

AGENDA
Montana Sage Grouse Oversight Team (MSGOT)
June 2, 2017: 1:30 - 5:00 p.m.
Montana Room, DNRC Headquarters, 1539 11th Ave, Helena

1:30: Call to Order, John Tubbs

- MSGOT Introductions
- Administrative Matters:
 - o MSGOT Procedures, Proxy Voting
 - o Approve minutes Nov. 18 and Dec. 6, 2016 meetings

1:45: Reports and Implementation of Executive Order 12-2015

- Reports from Individual MSGOT Members
- Montana Sage Grouse Habitat Conservation Program
- Federal Agency Partners: USFWS, BLM, NRCS, and USFS

2:30 – 3:00: Stewardship Fund Grants - public comment and potential MSGOT Action

- Reallocation of funding from Hansen Ranch Conifer Reduction to Hansen Ranch Conservation Easement
- Proposals for Reconsideration
 - o Weaver Ranch Conservation Easement
 - o Smith Conservation Easement

Break

3:15 – 4:45: Sage Grouse Mitigation: Guidance and Habitat Quantification Tool Draft Documents

- Introduction and Context: Carolyn Sime
- Presentations by Professional Collaborators and Stakeholders
 - o Draft Mitigation Guidance Document: Willamette Partnership
 - o Draft Habitat Quantification Tool Document: SWCA Environmental Consultants
- MSGOT Discussion
- Public Comment
- Next Steps

4:45: Public Comment on Other Matters

4:55: Administrative Matters

- Future Meeting Dates
 - o Confirm July 24, 2017, 1:30 p.m. Room 152, Montana Capitol, Helena
 - o Proposed: October 5, 6, or 10; November 28 or 29; December 15, 19 or 22

NOTE: Agenda item times are approximate. Actual times may vary by up to one hour. Attendees who may need services or special accommodations should contact Carolyn Sime (406-444-0554 or csime2@mt.gov) at least 5 working days before the meeting.



Sage Grouse Habitat Conservation Fund - 1st Grant Cycle: updated through May 24, 2017.

Table 1. Proposals Awarded Funding on May 24, 2016 and Disposition as of November 9, 2016.

Application	Type	County	Approved 5/24/16	Fund Amount Request	Updated Cumulative \$ as of 5-24-16	Cumulative \$ as of 5-24-16	Area/extent	units	Cost/Ac or Mi	Notes, as of 11/9/16
Hansen Conifer Removal	Conifer Encroachment	Beaverhead	Y	202,500	202,500	624,500	1,100	Ac	184.09	FUNDED
Julie Burke Easement	Easement	Phillips, Valley	Y	422,000	624,500	422,000	2,593	Ac	162.75	WITHDRAWN
Raths Easement	Easement	Golden Valley	Y	812,500	1,437,000	1,437,000	11,229	Ac	72.36	FUNDED
Watson Easement	Easement	Phillips	Y	162,500	1,599,500	1,599,500	2,833	Ac	57.36	FUNDED
44 Ranch Easement	Easement	Petroleum, Fergus	Y	1,500,000	3,099,500	3,099,500	18,033	Ac	83.18	FUNDED
Hansen Easement	Easement	Beaverhead	N	750,000			13,886	Ac	54.01	RECONSIDER 11/18
Kelly Burke Easement	Easement	Valley	N	293,820			3,786	Ac	77.61	WITHDRAWN
Weaver Easement	Easement	Cheateau, Blaine	N	787,680			9,870	Ac	79.81	HOLD
Smith Easement	Easement	Beaverhead	N	36,000			288	Ac	125.00	RECONSIDER 11/18/16
NWF Fence Marking Project	Fence Marking	Various (in core)	N	40,716			90	Mi	452.40	WITHDRAWN

Table 2. Total Award Amount of Proposals Still Moving Forward as of November 9, 2016

Committed Funding as of 11/9/16	Approved 5/24/16	Still Moving Forward as of 11/9/16	Fund Amount Request	Updated Cumulative \$ as of 11/9/16
Hansen Conifer Removal	Y	Y	202,500	
Rath Livestck Easement	Y	Y	812,500	1,015,000
Watson Easement	Y	Y	162,500	1,177,500
44 Ranch Easement	Y	Y	1,500,000	2,677,500

Table 3. Requested Amount for Proposals being Reconsidered and Cumulative Award Amounts IF Selected for Funding on 11/18/16.

Proposals for Reconsideration 11/18/96 and Total Awards if MSGOT Approved on 11/18/16	Fund Amount Request	Updated Cumulative \$ as of 11/9/16	MSGOT ACTION 11/18/16
Hansen Ranch Easement	750,000	3,427,500	FUNDED
Smith Easement	36,000	3,463,500	HOLD

Table 4. TOTAL MSGOT-Committed Funding from Stewardship Account as of November 18, 2016 [MSGOT meeting: 12/6/16]

Project Name	Award Amount	Cumulative \$ after MSGOT Meeting 11/18/16
Hansen Conifer Removal [reimbursable grant: CY 2017 & 2018]	202,500	
Rath Livestck Easement [1x; CY 2017 or 2018]	812,500	\$1,015,000
Watson Easement [1x; CY 2017 or 2018]	162,500	\$1,177,500
44 Ranch Easement [1x; closing 11/29/16]	1,500,000	\$2,677,500
Hansen Ranch Easement [1x; CY2017 or 2018, contingent on securing matching funding by 9/30/17]	750,000	\$3,427,500

NOTE: MSGOT has not taken exec action to either award or decline funding for Smith and Weaver easements

Table 5. Disposition of MSGOT-Committed Funding from Stewardship Account as of May 24, 2017

Project Name	Award Amount	Cumulative \$	Status	Next Steps and Notes
44 Ranch Easement [closed Nov. 2016]	1,500,000	\$1,500,000	Closed	estimate credits; credits not available until 2020 when current NRCS contract expires
Hansen Conifer Removal [reimbursable grant: CY 2017 & 2018]	202,500		TNC requests reallocation	NRCS EQIP funded; project will move forward without Stewardship \$\$
Raths Livestck Easement [1x; SFY 2018]	812,500	\$2,312,500	Moving Forward	Grant Agmt executed; MEPA scoping completed; negotiating easement terms; Draft EA/comment
Watson Easement [1x; SFY 2018]	162,500	\$2,475,000	Paused	Grant Agmt executed; MEPA scoping completed; negotiating easement terms; Draft EA/comment
Hansen Ranch Easement [1x; SFY 2018 or 19, contingent on securing match by 9/30/17]	750,000	\$3,225,000	funding awarded contingent on match	Requires documentation of match by Sept. 30, 2017 & MSGOT affirmation of prior decision
Hansen: Reallocation of conifer reduction funds to conservation easement	202,500	\$3,427,500	Reconsider	Pending MSGOT decision during June 2, 2017 meeting
Troy Smith Conservation Easement	36,000	\$3,463,500	Reconsider	Pending MSGOT decision during June 2, 2017 meeting
Weaver Cattle Company Conservation Easement	300,000	\$3,763,500	Reconsider	Pending MSGOT decision during June 2, 2017 meeting

AGENDA ITEM: SAGE GROUSE MITIGATION: GUIDANCE AND HABITAT QUANTIFICATION TOOL DRAFT DOCUMENTS

ACTION NEEDED: DIRECT THE PROGRAM TO FINALIZE THE DRAFT MITIGATION GUIDANCE AND TECHNICAL HABITAT QUANTIFICATION TOOL DOCUMENTS AND DRAFT PROPOSED ADMINISTRATIVE RULES FOR MSGOT CONSIDERATION DURING THE JULY 24, 2017 MEETING

SUMMARY:

The 2015 Montana Legislature passed the Montana Greater Sage Grouse Stewardship Act (Act). Executive Order 12-2015 complements the Act. Taken together, they establish that Montana will observe the mitigation hierarchy or sequence (avoidance, minimization, reclamation, and compensation) with respect to activities subject to agency review, approval, or authorization in habitats designated as core areas, general habitat, and connectivity areas for sage grouse conservation. Mitigation is intended to offset direct, indirect, and residual impacts both spatially and temporally.

The Act specifically sets forth that: (1) project developers can offset the loss of resource functions of values at an impact or project site through compensatory mitigation to incentivize voluntary conservation measures for sage grouse habitat and populations; (2) a habitat quantification tool will be designated to evaluate vegetation and environmental conditions related to the quality and quantity of sage grouse habitat and to calculate the value of credits and debits when compensatory mitigation is required; (3) there shall be a method to track and maintain the number of credits and debits available and used; and (4) there shall be a method to administer the review and monitoring of MSGOT funded projects using the Stewardship Fund. Rulemaking authority was also provided to MSGOT to adopt administrative rules to implement these statutory provisions. Additional guidance is set forth in Executive Order 12-2015.

The Program has been working with a diverse group of at least 40 stakeholders (which includes state/federal agency partners) to begin developing the compensatory mitigation policy framework and habitat quantification tool (HQT) in anticipation of formal rulemaking. Our work has been greatly advanced by the participation and expertise of two professional collaborators: Willamette Partnership for the policy guidance based on universal principles of mitigation and SWCA Environmental Consultants for the technical habitat quantification tool (a GIS model). On behalf of the state, the professional collaborators have shouldered the burden of leading stakeholder discussions, researching the scientific literature, consulting with their peers, doing the technical work to develop the HQT GIS model, and drafting documents.

The first stakeholder meeting took place September 16, 2016. Up to, and including, a meeting on June 1-2, 2017, the group will have met a total of 11 times. Several webinars and at least five conference calls have also taken place. The professional collaborators have graciously made them themselves available to the Program and stakeholders between formal meetings, as well.

On December 6, 2016, MSGOT approved proposed rules for publication in the Montana Administrative Register on December 23, 2016. The proposed administrative rules reflected the work of the stakeholders as of December, with clear acknowledgement by all participants that areas of disagreement remained and that participants were free to submit public comments during the rulemaking process as individuals.

[Continued]

Three public hearings were held in January, 2017. Public comments were accepted via postal mail and online through the Program's website. The comment period closed on January 23, 2017. A copy of the published proposed rules and all comments received are included in your meeting materials. Comments were published to the web in early February, and are presently still available on the Program's website (*see* MSGOT page, under heading Administrative Rules). The substantive nature and diversity of comments was also generally discussed during the Jan. 31-Feb. 1, 2017 stakeholder meeting.

Ultimately, the proposed rules were not brought to MSGOT for final adoption for a variety of reasons. The subject matter has a high degree of complexity, in addition to novelty. Montana has never had mitigation programs which offset impacts specifically for fish or wildlife species and their habitats, as required for sage grouse. Presently, mitigation efforts in Montana only address impacts to streams and wetlands, as required under federal law and regulations. Not surprisingly, substantive public comments were received. Comments on some fundamental issues were sufficiently divergent, if not contradictory, to warrant additional consideration. The stakeholder process offered a venue for ongoing discussion and potential resolution of the key issues raised in public comment. Moreover, some facets of the proposed rule had already been superseded by the ongoing work of the stakeholder group. Stakeholders also recognized the complexity of the subject matter and that work was still ongoing.

During the April 4-5, 2017, stakeholder meeting, participants discussed the merits of finalizing the proposed rules, given where we were in the process of developing draft documents. The consensus was finalizing the proposed rules was not worth the resources to do so. The proposed rules would have to be replaced when the guidance and HQT documents are eventually finalized and acted upon by MSGOT anyway.

Also during the April 4-5 meeting, stakeholders agreed that additional small group focused conversations were needed on several key outstanding issues. These took place in the last week of April, 2017. Stakeholders and our professional collaborators acknowledged that MSGOT was unlikely to be able to designate the framework and HQT by our self-imposed deadline of June 1 because there was work yet to be done. Lastly, stakeholders agreed that the process would benefit from one additional face to face meeting, ideally held in conjunction with an MSGOT meeting, after they have had an opportunity to review and comment on complete draft documents.

Our professional collaborators completed two draft documents on May 5, 2017, respectively: Draft Habitat Mitigation Guidance Document and Draft Habitat Quantification Tool Technical. These drafts were immediately forwarded to stakeholders for review and comment, with a comment deadline of May 24.

The stakeholders will meet on June 1-2. By then, Program and BLM staff will have compiled and organized the stakeholder comments according to topic area. A summary will also be prepared. These comment materials will be provided to all meeting attendees, and will be used to inform the agenda and set priorities for the time available. Next steps will also be discussed and are likely to depend on the spectrum of comment and levels of agreement.

Our professional collaborators are on MSGOT's agenda to present the documents during the June 2, 2017 meeting. Many stakeholders are also attending this meeting and are eager to engage with you directly, as desired. Additionally, MSGOT will have the opportunity to solicit comments from the general public after the presentations.

[Continued]



Revisions to the May 5, 2017, drafts are expected, based on written comments, discussion during the June 1-2 stakeholder meeting, and MSGOT's inquiries and discussion. Our professional collaborators, by their own preference, will undertake those revisions after June 2 and provide final draft documents as soon as possible thereafter (likely mid-to late June). The Program may need to undertake some final edits and revisions to the final draft documents for issues where stakeholder agreement could not be reached.

General public comment on the final draft documents is warranted to solicit input from a broader cross-section of interested parties who did not directly participate in the stakeholder process or whose views may not have been fully represented during that process. As importantly, stakeholder participants may desire to comment on the final drafts released for general public comment as individuals, especially because the state may have to make policy-level decisions on matters on which agreement was not reached.

Scientific peer review on the final draft documents is also warranted. The Program would solicit scientific peer review from qualified individuals who were not engaged or consulted during the development of either the guidance or the HQT documents, respectively. Peer reviewers could be asked to review one or both final draft documents, depending on their expertise. Upon review by MSGOT during the July 24th meeting, final draft documents would be sent to peer reviewers. They would have approximately 30 days to provide comments back to the state.

Additionally, MSGOT should reinitiate administrative rulemaking on the mitigation documents to officially adopt and designate Montana's sage grouse mitigation guidance and HQT. The Program is proposing that general public comment on final draft documents be solicited concurrently with the administrative rulemaking process. The Program anticipates having final draft documents and proposed administrative rules prepared for MSGOT's consideration during the July 24th meeting.

Lastly, it has been the stakeholders' vision that Montana adopt a sage grouse mitigation framework and HQT that could be simultaneously implemented by federal land management agency partners. Advantages include: 1. a seamless and consistent approach regardless of surface ownership, in keeping with Montana's "all lands, all hands, all threats" approach; 2. convenience, transparency, and predictability for project proponents needing state permits and/or federal authorizations; 3. convenience, transparency, and predictability for credit developers; and 4. eliminating duplicative mitigation processes. A multi-party memorandum of understanding could also be drafted, similar to the State of Wyoming.

This is an aggressive timeline, given the subject matter complexity and other demands on the Program. Nonetheless, it would place MSGOT on track to consider final rules in October or November of 2017.

Additional formal stakeholder meetings are not anticipated, but could be scheduled depending on need and desire. The Program will informally collaborate with stakeholders and state/federal agency partners on an ongoing basis throughout this process.

PROGRAM RECOMMENDATION:

The Program Manager recommends MSGOT direct the Program to finalize the Draft Mitigation Guidance and Technical Habitat Quantification Tool documents and draft proposed administrative rules for MSGOT consideration during the July 24, 2017 meeting.





Photo source: montanaotg.com

Montana Sage-Grouse Mitigation Principles and Processes

Sara O'Brien
June 2, 2017



WILLAMETTE PARTNERSHIP



Overview

1. Mitigation: Intent and Challenges
2. Key Principles
3. Proposed Process



Mitigation: Definitions

"Mitigation sequence" means taking steps to:

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



Mitigation: Definitions

"Compensatory Mitigation" means the preservation, enhancement, restoration and/or establishment of a resource to compensate for, or offset, unavoidable adverse impacts to the resource. (draft MT rule)



Photo Source: BLM MT



Mitigation: What's It Good For?

Allow development to move forward **WITHOUT** creating significant, persistent, and cumulative losses in basic ecosystem services (clean water, wildlife populations, ecosystem services, etc.)



Photo Source: BLM MT

Mitigation: Challenges

It's hard to:

- Recreate nature
- Ensure that interventions provide needed results
- Predict, measure, track, and sustain outcomes
- Anticipate how much money will be needed
- Manage risk associated with all of the above

Mitigation: Challenges



Principles of Successful Mitigation

- Strength
- Endurance
- Flexibility



Strength

- Set a clear goal and track progress
- Check to see if impacts can be reasonably avoided or minimized (mitigation hierarchy)
- Actions that would've occurred anyway shouldn't receive mitigation credit
- Pay attention to habitat quality, not just quantity



Endurance

- Mitigation should last at least as long as impacts
 - Legal: Preclude conflicting uses
 - Financial: Full-cost accounting
- Make clear who is responsible for what
- Make clear how problems will be communicated and resolved
- Make clear how agreements will be enforced



Endurance

Everything in mitigation is about risk and the management of risk. We cannot eliminate risk, we can only manage it.

- Steve Martin, US EPA



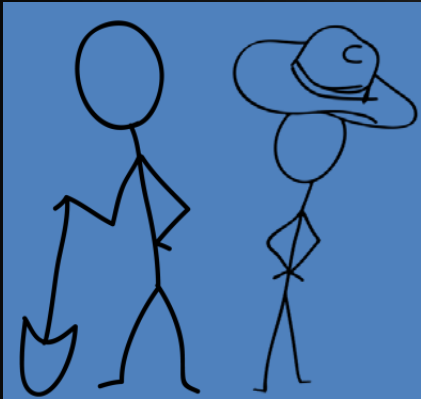
Flexibility

- Set clear standards, let people figure out how to meet them
- Look for opportunities to localize decisions and regionalize tools and information
- Don't skimp on adaptive management



Basic Moving Parts

Credits



Debits



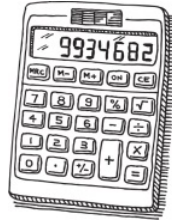
Administration



Crediting Process



Proposal



Credit
estimate



Program/
MSGOT review



Sign mitigation
instrument



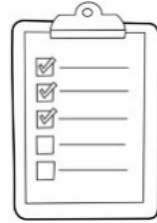
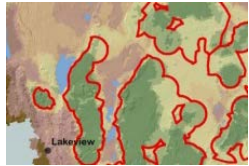
Implementation

- Protection
- Restoration
- Management



Credit and fund
release based on
agreed-upon criteria

Debiting Process



Propose
impact



Program/MSGOT
evaluation



Calculate and verify
credit need



Purchase or
develop credits



Credits tracked
through registry,
must cover life of
impact

Evaluate siting and
design options

Questions?

Sara O'Brien

Willamette Partnership

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Montana Greater Sage-Grouse Habitat Quantification Tool (HQT)



Overview

- ▶ Why Develop an HQT?
- ▶ Discuss HQT Development
- ▶ Describe HQT Use and Outputs

Basic Moving Parts

Credits



The HQT is the common currency used to balance the mitigation ledger

Debits



Administration



Not all Habitat is Created Equally



20 acres of this
habitat...

=



...may have the
same value as 10
acres of this habitat

- ▶ Need to account for differences in habitat quality and functionality
- ▶ A common definition of habitat function needs to be used on both the debit and credit sides of the mitigation ledger

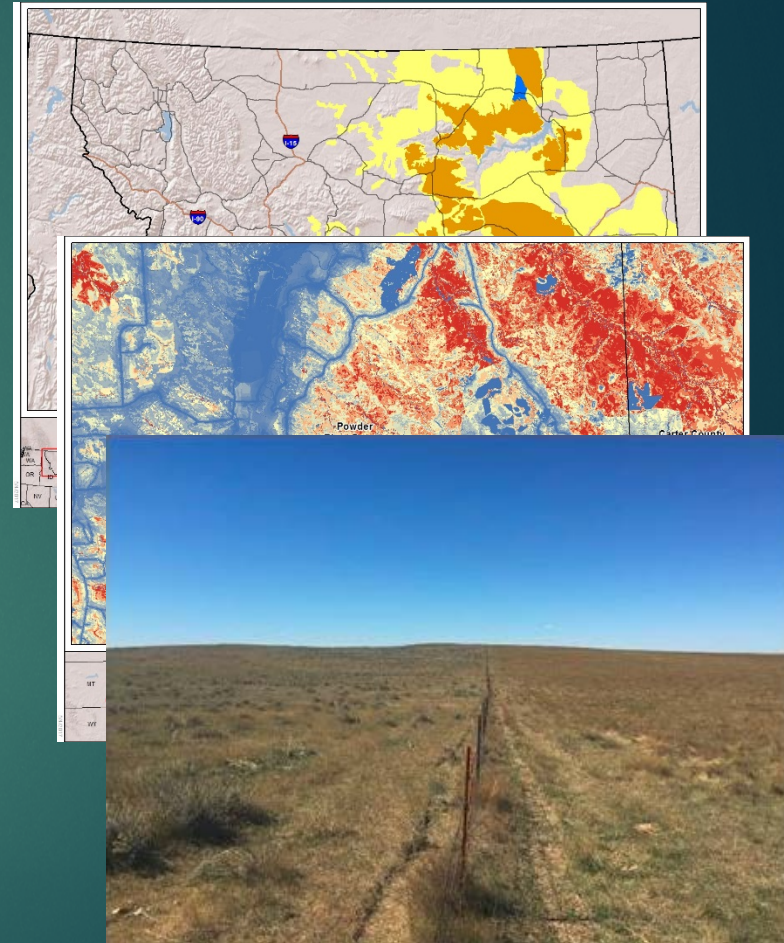
The HQT Follows A Very Simple Process

- ▶ Define baseline habitat conditions
- ▶ Identify when and where habitat losses or gains will occur
- ▶ Quantify those gains or losses over the life of a project



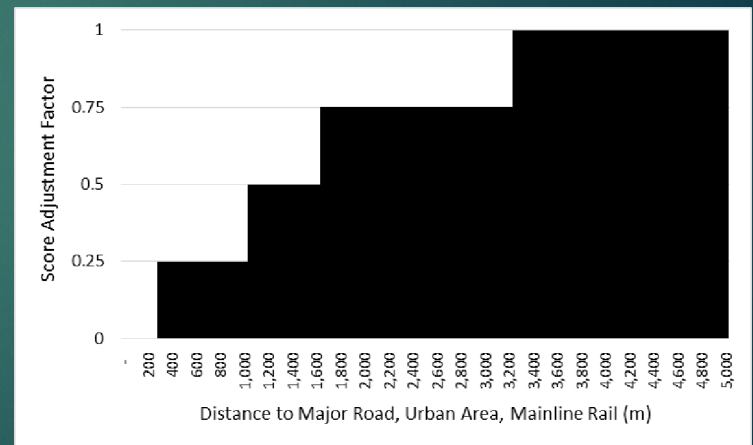
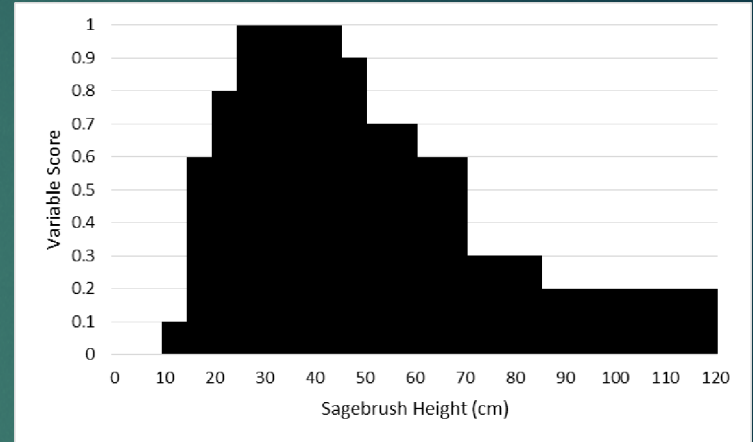
Multiple Scales of Assessment

- ▶ Broad Scale – Am I in Core, General, or Connectivity Habitat?
- ▶ Landscape Scale – What are the habitat conditions in the landscape surrounding my project?
- ▶ Site Scale – What are the specific characteristics of the habitat on my project site?

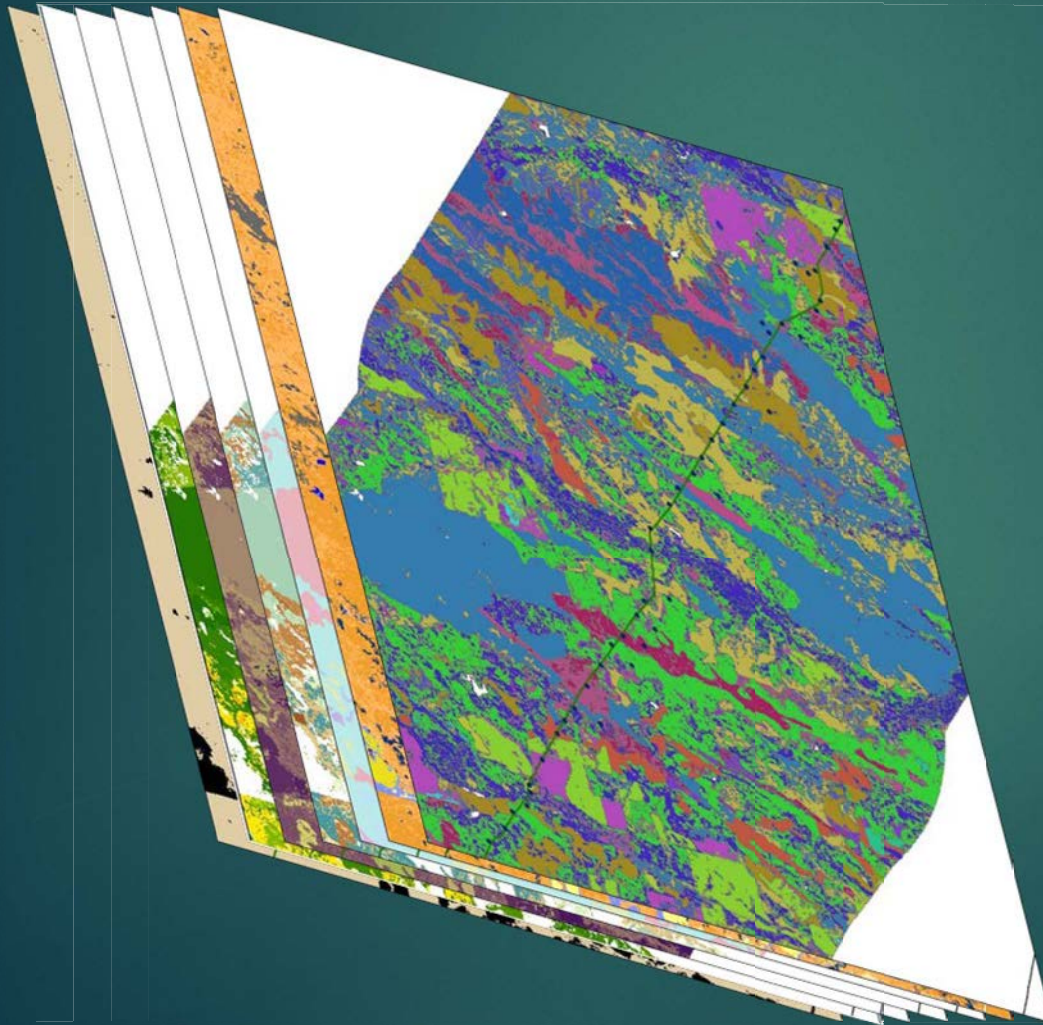


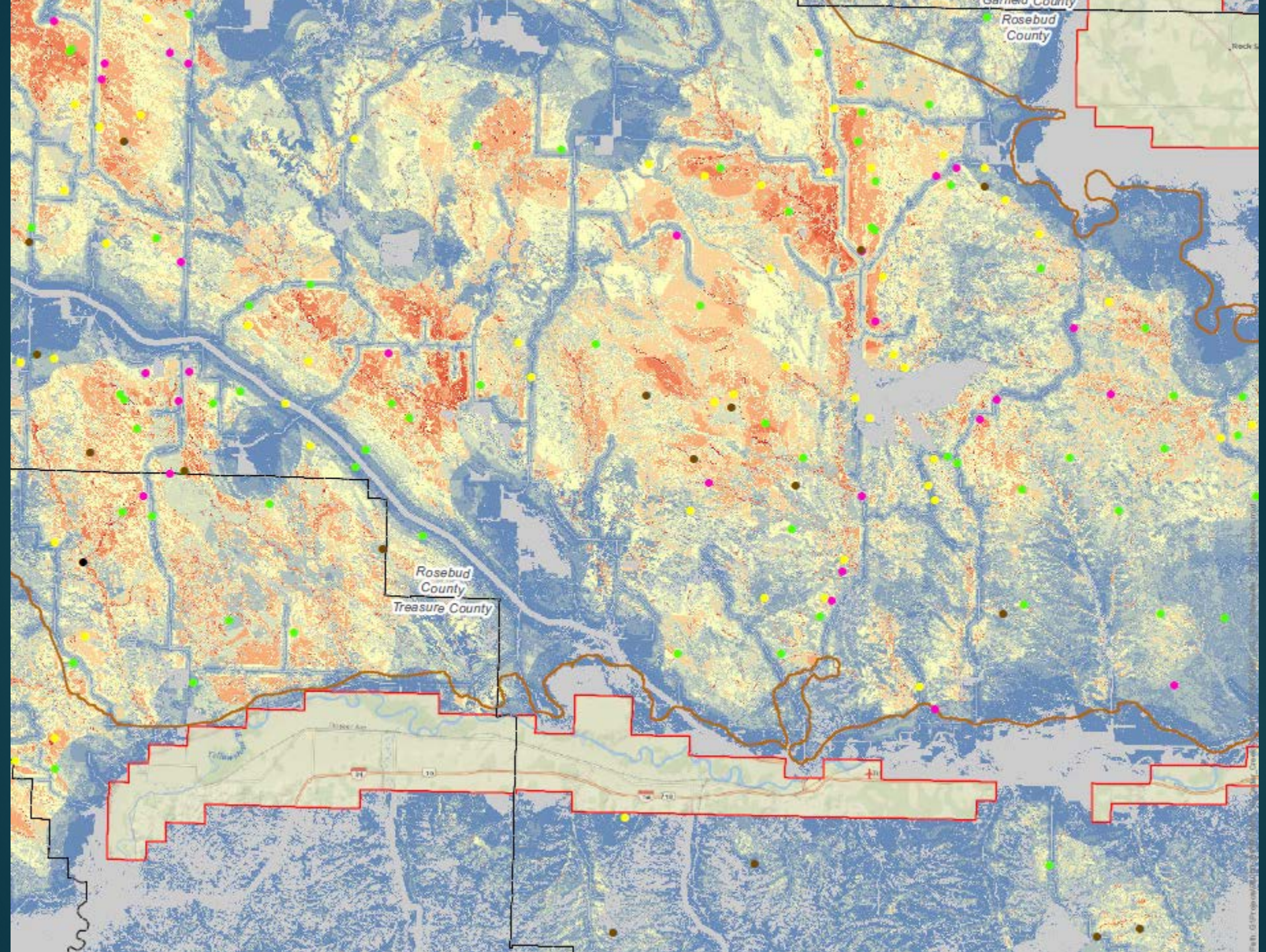
Defining Baseline Conditions

- ▶ Uses characteristics of seasonal habitats
 - ▶ Breeding and nesting
 - ▶ Brood-rearing
 - ▶ Winter
- ▶ Quantifies relationships between these characteristics and habitat quality
- ▶ Accounts for natural and anthropogenic modifiers of habitat quality



