirements in the State of Montana, they must meet the standards and processes outlined in this Policy Guidance, including approval, verification, and tracking requirements and have been estimated using the state's HQT. A credit provider may accept a contractual transfer of responsibility for credit performance from a debit project developer. The price of credits that allows for the transfer of responsibility would be expected to reflect this assumption of risk and is set by the credit provider. Similarly, a credit provider may accept transfer of credits from MSGOT that were created through funding provided by the Stewardship Account.²⁹

Third Party and/or Administrator: The Stewardship Act envisioned that third parties would participate in Montana's Mitigation System. For example, the Act allows for a third party to open a habitat exchange and conduct transactions of credits and debits. It further allows MSGOT to transfer the credits created using Stewardship Account funds to the exchange administrator. Third parties may also open conservation banks.³⁰ Third parties may conduct transactions directly with credit providers (e.g., private landowners) or project developers through permittee-responsible mechanisms. As of September 2018, no third-party administrator exists.

Technical Support Provider: The Program may provide technical support to both debit project developers and credit providers in developing successful proposals and projects, to the extent practical given budget and staffing constraints. However, third-party technical support providers may also help plan, design, and assess the results of credit and debit projects, including collecting and submitting information needed to estimate credit and debit amounts. The Program may also

²⁹ MCA § 76-22-105(2) (2017) (allowing MSGOT to transfer credits it created to a third-party administrator).

³⁰ MCA § 76-22-111(1)(b)(iv) (2017). Entities seeking to open a conservation bank should consult with the USFWS consider observing federal guidelines and seeking formal approval so that the bank would be recognized by USFWS if sage grouse were to ever be listed under the federal Endangered Species Act.

recognize qualified technical support providers to support verification, tracking, and other administrative activities consistent with this Policy Guidance.

1.4 General Overview of Steps to Generate Credits and to Acquire Credits to Offset Impacts

This section provides a brief overview of the steps used to generate and/or acquire credits under the Stewardship Account and other mitigation mechanisms in the State of Montana. These steps are also depicted in Figure 1.5. Blue chevrons signify the steps undertaken to generate credits (left to right) and green chevrons represent the steps for a developer to acquire credits to offset impacts (right to left). The grey box in the center represents the administrative roles performed by MSGOT, the Program, or their designees. These processes are defined in greater detail in Sections 2 and 3 of this document.



Figure 1.5. Overview of the steps to be followed by credit providers to create and sell credits (reading left to right in blue) and steps developers should follow to obtain credits to offset impacts of the development project (reading right to left in green).

1.4.1 To Create or Generate Credits

The following steps outline the process for generation, verification, and registration of credits created by a project that creates or generates credits (i.e., a crediting project):

1. **Propose crediting project:** Crediting projects may be proposed through a request for proposals issued by the Program under the state’s Stewardship Account granting process. Projects may also be proposed directly to the Program by landowners, non-profit conservation organizations, mitigation bankers, or any other party interested in providing credits outside of the Stewardship Account granting process. Projects may also be proposed by project developers intending to conduct their own permittee-responsible mitigation projects³¹ to offset development impacts.

³¹ MCA § 76-22-111(1)(b)(iv) (2017).

2. **Calculate functional acres gained and convert to credits:** Credit providers work with the Program or a technical support provider to develop a draft site management plan (“site plan”) and use the habitat quantification tool (HQT), which includes a required site-scale evaluation conducted in the field to estimate the number of functional acres gained as a result of the project. The adjusted total number of functional acres gained is then converted to credits at a 1:1 ratio. The Raw HQT Score of functional acres gained is then adjusted according to this Policy Guidance (see Section 2).

A full proposal, including site plan, credit estimate, long-term stewardship plan, and other documents outlined in Section 2, is submitted to the Program for review. The Program will review and evaluate proposed projects for consistency with policy and guidance. MSGOT will make the decision regarding final approval.

3. **Implement actions and verify conditions:** Credit providers implement preservation, restoration, or enhancement actions, monitor site outcomes, and work with the Program as needed to refine credit calculations based on post-project conditions on the ground. All projects undergo verification by the Program or an approved technical support provider to confirm that the Policy Guidance and associated policies and agreements were followed correctly, and estimated credits have been appropriately calculated and match on-the-ground conditions. Actions outlined in the long-term stewardship plan are also implemented and monitored over time.
4. **Register and issue credits:** Supporting documentation is submitted to the Program. Program staff review documentation for completeness and accuracy, and the credits are registered and issued to the credit provider’s account on a state-wide registry. Credits are assigned a unique serial number, so they can be tracked over time. Credit providers demonstrate through monitoring reports whether performance standards are met (as outlined in the site plan). If the Program determines that performance standards are met or partially met, the full or partial release of credits is allowed as described in Section 2.

1.4.2 To Acquire Credits to Offset Impacts

Potential project developers should consult with the Program and any relevant permitting agencies at least 45-60 days prior to submitting a permit application for a proposed project that may impact sage grouse habitat. This allows ample time to consider mitigation proactively in the planning, designing, and siting phases of development projects.

Engaging the Program, state and federal agencies early is particularly important for large or complicated projects where mitigation obligations could be higher, environmental analyses are needed, multiple agencies are involved, or the project requires both state and federal permits. For example, if a project developer is required to submit a Plan of Development (POD) to a state or federal permitting agency, developers are encouraged to engage the Program and the permitting agency very early in the project planning process to integrate mitigation, including compensatory mitigation, into the proposed action analyzed in an environmental assessment or environmental impact statement. Upfront consideration will enable mitigation to be incorporated into any applicable MEPA or NEPA analysis from the beginning. This will minimize delays or subsequent requirements for supplemental environmental analyses.

The following steps outline the process to determine and meet mitigation responsibilities consistent with Montana state laws and policies or federal requirements, respectively.

1. **Propose project:** The project developer contacts the permitting agencies and/or the Program when proposing a project that impacts sage grouse habitat and is not identified as an exempt use as outlined in Executive Order 12-2015, Appendix 7.1 or otherwise exempted from the consultation requirements by MSGOT (copied here in Appendix 7.1 for convenience; please also check directly with the Program as MSGOT exemptions are subject to change). For development projects proposed on Montana State Trust Lands, developers are advised to contact the DNRC State Trust Lands Management Division first for an initial assessment. For development projects or activities that require federal authorization, developers should contact the appropriate federal land management agency (i.e., BLM or USFS). If a development project requires both state and federal authorization or permits, an Interagency Review Team may be formed to develop a mitigation approach that satisfies state and federal requirements concurrently so that developers do not have to develop two mitigation approaches. Development projects may be revised or denied by the respective state or federal permitting agency for reasons other than sage-grouse and for reasons specific to the permitting agency's respective authorities.

Developers are encouraged to use the HQT as a planning tool when considering project location. By using the HQT basemap, developers can identify areas with higher habitat quality that would result in higher mitigation obligations when compared to the same project being located in lower quality habitat. The higher the habitat quality, the greater the number of functional acres lost for the same project. The HQT can be used proactively to avoid and minimize impacts to the extent possible. It can also be used to inform business decisions.

2. **Avoidance and minimization review:** The project developer provides the Program and applicable state or federal permitting agency(ies) with a project description, including construction, maintenance, and reclamation periods and activities and what, if any, avoidance and minimization measures are proposed. The Program reviews impacts and proposed mitigation actions and determines whether the proposal meets all state-required stipulations and whether residual temporal or spatial impacts remain that will require compensatory mitigation based on HQT results. Projects requiring federal permitting may be subject to different or additional mitigation requirements, and the Program may convene an interagency review team to coordinate as needed.
3. **Calculate and verify the number of functional acres lost and convert to debits:** The state will make the HQT available on the Program's website so that developers can consider various options for design and siting of the project, as well as implementation of the mitigation hierarchy prior to contacting the Program in Step 2.

The project developer (or designee) either uses the Program's webtool to run the HQT or provides the Program with information needed to run the HQT. The number of functional acres lost is determined by the HQT and may be adjusted by a voluntary site visit to estimate the total functional acres lost (by determining baseline and post-project conditions of the debit site; see the HQT Technical Manual for additional information). The total adjusted functional acres lost is converted to debits at a 1:1 ratio.

The total functional acres lost is then adjusted according to this Policy Guidance to:

- encourage siting new development on top of existing surface disturbance and keeping project direct footprints and indirectly affected areas as small as possible;

- discourage locating the project in high quality, sensitive or high priority areas (such as Core Areas); and
- encourage consistency with EO 12-2015 (see Section 3).

The project developer provides the Program with a draft mitigation plan that includes details of the proposed project, its location and associated actions, and HQT results, which will provide an estimate of credits needed. The Program and any permitting agencies review the mitigation plan to determine that relevant policy and guidelines are met, and credit need is correct. The Program works with the project developer and any permitting agencies involved to resolve any concerns as described in Section 3. MSGOT review and approval of proposed compensatory mitigation plans is required by the Act. Federal agencies may request MSGOT review, but ultimately make decisions according to their own federal guidance.

4. **Purchase or create credits to offset the total number of debits:** To offset the total number of debits, a project developer may either: (1) develop and implement a permittee-responsible project to offset the equivalent the number of debits required; (2) obtain credits through any other MSGOT-approved mitigation mechanisms and third-party entities to adhere to the state’s Policy Guidance and uses Montana’s HQT and Technical Manual; or (3) make a financial contribution to the Stewardship Account if sufficient credits are not available.

All debits and the credits used to offset impacts are tracked using unique serial numbers and cataloged in the state-wide registry to ensure that credits used cannot be purchased or used again.

2. FOR CREDIT PROVIDERS: GENERATING CREDITS FOR COMPENSATORY MITIGATION

This section describes the process for developing sage grouse habitat credits for compensatory mitigation, including the review and approval process for a credit project. See Figure 2.1.

Developing and selling credits in the Mitigation System by preserving, restoring, or enhancing land which increases the functional habitat quality or quantity for sage grouse could generate revenue for the respective landowner. Developing credit sites and participation in the Montana Mitigation System is voluntary on the part of private landowners and Montana State Trust Lands.

Mitigation credits may be produced through grant funding provided by the Stewardship Account, developed under any other MSGOT-approved mitigation mechanism (e.g., conservation bank or habitat exchange), or created and used by project developers conducting their own compensatory mitigation projects to offset development impacts (i.e., permittee-responsible mitigation). Funding from the Stewardship Account is not required to create credit sites.

Projects funded by the Stewardship Account may be proposed through a request for proposals (RFP) by the Program and MSGOT. If selected for funding, grant recipients implement the

conservation project, and MSGOT allocates the credits created through grants to offset impacts of developers who decide to make a contribution to the Stewardship Account.

Alternatively, credits can be generated by individuals without using Stewardship Account grant funds. In this case, private landowners develop credits and freely negotiate with developers to sell their credits. Public land managers, non-profit organization, mitigation bankers, or other entities such as the DRNC State Trust Lands Management Division could also develop preservation, restoration, or enhancement projects which create credits.³²

The overall management goal of crediting projects is to at least maintain, but preferably increase the quantity and/or quality of sage grouse habitat beyond baseline conditions (see Section 2.1.1) in ways that adequately account for risk and uncertainty. Mitigation actions may create credit through preservation, restoration, or enhancement of sage-grouse habitat. The conservation actions taken at a given credit site should reflect its ecological context, as well as current and likely future threats.

2.1 Proposing a Crediting Project

Mitigation credits are created by removing or limiting a threat to GRSG through preservation or by improving habitat quantity and/or quality through restoration or enhancement actions. Developers can create credits for themselves through the permittee-responsible mechanism by taking actions that preserve, restore, or enhance habitats.

Creating preservation credits through perpetual conservation easements, term conservation easements, or contractual term lease agreements avoids future habitat loss or fragmentation by the voluntary, legal removal of identified threats such as subdivision or land conversion to cultivated agriculture.

Credits may also be generated on a property through restoration. Restoration is the process of assisting the recovery of a resource (including its values, services, and/or functions) that has been degraded, damaged, or destroyed to the condition that would have existed if the resource had not been degraded, damaged, or destroyed.³³ Restored areas can be important links for connectivity, provide important mesic habitat for late summer brood rearing, or can provide other seasonal habitat components, thereby increasing the value of surrounding, intact sagebrush lands. Restoration actions can increase functional acres (and thereby the number of credits available from the site) by restoring or substantially improving habitat quality or function.

Examples of restoration include, but are not limited to the re-establishment of suitable sage grouse habitat on abandoned mining claims, abandoned industrial sites, eradication of invasive plant

³² Under MCA § 76-22-110(3), only “organizations” or “agencies” are eligible to receive grant funding. “organization” means a private entity registered with the Montana Secretary of State authorized to conduct business in the State of Montana (14.6.101(5) ARM. “Agency” for the purposes of the Act means a department, agency, or instrumentality of the state of Montana, a political subdivision of the state, or a Tribe and is not a private individual, private entity, or private organization recognized by the laws of the state of Montana. 14.6.101(1) ARM. Individual private citizens may not receive Stewardship Account funds directly unless they are an organization ; however, they can create and market mitigation credits of their own accord or with a third-party administrator to market their credits independent of MSGOT or the Program; private landowners may work with other organizations or agencies, such as a land trust or other non-profit to obtain Stewardship Account funds to create credit projects.

³³ Bureau of Land Management. 2016. Mitigation Handbook (H-1794-1): Mitigation Manual Section (M-1794). Pp. 79.

species, removal of encroaching conifers, removal of abandoned transmission lines and poles, removal of obsolete towers or other anthropogenic structures, converting cropland back to rangeland with a sagebrush component, or restoration of wet meadows by restoring proper hydrology and plant communities.

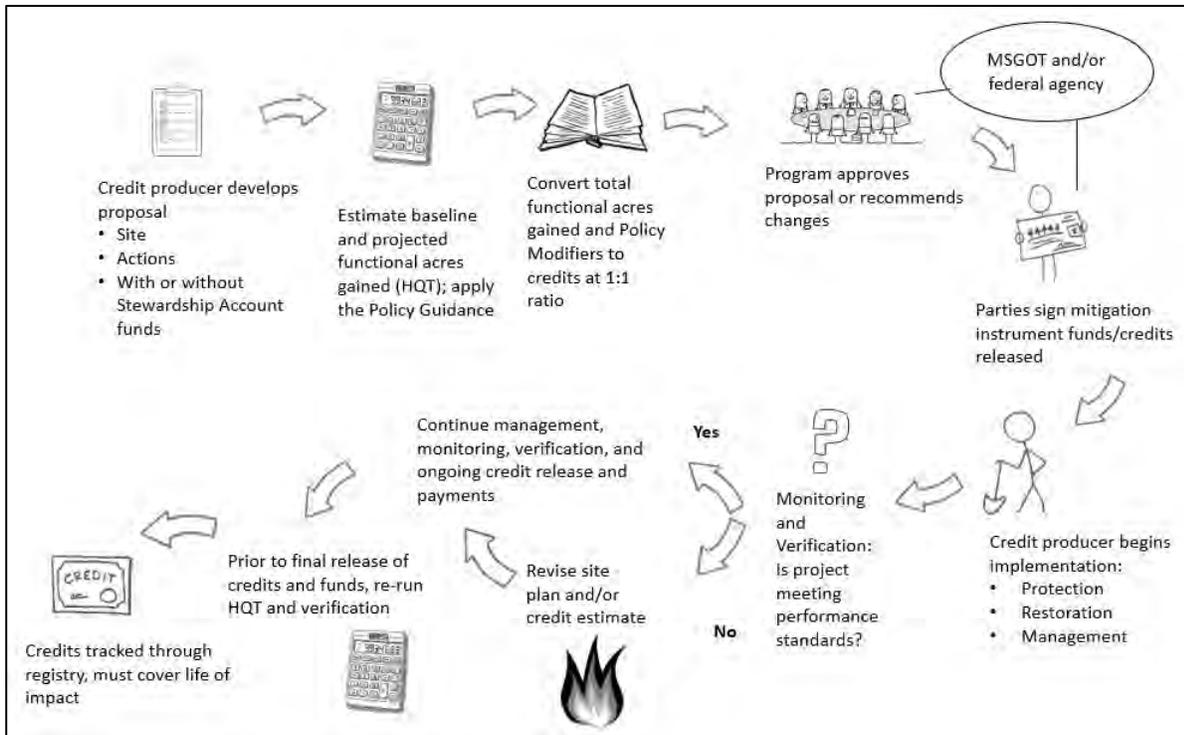


Figure 2.1. Schematic overview of the life of a credit from creation of functional acres to conversion to credits, approval, monitoring, and inclusion in the registry.

Credits can also be generated on a property through enhancement. Enhancement requires an increase or improvement in quality, value, or extent of sage grouse habitat that has been degraded or could be managed to increase the value of that habitat over its current value.³⁴ Enhancement actions can increase existing credits by improving the habitat quality or function to sage grouse, thereby increasing the Raw HQT Score and the amount of credits available to the market. Examples include, but are not limited to, improving existing suitable GRSG habitat by adding a sagebrush component to non-native vegetation communities or existing rangelands and/or increasing native forb diversity in mesic areas. Ecological site descriptions should be considered.

Each crediting project will receive credit only for actions that meet all eligibility requirements. Eligibility criteria help to ensure that crediting projects will support the long-term health and maintenance of sage grouse populations and habitats. The Program, with direction, oversight, and approval from MSGOT, determines whether proposed projects meet all eligibility requirements.

³⁴ Bureau of Land Management. 2016. Mitigation Handbook (H-1794-1): Mitigation Manual Section (M-1794). Pp. 79.

Credit providers are encouraged to investigate the potential of a credit site using the HQT on the Program's website when it becomes available and consult with the Program proactively to obtain a preliminary Raw HQT Score. Credit providers may also consult directly with the Program to obtain preliminary HQT scores or obtain preliminary feedback as to the suitability of a location for a preservation, restoration, or enhancement credit site.

The Stewardship Account is a source of funds to create credit sites but use of Stewardship Account funds is not required to create credits. More specific examples of conservation actions that may create compensatory mitigation credit by maintaining, enhancing, restoring, expanding, or otherwise benefitting sage-grouse habitat using Stewardship Account funds are listed below. This list is not exhaustive, but does include actions that are eligible for Stewardship Account funding:³⁵

- reduction of conifer encroachment into sagebrush habitat;
- reduction and management of invasive weeds;
- maintenance, restoration or improvement of sagebrush and other native vegetation;
- purchase or acquisition of leases, term easements, or permanent conservation easements that afford legal land protections from identified threats such as cultivation or subdivision;
- incentives to reduce the conversion of grazing land to crop land;
- restoration of cropland to grazing land with a sagebrush component;
- demarcation of fences to reduce risk of collisions;
- reduction of unnatural perching platforms for avian predators; and
- reduction of unneeded anthropogenic predator subsidies such as abandoned buildings.

Crediting projects may occur on private or public lands. MSGOT and the Program will coordinate with applicable land management agencies for credit sites on federal or State Trust Lands, respectively. Those seeking to develop credit sites should review the USFWS Policy Regarding Voluntary Prelisting Conservation Actions.³⁶ Credits created from individual projects are unlikely to be recognized under the prelisting policy unless/until Montana voluntarily elects to achieve consistency with the policy in the future. In the meantime, consistency with the prelisting policy is voluntary in Montana's Mitigation System, but the Program and MSGOT will require an affirmative decision and commit to working with credit providers to ensure that the benefits are recognized if sage grouse are listed under ESA in the future and Montana itself elects to be consistent.

To generate credits, a mitigation site will need to occur in designated state or federal sage-grouse habitats (i.e., Executive Order 21-2015 or identified in federal land use plans) and meet all the eligibility criteria in Table 2.1. The proposal review process will include a pre-proposal step to screen for project eligibility and provide an estimate of credit potential based on HQT results.

Recommendations to approve crediting project proposals, and to fund Stewardship Account projects, will be made by the Program, with final decisions made by MSGOT or the respective federal land management agency for credit projects proposed on federal lands. MSGOT may also provide guidance on general funding priorities for the Stewardship Account.

³⁵ See Mont. Code Ann. § 76-22-110 (2017).

³⁶ U.S. Fish and Wildlife Service. 2018. Part 735, U.S. Fish and Wildlife Service Manual, Chapter 1. Policy Regarding Voluntary Prelisting Conservation. Available at: <https://www.fws.gov/policy/735fw1.html>.

Table 2.1. Eligibility Requirements for Crediting Projects.

Eligibility Requirement	Criteria
<p>Additionality: conservation actions are additional (Section 2.1.1)</p>	<ul style="list-style-type: none"> • Credit provided for outcomes that exceed baseline, including avoided loss of sage-grouse or sage-grouse habitat • Exceeds pre-existing, non-EO related legal obligations • Use of public conservation funds other than Stewardship Account cost-shared projects <u>may</u> be eligible to generate credits (determined on a case by case basis)
<p>Duration and Durability: project benefits are durable (Section 2.1.2)</p>	<ul style="list-style-type: none"> • Legal protection of site, filed with the county • No imminent threat • Benefits expected to meet or exceed duration of impact • Financial assurances • Stewardship plan
<p>Appropriate Site Selection and Conservation Actions: consistent with <i>Policy Guidance</i> and respective federal requirements (Section 2.1.3)</p>	<ul style="list-style-type: none"> • Site within Core, Connectivity, or General Habitat or the equivalent designations by federal land management agencies (e.g., USFS and BLM) • Will “maintain, enhance, restore, expand, or benefit sage grouse habitat and populations” • Consistent with EO 12-2015, the Act, administrative rules, and MSGOT guidance; consistent with federal requirements if the project is on federal land.

As part of the proposal process and prior to final approval by the Program and MSGOT, a credit provider will need to work with the Program to prepare a set of documents outlining the following elements (see Table 2.3 for more detail):

- documentation that the site and proposed actions meet eligibility requirements;
- an estimate of credit availability, based on HQT results provided by the Program or its designee such as a third party technical provider;
- a description of the site, its location, the conservation actions proposed for crediting, their anticipated timing, and performance standards and corresponding monitoring that will be used to evaluate results (“site plan”);
- a long-term stewardship plan outlining how the desired outcomes will be maintained for the full term of the project;
- detailed financial information on initial costs, on-going stewardship costs, and financial assurance plans for meeting those to assure the durability of credits;
- land protection documents that would be filed with the county; and
- third-party verification of information included in the above documents.

2.1.1 Project Additionality and Baseline

Each crediting project must demonstrate additionality. Additionality refers to the requirements that: (1) regulatory -- credit-generating habitat benefits from a project must be in addition to what would have happened in the absence of a credit project (baseline before implementation) and in addition to what is already otherwise required by existing law and regulations; and (2) legal and financial commitments.

For permanent credits created through permanent conservation easements, the easement itself satisfies the additionality requirement, but the baseline will be adjusted to account for the fact that absent additional restoration or enhancement activities, perpetual easements preserve the status quo and do not create new functional acre credits. For restoration or enhancement credit sites, a legal site protection instrument permitting or prohibiting certain activities to preserve the integrity of the habitat, respectively, satisfies the additionality requirement.

Regulatory additionality and baseline are determined somewhat differently for each type of credit project, as follows.

Preservation Credit Sites: Montana recognizes credit projects that avoid future loss or fragmentation of otherwise intact habitat by legally removing identified threats through conservation easements or term leases. Preservation credit projects create credits through land preservation using perpetual conservation easements, term easements, or term leases. Long-term, voluntary protection of remaining habitat is the gold standard of habitat conservation in Montana.

Montana's Mitigation System will set the duration of perpetual conservation easement credit sites as 100 years. The duration of term easements or leases is the number of years identified in the easement or lease agreement. However, by statute, the minimum term must be at least 15 years.³⁷ Term easements can be renewed. See Section 2.1.2.

Voluntary permanent conservation easements entail the sale of certain development rights to an accredited third party in perpetuity, while the private landowner retains certain rights. As a result of the sale of certain development rights, the property's value may decrease from the pre-easement value. Development rights commonly severed from properties through perpetual easements correspond to previously identified threats to sage-grouse habitat and documented to be associated with population declines, such as: cultivation, subdivision, elimination of sagebrush and other native vegetation, and commercial scale surface energy development (i.e., not used on the property for agricultural purposes). Landowners typically retain rights to continue traditional agricultural activities such as cultivating areas already in cultivation and to graze livestock.

Voluntary term easements or term leases entail a third party buying or leasing certain development rights (i.e., surface uses) for a fixed term or number of years. Landowners retain certain rights. Term easements or term leases are a more attractive option for some landowners who would not consider entering a perpetual easement. By including term easements and leases as options for preservation credit sites, Montana hopes to attract private landowners who otherwise would not participate in the Mitigation System.

³⁷ MCA § 76-2-202 (2017).

Preservation credit sites under a term easement or lease similarly would prohibit uses previously identified as threats to sage-grouse habitat, such as: cultivation, subdivision, elimination of sagebrush and other native vegetation, and commercial scale surface energy development. Landowners typically retain rights to continue cultivating areas already in cultivation and to graze livestock.

Determination of baseline for preservation credit projects must take into account that while remaining sage grouse habitat in Montana is at risk of future loss or fragmentation (e.g., conversion, subdivision, energy development), habitat is being provided in the present and would be into the future through the legal protection against habitat loss provided by the easement terms. In these instances, credits are provided for avoided loss, or the reduction or elimination of anticipated threats in the future where the risk can't be easily quantified or predicted without making assumptions or modeling hypothetical potential future scenarios. In the absence of any other restoration or enhancement action, easements or leases do not provide new, additional, or higher quality habitat. Therefore, preservation credit projects preserve the status quo at that particular site, provided a management plan is in place to maintain baseline conditions existing at the time the easement was executed.

From a policy perspective, preservation credit sites are desirable as a tool to prevent future habitat loss and fragmentation on private lands where most of Montana's breeding males are found. However, preservation of existing habitat can still result in a net loss of habitat because preservation habitat preserves existing habitat while development activities impacts new habitat and can lead to habitat loss or degradation due to fragmentation. From a mathematical perspective, whether Montana can achieve its goal of no net loss of functional acres as compared to functional acres lost due to development will be evaluated as a part of the adaptive management process.

Perpetual Easements: Montana's Mitigation System recognizes the duration of perpetual easements as 100 years from the date of closing. To more accurately reflect that perpetual easements, in the absence of any additional restoration or enhancement activity, preserve the status quo and do not create new functional acres, Montana defines baseline for perpetual preservation credit projects as 40% of post-project habitat function determined by the HQT as a default. (See Section 2.1.4). The 40% baseline adjustment figure is generally based on the risks of development removed for the credit-creating projects originally selected for funding from the Stewardship Account in 2016.

Stakeholders held widely disparate viewpoints about how to set baseline for perpetual preservation credits. Set too high, the credit supply from a small number of perpetual easements would offset significant development for a long time, private landowners would not need to participate until sometime in the distant future, and Montana would likely not meet its goal of no net loss of habitat. Set too low, the credit supply could be so low that the price would be very high. Stakeholder input varied from allowing 100% of credits created from perpetual easements to be available in the market (i.e., no adjustment) to allowing 20% to be available (a significant adjustment downward).

As a compromise, 40% of the credits calculated within the boundaries of perpetual conservation easements using the HQT will be recognized as being available in the marketplace to offset impacts of development when there are no restoration or enhancement actions in addition to the easement or lease. Participants in the mitigation system using perpetual easements have the option to request MSGOT adjust baseline up to 10% above or below the 40% standard baseline for perpetual easements. Requesters must provide reliable, objective data and demonstrate a higher or lower risk of habitat loss or fragmentation in the absence of the easement due to threats such as

conversion to cultivation, subdivision, or energy development to justify the requested adjustment. For example, a market assessment or a conservation easement document could be used to show that greater or fewer risks of development are legally removed or precluded by the easement. Data must be directly relevant to and quantify the risks and threats to sage grouse habitat that are removed and avoided by the preservation project.

For example, MSGOT may approve a maximum increase in baseline from 40% up to 50% and thus approve up to 50% of the HQT functional acre credits becoming available in the marketplace. Alternatively, MSGOT may approve a maximum decrease in baseline from 40% to 30% and thus approve no fewer than 30% of the HQT functional acre credits becoming available in the marketplace. MSGOT has discretion and makes the final decision on all requests to adjust baseline above or below the 40% default at the time it reviews and approves credit site plans.³⁸ It is expected that baseline will be evaluated through adaptive management reviews in future years as more experience is gained and Montana determines whether it is meeting its objectives.

If a perpetual easement also includes a restoration or enhancement activity, the credits generated from the restoration or enhancement project are not subject to the baseline adjustment because new functional acres are being created. Restoration credits can be created, for example, by removing encroaching conifers due to natural changes in the landscape. The number of functional acres gained by the removal effort can be calculated using the HQT and converted to credits at a 1:1 ratio. Restoration or enhancement credits are added to the total preservation credits moved to market.

Term Easements or Term Leases: Montana's Mitigation System recognizes the duration of term easements or term leases as being the number of years declared in the easement or lease. However, the minimum duration of term easements is 15 years under Montana law.³⁹ Montana's Mitigation System also requires a minimum duration of 15 years for term easements or leases used to offset impacts of development in designated sage grouse habitats.

There will be no adjustment to baseline for term easements or term leases when the term is 15 – 30 years, in part because of the relatively short duration compared to perpetual easements (set at 100 years for purposes of calculating credits). By making all the credits available, Montana hopes to attract landowners who may not otherwise participate if a perpetual easement is the only option for a preservation credit site.

MSGOT may approve up to a 10% adjustment above or below the default (30% - 50%), as described above and similar to perpetual easements.

Restoration and Enhancement Credit Sites: Montana also recognizes credit projects that restore or enhance habitat through active management such as removal of encroaching conifers or reseeded areas formerly managed for cultivated agriculture. Unlike typical preservation credit sites, restoration or enhancement credit sites increase the quantity or quality of functional habitat at that particular site.

³⁸ All MSGOT meetings are announced to the public and public comment is solicited prior to all decisions.

³⁹ MCA § 76-2-202 (2017).

To establish baseline for restoration or enhancement credit projects, the HQT will calculate the number functional acres on the site prior to restoration or enhancement management actions. The HQT will be re-run at pre-determined milestones to detect changes in habitat over time attributed to the restoration or enhancement actions. The milestones will be based on desired future condition. See the HQT Technical Manual for additional information for how credits are calculated for restoration and enhancement credit projects.

Credit projects can be implemented that produce a combination of preservation, restoration, and enhancement credits. The number of functional acres created through restoration or enhancement actions can be added to the number of functional acres gained through preservation actions (adjusted for baseline for perpetual easements). See the HQT Technical Manual for additional information about how credits are calculated for each type of credit project.

Legal and financial additionality are also required. To demonstrate legal additionality, credit-producing conservation actions must exceed all existing affirmative obligations relevant to the project site and must comply with all applicable federal, state, and local laws. Affirmative obligations include land use restrictions, range health standards, minimum requirements of candidate conservation agreements (CCAs and CCAAs), and other land use or management restrictions that are not discretionary. All credit sites should have a legal site protection instrument in place. See Section 2.1.2.

Financial additionality ordinarily requires that mitigation credit not be allowed for actions that receive public conservation funding (such as that provided by the Natural Resources Conservation Service's conservation programs or state grant programs). Funds provided by the state's Stewardship Account may be used to create mitigation credits, provided the full cost of credit production is reimbursed to the Account at the time of credit sale and there is no private enrichment from public funds as a result of credit sales.

Projects that are partially funded by NRCS conservation easement funds may generate credits in proportion to the amount of private investment and non-federal funds under the USFWS Policy Regarding Voluntary Prelisting Conservation Actions, provided that:

- acquisition of private land easements through USDA conservation easement programs are an essential element of an effective conservation strategy, as is the case in Montana;
- crediting of non-federal contribution to the USDA conservation easement program to mitigation purposes is necessary in order to make participation financially feasible for the affected private landowners, as is the case in Montana;
- USDA agrees to allow the non-federal contribution to be credited for mitigation, which Montana will seek; and
- all other eligibility requirements of the voluntary prelisting policy are met.⁴⁰

⁴⁰ U.S. Fish and Wildlife Service. 2018. Part 735, U.S. Fish and Wildlife Service Manual, Chapter 1. Policy Regarding Voluntary Prelisting Conservation. Available at: <https://www.fws.gov/policy/735fw1.html>.

That is, in such circumstances, the total amount of credit generated by a project should be reduced by the pro-rata proportion of USDA funds used when the source of the matching funds prohibits the generation of credits for compensatory mitigation.^{41,42}

Transportation, utility, county, and many other types of funds that are not restricted to providing conservation benefit may be used to generate credits. Public funds may also be used to meet eligibility requirements (i.e., to meet existing obligations that are not eligible for crediting under the description of additionality above).

2.1.2 Project Duration and Durability

Crediting projects must be durable. The period of time that mitigation is effective and in place must be equal or greater in duration than the impacts being offset. The minimum acceptable duration, or term, of credit projects is 15 years, to ensure that actions taken persist on the landscape long enough to benefit sage grouse, given their unique life history and habitat requirements (such as high level of site fidelity) and dependence on sagebrush.⁴³ The Program may allow a limited number of duration categories (for example, 15, 30, 50, and 75-year and permanent credits) to simplify registration and accounting, and may provide for exceptions to these categories (but not below the minimum credit duration) at the Program's and MSGOT's discretion.

Demonstrating durability of credit actions requires both legal protection and financial assurances to ensure appropriate management throughout the life of the credits.

Legal Protection: Legal protection may be demonstrated through term or permanent conservation easements, term leases, or deed restrictions, all of which must be filed with the appropriate county. Land purchase or conveyance to a public or non-profit conservation manager may also meet the State's legal protection standard, provided other elements of durability are demonstrated.

At the discretion of the Program, and with MSGOT approval, alternative methods for legal protection may be allowed if the supply of mitigation credit projects is insufficient to meet demand or to spend available Stewardship Account funds in a timely fashion. These alternative methods could include agricultural leases, multiparty agreements, or conservation land use agreements. If allowed, the Program should identify a suitable method for discounting the value of credits produced to address the greater uncertainty associated with these instruments. An easily reversible voluntary agreement such as a candidate conservation agreement (with or without assurances) is not sufficient to demonstrate legal durability since an owner of non-federal lands can withdraw at any time.

Crediting projects on state and federal lands must also demonstrate durability as defined above, although the legal instruments available to meet that standard may differ from those on private

⁴¹ MCA § 76-22-110(5) (2017).

⁴² U.S. Fish and Wildlife Service. 2018. Part 735, U.S. Fish and Wildlife Service Manual, Chapter 1. Policy Regarding Voluntary Prelisting Conservation. Available at: <https://www.fws.gov/policy/735fw1.html>.

⁴³ The minimum duration of a term easement is "not less than 15 years" and "an easement granted for a term of years may be renewed for a term of 15 or more years upon the execution of a new granting instrument by the parties" (MCA § 76-6-202 (2017)); term leases for a credit site function as a contractual relationship between the parties and must also be a minimum of 15 years.

lands. On state lands, credits may be created through conservation actions authorized and implemented directly by the Trust Lands Management Division or other state entities and offered for sale to project developers, or through an agreement with a third-party credit provider. For example, Trust Lands Management Division could enter into a conservation agreement with a third party, who then compensates the state for some portion of the value of credits generated by the third party.

On federal lands, legal instruments for demonstrating legal durability are determined by federal laws and policy (such as the Federal Land Policy and Management Act and BLM mitigation policies). The most durable compensatory mitigation sites are those located on BLM national conservation lands due to these lands' protected status in law; however, it may be difficult or impossible to demonstrate additionality on these lands. Other durability provisions on public lands may include, but are not limited to, (1) secretarial withdrawals under the authority of FLPMA; (2) leases or conveyances of public land under the authority of the Recreation and Public Purposes Act; (3) protective land use plan allocations, including land use restrictions; (4) issuance of a land use authorization (e.g., leases or easements) to a member of the public for purposes of conservation; or (5) modification or relinquishment of an existing lease (with consent of the lessee) to remove potential incompatible uses from the site for the duration of the impact.

Financial Assurances: All credit projects must also provide financial assurances of durability, including demonstrating the availability of funding for implementation of conservation actions, long-term site management, and/or credit replacement in case of avoidable credit project failure. These assurances could include financial instruments such as: (1) an endowment; (2) a bond; (3) a contingency fund; and (4) an insurance policy, or other type of financial guarantee. The Program will work with credit providers to determine a type and amount of financial assurances needed based on location, conservation actions, and other project characteristics.

Unavoidable credit project failure due to force majeure events such as wildfire are addressed through a reserve account of credits that will be managed by the Program or a designated third party. These credits are in addition to credit project-level financial assurances. Reserve account credits will be included in the state's credit registry. The reserve credit account is created and supplemented through required contributions by debit project developers who buy credits or make payments to the Stewardship Account and is described in more detail in Section 3. The processes for resolving failure of crediting projects and for accessing reserve account credits in the case of project failure are described in Section 2.4.3 below.

2.1.3 Site Selection and Conservation Actions

Appropriate compensatory mitigation site selection is key to ensuring the use of mitigation funds provides the greatest possible benefit for sage grouse (Table 2.1 above and Tables 2.2 or 2.3 below). Small, isolated sites are less likely to contribute to sustainable habitat and are less likely to be used by sage grouse. Certain sites may be at higher risk of damage by wildfire or invasive species. All crediting projects or permittee responsible mitigation projects for compensatory mitigation must occur in sage grouse Core Areas, Connectivity Habitat, or General Habitat⁴⁴ or on federal lands classified as PHMA, GHMA, or RHMA.

⁴⁴ MCA § 76-22-111(3) (2017).

Efforts to develop credit sites should be targeted to the extent possible towards the locations where the greatest benefit to sage grouse habitat and populations can be provided. For example, credit site developers can proactively use the HQT to locate areas with higher habitat quality, where a greater number of credits can be developed for the physical acreage of the credit site. Benefits to sage grouse habitat and populations could even be documented where local populations have declined, or residual populations exist by undertaking management actions that address limiting factors.

Crediting projects may not be located on sites or in areas that are under imminent threat of direct or indirect disturbance likely to prevent the project from meeting performance standards. Evidence of an imminent threat include recently acquired subsurface rights, recent energy leasing activity, development plans or permitting is already underway, or development designations on or off site. Similarly, crediting projects should not be located on sites or in areas that fall within the zone of influence of development that would negate the effectiveness of the site to provide functional habitat. For example, the HQT can assist credit providers identify areas where habitat quality is lower due to existing anthropogenic activities. Credit providers can also work with the Program to obtain preliminary feedback regarding site viability and whether there are any known imminent threats of direct or indirect disturbance.

In Montana, it is possible if not common, for surface lands and the mineral estate to be owned by two separate entities (i.e., split estate). While the law is well settled that the mineral estate is the dominant right and reasonable use of the surface is allowed under Montana law, split estate does not automatically disqualify a potential credit site that meets all other requirements. In other words, the presence of a credit site is not mutually exclusive of mineral development and the two uses can coexist.⁴⁵ The likelihood that minerals will actually be developed should be considered. A Remoteness Review Report can inform decisions as to appropriateness of the parcel as a credit site and whether there is an imminent threat of direct or indirect disturbance sufficient to negate the quantity and quality of habitat afforded by the proposed credit site.

A Remoteness Review Report assesses the likelihood or potential that economically viable mineral resources exist and may be developed in the future. Such a report is typically prepared by a qualified geologist and describes the geology of the subject property and nearby properties. The preparer usually makes a site visit and studies publicly-available data and information. The preparer ultimately makes a determination as to the potential or probability of future mineral extraction and whether the likelihood of future mining is so remote as to be negligible.

A Remoteness Review Report is commonly included as a matter of due diligence by entities when considering whether to enter into a perpetual conservation easement. The potential for development to be “so remote as to be negligible” is typically required for a perpetual conservation easement to move forward. Such a finding is absolutely required by the U.S. Internal Revenue Service in order for the site to qualify for tax deductions pursuant to the U.S. Tax Code.⁴⁶

For credit site developers seeking funds from the Stewardship Account for perpetual easements, a minerals remoteness report is required and would ordinarily be done as a matter of due diligence.

⁴⁵ Credit providers engaged in primarily perpetual conservation easements should consult the Internal Revenue Service Code Title 26 Subtitle A Chapter 1 Subchapter B Part VI Section 170 and Montana laws for guidance as to development of mineral resources, preservation of conservation values, and the tax implications.

⁴⁶ See Internal Revenue Service Code § 170(h).

Credit site developers seeking funds from the Stewardship Account for term easements or leases are strongly encouraged to obtain a minerals remoteness report. If such a report is not available at the time of application for funding, the Program will, at a minimum, determine whether the minerals belong to the federal estate or are privately owned. The Program will not conduct a formal minerals title search but will use publicly available information to create maps and may make inquiries of the grant applicants to ensure MSGOT makes a fully informed decision when awarding Stewardship Account funds.

Other considerations when selecting appropriate credit sites include, but are not limited to the following:

- The site and the surrounding area have low levels of anthropogenic disturbance (e.g., cultivation, energy development, or other human-related infrastructure are below the 5% disturbance threshold outlined in EO 12-2015).
- The site is near or adjacent to large blocks of high quality functional habitat.
- The site has potential for additional habitat restoration or enhancement actions which further increase habitat quality or quantity (i.e., increase functional acres / credits).
- The landowner is willing to agree to longer duration site projection, thereby increasing the number of functional acres and thus credits available. Longer duration site projection provides greater certainty of habitat conservation in the context of achieving the mitigation standard of no net loss and Montana's overall conservation goals.
- The site or area supports one or more active leks or is within four miles of active leks.
- The site meets the definition of suitable habitat provided in EO 12-2015.

Conservation actions that involve preservation, restoration, and/or enhancement actions must meet the requirements of this Policy Guidance and relevant state or federal policies and regulations.

Each credit provider must develop and submit a site management plan ("site plan"), which identifies the extent, type, and description of all proposed conservation actions to preserve, restore or enhance habitat. Individual site plans will describe:

- the type and location of vegetation communities present on the project site;
- current and future threats to sage grouse habitat function for the site, including adjacent competing land uses;
- specific conservation practices that will be implemented on the site to maintain or improve habitat for the species;
- site-specific performance standards, that describe the actions or outcomes on which results will be evaluated and credit and payment release predicated; and

- proposed monitoring methods and duration, including reporting, to document site conditions and verify credit production.

A site plan may be developed by any credit provider or third party, with or without assistance by Program staff or technical support providers. The Program will determine whether a site plan is appropriate and adequate.

As staff capacity allows, the Program will provide credit providers with guidance and information on site-appropriate actions. The Program may consider approving credit for conservation actions not listed in Table 2.1 on a case-by-case basis if the gain in sage grouse habitat function or population benefits can be adequately quantified and clear and approved best practices exist for how to plan, implement, and maintain those conservation actions over time.

Not all possible conservation actions will be appropriate for generating credits on every site. The actions selected for a given site should reflect threats affecting sage grouse locally and regionally, site potential, current vegetation and other conditions, and the risks or likelihood of success of a given action. Multiple conservation actions can occur on a single site, which will increase the quality and quantity of habitat and subsequent credits available.

Project developers conducting permittee-responsible mitigation should consult with the Program for assistance in identifying appropriate compensatory mitigation sites and conservation actions to ensure consistency with policies and to maximize credit availability.

Prior to release of a request for crediting proposals for the Stewardship Account, MSGOT will identify priorities for a funding cycle. These priorities may identify regions, populations, habitat types, threats, or specific conservation actions that will receive preference for funding. They may be based on best available science, information on landscape-scale priorities, and/or information about likely future impacts related to sage grouse habitat use and management needs. For example, for term easements or leases, MSGOT may incorporate a signing bonus, a graduated or tiered payment structure to incentivize longer duration leases or easements, or higher rates for greater legal protection of the site by prohibiting more surface uses of the land. MSGOT will announce any specific priorities or solicitations when specific grant cycles are announced.

2.1.4 Calculating Functional Acres Gained and Converting to Credits

Determining the amount of mitigation credit provided by a project requires a method for measuring both the impact of the debiting project and the benefit of the crediting project using the same baseline habitat values. This ensures that results are comparable and establish a common currency in the mitigation market place. Montana's Sage Grouse Habitat Quantification Tool (HQT) is used to measure the results of all debiting and crediting projects (see the HQT Technical Manual). The Program (or its designee) is responsible for creation and maintenance of the HQT and ensuring public access to the tool and detailed results (specific values and maps).

The HQT estimates not only the quantity of habitat affected by an action, but also its quality in terms of value to sage grouse. The HQT's assessment of habitat quality includes both local context and site condition, combined into a single metric and expressed as functional acres. A functional acre is a unit of habitat, which in turn is expressed as a credit or debit or a unit of trade in a mitigation marketplace.

In the case of credit sites, functional acres gained are calculated using the HQT and are then converted to credits after application of this Policy Guidance. One functional acre is the equivalent of one credit. (i.e., ratio is 1:1). See Figure 2.2

The HQT will be used to estimate the results of conservation actions at full implementation, based on likely future conditions at the site. For example, a project involving only preservation through legal protection can project future site condition largely based on current condition. A project that includes restoration or enhancement components can run the HQT based on a set of assumptions about how these actions will affect future condition (for example, restoration actions to remove juniper would be assumed to reset HQT juniper canopy cover to 0%). In all cases, the HQT results reflect the functional acres gained as a result of the conservation action and are proportional to that particular project since common baseline habitat values are used for all credit site HQT calculations.

At the completion of the term of the credit project and/or prior to the final release of credits based on the site-specific credit release schedule for restoration or enhancement projects, the Program runs the HQT to determine how many credits were created over the life of the project. Additional collection and verification of field data may be required, and the amount of final credit release may be adjusted accordingly.

For preservation credit projects, the policy step in Figure 2.2 considers the following, in addition to policy signal multipliers summarized in Table 2.2:

- For perpetual easements, the duration is 100 years.
- For perpetual easements with no additional restoration or enhancement actions, the number of credits available is 40% of the Raw HQT Score times 100 years. MSGOT may adjust baseline by a maximum of up to 10% above or below 40% upon request and based on a demonstration that baseline should be increased or decreased using objective, reliable data that directly assess and quantify the relevant risks or threats to habitat. The standard default baseline is 40% but could range between 30% and 50% on a case by case basis based on demonstrated, quantified risks of habitat losses and threats that would be avoided by the easement and subject to MSGOT approval.
- For term easements or leases, the duration is the number of years identified in the easement or lease agreement.
- For term easements or leases up to 30 years, with no additional restoration or enhancement, the number of credits available is 100% of the Raw HQT Score times the number of years in the easement or lease agreement. For term easements or leases lasting longer than 30 years, the number of credits available is 40% of the Raw HQT Score times the number of years of the term easement or lease. MSGOT can approve an adjustment between 30% and 50%, similar to perpetual easements.
- For perpetual easements, term easements, or term leases, a multiplier of 10% will be applied to the number of newly-created functional acres, as described in Section 2.1.5.
- The minimum preservation credit duration is 15 years.

For restoration and enhancement credit projects, the policy step in Figure 2.2 considers the following, in addition to policy signal multipliers summarized in Table 2.2:

- The duration is the number of years identified in the site protection instrument.
- Baseline is the pre-project condition as calculated by the HQT. The number of new functional acres is determined by re-running the HQT to predict outcomes of the habitat management actions. See the HQT Technical Manual for additional details about these calculations.
- Phased credit release schedules will account for the length of time required for restoration or enhancement actions to actually increase habitat quality or quantity and the number of credits available from restoration and enhancement sites at any given time.
- The minimum restoration or enhancement credit duration is 15 years.

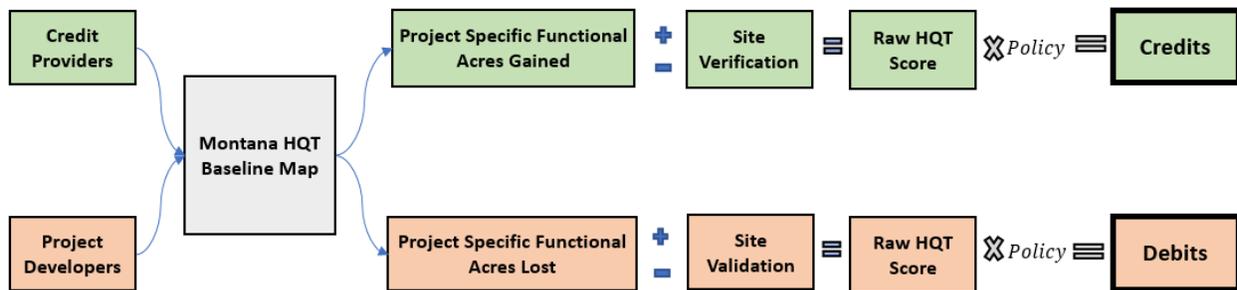


Figure 2. 2. General process to determine the number of credits produced during the life of a credit project using the HQT and applying this Policy Guidance (top row, in green).

2.1.5 Adjustments to Credit Amounts to Incentivize Conservation

The HQT result for credit sites will be adjusted to further enhance voluntary, incentive-based mechanisms to preserve, restore, and enhance sage grouse habitats.

The total number of credits available from a credit site is the Raw HQT Score (adjusted for baseline in the case of preservation credits as described in Section 2.1.1) plus any adjustments.

The amount of credit available on a project site is adjusted when new functional acres are created, as follows (Table 2.2):

Core Area or PHMA: To further incentivize credit actions in sage-grouse Core Areas or PHMA (see Figure 1.1), a positive multiplier of 10% will be added to the number of functional acre credits newly produced at a given credit site. For example, preservation credit sites (perpetual conservation easements or term lease agreements) maintain the status quo and remove threats, but

do not create new, additional functional acres in contrast to restoration or enhancement credit sites which increase functional acres above the baseline. Providing a positive 10% multiplier for all newly-produced functional acre credits in the areas of highest priority for conservation will incentivize additional voluntary conservation actions to restore or enhance habitat.⁴⁷

For example, a credit project in a Core Area or PHMA may start with a baseline of 50 functional acres. After implementing the conservation action, there is a total of 150 functional acres. This represents a change (or addition) of 100 new functional acres. Therefore, a total of 160 functional acres now exist on the credit site, and 160 credits will be available [50 + 100 newly created+100(0.10)].

General Habitat, Connectivity Area, or GHMA: A positive multiplier of 5% will be added to the number of functional acre credits newly produced at a given credit site. A similar multiplier is applied to debit amounts in General Habitat, Connectivity, or GHMA to incentivize developers to site projects outside of these areas that also provide sage grouse habitat. See Section 3.3.1.

For example, a credit project in General Habitat or GHMA starting at a baseline of 50 functional acres and resulting in a post-project condition of 150 functional acres, the addition of 100 new functional acres. Therefore, a total of 155 functional acres now exist on the credit site, and 155 credits will be available [50 + 100 + 100(0.5)].

Table 2.2. Summary of policy signal multipliers for credit projects to incentivize voluntary conservation of Montana’s sage grouse habitats.

Policy Signal Multiplier	Core Areas or PHMA	General Habitat, Connectivity Area, GHMA, RHMA
Newly-produced functional acres (credits)	10% of the new functional acres created	5% of the new functional acres created

2.2 Implementing and Verifying Conditions on Credit Sites

This section describes the process that all mitigation credit projects will use to verify the number of credits their project is projected to generate, as well as the number of credits actually generated over time through implementation.

Monitoring and third-party verification of credit outcomes is critical to ensuring that credit providers meet their contractual obligations and deliver anticipated outcomes, or that if unavoidable losses occur, appropriate remediation or replacement actions are taken in a timely fashion.

Verification is an essential component of ensuring that debit project developer’s mitigation obligations are met in full and allowing a full transfer of credit responsibility when desired by both parties. An initial verification will occur in year “zero” of a project that includes a site visit and review of documentation. The initial verification confirms credit site eligibility, estimates of credits,

⁴⁷ See MCA §76-22-102 (Legislative findings and purpose of the Montana Greater Sage-Grouse Stewardship Act).

and adequacy of stewardship/monitoring plans. Verification of a site's ecological performance will occur regularly throughout the life of a project. Verification frequency should be outlined in the site plan and may vary based on an individual mitigation site's characteristics and ongoing performance.

The Program will either conduct site visits and other forms of verification in coordination with permitting agencies and credit providers or may designate one or more parties as third-party verifiers. Third parties could include consultants, conservation district staff, contractors, restoration professionals, or others. Verifiers should be approved by the Program, use standardized forms and processes, and have the expertise needed to use the HQT and identify problems with project implementation and outcomes.

Differences in opinion may occur among the several parties involved in credit generation – the credit provider, Program, permitting agencies, verifier, etc. These disagreements might involve the adequacy of documentation, whether the project was implemented correctly, whether credits are estimated accurately, whether a credit provider is correctly estimating for ongoing performance costs, or other concerns.

MSGOT is the initial point of review for disputes that arise and cannot be handled within an interagency review team or between a credit provider, the Program, and/or other parties. The Program may also choose to set up internal processes to deal with disputes involving its decisions. These may include separate processes for minor and significant, or material, disputes. All dispute resolution processes will be consistent with applicable Montana law and any other relevant laws.

2.3 Project Approval and Credit Release

Credit release is the point at which conservation actions proposed as part of a credit project are officially translated into credits that are available for sale or use in the mitigation marketplace. With a verification report that confirms eligibility and credit quantification, the Program is ready to finalize project approval and certify credits for release.

2.3.1 Approving a Mitigation Instrument

Prior to project approval and credit release, the Program will review the following documentation for completeness and accuracy. Table 2.3 lists the documents needed to gain final approval of a mitigation instrument and release the initial phase of credits.

Mitigation instruments provide legal protection to the credit site and ensure that preserved, restored, or enhanced lands provide functional habitat for the duration of the activities for which it is being used to offset impacts. Minimum expectations include prohibitions on intentionally removing sagebrush (e.g., new cultivation, mechanical treatment or spraying), new mining, commercial development, or any other activity within the control of the surface owner that would negatively affect the number of functional acres after the number of functional acres is calculated using the HQT and the credit site is approved.

Mitigation site protection instruments could include a term lease or easement, a perpetual easement, or a deed restriction. Site protection instruments can also entail a contractual arrangement between parties. Executed copies should be filed with the clerk and recorder's office in the respective county of the credit site/s to provide notice of the restrictions.

Table 2.3. Documents required for final approval of credit site mitigation instruments.

Document Title	Description
Eligibility Narrative	See Table 2.2 and Section 2.1.3 for what should be addressed
Total Credit Estimate	Estimate of project sage grouse habitat benefits based on HQT results and multiplier adjustments as appropriate
Site Plan	Description of the location, extent, type, and design of conservation actions and management, as well as monitoring and reporting requirements throughout the term of the credit project
Stewardship Plan (also includes financial assurances)	Identification of stewardship costs, plans and timeline for demonstrating the availability of funding for stewardship, (endowment or other tool) who will be the steward, how maintenance will be conducted, and contingency plans for events such as drought, wildfire, etc.
Monitoring and Verification Plan	Monitoring methods and duration, including reporting, to document site conditions and verify credit production.
Financial Management Plan	Detailed financial management plan including initial costs (acquisition, field surveys, habitat restoration, capital equipment, etc.), on-going annual costs (monitoring, maintenance, management, reporting, contingency allocation, etc.), and stewardship funding requirements accounting for inflation and investment strategy. Plan should outline all costs needed for predictable, effective, and durable creation of credits, in order to allow for all costs of credit generation to be fully reflected in credit cost.
Land Protection Documents	Recorded easements and/or other legal instruments protecting the land for the duration of the credit life
Verification Report	Produced by a verifier and confirms the appropriateness of the documents listed above

2.3.2 Registering Credits

The State of Montana will identify or develop a database (i.e., registry) to track creation and sale of sage grouse habitat mitigation credits for credits created through funding from the Stewardship Account, including all permittee-responsible compensatory mitigation projects. All credits and their accompanying documents must be recorded in that database for the State of Montana, BLM, USFS, and other permitting agencies to determine compliance with applicable rules and laws. The database will include, at a minimum, geographic locations, site plans, verification documents, credit quantities, and credit purchases by Service Area. Information on the general location of impacts and mitigation sites and the quantity of credits being generated and sold should be easily accessible

to the public to ensure availability of the information to all credit providers and developers, transparency, and confidence in the system's outcomes.⁴⁸

Credits created by MSGOT through Stewardship Account fund grants will be assigned serial numbers and included in the statewide registry. As credits are utilized by project developers for specific projects, the credits will be withdrawn from the pool of available credits and the registry will be updated.

2.3.3 Credit Release

Credits that are released are available for offsetting impacts. Prior to selling or using any credits, a credit provider must have an approved site plan in place described in the sections above. The Program will conduct a pre-sale check-in with any relevant regulatory and permitting agencies to ensure full agreement on credit estimates (and credit need, in the case of permittee-responsible mitigation).