Habitat Characteristics Combined to Quantify Baseline





Using the HQT – Broad Scale

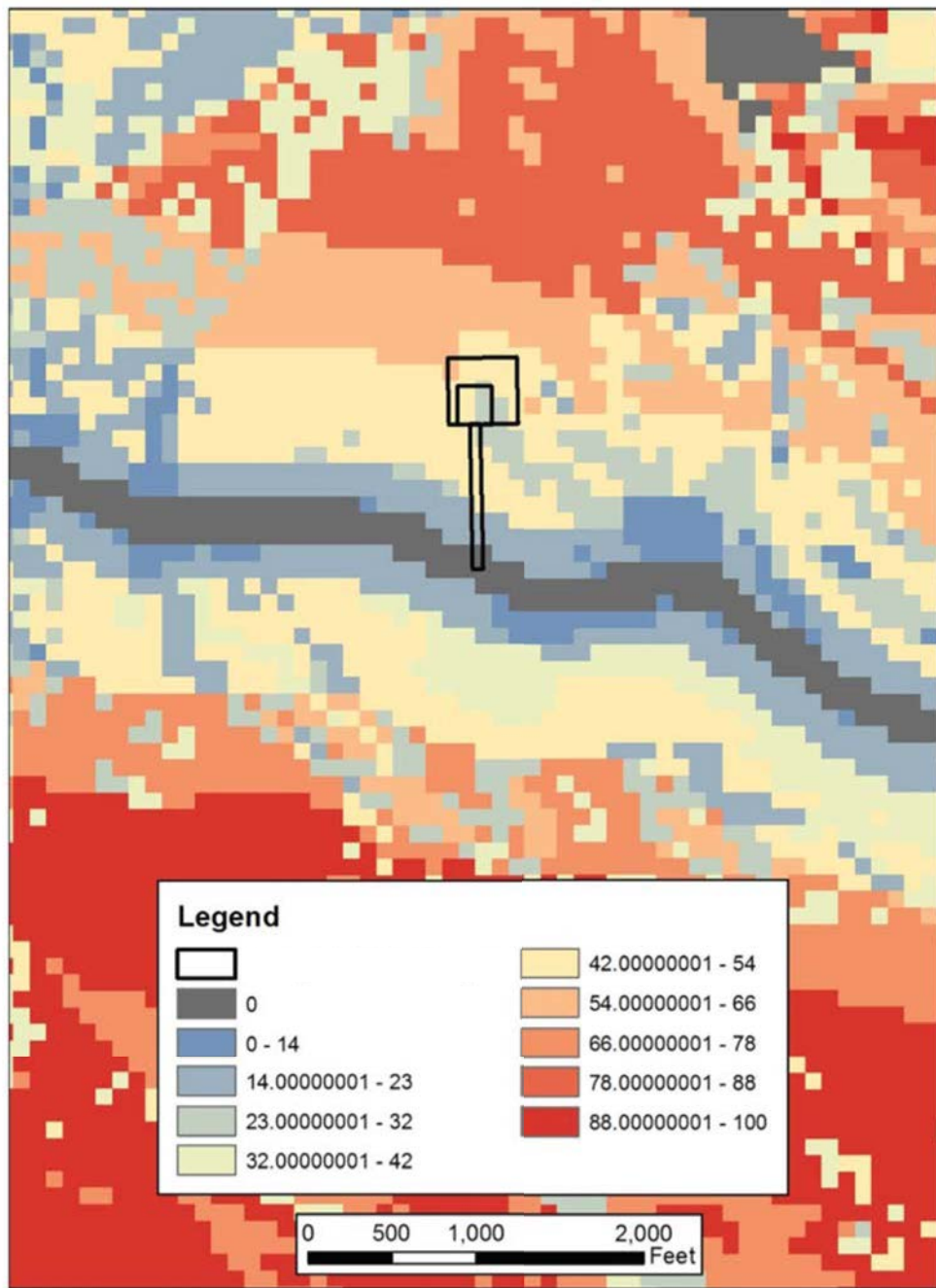
- ▶ Is my project located in core, general, or connectivity habitat?
- ▶ If no, your project does not require mitigation for sage-grouse
- ▶ If yes, project may require mitigation and should proceed to the landscape scale assessment process

Using the HQT – Landscape Scale

- ▶ Define your project footprint and project type
- ▶ Quantify the project assessment area
- ▶ Calculate the baseline habitat function in the assessment area
- ▶ Measure losses or gains of habitat function over the life of your project
- ▶ Losses or gains of habitat function provide the base values for calculating debits and credits

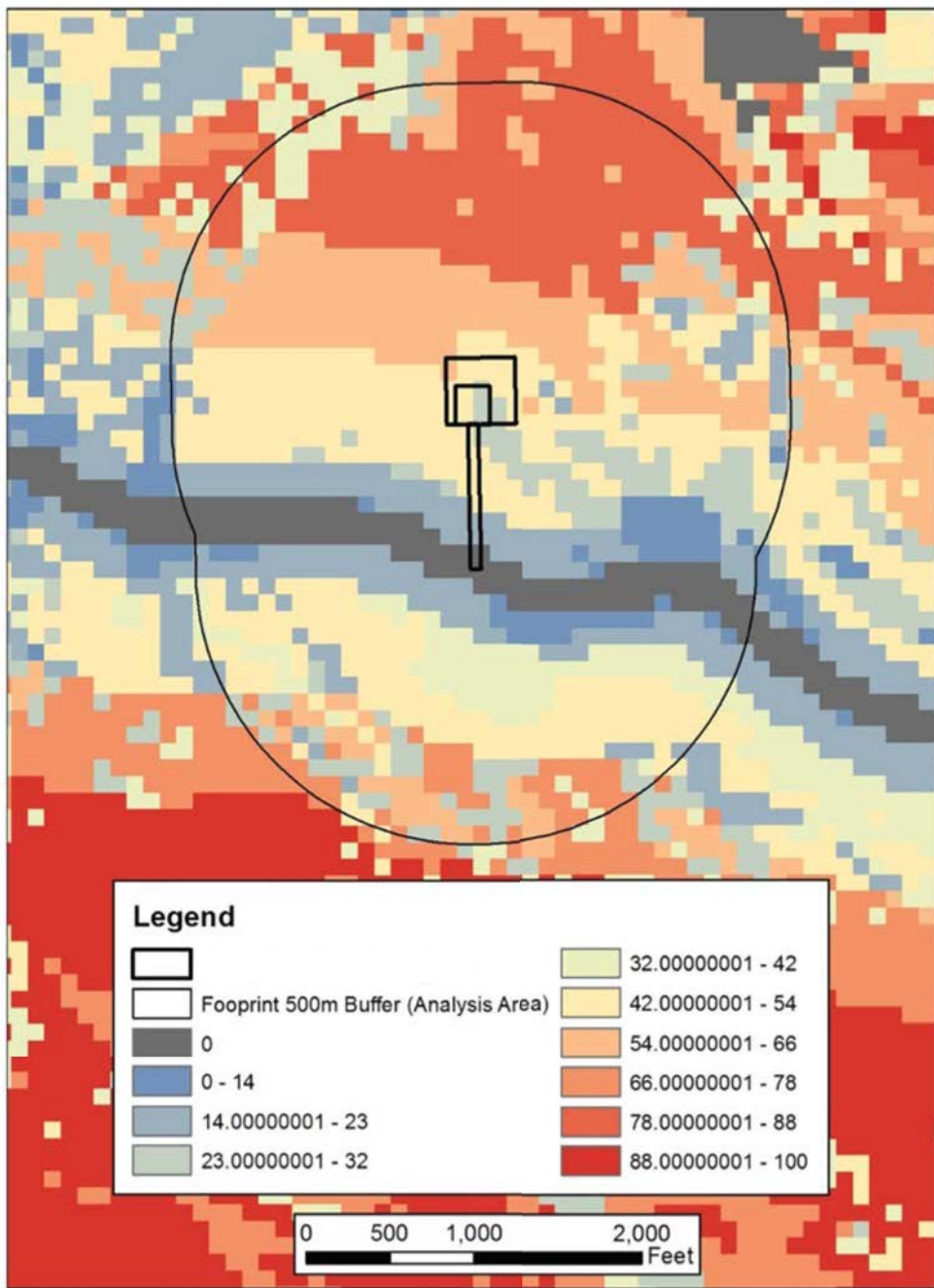
Project Definition

- 4 acre initial disturbance with 1 acre access road adjacent to existing highway
- 1 acre long-term disturbance with 1 acre access road
- Moderate habitat function



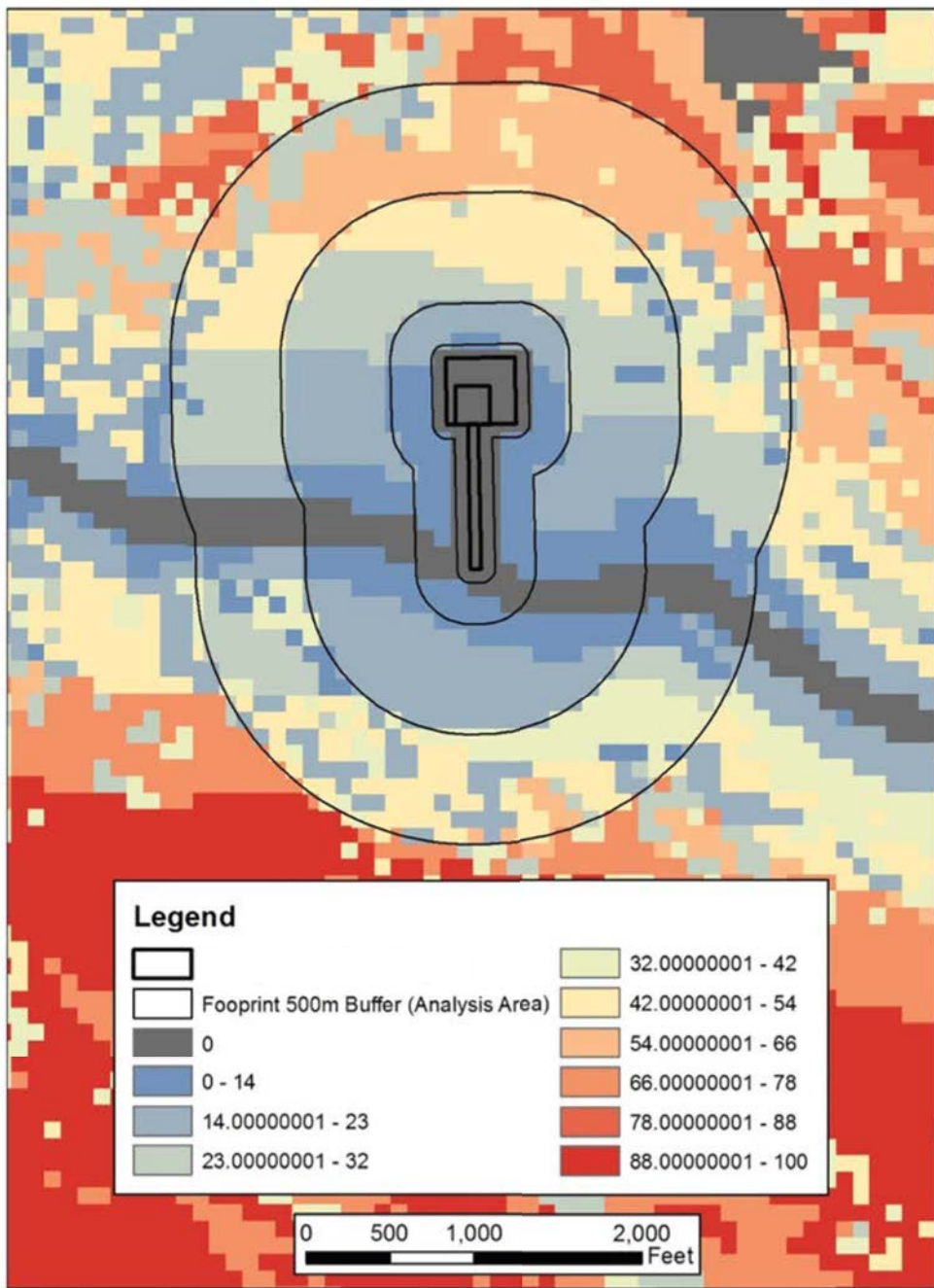
Assessment Area

- Direct footprint + indirect impact envelope
- Baseline values extracted within the assessment area footprint
- Extracted values become the baseline values from which habitat losses or gains are calculated



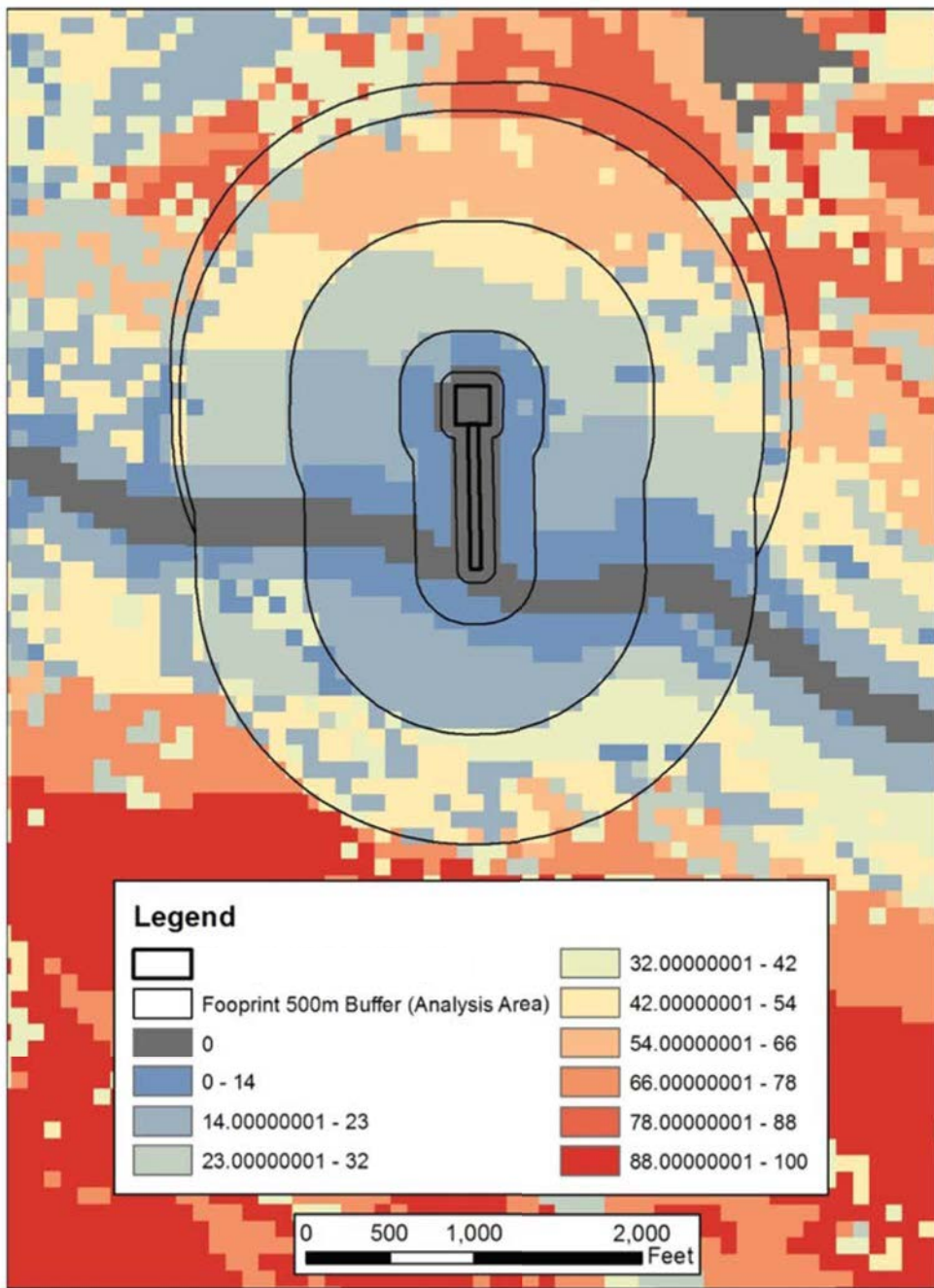
Construction

- Zero habitat function in initial direct footprint
- Indirect impacts applied in assessment area around initial disturbance footprint
- Difference between baseline habitat function and construction habitat function is quantified



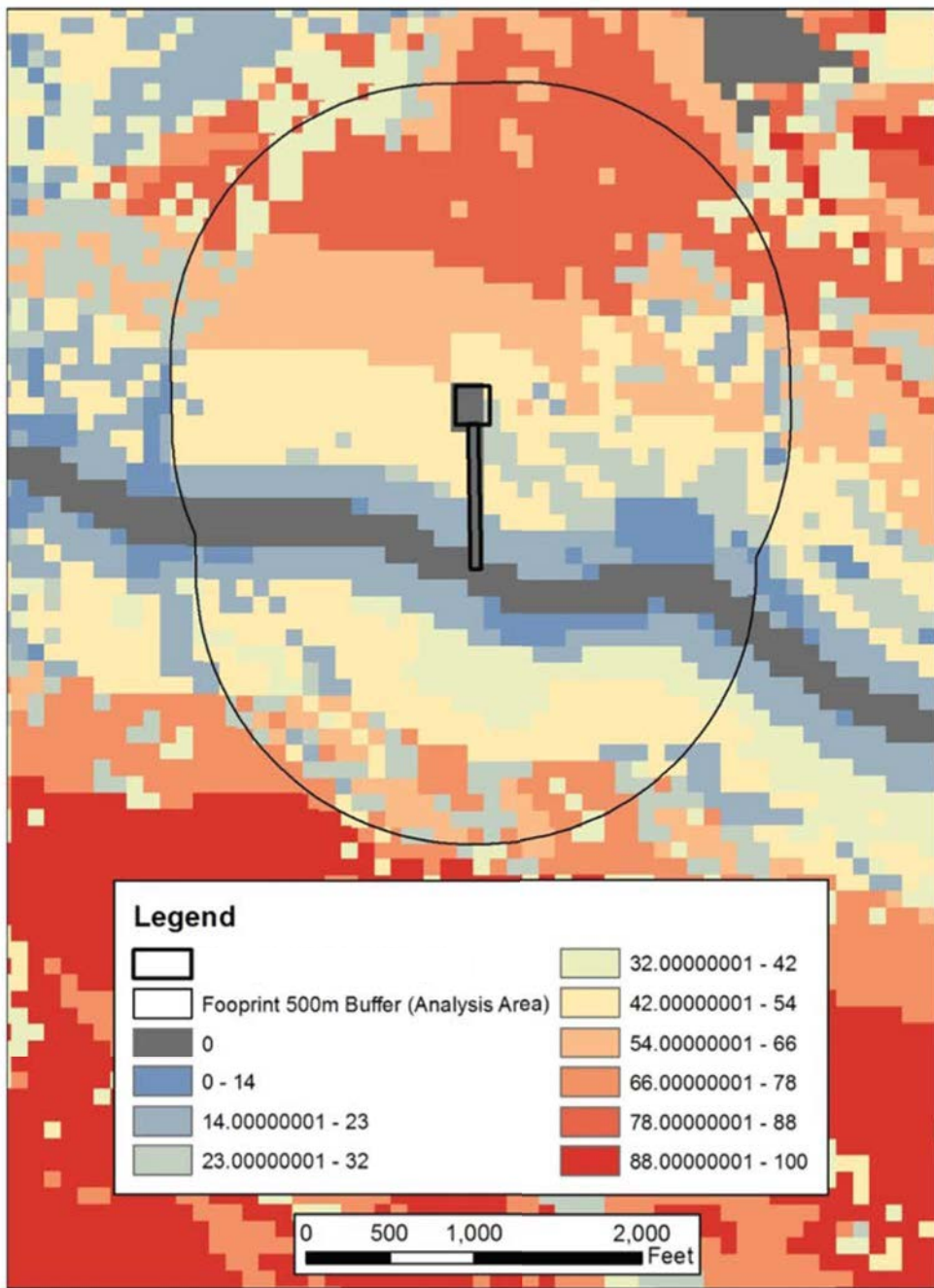
Operations

- Zero habitat function in long-term direct footprint
- Indirect impacts applied in assessment area around long-term footprint
- Reclamation in initial project footprint begins to return habitat value in the assessment area
- Difference between baseline habitat function and operations habitat function is quantified



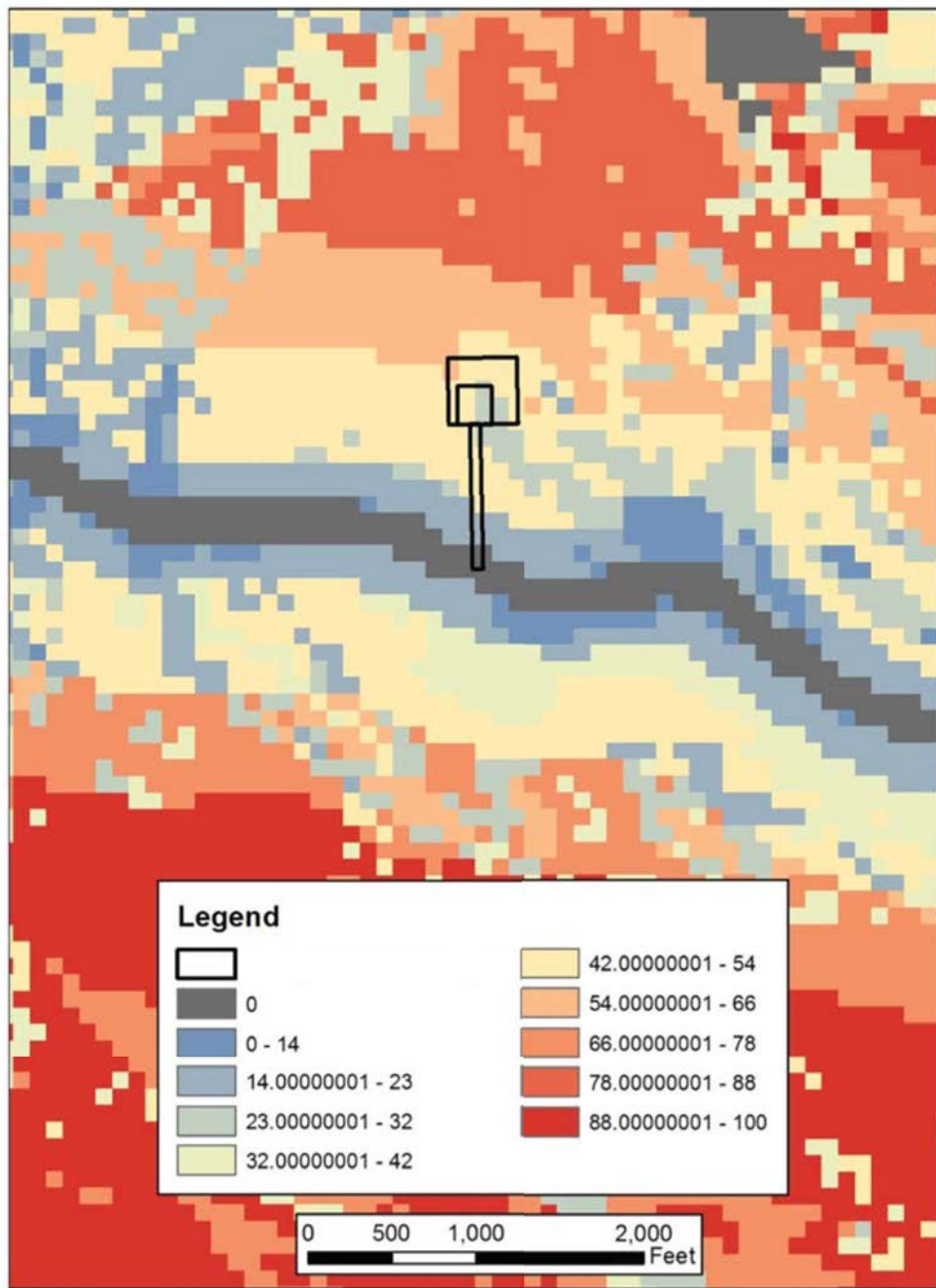
Final Reclamation

- No indirect impacts
- Habitat function in long-term footprint is gradually returned as site is reclaimed
- Difference between baseline habitat function and final habitat function is quantified

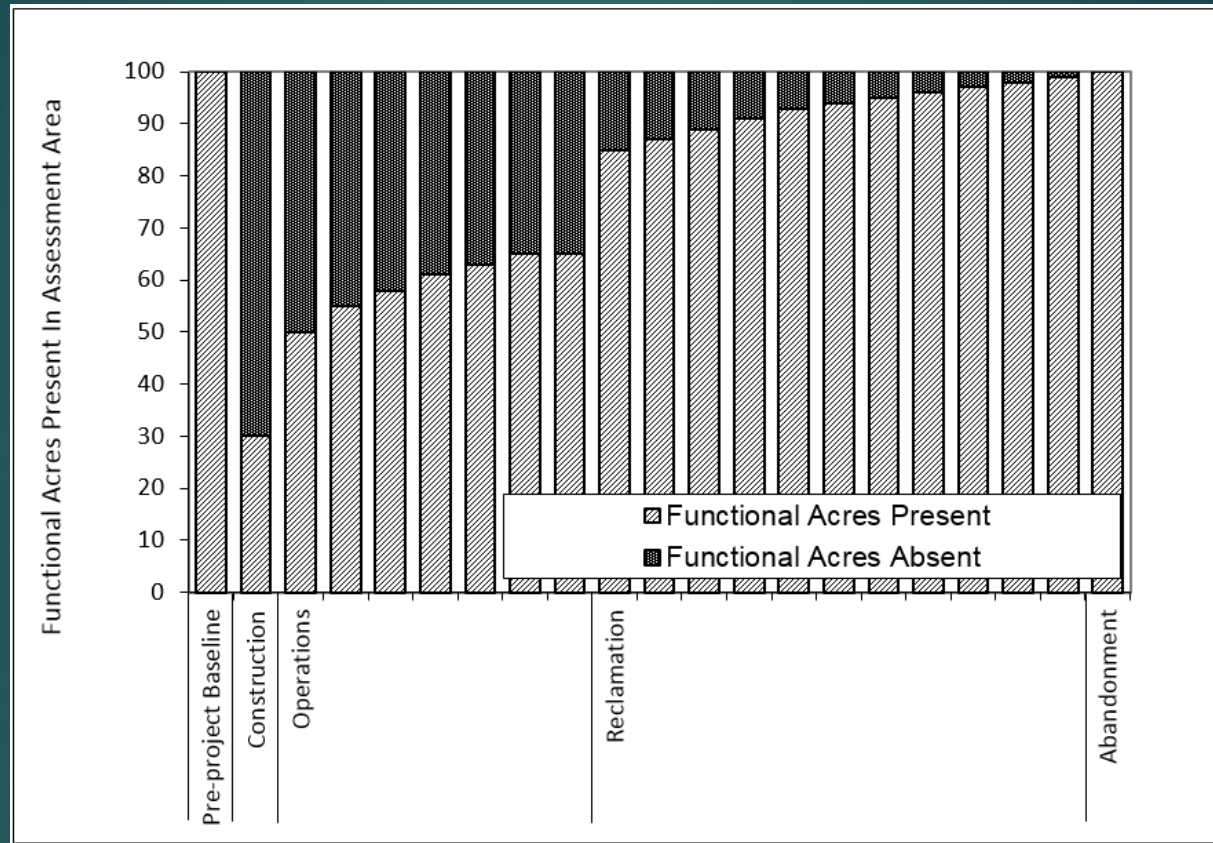


Recovery

- Baseline conditions have been returned everywhere as final reclamation has been successful



Losses and gains over time



- Summed losses or gains over time represents the base value for determining debit/credit quantities

Using the HQT – Site Scale

- ▶ Complete field validation of landscape scale habitat values
- ▶ Correct/refine habitat function based on field validation process
- ▶ Quantify losses or gains of habitat function over the life of your project using corrected/refined habitat function estimates

Calculating Debits and Credits

- ▶ Corrected/refined estimates of habitat gains or losses following site scale evaluation are final values used to calculate debits and credits
- ▶ Adjustments to final estimates of gains or losses may be made by Program/MSGOT following the procedures identified in the Mitigation Guidance Document

Questions?