Credits funded by the Stewardship Account will be released or assigned to specific development projects upon MSGOT's approval and recorded in the registry. Under the Act, MSGOT may transfer credits created through Stewardship Account funded-projects to third parties operating approved habitat exchanges or retire a number of credits it has created but not transferred in an amount equivalent to the number of debits when a developer desires to make a contribution to the Stewardship Account. For credits transferred to a third party, the Stewardship Account must be reimbursed with the proceeds when those credits are sold.

MSGOT may recommend or approve future creation of a habitat credit exchange, where mitigation credits may be freely bought and sold. Regardless of credit project type or mitigation mechanism, all credit sales used to fulfill mitigation obligations in the State must be listed and tracked in the State's registry database.

In some circumstances, not all credits are released immediately on approval of a site plan, recording of a land protection agreement, or project implementation. Instead, credits are released in phases. This is called phased release of credits and is appropriate for restoration or enhancement credit projects. Releasing a limited number of credits in stages prior to its completion is a common way of balancing the need to demonstrate ecological benefits of a project with the need for up-front funds to finance implementation actions. It also partially relieves the financial burden placed on mitigation credit providers when initially developing restoration or enhancement credit projects. If returns on early investments to create credits are delayed, a sage grouse credit provider (e.g., NGO or for-profit partner) could fail financially and create a disincentive to others to develop mitigation credit sites. Allowing some financial returns early in a project is critical to long term viability of credit providers while at the same time requiring attainment of habitat functionality in phases prior to complete release of all credits.

For strictly preservation credit projects, credits can be released as soon as a project is implemented and approved. This will typically be the case after the perpetual easement has closed and been recorded in the county clerk's office or after a term lease agreement has been executed.

⁴⁸ MCA § 76-22-104(3) (2017).

For restoration or enhancement credit projects, the amount and timing of payments to credit providers will be based on an agreed-upon set of performance standards and timeline. The timing and amount of payments need not necessarily match the timing and amount of credit release if another mutually agreeable schedule serves to better match expenses with reimbursements.

A default credit release schedule for restoration and enhancement credit projects is included below. However, the schedule included in a specific mitigation proposal may have additional phases and requirements necessary for credit release. For example, credits may be released on meeting ecological performance standards rather than specific actions, or more credit release could be provided earlier if a credit project is focused on preservation rather than restoration and is therefore providing most of its benefit early in the term. If performance standards are not being met (i.e., the project is not on a path to provide the projected number of credits), credit release may be halted as described in Section 2.4.3 below.

Default Credit Release Schedule if No Other Project-specific Schedule is Proposed and Approved by MSGOT:

- **Phase 1:** 20% of projected credits are released on approval of site plan and recording of a land protection agreement.
- **Phase 2:** Up to 20% of credits are released at the end of years 1 and 5 (up to 40% total) if site plan actions have been implemented and appropriate progress toward performance standards is documented and verified.
- **Phase 3:** Up to 20% of credits are released when financial assurances are fully executed and funded, provided appropriate progress toward performance standards is documented and verified.
- **Phase 4:** All remaining credits are released when a site has met all of its final performance standards, based on verification of the final total number of credits produced at the site. If a site exceeds its final performance standards and generates additional credits, these credits will be released.

2.3.4 Developing More than One Credit Type on the Same Parcel

Mitigation credit site providers may seek to develop more than one type of ecosystem credit on the same site where the credits overlap spatially (e.g., sage grouse and carbon sequestration). This is known as “stacking.” Montana’s Mitigation System will recognize credit stacking, but only when it is consistent with the USFWS Policy Regarding Voluntary Prelisting Conservation Actions (May 31, 2018).⁴⁹

The Policy provides that while multiple credit types may be developed on a single credit site, the same credit can’t be sold and purchased more than once. That is to say that the stacked credit can’t be used to provide credits for more than one permitted environmental impact even if all the resources included are not needed to offset impacts of that particular action.

⁴⁹ U.S. Fish and Wildlife Service. 2018. Part 735, U.S. Fish and Wildlife Service Manual, Chapter 1. Policy Regarding Voluntary Prelisting Conservation. Available at: <https://www.fws.gov/policy/735fw1.html>.

While credit stacking is generally permissible, the same unit of ecosystem function or service can't be sold or purchased more than once because this would result in "double dipping" by the credit provider and would also not achieve the no net loss standard when credits are used more than once to offset sage grouse debits.

Credit site providers should consider the parcel of land and consult the policy to determine the site's potential for developing more than one type of credit. For example, land primarily in grassland habitat types may lend itself more towards carbon sequestration credits than sage grouse mitigation credits. If a parcel has intermingled grasslands and sagebrush supporting sage grouse, development of both credit types is permissible. However, once a credit is sold as either carbon sequestration or sage grouse mitigation, the credit may not be sold a second time. The same credit of ecosystem function on the ground may not be sold more than once.

Montana's HQT Technical Manual outlines a pixel-based (e.g., raster) GIS model to quantify the number of functional acres gained through a credit project. As such, the HQT is spatially explicit. Montana's registry will include information about whether more than one credit type is established on a parcel of land. Once a credit is sold for sage grouse mitigation, the credit will be retired and ineligible for sale as a different ecosystem credit type (e.g., carbon sequestration).

Developers should inquire with individual credit providers whether they are stacking credits other than sage grouse mitigation on the same parcel of land. Credit providers should disclose this information developers if that is the case. Developers can't utilize credits that have already been sold for another purpose. The credit registry will reflect and track any "stacked" credits when used for sage grouse mitigation.

2.4 Implementation, Verification, Tracking, and Adaptive Management

For any mitigation site, the credit provider is responsible for conducting ongoing monitoring and demonstrating progress toward meeting the performance standards outlined in their site plan. A credit provider needs to submit monitoring reports to the Program for the duration the site is used to offset impacts. Reports are due before December 31 of each year in which a report is required but may vary depending on the verification schedule agreed to in the site plan and approved by MSGOT. The Program will review monitoring reports and report a summary of results across projects to MSGOT and other permitting agencies.

2.4.1 Site Performance Standards

Credit-generating sites will need to maintain a certain level of performance over time to sustain the habitat functions on which their credits are based and upon which project developers have relied to fulfil mitigation obligations. Every site will have an agreed-to set of measurable performance standards that need to be met at agreed-to time intervals.

Performance standards for each mitigation site will be customized in the site plan but should, at a minimum, require the credit provider to maintain the existing level of habitat quality, barring unavoidable events as described in Section 2.4.3. Any additional performance standards should be built around existing site condition, proposed actions, and the projected future condition of the credit site, and should be based on the best available science on sage grouse habitat assessment and management, available data on the needs of sage grouse and other relevant species, and any reference/historic conditions that are applicable.

To ensure appropriate management for the life of the credits, each proposed crediting project must also include a stewardship plan that identifies a long-term steward, stewardship goals and activities, the amount and source of funds needed to maintain the site, and documentation of the time needed to implement the full stewardship plan. The stewardship plan is one set of documents submitted to the Program before credits can be released (see Table 2.3).

2.4.2 Requirements for Monitoring Credit Sites and Verification of Credits

Monitoring and verification reports will be required, and the timing and content of those results must be approved by the Program and any permitting agencies as part of the set of documents submitted for final credit project approval. Monitoring reports should be required annually for most credit projects and should demonstrate progress toward meeting and sustaining agreed-to performance standards.

Monitoring components should include the following, at a minimum:

- a restatement of the agreed-upon performance measures and the implementation schedule;
- a summary of overall site conditions, challenges (including anticipated and unanticipated costs), and progress;
- a table demonstrating progress toward performance standards, and what data/findings were used to support that demonstration;
- documentation of circumstances in which site conditions improved beyond what was anticipated or alternatively why site conditions did not improve as anticipated, and discussion of potential reasons why as input into the adaptive management aspect of the program;
- recommendations for rectifying the site conditions if performance standards are not being met and an action plan for implementing such measures, including a timeline;
- a list of credits sold, retired, or used; and
- any suggested improvements in the mitigation procedures and policies for the Program to consider in adaptive management.

In cases where multiple parties are involved in credit creation, the monitoring and performance responsibilities of each party should be clearly outlined in easements or other land protection instruments or contracts.

2.4.3 What Happens if Performance Standards are not Being Met

The Program and MSGOT are typically responsible for enforcing the obligations incurred by credit providers at execution of a mitigation instrument to which the Program is a party, as will typically be the case when Stewardship Account funds are used to create credits. If Stewardship Account funds were used to purchase a perpetual conservation easement by a third party such as a land trust organization, the land trust organization is the easement holder. The organization is responsible to conduct annual monitoring and provide the information to the Program. The

easement-holding organization is responsible for enforcing the terms of the easement, although Montana holds a contingent right to enforce the terms of the lease or easement.⁵⁰ Where specific enforcement responsibility has been delegated to a third party, the third party is responsible.

In cases where multiple parties are involved in credit creation, responsibilities for performance and remediation should be clearly outlined for each party in easements and/or contracts.

Credit projects can fail to meet performance standards for three reasons: (1) unavoidable force majeure events beyond the credit provider's control, such as wildfire, flooding, extreme drought, or the unintended failure of management interventions; (2) avoidable implementation failure, neglect, or actions that are willful or that a credit provider has the reasonable ability to foresee and correct; and (3) land use conflict from a conflicting use that cannot be legally precluded, such as development of mineral rights or impacts from actions on neighboring properties.

The Program manages this risk of project failure through judicious use of the credit reserve pool, phased credit release, financial assurances, and other tools for managing uncertainty outlined in this Policy Guidance.

Unavoidable Failure or Force Majeure Events: When a credit project fails to meet performance standards as a result of an unavoidable event, the credit provider should notify the Program as soon as possible. Both parties should work together to identify appropriate actions and an acceptable time-frame in which actions needed to correct the issue and return to a positive trajectory would be accomplished.

Credit release and payments should immediately be halted and remain suspended until the issue is corrected and the credit project returns to meeting agreed-upon performance standards. At the end of that set time for project correction, the Program will re-evaluate the conservation outcomes. In the case of wildfire, the recovery time could be very long. The parties may tap the reserve account earlier than waiting for a set time.

Credit providers are not required to replace credits that have already been sold and are then invalidated by unavoidable failure, but no further credits will be released from the site unless it returns to meeting performance standards. Invalidated credits will be replaced by the Program with credits in the reserve account managed by the Program or its designee.

Permittee-responsible mitigation projects may contribute to and access the pooled credit reserve account, or these developers may create their own pool of reserve credits to access in case of project failure. Unlike other mitigation mechanisms, if permittee-responsible mitigation has not contributed to a reserve account at the rate described in 3.3.1, the debit project developer retains responsibility for credit generation or replacement even in the event of unavoidable failure.

Avoidable Failure: When a project fails because of actions or circumstances that the credit provider has the ability to foresee and correct, the credit provider should similarly notify the Program as soon as possible and work to identify an acceptable timeframe and actions needed to correct the issue and return to a positive trajectory.

⁵⁰ MCA § 76-22-112 (2017).

Credit release and payments should immediately be halted and remain suspended until the issue is corrected and the credit project returns to meeting agreed-upon performance standards. If the project remains deficient at the end of that time-frame, the credit provider must purchase replacement credits from the Stewardship Account, another credit provider, or the reserve account (at the discretion of the Program, with MSGOT approval, and at full cost), or begin a contract cancellation process. If a contract is cancelled due to implementation failure, the credit provider will be liable for replacement of all funds (if Stewardship Account funds were used, plus reimburse the State's expenses) or credits that were released for the site and invalidated by the failure. Performance bonds or other forms of financial assurances help ensure this responsibility is met.

Land Use Conflict: Land use conflict should generally be avoided through the site eligibility requirements described in Section 2.1, because appropriate legal protections should generally preclude competing uses on the credit site. However, it may not be possible to legally preclude all incompatible uses on credit-generating sites (e.g., offsite impacts impairing on-site habitat quality or quantity, loss of land due to eminent domain, or development of the mineral estate). Similarly, it is not possible to legally preclude all incompatible uses on lands adjacent or near to credit-generating sites. Reserve pool credits are a potential source of replacement credits.

In the instance of newly-proposed development projects that are subject to state and/or federal permitting authority and subject to mitigation requirements to offset the impacts, the permitting agency has the option to add replacement of the compromised credit site to the total mitigation obligation for the new project. For example, the contribution to the reserve account may be increased for the new project or a new credit project could be proposed at another site through permittee-responsible actions. The permitting agency, the Program, the developer, and the credit provider should work together to establish an acceptable time-line and means for replacing all lost or impaired credits.

In the instance of split estate situations, the mineral estate has the prior existing legal right to reasonable use of the surface lands of a credit site, pursuant to laws governing split estates in Montana. This is a special case and such circumstances will be addressed on a case by case basis. Typically, the mineral estate owner would not be a signatory to the mitigation credit instruments. The reserve account may be used to replace lost or impaired credits due to mineral development, alongside any required reclamation or mitigation associated with the mineral development permits. The permitting agency, the Program, the developer, and the credit provider should work together to establish an acceptable time-line and means for replacing all lost or impaired credits.

3. FOR PROJECT DEVELOPERS: APPLYING THE MITIGATION SEQUENCE, DETERMINING THE NUMBER OF DEBITS, AND ACQUIRING CREDITS

The 2015 Montana Legislature found that “allowing a project developer to provide compensatory mitigation for the debits of a project is consistent with the purpose of incentivizing voluntary conservation measures for sage grouse and populations.”⁵¹ The Stewardship Act provides for a variety of ways that a project developer can fulfill compensatory mitigation requirements. The Act, EO stipulations, and mitigation work in concert to balance the competing needs of conservation and economic activity / development in designated sage grouse habitats.

⁵¹ MCA § 76-22-111(1) (2017).

The following section outlines the steps project developers take to meet avoidance and minimization requirements and then compensate for residual impacts to sage grouse habitat for a proposed project. An overview of the entire process is shown in Figure 3.1. The requirement for mitigation established in the Act and the EO is triggered by the need for a state permit or authorization prior to conduct a particular activity. Common permit types include: encroachment, mining, water discharge, septic, electrical, right-of-way or land use. It is also triggered by use of state grant funds.

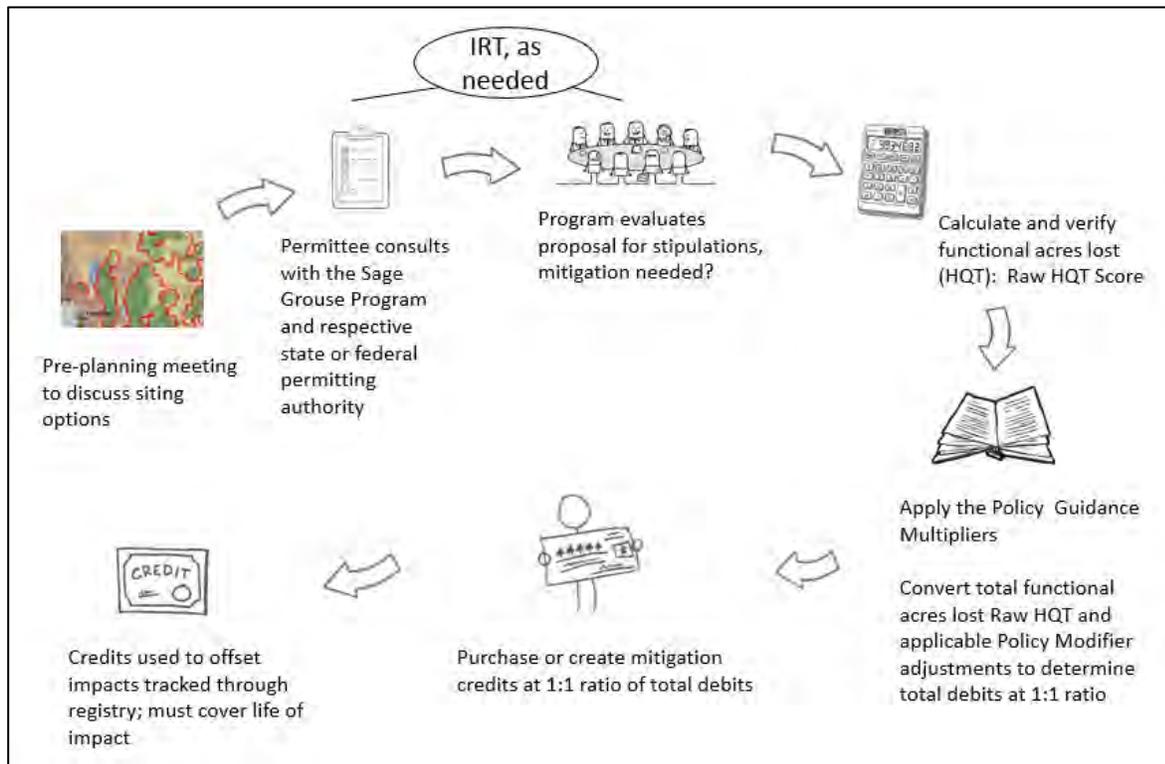


Figure 3.1. Schematic overview of the process a project developer would follow to determine mitigation obligation and obtain the appropriate number of credits.

3.1 Proposing a Development Project that Will Impact Habitat and Create Debits

This section addresses development activities that are subject to avoidance, minimization, and compensatory mitigation requirements under state and/or federal law. Under EO 12-2015, all new land uses or activities that are subject to state agency review, approval, or authorization are required to avoid, minimize, and reclaim impacts to sage grouse habitat, and to provide compensatory mitigation for any residual effects.⁵² For development projects on federal lands, federal land use plans, policies, and regulations control.

⁵² Executive Order 12-2015 Attachment A, paragraph 10, page 3.

Table 3.1 provides an example list of project types and disturbances that require a state permit or authorization or may involve state grant funds and would be subject to the mitigation requirements of EO 12-2015 and the Act. Projects reviewed, approved, or authorized by federal agencies may have additional avoidance, minimization, reclamation, and mitigation requirements. A project identified in the first column will typically require multiple individual disturbances to complete and implement the project. These are listed in the second column of Table 3.1. For example, an oil & gas energy project may require new roads and pipelines but utilize existing building sites and transmission lines. Only the new disturbances required to complete the project are considered for mitigation purposes. Utilization of existing infrastructure to the maximum extent possible is encouraged because doing so minimizes the need to create new disturbance. Disturbances that already exist on the landscape are already accounted for in the HQT. (See HQT Technical Manual and discussion elsewhere in this document).

EO 12-2015 Attachment F⁵³ (copied in Appendix A of this document) provides a list of activities that are exempt from these requirements under certain circumstances and as described in greater detail in Appendices 7.1 and 7.2. Additionally, MSGOT may approve exceptions to the consultation requirements of EO 12-2015. Observance of the mitigation hierarchy is not required for activities listed in Attachment F and MSGOT-approved exceptions. Contact the Program for additional information regarding MSGOT-approved exceptions as they are subject to change.

Project developers proposing development activities that require a state permit or authorization, utilize state grant funds (or require a federal permit) and that occur in sage-grouse habitat should consult with the Program and any permitting agencies to set up a pre-planning meeting at least 45-60 days prior to submitting a permit application or proposing an action that may impact sage grouse habitat in Core Areas, General Habitat, or the Connectivity Area. See Section 3.2 for additional guidance and a discussion of the value of early outreach with the Program and state/federal permitting agencies.

State permitting agencies requiring mitigation of impacts to sage grouse habitat in Montana will refer the project developers to the Program for guidance and information about developing a mitigation plan that is consistent with all relevant agreements, policies, administrative rules, or laws. The mitigation plan should be developed in coordination with the Program and permitting agencies and should outline the proposed action(s), quantify projected impacts on sage-grouse habitat quality and quantity using the HQT, and describe how the project developer will generate or secure sufficient credits to offset residual impacts.

Federal land management agencies are expected to require mitigation for projects requiring federal authorizations. Developers should contact the appropriate federal agency and the Program for technical assistance with the HQT. For projects that require both state and federal authorizations, the Program will collaborate with federal agencies and developers to endeavor to develop a single mitigation plan that satisfies both state and federal requirements.

⁵³ Executive Order 12-2015 Attachment A, starting on page 24.

Table 3.1. Activities that are typically reviewed under Executive Order 12-2015, but may not always, require a state permit or authorization or utilize state grant funds. See Executive Order 12-2015 Attachment F for existing land uses and landowner activities that are exempt from review and compliance with the Order. Often, more than one disturbance is required to implement a Project Type. Authorization by federal agencies are also likely required for these activities if they involve federal surface or federal minerals. Adherence to the mitigation hierarchy is required.

Project Type	Typical Disturbances: Spatial and Temporal	
Energy: Oil & Gas	<ul style="list-style-type: none"> • Well drilling/pump jacks • Well pad construction • Roads • Pipelines • Compressor Stations • Central Battery Systems • Storage yards 	<ul style="list-style-type: none"> • Transmission/power lines • Ponds • Building sites / storage tanks • Well maintenance • Temporary or Plug and Abandon sites
Energy: wind facility	<ul style="list-style-type: none"> • Turbine pads and turbines • Roads • Facilities or buildings • Substation 	<ul style="list-style-type: none"> • Storage yard • Pipelines • MET (weather) towers • Transmission/power lines
Energy: solar farm	<ul style="list-style-type: none"> • Solar array • Facilities or buildings • Substation 	<ul style="list-style-type: none"> • Roads • Fencing • Transmission/power lines
Infrastructure: buildings	<ul style="list-style-type: none"> • Building site • Roads • Parking areas • Transmission/power lines 	<ul style="list-style-type: none"> • Pipeline • Storage yard • Substation
Pipelines	<ul style="list-style-type: none"> • Buried pipeline • Roads 	<ul style="list-style-type: none"> • Compressor stations • Transmission/power lines
Mining: coal, bentonite, hard rock, gravel	<ul style="list-style-type: none"> • Mine site • Roads • Stock piles; drying areas • Bore holes 	<ul style="list-style-type: none"> • Fence • Monitoring well • Transmission/power lines • Storm water outlet
Transmission/Power Lines (distribution lines \leq 35-kV are exempt from Executive Order 12-2015 if beyond the no-surface occupancy buffer distance from an active lek)	<ul style="list-style-type: none"> • Transmission/Power lines (see Glossary and HQT Technical Manual) • Towers 	<ul style="list-style-type: none"> • Roads • Substation
Communications, Fiber Optic Cable, Weather Towers	<ul style="list-style-type: none"> • Communication towers • Buried cable 	<ul style="list-style-type: none"> • Transmission/power lines • Roads
Roads/Transportation	<ul style="list-style-type: none"> • Road • Railway • Staging areas • Borrow pit 	<ul style="list-style-type: none"> • Culvert • Bridge • Storage yard
Agriculture	<ul style="list-style-type: none"> • Crop conversion • Livestock area (e.g., CAFO) • Irrigation • Water pipeline 	<ul style="list-style-type: none"> • Stock pond/tank/reservoir • Water diversion • Transmission/power lines
Habitat Treatment	<ul style="list-style-type: none"> • Prescribed Fire 	

3.2 Application of the Mitigation Sequence and Consultation

Executive Order 12-2015 and the Stewardship Act set forth that Montana will observe the mitigation sequence (i.e., mitigation hierarchy). Observing the mitigation hierarchy reduces project impacts to the smallest possible effect and requires compensation for residual impacts that can't be avoided, minimized, and reclaimed. Residual impacts are unavoidable because new or increased activity or surface disturbances will have some level of impact on sage-grouse and sage grouse habitat. Remaining unavoidable residual impacts are reconciled through compensatory mitigation. The only way to avoid residual impacts is to not implement a development project in designated sage grouse habitat.

For those projects that must be located in designated habitats, consideration of the mitigation sequence also encourages strategic planning to avoid and minimize landscape-level and site-specific impacts. By strategically planning a project's type, location, size, duration, and striving to be consistent with EO 12-2015, developers will decrease the impacts on habitat quality and quantity and the corresponding total mitigation obligations.

Montana encourages developers to pay particular attention to whether or not the newly-proposed activity is located on a site where the surface has already been disturbed by prior activity (e.g., existing disturbance). Montana's Mitigation System incentivizes developers to locate new projects within the boundary of existing surface disturbance. Attention should also be paid to other project details to assess their consistency with stipulations set forth in the EO and/or federal land use plans, as appropriate.

To initiate a review of sage grouse impacts and mitigation requirements, a project developer provides the Program, BLM, or USFS with a description of the proposed activity, including the location and type of land use or activity being proposed and whether and how applicable avoidance and minimization measures will be implemented through the Program's website. For projects requiring a state permit or for activities proposed on federal lands classified as PHMA, this is typically accomplished using the Program's web application.

Developers are encouraged to contact the Program 45-60 days prior to submitting a permit application or requesting authorization from either a state or federal agency. This allows consideration of mitigation proactively in the planning, designing, and siting phases of development projects. Engaging the Program, state and federal agencies early is particularly important for large or complicated projects where mitigation obligations could be higher. For example, if a project developer is required to submit a Plan of Development (POD) to a state or federal permitting agency, developers are encouraged to engage the Program and the permitting agency very early in the project planning process to integrate mitigation, including compensatory mitigation, into the proposed action analyzed in an environmental assessment or environmental impact statement. Upfront consideration will enable mitigation to be incorporated into any applicable MEPA or NEPA analysis from the beginning. This will minimize delays or subsequent requirements for supplemental environmental analyses.

For purposes of compliance with State policy, minimization measures will be focused around stipulations outlined in EO 12-2015 (Attachment D) or specific provisions in federal land use plans, although Program staff may also work with the project developer and/or permitting agencies to use the HQT to explore alternative siting or design options that could further limit impacts to sage grouse and therefore reduce mitigation needs. This is typically accomplished using the Program's web application as a matter of pre-project planning.

The Program may convene an interagency review team (IRT) for larger, more complicated projects and for projects for which environmental analyses are required (e.g., environmental assessments or environmental impact statements) pursuant to MEPA or NEPA. An IRT will typically be composed of staff members from the Program and all permitting agencies relevant to the proposed project, as well as other resource agencies in an advisory capacity. The interagency review team would be convened on an as-needed basis and may work with the permitting agency to integrate the mitigation plan into the MEPA or NEPA analysis.

The IRT's purpose is to review and evaluate the proposed activity, avoidance and minimization measures, and ensure consistency with relevant State policies, this Policy Guidance, federal policies, and all other relevant policies and agreements. Project developers should continue to communicate with the IRT as needed to finalize an approved final mitigation plan. Guidelines for convening and operating an IRT, including a process for timely dispute resolution, may be formalized in an interagency agreement.

3.3 Calculating Functional Acres Lost and Converting to Debits

Determining the amount of mitigation credit provided by a project requires a method for measuring both the impact of the debiting project and the benefit of the crediting project using the same currency. Montana's Sage Grouse Habitat Quantification Tool (HQT) is used to measure the results of all debiting (development) projects in habitats designated by Montana's Executive Order 21-2015 and federally-administered sage grouse habitats pursuant to the anticipated state-federal agreement. (See the Montana Habitat Quantification Tool Technical Manual). The Program (or its designee) is responsible for creation and maintenance of the HQT and ensuring public access to the tool and HQT results (e.g., values and maps).

The HQT estimates not only the quantity of habitat affected by an action, but also its quality in terms of value to sage grouse, and for the duration of the development project (i.e., construction, operations, and reclamation). The HQT's assessment of habitat quality includes both local context and site condition, combined into a single metric and expressed as functional acres. A functional acre is a unit of habitat, which in turn, is expressed as a credit or debit or a unit of trade in a mitigation marketplace.

The HQT analyzes specific development projects according to their direct footprint and the indirect effects in the nearby area associated with indirect impact area (Figure 3.2). Projects are further broken down into phases: construction, operations – usually the permit duration, and reclamation when all infrastructure is removed, and the site is in active reclamation and ultimately returns to pre-project baseline conditions. HQT output reflects functional acres lost in the direct footprint and the indirect area of impact and for each phase of the project, respectively, and for the total life of the project.

For all or portions of a project where the direct footprint is located on top of existing surface disturbance, the HQT will assign a zero value to the pixel for the direct impact. Examples of existing disturbance include cultivation, state or county road rights-of way, active mining sites, or other areas where “any conversion of formerly suitable habitat to grasslands, croplands, mining, well pads, roads, or other physical disturbance renders the habitat unusable by sage grouse.”⁵⁴ This symbolizes that the functional value for that pixel is already zero and the addition of more surface disturbance can’t decrease the functionality of the habitat in the pixel any further when considering the direct impact. Indirect impacts may still accrue for portions of the newly-proposed that extend beyond the perimeter of the area where surface disturbance already exists. The HQT already accounts for disturbance that already exists within the area of indirect impacts because it is reflected in the pre-project baseline (see related discussion elsewhere in the Policy Guidance document and the HQT Technical Manual). These are two ways in which the HQT accounts for existing disturbance and ensures that impacts attributed to newly-proposed development activity is proportional to that particular project and no others.

The HQT model includes a data layer depicting existing surface disturbance that was created using heads-up digitizing methods at 1:4000 scale using satellite imagery (i.e., if the disturbance was visible at 1:4000 scale, it was included and depicted in the data layer showing existing surface disturbance included in the HQT model). See the HQT Technical Manual for complete details on how the HQT establishes pre-project baseline conditions and calculates functional acre losses for different types of development projects. The HQT Technical Manual also describes how data will be managed and updated through time.

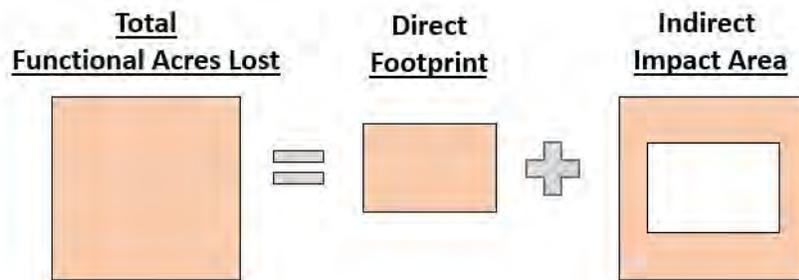


Figure 3.2. The HQT calculates the number of functional acres lost by analyzing the functional acres lost due to the direct footprint separately from the indirect impact area affected by the project. The total of functional acres lost is the sum of the functional acres lost due to the direct footprint plus the functional acres lost in the indirect impact area. If all or a portion of a direct footprint is located on top of existing surface disturbance, the HQT model will assign a value of zero to the pixel.

Once avoidance and minimization measures are incorporated into a proposed development project to the extent practicable, compensatory mitigation will be required for residual impacts to sage grouse habitat, including temporary or indirect impacts.⁵⁵ The HQT will be used for all proposed development projects to determine whether residual impacts exist that will require compensatory

⁵⁴ See Executive Order 12-2015 Attachment H.

⁵⁵ MCA § 76-22-111 (2017); see also EO 12-2015, Attachment A, paragraph 10, page 3.

mitigation.⁵⁶ Residual impacts are calculated by considering the functional acres before the project is implemented with the number of functional acres available after the project is implemented and for the entire life of the project (construction, operations, and full reclamation of the site when it is returned to pre-project baseline conditions).

The HQT is policy-neutral. It is based on the best available science and standardized data to quantify gains or losses of functional habitat using a consistent, quantitative approach. From a planning perspective, determining the Raw HQT Score is the first step to strategic planning to minimize mitigation obligations and ultimately the cost of mitigation. Because the HQT is objective and repeatable, it can quantify habitat losses using consistent methodologies and standardized data, despite different project types and designs and different locations.

The total number of functional acres lost will depend on: (1) the project location; (2) the underlying habitat quality at the site location and nearby area; (3) the project type; (4) the project size; (5) project complexity and the number of additional disturbance features such as new roads; (6) whether the project or any portion of it is located on top of existing anthropogenic disturbance; and (7) project duration or how long the development project will be on the landscape.

The HQT results reflect the functional acres lost as a result of the development action and are proportional to that particular project since common baseline habitat values are used for all debit (and credit site) HQT calculations. Disturbance that already exists on the landscape does not accrue to a newly-proposed development because habitat values will have already been adjusted downward due to existing disturbance through the anthropogenic disturbance GIS layer at the time the baseline is established and recalculated once a year. The number of functional acres lost is determined by comparing the baseline habitat values (which already account for existing disturbance) with the change in habitat values caused by the newly-proposed development project (type and size), its duration, etc.

In the case of debit projects, functional acres lost are converted to debits after application of the HQT and this Policy Guidance. One functional acre is the equivalent of one debit. (i.e., ratio is 1:1). See Figure 3.3.

To obtain the Raw HQT Score, a project developer will provide the Program with information about the project, and Program staff will run the HQT until such time as the HQT is incorporated into the Program's website and available. Once the HQT is incorporated into the website, the project developer can use the website. The HQT should be used as a strategic planning tool to allow consideration of alternative scenarios.

The Raw HQT Score will be adjusted through the use of policy multipliers to provide clear, transparent incentives for voluntary conservation by developers. Multipliers could be applied to either the direct footprint and/or the indirect area of impact, as described more fully in Section 3.3.1. The total functional acres lost, and the applicable policy modifier adjustments are converted to the total number debits at a 1:1 ratio.

⁵⁶ See Section 3.3.3, Modified Approach to Mitigation for the Cedar Creek Core Area and the Elk Basin area of the Carbon County Core Area.

The project developer has flexibility to decide how to secure an equivalent number of credits necessary to offset the total number of debits for the entire duration of the project. The project developer can either purchase the needed credits from a credit provider, make a payment to the Stewardship Account if sufficient credits are not available, or submit a proposal and site plan for a permittee-responsible project. Developers can also implement a combination of permittee-responsible actions and credit purchases. Additional details on meeting compensatory mitigation requirements are outlined in Sections 3.3.1 – 3.3.6 below.

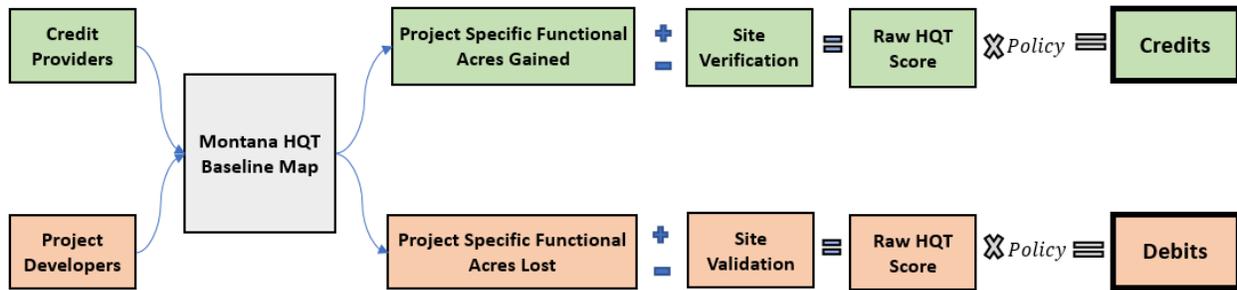


Figure 3.3. General process to determine the number of debits created by a development project for the life of the project using the HQT and applying this Policy Guidance (bottom row in tan).

3.3.1 Adjustments to Credit Requirements to Incentivize Voluntary Conservation, Consistency with Executive Order 12-2015, and Ensure Mitigation is Timely and Effective

Project developers are encouraged to design and site projects to impact the fewest number of functional acres as possible using the HQT to consider alternatives. This means that developers can minimize cost and minimize their mitigation obligations by designing and implementing projects having the lowest HQT scores of the alternatives considered.

To further incentivize voluntary conservation, Montana’s Mitigation System incorporates multipliers as a matter of policy. This section describes policy-based multipliers which adjust the Raw HQT Score to incentivize conservation, consistency with Executive Order 12-2015, and ensure mitigation is timely and effective.

Policy modifiers are implemented by increasing the number of credits required to offset the number of debits by multiplying the Raw HQT Score by a fixed percentage. This enables developers to consider alternative scenarios during the pre-project planning stage because the Raw HQT Score can be calculated for each alternative. Applying the multipliers to the alternative having the smallest Raw HQT Score will result in the smallest total mitigation obligation. Business decisions can be made which optimize trade-offs and minimize total project costs, including mitigation.

Analyzing alternative scenarios could entail moving the project to a different location where baseline habitat functional value scores are lower or sensitive habitats are avoided altogether, timing implementation so that construction avoids sensitive periods associated with breeding and nesting or winter use seasons and finding ways to be as consistent with the EO stipulations as possible. This is how mitigation helps incentivize voluntary conservation using free market

principles. Ultimately, mitigation obligations will be the lowest when developers site projects in low quality habitat or on top of existing disturbance in the first instance and when the project and all of its features are consistent with the EO for the entire duration of the project.

Applying multipliers to the Raw HQT Score provides clear policy signals to incentivize voluntary actions which conserve habitat and cause the least amount of impact. The total mitigation obligation is determined after applying the policy modifiers.

Development projects will usually be subject to more than one multiplier. Each individual multiplier is only applied to the Raw HQT Score (either the total or only the indirect impact portion). For example, a Raw HQT Score of 100 functional acres lost is the equivalent of 100 debits and the initial score prior to the application of multipliers. A project located in a Core Area that is consistent with EO 12-2015 or federal plans in all respects and does not deviate from stipulations (i.e., no site-specific multipliers apply), a 20% reserve account contribution would require a total of 120 credits or $[100 \text{ initial score} + (100 \times 0.20)]$.

The following multipliers are calculated using the Raw HQT Score. In some cases, the adjustment is based on the direct footprint plus the indirect impact. In other cases, the adjustment is based only on the portion of the Raw HQT score attributed to a project's indirect impacts when some or all of a project is located on top of existing surface disturbance.⁵⁷

Reserve Account Contribution: A reserve account is a pool of credits to timely replace lost or impaired credits lost in unforeseen events such as wildfire (i.e., unavoidable loss or force majeure or "Acts of God"). Because this risk is shared among all participants in the Mitigation System, it functions as a common insurance pool. This helps insure against the potential failure of projects due to unavoidable causes, such as fire or extreme weather and that no single Mitigation System participant is overly affected.

Developers will be required to contribute 20% of the Raw HQT Score (direct footprint plus indirect effects for the full life of the project) to the reserve account, regardless of the mechanism to obtain credits selected by developer. MSGOT will set aside 5% of each individual contribution to establish a pool of credits that it may use, at its discretion, to address economic feasibility constraints, as described more fully in Section 3.6.1. Contributions to the reserve account allow: (1) project developers to transfer responsibility for remedying credit project impairment or failure to the credit provider through the reserve account; and (2) credit providers to avoid responsibility for unavoidable or force majeure credit failure. The reserve account assures there is a ready supply of credits to achieve the mitigation standard of no net loss of habitat in the face of random, unforeseen events.

Reserve account credits will be included in the statewide registry. The Service Area will also be noted. Transferring credits from the reserve account to replace credits lost due to unforeseen circumstances must be approved by MSGOT. The Program will revisit the predicted and actual rate of project failure as part of regular adaptive management reviews. MSGOT may adjust the reserve account contribution requirement or adopt other tools for managing uncertainty and risk, pending the outcome of periodic adaptive management reviews.

⁵⁷ The HQT will report a value of zero for each pixel of a development project located on top of existing anthropogenic disturbance. For all or portions of a development project located on top of existing surface disturbance, those pixels will not contribute to the Raw HQT Score and will also not be included in multiplier calculations.

Site-Specific Multipliers to Incentivize Consistency with Executive Order 12-2015 or Federal Land Use Plans: The site-specific multiplier incentivizes developers to implement their projects consistent with EO 12-2015, particularly the stipulations in Attachment D, or specific federal land use provisions if the project must be located within habitats designated by the state or federal land management agencies.

The stipulations themselves are based on the best available science and grew out of the recommendations of a diverse stakeholder advisory council after deliberations and careful study of similar stipulations included in Wyoming's Core Areas Strategy.⁵⁸ Deviations from the stipulations are understood to be detrimental to sage grouse and habitats in the immediate area of the project at the minimum, but detrimental impacts also occur indirectly within the zone of influence. Indirect impacts reflect changes in habitat conditions and/or localized impacts to population demography based on the scientific literature.

Stipulations include limitations on surface disturbance, surface occupancy, noise, time-of-day, and seasonal use, as well as siting and design requirements for specific project and types of surface disturbance types. Among all the stipulations, limitations on the total surface disturbance within four miles of active leks, the no-surface-occupancy buffer requirement near active leks, seasonal restrictions within two miles of active leks during the breeding, nesting, and early-brood rearing season are particularly critical to meeting the State's conservation goals according to the scientific literature.

To incentivize consistency with the EO stipulations or specific provisions of federal land use plans, developers will be required to obtain additional credits for each deviation from the EO stipulations or federal plan provision, for each deviating project feature, and for as long as the project feature deviates from EO 12-2015 or federal plans during the construction and operations phases of a development project.⁵⁹ Site specific multipliers are not applied to the reclamation phase of a project after all infrastructure and disturbing activities have ceased and revegetation of the site is ongoing until the site has attained pre-project baseline conditions.

Here, the intent is to further incentivize locating projects in areas of existing disturbance.⁶⁰ All or portions of newly-proposed disturbance that are located on top of existing disturbance are not included in the Raw HQT Score and thus not subject to site-specific multipliers.

⁵⁸ See Wyoming's guiding documents at: <https://wgfd.wyo.gov/Habitat/Sage-Grouse-Management>; some Montana Advisory Council members submitted minority reports for some stipulations because they believed the best available science supported more stringent stipulations.

⁵⁹ The Program will review individual projects to ensure that use of this multiplier does not unintentionally disincentivize co-location of impacts. For example, an exemption from the Core Area stipulation multiplier may be provided if an impact occurs in an area where disturbance has already exceeded 5%, or where co-location with existing impacts is used to minimize impacts to sage grouse. The Program may waive the stipulations adjustment where needed to accommodate this kind of situation. Note that federal land managers may not be able to provide permits to projects that do not meet PHMA or GHMA stipulations, regardless of compensatory mitigation, but may also work with MSGOT when deviations or exceptions may be warranted and it can be shown that the broader goals and objectives of federal land use plans and EO-12-2015 to conserve sage grouse and sage grouse habitat are still achieved.

⁶⁰ Executive Order 12-2015 defines surface disturbance as "any conversion of formerly suitable habitat to grasslands, croplands, mining, well pads, roads, or other physical disturbance that renders the habitat unsuitable for grouse." Unsuitable habitat is defined as "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."

The specific additional number of credits required for each deviation from EO 12-2015 stipulations or specific federal land use provisions varies by location and is dependent on the project's details. Raw HQT Scores (e.g., functional acres lost) attributable to each phase of the project for both the direct and indirect footprint of a development project can be calculated by the HQT. Larger, more complicated project can also be analyzed in smaller segments and according to whether an individual segment is located in Core or PHMA areas, general habitat or GHMA areas, the Connectivity Area, RHMA, or even outside designated habitat. This level of detail is especially needed when considering which, if any, multipliers apply and to which phase of a project (i.e., construction, operations, or reclamation). Multipliers will be applied as follows:

- **In Core or PHMA Areas:**

- Project is within existing surface disturbance boundary: If the project footprint is located within existing surface disturbance, 10% of the Raw HQT Score attributed to functional acres lost due to indirect impacts only and for only the construction and operations phases of the project (refer to the Habitat Quantification Tool Technical Manual Section 5.0 for additional information about project phases). This incentivizes locating projects on top of existing disturbance.
- Project causes new surface disturbance: If the project is located outside of existing surface disturbance and causes new surface disturbance, 10% of the Raw HQT Score (direct footprint plus indirect impacts) and only for the construction and operations phases of the project. This further incentivizes locating projects on top of existing disturbance (or avoiding undisturbed areas) because the mitigation obligation will be higher when new land uses impact otherwise intact, functional habitats.
- If the project partially overlaps existing surface disturbance and also causes new surface disturbance: The 10% multiplier is only applied to the Raw HQT Score attributed to the direct footprint and indirect impact area associated with the portion of the project causing new surface disturbance and only for the construction and operations phases of the project.

- **In General Habitats or GHMA Areas:**

- Project is within existing surface disturbance: If the project footprint is located within existing surface disturbance, 5% of the Raw HQT Score attributed to functional acres lost due to the indirect impacts only and for only the construction and operations phases of the project. This incentivizes locating projects on top of existing disturbance.
- Project causes new surface disturbance: If the project is located outside of existing surface disturbance and causes new surface disturbance, 5% of the Raw HQT Score (direct footprint plus indirect impacts) and only for the construction and operations phases of the project. This further incentivizes locating projects on top of existing disturbance (or avoiding undisturbed areas) because the mitigation obligation will be higher when new land uses impact otherwise intact habitats.
- If the project partially overlaps existing surface disturbance and also causes new surface disturbance: The 5% multiplier is only applied to the Raw HQT Score attributed to the direct footprint and indirect impact area associated with the

portion of the project causing new surface disturbance and only for the construction and operations phases of the project.

- **Connectivity Area:**

- Project is within existing surface disturbance: If the project footprint is located within existing surface disturbance, 5% of the Raw HQT Score attributed to functional acres lost as a result of the indirect impacts only and only for the construction and operations phases of the project. This incentivizes locating projects on top of existing disturbance.
- Project causes new surface disturbance: If the project is located outside of existing surface disturbance and causes new surface disturbance, 5% of the Raw HQT Score (direct footprint plus indirect impacts) and only for the construction and operations phases of the project. This further incentivizes locating projects on top of existing disturbance (or avoiding undisturbed areas) because the mitigation obligation will be higher when new land uses impact otherwise intact habitats.
- If the project partially overlaps existing surface disturbance and also causes new surface disturbance: The 5% multiplier is only applied to the Raw HQT Score attributed to the direct footprint and indirect impact area associated with the portion of the project causing new surface disturbance and only for the construction and operations phases of the project.

- **RHMA Areas on BLM lands:** state and federal requirements may vary, but the state will collaborate with the BLM and developers to develop a mitigation plan that satisfies both state and federal requirements. See also Section 3.3.2 for a modified approach for new oil and gas development in Elk Basin within Carbon County Core Area.

No Net Loss at a Minimum Required, Net Conservation Gain (or Benefit) Preferred: As noted previously, the State of Montana’s Conservation Strategy seeks to maintain viable sage grouse populations and conserve habitat so that sage grouse never warrant a listing or designation as a candidate species under the federal Endangered Species Act. To that end, mitigation avoids, reduces and/or eliminates current and future threats through preservation, restoration, and enhancement conservation crediting actions that will be sufficient to offset habitat loss and fragmentation due to development.

Consistent with that, Montana’s required minimum standard for mitigation is “no net loss, net gain preferred” so that the habitat quantity and quality currently available is maintained through time via timely, effective mitigation. Mitigation assures that new activities do not contribute to habitat loss or fragmentation and declines in sage grouse populations. No net loss assures there is no net loss of functional habitat at any given time and within any given Service Area. To achieve no net loss, mitigation offsets must be timely and in place prior to disturbance.

Developers will be required to show that there is no net loss of functional habitat and that credits obtained will at least offset the debits created by a project.⁶¹ The state will not implement an explicit additional multiplier for net conservation gain.

Should federal authorization be required, project developers may still be required to meet a net conservation gain (or benefit) standard by the federal land management agency. Under these circumstances, the net conservation gain standard would be calculated to be 10% of the Raw HQT Score (direct plus indirect effects) or as determined on a case-by-case by federal agencies.

While preferred for all development projects, net conservation gain will be voluntary on the part of project developers who require state permits. Through incorporation of other adjustments to the total number of credits required to fulfill a mitigation obligation and particularly the reserve account, Montana is confident that a standard of no net loss will at least maintain current habitat quantity and quality, in part, because of the site-specific multipliers.

Developers should consider whether or not it's in their best interest to make their mitigation plan for a particular project consistent with the USFWS Policy Regarding Voluntary Prelisting Conservation Actions (revised and released May 31, 2018). If developers chose an approach that is consistent with the policy, Montana decides to be consistent with the policy in the future, and sage grouse were listed under ESA in the future, USFWS can recognize mitigation measures undertaken prior to listing. For example, the developer may choose to observe a mitigation standard of "net conservation benefit" now by providing an additional 10% of the Raw HQT score wherein the credits would be permanently set aside in the registry by the Program. That could be recognized in the future. Developers are encouraged to consult the policy. The Program, MSGOT, and federal agencies will work with developers who desire to be consistent with the policy.

Advance Payment: The Stewardship Act allows direct payments to Stewardship Account if: (1) sufficient credits are not available for purchase from a habitat exchange, conservation bank, individual landowner, or private in-lieu fee provider; and (2) the developer does not want to undertake permittee-responsible mitigation actions of their own accord.⁶² While offering flexibility to the developer, advance payments transfer the responsibility to secure adequate compensatory mitigation to the State, the Program and/or federal agencies. Advance payments are based on the average cost of credits that would otherwise be required.⁶³

The option of making an advance payment can improve certainty for project developers by ensuring that mitigation requirements can be met, and development projects can move forward immediately, once reviewed and approved, regardless of credit availability.

However, advance payments create significant uncertainty for the State, the Program, and federal agencies about when and how functional acres lost will actually be mitigated. This uncertainty directly translates to uncertainty about habitat availability (quality and quantity) for sage grouse. A time lag-effect could result in impacts to habitat in advance of mitigation actions and cause

⁶¹ This means that impacts caused by a project are balanced or outweighed by measures taken to avoid and minimize the project's impacts and compensate for any residual impacts so that no loss remains.

⁶² MCA § 76-22-111(1)(b)(ii) (2017) ("if sufficient conservation credits are unavailable for purchase, making a financial contribution to the sage grouse stewardship account ... that is equal to the average cost of the credits that would otherwise be required").

⁶³ MCA § 76-22-111(1)(b)(ii) (2017).

temporal habitat losses that are not presently offset by a specific credit project. There is the potential to violate a universal principle of mitigation that mitigation offsets are in place before impacts occur (i.e., durability and timeliness).

Developers who elect to make advanced payments to the Stewardship Account instead of utilizing some other mitigation mechanism (i.e., permittee-responsible, conservation bank, habitat exchange, or purchasing MSGOT's credits or credits MSGOT has created and transferred to a third party) will be required to obtain additional credits equivalent to 10% of the Raw HQT Score (direct footprint plus and indirect impacts for the full life of the project). This is intended to incentivize developers to secure effective mitigation offsets from other entities or implement permittee-responsible actions prior to implementing a debit project (observe the principle of durability) and to compensate for the temporal lag between development impact and mitigation benefit.

Once financial contributions are deposited to the Stewardship Account, MSGOT will endeavor to award Stewardship grants to expend advance payments within three years of receipt. Advance payment funds will also be spent through grant awards from the Stewardship Account within the same Service Area of the impact, as would ordinarily be required if project developers were obtaining or developing their own credits.

Summary: Table 3.2 summarizes policy modifiers that adjust the total number of debits created by a project and thus the total number of credits required. It's important to note that the policy modifiers have an objective, consistent, and scaled proportional effect on the total mitigation obligation because they are applied to the Raw HQT Score. The Raw HQT Score itself takes into account the habitat quality and quantity affected by a development project. Most project developers are expected to have the ability to affect the Raw HQT Score at some level through strategic planning and implementation.

For example, Raw HQT Scores will be lower where the pre-project underlying functional habitat values are lower, such as in General Habitat vs. Core Areas or siting a project on top of existing disturbance where there is already other development. Co-locating a new project with an existing development project or other existing disturbance like a road would also result in a lower Raw HQT Score because the underlying habitat functionality of the site would already be lowered by the presence of existing development. Therefore, the total number of credits required after applying the multipliers to the Raw HQT Score will also be scaled and proportionally lower for locations with low functional habitat values.

Larger, more complicated projects, such as pipelines, will be individually analyzed on a segment by segment basis. HQT scores can be determined for each individual segment—according to its location, direct and indirect footprint and for each phase of the project. Multipliers can then be applied accordingly.

3.3.2 Development Projects Utilizing Accelerated Reclamation Methods

The HQT Technical Manual describes how the HQT model calculates functional acres lost during all phases of a development project (i.e., construction, operations, and reclamation). Once a project has ceased operations and all infrastructure is removed from the site, the reclamation phase begins and continues through time as vegetative regrowth is ongoing and all functional acres lost begin returning and ultimately the site attains pre-project baseline conditions. The HQT results are partitioned out and reported for each project phase.

Table 3.2. Summary of policy signal multipliers for development projects to incentivize voluntary conservation and consistency with Executive Order 12-2015 or specific provisions of federal land use plans.⁶⁴ Larger, more complicated projects will be individually analyzed when traversing more than one habitat category, according to its direct and indirect footprint, and for each phase of the project to that multipliers can be adjusted accordingly.

Policy Signal Multiplier	Core Areas or PHMA	General Habitat, GHMA, Connectivity Area
Reserve Account, all development projects	20% of total Raw HQT Score (direct + indirect)	20% of total Raw HQT Score (direct + indirect)
Site-Specific EO Consistency Multiplier: <ul style="list-style-type: none"> • applied for each deviation and for as long as the deviation exists (i.e., construction only or construction/ operations phases) • depends on whether or not project causes new surface disturbance 	<ul style="list-style-type: none"> • if project on existing disturbance: 10% of Raw HQT Score attributed to indirect impacts only • if project causes new surface disturbance (i.e., not located on existing disturbance), 10% of total Raw HQT Score (direct + indirect) 	<ul style="list-style-type: none"> • if project on existing disturbance: 5% of Raw HQT Score attributed to indirect impacts only • if project causes new surface disturbance (i.e., not located on existing disturbance), 5% of total Raw HQT Score (direct + indirect)
<ul style="list-style-type: none"> • No Net Loss, Net Gain Preferred 	<ul style="list-style-type: none"> • N/A for state authorizations • a showing of net benefit may be required for projects seeking federal authorizations (flexibility to add a fixed 10% or determine on a case-by-case basis) 	<ul style="list-style-type: none"> • N/A for state authorizations • a showing of net benefit may be required for projects seeking federal authorizations (flexibility to add a fixed 10% or determine on a case-by-case basis)
Advance Payment, if applicable	<ul style="list-style-type: none"> • 10% of total Raw HQT Score (direct + indirect) 	<ul style="list-style-type: none"> • 10% of total Raw HQT Score (direct + indirect)

A standardized reclamation curve is applied to all development projects based on the predicted number of years (called Milestone Recovery Years or MRYs⁶⁵) required for sagebrush and other specific vegetation cover types to fully recover. For example, based on the literature, it is well known that big sagebrush is very slow to re-establish after a disturbance and slow to attain canopy cover and height characteristics similar to pre-disturbance. The HQT model assumes that 100% recovery of big sagebrush is attained in 75 years following cessation of disturbance related activities and removal of all disturbance-related infrastructure and activities. The total Raw HQT Score reflects this outcome.

⁶⁴ See Section 3.3.2 for a modified approach to mitigation requirements for new oil and gas development in the Cedar Creek Core Area and Elk Basin within the Carbon County Core Area. Federal requirements for BLM RHMA areas may be different.

⁶⁵ The HQT Milestone Recovery Years (MRYs) are: 1 year, 5 years, 10 years, 15 years, 25 years, 50 years, and 75 years.

However, some developers may desire and have the ability to accelerate the reclamation phase of a development project through intensive site management and inputs so that the site attains pre-project baseline condition prior to 75 years. In some cases, such as bentonite mining, specific regulatory requirements or market conditions incentivize accelerated attainment of pre-project baselines.

The Montana Mitigation System will allow developers to develop a phased schedule for securing mitigation credits during the reclamation phase to provide flexibility and to acknowledge that full reclamation may be achieved earlier than 75 years. This phased approach will require re-running of the HQT at each MRY to reflect the most current state of vegetation recovery and how it compares to the standard 75 years. Developers can then secure credits at each MRY when implementing accelerated reclamation.

Re-running the HQT at each MRY will require developers to acquire and provide the Program with robust field data and up-to-date pre-processed remote sensing data to accurately reflect vegetative composition and cover at each MRY. This enables developers to document the reclamation progress and the successful recovery of vegetation to pre-project baseline conditions at MRYS.

The vegetation within the direct impact area of a project may be considered fully recovered at any of the MRYS when that vegetation type has attained the same habitat function as calculated by the HQT for MRY 75 of the standard reclamation phase. The HQT Technical Manual describes more specifically how the HQT will approach these situations mathematically.

It has been the Program's experience to date, that a significant portion of the total functional acres lost are returned during MRYS 1 through 25, if the Debit Project's Direct Impact area is not primarily composed of sagebrush. Unless full vegetative reclamation to pre-project baseline has a high likelihood of being achieved (e.g., through significant management inputs or the direct impact area has low levels of big sagebrush) and documented within 25 years after operations cease, developers may find it more efficient and economical to choose the full 75 years to avoid the additional expense of collecting and providing field and remote sensing data to document full recovery. Close coordination with the Program would be required at each MRY and throughout the process to assure credit purchase requirement are calculated accurately and fairly.

Developers should alert the Program and permitting agencies if accelerated reclamation measures will be implemented. The mitigation plan should include a section devoted to accelerated reclamation to outline how it will be implemented, monitoring protocols and intervals. The Program will work with developers to calculate HQT scores appropriate to the project type, its duration, and the accelerated reclamation timeline.