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AGENDA ITEM: REALLOCATION OF FUNDING FROM THE HANSEN RANCH CONIFER REDUCTION PROPOSAL TO THE HANSEN RANCH CONSERVATION EASEMENT PROPOSAL

ACTION NEEDED: DECISION WHETHER TO REALLOCATE FUNDING AND DIRECT TO PROGRAM TO UNDERTAKE EFFORTS TO MOVE THE CONSERVATION EASEMENT PROPOSAL THROUGH THE NEXT STEPS IN THE PROCESS (GRANT AGREEMENT, EASEMENT, ENVIRONMENTAL ASSESSMENT, AND FINAL MSGOT APPROVAL)

SUMMARY:

The Sage Grouse Stewardship Fund was established as a source of funding for competitive grants to establish ongoing free-market mechanisms for voluntary, incentive based conservation measures that maintain, enhance, restore, expand and benefit sage grouse habitat and populations on private lands, and public lands as needed. A key underlying purpose is also to create a pool of mitigation credits that can be used to offset impacts of development elsewhere in designated sage grouse habitats.

On May 24, 2016, MSGOT elected to split The Nature Conservancy's (TNC) Hansen Ranch Conservation Easement and Conifer Reduction Proposal into two separate proposals. MSGOT awarded funding (\$202,500) for the conifer reduction portion of the proposal, but opted to reconsider the conservation easement portion of the proposal at a later date. The Program recommended the easement be funded.

On November 18, 2016, MSGOT awarded \$750,000 for the conservation easement, contingent on TNC securing and documenting matching funds from USDA NRCS or elsewhere by September 30, 2017. See MSGOT's Meeting Archive for meeting materials, Notes, and Minutes for the May 24 and November 18, 2016 meetings, respectively, at: <https://sagegrouse.mt.gov/Team>.

Efforts to develop and implement the conifer reduction proposal have been ongoing since May 24, 2016. TNC, the Hansen's, the Program, and many other agency partners have been collaborating to move the project forward, including field trips, meetings, and negotiating grant and mitigation instruments. Additionally, TNC undertook steps it committed to taking, such as noxious weed control and field data collection. Ultimately, TNC secured alternative funding from NRCS to reduce conifers on the Hansen Ranch and adjacent lands. TNC informed the Program a few weeks ago. The conifer reduction proposal will still be implemented, largely as originally proposed. However, a grant agreement between TNC and the state was never finalized or executed. Stewardship Account funds will not be used.

TNC requests that MSGOT reallocate the \$202,500 originally awarded to reduce conifers towards purchase of the conservation easement. TNC informed the Program that the Hansen Ranch Conservation Easement proposal was very competitive in the 2017 NRCS funding cycle. Mr. Berkey was given and shared preliminary NRCS feedback that the Hansen easement was selected. Final official NRCS confirmation is expected very soon. If completed, the easement would protect 13,886 acres in Beaverhead County. The merits of the conservation easement have been presented previously, discussed by MSGOT, and can found in the MSGOT Meeting Archive. The Hansen Ranch still offers significant sage grouse habitat values.

The reallocation complies with the statutory limitation that no more than \$5 million of the Stewardship Fund could be spent before development and designation of the mitigation framework, the habitat quantification tool, and administrative rules. MCA 76-22-109(4). When the easement closes, the habitat quantification tool would be applied retroactively. Credits will be developed and made available thereafter.

PROGRAM RECOMMENDATION:

The Program recommends MSGOT reallocate \$202,500 from the Hansen Ranch Conifer Reduction proposal to the Hansen Ranch Conservation Easement proposal and direct the Program to undertake efforts to move the conservation easement proposal through the next steps in the process by negotiating and finalizing terms of a grant agreement and the conservation easement for future MSGOT consideration, along with completing an environmental assessment.



AGENDA ITEM: RECONSIDERATION OF THE WEAVER CATTLE COMPANY CONSERVATION EASEMENT PROPOSAL

ACTION NEEDED: DECISION WHETHER TO AWARD FUNDING AND IF SO, DIRECT THE PROGRAM TO UNDERTAKE EFFORTS TO MOVE THE CONSERVATION EASEMENT PROPOSAL THROUGH THE NEXT STEPS IN THE PROCESS (GRANT AGREEMENT, EASEMENT, ENVIRONMENTAL ASSESSMENT, AND FINAL MSGOT APPROVAL)

SUMMARY:

The Sage Grouse Stewardship Fund was established as a source of funding for competitive grants to establish ongoing free-market mechanisms for voluntary, incentive based conservation measures that maintain, enhance, restore, expand and benefit sage grouse habitat and populations on private lands, and public lands as needed. A key underlying purpose is also to create a pool of mitigation credits that can be used to offset impacts of development elsewhere in designated sage grouse habitats.

On May 24, 2016, MSGOT did not select the Weaver Cattle Company Conservation Easement Proposal for funding but indicated its willingness to reconsider it. The Program had recommended that MSGOT decline funding the proposal. In August, 2016, Montana Land Reliance (MLR), the applicant, provided additional information to the Program. On November 8, 2016, the applicant requested by email that MSGOT delay action until habitat can be assessed via the habitat quantification tool. Thus, the Weaver Ranch Conservation Easement proposal was not on the November 18, 2016, MSGOT meeting agenda. Instead, MSGOT was briefed about MLR's request for a delayed reconsideration, and thus no executive action was taken to either award or decline funding. See MSGOT's Meeting Archive for meeting materials, Notes, and Minutes for the May 24 and November 18 meetings, respectively, at: <https://sagegrouse.mt.gov/Team>.

The disposition of the Weaver Cattle Company Conservation Easement Proposal has remained uncertain since the May 24, 2016, MSGOT meeting. On April 12, 2017, MLR requested reconsideration of the Weaver Cattle Company Conservation Easement application. By letter, MLR informed MSGOT that it is revising downward (decreasing) the requested amount from the Stewardship Account from \$787,680 (the original request) to a total of \$300,000 (the renewed request). NRCS has approved a cash match waiver request to reduce the non-federal match requirement in an effort to complete the project, which was originally awarded NRCS funding in 2016 through the NRCS Agricultural Land Easement (ALE) Grasslands of Special Significance (GSS) program. The merits of this proposal have been presented previously, discussed by MSGOT, and can be found in the Meeting Archive.

The Program urges MSGOT to again reconsider MLR's Weaver Cattle Company Proposal and take executive action to either award or decline to fund this proposal. The requested amount is \$300,000. The easement would protect 9,870 acres of general habitat in Choteau and Blaine counties. This parcel offers high resource values for other wildlife.

If MSGOT decides to award funds, it would still be in compliance with the statutory limitation that no more than \$5 million of the Stewardship Fund could be spent before development and designation of the mitigation framework, the habitat quantification tool, and administrative rules. MCA 76-22-109(4). If funded, the habitat quantification tool would be applied retroactively. Credits would be developed and made available thereafter.

PROGRAM RECOMMENDATION:

The Program recommends MSGOT make a final determination whether to award or decline funding for the Weaver Cattle Company Easement Proposal, and if so, direct the Program to undertake efforts to move the proposal through the next steps in the process by negotiating and finalizing terms of a grant agreement and the conservation easement for future MSGOT consideration, along with completing an environmental assessment.



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Montana Secretary of State
Corey Stapleton

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BEFORE THE GOVERNOR'S OFFICE
OF THE STATE OF MONTANA

In the matter of the amendment of ARM)
[14.6.101](#) and [14.6.102](#) and adoption of New) NOTICE OF PUBLIC HEARINGS ON
Rules I, II, III, and IV, pertaining to) PROPOSED AMENDMENT AND ADOPTION
implementation of the Sage-Grouse)
Stewardship Act)

TO: All Concerned Persons

1. The Sage Grouse Habitat Conservation Program will hold three public hearings at the following dates and times to consider the proposed amendment and adoption of the above-stated rules:

2:00 p.m. on January 12, 2017, Beaverhead-Deerlodge National Forest Office, 420 Barrett St., Dillon, MT 59725;

2:00 p.m. on January 16, 2017, Musselshell County Ambulance Barn, 704 1st St. E, Roundup, MT 59072;

2:00 p.m. on January 17, 2017, First State Bank of Malta, 1 S. 1st St E, Malta, MT 59538.

2. The Governor's Office will make reasonable accommodations for persons with disabilities who wish to participate in this rulemaking process or need an alternative accessible format of this notice. If you require an accommodation, contact the Governor's Office no later than 5:00 p.m. on January 6, 2017, to advise us of the nature of the accommodation that you need. Please contact Carolyn Sime, Sage Grouse Habitat Conservation Program Manager, Montana Sage Grouse Oversight Team, c/o Department of Natural Resources and Conservation, P.O. Box 201601, Helena, MT 59620-1601; telephone (406) 444-0554; fax (406) 444-6721.

3. The rules proposed to be amended are as follows, stricken matter interlined, new matter underlined:

[14.6.101](#) DEFINITIONS Unless the context clearly requires otherwise, to aid in the implementation of the Montana Greater Sage-Grouse Stewardship Act and as used in these rules:

(1) "Additionality" means conservation benefits of a compensatory mitigation measure that improve upon the baseline conditions of the impacted resources and their values, services, and functions in a manner that is demonstrably new, or avoids losses, and would not have occurred

without the compensatory mitigation measure.

(1) remains the same but is renumbered (2).

(3) "Baseline" means the starting point for calculating the difference between baseline and post-project habitat function and functional acres. Baseline does not necessarily mean pre-project condition.

(4) "Compensatory Mitigation" means the preservation, enhancement, restoration and/or establishment of a resource to compensate for, or offset, unavoidable adverse impacts to the resource.

(2) remains the same but is renumbered (5).

(6) "Direct impacts" means impacts caused by an action that occur at the same time and place which affect and diminish the ability for sage grouse to shelter, feed, or breed.

(7) "Durability" means mitigation measures will be effective at least as long as the impacts those measures are designed to offset, using legal and financial assurances to ensure the mitigation offsets will be in place for the entire duration of the impact. Considerations include the ecological, administrative, and financial assurances that secure the biological benefits of a compensatory mitigation project; and that protect the conservation status of a compensatory mitigation site.

(8) "Effectiveness" means the proposed compensatory mitigation plan demonstrates timeliness, ecological durability and is accompanied by a durable site protections and financial assurances that secure and protect the conservation status of the mitigation site and credits for at least as long as associated impacts persist.

(9) "Enhancement" means manipulation of existing habitat to heighten, intensify, or improve a specific resource function that results in a gain of selected resource functions.

(10) "Indirect impacts" means impacts caused by or the result of an action, which occur later in time or farther removed in distance from the action, but are still reasonably foreseeable, and which affect and diminish the ability for sage grouse to shelter, feed, or breed.

(11) "In-kind" means a resource of a similar structural and functional type as the impacted resource. When used in reference to a species, in-kind means the same species.

(3) remains the same but is renumbered (12).

(13) "Landscape" means the geographic extent that encompasses an interacting mosaic of ecosystems and human systems that is characterized by a set of common management concerns.

(14) "Lek" means an activity area where sage grouse congregate to breed.

(15) "Material change" means a change that is substantive and likely affects the outcomes of the crediting or debiting project.

(16) "Mitigation sequence" means taking steps to:

(a) avoid impacts by not taking a certain action or parts of an action;

(b) minimize impacts by limiting the degree or magnitude of the action and its implementation;

(c) rectify impact by repairing, rehabilitating, or restoring the affected environment;

(d) reduce or eliminate impact over time by preservation and maintenance operations during the life of the action; and

(e) compensate for impact by replacing or providing substitute resources or environments.

(4) remains the same but is renumbered (17).

(18) "Net conservation gain" means the actual benefit or gain above baseline conditions, when the baseline is re-measured at a later time, after deductions for impacts, in habitat function or value to species covered by a mitigation program.

(5) remains the same but is renumbered (19).

(20) "Out-of-kind" means a resource of different structural and functional type to the impacted resource, which still addresses impacts to the same species.

(21) "Performance standards" means observable or measureable administrative or

ecological attributes, whether physical, chemical, or biological, that are used to determine if a compensatory mitigation project meets the agreed upon objectives.

(22) "Preservation" means maintenance or retention of existing habitat with specific resource functions for sage grouse through legal protection of existing and functioning habitat through a deed restriction or conservation easement that is permanent or in place for a long period of time.

(23) "Program" means the Montana Sage Grouse Habitat Conservation Program.

(24) "Restoration" means returning a site to its natural and/or historic habitat type and condition with the same or similar ecological functions after the original natural and/or historic site has been degraded, damaged, or lost.

(25) "Service area" means the geographic area within which impacts to a species' habitat can be offset at a particular habitat offset site as designated; the geographic area within which habitat credit trading occurs if a habitat exchange is operational in Montana.

(26) "Sufficiency review" means review of the underlying scientific methodology and data sources to ensure that the habitat quantification tool is based on reliable and repeatable quantitative science-based methods and is consistent with applicable U.S. Fish and Wildlife Service policies.

(27) "Tool" means Habitat Quantification Tool.

(28) "Verification" means a standardized process for monitoring and reporting to ensure that mitigation program rules have been followed.

AUTH: [76-22-104](#), MCA

IMP: [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-112](#), [76-22-118](#), MCA

REASONABLE NECCESITY: Compliance with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) required MSGOT to adopt additional rules regarding compensatory mitigation. Additional definitions are needed to clarify terms in these additional rules.

[14.6.102 GRANTS](#) (1) through (8) remain the same.

(9) MSGOT will give greater priority to applications for conservation activities eligible for funding under [76-22-110](#), MCA, which would be implemented in core areas. MSGOT may still consider funding conservation activities in general habitat and connectivity areas where high resource values for sage grouse exist and credits could be generated consistent with [76-22-109](#), MCA.

AUTH: [76-22-104](#), MCA

IMP: [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-112](#), [76-22-118](#), MCA

REASONABLE NECCESITY: Compliance with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) required MSGOT to adopt rules to "administer . . . the eligibility and evaluation criteria for grants distributed pursuant to [76-22-110](#) MCA." This amendment also provides flexibility for MSGOT by allowing MSGOT to consider funding projects in areas outside of core if high resource values for sage grouse can be protected.

4. The rules proposed to be adopted provide as follows:

NEW RULE I HABITAT QUANTIFICATION TOOL (1) MSGOT will designate a habitat quantification tool (Tool) to assess the quality and quantity of sage grouse habitat and to calculate the value of credits and debits by June 1, 2017. After designating a Tool, MSGOT will

amend this rule to incorporate it by reference.

(2) Prior to the time MSGOT designates a Tool and the U.S. Fish and Wildlife Service completes its sufficiency review, MSGOT may adopt and apply an interim process for calculating the value of credits and debits consistent with the provisions of this rule to assess the quality and quantity of sage grouse habitat, and to calculate the value of credits and debits.

(3) MSGOT will apply the interim process or the Tool MSGOT designates in the following circumstances:

(a) when evaluating applications for funding from the Sage Grouse Stewardship special revenue account consistent with the statutory requirements of the Greater Sage Grouse Stewardship Act expressed in [76-22-101](#), MCA et seq. and ARM [14.6.101](#) and [14.6.102](#); and

(b) when calculating credits or debits for sage grouse compensatory mitigation.

(4) Any other entities engaged in sage grouse compensatory mitigation in Montana, including a U.S. Fish and Wildlife Service-approved habitat exchange that receives credits transferred by MSGOT, or funding from the Sage Grouse Stewardship special revenue account, must apply the Tool or interim process designated by MSGOT.

(5) MSGOT will designate a Tool that:

(a) is based on the best available science;

(b) takes a landscape-scale approach, incorporating at least two spatial scales relevant to sage grouse ecology, and considers any of the threats identified by the U.S. Fish and Wildlife Service;

(c) incorporates environmental data gathered and analyzed at an appropriate, meaningful scale and resolution, such as a combination of remote sensing data and on-site visits;

(d) incorporates a clearly defined unit of measurement for habitat assessment that includes both habitat quantity and quality;

(e) uses the same methods to calculate both credits and debits;

(f) provides a reliable and repeatable quantitative method; and

(g) is consistent with applicable U.S. Fish and Wildlife Service policy and the Greater Sage Grouse Range-Wide Mitigation Framework (2014).

(6) Data included in the Tool may consist of, but is not limited to:

(a) habitat classification as core area, general habitat, or connectivity area;

(b) anthropogenic disturbance including cultivation, wildfire, and other threats identified by the U.S. Fish and Wildlife Service;

(c) land use conditions;

(d) sage grouse occupancy, lek locations, lek densities, trends in the number of males on leks;

(e) habitat and vegetation characteristics;

- (f) non-native or invasive species;
- (g) sage grouse seasonal habitats;
- (h) proposed disturbance type and spatial influence of the disturbance; and
- (i) landscape setting and landscape attribute information; or

(j) any other factors necessary to quantify habitat quality and quantity for a given area of impact or area of conservation.

(7) MSGOT and the Sage Grouse Habitat Conservation Program will solicit and consider independent peer reviews of the Tool it is considering for designation prior to designating a Tool and amending this rule to incorporate it by reference. MSGOT and the Program may make non-material revisions to the Tool without soliciting independent peer reviews, such as updating a remote sensing GIS data layer to the most recent available, or to correct typographical or technical errors.

(8) MSGOT and the Program must submit a designated Tool to the U.S. Fish and Wildlife Service for sufficiency review. If the U.S. Fish and Wildlife Service's review determines that the Tool is not sufficient, MSGOT will designate a new version of the Tool and submit the new version for U.S. Fish and Wildlife Service sufficiency review.

(9) MSGOT and the Program will review the designated Tool's methodology and underlying data sources every five years to ensure they are consistent with the best available science.

(a) The first review will take place within five years after the date of its approval by MSGOT.

(b) MSGOT and the Program may review and adjust the designated Tool's methodology and underlying data sources sooner than five years after the sufficiency review by the U.S. Fish and Wildlife Service, and more frequently than once every five years if MSGOT and the Program believe the Tool's methodology requires revision so as to be consistent with the best available science, or MSGOT and the Program believe improved methodologies or new data are available for incorporation into the Tool.

(c) MSGOT may only adjust the designated Tool's methodology or underlying data sources after a publicly announced MSGOT meeting and after accepting written and oral public comment.

(10) If MSGOT makes material changes to the Tool, those changes will be submitted to the U. S. Fish and Wildlife Service for sufficiency review. MSGOT will continue to apply a designated and sufficiency-reviewed Tool during the period of time required for U.S. Fish and Wildlife Service to provide a sufficiency review for any material changes to the Tool's methodology and underlying data sources.

(11) Any material change to the Tool's methodology and underlying data sources adopted by MSGOT after public comment and sufficiency review by the U.S. Fish and Wildlife Service will be incorporated by reference through amending this rule.

(12) Once a designated Tool has been applied to calculate the credits of a proposed mitigation site, or the debits of a proposed development site; the Program has completed its review; and the Project developer obtains the necessary state or federal permits, any

subsequent Tool designated by MSGOT will not apply.

(a) Once the Tool has been applied to calculate credits or debits, the number of calculated credits or debits will not be changed without written approval from all affected parties, including, but not limited to:

- (i) MSGOT;
- (ii) the project developer;
- (iii) the credit provider; and
- (iv) any affected third parties.

(b) Permit amendments will be subject to the Tool applied to calculate debits at the development site at the time of the original permit.

(13) The Tool that MSGOT designates will be made available to the public on the Sage Grouse Habitat Conservation Program's web site upon completion and approval by MSGOT and the U.S. Fish and Wildlife Service.

AUTH: [76-22-104](#), MCA

IMP: [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-111](#), [76-22-112](#), [76-22-113](#), [76-22-114](#), [76-22-118](#), MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) which requires MSGOT to: "adopt rules to administer...the designation of a habitat quantification Tool, subject to the approval of the United States fish and wildlife service." This rule partially implements the requirements of that bill.

NEW RULE II MITIGATION (1) Implementation of the mitigation sequence is required for all activities subject to agency review, approval, or authorization for which direct, indirect, temporary, or permanent adverse impacts to sage grouse would remain following application of the mitigation sequence, including temporal impacts that are later rectified through reclamation and restoration activities. Mitigation will be required even if the remaining adverse impacts to sage grouse are indirect or temporary.

(2) The mitigation sequence is applicable to development in sage grouse habitats designated as core areas and is also applicable in habitats designated as general habitat and connectivity areas under less rigorous standards.

(3) MSGOT will designate a compensatory mitigation guidance and procedures document to implement the Tool MSGOT designates and other aspects of compensatory mitigation by June 1, 2017. After designating a compensatory mitigation guidance and procedures document, MSGOT will amend this rule to incorporate it by reference.

(4) Prior to the time MSGOT designates a Tool and U.S. Fish and Wildlife Service

completes its sufficiency review, MSGOT may designate and apply an interim compensatory mitigation guidance and procedures document to implement an interim process and other aspects of compensatory mitigation for up to one year from the effective date of this rule. The compensatory mitigation guidance and procedures document will direct how MSGOT and the Program or another party approved by MSGOT administer one or more of the following:

- (a) a conservation bank;
 - (b) participation in a habitat credit exchange;
 - (c) making a financial contribution to the sage grouse stewardship account if sufficient credits are not available; or
 - (d) funding stand-alone mitigation actions to offset impacts to sage grouse habitat.
- (5) The compensatory mitigation guidance and procedures document that MSGOT designates will be made available to the public on the Program's web site upon completion and approval by MSGOT.
- (6) MSGOT and the Program will review the compensatory mitigation guidance and procedures document every five years, concurrent with the five-year review of the Tool. The first review will take place within five years after the date of the U.S. Fish and Wildlife Service approval of the Tool.
- (7) MSGOT and the Program may review and adjust the compensatory mitigation guidance and procedures document sooner than five years after the U.S. Fish and Wildlife Service's initial sufficiency review of the Tool and more frequently than once every five years if MSGOT and the Program believe the compensatory mitigation guidance and procedures document requires revision to be consistent with any changes in the Tool.
- (a) MSGOT may only adjust the designated Tool's methodology or underlying data sources after a publicly announced MSGOT meeting and accepting written and oral public comment.
- (8) MSGOT and the Program may make non-material revisions to the designated compensatory mitigation guidance and procedures document such as to incorporate the most recently available GIS data layers or to correct typographical or technical errors without formal rulemaking, but may only make such changes after a publicly announced MSGOT meeting and accepting written and oral public comment.
- (9) Any material change to the compensatory mitigation guidance and procedures document adopted by MSGOT after public comment will be incorporated by reference by amending this rule.
- (10) Through the mitigation guidance and procedures document described in (3), MSGOT may incentivize or discourage specific practices in particular locations by adjusting the value of credits or debits generated by those practices. Some variables that may drive adjustments include, but are not limited to:
- (a) a transparent method to adjust credits or debits to ensure net conservation gain;
 - (b) incorporating ratios or multipliers that are intended to incentivize avoidance of important areas, incentivize voluntary conservation and landowner stewardship;

- (c) duration of habitat benefits to match or exceed the duration of habitat impacts; and
- (d) ensuring additionality.

(11) MSGOT will authorize and approve compensatory mitigation plans that involve sage grouse habitat restoration, habitat enhancement, or habitat preservation through participation in one or more of the following:

- (a) a conservation bank;
- (b) participation in a habitat credit exchange;
- (c) making a financial contribution to the sage grouse stewardship account if sufficient credits are not available; or
- (d) funding stand-alone mitigation actions to offset impacts to sage grouse habitat.

(12) All compensatory mitigation plans involving habitat restoration, enhancement, or preservation, and approved by MSGOT, must:

- (a) meet the same standards provided in this rule;
- (b) be consistent with the U.S. Fish and Wildlife Service Greater Sage Grouse Range-Wide Mitigation Framework (2014) and the designated compensatory mitigation guidance and procedures document; and
- (c) apply the Tool designated by MSGOT.

(13) Project developers may not utilize research or education to provide compensatory mitigation.

(14) Compensatory mitigation plans must be approved by MSGOT, and implementation completed, before any impacts requiring compensatory mitigation occur. MSGOT may approve post-impact mitigation if the party proposing the mitigation provides adequate assurances the mitigation will occur and the credit amount compensates for the temporal impact to the species created by the delay in implementation.

(15) Compensatory mitigation plans may be prepared by a project developer with potential debits, potential credits, or both.

(16) Compensatory mitigation plans must, at a minimum, meet the following standards:

- (a) avoid or minimize impacts to all possible extent;
- (b) demonstrate that reasonable alternatives have been considered to avoid and minimize impacts that have not been avoided or minimized;
- (c) provide net conservation gain for the duration of any habitat impacts mitigation is intended to offset;
- (d) provide additionality;
- (e) mitigate actions in core areas, connectivity areas, general habitat or other priority locations identified by the Montana Sage-Grouse Oversight Team; and

(f) create a significant number of credits relative to the cost of the project.

(17) Compensatory mitigation plans must provide for in-kind replacement of habitat quality and quantity. MSGOT may, on a case-by-case basis, approve out-of-kind mitigation if greater benefits to sage grouse are clearly demonstrated.