Mitigation offsets for the construction and operations phases of a project must still be in place and fully accomplished before implementing a phased credit purchase schedule for the accelerated reclamation phase. Allowing phased credit purchases for successful accelerated reclamation alleviates the need to develop protocols and financial accounting procedures to "refund" credits purchased from MSGOT or payments made to the Stewardship Account when sufficient credits are not available. More importantly, phased credit purchases for the reclamation phase helps address uncertainty around vegetation recovery through time at the individual project scale.

The registry will be used to track credit requirements and phased purchases for projects utilizing accelerated reclamation methods.

3.3.3 Modified Approach to Mitigation Requirements for New Oil and Gas Development in the Cedar Creek Core Area and Elk Basin within the Carbon County Core Area

Montana has previously recognized that the Cedar Creek Core Area (Fallon County) and the Elk Basin area within the Carbon County Core Area had levels of oil and gas development that already exceeded the surface disturbance and well density thresholds set forth in EO 12-2015 (Figure 3.4).⁶⁶ The Cedar Creek Core Area includes delineated oil and gas fields covering multiple producing formations, federal exploratory units, enhanced oil recovery units, shallow natural gas production, and a federally-approved natural gas storage unit. The Elk Basin area includes a delineated field with multiple producing horizons, federal- and state-recognized enhanced recovery units, and a federally-approved gas storage unit.

Accordingly, it was recognized that any new development in these two areas could not be consistent with EO 12-2015. Unlike Wyoming method for delineating core areas, Montana did not carve out known areas having significant levels of oil and gas development from larger Core Area blocks. Instead, Montana opted to provide for flexibility to address these limited circumstances through EO implementation and MSGOT discretion.⁶⁷

The BLM similarly recognized that these two areas had a high level of existing oil and gas activity and that future development was highly likely. BLM classified the Cedar Creek Core Area and Elk Basin within the Carbon County Core Area as RHMA's (Restoration Habitat Management Areas). In these areas, BLM seeks to balance ongoing uses and future development with maintaining enough quality habitat to support a residual population of sage grouse. Habitat restoration is prioritized.

Objectives are to: (1) strive for an area-wide restoration plan created by developers working together rather than smaller project- and site-specific plans; (2) strive for no net loss of existing habitat; and (3) strive for restoration of previously disturbed landscapes to increase or improve habitat quantity and quality to achieve a long-term reduction in surface disturbance.

Local, residual populations of sage grouse still exist in these two areas. These areas still provide habitat and connect with General Habitat and/or other Core Areas within Montana and elsewhere. Specifically, the Cedar Creek Core Area provides important connectivity to sage grouse in North and South Dakota. The Elk Basin area is situated between two Wyoming Core Areas that extend to the Wyoming-Montana border. Because of the existing development, new oil and gas development cannot be undertaken in either the Cedar Creek Core Area or the Elk Basin consistent with EO 12-2015. Therefore, a modified approach to mitigation is warranted.

The modified approach to mitigation in these two areas will emphasize avoidance, minimization, short-term reclamation efforts, and long-term restoration (similar to BLM). The goal is to reduce surface disturbance over the long-term and maintain a residual sage grouse population that will re-

⁶⁶Montana Greater Sage-grouse Habitat Conservation Advisory Council. 2014. Greater Sage-grouse Habitat Conservation Strategy, January 29, 2014.

⁶⁷ Executive Order 12-2015 provides the option for project developers to petition MSGOT to create their own conservation plan and accompanying mitigation approach in areas already having significant surface disturbance exceeding thresholds in EO 12-2015 and where it will very difficult, if not impossible, to be consistent with EO 12-2015 stipulations. See Executive Order 12-2015 Attachment A, Attachment E starting on 22.

occupy habitats as they are restored. Permitting for new oil and gas wells requires site reclamation through the Montana Board of Oil and Gas.

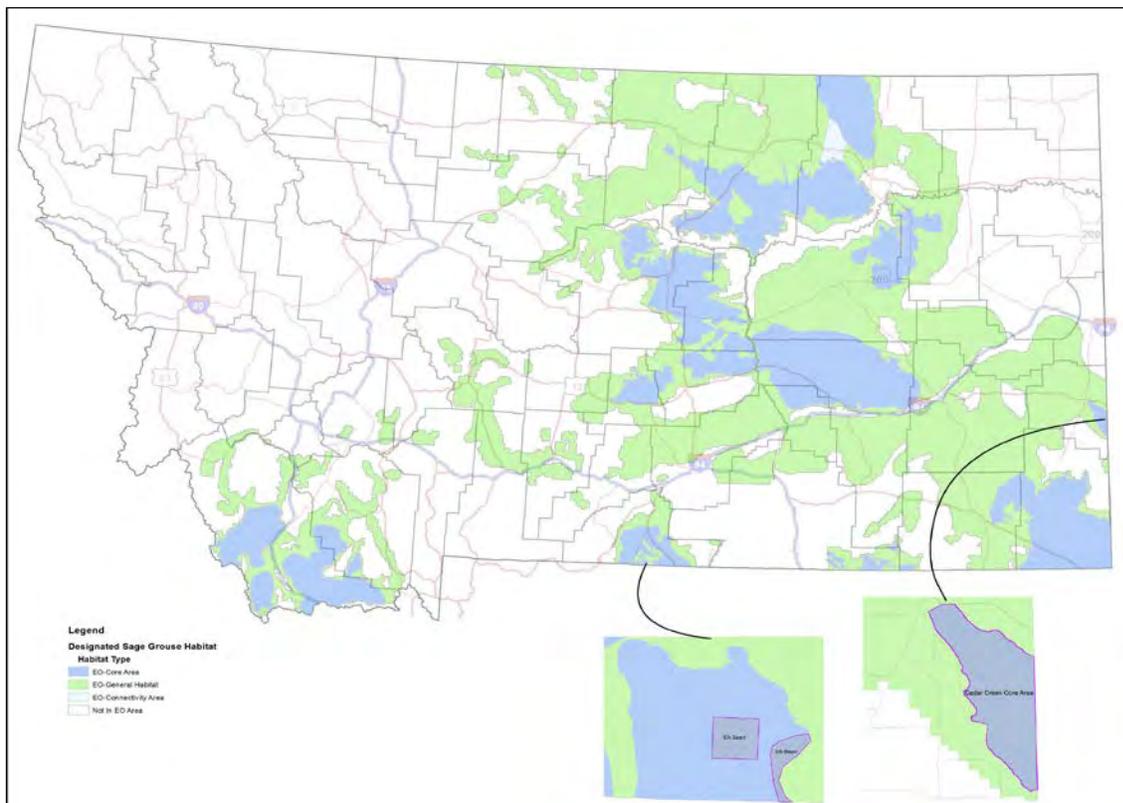


Figure 3.4. Location of the Cedar Creek Core Area (right inset) and Elk Basin (left inset) within the Carbon County Core Area where the modified approach to the mitigation hierarchy requirements for new oil and gas development will be applied.

This modified approach will incentivize location of new oil and gas wells within the boundaries of existing oil and gas disturbance and emphasize restoration, as described below.

For new oil and gas wells when the drilling site and all the associated disturbance features (e.g., access road, well pad, etc.) will occur on existing surface disturbance:

- The operator will provide a plan of development that will outline avoidance and minimization efforts, in addition to robust site reclamation after drilling is complete, consistent with existing state or federal requirements. Additionally, the plan should also include measures for undertaking commensurate restoration actions within the Cedar Creek Core Area or Elk Basin of the Carbon County Core Area, respectively. Examples include removal of anthropogenic features like old fences, abandoned structures that provide subsidies for avian or terrestrial predators, reseeding of abandoned fields, enhanced noxious weed control, or removal and reclamation of roads. Collaboration with other operators and BLM will be encouraged, consistent with the “all lands, all hands” approach. Monitoring results should determine if restoration is commensurate and successful.

- Operators are expected to avoid the 0.6 mile no-surface occupancy areas around active leks.
- Operators are expected to avoid drilling new wells within two miles of active leks between March 15 and July 15 during the nesting, breeding, and early brood-rearing seasons.
- Operators are expected to avoid discretionary maintenance and production activities between 4:00 a.m. – 8:00 a.m. and 7:00 p.m. – 10:00 p.m. from March 15 and July 15 within two miles of active leks.
- The HQT will not be used to calculate functional acres lost. Compensatory mitigation will not be required. Instead, implementation of the hierarchy will emphasize restoration within the respective Core Areas.

For new oil and gas wells and the associated disturbance features (e.g., access road, well pad, etc.) proposed on sites that are not presently disturbed and would cause new surface disturbance:

- The operator will provide a plan of development that will outline avoidance and minimization efforts, in addition to robust site reclamation after drilling is complete, consistent with existing state or federal requirements.
- The HQT will be used to calculate functional acres lost due to the direct footprint and indirect impacts for the drilling and operations phases of the project.
- Compensatory mitigation will be required, and the total mitigation obligation will be the sum of the following:
 - Raw HQT Score (direct and indirect impacts)
 - 20% reserve account multiplier applied to the Raw HQT Score
 - 10% site-specific multiplier for deviations from two specific EO 12-2015 stipulations:⁶⁸
 - the 0.6 mile no-surface-occupancy buffer area around active leks; and
 - the seasonal timing restriction within two miles of active sage grouse leks during the breeding, nesting, and early brood-rearing seasons from March 15 to July 15.
- Operators will be encouraged to fulfill compensatory mitigation requirements through restoration actions within the Cedar Creek or Carbon County core areas, respectively. Examples include removal of anthropogenic features like old fences, abandoned structures that provide subsidies for avian or terrestrial predators, reseeding of abandoned fields, and removal or reclamation of roads. Collaboration with other operators and BLM will be encouraged, consistent with the “all lands, all hands” approach.

Raw HQT Scores are already relatively low in the Cedar Creek Core Area and Elk Basin area within the Carbon Core Area due to a long history of oil and gas production and associated development leading to high levels of existing surface disturbance. While compensatory mitigation obligations will be low, fulfilling them through affirmative restoration actions within these two areas will help

⁶⁸ All other site-specific multipliers for deviations from EO 12-2015 are waived (e.g., > 5% DDCT, > 1 well/640 acres).

decrease surface disturbance over the long-term. Further, this approach provides certainty and a streamlined process for individual operators and the oil and gas industry as a whole.

3.4 Four Montana Service Areas and Site Preference

Service Areas define the area within which an impact at a given location must be mitigated to ensure species-specific habitat needs are met at ecologically relevant scales. The geographic scale at which impacts are offset by mitigation has ecological relevance to sage grouse conservation at the landscape scale within Montana and regionally. Concurrent consideration should also be given to local scales to ensure that mitigation is spatially relevant and effective for locally-impacted leks and sub-populations.

At the landscape scale, there are four Service Areas in the Montana Mitigation System (Figure 3.5 and described in Appendix 7.3): North Central, Central, Southeastern, and Southwestern. Service Area delineations are based on a combination of geographic boundaries, physiographic barriers, and studies of genetic connectivity and relatedness.^{69,70}

There is a clear, expressed preference and expectation that project developers obtain credits or implement permittee-responsible mitigation within the same Service Area as the impact. Upon the request of a project developer, MSGOT has discretion to approve use of credits from adjacent Montana Service Areas. For example, MSGOT could approve the following adjacent Service Areas:

- Impacts in the Southeastern Service Area could be offset by credits obtained in the Central Service Area.
- Impacts in the North Central Service Area could be offset by credits obtained in the Central Service Area.

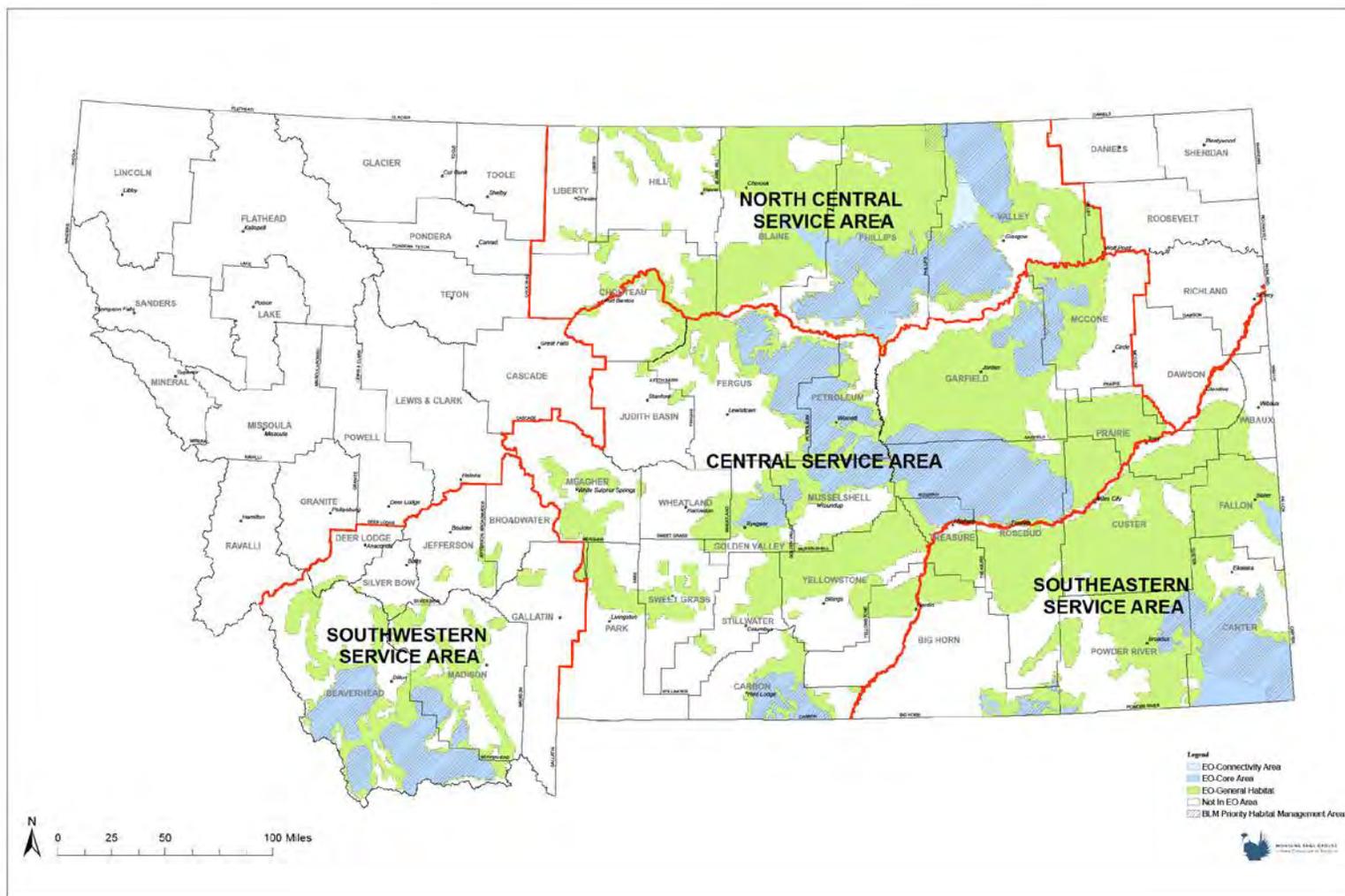
However, MSGOT will more closely scrutinize situations where project developers seek to obtain credits in Service Areas that are not adjacent to the Service Area in which the impact occurs. For example, the Southeastern Service Area is not adjacent to either the North Central or the Southwestern service areas. A showing of a greater benefit to the species must be demonstrated by the project developer. MSGOT will make the final decision.

At any time when sufficient credits are not available within the same Service Area, the Program, with MSGOT's approval, may allow advance payments into the Stewardship Account. MSGOT and the Program will make all efforts to award Stewardship Grants that will create credits within the same Service Area as the impact. Additionally, MSGOT and the Program will strive to expend those funds within three years of receipt.

⁶⁹ Cross, T.B., D.E. Naugle, J.C. Carlson, and M.K. Swartz. 2016. Hierarchical population structure in greater sage-grouse provides insight into management boundary delineation. *Conservation Genetics*, v 17, no. 6, p 1417-1433. [Also available at <https://doi.org/10.1007/s10592-016-0872-z>].

⁷⁰ Cross, T.B., Naugle, D.E., Carlson, J.C., and Schwartz, M.K., 2017, Genetic recapture identifies long-distance breeding dispersal in greater sage-grouse (*Centrocercus urophasianus*): *The Condor*, v. 119, no. 1, p. 155-166. [Also available at <https://doi.org/10.1650/CONDOR-16-178.1>].

Figure 3.5. The Montana Mitigation System has four Montana Service Areas. See Appendix 7.3 for a narrative description of the boundaries.



3.4.1 Off-Site, Outside Zone of Influence Preference

At the site-specific scale, mitigation must also be ecologically relevant to be effective and timely. As a default, compensatory mitigation efforts should be located on sites that are not part of the site impacted by the development action (i.e., located off-site) and outside the zone of influence of the development project. This avoids the potential that mitigation efforts would be negated or overwhelmed by ongoing development activity. Off-site mitigation locations should also be large enough to support high-quality sage grouse habitat or be adjacent to large blocks of habitat given that sage grouse are a land-scape scale species.

Compensatory mitigation on-site (i.e., proximate to impacts) may be considered when habitat at the proposed compensatory mitigation site is identified as a priority area for protection or restoration/enhancement and the area proposed for a compensatory mitigation project will not be negatively affected by the development project impact. MSGOT will make the final decision.

3.4.2 Obtaining Credits from Sites where Credits are Stacked

Mitigation credit site providers may seek to develop more than one type of ecosystem credit on the same site where the credits overlap spatially (e.g., sage grouse and carbon sequestration). This is known as “stacking.” Montana’s Mitigation System will recognize credit stacking, but only when it is consistent with the USFWS Policy Regarding Voluntary Prelisting Conservation Actions (May 31, 2018).

The Policy provides that while multiple credit types may be developed on a credit site, the same credit can’t be sold and purchased more than once. That is to say that the stacked credit can’t be used to provide credits for more than one permitted environmental impact even if all the resources included are not needed for that particular action.

While credit stacking is generally permissible, the same unit of ecosystem function or service can’t be sold or purchased more than once because this would result in double dipping by the credit provider and would also not achieve the no net loss standard when credits are used more than once to offset sage grouse debits.

Developers should consult the policy and inquire with individual credit providers whether they are stacking credits other than sage grouse on the same parcel of land. If so, developers should ensure consistency with the USFWS voluntary prelisting policy. Developers can’t utilize credits that have already been sold for another purpose. The credit registry will reflect and track any “stacked” credits when used for sage grouse mitigation or other intended mitigation (i.e., all “stacked credits that include sage grouse will be tracked, regardless of the type of debits to which they are ultimately applied). This information should be included in the mitigation plan considered for approval by MSGOT.

Montana’s HQT Technical Manual outlines a pixel-based (e.g., raster) GIS model to quantify the number of functional acres gained through a credit project. As such, the HQT is spatially explicit. Montana’s registry will include information about whether more than one credit type is established on a parcel of land. Once a credit is sold for sage grouse mitigation, the credit will be retired and ineligible for sale as a different ecosystem credit type (e.g., carbon sequestration). In other words, the credit registry will reflect and track “stacked” credits when they are used for sage grouse mitigation.

3.5 Duration and In-Kind Definition

As described in Section 2, compensatory mitigation for impacts to sage grouse habitat must be durable – that is, the period of time that mitigation is effective must be equal or greater in duration to the impacts being offset.

Permanent credits are preferred and are acceptable for offsetting impacts of any duration. Term credits may be used where development projects have a known fixed duration or term (e.g., permit duration). If a development project is renewed through a permit amendment and the nature and extent of the project changes, new mitigation obligations will be calculated using the HQT and the policy modifiers, as applicable.

For impacts lasting less than 15 years, the minimum acceptable duration of term credit projects is 15 years, to ensure that habitat benefits provided are actually meeting the needs of sage grouse, given site fidelity and other unique habitat needs of the species. All impacts lasting longer than 15 years can be offset by one static credit contract that is equal to (or greater than) the debit (e.g., a 35-year debit could be offset by a 35-year credit contract), or using dynamic credits (credits purchased in sequence over time to offset a longer-term impact, limited to minimum 30-year renewable term contracts).

Projects that have permanent impacts (and thus debits) will require permanent credits. However, the State's approach to demonstrating durability will allow dynamic permanent mitigation projects to offset up to 25% of permanent impacts at the individual Service Area level. This incorporates a degree of flexibility that allows developers to fulfill 25% of a total permanent credit requirement with sequential credits projects. The remaining 75% of the permanent credit requirement must be fulfilled using permanent credits. Use of dynamic mitigation will require MSGOT approval.

Dynamic permanent mitigation projects may be created by renewable term contracts of no less than 30 years, with an obligation in contract or permit to replace expired credits through the term of the impact. This approach creates more opportunities for the Program to respond to emerging threats and target mitigation actions to the areas in which they can be most effective, while ensuring that credit projects remain long enough in duration to provide expected benefits to the species.

Project developers using dynamic permanent credits will be responsible for demonstrating durability for the life of the impact by purchasing or creating additional credits as needed and having them in place and approved by the time term credits expire. The use of dynamic permanent mitigation will be evaluated through the adaptive management process and may need to be adapted in the future to ensure mitigation goals are being met, as new science emerges, and as local limiting factors for sage grouse become better understood.

In-kind mitigation is the replacement or substitution of resources or values that are of the same type and kind as those replaced. To be considered in-kind, crediting actions must be for the same species (Greater Sage-grouse) and evaluated using the Montana HQT. Replacement of seasonal habitat types is not specifically required (but can be considered and discussed between the developer, the Program, and a potential credit provider), because the function of different seasonal habitat types is assessed and combined within the HQT. A case-by-case approach will be taken.

3.6 Purchasing or Creating Credits

Based on the total credit requirement, project developers will identify the intended path and timeline for obtaining the necessary mitigation credits. Mechanisms include purchasing credits

from private entities (e.g., landowner, bank or exchange), creating credits by taking permittee-responsible actions (e.g., removing obsolete infrastructure), making a financial contribution to the Stewardship Account, or some combination of the above. The developer is in the best position and in fact, the appropriate entity to determine where and how to obtain credits. The state will not require one mechanism over another, so long as credits adhere to and are consistent with this Policy Guidance and were calculated in accordance with the HQT Technical Manual.

Developers are free to select a single credit mechanism or utilize a combination. For example, a developer may opt to remove obsolete infrastructure such as transmission line and poles from the landscape. The HQT can calculate the number of functional acres gained by removing the line and poles using the same equations and data as if they were being installed for the first time. The number of functional acres gained would then be converted at a 1:1 ratio to credits. The number of credits is then subtracted from the total number of debits. If additional debits remain, the developer can implement additional permittee-responsible actions, purchase credits from other entities, or make a contribution to the Stewardship Account.

Developers should also indicate whether accelerated reclamation methods will be implemented. Implementing accelerated reclamation methods affects the HQT Raw Score and additional calculations are required. Accelerated reclamation methods (or accelerated success due to a particular project type's minimal nature of surface disturbance) will decrease the total number of debits that must be offset because habitat returns to pre-project baseline functionality sooner. Ultimately, this decreases the total mitigation obligation and potentially the total cost depending on the mitigation mechanism selected by a developer.

Developers should also indicate whether a phased credit purchase schedule is desired. Phasing the purchase of credits allows developers to avoid significant upfront costs that may otherwise negatively affect a project's economic ledger to the point that it is no longer feasible. Developers who chose to phase credit purchases can synchronize payments with different phases of the projects life span and plan ahead. This should be reflected in the plan.

A very simple mitigation plan could indicate a plan for credit purchase or payment to the Stewardship Account. Alternatively, a more detailed plan may be needed for larger, more complicated projects having the potential for greater impacts, permittee-responsible creation of credits, including all associated credit-side requirements outlined in Section 2. The mitigation plan may also be developed for and incorporated within an environmental analysis document pursuant to MEPA or NEPA.⁷¹

Developers should review the USFWS Policy Regarding Voluntary Prelisting Conservation Actions.⁷² Consistency with this policy is voluntary in Montana's Mitigation System, and, as such, credits from individual projects are unlikely to be recognized under the prelisting policy unless/until Montana voluntarily elects to achieve consistency with the policy in the future. However, developers may choose to seek compensatory mitigation options that are consistent with the prelisting policy so that actions undertaken prior to listing would be recognized afterward in the event sage grouse are

⁷¹ Federal agencies conduct environmental analyses pursuant to the National Environmental Policy Act. State agencies conduct environmental analyses pursuant to the Montana Environmental Policy Act. Both statutes allow for environmental assessments or environmental impact statements.

⁷² U.S. Fish and Wildlife Service. 2018. Part 735, U.S. Fish and Wildlife Service Manual, Chapter 1. Policy Regarding Voluntary Prelisting Conservation. Available at: <https://www.fws.gov/policy/735fw1.html>.

listed under ESA in the future and Montana elected to become consistent in the future. The Program and MSGOT will require an affirmative decision and commit to working with developers to ensure that the benefits are recognized should they seek to implement compensatory mitigation to satisfy the requirements of the voluntary prelisting policy.

The Program notifies state and/or federal permitting agencies and the project developer when a compensatory mitigation plan has been approved by MSGOT, after the Program has worked with the developer and preliminarily concluded that the plan meets the requirements outlined in this Policy Guidance document and other State policies, rules or law. The Program may also brief and request guidance from MSGOT while developing more complex mitigation plans. The project developer must then purchase or create the needed credits within the designated timeframe, usually prior to habitat impacts. Proposed projects may also be subject to other agency-specific permitting requirements.

Once project developers have secured credits, the Program should be provided with documentation to show the credit location, duration, and any other information required to update the credit registry. The price of credits secured from independent third parties (where Stewardship Account funds are not involved) need not be disclosed.

The Program or its designee will maintain a registry to track debiting (development) and crediting actions (conservation) affecting sage grouse habitat, including all permittee-responsible and other mechanisms of compensatory mitigation projects.

Credits created by MSGOT through Stewardship Account fund grants will be assigned serial numbers and included in the statewide registry. As credits are utilized by project developers for specific projects, the credits will be withdrawn from the pool of available credits and the registry will be updated.

Credits must be released before they are available to offset an impact, although some credits may be released in advance of a project being fully implemented, as described in Section 2.3.3.

3.6.1 Consideration of Economic Feasibility Constraints when Mitigation Obligations are High

Montana's Conservation Strategy seeks to balance economic development activity that may impact sage grouse habitat and populations with conservation. In 2013-2014, the original Governor's Advisory Council acknowledged that there will be impacts to sage grouse habitat even if all recommendations of Executive Order 12-2015 are followed. The Council viewed mitigation as an integral tool to offset impacts so that Montana can continue to issue permits for economic development, resource extraction, and infrastructure projects, even in Core Areas. Mitigation was viewed as a viable alternative to denying permits.

Executive Order 12-2015 stems from the work of the original Governor's Advisory Council and incorporates development stipulations, as well as the mitigation hierarchy. Importantly, Executive Order 12-2015 also acknowledged that questions of economic feasibility may be presented, especially for utility-related and communications infrastructure in rural and historically underserved areas.⁷³

⁷³ Executive Order 12-2015, Attachment D Core Area Stipulations, paragraph 6, page 14.

For example, communications (cellular) towers and rural transmission lines provide essential services that are foundational to local rural communities and especially in remote agricultural settings. Executive Order 12-2015 specifically recognizes the economic feasibility of siting these new features. These utility services are provided by non-profit cooperatives, which are classified as 501(c)(12) organizations in the federal tax code. Depending on the project type, its duration, and location, the mitigation obligations associated with a project could pose socioeconomic hardships to individual coop members when costs cannot be fully attributed to and passed along to new industrial users. Likewise, small businesses that are privately owned, for-profit entities may find the economic feasibility of a development project affected by mitigation obligations, even when undertaking permittee-responsible actions to create credits to offset their debits.

Policy-based tools can help address and alleviate economic feasibility constraints when the current HQT and application of policy modifiers results in high mitigation obligations and economic infeasibility, while at the same time ensuring that development projects move forward and mitigation is timely and effective. Policy-based tools could also be applied when a developer uses a combination of mitigation mechanisms (i.e., permittee-responsible and/or in-lieu fee contribution to the Stewardship Account). Policy-based tools stand for the premise that the state has a responsibility to share in efforts to offset impacts of development and create flexible policy approaches that are responsive to economic feasibility constraints.

To avail themselves of these additional policy tools, developers work with the Program initially to determine the overall mitigation obligation. The developer then works with the Program, MSGOT, and possibly other third parties to develop a mitigation plan that provides relief when economic feasibility constraints are demonstrated. As discussed in Section 3, MSGOT retains discretion to approve mitigation plans.

The policy tools are described more fully below, along with an overview of the process and criteria MSGOT would consider when making its decision. They could be categorized as: (1) financial; (2) credit-based; or (3) waiver. Each situation is unique and MSGOT encourages creativity on the part of developers to find innovative ways to mitigate impacts. MSGOT seeks to provide the greatest degree of flexibility to developers so they can determine the best way of fulfilling mitigation obligations. Policy-based tools can be used individually, or in combination. Each is described below. See Section 4.2 for closely related information concerning MSGOT credits.

3.6.1.1 Financial Approaches: Phased Contributions or Adjusting the Discount Percentage

The Stewardship Act allows developers to opt out of taking permittee-responsible actions to offset impacts and instead work with a third-party credit provider or make a contribution to the Stewardship Account. If the developer decides to contribute to the Stewardship Account, two financial policy-based tools could be used to alleviate economic feasibility constraints;

1. Phased Contributions to the Stewardship Account or Phased Payments to Third Party Credit Providers.

Contributions could be phased or made periodically, rather than as a lump sum payment upfront. Phased payments were previously discussed in Section 3.3.2 with respect to accelerated reclamation. However, the concept could also be applied to any phase of a development project: construction, operations, or reclamation (even when not employing accelerated reclamation methods). A payment schedule could be devised on other intervals.

For each phase (or year) throughout the life span of a development project, the HQT can calculate the number of functional acres lost. After application of the multipliers, the total mitigation obligation for each phase (or individual year) can be determined. Each project has a unique number of years of construction, operations, and reclamation. Detailed results from the HQT can inform business decisions by developers, in consideration of the project type, its duration, and other the economic or operational factors associated with the project.

While observing the requirement that offsets be in place for each project phase prior to its initiation, developers could make a contribution immediately prior to the beginning of each project phase or at some interval identified in the mitigation plan approved by MSGOT. The 3% discounting method would be applied (see Section 4.2). Once negotiated, the phased payment schedule would lock-in the amount of each payment and when it was due. An agreement would be developed and would be binding on the parties.

Alternatively, a developer could work directly with an independent third party to obtain the number of credits needed. The third party could be an individual private landowner, a habitat exchange administrator, a conservation banker, or another developer. The state is not a party to the transaction. The third party and the developer are free to negotiate the terms of the credit transaction, including phased payments. The state will seek documented assurances that the phased payments are still consistent with other parameters of this Policy Guidance, particularly the requirement that the offsets are in place prior to the impact or initiation of the next project phase. This requirement could be met if the third-party credit provider shows that unused credits are presently available and would immediately offset the number of credits needed to offset the next project phase.

Ultimately, any phased Stewardship Account contribution or third-party payment approach would be described in the mitigation plan and approved by MSGOT. See Section 4.2.

2. Adjusting the Discount Percentage Rate for Contributions to the Stewardship Account.

Section 4.2 describes a 3% discounting method to determine the cost of credits in future years, which accounts for the time value of money. The initial credit price is determined by the cost of creating the credit, respectively, whether restoration, enhancement, or preservation. Statutorily, the average cost of the credits created through Stewardship Account is the starting price. The percentage discount applied to the cost for each future year is set at 3% initially. This is considered a more relevant figure given currently low yields on U.S. Treasury Notes and concurrently low inflation.

MSGOT may exercise its discretion to increase the discount percentage rate to more closely synchronize the duration of a project (and its impacts) with the time value of money. For above-ground projects with particularly long durations and high HQT scores (i.e., high number of functional acres lost), such as transmission lines or wind facilities, economic feasibility constraints are more likely to manifest. While still a true and proportionate accounting of the functional acres lost due to the project, how the obligation is fulfilled financially and/or through credit purchases can be addressed through policy, so long as the functional acres lost are fully offset with an equivalent number of functional acres gained.

MSGOT could increase the discount rate to lower the overall total cost, while at the same time assuring that the overall mitigation obligation is met. Developers seeking to apply this policy tool should consider what an appropriate modified discount percentage might be and provide a

rationale supporting it, along with any additional information and facts specific to the particular project for which a higher discount rate is requested.

Under this scenario, MSGOT will remain mindful of the solvency of the Stewardship Account and the capability to continue to create new credits through Stewardship grants to replace those that are tapped and retired.

3.6.1.2 MSGOT Credits: a Credit-Matching Approach

The State of Montana has taken the initiative to implement the Conservation Strategy to preclude the need for federal Endangered Species Act protections. By taking an “all hands” approach, Montana enlists industry, private landowners, federal land management agencies, land trust organizations, conservationists, and others to work collaboratively to balance development with conservation through the mitigation hierarchy, creating incentives for private land stewardship, and other aspects of the Strategy. This ensures the best outcomes for all Montanans.

MSGOT has credits at its disposal that could be used to match and help fulfill the total number of credits a developer must secure. MSGOT can exercise its discretion to dedicate some of its credits to match those secured by a developer. MSGOT will take a case by case approach and work with individual development project proponents.

Sources of credits that developers could use to match those secured of their own accord are:

1. Credits created through Stewardship Account Grants.

A foundational purpose of Stewardship Account grants is to create credits which can then be used to offset impacts of development. Credits can be transferred to a third-party habitat exchange operator or can remain on the registry as “available” until a developer chooses to make a contribution to the Stewardship Account in lieu of implementing their own permittee-responsible conservation actions or seeking credits from third parties. At that time, MSGOT would accept a contribution to the Stewardship Account and retire the appropriate number of credits for that particular project.

Through the grant process, MSGOT will have a supply of credits from prior Stewardship Account grant awards. These will be included in the registry. MSGOT has discretion to allocate credits it created and could allocate some of its own credits to match credits secured by a developer when economic feasibility constraints are demonstrated.

Under this scenario, MSGOT could allocate credits it expects to develop through future grants. Through subsequent adaptive management reviews, MSGOT can consider whether it is meeting its adaptive management objectives, and particularly the standard of no net loss, net gain preferred. Through time, this ensures that mitigation offsets are timely and in place prior to the start of a development project.

2. Credits Set Aside in the Reserve Account.

As discussed previously in Section 3, developers will be required to contribute 20% of the Raw HQT Score (direct footprint plus indirect effects for the full life of the project) to the reserve account, regardless of the mechanism to obtain credits selected by the developer. Contributions to the reserve account allow: (1) project developers to transfer responsibility for remedying credit project impairment or failure to the credit provider through the reserve account; and (2) credit providers to avoid responsibility for unavoidable or force majeure credit failure.

The reserve account ledger in the statewide registry will be managed so that 5% of each individual contribution is set aside and available as a source of matching credits for other developers where economic feasibility constraints are demonstrated. MSGOT can exercise its discretion to allocate some of the credits set aside in the reserve account so they can be matched with what a developer secures and the mitigation obligation as a whole is fulfilled.

The remaining 15% of the reserve account contribution will be managed separately. It will remain segregated and available to replace lost or impaired credits, as described in Sections 2.4.3 and 3.3.1.

3.6.1.3 Waiver

MSGOT may exercise its discretion to waive some or all of the mitigation obligations for a particular development project. In seeking a waiver, a developer should give careful consideration to its capacity to contribute towards fulfilling the obligation. MSGOT will expect some contribution on the part of developers so any waivers granted can legitimately show a meaningful public-private partnership in achieving the twin aims of: (1) adequate conservation and effective mitigation to avoid a listing; and (2) economic development and the sustaining the viability of rural communities consistent with the “all hands” approach.

3.6.1.4 Process to Take Advantage of Policy-Based Tools

Developers first work with the Program to determine the overall mitigation obligation using the HQT and other facets of the Policy Guidance. For example, a project could have very high mitigation obligations because a very high number of functional acres would be lost. This would be the case for large projects that are located above ground, have a long duration, and are located in very high quality habitat. Additional impacts could accrue due to close proximity to active sage grouse leks and deviations from the stipulations of Executive Order 12-2015 for some or all of the project’s life span. In these types of situations, mitigation obligations provide clear market-based signals to developers, the Program, and MSGOT to weigh and balance the economic feasibility of a project with the potential for significant and long-term impacts.

The developer then works with the Program and possibly other third parties to develop a request for relief through policy-based tools where economic feasibility constraints are demonstrated. Preliminary consultation with MSGOT may occur during the development process. Once the developer has finalized the request for relief, the Program will refer the request to MSGOT. MSGOT will exercise its discretion to consider and approve the incorporation of policy-based tools into individual mitigation plans.

Developers seeking relief from economic feasibility constraints will be expected to explicitly consider and show MSGOT that:

- no alternative sites are practicable or economically feasible;

- there is an economic need for relief from compensatory mitigation obligations;
- the cost of the total mitigation obligation poses a disproportionate economic impact;
- all available tools in the Policy Guidance have been exhausted or are unsuitable;
- there is some capacity to fulfill some portions of the mitigation obligation, either in credits or as a financial contribution to the Stewardship Account to match with one or more policy-based tools (e.g. financial tools, credit-matching tools, and/or waiver) so that fulfilling the entire mitigation obligation because a joint public-private endeavor;
- all relevant tools in the Policy Guidance have been considered; and
- other steps in the mitigation hierarchy have been observed and incorporated into the mitigation plan, including avoidance, minimization, and reclamation measures.

In addition to information provided by the developer, MSGOT can also consider, for example, whether the project provides an essential public benefit, utility, or service in historically underserved rural areas that support the majority of Montana’s sage grouse.

MSGOT will review the information provided. Upon demonstration by the developer that there are no other alternatives, that the mitigation obligations for a particular project pose a disproportionate economic impact, other public benefits accrue as a result of the project that outweigh impacts to sage grouse or habitats or allocation of matching credits, and that there is a need to apply one or more of the policy-based tools to alleviate the feasibility constraints, MSGOT may approve the request.

Application of these policy tools fall within MSGOT’s discretion and ensures that MSGOT will make decisions in light of the Mitigation System provisions as a whole and all specific parameters, with particular attention paid to achieving the overall policy goal of no net loss, net gain preferred and Service Areas to ensure that mitigation is timely, ecologically meaningful in space and through time, and effectively balances economic development and conservation. Attention must also be paid to the trends in sage grouse populations and other adaptive management metrics and objectives.

MSGOT will also remain mindful and vigilant to discern circumstances where mitigation obligations are legitimately very high because impacts and deviations from Executive Order 12-2015 are significant.

MSGOT may apply various policy-based tools, with flexibility commensurate with its considerable discretion. MSGOT may approve incorporation of policy-based tools independent of the availability of Stewardship Account credits. Through the adaptive management review process, MSGOT will consider the track record of when and how the policy-based tools are exercised with respect to solvency of the Stewardship Account, specific adaptive management objectives related to habitat and populations, and other considerations related to rural communities, economics, and the broader public interest.

3.7 Enforcement

Permitting agencies, in conjunction with MSGOT, are responsible for enforcing the mitigation obligations associated with debiting projects consistent with applicable law and regulations. If the debit project developer fails to comply with mitigation obligations, permitting agencies may, consistent with applicable law and regulations, suspend or terminate permit authorization. Additional information is available in agency-specific policy and guidance. Sections 2.4.3, 3.7, and 3.8 further describe how mitigation obligations are monitored through time.

3.8 Implementation, Verification and Tracking

The mitigation plan, once approved by the Program, MSGOT, and the state or federal agency, should be implemented as set forth in the terms and conditions described in the mitigation plan. If monitoring of the mitigation site indicates performance measures or project milestones are not being met, then the project developer can assess why the mitigation is not successful and propose a modification to the Plan. The Program/MSGOT and/or federal agency may review proposed modifications and approve or deny modification to the Approved Mitigation Plan. Refer to Section 2.4.3 for a suggested framework to assess why mitigation is not successful and potential approaches.

It is possible that a project's activity or actual impact deviates from the activities that were planned, proposed, and approved in the mitigation plan documents and related permits. The project developer is responsible for notifying the Program of any changes in proposed activities or impacts, or of the completion of implementation or any phase of implementation (e.g., moving from a construction to operation or remediation phase) as soon as possible. The project developer is also responsible for providing the Program with any information needed to review and revise the mitigation plan accordingly. The new information must be timely provided to the Program in writing, within 45 days of a change in activities or outcomes. The project developer is encouraged to propose remedies and solutions.

In some cases, changes to a project would require a permit modification or amendment. Project developers initiate the permit modification or amendment process with the responsible permitting or authorization agency. Depending on the type of project or magnitude of change, impacts could be reassessed using the HQT. This decision would be made in collaboration with the state or federal permitting agency and the project developer.

The credit need defined and agreed to in the originally-approved mitigation plan (and any agreed-upon mitigation plan modifications) may not be later altered to reflect results of a new or more recent HQT version, unless the change is agreed to by the Program, the project developer, and all permitting agencies as a needed correction because either the project or the impacts have significantly changed. Similarly, the Program may not unilaterally change the credit requirement or require additional credit purchase as long as the debiting project is implemented and executed as originally approved, even if the HQT Technical Manual or this Policy Guidance is changed in the intervening time period.⁷⁴ If a project is expanded through a permit amendment, the expansion will be analyzed using current applicable HQT Technical Manual or Policy Guidance documents designated by MSGOT at the time of the permit amendment process.

Purchase of credits from the Stewardship Account, as well as from approved private conservation banks, habitat exchanges, or in-lieu fee entities involves a transfer of credit responsibility from the debit project developer. Once credits are purchased, the project developer cannot then be held liable for the failure of any associated credit projects. Responsibility for the results of credit projects, and tools for managing that uncertainty, are described in Section 2.4.

Responsibility for the results of permittee-responsible mitigation remains with the project developer, unless it is contractually transferred to a third party responsible for implementing the

⁷⁴ This circumstance could arise for larger, more complicated projects with longer permitting timeframes, for example, when an environmental impact statement is required.

project. Permittee-responsible mitigation projects must meet the standards and requirements outlined in Section 2 for all crediting projects, including ongoing protection, stewardship, monitoring, and verification.

Credits created and purchased will be reported to and tracked in the statewide registry by the Program or a designee. The credit registry will be updated to ensure that, once used, they cannot be resold.

4. ADMINISTRATION AND ADAPTIVE MANAGEMENT

The Stewardship Act and EO 12-2015 outline duties and authorities of MSGOT and the Program. Within the broader Montana Mitigation System, participant responsibilities are summarized below.

4.1 Participant Responsibilities

This section provides additional detail on the specific responsibilities of participants in mitigation credit creation, purchase, and administration.

Montana Sage Grouse Habitat Conservation Program (Program) – or designee:

- Implementation and adaptive management of this Policy Guidance document, the HQT Technical Manual, website, and associated products;
- Creation and maintenance of the HQT and ensuring public access to the tool and its underlying data;
- Consult with and provide guidance to other state agencies and permitting agencies on how to meet state policy requirements related to sage grouse mitigation;
- Provide guidance to credit providers in planning and proposing mitigation projects;
- Provide guidance to project developers in meeting avoidance, minimization, reclamation, and compensatory mitigation requirements;
- Either run the HQT with information provided by credit providers and debit project developers to estimate habitat function gained or lost by individual proposed projects, or make it available to the public to run either on the Program’s website as a centralized function and location or assure it is available on the website of that of any third-party administrators;
- Convene an interagency review team, as needed, to coordinate review of proposed debiting or crediting projects;
- Receive and disburse funds from the Stewardship Account in accordance with MSGOT authorizations;
- Develop and maintain a statewide credit registry, and register and track approved credits that are created, bought, sold, and used in the state;
- Track reserve account credits and approve release to replace failed credits as needed and as described in Section 2.4;
- Analyze and communicate program outcomes to MSGOT and the interested public; and
- Implement adaptive management outlined in Section 4.4 below.

Montana Sage Grouse Oversight Team (MSGOT):

- Provide oversight and direction to the Program in executing mitigation responsibilities;
- Evaluate and approve funding of grant applications for funding from the Stewardship Account;

- Review and approve mitigation credit projects and associated documentation;
- Review and approve debit project mitigation plans;
- Review and approve the results of credit project monitoring, reporting, and verification, and credit remediation plans associated with approved projects;
- Review annual reports of statewide mitigation outcomes prepared by the Program based on reports submitted by credit providers and developers;
- Review and approve Program proposals for adaptive management of this Policy Guidance and the HQT Technical Manual;
- Promulgate or amend administrative rules within authorities provided in the Stewardship Act; and
- Implement adaptive management outlined in Section 4.4 below.

Permitting Agencies:

- Refer project developers of new land uses or activities that may impact sage grouse habitat to the Program for consultation;
- Participate on an interagency review team, as requested by the Program to coordinate additional permit requirements;
- For federal permitting agencies, evaluate and clearly communicate the consistency of proposed debit and credit projects with federal land use plans and policies, and help ensure federal requirements for avoidance, minimization, reclamation, and minimization are met in a consistent, predictable, coordinated, and timely fashion by reviewing and approving mitigation plans and other documents as needed and/or requested;
- Coordinate with the Program in adaptive management of this Policy Guidance document and the HQT Technical Manual; and
- Issue permits consistent with applicable laws and regulations

Debit Project Developer:

- Notify and consult with the Program in a timely fashion on avoidance, minimization, reclamation, and compensatory mitigation requirements for new land uses and actions that may impact sage grouse habitat and fall within the ambit of Executive Orders 12-2015 and 21-2015 or subsequent orders;
- Work with federal land management agencies when seeking authorizations for newly proposed activities on federal lands;
- Provide geographic and site-level information needed to run the HQT on the Program's website and work with the Program to determine debit amount;
- Conduct voluntary Third Level Assessment to refine HQT results, if desired; see Montana Mitigation System HQT Technical Manual for Greater Sage-Grouse;
- Complete draft and final mitigation plan for Program review and MSGOT approval, if required;
- Purchase or produce mitigation credits, if needed, consistent with an approved mitigation plan; and
- Provide documentation to the Program and MSGOT that mitigation credits have been secured, where they are located etc.

Credit Project Provider:

- Propose mitigation crediting projects on a voluntary basis, consulting early in the project planning process with the Program on standards, requirement, and site-appropriate conservation actions;
- Provide geographic and site-level information needed to run the HQT on the Program's website and determine credit availability by working with the Program;

- Conduct mandatory Third Level Assessment to refine HQT results (see the HQT Technical Manual);
- Complete draft and final credit project proposals, and provide all needed documentation for final mitigation instrument;
- Execute legal protection and financial assurance requirements, or designate and contract with a third party to do so;
- Complete any short- and long-term management actions outlined in the site plan and needed to meet site-specific performance standards for the agreed project duration, or designate and contract with a third party to do so; and
- Conduct monitoring and provide monitoring reports to the Program as specified in the site plan and allow access to property for Program or third-party verification as required in the mitigation instrument.

4.2 Pricing of Credits Created by MSGOT through Stewardship Account Grants and Determining the Average Credit Price for Financial Contributions when Sufficient Credits are not Available

Developers have three primary options to fulfill a mitigation obligation to offset the number of debits of a project: (1) undertake activities to create an equivalent number of debits of their own accord through permittee-responsible actions paying for an easement directly or restoring / enhancing habitat; (2) obtaining credits created by others through conservation banks, habitat exchanges, individual landowners, or through Stewardship Account grants overseen by MSGOT; (3) making a financial contribution if sufficient credits are available for purchase.

Several provisions of the Stewardship Act affect initiation of Montana’s Mitigation System and establishment of the mitigation marketplace. First, the Stewardship Act provides a funding mechanism to create an initial supply of credits through Stewardship Account grants.⁷⁵ MSGOT was authorized to issue grant funds for projects that would create credits prior to the designation of the HQT and adopting administrative rules. MSGOT is also required to apply the retroactively to any leases or conservation easements to determine how many credits were created as a result of the grant and could be made available to offset debits.⁷⁶

Second, the framers of the Stewardship Act also anticipated that a third party would open a habitat exchange and allowed MSGOT to transfer the credits it created using Stewardship Account funds allowing MSGOT to step away from the actual market transactions.⁷⁷ Proceeds from the sale of credits transferred to a third-party habitat exchange must be reimbursed back to the Stewardship Account.⁷⁸ Thus, the Account could serve to create the initial supply of credits through a granting process, but government would not participate in the mitigation market place.

Third, the Stewardship Act also provides that project developers could make a financial contribution to the Stewardship Account “equal to the average cost of the credits that would otherwise be required” when insufficient credits are available.⁷⁹ The Stewardship Account is then

⁷⁵ MCA §§ 76-22-108(4), 109-110 (2017).

⁷⁶ See MCA § 76-22-105(3) (2017).

⁷⁷ See MCA §§ 76-22-103(8), 76-22-105(2) (2017).

⁷⁸ MCA 76-22-110(1)(i)(ii) (2017).

⁷⁹ MCA § 76-22-111(1)(b)(ii) (2017).

used by MSGOT to create more credits through subsequent granting cycles in a competitive process. All funds MSGOT receives for credits it creates or through contributions must remain in the Stewardship Account⁸⁰ and can be used for future granting cycles.

As of September 2018, no third party has opened or publicly signaled an intention to open a habitat exchange. Similarly, no conservation land banks or private in-lieu fee entities exist for sage grouse mitigation in Montana. Accordingly, there is no track record of credit-debit transactions in the Montana Mitigation System, and no price signals for MSGOT or any other entity who may be interested in administering a habitat exchange or one of the other mitigation mechanisms available in Montana.

Presently MSGOT is the only entity with credits available and lacks an entity to whom it may transfer its credits.⁸¹ However, a project developer can “if sufficient conservation credits are unavailable for purchase, mak[e] a financial contribution to the sage grouse stewardship account established in 76-22-109 that is equal to the average cost of the credits that would otherwise be required.”⁸²

Pricing of MSGOT’s Credits: In the absence of any other source of price signals or history of credit-debit transactions for sage grouse in Montana, MSGOT will have to establish an initial price for credits it creates through Stewardship Account grants.

MSGOT will take the following approach to pricing credits it creates until there is a third-party habitat exchange administrator to accept MSGOT’s transferred credits and/or a track record of transactions develops to better inform a price structure. As the mitigation market gets underway and matures, MSGOT will re-evaluate the methodology, the supply and demand for credits, and the history of transactions to which it is a party through the process of adaptive management.

MSGOT needs to account for several factors when setting a credit price:

1. Different project types have a different number of years associated with each phase of the project (i.e., the duration of impacts varies for construction vs. operations vs. reclamation phases, respectively). For example, some project types like pipelines or other buried features cause impacts primarily during the construction phase (usually one year) and no surface impacts during operations because it is a buried feature. This is in contrast to a transmission line, wind facility, or mining operation where impacts are above ground for the entire duration of the project (i.e., occur during the construction phase and then continue during the operations phase, sometimes for decades). The degree of impact and the duration of impact for each phase of a project will vary by project type and the methods should be nimble enough to adjust and account for that.
2. Some project types will inherently have greater impacts and for a longer duration; thus, mitigation obligations will be higher, and offsets must be provided for a longer period of time. Conversely, some project types will have less impact and for much shorter durations. Methods should account for these differences rather than apply a “one size fits all.”

⁸⁰ MCA §§ 76-22-109(2)(b), 109(7) (2017).

⁸¹ MSGOT executed grant agreements on a total of four perpetual conservation easements. One easement has closed, and two additional easements are expected to close by the end of 2018.

⁸² MCA § 76-22-111(1)(b)(ii) (2017).

3. The HQT calculates the number of functional acres lost for each phase of a project (construction, operations, and reclamation) based on the project information and dates provided by the developer. Results can be further broken down mathematically to individual years for the entire life of the project. The total Raw HQT Score is the sum of functional acres lost in each year of each phase of the project, respectively, aggregated to a single number. The total summed score represents impacts overall years of the project (both present in the first year of implementation and all future years until reclamation is complete). This level of reporting detail allows more detailed consideration of credit pricing methods.
4. Multipliers are applied uniquely to each project, depending on: (1) if and/or to what extent the project's direct footprint is located on top of existing surface disturbance vs. creates new surface disturbance; (2) consistency with Executive Order 12-2015 and observance of stipulations during each phase of the project; and (3) whether the project is located in a Core Area, General Habitat, or the Connectivity Area. For example, a project may deviate from stipulations during the construction phase only, but not the operations phase or vice versa. Similarly, a project may traverse two different habitat classifications. Ultimately, the total number of debits for which an equal number of credits is required is determined by the HQT functional acres lost for the duration of the project and the multipliers.
5. The "time value of money" means the value of a given amount of money is less in the future than it is in the present. The economic value of costs or benefits today is more than the economic value of costs/benefits in the future. In simple terms, this economic theory holds that most people would prefer to have a dollar today rather than having a dollar in ten years because that dollar can be put to productive use and create benefits now and over the next ten years in excess of the same dollar received in ten years. Thus, it would be improper for MSGOT to charge the current year value of a credit for the first year of construction and for each subsequent year over the entire duration of a project through to the completion of the restoration phase, when impacts are occurring in first year and in each future year. That is to say that it would be improper to charge the same price for a credit in year one of construction as in year 20 during the operations phase.

To account for these factors, MSGOT will apply a present value discount of 3% to the price of a credit applied to offset debits in future years when developers opt to purchase MSGOT credits in the present year (i.e., first year of project implementation) or when developers make a financial contribution to the Stewardship Account if sufficient credits are not available.

OMB circular A-94 "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs" establishes methods for federal programs to determine discount rates. This circular provided the underlying basis and key principles BLM used to analyze the socioeconomic impacts of alternatives considered during the 2013-2015 land use plan amendment process.⁸³ BLM determined that the Circular reported a very low discount rate compared to the discount rates economists have typically used over recent decades. This was because the interest rate on Treasury notes and bonds are at extremely low values historically speaking. Therefore, BLM selected a discount rate of 3.0% because it was more historically accurate value over many decades than a rate derived from the

⁸³ See <https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage¤tPageId=18704> (the 2015 Wyoming Greater Sage-Grouse Land Use Plan Amendment, Chapter 4 – Environmental Consequences pp 4-138 and Appendix N – Technical Report: Social and Economic Impact Analysis Methodology).

currently skewed data. MSGOT agrees that 3% is a more relevant figure to begin with due to the current low yields on U.S. Treasury Notes *and* concurrent low inflation, both major factors in the determination of present value discount rates.

MSGOT will apply the 3% discount rate to each phase of a project according to the number of debits accrued in each phase (i.e. construction, operations, and reclamation). Total cost will be the sum of the dollar amount attributed to each phase. The discount rate of 3% may be adjusted and the method refined through the adaptive management review process.

By accounting for these factors and applying a discount rate to the cost of credits in future years, MSGOT helps assure that the method produces equitable results across different project types relative to their impacts. For developers who chose not to undertake permittee-responsible mitigation and make a contribution to the Stewardship Account, costs should be proportional to impacts and reflective of the type of project, the number of functional acres affected in each year and phase of a development project, and the total length of time habitat quality and quantity are affected.

Preservation Credits: For perpetual conservation easements, term easements or term leases, the price will begin at \$13.00 per credit. This number is based on an average of the actual total cost of credit-creating projects funded through the Stewardship Account as of September 2018. This value will change through time based on future grants, market transactions, and experience. Ultimately, the adaptive management evaluations will better inform the price.

For illustrative purposes, Appendix 7.4 provides a comparison between the 3% discounting method and applying a fixed, constant \$13.00 per credit for a hypothetical example project. Table 7.1 shows the 3% discounted price per credit for each year for a hypothetical example project having a full duration of 100 years.

Restoration and Enhancement Credits: For credits created through restoration or enhancement activities funded with Stewardship Account funds, the cost per credit will be the total cost of the restoration or enhancement project divided by the number of credits created by the project. For example, Table 7.1 in Appendix 7.4 would start with a credit price that reflects the cost of the restoration or enhancement credits, instead of \$13.00.

Determining Average Credit Price for Financial Contributions to the Account: MSGOT will follow the same discounting approach to determine the amount of a financial contribution by a project developer when sufficient credits are unavailable. The total number of credits required will have already been determined through application of the HQT Technical Manual and this Policy Guidance. The cost per credit will be determined using the same methodology, as if MSGOT created the credits using Stewardship Account funds.

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.

For example, the initial methodology sets a starting point of \$13.00 per credit and a starting present value discount rate of 3%. Through time, a running average could be calculated for each of the four Service Areas. Alternatively, to be competitive and attract private landowners to participate in mitigation, MSGOT could look to other the payment structures and pricing of other transactions

such as private pasture leasing, lease rates on State Trust Lands, or surface use leases/agreements for purposes other than sage grouse mitigation so MSGOT can remain competitive.