(18) Compensatory mitigation plans submitted for debit projects must incorporate at a minimum:

(a) a participant agreement between the credit provider and the credit purchaser;

(b) the location and duration of impacts to sage grouse habitat;

(c) the location of the mitigation site;

(d) estimated debits (baseline condition and anticipated impacts);

(e) the location of the mitigation site offsetting the impacts;

(f) baseline condition;

(g) monitoring protocols;

(h) performance standards;

(i) mechanisms to address credit impairment or project failure through financial assurances; and

(j) a description of the service area.

(19) Compensatory mitigation plans submitted for credit projects must incorporate at a minimum:

(a) the location, duration, and type of conservation activities used for mitigation;

(b) estimated credits, baseline condition, and desired future conditions;

(c) management and long-term stewardship activities and costs;

(d) performance measures, monitoring protocols, and credit verification procedures to track progress toward anticipated conservation benefits;

(e) reporting requirements;

(f) assurances and contingency plans for maintaining habitat quantity and value for the duration of the project;

(g) mechanisms for adaptive management;

(h) a site protection instrument; and

(i) a description of the service area.

(20) All projects used for compensatory mitigation must submit an annual monitoring report to MSGOT and the Program describing credits generated, credits transferred, management activities taken, and project performance consistent with the compensatory

mitigation guidance and procedures document.

(21) Site protection instruments executed in compensatory mitigation plans approved by MSGOT must:

- (a) designate the Program, or any other party approved by MSGOT, as a third-party beneficiary with rights of entry for monitoring, credit verification, and enforcement;
- (b) permit the Program, or any other party approved by MSGOT, to calculate and verify credits on the site; and
- (c) prohibit incompatible uses that would jeopardize the conservation objectives of the mitigation site.

(22) Compensatory mitigation plans approved by MSGOT must include financial assurances guaranteeing:

- (a) the availability of funds for the inspection, monitoring, verification, and completion of all mitigation activities; and
- (b) methods to account for mitigation project failure and credit impairment, including program-level assurances against project failure, such as a credit reserve account.

(23) Financial assurances of credit development projects may be provided through a number of methods, including but not limited to establishment of an endowment fund, insurance, or a bond.

(24) MSGOT will designate service areas that reflect the need for genetic connectivity between designated core areas, general habitat areas, and connectivity in the state of Montana.

(25) MSGOT will require compensatory mitigation to occur in the same core area, general habitat area, or connectivity area as the impacts in Montana.

(a) MSGOT may consider and approve compensatory mitigation plans in a different core area, general habitat area, or connectivity area as the impact, on a case-by-case basis when suitable compensatory mitigation sites cannot be secured within the same core area as the impact within Montana; and

(b) when a greater conservation benefit to the species or population can be provided by compensatory mitigation outside of the core area, general habitat area, or connectivity area.

(26) MSGOT may consider and approve compensatory mitigation plans in a different service area as the impact:

(a) on a case-by-case basis when suitable compensatory mitigation sites cannot be secured within the same service area as the impact within Montana; and

(b) when a greater conservation benefit to the species or population can be provided by compensatory mitigation outside of the service area.

AUTH: [76-22-104](#), MCA

IMP: [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-111](#), [76-22-112](#), [76-22-113](#), [76-22-114](#),

[76-22-118](#), MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) which requires MSGOT to: "adopt rules to administer... methods of compensatory mitigation available...". This rule partially implements the requirements of that bill.

NEW RULE III METHOD TO TRACK AND MAINTAIN THE NUMBER OF CREDITS AND DEBITS AVAILABLE AND USED (1) MSGOT will assign a unique identifier for each credit created through funds disbursed from the Sage Grouse Stewardship special revenue account.

(2) MSGOT will assign a unique identifier for each credit created through conservation activities funded or implemented independently from the Sage Grouse Stewardship special revenue account.

(3) MSGOT will assign a unique identifier for each debit created by a project developer.

(4) MSGOT will establish a database and tracking system that contains, but is not limited to:

(a) the number of credits generated by conservation activities funded, at least in part, by funds disbursed from the Sage Grouse Stewardship special revenue account;

(b) the number of credits generated by conservation activities not funded through the Sage Grouse Stewardship special revenue account and used as compensatory mitigation by project developers;

(c) the number of debits created by unavoidable impacts to habitat due to the activities of a project developer;

(d) the location of all credits generated and debits generated; and

(e) credit transactions between parties.

(5) The information within the tracking system will be available to the public on the Program's web site.

AUTH: [76-22-104](#), MCA

IMP: [76-22-104](#), [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-111](#), [76-22-112](#), [76-22-118](#), MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) which requires MSGOT to: (1) "adopt rules to administer...a method to track and maintain the number of credits attributable to projects funded . . . that are available to a project developer to purchase for compensatory mitigation to offset debits under [67-22-111](#);" (2) "adopt rules to administer . . . review and monitoring or projects funded pursuant to [Part 1]; (3) "review compensatory mitigation plans proposed under [76-22-111](#). If the plan includes a financial contribution to the sage grouse stewardship account established in [76-22-109](#), the oversight team will, using the habitat quantification tool, determine how to secure enough credits with the financial contribution to offset the debits of a project." This rule partially implements the requirements of that bill.

NEW RULE IV METHOD TO ADMINISTER THE REVIEW AND MONITORING OF MSGOT FUNDED PROJECTS (1) MSGOT and the Program will establish a database and tracking system to review and monitor projects funded by MSGOT using the Sage Grouse Stewardship special revenue account.

(2) The database and tracking system will contain information including, but not limited to:

- (a) the name of the Stewardship Fund grant recipient(s);
- (b) the amount awarded;
- (c) the date the state funds were transferred to the grant recipient(s) if a one-time lump sum grant, or
- (d) the dates state funds were transferred to the grant recipient(s) if the award was a reimbursable grant;
- (e) a description of characteristics of the project including, but not limited to:
 - (i) type of project;
 - (ii) number of acres; and
 - (iii) land ownership;
- (f) the duration of the project;
- (g) any expected conservation benefits of the project;
- (h) the geospatial location where the project was implemented;
- (i) the number of credits generated, and their characteristics;
- (j) the unique identifier assigned to each of the those credits;
- (k) transactions of credits created;
- (l) progress and final reports submitted by the grant recipient(s);
- (m) annual monitoring reports in the case of conservation easements or leases;
- (n) sage grouse leks on and in the vicinity of the project area and trend data on the number of breeding males on those leks; and
- (o) the grant agreement number assigned by the Program.

AUTH: [76-22-104](#), MCA

IMP: [76-22-104](#), [76-22-105](#), [76-22-109](#), MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) which requires MSGOT to: (1) "adopt rules to administer... the review and monitoring of projects funded." This rule partially implements the requirements of that bill.

5. Concerned persons may submit their data, views, or arguments either orally or in writing at the hearing. Written data, views, or arguments may also be submitted to: Carolyn Sime, Sage Grouse Habitat Conservation Program Manager, Montana Sage Grouse Oversight Team, c/o Department of Natural Resources and Conservation, P.O. Box 201601, Helena, MT 59620-1601; telephone (406) 444-0554; fax (406) 444-6721; or through the public comment web application tool located on the MSGOT web page at <https://sagegrouse.mt.gov/msgot.html>. All comments must be received no later than 5:00 p.m., January 23, 2017.

6. Carolyn Sime, Sage Grouse Habitat Conservation Program Manager, Montana Sage Grouse Oversight Team, has been designated to preside over and conduct these hearings.

7. The Governor's Office maintains a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list must make a written request that includes the name, e-mail, and mailing address of the person to receive notices and specifies for which program the person wishes to receive notices. Notices will be sent by e-mail. Such written request may be mailed or delivered to the Natural Resource Policy Advisor, P.O. Box 200801, 1301 East Sixth Avenue, Helena, MT 59620; fax (406) 444-4151; or may be made by completing a request form at any rules hearing held by the Governor's Office.

8. An electronic copy of this proposal notice is available through the Secretary of State's web site at <http://sos.mt.gov/ARM/Register>. The Secretary of State strives to make the electronic copy of the notice conform to the official version of the notice, as printed in the Montana Administrative Register, but advises all concerned persons that in the event of a discrepancy between the official printed text of the notice and the electronic version of the notice, only the official printed text will be considered. In addition, although the Secretary of State works to keep its web site accessible at all times, concerned persons should be aware that the web site may be unavailable during some periods, due to system maintenance or technical problems.

9. The bill sponsor contact requirements of [2-4-302](#), MCA, apply and have been fulfilled. The primary bill sponsor was contacted by e-mail on November 2, 2016, and again on November 30, 2016.

10. With regard to the requirements of [2-4-111](#), MCA, the Governor's Office has determined that the amendment and adoption of the above-referenced rules will not significantly and directly impact small businesses.

/s/ Andy Huff
Andy Huff
Rule Reviewer

/s/ Tim Baker
Tim Baker
Natural Resource Policy Advisor
Governor's Office

Certified to the Secretary of State December 12, 2016

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For questions regarding the content, interpretation, or application of a specific rule, please contact the agency that issued the rule.
A directory of state agencies is available online at <http://www.mt.gov/govt/agencylisting.asp>.

For questions about the organization of the ARM or this web site, contact sosarm@mt.gov.



PROPOSED RULES: MITIGATION AND HABITAT QUANTIFICATION TOOL

BACKGROUND:

The 2015 Montana Legislature passed the Montana Greater Sage Grouse Stewardship Act (Act). Executive Order 12-2015 complements the Act. Taken together, they establish that Montana will observe the mitigation hierarchy or sequence (avoidance, minimization, reclamation, and compensation) with respect to activities subject to agency review, approval, or authorization in sage grouse habitats designated as core areas, general habitat, and connectivity areas for conservation.

The Act provided rulemaking authority to the Montana Sage Grouse Oversight Team to develop administrative rules to implement a habitat quantification tool to evaluate vegetation and environmental conditions related to the quality and quantity of sage grouse habitat and other aspects of mitigation.

The Sage Grouse Habitat Conservation Program has been working with a diverse group of about 40 stakeholders and state/federal agency partners to begin developing the compensatory mitigation policy framework and habitat quantification tool in anticipation of formal rulemaking. The proposed rules were the result of this collaboration.

The proposed rules were published in the Montana Administrative Register on December 23, 2016. The public comment period ran from December 23, 2016, to January 23, 2017.

Three public hearings were held: (1) Roundup on January 12, 2017; (2) Dillon on January 16, 2017; and (3) Malta on January 17, 2017. Public comment was accepted orally and in writing during the hearings. Public comments were also accepted in writing through the postal mail or by fax. The public could also submit comments through the public comment web application tool located on the MSGOT webpage at <https://sagegrouse.mt.gov/msgot.html>.

The following public comments were received. The last four pages summarize comments received during the public hearings.

February, 2017





The Montana Department of
**Natural Resources
& Conservation**

DNRC Headquarters
1625 Eleventh Ave. Helena, MT 59601
Phone: (406) 444-2074 | **Fax:** (406) 444-2684
Questions? Email us

- Home Divisions Grants and Loans Licenses and Permits Public Information Land Board Flood and Fire
- Contact DNRC

05:00 PM

Title:Sage Grouse Mitigation Proposed Rule
Program:Sage Grouse Habitat Conservation Contact:Carolyn Sime
Comment Record

Identifier:238 Time:1/13/2017 10:34 AM Attachments:2
Name:Sprague, Michael Email:info@troutheadwaters.com Phone:406-222-3554

Address:PO Box 222, Livingston, MT 59047
Topic:Comments on Sage Grouse Rules

Comment:Thank you for the opportunity to review and comment on the rulemaking around implementation of the Sage Grouse Act and specifically the state’s efforts to implement effective and cost-effective mitigation for impacts to the species habitat. Please see the attached documents for comments and reference material. Thank you for your thoughtful consideration of these comments. Sincerely, Michael Sprague

- File: Comments on Montana Sage Grouse Rules.pdf
- File: Universal Principles of Compensatory Mitigation v2.0.pdf



To: Montana Sage Grouse Oversight Team
Subject: Comments on Sage Grouse Rules
From: Michael Sprague, Trout Headwaters, Inc.
Date: January 12, 2017

Comments

Dear Montana Sage Grouse Oversight Team:

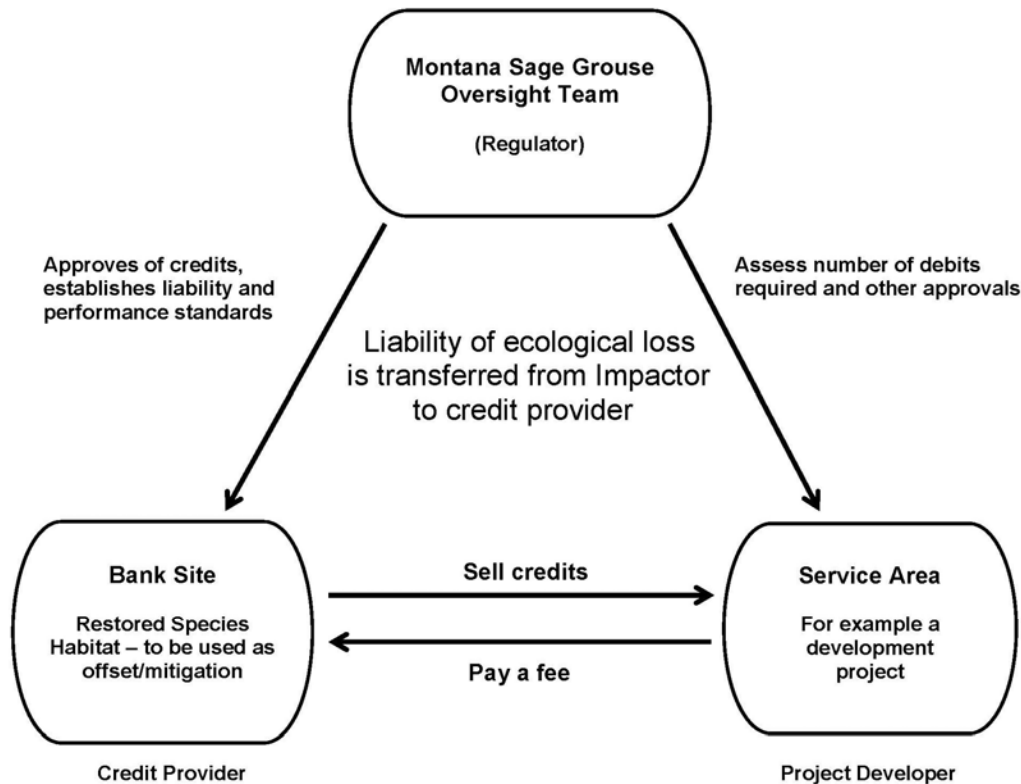
Thank you for the opportunity to review and comment on the rulemaking around implementation of the Sage Grouse Act and specifically the state's efforts to implement effective and cost-effective mitigation for impacts to the species habitat.

First, the SGOT should be applauded for the significant progress it has made since adoption of the Act and further, much of the rules issued now and intended for its implementation. The high standards, durability and additionality proposed by the rules are well-accepted principles of mitigation. The language prescribing consistency with Department of Interior and U.S. Fish & Wildlife policies relating to species mitigation also demonstrate consideration for the importance of insuring that Montana's efforts are not challenged in the future should the species status change.

Having said this, there appear to be several fatal flaws in construction of the framework for mitigation within the rule. Principally, these are referenced within the Mitigation Section #5c and Section 6.

Section 5c creates a rule wherein an interest or entity creating impact to the species/habitat may simply write a check in the form of a 'financial contribution' to the sage grouse stewardship account. Such a provision would obviously trump all other forms of possible offset. It could also have a wrong appearance and be potentially misunderstood by a permittee as 'buying' a permit. The SGOT cannot and should not both be the regulator and the offset provider due to the obvious conflict of interest.

Here is a simple flow chart that we hope clearly outlines roles that would be standard and represent the typical interaction between interests and entities in the environmental mitigation space.



If Montana were appropriately the regulator in this program and enabled a system of private conservation bank investments from the private and NGO sector, the financial burdens on the State would be greatly reduced. Such a strategy, modeled on conservation and mitigation programs currently in wide use across the U.S. deserves significant thought by Montana’s Legislative representatives participating in the working group.

Next, by definition species and habitat restoration or conservation programs, projects or investments (by government, NGO or private individuals) all tend to be long term commitments and planning generally occurs for 10-20 year periods at a minimum. Section 6 of the proposed rules on the mitigation program state that the Habitat Quantification Tool (HQT) as well as the guidance and procedures will be reviewed every 5 years and (Section 7) may be ‘adjusted.’ It would seem impossible for any entity wishing to support the species and its habitat to do so without clear expectations about what may be expected by MSGOT over a longer term.

Sections 15-19 does a credible job of specifying standards that are to be followed by those impacting or offsetting species habitat; however, it is unclear if these standards apply to all impactors and to all forms of mitigation. If so, it begs the question how writing a check to the MSGOT program would be sufficient to meeting said standards.

Lastly, we applaud the requirement of 'Net Conservation Gain' as specified in Section 10a, 16c and would strongly suggest in an effort to avoid listing and to reduce further risk to the species that this standard be applied in all mitigation efforts for the species.

Thank you for your thoughtful consideration of these comments.

Sincerely,



Michael Sprague
Trout Headwaters, Inc.

CC: Tyler Krutzfeldt, CFA
Mont Vista Capital



UNIVERSAL PRINCIPLES OF COMPENSATORY MITIGATION



Authors: Michael Sprague, Don Ross, George Mannina & Wayne White 2015

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Preface

This report summarizes seven universal principles of compensatory mitigation. The guidance applies regardless of the authority from which the requirement for mitigation is derived.

It was developed from standard policies of the National Mitigation Banking Association (NMBA) which represents private equity and non-profit investors from across the U.S. The members believe that when properly framed by government policy, private investment is the most powerful force available to meet today's environmental needs.

Private capital, for example private pension funds (currently valued at \$18 trillion), are comparable to the size of the nation's gross domestic product. Placing these and other long-term private savings, like college endowments, in the service of environmental goals could resolve the resource limitations that limit government in its environmental mission.

Restoration and conservation investments require predictability both to attract the innovation and capital of third-party providers and also to provide certainty to users of compensatory mitigation credits.

NMBA supports high standards for compensatory mitigation, and believes that by following the seven principles presented herein, compensatory mitigation of all types will be of higher quality and permitting will be streamlined.

Market-based environmental solutions rely on willing buyer/willing seller transactions in the provision and pricing of compensatory mitigation, but without high standards for mitigation credits, project proponents tend to make use of the lowest cost option for compliance.

Mitigation and conservation banks, two forms of advance compensation, also represent the most efficient means for enabling compliance in most cases.

However, without consistently high standards for all forms of mitigation, permits may be issued on credits that do not fully offset impacts, which over time may create cumulative losses.



Introduction

Compensatory mitigation is action taken to offset unavoidable impacts that remain after all appropriate and practicable avoidance and minimization have been achieved. Project impacts may be to a broad range of resources from cultural to biological to physical.

While offsets would likely be as diverse as the impacts themselves, consistent compensatory mitigation standards should be applied to all mitigation to assure the offset is fully provided in function and over time.



The need for compensatory mitigation may arise from a wide range of government programs, not all of which are regulatory. Farm-related wetland compensatory mitigation may be a threshold requirement for a farmer's program eligibility, while mitigation of scenic views may arise from land management goals. That said, the vast majority of mitigation is the result of regulation. Project proponents

seek permits for a variety of activities and are required to offset their impacts as a condition of approval. When these requirements are regulatory, compensatory mitigation must have a reasonable nexus and proportionality to the impact. For project proponents, the cost of compensatory mitigation can be a significant factor in the competitive economies in which they operate.

These constraints on both regulatory agencies and private entities are implicated in permitting delays and support the need for greater programmatic certainty from a set of overarching mitigation standards. More certainty streamlines permitting by creating universally-accepted standards that would limit the range of negotiations known to delay regulatory decisions.



Seven Universal Principles of Mitigation

The following seven NMBA compensatory mitigation principles are universal regardless of the authority from which the requirement for mitigation is derived.

Equivalency

Whether mitigation is sited on public or private lands and regardless of the sponsor, all compensatory mitigation should comply with equivalent standards.

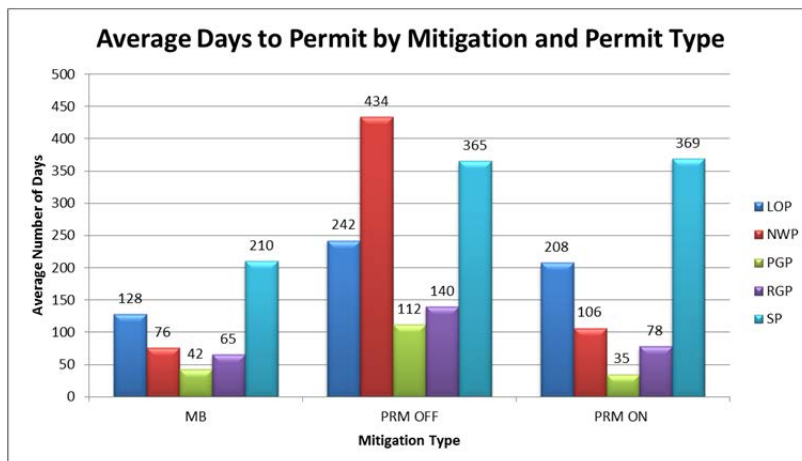
Developers who would impact resources are often in strongly competitive markets and under intense pressure to find the least expensive mitigation option. To achieve the best mitigation, therefore, it is imperative that the same standards apply across the board so that mitigation costs are not viewed as negotiable. If one form of mitigation is held to a lower standard (at a lower cost) than another, the government will have created demand for the lower standard mitigation.

Reducing the negotiable nature of compensatory mitigation streamlines permitting. Analysis of U.S. Army Corps of Engineers

***All
compensatory
mitigation
should be held
to equivalent
standards
regardless of
the source***

Clean Water Act permit processing data from 2011– 2014 shows that projects using mitigation bank credits are

approved in about half the time of those that do not. The uncertainty of after-the-fact compensatory mitigation is often a source of delay in permitting decisions, but by establishing consistent, equivalent standards and a preference for advance mitigation, this delay can be reduced.



Graph showing the average number of days to permit for different mitigation types

MB = Mitigation bank; PRM OFF = Offsite Permittee-Responsible Mitigation; PRM ON = Onsite Permittee Responsible Mitigation) and by permit types (LOP = Letter of Permission; NWP = Nationwide Permit; PGP = Programmatic General Permit; RGP = Regional General Permit; SP = Standard Permit).



Durability

It seems natural that the life-span of the offset should match that of the impact, but implementing this match can be difficult, especially when the impact is permanent. To be durable, management of permanent mitigation sites involves continued expenditures funded by a long-term trust account. The principal amount of the long-term trust can be a large component of the cost of mitigation and conservation bank credits.

When advance mitigation providers are required to provide long-term trust accounts, but others are not, the cost difference is substantial. The less

expensive, but non-durable, mitigation wins the day when allowed.

***Compensatory
mitigation
should be
durable for the
life of the
impact***

Site protection mechanisms include conservation easements, deed covenants, and title conveyance, all of

which are available to private ownership. These protections may be less available when development occurs on public land, leased land, or land where the developer only owns subsurface rights. As a condition of establishment, mitigation and conservation banks are generally required to secure a sufficient property interest to protect the mitigation site, but when other providers are not required to do the same, the lower standard typically prevails because it costs less.



Assurance

Financial assurance is an important institutional requirement that cuts across all compensatory mitigation, and without it, all mitigation is risky.

Financial assurances protect the mitigation project from failure by providing the financial resources to complete the project if the sponsor will not or cannot.

Financial assurances are in essence “risk mitigation” for compensatory mitigation, but to be meaningful they should be immediately payable upon demand of the agency. Financial assurance can be provided through casualty insurance,

performance bonds, letters of credit, or other cash-on-demand instruments.

Financial assurance instruments that rely on good faith budgeting or the financial strength of the sponsor, even government agencies, may not actually be available when needed, allowing the temporal losses to mount if the failed project remains incomplete or unsuccessful. Fiscal adequacy and timely availability are the necessary characteristics of effective financial assurance.

Properly crafted financial assurance mechanisms streamline project approval by removing some of the risks perceived in the regulatory decision. The potential of financial loss is a powerful focusing mechanism for mitigation providers. Financial assurance mechanisms help assure proper attention to full and effective mitigation implementation by keeping the financial motives in play.

***Financial
assurances
should be used
to protect
mitigation from
possible
default by the
provider***

Alternatively, when mitigation providers have little or no remaining financial risk because they have little or nothing to lose with failure of a mitigation project, there is understandably less focus on the outcome.

Historically, some agencies and project sponsors have attempted to address compensatory mitigation risk without financial assurance mechanisms by



simply requiring more mitigation, but this strategy has not worked.

Grossing up mitigation acreage to offset risk is illogical, as the causes of mitigation failure are just as likely to apply to the larger grossed up acreage, merely leading to a larger failed mitigation project.

Advance Mitigation

A complete reading of the 2001 National Research Council (NRC) report¹ supports the conclusion that incentive-based wetland mitigation banking had outperformed both in-lieu fee mitigation and permittee-responsible mitigation. The reason is simple: wetland mitigation banks had performed mitigation *in advance* of impacts, and as discussed above, had financial assurance mechanisms in place to keep them financially interested in mitigation outcomes.

¹ National Research Council, 2001. *Compensating for Wetland Losses under the Clean Water Act*. National Academy of Sciences. Washington, D.C.

While the NRC report only addressed wetland mitigation, conservation banks provide the same advance mitigation benefits as wetland mitigation banks.

Compensatory mitigation should be in place in advance of impacts

The primary expectation should always be for mitigation to be deemed successful before impacts occur because this approach carries the least risk of failure and the least amount of temporal loss. Advance, permanent compensatory mitigation with financial assurance is the “gold standard” because it has been proven to offset impacts over time.

Additionality

Since the purpose of compensatory mitigation is to offset an actual resource loss, it is important that the compensatory offsets are actions that would not have otherwise occurred. The additionality standard ensures that mitigation is not used to supplant something that would have been done anyway. When mitigation occurs on private land, it is usually easy to recognize the additionality of measures taken. On public land, however, demonstrating additionality is more problematic.

Compensatory mitigation performed on public land should be based on projects that are clearly over and above those provided by public programs already planned or in place.



Agencies have management responsibilities for sustainable beneficial uses of public land over long periods of time. As long as mitigation projects established on public lands provide environmental benefits over and above what normal management activities provide, there should be no lack of additionality.

Mitigation should provide additionality: measures beyond those reasonably expected anyway

Normal management activities should encompass everything that sustainable beneficial use implies.

The kind of project that exceeds normal management activities should involve substantial capital investment that restores certain aspects of the resource to levels that will be sustained by natural processes. Structural repairs to hydrology may qualify as “additional,” whereas a program of exotic plant control would

not. Exotic plant control is a widespread, common activity on public lands, i.e., it is a normal management activity.

Scientific

An adequate scientific foundation is essential for mitigation project design, risk assessment, and adaptive management. Baseline data collection and analysis are required to apply general scientific knowledge to the specific site conditions and circumstances of the mitigation site. Probable unknowns can then be identified and incorporated into the adaptive management element of the mitigation plan and inform the need for adequate levels of financial assurance.

Clearly defined, science-based goals with data benchmarks are essential to assess the success of the project through its implementation. Monitoring project results and comparing results to



expectations is an essential element of the compensatory mitigation plan, and these results should be transparent to interested parties. Lack of transparency gives rise to the suspicion that the science was compromised or that decisions may have been inappropriately influenced, and such public suspicion may cause project

delay, especially when it breeds litigation.