Pricing methodologies for credits created through Stewardship Account grant awards will be reviewed annually. Every five years, a more substantive evaluation will be made. Implementation of adaptive management principles is further outlined below.

Should a third-party habitat exchange administrator come forward, MSGOT may consider transferring its credits. A habitat exchange administrator may freely negotiate price with others participating in the Mitigation System and MSGOT would no longer determine the price of credits it creates. However, the Act requires that the state is reimbursed for its proportionate share of proceeds generated from the sale of those credits created with funds distributed from the Stewardship Account.⁸⁴

4.3 Pricing of Credits Created by Third Parties Other than MSGOT

There is no requirement that credit providers utilize Stewardship Account funds to create preservation, restoration, or enhancement credits. Similarly, there is no requirement that developers make a contribution to the Stewardship Account. In fact, developers are incentivized through the 10% advance payment multiplier to secure their own credits (rather than making a contribution) or undertake permittee-responsible activities and create credits to offset the number of debits attributed to the project.

In fact, the Mitigation System expressly contemplates that independent third parties would create and market their own credits (and work directly with developers to exchange credits and debits) without utilizing Stewardship Account grant funds—all with a purpose and result to incentivize voluntary conservation and private market transactions without government involvement.

When Stewardship Account funds are not utilized to create credits, there are no obligations to reimburse the Stewardship Account. Credit providers are encouraged to develop and market their own credits and work directly with developers.

There are instances in which credits can be created and utilized in the Mitigation System that are not associated with the Stewardship Account funds. For example:

- private landowners (or a group of landowners) could work together to create and market a credit site directly to project developers;
- private landowners could work directly with a third-party exchange administrator instead of project developers;
- private landowners could work together to create a conservation land bank;
- project developers could work directly with private landowners to secure a location for permittee-responsible mitigation; or
- on federal lands, project developers could work directly with federal land managers or a third-party exchange administrator to find ways to offset impacts through a combination of purchasing credits and/or direct restoration on federal lands.

⁸⁴ MCA § 76-22-110(1)(l)(ii) (2017).

In instances where Stewardship Account funds are not involved in creating credits, credit providers and project developers freely negotiate credit prices and determine all financial transaction details. MSGOT is not a party to the transaction but will seek confirmation that all requirements of this Policy Guidance are met.

4.4 Adaptive Management

Adaptive management is a fundamental principle of the Montana Mitigation System. When it comes to conserving GRSG populations, much is known about the species' habitat preferences and population responses to the loss and fragmentation of sagebrush habitats. However, less is known about how GRSG populations respond to some specific anthropogenic disturbance types and more generally to mitigation measures which are intended to offset anthropogenic disturbance. Furthermore, Montana's Mitigation System includes assumptions in both the Policy Guidance and the HQT Technical Manual in the absence of perfect knowledge or experience in implementation. For these reasons and others, the Montana Mitigation System implements an adaptive management approach to periodically evaluate whether mitigation effectively offsets impacts in space and through time, sage grouse populations are sustained, and to assure Montana achieves the standard of no net loss of habitat.

As importantly, implementation of mitigation presents both new opportunities for conservation, as well as a new way of approaching development and economic activity in sage grouse habitats. Montana has historically not required mitigation for habitat impacts to aid conservation of sensitive species. Adaptive management principles are particularly well suited to considering the how mitigation affects regulated industries.

This Section describes a process for transparent, science-based, and inclusive adaptive management of the Policy Guidance, HQT Technical Manual, and associated products. Adaptive management is fundamental to making sure that the Montana Mitigation System is effective and successful, as is the broader conservation strategy. Adaptive management is also fundamental to making sure that Montana is effectively balancing conservation needs with its economic development goals and the broader public interest.

Adaptive management is a systematic, but dynamic approach for improving natural resource management, with an emphasis on learning from management outcomes and incorporating what is learned into ongoing management. Uncertainty in management outcomes is addressed through the incorporation of procedures that seek to periodically review, revise, and update tools, strategies, and approaches in response to changing conditions or new information.

Adaptive management strategies allow for changes to the overall conservation strategy to occur in response to changing conditions or new information, including those identified through monitoring. The power of adaptive management lies in its ability to provide a viable path forward for management when information is lacking. By recognizing that management or implementation questions initially remain unanswered, information may be gained through this cyclical process of continuous evaluation and improvements with the goal to resolve outstanding questions and uncertainties through time through transparent processes based on the best available science. By definition, adaptive management requires a commitment to change approaches when appropriate and necessary in response to the previous cycle's acquisition of new information.

To ensure Montana meets the goals outlined in Section 1.1 of this document and specific measurable objectives that arise from those goals, an adaptive management review will occur

annually. Adaptive management will require consideration of both habitat outcomes and population status and trends over time, in concert and at multiple spatial scales. The Program will focus on habitat outcomes, while sage grouse population monitoring, population estimation and reporting, and harvest management will remain the purview of MFWP.⁸⁵ The Program will collaborate with MFWP and others as described more fully below.

Specific habitat-based objectives can be stated as follows:

- Meet the mitigation standard of no net loss, net gain preferred.
 - The number of functional acres created should be equal to or greater than the number of functional acres lost (i.e., HQT results prior to application of modifiers).
 - The number credits created should be greater than or equal to the number of debits.
- Maintain sufficient credits in the reserve account to replace lost or impaired credits.
 - The reserve account should have a sufficient number of reserve credits to replace lost or impaired credits listed and already used and assigned to offset debits.
- Produce and maintain an adequate credit supply, regardless of the entity who creates them.

Specific metrics that will be summarized include: (1) the number of functional acres gained compared to the number of functional acres lost; (2) the number of credits created compared to number of debits created; (3) the number of credits available in the reserve account to replace impaired or lost credits; and (4) the supply of credits already developed and available in the registry, as well as those that could potentially be developed. Sources of data for habitat metrics can include: the registry, development projects reviewed by the Program, data contributed by other participants in the Mitigation System, other state and federal agencies, universities, non-governmental organizations, and conservation projects funded using funds from the Stewardship Account.

Consideration of population trends at multiple scales and through time with respect to conservation habitat efforts, development, and mitigation will enhance Montana's understanding about how populations at multiple scales are doing and may be influenced by changes in habitat quality and quantity (both development and conservation).

Specific population-based objectives are listed below. It is recognized that populations will vary naturally over time and across regions.

- Maintain a stable population within the range of natural variation.
- Reverse or stabilize negative population trends.
- Maintain a performance standard of 6.9 – 18.78 males / active lek, based on the number of displaying males determined by a statistically-valid analysis over a 10 year-period, as required by EO 12-2015.
- Maintain at least as many active sage grouse leks as documented in 2015 when the Strategy was first implemented.

Sources of sage grouse population and lek information include the FWP lek database, the Montana Greater Sage-grouse Population Report prepared annually by MFWP, data contributed by participants in the Mitigation System, and other state and federal agencies, universities, private landowners, and non-governmental organizations.

⁸⁵ See Mont. Code Ann. 87-1-201(11) (2017) (requiring MFWP to report sage grouse population numbers, including number of leks on an annual basis, seasonal and historic population data).

Habitat and population metrics will be analyzed, summarized and reported at several scales, including: statewide, Western Association of Fish and Wildlife Management Zones, each respective Mitigation System Service Area, MFWP harvest management zones, within and among Core Areas, and between Core Areas and non-Core Areas, and any report unit relevant to BLM and USFS managers and land use plans. Site-specific, project-level scale analyses may also be conducted.

Human dimensions and social science metrics may also be considered for inclusion in adaptive management reviews in the future. For example, obtaining feedback directly from participating private landowners regarding their experience, interest, and satisfaction with the Mitigation System should also inform adaptive management changes since the primary source of credits is expected to be private lands.

Industry participation in the annual review process will be solicited. Information regarding the number of projects, mitigation costs relative to capital costs, or other business-oriented economic metrics will be specifically requested. While the Program can glean some basic information from its consistency review database (e.g. number of mining projects reviewed and associated mitigation vs. number of pipeline projects), the Program and MSGOT lack the economic and fiscal insights for specific industries and particularly how mitigation obligations may be affecting businesses. MSGOT will need data to determine whether Montana is appropriately considering public benefits and public safety in its efforts to balance conservation and development. Absent that data and industry insights, MSGOT cannot fully or properly assess whether or not mitigation is posing excessive hardships and if so, what revisions may be warranted.

Similarly, participation by individual landowners or third party credit providers will be solicited. Their information and suggested economic metrics will provide useful insights into how effectively Montana is incentivizing private land stewardship. Recognizing that the state is not a party to these types of private credit transactions, data availability may be limited.

Future adaptive management reviews will also focus on other areas of this Policy Guidance where there was specific uncertainty, where assumptions were made or stakeholders disagreed, and where public comment or peer review identified potential areas for future improvement. Examples include:

- more explicit incorporation of full cost accounting methods;
- baseline for perpetual preservation credits and whether it significantly and/or negatively skews credit supply too high or too low and whether there should be a baseline adjustment for term leases or easements;
- multipliers and whether they are too high, too low, or present disparate enough policy incentives to encourage or discourage development and/or conservation actions in Core Areas vs. General Habitat appropriately;
- the initial price of \$13.00 for perpetual preservation credits given the uncertainty about whether this price will provide a sufficient revenue stream that is adequate to set an initial price signal to incentivize private landowners to voluntarily participate; and
- the discounting method and percentage discount where the cost of a credit is discounted into the future for each year of a development project corresponding to the total number of years for the life of the project.

The Program will host adaptive management workshops to gather information and to present results and discuss ideas with stakeholders, Mitigation System Participants, and interested publics.

The Program will prepare an adaptive management report, assessing whether the Program is meeting goals and objectives, including, as a part of fulfilling its other reporting requirements:⁸⁶

- a report of performance and operational findings, including a synthesis of monitoring and tracking of pre-project and post-project conditions for both crediting and debiting projects based on the Program's own experience and those of others engaged in the Mitigation System;
- identification of any overarching lessons learned;
- a quantification of the total debit impacts and credit project benefits provided by mitigation projects in terms of functional habitat acres;
- a summary of sage grouse monitoring information and populations at multiple spatial scales;
- a summary of economic metrics and more specifically about the economic impacts of mitigation by industry type;
- a summary of economic metrics associated with private credit activity, commensurate with available data;
- consideration of how Montana is balancing conservation with the economics of mitigation and incentivizing private land stewardship (i.e., both debit and credit side) and the broader public interest;
- a list of recommended changes to the Policy Guidance and HQT Technical Manual and associated documents, processes, and tools needed to meet (or continue to meet) program goals and objectives;
- a list of monitoring and research findings and needs to better guide mitigation efforts, developed in collaboration with MSGOT, scientific experts, and stakeholders; and
- a prioritized list of recommendations.

On an annual basis, the MSGOT will review the adaptive management report at a publicly noticed meeting to share the results of the adaptive management review and report, describe suggested changes, processes, or tools, and receive stakeholder feedback. There will be an assessment of whether major or minor changes to the approach are needed, and the recommendations will be prioritized. Progress towards meeting goals and objectives will be considered.

Changes deemed to be necessary or beneficial should be considered for possible adoption by MSGOT. MSGOT must provide public notice of any major or minor changes it is contemplating and provide the opportunity for written and oral comment prior to making final decisions. MSGOT has discretion to initiate rulemaking at any time.

Within five years, the Program and MSGOT will review progress towards meeting the objectives and determine whether significant changes to the mitigation approach are needed. This review would be more thorough and recommendations for more substantive changes may emerge. Because changes at the five-year mark are likely to be more substantive and material, MSGOT will be required to undertake new administrative rulemaking to formally update the Policy Guidance Document and the HQT Technical Manual to subsequent versions.

⁸⁶ For example, see the State of Nevada Conservation Credit System 2017/2018 Findings and Improvement Recommendations Report, March 13, 2018, available at: <https://www.enviroaccounting.com/NVCreditSystem/News/Display/1077>.

5. GLOSSARY

Adaptive Management: A systematic approach for improving natural resource management, with an emphasis on learning from management outcomes and incorporating what is learned into ongoing management.⁸⁷ Uncertainty in management outcomes is addressed through the incorporation of procedures that seek to periodically review, revise, and update tools, strategies, and approaches in response to changing conditions or new information.

Additionality: Conservation benefits of a conservation action or measure that improve upon the baseline condition of the impacted species or its habitat in a manner that is demonstrably new and would not have occurred without the prelisting conservation action.⁸⁸

Assessment Area: The geographic area associated with a project's potential impact or credit project's benefit. This defines the boundaries of the calculation of debits or credits in the habitat quantification tool.

Avoidance: Avoiding an impact from a proposed debit project altogether by not taking a certain action or parts of an action.⁸⁹

Baseline: The pre-existing condition of a resource, at all relevant scales, as quantified by application of the HQT.⁹⁰ For preservation credit sites, the baseline is set as 70% of the total functional acres protected by the perpetual conservation easement or term lease so that 30% of the functional acres becomes available as credits.

BLM: U.S. Bureau of Land Management.

Compensatory Mitigation: Actions that provide compensation for unavoidable adverse residual impacts to species or their habitat and when taken in advance of the impact⁹¹ through activities that preserve, enhance, restore, and/or establish habitat through the Montana Mitigation System.

Connectivity Area, State of Montana: An area that provides an important linkage among populations of sage grouse, particularly between Core Areas or priority populations in adjacent states and across international borders.⁹²

Conservation Actions: Actions that preserve, enhance, restore, establish, and/or avoid the likely future loss of sage grouse habitat functionality by reducing or eliminating threats to that habitat.

Core Area, State of Montana: An area that has the highest conservation value for sage grouse and has the greatest number of displaying male sage grouse and associated sage grouse habitat, as presently delineated by Executive Order 21-2015.⁹³

⁸⁷ U.S. Dep't of Interior, Adaptive Management: The U.S. Department of the Interior Technical Guide, 1 (2007, updated 2009), available at <http://www.usgs.gov/sdc/doc/DOI-%20Adaptive%20ManagementTechGuide.pdf>.

⁸⁸ US Fish and Wildlife Service. 2017. Director's Order No. 218: Policy Regarding Voluntary Prelisting Conservation Actions. Section 2.

⁸⁹ 40 CFR 1508.20(a).

⁹⁰ Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

⁹¹ U.S. Fish and Wildlife Service. 2018. Part 735, U.S. Fish and Wildlife Service Manual, Chapter 1. Policy Regarding Voluntary Prelisting Conservation. Available at: <https://www.fws.gov/policy/735fw1.html>.

⁹² MCA § 76-22-103(1) (2017).

⁹³ MCA § 76-22-103(3) (2017).

Credit: A defined unit of trade representing the accrual or attainment of resource functions or value at a proposed project site.⁹⁴

Credit Need: The number of credits needed to meet the compensatory mitigation requirements of a debit project, based on direct and indirect impacts assessed by the Montana HQT and any subsequent adjustments through multipliers.

Credit Project: Conservation actions, including enhancement, restoration, creation, or preservation taken by an entity on a mitigation credit project site.

Credit Provider: An entity generating credits as mitigation for impacts to sage grouse habitat.

Debit: A defined unit of trade representing the loss of resource functions or value at an impact or project site. The unit of measure is the same as that for a credit within a specific mitigation system.⁹⁵

Debit Project: A development action proposed in sage grouse habitat that requires state or federal agency review, approval, or authorization and is required to avoid, minimize, reclaim, and/or compensate for impacts to sage grouse habitat.

Direct Impact: Effects that are caused by a development activity. Direct effects are the footprint of a project and usually occur from construction or operation activities, or project infrastructure.

Distribution line: a circuit of low-voltage wires, energized at voltages from 2.4-kV to 35-Kv, and used to distribute electricity to residential, industrial, and commercial customers.

Durability: The maintenance of the effectiveness of a mitigation measure and/or a compensatory mitigation site for the duration of the impacts from the associated development or land use, including resource, administrative, and financial considerations.⁹⁶

Dynamic Permanent Mitigation: Mitigation achieved by the use of credits produced in a series of term agreements, such that the quantity and quality of the mitigation is permanent in duration.

Enhancement: An increase or improvement in quality, value, or extent (of a resource) that has been degraded or could be managed to increase the value of that habitat over its current value.⁹⁷

ESA: Endangered Species Act.

Establishment: Introduction or re-introduction of a resource at a site.⁹⁸

Exempt Use: Land uses, and landowner activities identified in Executive Order 12-2015 Attachment F as exempt from compliance with state mitigation requirements. In some cases, MSGOT has granted exemptions which are not reflected in Attachment F. See Appendix 7.3 and consult with the Program or the respective federal land management agency.

Financial Assurance: A financial instrument, including but not limited to an endowment, bond, contingency fund, insurance policy, or other type of suitable guarantee, that helps ensure that mitigation projects are completed according to plan, that resources are available to correct or replace unsuccessful projects, and that long-term stewardship funds are available for the life of the project.

⁹⁴ MCA § 76-22-103(4) (2017).

⁹⁵ MCA § 76-22-103(5) (2017).

⁹⁶ Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

⁹⁷ Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

⁹⁸ Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

Financial Management Plan: Prepared for each mitigation project and includes initial costs (acquisition, field surveys, habitat restoration, capital equipment, etc.), on-going annual costs (monitoring, maintenance, management, reporting, contingency allocation, etc.), and required amount of financial assurances, accounting for inflation and investment strategy.

Functional Acre: The single unit of value that expresses the assessment of quantity (acreage) and quality (function) of habitat or projected habitat through the quantification of a set of local and landscape conditions. A functional acre is the metric for outputs from the habitat quantification tool and forms the basis for quantifying, expressing, and exchanging credits and debits. One functional acre is equivalent to one credit or debit in the mitigation marketplace, respectively.

General Habitat, State of Montana: An area providing habitat for sage grouse but not identified as a Core Area or Connectivity Area.⁹⁹

General Habitat, BLM and US Forest Service (GHMA): BLM or USFS-administered sage grouse habitat that is occupied seasonally or year-round and is outside of PHMAs, where some special management would apply to sustain sage grouse populations. The boundaries and management strategies for GHMAs are derived from and generally follow the preliminary General Habitat (PGH) boundaries.

Habitat Exchange: A market-based system that facilitates the exchange of credits and debits between interested parties.¹⁰⁰

Habitat Function: The degree of effectiveness of a sage grouse habitat component to provide services for sage grouse use and survival. The HQT measure increase or decrease in habitat function to quantify management or debit project impacts to habitat.

Habitat Quantification Tool (HQT): The scientific method used to evaluate vegetation and environmental conditions related to the quality and quantity of sage grouse habitat and to quantify and calculate the value of credits and debits.¹⁰¹

High Voltage Powerline: powerlines designed and constructed to support voltages equal to or greater than 345Kv.

In-Kind Mitigation: Designed to replace lost resources with identical or very similar resources (i.e., sage grouse habitat).

Indirect Impacts: Effects that are caused by or will ultimately result from a development activity. Indirect effects usually occur later in time or are removed in distance compared to direct effects but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.¹⁰²

Interagency Review Team (IRT): a team of staff from all relevant permitting agencies to coordinate mitigation requirements, standards, and expectations for both debiting projects and crediting actions, and to provide efficient consultation with multiple permitting agencies. This team would include any permitting agencies with decision authority over a particular development project, but may also include other resource management agencies.

⁹⁹ MCA § 76-22-103(7) (2017).

¹⁰⁰ MCA § 76-22-103(8) (2017).

¹⁰¹ MCA § 76-22-103(9) (2017).

¹⁰² 40 CFR § 1508.8.

Legal Protection: The enforceable agreements to protect conservation benefits provided at a mitigation project site, which may include easements, deed restrictions, or other enforceable and durable contractual agreements, typically entered into by a property owner and/or third-party holder and filed with the applicable county.

Lek: Traditional areas where male prairie grouse, e.g., sage grouse, gather during early spring to conduct a courtship display, attract females, and breed.¹⁰³

MEPA: The Montana Environmental Policy Act.

MFWP: Montana Fish, Wildlife & Parks.

Minimization: Minimizing impacts by limiting the degree or magnitude of the action and its implementation.¹⁰⁴

Mitigation Credit Project: Conservation actions, including enhancement, restoration, creation, or preservation, taken by an entity on a mitigation credit project site.

Mitigation Hierarchy: The process of first avoiding impacts to resources, then minimizing impacts, then restoring or reclaiming sites, and finally allowing for compensatory mitigation in the case of unavoidable or residual impacts. The purpose of sequencing is to analyze all reasonable options to first avoid and minimize or reclaim impacts before allowing impacts that require compensatory mitigation – especially for important ecological areas and functions.¹⁰⁵

Mitigation Instrument: A formal agreement between credit providers and the entity approving generation and release of mitigation credits, establishing liability, performance standards, management and monitoring requirements, and the terms of credit approval. The mitigation instrument includes the required attachments, including the site plan, financial management plan, stewardship plan, legal protection documents, and verification report.

Monitoring: The process of observing and recording environmental conditions and changes in environmental conditions over space and time.

MSGOT or Oversight Team: Montana Sage Grouse Oversight Team.¹⁰⁶

Net Conservation Gain (or Benefit): The cumulative benefits of the mitigation or compensatory measures (i.e., beneficial actions taken under a voluntary prelisting conservation program) that provide for an increase in the population(s) of the species of interest directly or indirectly through the enhancement or restoration of its suitable habitat, or maintenance of currently suitable habitat, that reduces or eliminates current and future threats, taking into account the duration of the actions and all the adverse effects of the impact project.¹⁰⁷

No Net Loss: Impacts caused by the development project are balanced or outweighed by measures taken to avoid and minimize the project's impacts and compensate for any residual impacts so that no loss remains.¹⁰⁸

¹⁰³ Montana's Greater Sage-grouse Habitat Conservation Advisory Council. Greater Sage-Grouse Habitat Conservation Strategy (2014) (hereafter "2014 Recommendations"), available at [http://governor.mt.gov/Portals/16/docs/GRSG%20strategy%2029Jan final.pdf](http://governor.mt.gov/Portals/16/docs/GRSG%20strategy%2029Jan%20final.pdf).

¹⁰⁴ 40 CFR 1508.20(b).

¹⁰⁵ See 40 CFR 1508.20.

¹⁰⁶ MCA § 76-22-103(10) (2017).

¹⁰⁷ FWS Policy Regarding Voluntary Prelisting Actions.

¹⁰⁸ U.S. Fish and Wildlife Service. 2014. Greater Sage-Grouse Range-Wide Mitigation Framework. Version 1.0.

Net Conservation Benefit: the cumulative benefits of the mitigation or compensatory measures (i.e., beneficial actions taken under a voluntary prelisting conservation program) that provide for an increase in the population(s) of the species of interest directly or indirectly through the enhancement or restoration of its suitable habitat or maintenance of currently suitable habitat, that reduces or eliminates current and future threats, taking into account the duration of the voluntary prelisting conservation actions and all the adverse effects of the impact project. The net conservation benefits must be sufficient to contribute, either directly or indirectly, to the conservation of the species.¹⁰⁹

NEPA: The National Environmental Policy Act.

Offset: The act of fully compensating for environmental impacts; accomplished through observance of the mitigation hierarchy, including compensatory mitigation.

Off-site: Mitigation credit actions that occur outside the development project site or area.

On-site: Mitigation credit actions that occur on or proximate to the development project site.

Permittee-Responsible Mitigation: A compensatory mitigation site that provides ecological functions and services established as part of the conservation actions associated with a project developer's action. The project developer retains responsibility for ensuring that the required conservation actions are completed and successful. Each permittee-responsible mitigation site is linked to the specific activity that required the offset. Permittee-responsible compensatory mitigation approved for a specific action is not transferable and cannot be used for other mitigation needs.

Permitting Agencies: Agencies that fund or issue permits for development projects that may impact sage grouse habitat, including the Montana state agencies, Montana State Trust Lands, US Forest Service, and the Bureau of Land Management.

Phased Release of Credits: Releasing a limited number of credits from mitigation credit site in stages prior to full completion of proposed actions to balance the time lag in realizing the ecological benefits of a project with the need for up-front funds to finance implementation actions.

Preservation: The removal of a threat to, or preventing the decline of, resources. Preservation may include the application of new protective designations on previously unprotected land or the relinquishment or restraint of a lawful use that adversely impacts resources.¹¹⁰

Priority Habitat Management Area, BLM and US Forest Service (PHMA): BLM or USFS-administered lands identified as having highest habitat value for maintaining sustainable sage grouse populations. The boundaries and management strategies for PHMAs are derived from and generally follow the preliminary priority habitat (PPH) boundaries. PHMAs largely coincide with areas identified as priority areas for conservation (PACs) in the Conservation Objectives Team (COT) Report.

Project Developer: An entity proposing an action that will result in a debit.¹¹¹

Project Closure Date: Five years after the last credit from a mitigation agreement has been sold.

Program: The Montana Habitat Conservation Program.

¹⁰⁹ U.S. Fish and Wildlife Service. 2018. Part 735, U.S. Fish and Wildlife Service Manual, Chapter 1. Policy Regarding Voluntary Prelisting Conservation. Available at: <https://www.fws.gov/policy/735fw1.html>.

¹¹⁰ Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

¹¹¹ MCA § 76-22-103(11) (2017).

Raw HQT (Habitat Quantification Tool) Score: Final project score produced from Montana HQT Basemap Score after adding all project related Anthropogenic Variables for existing anthropogenic features on the landscape in GRSG habitat. The score reflects the total Functional Acres lost for the project or gained for a credit project.

Reclamation: Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.¹¹²

Registration: The process of placing a verified and certified credit into the registry; includes the required documentation and assignment of a unique identifying number.

Registry: A service or software that provides a ledger function for tracking credit quantities and ownership. Credit registries may also act as a mechanism for public disclosure of trading project documentation.¹¹³

Reserve Account: A pool of issued credits, funded by a percentage of the credits transferred in each transaction, that are used to cover shortfalls when credits that have been generated and sold are invalidated for unavoidable reasons like wildfire.¹¹⁴

Restoration: The process of assisting the recovery of a resource (including its values, services, and/or functions) that has been degraded, damaged, or destroyed to the condition that would have existed if the resource had not been degraded, damaged, or destroyed.¹¹⁵

Restoration Habitat Management Area, BLM (RHMA): BLM-administered lands where maintaining populations is a priority, a balance between ongoing and future resource use so that enough quality habitat is maintained to allow some residual population in impacted areas to persist and that emphasizes the restoration of habitat to reestablish or restore sustainable populations.

Service Area: The geographic area within which credits may be purchased and applied to offset debits associated with future development activities. Service Areas are mapped geographies with unique ecological significance and sometimes political boundaries. The area should be based on the conservation needs of the species as outlined in a conservation strategy for that species.¹¹⁶ See Figure 3.1 and Appendix 7.3.

Site Management Plan (Site Plan): A document provided prior to signing of the mitigation instrument or agreement which identifies the extent, type, and description of all proposed conservation actions associated with a credit project.

Stacking (Credit Stacking): generating multiple mitigation credit types on the same parcel of land (e.g., sage grouse credits and carbon sequestration credits).¹¹⁷

Stewardship Plan: Identifies a long-term person or entity (i.e., steward) of a credit project, stewardship goals and activities, the amount and source of funds needed for an endowment to maintain the site for the duration of the project life, and documentation of the time needed to implement the full stewardship plan.

¹¹² See 40 CFR § 1508.20 definition of mitigation hierarchy (avoid, minimize, rectify, reduce, compensate).

¹¹³ MCA § 76-22-104(3) (2017).

¹¹⁴ U.S. Fish and Wildlife Service. 2014. Greater Sage-Grouse Range-Wide Mitigation Framework. Version 1.0.

¹¹⁵ Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

¹¹⁶ US Fish and Wildlife Service. 2017. Director's Order No. 218: Policy Regarding Voluntary Prelisting Conservation Actions. Section 2.

¹¹⁷ U.S. Fish and Wildlife Service. 2014. Greater Sage-Grouse Range-wide Mitigation Framework.

Stipulations: Avoidance and minimization actions applicable to development activities proposed in sage grouse habitat, as outlined in Montana Executive Order 12-2015, Appendix D, or federal land use plans, respectively.

Substation: a transitional point where voltage is increased or decreased in the electrical transmission and distribution system.

Sub-transmission lines: powerlines designated and constructed to support voltages of 46-69 Kv.

Surface Disturbance: any conversion of formerly suitable habitat to grasslands, croplands, mining, well pads, roads, or other physical disturbance that renders the habitat unusable for sage grouse.¹¹⁸

Transmission line: powerlines designated and constructed to support voltages greater than 69 kV but less than 345 Kv.

Uncertainty: Refers to the inability to obtain perfect knowledge about factors that may negatively impact mitigation projects or their magnitude. Types of uncertainty include ecological risk (e.g., wildfires and invasive species), management risk (e.g., bankruptcy and project implementation or maintenance failure), and regulatory risk (e.g., revised laws or regulations). Alternatively, refers to the inability to obtain knowledge about factors affecting the accuracy of the HQT result, measurement and sampling errors, predictions about reclamation successes, etc.

Unsuitable Habitat: 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.

USFWS: U.S. Fish and Wildlife Service.

USFS: U.S. Department of Agriculture Forest Service.

Verification: An independent, expert check on the credit estimate, processes, services, or documents provided by a project developer or credit provider. The purpose of verification is to provide confidence to all program participants that credit calculations and project documentation are a faithful, true, and fair account – free of material misstatement and conforming to credit generation and accounting standards, state and federal laws, and policies.

¹¹⁸ Executive Order 12-2015, Attachment H.

6. REFERENCES

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- U.S. Fish and Wildlife Service. 2016. Final Rule. Endangered Species Act Compensatory Mitigation Policy. (81 Fed. Reg. 95316 (Dec. 27, 2016)); See also 82 Fed. Reg. 51382 (Nov. 6, 2017) (requesting additional comment on portions of the Mitigation Policy and the Endangered Species Act Compensatory Mitigation Policy whether to retain or remove net conservation gain as a mitigation planning goal).
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- U.S. Fish & Wildlife Service, Policy Regarding Voluntary Prelisting Conservation Actions. 2017. Director's Order No. 218, available at: <https://www.fws.gov/policy/do218.pdf>.
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7. APPENDICES

7.1 Activities Exempt from Mitigation Requirements Pursuant to Executive Order 12-2015

Executive Order 12-2015 exempts certain land uses and private landowner activities from compliance with the Order. Mitigation is not required for these activities.

- Existing animal husbandry practices (including branding, docking, herding, trailing, etc.).
- Existing farming practices (excluding conversion of sagebrush/native range to cropland agriculture).
- Existing grazing operations that meet rangeland health standards or utilize recognized range and management practices (for example, allotment management plans, Natural Resources and Conservation Service grazing plans, prescribed grazing plans, etc.).
- Construction of agricultural reservoirs and aquatic habitat improvements less than 10 surface acres and drilling of agriculture and residential water wells (including installation of tanks, water windmills, and solar water pumps) more than 0.6 miles from the perimeter of a lek in Core Areas and more than 0.25 miles from a lek in General Habitat or Connectivity Areas. Within 0.6 miles of a lek in Core Areas and within 0.25 miles of a lek in General Habitat or Connectivity Areas, no review is required if construction does not occur March 15 – July 15 and construction does not occur on the lek. All water tanks shall have bird escape ramps.
- Agricultural and residential electrical distribution lines more than 0.6 miles from a lek in Core Areas and 0.25 miles from a lek in General Habitat or Connectivity Areas. Within 0.6 miles of a lek in Core Areas and within 0.25 miles of a lek in General Habitat or Connectivity Areas, no review is required if construction does not occur between March 15 – July 15 and construction does not occur on the lek. Raptor perching deterrents shall be installed on all poles within 0.6 or 0.25 miles, respectively, from leks, if they are proven to be effective according to Avian Power Line Interaction Committee guidance. Other management practices, such as vegetation screening and anti-collision measures, should be applied to the extent possible. Routine maintenance of existing power lines conducted between July 16 – March 14 is also an exempt activity.
- Pole fences. Wire fences if fitted with visibility markers where high potential for sage grouse collisions has been documented.
- Irrigation (excluding the conversion of sagebrush/grassland to new irrigated lands). Tribal lands under existing and future state water compacts.
- Spring development if the spring is protected with fencing and enough water remains at the site to provide mesic (wet) vegetation.
- Herbicide and pesticide use except for in the control of sagebrush and associated native forbs. Grasshopper/Mormon cricket control following Reduced Agent-Area Treatments (RAATS) protocol.
- County road maintenance.
- Production and maintenance activities associated with existing oil, gas, communication tower, and power line facilities in compliance with approved authorizations.
- Low impact cultural resource surveys.
- Emergency response.

7.2 MSGOT Programmatic Exceptions

MSGOT may grant programmatic exceptions from the consultation requirements of Executive Order 12-2015 upon finding that development activity will not exacerbate threats to sage grouse and mitigation opportunities for preservation, restoration, or enhancement would not be foreclosed. If the development activity has been granted a programmatic exception for the consultation requirement, the activity may be implemented without any requirement to follow the mitigation hierarchy, including compensatory mitigation. Examples of prior MSGOT exemptions from the consultation requirement are projects requiring state permits when the project is contained wholly within municipal boundaries or where permit amendments entail clerical changes and no additional site disturbance or disrupting activity would occur.

For additional information about these exceptions, please contact the Program as they are subject to change.

7.3 Description of Montana's Four Service Area Boundaries

Southwestern Montana Service Area:

- Beginning at the Idaho and Montana border and the boundary of Ravalli and Beaverhead counties
- Continuing northeast along boundary of Ravalli and Beaverhead counties
- Continuing northeast and east along the boundary of Granite and Deer Lodge counties
- Continuing east along the boundary of Powell and Deer Lodge counties
- Continuing northeast along the boundary of Powell and Jefferson counties
- Continuing northeast along the boundary of Lewis and Clark and Jefferson counties
- Continuing northeast along the boundary of Lewis and Clark and Broadwater counties
- Continuing South at the boundary of Broadwater, Lewis and Clark and Meagher counties
- Continuing south along the boundary of Broadwater and Meagher counties
- Continuing east along the boundary of Meagher and Gallatin counties to a point of intersection with General Habitat in northeast Gallatin County
- Continuing south along the western boundary of General Habitat in northeast Gallatin County
- Continuing south at the intersection of General Habitat along the boundary of Gallatin and Park counties
- Continuing south along the boundary of Gallatin County and the Wyoming state border
- Continuing south along the boundary of the Montana and Wyoming border, and southern boundary of Gallatin County.
- Continuing west along the boundary of Madison and Beaverhead counties and the Montana and Idaho border
- Ending at the Idaho and Montana border of Ravalli and Beaverhead counties.

North Central Service Area:

- Beginning at the boundary of Toole and Liberty counties at the United States and Canada border
- Continuing south along the boundary of Toole and Liberty counties
- Continuing south along the boundary of Pondera and Liberty counties
- Continuing south along the boundary of Pondera and Choteau counties

- Continuing south along the boundary of Choteau and Teton counties
- Continuing east along the boundary of Choteau and Cascade counties
- Continuing east where the boundary of Choteau and Cascade county intersect with the Missouri River in central Chouteau County
- Continuing east along the Missouri River to a point that intersects with the boundary of Choteau and Fergus counties
- Continuing east along the boundary of Choteau and Fergus counties
- Continuing east along the boundary of Fergus and Blaine counties
- Continuing east along the boundary of Fergus and Phillips counties
- Continuing east along the boundary of Phillips and Petroleum counties
- Continuing east along the boundary of Phillips and Garfield counties
- Continuing east along the boundary of Garfield and Valley counties
- Continuing east along the boundary of Valley and McCone counties
- Continuing east along the boundary of McCone and Roosevelt counties
- Continuing north along the General Habitat boundary at a point where the Roosevelt and McCone counties meet the General Habitat boundary
- Continuing north to a point where the boundary of Valley and Roosevelt counties meet
- Continuing north along the boundary of Valley and Roosevelt counties
- Continuing west along the boundary of Valley and Daniels counties
- Continuing north along the boundary of Valley and Daniels counties to the United States and Canada border
- Continuing west along the United States and Canada border along the boundary of Valley, Phillips, Blaine, Hill and Liberty counties
- Ending at the boundary of Toole and Liberty counties at the United States and Canada border.

Central Service Area:

- Beginning where the boundary of Park and Gallatin counties intersect with the Montana and Wyoming border
- Continuing north along the boundary of Park and Gallatin counties to a point that intersects a boundary of General Habitat
- Continuing west along the boundary of General Habitat in northeast Gallatin County
- Continuing north to a point that intersects the boundary of Gallatin and Meagher counties
- Continuing west along the boundary of Gallatin and Meagher counties
- Continuing north along the boundary of Broadwater and Meagher counties
- Continuing north along the boundary of Broadwater, Lewis and Clark and Meagher counties
- Continuing east along the boundary of Cascade and Meagher counties
- Continuing north along the boundary of Cascade and Judith Basin counties
- Continuing north along the boundary of Cascade and Chouteau counties
- Continuing east at the boundary of Cascade and Choteau counties where the boundary of Choteau and Cascade county intersect the Missouri River in central Chouteau County
- Continuing east along the Missouri River to a point of the boundary of Choteau and Fergus counties
- Continuing east along the boundary of Choteau and Fergus counties
- Continuing east along the boundary of Fergus and Blaine counties
- Continuing east along the boundary of Fergus and Phillips counties
- Continuing east along the boundary of Phillips and Petroleum counties
- Continuing east along the boundary of Phillips and Garfield counties

- Continuing east along the boundary of Garfield and Valley counties
- Continuing east along the boundary of Valley and McCone counties
- Continuing east along the boundary of McCone and Roosevelt counties
- Continuing south along the boundary of McCone and Richland counties
- Continuing south along the boundary of McCone and Dawson counties
- Continuing south along the boundary of Dawson and Prairie counties to a point where the boundary intersects the General Habitat boundary
- Continuing south along the boundary of General Habitat within Dawson County to a point where the boundary intersects with the boundary of Dawson and Prairie counties
- Continuing south east along the boundary of Dawson and Prairie counties to the intersection of the Yellowstone River
- Continuing west along the Yellowstone River through Prairie, Custer, Rosebud and Treasure counties
- Continuing south along the boundary of Yellowstone and Treasure counties from a point where the Yellowstone and Treasure counties boundaries intersect the Yellowstone River
- Continuing south through Big Horn County along the Big Horn River to the Montana and Wyoming State border and the boundary of Carbon and Big Horn counties
- Continuing west along the Montana and Wyoming State border and boundary of Carbon and Park counties
- Ending at a point where the boundary of Park and Gallatin counties intersects with the Montana and Wyoming border.

Southeastern Montana Service Area:

- Beginning at the intersection of the Yellowstone River and the boundary of Richland County at the Montana and North Dakota border
- Continuing southwest along the Yellowstone River through Richland and Dawson counties
- Continuing south east along the boundary of Dawson and Prairie counties where the boundary of Dawson and Prairie counties intersects the Yellowstone River
- Continuing west along the Yellowstone River through Prairie, Custer, Rosebud and Treasure counties
- Continuing south along the boundary of Yellowstone and Treasure counties from a point where the boundary of Yellowstone and Treasure counties intersect with the Yellowstone River
- Continuing south through Big Horn County along the Big Horn River to the Montana and Wyoming State border and the boundary of Carbon and Big Horn counties
- Continuing east along the Montana and Wyoming border following the boundary of Big Horn, Powder River and Carter counties
- Continuing north along the Montana, South Dakota and North Dakota border along the boundary of Carter, Fallon, Wibaux and Richland counties
- Ending at a point that intersects the Yellowstone River and the boundary of Richland County at the Montana and North Dakota border.

7.4 Application of the Present Value 3% Discount Compared to a Fixed \$13 per Credit to Determine the Cost of Credits Created by Stewardship Account Grants and the Average Price per Credit for Contributions to the Stewardship Account if Sufficient Credits are not Available.

Table 7.1 provides an example of applying the 3% discount rate for a hypothetical project. The annual cost per credit declines by 3% each year for the duration of the project. Figure 7.2 illustrates the price per credit per year for the 3% discount compared to a fixed \$13 per year.

For illustrative purposes, Figures 7.1 and 7.3 show the difference between applying the 3% discounting method and a fixed \$13.00 per credit for the life of the project.

Table 7.1. Cost estimates of 3% discount per year applied to hypothetical example project. This hypothetical project example has a five-year Construction phase, a 19-year Operations phase, and a 75-year Reclamation phase. The discounted annual cost per credit is applied to each individual year for the project for its full life (all phases) until the site returns to pre-project baseline condition.

Year of Impact	Project Phase	Annual Cost per Credit Applying Discount Rate of 3%	Total Mitigation Obligation in Debits (after applying multipliers)	Annual Cost	Total Cost Each 5-year Increment
1	Construction	\$13.00	1500	\$19,500.00	
2	Construction	\$12.62	1500	\$18,932.04	
3	Construction	\$12.25	1500	\$18,380.62	
4	Construction	\$11.90	1500	\$17,845.26	
5	Construction	\$11.55	1500	\$17,325.50	\$91,983.42
6	Operations	\$11.21	1000	\$11,213.91	
7	Operations	\$10.89	1000	\$10,887.30	
8	Operations	\$10.57	1000	\$10,570.19	
9	Operations	\$10.26	1000	\$10,262.32	
10	Operations	\$9.96	1000	\$9,963.42	\$144,880.56
11	Operations	\$9.67	1000	\$9,673.22	
12	Operations	\$9.39	1000	\$9,391.48	
13	Operations	\$9.12	1000	\$9,117.94	
14	Operations	\$8.85	1000	\$8,852.37	
15	Operations	\$8.59	1000	\$8,594.53	\$190,510.09
16	Operations	\$8.34	1000	\$8,344.21	
17	Operations	\$8.10	1000	\$8,101.17	
18	Operations	\$7.87	1000	\$7,865.21	
19	Operations	\$7.64	1000	\$7,636.13	

Year of Impact	Project Phase	Annual Cost per Credit Applying Discount Rate of 3%	Total Mitigation Obligation in Debits (after applying multipliers)	Annual Cost	Total Cost Each 5-year Increment
20	Operations	\$7.41	1000	\$7,413.72	\$229,870.53
21	Operations	\$7.20	1000	\$7,197.78	
22	Operations	\$6.99	1000	\$6,988.14	
23	Operations	\$6.78	1000	\$6,784.60	
24	Operations	\$6.59	1000	\$6,586.99	
25	Reclamation	\$6.40	311	\$1,989.08	\$259,417.13
26	Reclamation	\$6.21	256	\$1,586.77	
27	Reclamation	\$6.03	200	\$1,206.22	
28	Reclamation	\$5.85	145	\$846.48	
29	Reclamation	\$5.68	89	\$506.68	
30	Reclamation	\$5.52	87	\$480.59	\$264,043.87
31	Reclamation	\$5.36	85	\$455.59	
32	Reclamation	\$5.20	83	\$431.64	
33	Reclamation	\$5.05	81	\$408.69	
34	Reclamation	\$4.90	79	\$386.72	
35	Reclamation	\$4.76	78	\$371.87	\$266,098.38
36	Reclamation	\$4.62	77	\$357.55	
37	Reclamation	\$4.49	77	\$343.75	
38	Reclamation	\$4.35	76	\$330.46	
39	Reclamation	\$4.23	75	\$317.64	
40	Reclamation	\$4.10	75	\$306.36	\$267,754.14
41	Reclamation	\$3.99	74	\$295.47	
42	Reclamation	\$3.87	74	\$284.96	
43	Reclamation	\$3.76	73	\$274.80	
44	Reclamation	\$3.65	73	\$265.00	
45	Reclamation	\$3.54	72	\$255.53	\$269,129.91
46	Reclamation	\$3.44	72	\$246.39	
47	Reclamation	\$3.34	71	\$237.57	
48	Reclamation	\$3.24	71	\$229.05	
49	Reclamation	\$3.15	70	\$220.83	
50	Reclamation	\$3.05	69	\$211.22	\$270,274.98
51	Reclamation	\$2.97	68	\$201.99	
52	Reclamation	\$2.88	67	\$193.11	
53	Reclamation	\$2.80	66	\$184.58	
54	Reclamation	\$2.71	65	\$176.38	
55	Reclamation	\$2.63	64	\$168.51	\$271,199.54
56	Reclamation	\$2.56	63	\$160.94	
57	Reclamation	\$2.48	62	\$153.67	
58	Reclamation	\$2.41	61	\$146.69	

Year of Impact	Project Phase	Annual Cost per Credit Applying Discount Rate of 3%	Total Mitigation Obligation in Debits (after applying multipliers)	Annual Cost	Total Cost Each 5-year Increment
59	Reclamation	\$2.34	60	\$139.98	
60	Reclamation	\$2.27	59	\$133.54	\$271,934.36
61	Reclamation	\$2.21	58	\$127.36	
62	Reclamation	\$2.14	57	\$121.42	
63	Reclamation	\$2.08	56	\$115.72	
64	Reclamation	\$2.02	55	\$110.25	
65	Reclamation	\$1.96	54	\$105.00	\$272,514.11
66	Reclamation	\$1.90	53	\$99.97	
67	Reclamation	\$1.85	51	\$95.13	
68	Reclamation	\$1.79	50	\$90.50	
69	Reclamation	\$1.74	49	\$86.05	
70	Reclamation	\$1.69	48	\$81.79	\$272,967.55
71	Reclamation	\$1.64	47	\$77.70	
72	Reclamation	\$1.59	46	\$73.78	
73	Reclamation	\$1.55	45	\$70.02	
74	Reclamation	\$1.50	44	\$66.42	
75	Reclamation	\$1.46	42	\$61.90	\$273,317.37
76	Reclamation	\$1.42	41	\$57.60	
77	Reclamation	\$1.38	39	\$53.49	
78	Reclamation	\$1.33	37	\$49.57	
79	Reclamation	\$1.30	35	\$45.83	
80	Reclamation	\$1.26	34	\$42.27	\$273,566.14
81	Reclamation	\$1.22	32	\$38.88	
82	Reclamation	\$1.19	30	\$35.65	
83	Reclamation	\$1.15	28	\$32.58	
84	Reclamation	\$1.12	27	\$29.65	
85	Reclamation	\$1.09	25	\$26.87	\$273,729.78
86	Reclamation	\$1.05	23	\$24.22	
87	Reclamation	\$1.02	21	\$21.71	
88	Reclamation	\$0.99	19	\$19.32	
89	Reclamation	\$0.96	18	\$17.05	
90	Reclamation	\$0.94	16	\$14.90	\$273,826.99
91	Reclamation	\$0.91	14	\$12.86	
92	Reclamation	\$0.88	12	\$10.92	
93	Reclamation	\$0.86	11	\$9.09	
94	Reclamation	\$0.83	9	\$7.35	
95	Reclamation	\$0.81	7	\$5.71	\$273,872.93
96	Reclamation	\$0.78	5	\$4.16	
97	Reclamation	\$0.76	4	\$2.69	

Year of Impact	Project Phase	Annual Cost per Credit Applying Discount Rate of 3%	Total Mitigation Obligation in Debits (after applying multipliers)	Annual Cost	Total Cost Each 5-year Increment
98	Reclamation	\$0.74	2	\$1.31	
99	Reclamation	\$0.72	0	\$0.00	
100	Reclamation	\$0.70	0	\$0.00	\$273,881.09

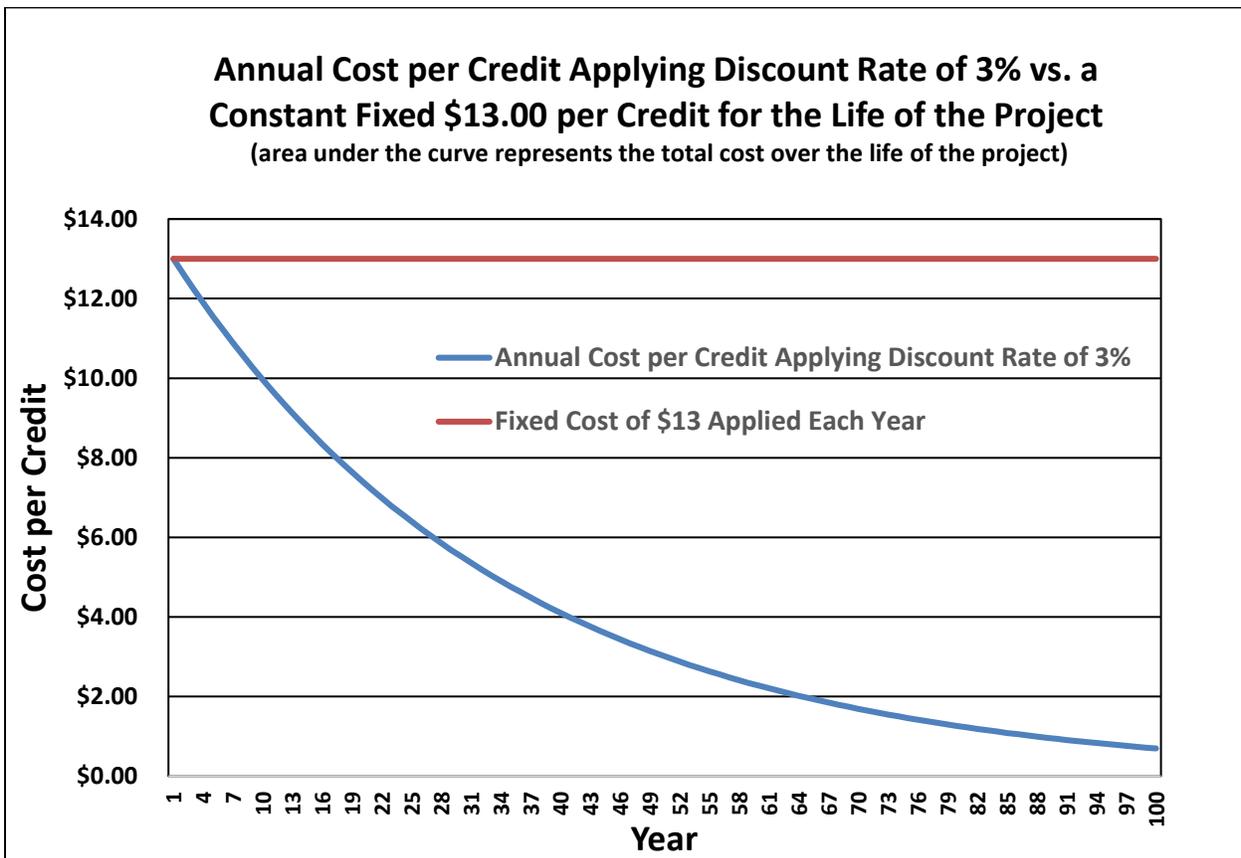


Figure 7.1. Comparison of annual cost per credit when applying the discount rate of 3% over the life of a hypothetical project example with application of a fixed constant \$13.00 per credit over the life of the same project. The area under the blue curve represents the total cost when applying the discount method. The area under the flat brown line represents the total cost when applying a fixed constant price of \$13.00 per credit over the life of the project.

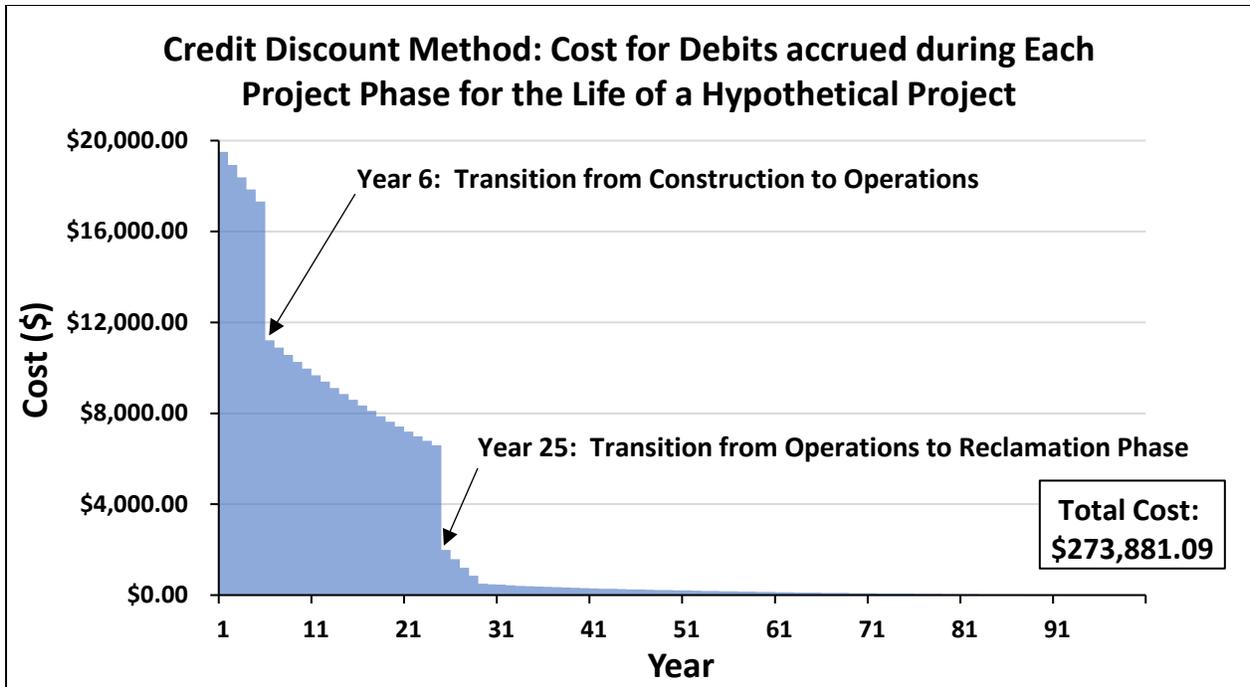


Figure 7.2. Distribution of costs by project phase for a hypothetical example when applying the 3% discount rate for the entire life of the project.

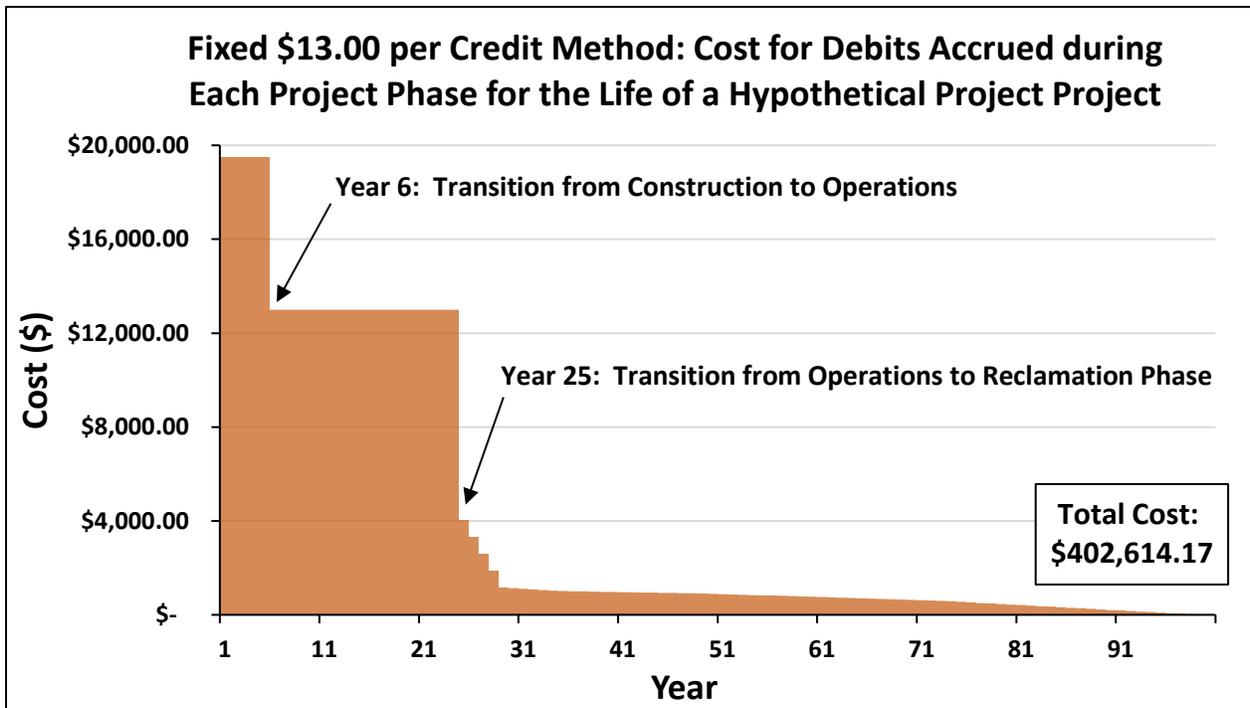


Figure 7.3. Distribution of costs by project phase for a hypothetical example when applying the fixed \$13.00 per credit method for the entire life of the project.