Compensatory mitigation should be based on scientific data with success monitoring and transparent reporting



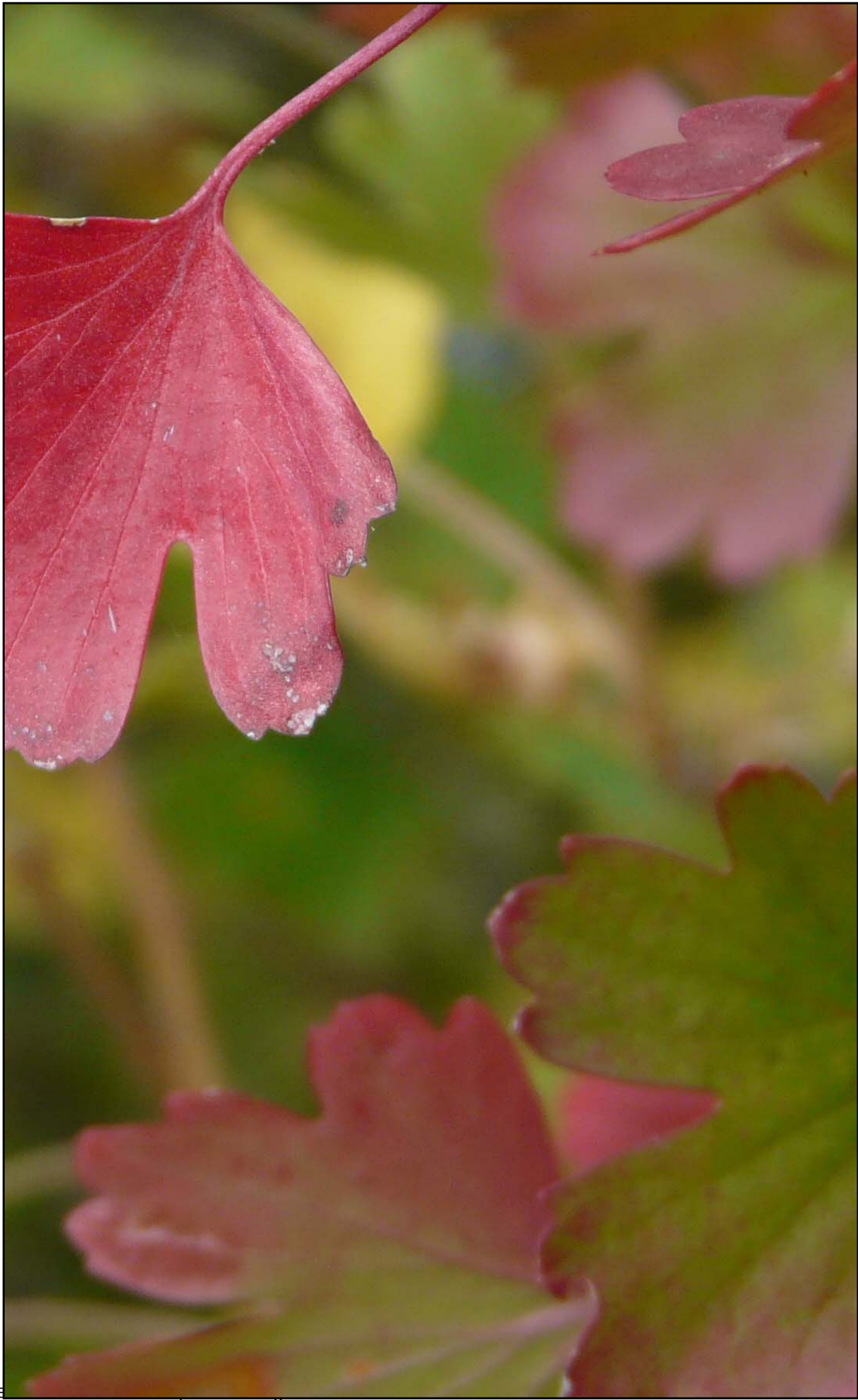
Effective adaptive management is best accomplished in advance mitigation through a provider invested in the success of the project.

Adequate scientific foundation and baseline data are easiest to obtain with advance mitigation. In advance mitigation, the mitigation provider generally has more time and financial motivation to plan the mitigation project. Providers of advance mitigation credits are eager to support data collection programs because advance mitigation credits are not released for sale until the mitigation has been proven successful.

Compensatory mitigation plans should include adaptive management to anticipate the probable unknowns

Adaptive

Many biological and physical systems are too complex to perfectly predict outcomes. Given this inherent lack of certainty, it is imperative to plan for mid-course corrections through adaptive management processes included in the initial mitigation plan. Adaptive management plans identify responsible parties and processes for modifying approved mitigation plans when new information warrants corrective action.



Publication Credits:

Clement, Joel P., et al. 2014. A Strategy for Improving the Mitigation Policies and Practices of The Department of the Interior: A Report to the Secretary of the Interior from The Energy and Climate Change Task Force. The Department of the Interior, Washington, D.C.

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Wilkinson, Jessica B. et al. 2009. The Next Generation of Mitigation: Linking Current and Future Mitigation Programs with State Wildlife Action Plans and Other State and Regional Plans. The Environmental Law Institute and The Nature Conservancy with funding from the Wildlife Habitat Policy Research Program. Washington, D.C.

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January 20, 2017

RECEIVED

JAN 20 2017

Dept. of Natural
Resources & Conservation

Ms. Carolyn Sime
Sage Grouse Habitat Conservation Program Manager
Montana Sage Grouse Oversight Team
Department of Natural Resources and Conservation
P.O. Box 201601
Helena, MT 59620-1601

Dear Ms. Sime:

We appreciate the opportunity to offer comments on the sage grouse mitigation rule, MAR Notice 14-4, regarding the Sage Grouse Conservation Program. We have attached an addendum of the proposed rule in Track Change format to assist and provide clarity to the following comments. These comments are submitted on behalf of:

The Montana Petroleum Association
The Montana Coal Council
The Montana Contractors Association
Montana Electric Cooperative Association
The Treasure State Resources Association

The Coalition has several primary concerns with the rule that are discussed in detail in this comment letter:

1. It appears that the proposed rule would require compensatory mitigation for all development in sage grouse habitat. It is our assertion that if a developer is able to successfully adhere to all of the stipulations required by the Governor's Executive Order ("EO") when operating in Core, General, or Connectivity Areas, then no compensatory mitigation should be required. This would mean that compensatory mitigation is only required when the EO stipulations cannot be successfully implemented by a developer.
2. We are increasingly concerned about the concept of net conservation gain.
3. Due to the USFWS stating that they do not currently have any approval authority over Sage Grouse (a species not listed under the ESA), we are not comfortable with giving

the USFWS final approval authority over the Montana Sage Grouse Conservation Plan. The coalition believes that all final approval authority should lie with the Montana Sage Grouse Oversight Team (MSGOT) and that the USFWS's role should be to review the habitat quantification tool (HQT) for scientific sufficiency and report their findings to the MSGOT.

4. We believe that all authority granted by this proposed rule should be granted to MSGOT and not to the program.

COMPENSATORY MITIGATION

The coalition is very concerned about the application of compulsory compensatory mitigation any time habitat is disturbed in core, general or connectivity areas even if all developers comply with all stipulations. Given that the BLM has set a no surface occupancy stipulation over entire core areas (primary habitat management areas) compensatory mitigation is really focused on private land development. Sage grouse habitat covers over 33 million acres in Montana, 64% of that is privately held and will be the focus for private compensatory mitigation expenditures.

During the development of both the Executive Orders and SB 261, there was significant discussion about mitigation, the mitigation sequence itself, and the application of compensatory mitigation. In fact, the sections in SB 261 that dealt with mitigation were driven by interests, particularly mining, that have larger footprints. It was believed that developments with smaller footprints, such as oil/gas and open cut gravel mines, would be able to avoid compensatory mitigation scenarios if they could perform their proposed development in accordance with the multitude of applicable stipulations including density/disturbance, distance from leks, noise limitations, and seasonal timing restrictions. Various development interests realized that they needed an alternative mitigation option in the event that strict compliance with the applicable EO stipulations could not be achieved due to the nature of a development.

It is understood that mitigation - meaning the entire mitigation sequence - will be required even if the impacts to sage grouse are indirect or temporary.¹ New land uses in core areas shall be avoided when possible and minimized on suitable habitat. However, it is our understanding that if all stipulations in attachment D of the 2015 EO are met by a project developer, then a project is considered to have no impact to sage grouse and will require no compensatory mitigation.²

The EO provides that projects wishing to deviate from the standard stipulations or utilize exceptions to the conservation strategy shall be considered by the Program with review by the MSGOT and federal agencies. (Executive Order 12-2015, ¶ 25). It is our assertion that compensatory mitigation was included as a mitigation option for these cases where the EO stipulations could not be implemented and the project developer would be able to utilize compensatory mitigation to ensure no net impact to sage grouse populations occur and to maintain compliance with the conservation strategy set out in the Governor's Executive Order.

¹ Executive order 12-2015 (G) 13.

² Executive Order 12-2015, ¶ 24

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JAN 20 2017

Dept. of Natural
Resources & Conservation

5872.001

SPECIFIC RULE COMMENTS RELATED TO COMPENSATORY MITIGATION:

DEFINITIONS, (16) Mitigation Sequence: Strike the word “and” at the end of subsection (d).

This definition relates to the steps in a sequence. Placing “and” at the end of line (d) makes compensatory mitigation mandatory in the sequence.

NEW RULE II, (1): Change “will” to “may” in the last sentence.

This change gives the MSGOT flexibility and does not make compensatory mitigation mandatory.
MSGOT should make the decisions about appropriate mitigation and compensatory mitigation.

NEW RULE II, (1): Insert new subsection (a). Insert “Compensatory mitigation is not required if a project developer successfully implements the required part or combination of parts of the mitigation sequence provided for in (16)(a) through (d) of the mitigation sequence defined in 14.6.101.”

This change ensures that compensatory mitigation is not required if a project developer can successfully avoid, minimize, repair/rehabilitate/restore, or reduce the impact caused by a development.

NEW RULE II, (4): Strike “and the USFWS completes its sufficiency review”, in the first sentence.

The tool is not “designated” until after public comment, including the USFWS. This allows the MSGOT the opportunity to review all comments before designating.

NEW RULE II, (6): Strike “the date of the USFWS approval of the tool” and insert “initial designation of the tool”.

In addition to comments below regarding the Program, this change reflects no required USFWS approval.

NEW RULE II, (10): The term “value of” should be stricken. The sentence would then read: “MSGOT may incentivize or discourage specific practices in particular locations by adjusting the credits or debits generated by those practices.”

We are unsure what is meant by “value” in that part. Value is an economic factor that will be addressed by market forces. The HQT process already considers functionality of different specific habitat for both credits and debits.

NEW RULE II, (11): Should be changed to read: “MSGOT may authorize...”

MSGOT should make the decisions about appropriate mitigation and compensatory mitigation.

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NEW RULE II, (12): Strike, greater sage grouse range wide mitigation framework and insert policy.

We are concerned with the idea of tying our policy to one document. USFWS policy should suffice.

NEW RULE II, (14): We are concerned that post impact mitigation requirements to compensate for temporal impacts in not defined. We do not understand how to calculate “temporal” impacts and unless the MSGOT can provide that explanation, the requirement to compensate for temporal impacts should be stricken.

NEW RULE II, (14), (15), and (16): The word “Compensatory” should be stricken from the beginning of each of these sections. These rules provide for the entire mitigation sequence and not only compensatory mitigation.

NEW RULE II, (16)(e): Strike “other high priority locations”. Also strike (f).

Core areas, connectivity areas, and general habitat areas are clearly defined and have been understood since the development of the sage grouse conservation plans as far back as 2005 and throughout the development of the Governor’s executive orders. General, connectivity, and core areas are defined in section 76-22-103, while “other high priority areas” are not. If in the future the MSGOT identifies other areas that it concludes warrant additional protections, then the process to establish existing core, general or connectivity areas should be reopened and the new area analyzed under the same process.

Subpart (f) should only apply to a credit process. It should be clarified that it must apply to a credit project or be deleted.

NEW RULE II, (19): Strike “compensatory mitigation.”

Using the term “compensatory mitigation” for credit projects confuses what compensatory mitigation means. They should simply be called “plans for credit projects” so as to avoid any confusion.

NET CONSERVATION GAIN

There is increasing concern by various natural resource industries that the net conservation gain/additionality concepts do not have any sound legal basis and may soon be the focal point of litigation. Net conservation gain requires far more than compensation, restoration, or rehabilitation of adverse impacts caused by a proposed project. If federal policies are reversed in this area, the MSGOT would have to be flexible in its ability to adapt Montana policy. We oppose a situation where Montana, through specific language requiring net conservation gain, would have a more burdensome policy on compensatory mitigation than that of the US Department of Interior.

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Net conservation gain is firmly entrenched in MAR 14-04 by way of New Rule II (10)(a) and New Rule II (16)(c). At this point in time, USFWS policy contains net gain requirements. In the event that federal policy changes, how do we ensure that this rule will be updated to reflect those policy changes? New Rule II, (6) and (7) allows compensatory mitigation guidance and procedures to be reviewed sooner than every five years after a USFWS sufficiency review if the MSGOT believes it needs revision to be consistent with the tool and USFW policy. New Rule I (9) requires a review of the underlying data in the HQT to ensure consistency with best available science. The net conservation gain concept is in essence a fee assessed by USFWS policy for development in sage grouse habitat; it is not based on science. So in all these sections, we suggest adding some language that provides for the same review in the event USFWS, BLM or federal policy changes, not just the current language that provides for changes based on science".

SPECIFIC RULE COMMENTS RELATED TO NET CONSERVATION GAIN:

DEFINITIONS, (18) Net Conservation Gain: Strike "or value" in the definition.

As stated above, value refers to an economic factor. We are unclear how the MSGOT determines value. Habitat function is the appropriate gauge.

NEW RULE I, (9): Insert a new subsection (9)(c). "(c) MSGOT may review and adjust the tool based on material changes in USFWS or other Federal agency policy." Renumber existing (c) to (d).

NEW RULE II, (7): insert "or changes in Federal policy" at the end of the sentence.

NEW RULE II, (16)(c): Replace "net conservation gain" with "compensatory mitigation."

These changes grant the MSGOT the ability to review the rule based on significant changes in federal policy instead of limiting the MSGOT's authority to change the rule only because of additions to sage grouse science.

NEW RULE II, (10)(a): Strike entire subsection (a). Renumber accordingly.

Net conservation gain should not be required under the Montana sage grouse program and should not be incentivized for the reasons set forth above.

NEW RULE II, (10)(b): Insert " , incentivize" between "conservation" and "landowner". Strike "and" after "conservation". Insert "and ensure proper balance between development and conservation" after "stewardship" so that the phrase reads: "... incentivize voluntary conservation, incentivize landowner stewardship and ensure proper balance between development and conservation;"

This change allows the program to value both conservation and development and ensures that balanced land use is a part of the sage grouse program in Montana.

NEW RULE II, (17): Insert "equal or" between "mitigation if" and "greater"

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This change reflects our assertion that net conservation gain should not be an aspect of the Montana sage grouse program. While net gain should not be discouraged, it should also not be required.

USFWS APPROVALS

When both the Governor's Executive Orders and SB 261 were drafted, it was generally assumed that the USFWS would have some approval authority over our policies, rules, etc. In our meetings over the last few months, the USFWS has made it clear that they do not have any authority to approve these plans since the sage grouse is not listed under the Endangered Species Act. The stakeholder's group has tried to craft language to give the USFWS some type of approval, but frankly, due to a lack of authority on the part of the USFWS, it is solely the State's responsibility to manage and protect the sage grouse. We are confident that the members of the MSGOT can manage the program and they should have the responsibility and accountability to do so. While we accept that the USFWS should have a role in the conservation of Sage Grouse in Montana, we believe that role should be that of a scientific advisor.

SPECIFIC RULE COMMENTS REGARDING FEDERAL AGENCY APPROVALS:

DEFINITIONS, (26) Sufficiency review: Strike "ensure that the." Insert in its place "aid in the development of a." Insert ", as appropriate," between "consistent" and "with applicable" so that phrase reads: "and is consistent, as appropriate, with applicable"

Simple syntax changes will be needed to incorporate these changes. The entirety of (26) should read: "Sufficiency review" means review of the underlying scientific methodology and data sources to aid in the development of a habitat quantification tool that is consistent, as appropriate, with applicable U.S. Fish and Wildlife Service policies."

NEW RULE I, (2): Strike "and the U.S. Fish and Wildlife Service completes it's sufficiently review" in the first sentence. Add "solely for the purpose of compensatory mitigation" to the last sentence. Add another sentence; "The interim process or tool shall not be used for evaluating applications for funding from the sage grouse stewardship special revenue account consistent with the statutory requirements of the Greater Sage Grouse Stewardship act expressed in 76-22-101, MCA, et seq. and ARM 14.6.101 and 14.6.102."

The stricken language is redundant and unnecessary. The additional language clarifies that the interim quantification tool is only used to determine compensatory mitigation, not to supplant the entire process. We are concerned about the interim tool resulting in some complacency and making designation of a final product languish.

NEW RULE I, (5)(g): strike everything after "policy". Insert ",as appropriate," between "consistent" and "with" so that the phrase reads: "is consistent, as appropriate, with applicable"

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This part would then read: "is consistent, as appropriate, with applicable US Fish and Wildlife Service policy." We believe it is unnecessary to peg our policy to one document that may be revised or rescinded at any time.

NEW RULE I, 6(J): Strike "quantify" and insert "establish."

Clarification only.

NEW RULE I, (8): Strike "designated" in the first sentence. Insert "newly proposed or revised" in place of "designated".

We believe the MSGOT has the authority to designate the tool and will do so after public comment and USFWS comments.

NEW RULE I, (8): Strike everything after the first sentence.

This change still requires and provides for the USFWS to perform a sufficiency review on the designated HQT and policy documents. However, under our suggestion, if the USFWS determines that the HQT or policy is not sufficient, then the responsibility for reviewing the USFWS findings and making any changes resides solely with the MSGOT. Furthermore, the proposed requirement for federal approval would put project proponents at risk while subsequent reviews were conducted at the Federal level.

NEW RULE I, (9)(a): Replace "approval" with "designation."

This is a simple change in the interest of consistency. The MSGOT is designating a Tool. It is not approving the Tool.

NEW RULE I, (9)(b): Replace "the sufficiency review by the U.S. Fish and Wildlife Service" with "designation."

This change reflects our assertion that the MSGOT should be the only entity with the authority to designate a Tool. Any sufficiency review conducted by the USFWS should be advisory in nature and the USFWS should not have any authority over a species managed solely by the State of Montana.

NEW RULE I, (10): Strike "and sufficiency-reviewed." Strike "to provide a sufficiency review for." Insert "consideration of public and" after "time required for." Insert "comment on" before "any material changes to the"

This part should then read: "If MSGOT makes material changes to the Tool, those changes will be submitted to the U.S. Fish and Wildlife Service for sufficiency review. MSGOT will continue to apply a designated Tool during the period of time required for consideration of public and U.S. Fish and Wildlife Service comment on any material changes to the Tool's methodology and underlying data sources."

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These changes reflect our assertion that the MSGOT should be the only entity with the authority to designate a Tool. We recognize that this should only happen after the public has had an opportunity to provide public comment and the USFWS has an opportunity to provide scientific consultation.

NEW RULE II, (7): Strike “the U.S. Fish and Wildlife Services initial sufficiency review of the Tool.” Insert in its place “initial Tool designation.”

This change reflects our assertion that the sole authority over Sage Grouse in Montana is the MSGOT.

MSGOT/PROGRAM AUTHORITY

76-22-104 MCA grants all authority to develop rules, procedures, processes, etc. to the MSGOT. Throughout MAR Notice 14-4 authority is granted to the MSGOT **and the Program** (emphasis added) which would appear to give “the Program” some level of authority not contemplated by the Legislature or allowed by law. For example, New Rule II (6) says: “MSGOT and the Program will review. . . .” This language is used throughout the rule and should be removed.

SPECIFIC RULE COMMENTS REGARDING MSGOT AUTHORITY

Excluding NEW RULE II (4), wherever the phrase “MSGOT and the Program” appears in the proposed rule, “and the Program” should be deleted.

NEW RULE I, (7): Strike “amending this rule to incorporate it by reference” and replace it with “may make material changes to the Tool as a result of the peer review.”

This change ensures that MSGOT has the power to accept or reject any peer review of the program and ensures that any material change is submitted to public consideration and comment.

ADDITIONAL COMMENTS FOR CLARIFICATION

We believe the following suggested changes provide simple clarification to the proposed rule and do not significantly impact its meaning.

Baseline: The starting point for calculating the difference between ~~baseline~~ existing conditions and post-project habitat function and functional acres. Baseline does not necessarily mean pre-project condition

Durability: ~~the ability of the means~~ mitigation measures to remain ~~will be~~ effective at least as long as the impacts those measures are designed to offset using legal and financial assurances to ensure the mitigation offsets will be in place for the entire duration of the impact.

Considerations include the ecological, administrative, and financial assurances that secure the biological benefits of a compensatory mitigation project, and that protect the conservation status of a compensatory mitigation site.

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Effectiveness: ~~means the~~ ability of the proposed compensatory mitigation plan to demonstrate timeliness, and ecological durability, typically, and is accompanied accomplished using by a durable site protections and financial assurances that secure and protect the conservation status of the mitigation site and credits for at least as long as associated impacts persist.

Service area: means the geographic area within which impacts to a species' habitat can be offset at a particular habitat offset site as designated; ~~the geographic area within which habitat credit trading occurs if a habitat exchange is operational in Montana.~~

NEW RULE II

(25)

(a) MSGOT may consider and approve compensatory mitigation plans in a different core area, general habitat area, or connectivity area as than the impact, on a case-by-case basis when suitable compensatory mitigation sites cannot be secured within the same core area as the impact within Montana; and

(b) when a greater conservation benefit to the species or population can be provided by compensatory mitigation outside of the impacted core area, general habitat area, or connectivity area.

(26)

(b) when a greater conservation benefit to the species or population can be provided by compensatory mitigation outside of the impacted service area.

Thank you for the opportunity to comment.

Sincerely,

BROWNING, KALECZYC, BERRY & HOVEN, P.C.

By



David A. Galt, Consultant

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ADDENDUM TO SGIC COMMENT LETTER DATED JANUARY 20, 2017

14.6.101 DEFINITIONS Unless the context clearly requires otherwise, to aid in the implementation of the Montana Greater Sage-Grouse Stewardship Act and as used in these rules:

(1) "Additionality" means conservation benefits of a compensatory mitigation measure that improve upon the baseline conditions of the impacted resources and their values, services, and functions in a manner that is demonstrably new, or avoids losses, and would not have occurred without the compensatory mitigation measure.

(1) remains the same but is renumbered (2).

(3) "Baseline" means the starting point for calculating the difference between existing conditions baseline and post-project habitat function and functional acres. Baseline does not necessarily mean pre-project condition.

(4) "Compensatory Mitigation" means the preservation, enhancement, restoration and/or establishment of a resource to compensate for, or offset, unavoidable adverse impacts to the resource.

(2) remains the same but is renumbered (5).

(6) "Direct impacts" means impacts caused by an action that occur at the same time and place which affect and diminish the ability for sage grouse to shelter, feed, or breed.

(7) "Durability" the ability of the means-mitigation measures to remain will be effective at least as long as the impacts those measures are designed to offset, using legal and financial assurances to ensure the mitigation offsets will be in place for the entire duration of the impact. Considerations include the ecological, administrative, and financial assurances that secure the biological benefits of a compensatory mitigation project; and that protect the conservation status of a compensatory mitigation site.

(8) "Effectiveness" means the ability of the proposed compensatory mitigation plan to demonstrates timeliness and, ecological durability, typically, and is accompanied accomplished by using by a durable site protections and financial assurances that secure and protect the conservation status of the mitigation site and credits for at least as long as associated impacts persist.

(9) "Enhancement" means manipulation of existing habitat to heighten, intensify, or improve a specific resource function that results in a gain of selected resource functions.

(10) "Indirect impacts" means impacts caused by or the result of an action, which occur later in time or farther removed in distance from the action, but are still reasonably foreseeable, and which affect and diminish the ability for sage grouse to shelter, feed, or breed.

(11) "In-kind" means a resource of a similar structural and functional type as the impacted resource. When used in reference to a species, in-kind means the same species.

(3) remains the same but is renumbered (12).

(13) "Landscape" means the geographic extent that encompasses an interacting mosaic of ecosystems and human systems that is characterized by a set of common management concerns.

(14) "Lek" means an activity area where sage grouse congregate to breed.

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(15) "Material change" means a change that is substantive and likely affects the outcomes of the crediting or debiting project.

(16) "Mitigation sequence" means taking steps to:

(a) avoid impacts by not taking a certain action or parts of an action;

(b) minimize impacts by limiting the degree or magnitude of the action and its implementation;

(c) rectify impact by repairing, rehabilitating, or restoring the affected environment;

(d) reduce or eliminate impact over time by preservation and maintenance operations during the life of the action; and

(e) compensate for impact by replacing or providing substitute resources or environments.

(4) remains the same but is renumbered (17).

(18) "Net conservation gain" means the actual benefit or gain above baseline conditions, when the baseline is re-measured at a later time, after deductions for impacts, in habitat function ~~or value~~ to species covered by a mitigation program.

(5) remains the same but is renumbered (19).

(20) "Out-of-kind" means a resource of different structural and functional type to the impacted resource, which still addresses impacts to the same species.

(21) "Performance standards" means observable or measureable administrative or ecological attributes, whether physical, chemical, or biological, that are used to determine if a compensatory mitigation project meets the agreed upon objectives.

(22) "Preservation" means maintenance or retention of existing habitat with specific resource functions for sage grouse through legal protection of existing and functioning habitat through a deed restriction or conservation easement that is permanent or in place for a long period of time.

(23) "Program" means the Montana Sage Grouse Habitat Conservation Program.

(24) "Restoration" means returning a site to its natural and/or historic habitat type and condition with the same or similar ecological functions after the original natural and/or historic site has been degraded, damaged, or lost.

(25) "Service area" means the geographic area within which impacts to a species' habitat can be offset at a particular habitat offset site as designated; ~~the geographic area within which habitat credit trading occurs if a habitat exchange is operational in Montana.~~

(26) "Sufficiency review" means review of the underlying scientific methodology and data sources to ~~ensure aid in the development of~~ ~~that the~~ habitat quantification tool ~~that is~~ ultimately based on reliable and repeatable quantitative science-based methods and is consistent, ~~as appropriate,~~ with applicable U.S. Fish and Wildlife Service policies.

(27) "Tool" means Habitat Quantification Tool.

(28) "Verification" means a standardized process for monitoring and reporting to ensure that mitigation program rules have been followed.

AUTH: 76-22-104, MCA

IMP: 76-22-105, 76-22-109, 76-22-110, 76-22-112, 76-22-118, MCA

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REASONABLE NECCESITY: Compliance with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) required MSGOT to adopt additional rules regarding compensatory mitigation. Additional definitions are needed to clarify terms in these additional rules.

[14.6.102 GRANTS](#) (1) through (8) remain the same.

(9) MSGOT will give greater priority to applications for conservation activities eligible for funding under [76-22-110](#), MCA, which would be implemented in core areas. MSGOT may still consider funding conservation activities in general habitat and connectivity areas where high resource values for sage grouse exist and credits could be generated consistent with [76-22-109](#), MCA.

AUTH: [76-22-104](#), MCA

IMP: [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-112](#), [76-22-118](#), MCA

REASONABLE NECCESITY: Compliance with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) required MSGOT to adopt rules to "administer . . . the eligibility and evaluation criteria for grants distributed pursuant to [76-22-110](#) MCA." This amendment also provides flexibility for MSGOT by allowing MSGOT to consider funding projects in areas outside of core if high resource values for sage grouse can be protected.

4. The rules proposed to be adopted provide as follows:

NEW RULE I HABITAT QUANTIFICATION TOOL (1) MSGOT will designate a habitat quantification tool (Tool) to assess the quality and quantity of sage grouse habitat and to calculate the value of credits and debits by June 1, 2017. After designating a Tool, MSGOT will amend this rule to incorporate it by reference.

(2) Prior to the time MSGOT designates a Tool ~~and the U.S. Fish and Wildlife Service completes its sufficiency review~~, MSGOT may adopt and apply an interim process for calculating the value of credits and debits consistent with the provisions of this rule to assess the quality and quantity of sage grouse habitat, and to calculate the value of credits and debits solely for the purpose of compensatory mitigation. The interim process or tool shall not be used for evaluating applications for funding from the sage grouse stewardship special revenue account consistent with the statutory requirements of the Greater Sage Grouse Stewardship act expressed in [76-22-101](#), MCA, et seq. and [ARM 14.6.101](#) and [14.6.102](#).

~~(3) MSGOT will apply the interim process or the Tool MSGOT designates in the following circumstances:~~

~~(a) when evaluating applications for funding from the Sage Grouse Stewardship special revenue account consistent with the statutory requirements of the Greater Sage~~

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~~Grouse Stewardship Act expressed in 76-22-101, MCA et seq. and ARM 14.6.101 and 14.6.102; and~~

~~(b) when calculating credits or debits for sage grouse compensatory mitigation.~~

(4) Any other entities engaged in sage grouse compensatory mitigation in Montana, including a U.S. Fish and Wildlife Service-approved habitat exchange that receives credits transferred by MSGOT, or funding from the Sage Grouse Stewardship special revenue account, must apply the Tool or interim process designated by MSGOT.

(5) MSGOT will designate a Tool that:

(a) is based on the best available science;

(b) takes a landscape-scale approach, incorporating at least two spatial scales relevant to sage grouse ecology, and considers any of the threats identified by the U.S. Fish and Wildlife Service;

(c) incorporates environmental data gathered and analyzed at an appropriate, meaningful scale and resolution, such as a combination of remote sensing data and on-site visits;

(d) incorporates a clearly defined unit of measurement for habitat assessment that includes both habitat quantity and quality;

(e) uses the same methods to calculate both credits and debits;

(f) provides a reliable and repeatable quantitative method; and

(g) is consistent, as appropriate, with applicable U.S. Fish and Wildlife Service policy.

~~and the Greater Sage Grouse Range-Wide Mitigation Framework (2014).~~

(6) Data included in the Tool may consist of, but is not limited to:

(a) habitat classification as core area, general habitat, or connectivity area;

(b) anthropogenic disturbance including cultivation, wildfire, and other threats identified by the U.S. Fish and Wildlife Service;

(c) land use conditions;

(d) sage grouse occupancy, lek locations, lek densities, trends in the number of males on leks;

(e) habitat and vegetation characteristics;

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- (f) non-native or invasive species;
- (g) sage grouse seasonal habitats;
- (h) proposed disturbance type and spatial influence of the disturbance; and
- (i) landscape setting and landscape attribute information; or
- (j) any other factors necessary to quantify establish habitat quality and quantity for a given area of impact or area of conservation.

(7) MSGOT ~~and the Sage Grouse Habitat Conservation Program~~ will solicit and consider independent peer reviews of the Tool it is considering for designation prior to designating a Tool and may make material changes to the Tool as a result of the peer review ~~amending this rule to incorporate it by reference~~. MSGOT ~~and the Program~~ may make non-material revisions to the Tool without soliciting independent peer reviews, such as updating a remote sensing GIS data layer to the most recent available, or to correct typographical or technical errors.

(8) MSGOT ~~and the Program~~ must submit a designated newly proposed or revised Tool to the U.S. Fish and Wildlife Service for sufficiency review. ~~If the U.S. Fish and Wildlife Service's review determines that the Tool is not sufficient, MSGOT will designate a new version of the Tool and submit the new version for U.S. Fish and Wildlife Service sufficiency review.~~

(9) MSGOT ~~and the Program~~ will review the designated Tool's methodology and underlying data sources every five years to ensure they are consistent with the best available science.

(a) The first review will take place within five years after the date of its approval designation by MSGOT.

(b) MSGOT ~~and the Program~~ may review and adjust the designated Tool's methodology and underlying data sources sooner than five years after the sufficiency review by the U.S. Fish and Wildlife Service designation, and more frequently than once every five years if MSGOT ~~and the Program~~ believe the Tool's methodology requires revision so as to be consistent with the best available science, or MSGOT ~~and the Program~~ believe improved methodologies or new data are available for incorporation into the Tool.

(c) MSGOT may review and adjust the tool based on material changes in USFWS or other Federal agency policy.

(ed) MSGOT may only adjust the designated Tool's methodology or underlying data sources after a publicly announced MSGOT meeting and after accepting written and oral public comment.

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(10) If MSGOT makes material changes to the Tool, those changes will be submitted to the U. S. Fish and Wildlife Service for sufficiency review. MSGOT will continue to apply a designated ~~and sufficiency reviewed~~ Tool during the period of time required for consideration of public and U.S. Fish and Wildlife Service comment on ~~to provide a sufficiency review for~~ any material changes to the Tool's methodology and underlying data sources.

(11) Any material change to the Tool's methodology and underlying data sources adopted by MSGOT after public comment and sufficiency review by the U.S. Fish and Wildlife Service will be incorporated by reference through amending this rule.

(12) Once a designated Tool has been applied to calculate the credits of a proposed mitigation site, or the debits of a proposed development site; the Program has completed its review; and the Project developer obtains the necessary state or federal permits, any subsequent Tool designated by MSGOT will not apply.

(a) Once the Tool has been applied to calculate credits or debits, the number of calculated credits or debits will not be changed without written approval from all affected parties, including, but not limited to:

- (i) MSGOT;
- (ii) the project developer;
- (iii) the credit provider; and
- (iv) any affected third parties.

(b) Permit amendments will be subject to the Tool applied to calculate debits at the development site at the time of the original permit.

(13) The Tool that MSGOT designates will be made available to the public on the Sage Grouse Habitat Conservation Program's web site upon completion and approval by MSGOT and the U.S. Fish and Wildlife Service.

AUTH: 76-22-104, MCA

IMP: 76-22-105, 76-22-109, 76-22-110, 76-22-111, 76-22-112, 76-22-113, 76-22-114, 76-22-118, MCA

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REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at 76-22-101, et seq. MCA) which requires MSGOT to: "adopt rules to administer...the designation of a habitat quantification Tool, subject to the

approval of the United States fish and wildlife service." This rule partially implements the requirements of that bill.

NEW RULE II MITIGATION (1) Implementation of the mitigation sequence is required for all activities subject to agency review, approval, or authorization for which direct, indirect, temporary, or permanent adverse impacts to sage grouse would remain following application of the mitigation sequence, including temporal impacts that are later rectified through reclamation and restoration activities. Mitigation will may be required even if the remaining adverse impacts to sage grouse are indirect or temporary.

(a) Compensatory mitigation is not required if a project developer successfully implements the required part or combination of parts of the mitigation sequence provided for in (16)(a) through (d) of the mitigation sequence defined in 14.6.101.

(2) The mitigation sequence is applicable to development in sage grouse habitats designated as core areas and is also applicable in habitats designated as general habitat and connectivity areas under less rigorous standards.

(3) MSGOT will designate a compensatory mitigation guidance and procedures document to implement the Tool MSGOT designates and other aspects of compensatory mitigation by June 1, 2017. After designating a compensatory mitigation guidance and procedures document, MSGOT will amend this rule to incorporate it by reference.

(4) Prior to the time MSGOT designates a Tool ~~and U.S. Fish and Wildlife Service completes its sufficiency review~~, MSGOT may designate and apply an interim compensatory mitigation guidance and procedures document to implement an interim process and other aspects of compensatory mitigation for up to one year from the effective date of this rule. The compensatory mitigation guidance and procedures document will direct how MSGOT and the Program or another party approved by MSGOT, administer one or more of the following:

- (a) a conservation bank;
- (b) participation in a habitat credit exchange;
- (c) making a financial contribution to the sage grouse stewardship account if sufficient credits are not available; or
- (d) funding stand-alone mitigation actions to offset impacts to sage grouse habitat.

(5) The compensatory mitigation guidance and procedures document that MSGOT designates will be made available to the public on the Program's web site upon completion and approval by MSGOT.

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(6) MSGOT ~~and the Program~~ will review the compensatory mitigation guidance and procedures document every five years, concurrent with the five-year review of the Tool. The first review will take place within five years after ~~the date of the U.S. Fish and Wildlife Service approval~~ initial designation of the Tool.

(7) MSGOT ~~and the Program~~ may review and adjust the compensatory mitigation guidance and procedures document sooner than five years after initial the U.S. Fish and Wildlife Service's initial sufficiency review of the Tool designation and more frequently than once every five years if MSGOT ~~and the Program~~ believe the compensatory mitigation guidance and procedures document requires revision to be consistent with any changes in the Tool or changes in Federal policy.

(a) MSGOT may only adjust-revise ~~at~~ the designated Tool's methodology or underlying data sources after a publicly announced MSGOT meeting and accepting written and oral public I think comment.

(8) MSGOT ~~and the Program~~ may make non-material revisions to the designated compensatory mitigation guidance and procedures document such as to incorporate the most recently available GIS data layers or to correct typographical or technical errors without formal rulemaking, but may only make such changes after a publicly announced MSGOT meeting and accepting written and oral public comment.

(9) Any material change to the compensatory mitigation guidance and procedures document adopted by MSGOT after public comment will be incorporated by reference by amending this rule.

(10) Through the mitigation guidance and procedures document described in (3), MSGOT may incentivize or discourage specific practices in particular locations by adjusting the value of credits or debits generated by those practices. Some variables that may drive adjustments include, but are not limited to:

~~(a) a transparent method to adjust credits or debits to ensure net conservation gain;~~

~~(ab) incorporating ratios or multipliers that are intended to incentivize avoidance of important areas, incentivize voluntary conservation, incentivize and landowner stewardship and ensure proper balance between development and conservation;~~

~~(be) duration of habitat benefits to match or exceed the duration of habitat impacts; and~~

~~(cd) ensuring additionality.~~

(11) MSGOT ~~will~~ may authorize and approve compensatory mitigation plans that involve sage grouse habitat restoration, habitat enhancement, or habitat preservation through participation in one or more of the following:

(a) a conservation bank;

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- (b) participation in a habitat credit exchange;
- (c) making a financial contribution to the sage grouse stewardship account if sufficient credits are not available; or
- (d) funding stand-alone mitigation actions to offset impacts to sage grouse habitat.

(12) All compensatory mitigation plans involving habitat restoration, enhancement, or preservation, and approved by MSGOT, must:

- (a) meet the same standards provided in this rule;
- (b) be consistent with the ~~U.S. Fish and Wildlife Service Greater Sage Grouse Range-Wide Mitigation Framework (2014)~~ and the designated compensatory mitigation guidance and procedures document; and
- (c) apply the Tool designated by MSGOT.

(13) Project developers may not utilize research or education to provide compensatory mitigation.

(14) ~~Compensatory M~~itigation plans must be approved by MSGOT, and implementation completed, before any impacts requiring compensatory mitigation occur. MSGOT may approve post-impact mitigation if the party proposing the mitigation provides adequate assurances the mitigation will occur ~~and the credit amount compensates for the temporal impact to the species created by the delay in implementation.~~

(15) ~~Compensatory M~~itigation plans may be prepared by a project developer with potential debits, potential credits, or both.

(16) ~~M~~Compensatory mitigation plans must, at a minimum, meet the following standards:

- (a) avoid or minimize impacts to all possible extent;
- (b) demonstrate that reasonable alternatives have been considered to avoid and minimize impacts that have not been avoided or minimized;
- (c) provide ~~net conservation gain~~compensatory mitigation for the duration of any habitat impacts mitigation is intended to offset;

(d) provide additionality;

(e) mitigate actions in core areas, connectivity areas, general habitat or ~~priority locations~~ identified by the Montana Sage-Grouse Oversight Team; ~~and~~

~~(f) create a significant number of credits relative to the cost of the project.~~

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(17) Compensatory mitigation plans must provide for in-kind replacement of habitat quality and quantity. MSGOT may, on a case-by-case basis, approve out-of-kind mitigation if equal or greater benefits to sage grouse are clearly demonstrated.

(18) Compensatory mitigation plans submitted for debit projects must incorporate at a minimum:

- (a) a participant agreement between the credit provider and the credit purchaser;
- (b) the location and duration of impacts to sage grouse habitat;
- (c) the location of the mitigation site;
- (d) estimated debits (baseline condition and anticipated impacts);
- (e) the location of the mitigation site offsetting the impacts;
- (f) baseline condition;
- (g) monitoring protocols;
- (h) performance standards;
- (i) mechanisms to address credit impairment or project failure through financial assurances; and
- (j) a description of the service area.

(19) ~~Compensatory mitigation~~P-plans submitted for credit projects must incorporate at a minimum:

- (a) the location, duration, and type of conservation activities used for mitigation;
- (b) estimated credits, baseline condition, and desired future conditions;
- (c) management and long-term stewardship activities and costs;
- (d) performance measures, monitoring protocols, and credit verification procedures to track progress toward anticipated conservation benefits;
- (e) reporting requirements;
- (f) assurances and contingency plans for maintaining habitat quantity and value for the duration of the project;
- (g) mechanisms for adaptive management;
- (h) a site protection instrument; and

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(i) a description of the service area.

(20) All projects used for compensatory mitigation must submit an annual monitoring report to MSGOT ~~and the Program~~ describing credits generated, credits transferred, management activities taken, and project performance consistent with the compensatory mitigation guidance and procedures document.

(21) Site protection instruments executed in compensatory mitigation plans approved by MSGOT must:

(a) designate the Program, or any other party approved by MSGOT, as a third-party beneficiary with rights of entry for monitoring, credit verification, and enforcement;

(b) permit the Program, or any other party approved by MSGOT, to calculate and verify credits on the site; and

(c) prohibit incompatible uses that would jeopardize the conservation objectives of the mitigation site.

(22) Compensatory mitigation plans approved by MSGOT must include financial assurances guaranteeing:

(a) the availability of funds for the inspection, monitoring, verification, and completion of all mitigation activities; and

(b) methods to account for mitigation project failure and credit impairment, including program-level assurances against project failure, such as a credit reserve account.

(23) Financial assurances of credit development projects may be provided through a number of methods, including but not limited to establishment of an endowment fund, insurance, or a bond.

(24) MSGOT will designate service areas that reflect the need for genetic connectivity between designated core areas, general habitat areas, and connectivity in the state of Montana.

(25) MSGOT will require compensatory mitigation to occur in the same core area, general habitat area, or connectivity area as the impacts in Montana.

(a) MSGOT may consider and approve compensatory mitigation plans in a different core area, general habitat area, or connectivity area as the impact, on a case-by-case basis when suitable compensatory mitigation sites cannot be secured within the same core area as the impact within Montana; and

(b) when a greater conservation benefit to the species or population can be provided by compensatory mitigation outside of the impacted core area, general habitat area, or connectivity area.

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(26) MSGOT may consider and approve compensatory mitigation plans in a different service area as the impact:

(a) on a case-by-case basis when suitable compensatory mitigation sites cannot be secured within the same service area as the impact within Montana; and

(b) when a greater conservation benefit to the species or population can be provided by compensatory mitigation outside of the impacted service area.

AUTH: 76-22-104, MCA

IMP: 76-22-105, 76-22-109, 76-22-110, 76-22-111, 76-22-112, 76-22-113, 76-22-114, 76-22-118, MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at 76-22-101, et seq. MCA) which requires MSGOT to: "adopt rules to administer...methods of compensatory mitigation available...". This rule partially implements the requirements of that bill.

NEW RULE III METHOD TO TRACK AND MAINTAIN THE NUMBER OF CREDITS AND DEBITS AVAILABLE AND USED (1) MSGOT will assign a unique identifier for each credit created through funds disbursed from the Sage Grouse Stewardship special revenue account.

(2) MSGOT will assign a unique identifier for each credit created through conservation activities funded or implemented independently from the Sage Grouse Stewardship special revenue account.

(3) MSGOT will assign a unique identifier for each debit created by a project developer.

(4) MSGOT will establish a database and tracking system that contains, but is not limited to:

(a) the number of credits generated by conservation activities funded, at least in part, by funds disbursed from the Sage Grouse Stewardship special revenue account;

(b) the number of credits generated by conservation activities not funded through the Sage Grouse Stewardship special revenue account and used as compensatory mitigation by project developers;

(c) the number of debits created by unavoidable impacts to habitat due to the activities of a project developer;

(d) the location of all credits generated and debits generated; and

(e) credit transactions between parties.

(5) The information within the tracking system will be available to the public on the Program's web site.

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AUTH: [76-22-104](#), MCA

IMP: [76-22-104](#), [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-111](#), [76-22-112](#), [76-22-118](#), MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) which requires MSGOT to: (1) "adopt rules to administer...a method to track and maintain the number of credits attributable to projects funded . . . that are available to a project developer to purchase for compensatory mitigation to offset debits under [67-22-111](#);" (2) "adopt rules to administer . . . review and monitoring or projects funded pursuant to [Part 1]; (3) "review compensatory mitigation plans proposed under [76-22-111](#). If the plan includes a financial contribution to the sage grouse stewardship account established in [76-22-109](#), the oversight team will, using the habitat quantification tool, determine how to secure enough credits with the financial contribution to offset the debits of a project." This rule partially implements the requirements of that bill.

NEW RULE IV METHOD TO ADMINISTER THE REVIEW AND MONITORING OF MSGOT FUNDED PROJECTS (1) MSGOT ~~and the Program~~ will establish a database and tracking system to review and monitor projects funded by MSGOT using the Sage Grouse Stewardship special revenue account.

(2) The database and tracking system will contain information including, but not limited to:

- (a) the name of the Stewardship Fund grant recipient(s);
- (b) the amount awarded;
- (c) the date the state funds were transferred to the grant recipient(s) if a one-time lump sum grant, or
- (d) the dates state funds were transferred to the grant recipient(s) if the award was a reimbursable grant;
- (e) a description of characteristics of the project including, but not limited to:
 - (i) type of project;
 - (ii) number of acres; and
 - (iii) land ownership;
- (f) the duration of the project;
- (g) any expected conservation benefits of the project;
- (h) the geospatial location where the project was implemented;
- (i) the number of credits generated, and their characteristics;
- (j) the unique identifier assigned to each of the those credits;
- (k) transactions of credits created;
- (l) progress and final reports submitted by the grant recipient(s);
- (m) annual monitoring reports in the case of conservation easements or leases;
- (n) sage grouse leks on and in the vicinity of the project area and trend data on the number of breeding males on those leks; and
- (o) the grant agreement number assigned by the Program.

AUTH: [76-22-104](#), MCA

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IMP: [76-22-104](#), [76-22-105](#), [76-22-109](#), MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) which requires MSGOT to: (1) "adopt rules to administer...the review and monitoring of projects funded." This rule partially implements the requirements of that bill.

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Montana Fish, Wildlife & Parks

P.O. Box 200701
Helena, MT 59620-0701
(406) 444-3186
FAX: (406) 444-4952
Ref: DO020-17

January 23, 2017

Carolyn Sime, Montana Sage-grouse Habitat Conservation Program Manager
Montana Sage Grouse Oversight Team
c/o Department of Natural Resources and Conservation
P.O. Box 201601
Helena, MT 59620-1601

Dear Ms. Sime,

This letter is regarding the proposed adoption of rules pertaining to the Sage-grouse Stewardship Act, MAR Notice No.14-4. Montana Fish, Wildlife and Parks is supportive of the proposed rules for administering a habitat quantification tool and compensatory mitigation methods.

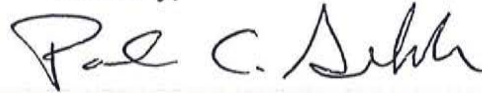
These rules ensure that Montana's mitigation policy aligns with U.S. Fish and Wildlife Service mitigation policy on two important principles. The first is the observance of an appropriate mitigation sequence that requires compensatory mitigation for all remaining adverse impacts after applying avoidance and minimization measures. Following this mitigation sequence is critical for meeting the second principle, a mitigation goal to improve (i.e., net gain) or, at a minimum, maintain (i.e., no net loss) the current status of affected resources. Adherence to U.S. Fish and Wildlife Service policy will help to prevent a listing of the species as threatened or endangered under the Endangered Species Act, and thereby ensure that management of sage-grouse remains with the state of Montana.

After these proposed rules were published, the U.S. Fish and Wildlife Service published Director's Order #218, *Policy Regarding Voluntary Pre-listing Conservation Actions*. This policy provides a definition of "net conservation benefit". As this concept is central to Montana's mitigation framework, the Program might consider revising the proposed definition of "net conservation gain" to more closely align with the Fish and Wildlife Service definition.

We look forward to continuing to work with the Montana Sage-grouse Habitat Conservation Program on the development of a mitigation program and habitat quantification tool for the state of Montana.

Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in black ink, reading "Paul C. Sihler". The signature is written in a cursive style with a large, stylized "P" and "S".

Paul Sihler
Acting Director

Dyrck Van Hying
6835 43 St. S.W.
Great Falls, MT 59404
406-453-6039 dvanhyning1@msn.com
January 2, 2017

Carolyn Sime
Sage Grouse Habitat Conservation Program Manager
Montana Sage Grouse Oversight Team,
c/o Department of Natural Resources and Conservation
P.O. Box 20160
Helena, MT 59620-1601

SUBJ: Proposed Rules - Habitat Quantification Tool

Dear MTSGOT:

I have read the Draft Montana Greater Sage Grouse Habitat Quantification Tool Description of HQT Metric for Review by the Montana Sage Grouse Mitigation Stakeholder Group prepared by Jon Kehmeier, Nate Wojcik, Mac Fuller, Ann Widmer of SWCA Environmental Consultants, Broomfield, Colorado. And I have also read the proposed rules all parts 1 through 13.

I. Draft Montana Greater Sage Grouse Habitat Quantification Tool

A. Draft Montana Greater Sage Grouse Habitat Quantification Tool - I agree with the premisses that a Habitat Quantification Tool (HQT) is needed to facilitate quantification and tracking of mitigation debits and credits. I also understand first and second tier assessment. The draft states, *the State has already completed the first and second tier assessment of habitat in Montana. The first tier (broad-scale) consists of the currently defined occupied habitat in Montana. The second tier (mid-scale) consists of the identification of general habitat, core habitat, and connectivity habitat areas.*

The third tier is consistent with third order (fine-scale) assessments described in multiple other habitat assessment frameworks and also incorporates elements of the fourth order (site-scale) assessment area.

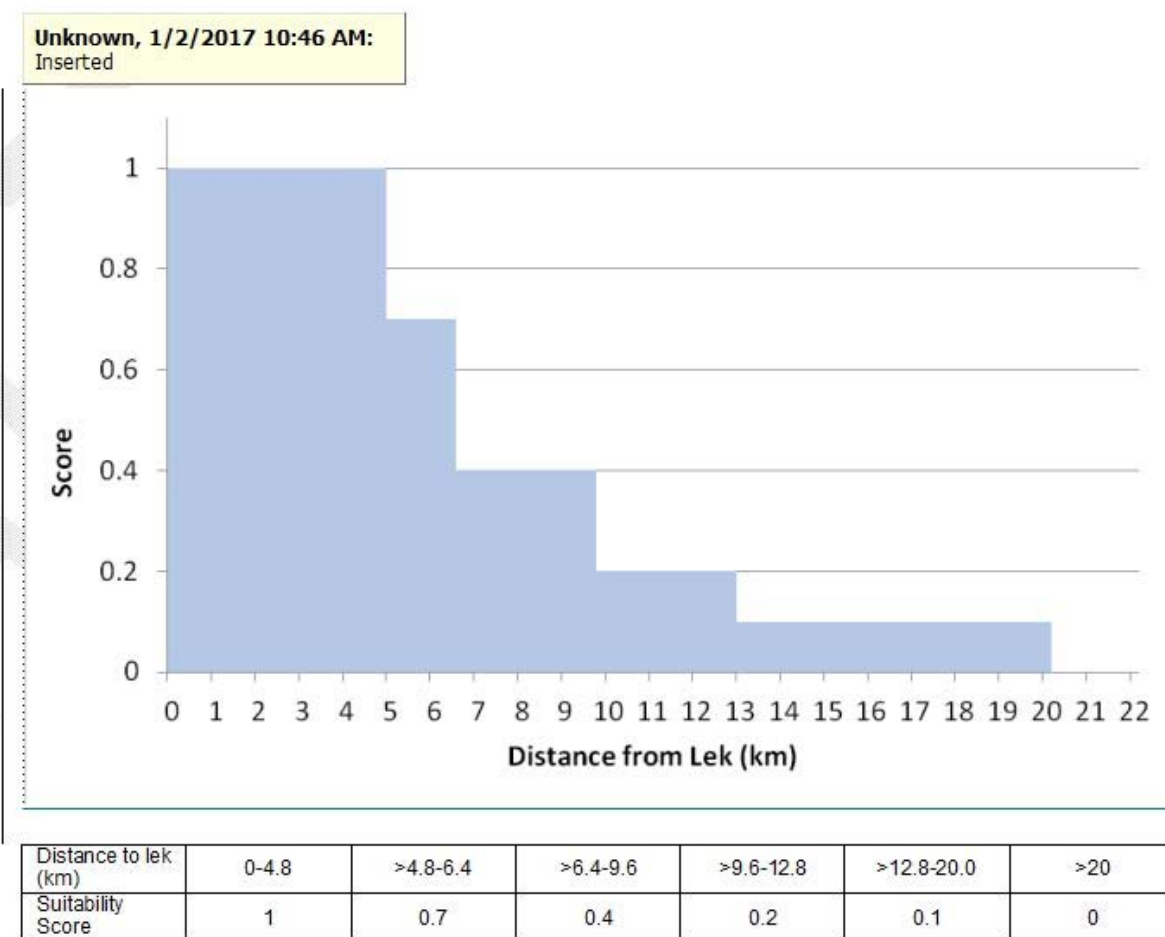
B. Third and Fourth Order: I would like to address my comments to this third and fourth order. The two separate metrics were developed to account for impacts to winter, breeding, and nesting use habitats, as well as lowland brood-rearing and summer use habitats in the model. Lowland and upland habitat areas are spatially discrete and separate geospatial models will be developed for each area. These two geospatial models will be spatially joined after being created to provide a single, continuous surface that quantifies habitat function for purposes of mitigation regardless of upland or lowland position.

1. Distance from Lek

The draft states current sage grouse habitat management guidance uses occupied leks as focal points for breeding nesting habitat management; therefore, distance to lek was used as a variable

in the habitat services metric. These guidelines recommend protecting sagebrush communities within 3.2 km (1.98839 miles) of a lek in uniformly distributed habitats and 5.0 km (3.10686 miles) in non-uniformly distributed habitats.

2. Scoring: The draft states these guidelines recommend protecting sagebrush communities (Areas frequently used for nesting and breeding activities) within 3.2 km (1.98839 miles) of a lek in uniformly distributed habitats and 5.0 km (3.1 miles) in non-uniformly distributed habitats. This scoring would make sense to me.



3. Quantifies Habitat Function: As the draft states in B above, the two separate metrics were developed in response to a request made by the stakeholder group to account for impacts to winter, breeding, and nesting use habitats, as well as lowland brood-rearing and summer use habitats in the model. Lowland and upland habitat areas are spatially discrete and separate geospatial models will be developed for each area. These two geospatial models will be spatially joined after being created to provide a single, continuous surface that quantifies habitat function for purposes of mitigation regardless of upland or lowland position.

a. As referenced researcher **Doherty et al. (2010a)** states:

http://www.uwyo.edu/esm/faculty-and-staff/beck/_files/docs/publications/doherty-et-al-2011-rem.pdf

We used 119 greater sage-grouse nests located. We compared ESD metrics to these predictive local and landscape habitat variables where NRCS ESD field surveys. US Department of Agriculture–Natural Resource Conservation Service (USDA–NRCS) ecological site descriptions (ESDs). **Our study does not support the use of ESDs to predict habitat use or base sage-grouse management decisions** in the Powder River Basin, but in some instances the refutation was weak. Local and landscape based habitat metrics showed high discrimination between null models with highly significant relationships on the subset data.

The US Department of Agriculture–Natural Resources Conservation Service (USDA–NRCS) has developed a land classification, management, and monitoring system focused on ecological sites. “An ecological site, as defined for rangeland, is a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation The USDA–NRCS ecological site system is nested within a hierarchical classification of broad-scale land resource regions (LRRs), major land resource areas (MLRAs),

and fine-scale ecological sites (USDA–NRCS 2006a). LRRs are largely based on agronomic production capabilities tied to regional soils maps.

b. Based on this study the draft uses as its guidelines for recommending protection of sagebrush communities, the proposed NRCS ecological site descriptions should not be used.

3. Sagebrush Cover: The draft states based on available literature, sagebrush covering 50% to 100% of a 1 km window was characterized as having high habitat function and was assigned a score of 1 for this variable (Aldridge et al. 2008; Wisdom et al. 2011; professional judgment). Sagebrush covering 30% to 50% of the window was determined to still have moderate function and was assigned a score of 0.5 (Aldridge et al. 2008). Sagebrush covering 10% to 30% had potential for low to moderate function and was assigned a score of 0.3. The HQT draft at 3.1.1.2 Sagebrush Cover (Connolly et al. (2000) cites 13 references to sagebrush coverage that range from 15% to 38% mean canopy cover surrounding the nest. Citations contained within (Crawford et al. 2004) reported 12% to 20% cover and 41% cover in nesting habitat.

A. Unrealistic Based on Site Analysis:

In Montana, Greater Sage Grouse Habitat- Sagebrush cover Trend (100 meter intercept) in South Valley County core area and Chouteau/Blaine general area, the sagebrush runs between 4.2% (in Valley County) and 18.7% (Chouteau County). The HiLine BLM desired conditions for Greater Sage-Grouse habitat is >5% in Saline and/or Sodic Soils, >2% Silver Sagebrush and 15-25% in Wyoming Big Sagebrush on all other soils/sites.

Sagebrush Canopy Cover (%)									
Sagebrush canopy cover	<2%	2-<5%	5- <10%	10-<15%	15-<30%	30-<50%	50-<60%	60-<75%	>75%
Suitability Score	0	0.1	0.5	0.7	1	0.8	0.5	0.2	0.1

B. Therefore most of Montana would receive a range 0.1 to 0.5 Suitability Score. This range is too low

to evaluate a major component of sage grouse habitat.

4. Sagebrush Height

Sagebrush canopy height is an important aspect of all sage grouse seasonal habitats. (Gregg et al.1994, cited in Crawford et al. 2004) found that the area surrounding successful nests in Oregon consisted of medium-height (40 to 80 centimeters [cm]) sagebrush. The draft list the following chart for modeling.

Sagebrush height (cm)	<10	10-<20	20-<30	30-<40	40-<80	80-<100	>100
Suitability Score	0	0.2	0.5	0.8	1	0.6	0.2

A. Unrealistic Height Based on Site Analysis

In Montana, Greater Sage Grouse Habitat- Sagebrush cover Trend (100 meter intercept) in South Valley County core area and Chouteau/Blaine general area, the sagebrush height is between 25.4cm (in Valley County) and 43 cm (Chouteau County). The Hilina BLM desired conditions for Greater Sage-Grouse habitat is >15.24 cm in Sailine and/or Sodic Soils, >30.48 cm Silver Sagebrush and 30.48 cm in Wyoming Big Sagebrush on all other soils/sites.

B. Therefore most of Montana would receive a score of range 0.2 to 0.5 Suitability Score. This score range is too low to evaluate a major component of sage grouse habitat.

II. NEW RULE I HABITAT QUANTIFICATION TOOL

MSGOT will designate a habitat quantification tool to assess the quality and quantity of sage grouse habitat and to calculate the value of credits and debits by June 1, 2017. After designating a tool, MSGOT will amend this rule to incorporate it by reference.

A. Edit Qualification Tool: My comments have given value to editing each of the categories: sagebrush cover, sagebrush heights, distance from lek to a more realistic range for Montana core general and connecting habitat.

B. MSGOT Will Designate a Tool that does the following-

1. (5.b. of Proposed Rule) Takes a landscape-scale approach per (Doherty et al 2010a) landscape scale approach can be and is used in first and second tier order but not in third tier (fine-scale) and fourth tier (site-scale). Only actual on site/field study should determine cover, height and nesting values.

2. (5. C.) Incorporate data: I concur, incorporates environmental data gathered and analyzed at an appropriate, meaningful scale and resolution, such as on-site visits. The data should never include remote sensing data used to hurry up the analysis. Until that type data is proofed it should never be used. Further auditing of fourth order (site-scale) data by independent sources will not be able to evaluate remote

sensing data from actual vegetation and nest distance from the lek that existed at the time of the analysis.

3. Peer Review: Proposed Rule (7) MSGOT and the Sage Grouse Habitat Conservation Program will solicit and consider independent peer reviews of the Tool it is considering for designation prior to designating a Tool and amending this rule to incorporate it by reference. It is my comment that Montana sage grouse amend the HQT to more realistic values for Montana, not Wyoming, Colorado or Oregon habitat.

Sincerely,

Dyrck Van Hyning

Attachment: 2016 Greater Sage Grouse Habitat-Sagebrush Cover Trend (100 meter Line Intercept)



United States Department of the Interior

Fish and Wildlife Service

Ecological Services
Montana Field Office
585 Shepard Way, Suite 1
Helena, Montana 59601-6287
Phone: (406) 449-5225; Fax: (406) 449-5339



In Reply Refer To:
File: M.42 DNRC
06E11000-2017-CPA-0011

January 17, 2017

Ms. Carolyn Sime, Sage Grouse Habitat Conservation Program Manager
Montana Sage Grouse Oversight Team, c/o
Montana Department of Natural Resources and Conservation
P.O. Box 201601
Helena, MT 59620-1601

Dear Ms. Sime:

This letter responds to the Montana Sage Grouse Oversight Team's (MSGOT) solicitation for public comment on proposed State administrative rules relating to greater sage-grouse (sage grouse) mitigation and development of a tool to quantify sage grouse habitat quality. The U.S. Fish and Wildlife Service (Service) is supportive of the proposed rules, and we appreciate the substantive efforts of MSGOT and the Sage Grouse Habitat Conservation Program (Program) in drafting rules that encapsulate important aspects and tenants of sage-grouse habitat quantification and mitigation. We also support the extent to which the proposed rules incorporate State-requested general guidance regarding sage grouse mitigation program governance that we provided to the Program in an August 2016 letter, and understand that additional State mitigation guidance and detail will be forthcoming in the MSGOT compensatory mitigation guidance and procedures document.

Chief among the important mitigation tenants included in the proposed rules is the overarching approach of first avoiding, then minimizing unavoidable impacts to the extent possible, and finally offsetting remaining residual impacts that cannot be avoided. This mitigation sequencing approach is consistent with State of Montana Office of the Governor Executive Order (EO) 12-2015, the Service's assessment of the EO in our 2015 sage grouse listing decision, and current Service and other federal mitigation sequencing policy. As such, this facilitates a consistent mitigation sequencing approach across all Montana land ownerships.

The habitat quantification tool (HQT) will factor prominently in the determination of both impacts (debts) and offsets (credits), and we look forward to continued participation in the diverse stakeholder group engaged in the development of an HQT and compensatory mitigation guidance and procedures document applicable to all lands and jurisdictional authorities across Montana.

Our comments on the proposed State administrative rules are provided below, and primarily relate to suggested clarification or organization of proposed language.

Definitions, (3): States “Baseline does not necessarily mean pre-project condition”. As this sentence requires explanation, we suggest that it be replaced with reference to baseline determination guidance in the forthcoming compensatory mitigation guidance and procedures document.

Habitat Quantification Tool, (8): We suggest that the second sentence be revised as follows: “If the U.S. Fish and Wildlife Service’s review determines that the Tool is not sufficient, MSGOT will ~~designate a new version of the Tool and submit the new version for coordinate with the U.S. Fish and Wildlife Service sufficiency review~~ determine appropriate next steps.”

Habitat Quantification Tool, (13): We suggest the following revision consistent with Service authority: “...approval by MSGOT and sufficiency determination by the U.S. Fish and Wildlife Service.”

Mitigation, (1): We suggest the following revision: “Implementation of the mitigation sequence is required for all activities subject to agency review, approval, or authorization. Compensatory mitigation is required for all such activities for which direct, indirect, temporary, or permanent adverse impacts to sage grouse would remain following application of Steps a through d of the mitigation sequence, including temporal impacts that are...”

Mitigation, (6): We suggest the following revision consistent with Service authority: “...U.S. Fish and Wildlife Service ~~approval~~ sufficiency review of the Tool.”

Mitigation, (11): We suggest the following revision: “...MSGOT will authorize and approve compensatory mitigation plans meeting the standards in this rule that involve sage grouse...”

Mitigation, (15): We suggest the following revision: “...may be prepared by a potential developer ~~with~~ to offset potential debits, provide potential credits, or both.”

Mitigation, (16)(a): We suggest the following revision: “avoid ~~or~~ and minimize...”

Mitigation, (18) and (19): Compensatory mitigation plans, regardless of whether submitted to offset specific debits (section 18) or to provide surplus credits (section 19), should meet the same minimum standards and essentially include the same minimum information. We therefore recommend that sections 18 and 19 be combined to form one list that applies to all compensatory mitigation plans.

Mitigation, (19)(f): We suggest the following revision: “financial assurances...”

Thank you for the opportunity to provide these comments and for your ongoing extensive sage-grouse conservation efforts. The Service is supportive of sage grouse mitigation as an important conservation tool and is available to continue providing support for this important effort. If you require further information or have questions, please contact Jeff Berglund in this office at jeff_berglund@fws.gov or (406) 449-5225, extension 206, or at the letterhead address.

Sincerely,

A handwritten signature in blue ink that reads "Jodi L. Bush". The signature is written in a cursive, flowing style.

Jodi L. Bush
Office Supervisor

January 20, 2016

Caroline Syme, Sage Grouse Habitat Conservation Program Manager
Montana Sage Grouse Oversight Team
P.O. Box 201601
Helena, MT 59620-1601

Re: Comments on Sage Grouse Mitigation Proposed Rule, ARM 14.6.101 & ARM 14.6.102

The SageBanking Team, a group of Master's students working with the American Prairie Reserve to assess the feasibility and benefits of conservation banking in Montana, submits the following comments concerning the proposed administrative rules relating to mitigation and the development of a tool to quantify Greater Sage-grouse (GSG) habitat functionality.

We appreciate the hard work of the Montana Sage Grouse Oversight Team (MSGOT) and others to move forward with developing and implementing the Montana Sage Grouse Conservation Strategy. **The regulatory framework governing the market for offset credits and the method for quantifying habitat are two of the most important factors needed for ecological and economic success in any compensatory mitigation program.** The draft rules published earlier this month by MSGOT take many steps toward establishing an efficient and effective compensatory mitigation program in Montana, but also contain several very concerning provisions.

In general, **we applaud MSGOT's focus on public participation and transparency in the credit exchange**, both important factors in setting up an efficient and functional market. MSGOT's progress towards using service areas rather than a statewide exchange, its strict adherence to additionality, and compliance with the US Fish and Wildlife Service's policies and processes will help to ensure that the program delivers real, long-term benefits to regional GSG populations.

There are, however, the following general aspects of the proposed rules that, if enacted, have the potential to seriously compromise the program's effectiveness in delivering conservation benefits to GSG.

- (1) Several exceptions are built into the rules, allowing developers to compensate for habitat destruction by paying into a fund rather than mitigating their impact, or allowing developers to mitigate in a service area far away from their impacts. We think these exceptions should be eliminated, or at the very least, only allowed in extreme situations.
- (2) Allowing any provisions for post-impact mitigation negates the idea of 'no net loss' of habitat. In addition, the proposed rules would allow temporary mitigation to occur for temporary impacts to habitat. This ignores GSG ecology, and would be highly detrimental to the bird's long-term survival. GSG do not colonize new habitats quickly, and even after an impact is removed, it may take many years or decades before the area is inhabited again.
- (3) While the proposed rules rightly emphasize monitoring and public access to information regarding the program and its actors, it is missing any sort of credible enforcement mechanism. It may be that other rules will be published regarding this aspect, but a lack of credible enforcement is a key source of regulatory failure, and could render ineffective all of the hard work by government and private actors to conserve GSG.
- (4) A baseline assessment of statewide habitat functionality, lek counts, lek attendance, brood

size, and brood survivability must be conducted in order to monitor and enforce the requirement of a net benefit to GSG under this mitigation program. A focus solely on habitat functionality does not consider the necessary landscape scale management approach required to ensure long-term survivability of this species. A clear explanation of which specific indicator(s) that define “net benefit” must be clear and robust.

If these broad issues are addressed, we believe that MSGOT will be taking steps toward establishing a fair, open compensatory mitigation system that will benefit both GSG and the citizens of Montana. Our specific comments/inquiries are as follows:

New Rule 1: Habitat Quantification Tool

- (4)(b) “...takes a landscape-scale approach, incorporating at least two spatial scales relevant to sage grouse ecology, and considers any of the threats identified by the U.S. Fish and Wildlife Service”
 - We recommend that this statement reference specific documents by USFWS that list threats
- (6)(h) “proposed disturbance type and spatial influence of the disturbance”
 - We recommend clarifying by more explicitly saying “the spatial extent of the impact of a disturbance, according to the best available research, to ensure accurate assessment of functionality.”
- (6)(i) “landscape setting and landscape attribute information”
 - We recommend clarifying the geographic boundaries or description meant by the term “landscape”.
- (6)(j) “any other factors necessary to quantify habitat quality and quantity for a given area of impact or area of conservation.”
 - We recommend explicitly stating the process by which new research will be evaluated prior to being included in the HQT credit/debit metrics.
- (12)(a) “Once the Tool has been applied to calculate credits or debits, the number of calculated credits or debits will not be changed without written approval from all affected parties”
 - We urge the explicit requirement of site-level vegetation surveys in addition to the application of a tool when MSGOT is considering adjusting credits or debits.

New Rule 2: Mitigation

- (2) “The mitigation sequence is applicable to development in sage grouse habitats designated as core areas and is also applicable in habitats designated as general habitat and connectivity areas under less rigorous standards”.
 - In the interest of expediency and transparency, we urge the member of the committee to better define “less rigorous standards” prior to instituting the HQT.
- We sincerely appreciate section (10)(a-e): “MSGOT can alter the number of credits/debits in certain areas to (a) ensure net conservation gain, (b) incentivize avoidance of certain areas or credit generation in areas, (c) ensure duration of credits outlasts any impacts, (d) ensure additionality” as these are very important factors to a successful program
- (11)(c) Financial contributions/in lieu fees should only be allowed “when credits are unavailable and all other feasible alternatives have been considered”.
- (14) The need for “implementation completed before any impacts occur” is a crucial aspect of additionality. We recommend this statement should be clarified to read “mitigation completed before any impacts occur” in order to avoid net habitat loss while restoration plans are implemented.
- (16)(b) “demonstrate that reasonable alternatives have been considered to avoid and

minimize impacts...”

- We recommend a more thorough definition of ‘reasonable of alternatives’
- (c) “provide net conservation gain for the duration of any habitat impacts mitigation is intended to offset”
 - Allowing short term mitigation projects for short term impacts does not account for the ecological reality on the ground. When a development project ends and the land is rehabilitated, it may still take years or decades before it is recolonized by GSG. Allowing the mitigation project to end when the impact is removed does not account for this, thus we recommend using actual bird count data instead of habitat function when agreeing to short term credits. Requiring disturbance offsets for a longer period than the estimated disturbance duration would also reduce temporal uncertainty.
- (f) “create a significant number of credits relative to the cost of the project.”
 - We do not recommend the consideration of project costs when calculating required credit debits. Credit requirements should be based solely on the impacts to GSG and resulting net benefits post project.
- (17) “Compensatory mitigation plans must provide for in-kind replacement of habitat quality and quantity.”
 - “In-kind replacement” should be adjusted to account for the necessity of additionality.
- (18)(g)&(h) We agree with the importance of monitoring protocols and performance standards, however to be effective they must also include credible enforcement
- (18)(i) “mechanisms to address credit impairment or project failure through financial assurances.”
 - It is very important to have a way to maintain or improve conservation benefits in the face of credit impairment or project failure, but such a mechanism should be clearly outlined.
- (19)(d - g) The provisions for performance standards, monitoring, contingency plans, and adaptive management are all crucial to the program’s success. .
- (22)(a) “the availability of funds for the inspection, monitoring, verification, and completion of all mitigation activities”
 - We recommend amending this to specify the amount of time a credit generator is responsible for these efforts.
- (22)(b) “methods to account for mitigation project failure and credit impairment, including program-level assurances against project failure, such as a credit reserve account.”
 - It is our opinion that any contingency plan should be required to supply at least as many credits as were expected from the original project, in order to ensure no net loss of habitat.
- (24)&(25) MSGOT should try to specifically define its service areas as soon as possible
- (25)(a) “MSGOT may consider and approve compensatory mitigation plans in a different core area, general habitat area, or connectivity area as the impact, on a case-by-case basis when suitable compensatory mitigation sites cannot be secured within the same core area”
 - If this is allowed, there should be very strict rules governing when such alternatives could be used. MSGOT should also consider requiring a higher offset ratio when mitigation occurs in a different service area.
- (26)(a) Same comment as above

New Rule 3: Method to Track and Maintain the Number of Credits and Debits Available and Used

- (4) “MSGOT will establish a database and tracking system that contains...”
 - There is already a national database that provides this information (ribits), which

Montana could utilize rather than developing its own system. This could lower the costs of the program.

- (4)(e) Database and tracking system will contain “credit transactions between parties.”
 - This component is crucial to developing a functional credit market. Having up to date information on credit prices and availability sends clear signals to potential credit generators and developers, and allows them to make sound decisions. It is preferable if language could be included specifying that all credit transactions, including the number and price of credits, be included. Credit suppliers should be required to publish the current cost of their credits in the database. Conservation banks elsewhere tend to be secretive about their credit prices and past transactions, which leads to uncertainty on the part of both developers and potential credit suppliers, and leads to inefficient market outcomes.

We thank you for your diligent efforts in protecting GSG. We believe this statewide management mechanism could prove very powerful in creating the optimal balance and merging of economic wellbeing and habitat protection. Thank you for your consideration of our above comments and inquiries.

Sincerely,

Bradley Bowers, Jeff Cedarbaum, Katie Day, and DJ Macaskill

Master's Candidates
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The Montana Department of
**Natural Resources
& Conservation**

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- Home Divisions Grants and Loans Licenses and Permits Public Information Land Board Flood and Fire
- Contact DNRC

05:00 PM

Title:Sage Grouse Mitigation Proposed Rule
Program:Sage Grouse Habitat Conservation Contact:Carolyn Sime

Comment Record

Identifier:236 Time:12/27/2016 12:04 PM Attachments:0
Name:Cole, Patrick J Email:patrick.cole@mt.usda.gov Phone:

Address:414 N. Montana Ave., Apt B7, Bozeman, MT 59715

Topic:Impact assessment and credit/debit uation

Comment:Thank you very much for the opportunity to comment. The new rules are fundamentally contingent on development of credible, robust, and repeatable habitat impact and credit/debit determinations. Given the uncertainties involved in these determinations, there is considerable uncertainty of success, and risk of failure, to "ensure net conservation gain". I am sure that I will not be alone in applying focused interest in the effective development and application of a "Habitat Quantification Tool". I'm hopeful that the Mitigation rules will not result in sage-grouse habitat contraction "by design".

Close Window



January 22, 2017

Carolyn Sime
Sage Grouse Habitat Conservation Program Manager
Montana Department of Natural Resources & Conservation

Comments on Sage Grouse Mitigation Proposed Rule

Dear Carolyn Sime,

On behalf of our more than 2 million members, Environmental Defense Fund (EDF) commends the state of Montana for the guidance and vision embodied in the proposed Sage Grouse Mitigation Rule. The draft Rule would provide a well-considered framework for the state of Montana's Greater Sage Grouse program and habitat quantification tool.

The draft Rule is clearly grounded in current state and federal policies and best practice for effective compensatory mitigation, and would apply consistent standards evenly across sage grouse mitigation projects in the state of Montana. Moreover, it provides the framework for a compensatory mitigation program that supports private investments and voluntary actions by landowners that can provide needed, measurable, durable benefits for sage grouse. EDF applauds the State's overarching vision for sage grouse conservation and compensatory mitigation in Montana.

EDF has substantial experience working with private landowners, economic interests, the scientific community, state governments, the U.S. Fish and Wildlife Service (USFWS), and other public and private stakeholders on creative approaches to putting listed and candidate species and their habitats on a sustained path to recovery. That work has demonstrated the essential need for early action for species including advanced mitigation, effective landscape-scale programs that apply consistent and rigorous standards, and mitigation solutions that enfranchise landowners, including farmers, ranchers, and forest owners, as conservation participants.

In that context, EDF has been particularly engaged in recent years in the concept and development of habitat exchanges, which are considered alongside other mitigation approaches in the draft rule, and which we believe can play an important role in the compensatory mitigation program in Montana.

EDF believes that the draft Rule provides an excellent foundation on which to achieve the State of Montana's goals for sage grouse and to take full advantage of the

species uplift and recovery potential that can be afforded by compensatory mitigation activities and investments. To that end, we offer the following perspectives and suggested refinements. Our comments are informed both by our perspective on the conservation marketplace for the range of compensatory mitigation options, including habitat exchange, and by our recognition of the effective oversight and consistent standards that the state of Montana will need to provide, in partnership with federal and non-federal partners, to ensure effective mitigation and benefit to sage grouse.

- **EDF commends the draft Rule's sustained commitment to the State's previously stated principles for mitigation and sage grouse conservation.** We applaud the adherence to the mitigation hierarchy, as consistent with applicable state and federal policy and best mitigation practice, and as outlined in the rule: "Implementation of the mitigation sequence is required for all activities subject to agency review, approval, or authorization for which direct, indirect, temporary, or permanent adverse impacts to sage grouse would remain following application of the mitigation sequence, including temporal impacts that are later rectified through reclamation and restoration activities. Mitigation will be required even if the remaining adverse impacts to sage grouse are indirect or temporary."
- **EDF further commends the State for:** 1) recognizing net conservation gain as the ultimate goal of mitigation; 2) acknowledging the need for a landscape-scale approach; 3) ensuring advanced mitigation by requiring that mitigation plans must be implemented and approved by MSGOT before impacts occur, unless adequate assurances can be provided.
- **We support the market-based approach:** We commend the state for continuing to acknowledge the importance of market-based compensatory mitigation options, including habitat exchanges and conservation banks. One point of note, the draft rule states: "Compensatory mitigation plans must, at a minimum, meet the following standards ... create a significant number of credits relative to the cost of the project." It is unclear how "significance" would be determined, and whether MSGOT or another party would judge whether the costs of a mitigation plan and project are reasonable. Because this provision could give MSGOT or another entity jurisdiction over the monetary value of projects, this provision seems counter to the principle of market-based compensatory mitigation. We recommend removing this language. Under a market-based approach, projects that are more cost-effective and cost-competitive would be preferred by buyers without the need for another party to judge the cost-effectiveness of credits produced per project.
- **We support the science-based approach:** We commend the state of Montana for undertaking the development of a standard, science-based habitat quantification tool as described in the draft rule. We continue to be

encouraged by the State's recognition of the importance of evaluating habitat quality for compensatory mitigation, standardizing quantification approaches, and establishing equivalency for the comparison of impact losses and offset gains. These commitments will make it possible to assess whether net loss or benefit has been achieved in the application of compensatory mitigation.

- **EDF supports peer review and USFWS sufficiency review:** We support the provisions for peer review by scientists and other experts and for sufficiency review by the USFWS, consistent with state of Montana law. This will help to ensure the tool and the program reflect current science and meet the best standards of mitigation practice and policy for species.
- **EDF commends the process:** We applaud Carolyn Sime and the State of Montana for undertaking a transparent stakeholder process to design the rule, the program, and the habitat quantification metrics.

The need to ensure consistent expectations, accountability, and transparency across these and other programmatic approaches could not be clearer. We look forward to working with the State and stakeholders to finalize the Habitat Quantification Tool and to develop further program guidance which:

- Establishes standard protocols for application of the program, assuring transparency and certainty;
- Assures application of high and consistent standards across mitigation approaches consistent with best practice in compensatory mitigation;
- Provides for an adequate and consistent reporting process;
- Lays out a process for adaptive management of the program to ensure continuous improvement; and
- Creates a program that is appealing and usable by landowners, project developers, and other stakeholders.

Again, we commend the state of Montana for your commitment to sage grouse conservation and effective compensatory mitigation as well as productive stakeholder participation and engagement.

Sincerely,

Sara Brodnax

Sara Brodnax

Senior Manager, Rocky Mountain Habitat Markets

Environmental Defense Fund

LAND TRUST COMMENTS TO SAGE GROUSE MITIGATION PROPOSED RULE

1. **Page 1, Definition of “Additionality”**- The revised definition uses the definition¹ from the BLM Manual (2016)² released this past December. It is also consistent with the definition³ in the U.S. Fish and Wildlife Service (FWS) Greater Sage-Grouse Range-Wide Mitigation Framework (Version 1.0 2014).⁴ The reason for the change is to ensure, consistent with S.B. 261 (2015) and MSGOT policy, as well as other provisions in this rule, that easements are permissible mitigation credit projects. Under the current language, an easement might not meet the requirement that there be improvement beyond the baseline condition in a manner that is new.
2. **Page 1, Definition of “Baseline”** – Again, the revised definition⁵ is taken from the BLM Manual (2016).
3. **Page 1, Definition of “Cumulative Effects”**- A definition of “cumulative effects” is added because it is referenced in New Section II (1) to specify that mitigation is required for these impacts. This is required both under the FWS Greater Sage-Grouse Mitigation Framework⁶, and in the BLM Manual (2016), which explicitly states that mitigation is required for impacts, including cumulative effects.⁷
4. **Page 2, Definition of “Financial Assurance”** – This definition is provided to flesh out the meaning of a term that is referred to in other sections of the rule. The definition used is closely related to the Army Corps definition relating to wetlands mitigation at 33 CFR 332.3(n)(1): “The district engineer shall require sufficient financial assurances to ensure a high level of confidence that the mitigation project will be successfully completed, in accordance with applicable performance standards.”

¹ Additionality: a compensatory mitigation measure that is demonstrably new and would not have occurred without the compensatory mitigation measure. Glossary, p. 1.

² <https://www.blm.gov/policy/im-2017-021>

³ Additionality – A property of compensatory mitigation where the conservation outcomes are demonstrably above and beyond results that would have occurred if the mitigation had not taken place. Glossary, p. 21.

⁴

https://www.fws.gov/greaterSageGrouse/documents/Landowners/USFWS_GRS%20RangeWide_Mitigation_Framework20140903.pdf

⁵ Baseline: the pre-existing condition of a resource, at all relevant scales, which can be quantified by an appropriate metric(s). During environmental reviews, **the baseline is considered the affected environment that exists absent the project’s implementation, and is used to compare predictions of the effects of the proposed action** or a reasonable range of alternatives. (emphasis supplied). Glossary, p. 1.

⁶ Framework, p. 6.

⁷ See Manual, definition of “impacts” and “mitigation”, Glossary p. 3.

5. **Page 2, Definition of “Force Majeure”**- This definition is included because it is used in subsequent sections to define when a credit project developer is liable for a project failure. The BLM Manual 1.6(A)(9)(b) states on page 14 that, “the BLM will take appropriate follow-up actions, including enforcement actions, consistent with applicable law and as provided for in applicable regulations, as necessary, if the mitigation measures were not implemented as designed or if the mitigation measures have not been effective in achieving the required mitigation outcomes, based on effectiveness monitoring (see Handbook Chapter 6.3), **unless the outcome is not achieved due to a force majeure event**” (emphasis supplied). This distinction is critical because if credit project developers are liable for project failures beyond their control, it is not only unfair, but it will also be impossible to get credit project developers to sign up under the program.

6. **Page 3, Definition of “Project Failure”**- This definition is provided to add clarity to subsequent sections which provide for remedies in the case of project failure.

7. **New Rule I Section 8, page 5** – Some stakeholders have previously indicated that the sufficiency review conducted by the FWS should not be mandatory; that is, that MSGOT should not be required to reject the Tool even if the FWS sufficiency review concludes the Tool is not sufficient. We strongly support the current language of the rule. S.B. 261 section 5(2) clearly requires such review by FWS. In addition, Section 5(G) (on page 4) and Section 10 of Attachment A (on page 3) of the Governor’s Executive Order No. 12-2015, Executive Order Amending and Providing for Implementation of the Montana Sage Grouse Conservation Strategy⁸ both state, “All mitigation must be consistent with the United States Fish and Wildlife Service’s Greater Sage-Grouse Rangeland Mitigation Framework” (emphasis supplied). There is no basis for disregarding these mandates in this rule. In addition, Jodi Bush, Field Supervisor of the FWS Helena field office, in public testimony before MSGOT, stated that FWS review of the Tool would be prompt and prioritized, contradicting concerns that the FWS review would unduly delay implementation of the Tool.

8. **New Rule II, page 7**- We support the implementation of the mitigation sequence as provided in this new rule. We do not support any revisions to this sequence; for example, compliance with stipulations does not always mean that compensatory mitigation is not necessary, since impacts can still occur even if all stipulations are complied with.

9. **New Rule II Section 2, page 7**- As set forth in Comment 3, both the FWS Greater Sage-Grouse Mitigation Framework and the BLM Manual require that cumulative impacts be included in those impacts requiring compensatory mitigation.

⁸ <http://leg.mt.gov/content/Committees/Interim/2015-2016/EQC/Committee-Topics/sage-grouse-2015-gov-executive-order.pdf>

TO: All Concerned Persons

1. The Sage Grouse Habitat Conservation Program will hold three public hearings at the following dates and times to consider the proposed amendment and adoption of the above-stated rules:

2:00 p.m. on January 12, 2017, Beaverhead-Deerlodge National Forest Office, 420 Barrett St., Dillon, MT 59725;

2:00 p.m. on January 16, 2017, Musselshell County Ambulance Barn, 704 1st St. E, Roundup, MT 59072;

2:00 p.m. on January 17, 2017, First State Bank of Malta, 1 S. 1st St E, Malta, MT 59538.

2. The Governor's Office will make reasonable accommodations for persons with disabilities who wish to participate in this rulemaking process or need an alternative accessible format of this notice. If you require an accommodation, contact the Governor's Office no later than 5:00 p.m. on January 6, 2017, to advise us of the nature of the accommodation that you need. Please contact Carolyn Sime, Sage Grouse Habitat Conservation Program Manager, Montana Sage Grouse Oversight Team, c/o Department of Natural Resources and Conservation, P.O. Box 201601, Helena, MT 59620-1601; telephone (406) 444-0554; fax (406) 444-6721.

3. The rules proposed to be amended are as follows, stricken matter interlined, new matter underlined:

14.6.101 DEFINITIONS Unless the context clearly requires otherwise, to aid in the implementation of the Montana Greater Sage-Grouse Stewardship Act and as used in these rules:

(1) "Additionality" means conservation benefits of a compensatory mitigation measure that improve upon the baseline conditions of the impacted resources and their values, services, and functions in a manner that is demonstrably new, or avoids losses, and would not have occurred without the compensatory mitigation measure.

(1) remains the same but is renumbered (2).

(3) "Baseline" means the affected environment that exists absent the project's implementation, and is used to compare predictions of the effects of the proposed action the starting point for calculating the difference between baseline and post-project habitat function and functional acres. Baseline does not necessarily mean pre-project condition.

(4) "Compensatory Mitigation" means the preservation, enhancement, restoration and/or establishment of a resource to compensate for, or offset, unavoidable adverse impacts to the resource.

(5) "Cumulative Effects" means the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions.

(2) remains the same but is renumbered (56).

(67) "Direct impacts" means impacts caused by an action that occur at the same time and place which affect and diminish the ability for sage grouse to shelter, feed, or breed.

(78) "Durability" means mitigation measures will be effective at least as long as the impacts those measures are designed to offset, using legal and financial assurances to ensure the mitigation

Comment [LB1]: See comment 1 on our Comments page.

Comment [LB2]: See Comment 2 on the Comments page.

Comment [LB3]: See Comment 3 on the Comments page.

offsets will be in place for the entire duration of the impact. Considerations include the ecological, administrative, and financial assurances that secure the biological benefits of a compensatory mitigation project; and that protect the conservation status of a compensatory mitigation site.

~~(8) "Effectiveness" means the proposed compensatory mitigation plan demonstrates timeliness, ecological durability and is accompanied by a durable site protections and financial assurances that secure and protect the conservation status of the mitigation site and credits for at least as long as associated impacts persist.~~

Comment [LB4]:

Term is not used elsewhere in rule.

(9) "Enhancement" means manipulation of existing habitat to heighten, intensify, or improve a specific resource function that results in a gain of selected resource functions.

~~(10) Financial Assurance means 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.~~

Comment [LB5]: See Comment 4 on the Comments page

~~(11) "Force majeure" means an event that cannot be reasonably anticipated or controlled. It does not include the failure of a project due to gross negligence, to deliberate actions of the credit producer, or to circumstances that the credit producer has the reasonable ability to foresee and correct.~~

Comment [LB6]: See Comment 5 on the Comments page

~~(129) "Indirect impacts" means impacts caused by or the result of an action, which occur later in time or farther removed in distance from the action, but are still reasonably foreseeable, and which affect and diminish the ability for sage grouse to shelter, feed, or breed.~~

~~(131) "In-kind" means a resource of a similar structural and functional type as the impacted resource. When used in reference to a species, in-kind means the same species.~~

(3) remains the same but is renumbered (142).

~~(153) "Landscape" means the geographic extent that encompasses an interacting mosaic of ecosystems and human systems that is characterized by a set of common management concerns.~~

~~(164) "Lek" means an activity area where sage grouse congregate to breed.~~

~~(175) "Material change" means a change that is substantive and likely affects the outcomes of the crediting or debiting project.~~

~~(186) "Mitigation sequence" means taking steps to:~~

~~(a) avoid impacts by not taking a certain action or parts of an action;~~

~~(b) minimize impacts by limiting the degree or magnitude of the action and its~~

~~implementation;~~

~~(c) rectify impact by repairing, rehabilitating, or restoring the affected environment;~~

~~(d) reduce or eliminate impact over time by preservation and maintenance operations during the life of the action; and~~

~~(e) compensate for impact by replacing or providing substitute resources or environments.~~

(4) remains the same but is renumbered (197).

~~(2018) "Net conservation gain" means the actual benefit or gain above baseline conditions, when the baseline is re-measured at a later time, after deductions for impacts, in habitat function or value to species covered by a mitigation program.~~

(5) remains the same but is renumbered (2119).

~~(229) "Out-of-kind" means a resource of different structural and functional type to the impacted resource, which still addresses impacts to the same species.~~

~~(231) "Performance standards" means observable or measureable administrative or~~

Comment [LB7]: While some stakeholders have voiced concerns over this standard, the U.S. Fish and Wildlife Service Greater Sage-Grouse Range-wide Mitigation Framework plainly sets out a standard of "net positive conservation." (Framework, p. 8). A recent opinion from the BLM Solicitor has affirmed the authority of BLM to use a net conservation standard. BLM Solicitor Opinion M-37039 (December 21, 2016), <https://solicitor.doi.gov/opinions/M-37039.pdf>.

ecological attributes, whether physical, chemical, or biological, that are used to determine if a compensatory mitigation project meets the agreed upon objectives.

(242) "Preservation" means maintenance or retention of existing habitat with specific resource functions for sage grouse through legal protection of existing and functioning habitat through a deed restriction or conservation easement that is permanent or in place for a long period of time.

(25)- "Project failure" means the persistent and unresolved failure of a compensatory mitigation project to meet required performance standards.

Comment [LB8]: See Comment 6 on the Comments page

(263) "Program" means the Montana Sage Grouse Habitat Conservation Program.

(274) "Restoration" means returning a site to its natural and/or historic habitat type and condition with the same or similar ecological functions after the original natural and/or historic site has been degraded, damaged, or lost.

(285) "Service area" means the geographic area within which impacts to a species' habitat can be offset at a particular habitat offset site as designated; the geographic area within which habitat credit trading occurs if a habitat exchange is operational in Montana.

(29) "Site protection instrument" means a written description of the legal arrangements, including site ownership, management, and enforcement of any restrictions, that will be used to ensure the long-term protection of the compensatory mitigation project site.

Comment [LB9]: Since this term is used in New Rule II Mitigation, it seemed helpful to define it. The definition here is taken from Army Corps of Engineers Section 404 guidance: http://www.aswm.org/pdf/lib/site_protection_instrument_handbook_august_2016.pdf

(296) "Sufficiency review" means review of the underlying scientific methodology and data sources to ensure that the habitat quantification tool is based on reliable and repeatable quantitative science-based methods and is consistent with applicable U.S. Fish and Wildlife Service policies.

(2730) "Tool" means Habitat Quantification Tool.

(3128) "Verification" means a standardized process for monitoring and reporting to ensure that mitigation program rules have been followed.

Comment [LB10]: We support this definition. For our comments on the role of USFWS review, see Comment 7 on the Comments page.

AUTH: [76-22-104](#), MCA

IMP: [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-112](#), [76-22-118](#), MCA

REASONABLE NECCESITY: Compliance with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) required MSGOT to adopt additional rules regarding compensatory mitigation. Additional definitions are needed to clarify terms in these additional rules.

[14.6.102 GRANTS](#) (1) through (8) remain the same.

(9) MSGOT will give greater priority to applications for conservation activities eligible for funding under [76-22-110](#), MCA, which would be implemented in core areas. MSGOT may still consider funding conservation activities in general habitat and connectivity areas where high resource values for sage grouse exist and credits could be generated consistent with [76-22-109](#), MCA.

AUTH: [76-22-104](#), MCA

IMP: [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-112](#), [76-22-118](#), MCA

REASONABLE NECCESITY: Compliance with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) required MSGOT to adopt rules to "administer . . . the eligibility and evaluation criteria for grants distributed pursuant to

[76-22-110](#) MCA." This amendment also provides flexibility for MSGOT by allowing MSGOT to consider funding projects in areas outside of core if high resource values for sage grouse can be protected.

4. The rules proposed to be adopted provide as follows:

NEW RULE I HABITAT QUANTIFICATION TOOL (1) MSGOT will designate a [habitat quantification tool \(Tool\)](#) to assess the quality and quantity of sage grouse habitat and to calculate the value of credits and debits by June 1, 2017. After designating a Tool, MSGOT will amend this rule to incorporate it by reference.

Comment [LB11]: Term is already defined

(2) Prior to the time MSGOT designates a Tool and the U.S. Fish and Wildlife Service completes its sufficiency review, MSGOT may adopt and apply an interim process for calculating the value of credits and debits consistent with the provisions of this rule to assess the quality and quantity of sage grouse habitat, and to calculate the value of credits and debits.

(3) MSGOT will apply the interim process or the Tool MSGOT designates in the following circumstances:

(a) when evaluating applications for funding from the Sage Grouse Stewardship special revenue account consistent with the statutory requirements of the Greater Sage Grouse Stewardship Act expressed in [76-22-101](#), MCA et seq. and ARM [14.6.101](#) and [14.6.102](#); and

(b) when calculating credits or debits for sage grouse compensatory mitigation.

(4) Any other entities engaged in sage grouse compensatory mitigation in Montana, including [but not limited to](#) a U.S. Fish and Wildlife Service-approved habitat exchange that receives credits transferred by MSGOT, or funding from the Sage Grouse Stewardship special revenue account, must apply the Tool or interim process designated by MSGOT.

(5) MSGOT will designate a Tool that:

(a) is based on the best available science;

(b) takes a landscape-scale approach, incorporating at least two spatial scales relevant to sage grouse ecology, and considers any of the threats identified by the U.S. Fish and Wildlife Service;

(c) incorporates environmental data gathered and analyzed at an appropriate, meaningful scale and resolution, such as a combination of remote sensing data and on-site visits;

(d) incorporates a clearly defined unit of measurement for habitat assessment that includes both habitat quantity and quality;

(e) uses the same methods to calculate both credits and debits;

(f) provides a reliable and repeatable quantitative method; and

(g) is consistent with applicable U.S. Fish and Wildlife Service policy and the Greater Sage Grouse Range-Wide Mitigation Framework (2014).

(6) Data included in the Tool may consist of, but is not limited to:

(a) habitat classification as core area, general habitat, or connectivity area;

(b) anthropogenic disturbance including cultivation, wildfire, and other threats identified by the U.S. Fish and Wildlife Service;

(c) land use conditions;

(d) sage grouse occupancy, lek locations, lek densities, trends in the number of males on leks;

(e) habitat and vegetation characteristics;

(f) non-native or invasive species;

(g) sage grouse seasonal habitats;

(h) proposed disturbance type and spatial influence of the disturbance; and

(i) landscape setting and landscape attribute information; or

(j) any other factors necessary to quantify habitat quality and quantity for a given area of impact or area of conservation.

(7) MSGOT and the Sage Grouse Habitat Conservation Program will solicit and consider independent peer reviews of the Tool it is considering for designation prior to designating a Tool and amending this rule to incorporate it by reference. MSGOT and the Program may make non-material revisions to the Tool without soliciting independent peer reviews, such as updating a remote sensing GIS data layer to the most recent available, or to correct typographical or technical errors.

(8) MSGOT and the Program must submit a designated Tool to the U.S. Fish and Wildlife Service for sufficiency review. If the U.S. Fish and Wildlife Service's review determines that the Tool is not sufficient, MSGOT ~~will~~ shall designate a new version of the Tool and submit the new version for U.S. Fish and Wildlife Service sufficiency review.

Comment [LB12]: See Comment 7 on the Comments page

| (9) MSGOT and the Program ~~will~~ shall review the designated Tool's methodology and underlying data sources every five years to ensure they are consistent with the best available science.

(a) The first review will take place within five years after the date of its approval by MSGOT.

(b) MSGOT and the Program may review and adjust the designated Tool's methodology and

underlying data sources sooner than five years after the sufficiency review by the U.S. Fish and Wildlife Service, and more frequently than once every five years if MSGOT and the Program believe the Tool's methodology requires revision so as to be consistent with the best available science, or MSGOT and the Program believe improved methodologies or new data are available for incorporation into the Tool.

(c) MSGOT ~~may~~shall only make material changes to adjust the designated Tool's methodology or underlying data sources after a publicly announced MSGOT meeting and after accepting written and oral public comment.

(10) If MSGOT makes material changes to the Tool, those changes will be submitted to the U. S. Fish and Wildlife Service for sufficiency review. MSGOT ~~will~~shall continue to apply a designated and sufficiency-reviewed Tool during the period of time required for U.S. Fish and Wildlife Service to provide a sufficiency review for any material changes to the Tool's methodology and underlying data sources.

(11) Any material change to the Tool's methodology and underlying data sources adopted by MSGOT after public comment and sufficiency review by the U.S. Fish and Wildlife Service ~~will~~shall be incorporated by reference through amending this rule.

(12) Once a designated Tool has been applied to calculate the credits of a proposed mitigation site, or the debits of a proposed development site; the Program has completed its review; and the Project developer obtains the necessary state or federal permits, any subsequent Tool designated by MSGOT will not apply without written approval from all affected parties.

Comment [LB13]: This change permits application of an updated version of the Tool if it works out for everyone. As currently written, the parties could not go back and re-calculate at all—even if everyone wanted to.

(a) Once the Tool has been applied to calculate credits or debits, the number of calculated credits or debits will not be changed without written approval from all affected parties, including, but not limited to:

- (i) MSGOT;
- (ii) the project developer;
- (iii) the credit provider; and
- (iv) any affected third parties.

(b) Permit amendments will be subject to the Tool applied to calculate debits at the development site at the time of the original permit, unless written approval from all affected parties is provided for use of subsequent Tool.

Comment [LB14]: See immediately previous comment.

(13) The Tool that MSGOT designates will be made available to the public on the Sage Grouse Habitat Conservation Program's web site upon completion and approval by MSGOT and the U.S. Fish and Wildlife Service.

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AUTH: [76-22-104](#), MCA

IMP: [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-111](#), [76-22-112](#), [76-22-113](#), [76-22-114](#), [76-22-118](#), MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) which requires MSGOT to: "adopt rules to administer...the designation of a habitat quantification Tool, subject to the approval of the United States fish and wildlife service." This rule partially implements the requirements of that bill.

NEW RULE II **MITIGATION** (1) Implementation of the mitigation sequence is required for all activities subject to agency review, approval, or authorization for which direct, indirect, temporary, [cumulative](#), or permanent adverse impacts to sage grouse would remain following application of the mitigation sequence, including temporal impacts that are later rectified through reclamation and restoration activities. Mitigation will be required even if the remaining adverse impacts to sage grouse are indirect or temporary.

Comment [LB15]: See Comment 8 on the Comments page

Comment [LB16]: See Comment 9 on the Comments page

(2) The mitigation sequence is applicable to development in sage grouse habitats designated as core areas and is also applicable in habitats designated as general habitat and connectivity areas [under less rigorous standards](#).

Comment [LB17]: This section is essentially a restatement of section 9(b)(2) of S.B. 261. If it is to be included, it should not include the last 4 words, which are not in SB 261.

(3) MSGOT will designate a compensatory mitigation guidance and procedures document to implement the Tool MSGOT designates and other aspects of compensatory mitigation by June 1, 2017. After designating a compensatory mitigation guidance and procedures document, MSGOT will amend this rule to incorporate it by reference.

(4) Prior to the time MSGOT designates a Tool and U.S. Fish and Wildlife Service completes its sufficiency review, MSGOT may designate and apply an interim compensatory mitigation guidance and procedures document to implement an interim process and other aspects of compensatory mitigation for up to one year, [barring any unforeseen circumstances](#), from the effective date of this rule. The compensatory mitigation guidance and procedures document will direct how MSGOT and the Program or another party approved by MSGOT administer one or more of the following:

Comment [LB18]: Would it make sense to allow an out here for extraordinary circumstances so that the interim policy isn't eliminated when no other Tool is available?

(a) a conservation bank;

(b) [participation in](#) a habitat credit exchange;

(c) [making a financial contributions](#) to the sage grouse stewardship account [for purposes of compensatory mitigation](#) ~~if sufficient credits are not available~~; or

Comment [LB19]: Could this phrase be deleted? Wouldn't it make sense to allow contributions to the account even if credits are available, for the purchase of credits created by the account?

(d) [direct funding mitigation actions \("permittee-responsible mitigation"\)](#) ~~funding stand alone~~

~~mitigation actions to offset impacts to sage grouse habitat.~~

(5) The compensatory mitigation guidance and procedures document that MSGOT designates will be made available to the public on the Program's web site upon completion and approval by MSGOT.

(6) MSGOT and the Program ~~will~~ shall review the compensatory mitigation guidance and procedures document every five years, concurrent with the five-year review of the Tool. The first review will take place within five years after the date of the U.S. Fish and Wildlife Service approval of the Tool.

(7) MSGOT and the Program may review and adjust the compensatory mitigation guidance and procedures document sooner than five years after the U.S. Fish and Wildlife Service's initial sufficiency review of the Tool and more frequently than once every five years if MSGOT and the Program believe the compensatory mitigation guidance and procedures document requires revision to be consistent with any changes in the Tool.

(a) MSGOT ~~may~~ shall only adjust the designated Tool's methodology or underlying data sources after a publicly announced MSGOT meeting and accepting written and oral public comment.

(8) MSGOT and the Program may make non-material revisions to the designated compensatory mitigation guidance and procedures document such as to incorporate the most recently available GIS data layers or to correct typographical or technical errors without formal rulemaking, but may only make such changes after a publicly announced MSGOT meeting and accepting written and oral public comment.

(9) Any material change to the compensatory mitigation guidance and procedures document adopted by MSGOT after public comment will be incorporated by reference by amending this rule.

(10) The mitigation guidance and procedures document described in section (3) will outline how state-administered and state-approved compensatory mitigation programs and projects will meet the following principles/standards/criteria:

(a) Provide a ~~net conservation gain~~ in sage-grouse habitat function across the state and at other biologically relevant scales;

Comment [LB20]: See Comment on page two of this document relating to definition of "net conservation gain".

(b) Provide for in-kind replacement of habitat quality and quantity, except where MSGOT has determined, on a case-by-case basis, that out-of-kind mitigation can provide greater benefits to the species and/or its habitat;

(c) Ensure the benefits provided by compensatory mitigation projects meet requirements of additionality and durability;

(d) Account for uncertainty and risk in mitigation outcomes, including through legal or financial mechanisms such as requiring credit replacement and penalties except in cases of force majeure;

Comment [LB21]: See Comment 5 on the Comments page. Penalties or other enforcement mechanism are not appropriate in cases of force majeure.

(e) Establishes and requires funding or credit contribution for an account paid for by project

developers that ensures the state meets its net conservation gain goal in cases where the credit provider is not responsible for a project failure due to force majeure.

(f) Incentivize or discourage specific practices in particular locations by adjusting the value of credits or debits generated by those practices. Use of ratios, multipliers, or other adjustments to credit or debit amounts should be transparent, predictable, and consistently applied across mitigation programs and projects;

(g) Preclude the use of actions that do not provide direct and quantifiable benefits to sage-grouse and their habitat, such as funding of research or education, to provide compensatory mitigation;

(h) Designate service areas that reflect the need for genetic connectivity between designated core areas, general habitat areas, and connectivity within the state of Montana and require compensatory mitigation to occur in the same service area as impacts, except when MSGOT determines that suitable compensatory mitigation sites cannot be secured within the same core area as the impact within Montana and or a greater conservation benefit to the species or population can be provided by compensatory mitigation outside of the core area, general habitat area, or connectivity area.

(11) MSGOT will authorize and approve mitigation site plans for compensatory mitigation crediting projects that involve sage grouse habitat restoration, habitat enhancement, and/or habitat preservation

(12) All mitigation site plans for credit projects approved by MSGOT, must:

(a) meet the same standards provided in this rule and in the compensatory mitigation guidance and procedures document referenced in section (3), including requirements for additionality and durability;

(b) be consistent with the U.S. Fish and Wildlife Service Greater Sage Grouse Range-Wide Mitigation Framework (2014) and the designated compensatory mitigation guidance and procedures document; and

(c) apply the Tool designated by MSGOT.

(13) Mitigation site plans for credit projects approved by MSGOT must also incorporate at a minimum:

(a) The location, duration, and type of habitat restoration, enhancement, or preservation activities used for mitigation, including service area;

(b) A description of desired future conditions, quantification of baseline condition, and estimate of credit production based on the Tool designated by MSGOT;

(c) A preliminary title report and assessment of existing environmental or legal barriers to achieving desired future conditions (e.g., environmental hazards, split estate ownership, or deed

Comment [LB22]: See Comment 5 on the Comments page. An account is recommended on page 20 of the U.S. Fish and Wildlife Service Greater Sage-Grouse Range-Wide Mitigation Framework: "Requiring the credit provider to be responsible for reversals outside of their control would likely make administration of a program more complex and decrease interest in providing credits. One recommended approach to address unintentional reversals is to establish insurance or a *reserve pool* where the amount of funding each site contributes to the pool is directly related to the amount of risk (e.g. from fire) of the site not providing habitat in the future."

Comment [LB23]: Do we simply always want to go for the greatest conservation impact?

Comment [LB24]: The prior draft used the term "mitigation plan" to cover both the document outlining a development impact and associated mitigation requirements and the document describing the details of a compensatory mitigation project. In permittee-responsible mitigation these two kinds of plans might overlap somewhat, but otherwise they will generally be developed by different parties for different purposes and contain different kinds of information. We've proposed an alternate approach here that gives each kind of mitigation plan a distinct name and set of standards. We've also created a section that outlines required elements for the mitigation program guidance document, and, wherever possible, we have incorporated requirements that were in stand-alone sections into one of these three umbrella sections.

restrictions)

(d) A description of management actions and long-term stewardship activities and estimate of associated costs;

(e) performance measures, monitoring protocols, credit verification procedures to track progress toward anticipated conservation benefits, credit release schedule, and closure plan

(f) reporting requirements;

(g) Financial and legal mechanisms, including contingency plans, for maintaining habitat quantity and value for the duration of the project, except for project failures due to force majeure;

(h) mechanisms for adaptive management;

(i) a site protection instrument; and

(j) a description of the service area.

(14) All developers of credit mitigation projects must submit an annual monitoring report to MSGOT and the Program describing credits generated, credits transferred, management activities taken, and project performance consistent with the compensatory mitigation guidance and procedures document.

(15) Site protection instruments executed in compensatory mitigation plans approved by MSGOT must:

(a) designate the Program, or any other party approved by MSGOT, as a third-party beneficiary with rights of entry for monitoring, credit verification, and enforcement;

(b) permit the Program, or any other party approved by MSGOT, to calculate and verify credits on the site; and

(c) prohibit incompatible uses that would jeopardize the conservation objectives of the mitigation site.

(16) Mitigation site plans approved by MSGOT must include financial assurances guaranteeing the availability of funds for:

(a) the completion, inspection, monitoring, and verification of all mitigation activities; and

(b) prevention and/or remediation of mitigation project failure and credit impairment due to reasonably foreseeable causes, but not including project failures or credit impairment due to force majeure.

17) MSGOT will approve and authorize impact assessments for debiting projects that describe how all residual impacts from a debiting project will be addressed, including but not limited

Comment [LB25]: Added. See prior comments relating to force majeure.

Comment [LB26]: Added. See prior comments relating to force majeure.

to participation in one or more of the following:

(a) purchase of credits from a conservation bank, habitat credit exchange, or other approved mechanism;

(b) making a financial contribution to the sage grouse stewardship account; or

(c) directly funding compensatory mitigation actions ("permittee-responsible mitigation")

(18) All impact assessments for debit projects approved by MSGOT, must:

(a) meet the same standards provided in this rule and in the compensatory mitigation guidance and procedures document referenced in section (3), including avoidance and minimization of impacts to all possible extent and provision of net conservation gain for the duration of impacts through compensatory mitigation.

(b) be consistent with the U.S. Fish and Wildlife Service Greater Sage Grouse Range-Wide Mitigation Framework (2014) and the designated compensatory mitigation guidance and procedures document; and

(c) apply the Tool designated by MSGOT.

(19) Impact assessments must be approved by MSGOT, and implementation or purchase of credits completed, before any impacts requiring compensatory mitigation occur. MSGOT may approve post-impact mitigation if the party proposing the mitigation provides adequate assurances the mitigation will occur and the credit amount compensates for the temporal impact to the species created by the delay in implementation.

(20) Impact Assessments submitted for debit projects must incorporate at a minimum:

(a) a participant agreement between the credit provider and the credit purchaser, except in the case of permittee-responsible mitigation;

(b) a mitigation site plan as described in sections (11) through (13) above, in the case of permittee-responsible mitigation;

(c) the location and duration of impacts to sage grouse habitat, including the service area;

(d) estimated debits (baseline condition and anticipated impacts), including any required contributions to program-level assurances against project failure, such as a credit reserve account;

(e) the location and service area of the mitigation site offsetting the impacts.

(10) Through the mitigation guidance and procedures document described in (3), MSGOT may incentivize or discourage specific practices in particular locations by adjusting the value of credits or debits generated by those practices. Some variables that may drive adjustments include, but are not limited to:

Comment [LB27]: This is a standard requirement if post-impact mitigation occurs: See BLM Mitigation Handbook, <https://www.blm.gov/policy/im-2017-021>, p. 2-16: "The BLM may determine that it should adjust the amount of compensatory mitigation to account for any lack of timeliness with the compensatory mitigation measures."

~~(a) a transparent method to adjust credits or debits to ensure net conservation gain;~~

~~(b) incorporating ratios or multipliers that are intended to incentivize avoidance of important areas, incentivize voluntary conservation and landowner stewardship;~~

~~(c) duration of habitat benefits to match or exceed the duration of habitat impacts; and~~

~~(d) ensuring additionality.~~

~~(11) MSGOT will authorize and approve compensatory mitigation plans that involve sage grouse habitat restoration, habitat enhancement, or habitat preservation through participation in one or more of the following:~~

~~(a) a conservation bank;~~

~~(b) participation in a habitat credit exchange;~~

~~(c) making a financial contribution to the sage grouse stewardship account if sufficient credits are not available; or~~

~~(d) funding stand-alone mitigation actions to offset impacts to sage grouse habitat.~~

~~(12) All compensatory mitigation plans involving habitat restoration, enhancement, or preservation, and approved by MSGOT, must:~~

~~(a) meet the same standards provided in this rule;~~

~~(b) be consistent with the U.S. Fish and Wildlife Service Greater Sage Grouse Range-Wide Mitigation Framework (2014) and the designated compensatory mitigation guidance and procedures document; and~~

~~(c) apply the Tool designated by MSGOT.~~

~~(13) Project developers may not utilize research or education to provide compensatory mitigation.~~

~~(14) Compensatory mitigation plans must be approved by MSGOT, and implementation completed, before any impacts requiring compensatory mitigation occur. MSGOT may approve post-impact mitigation if the party proposing the mitigation provides adequate assurances the mitigation will occur and the credit amount compensates for the temporal impact to the species created by the delay in implementation.~~

~~(15) Compensatory mitigation plans may be prepared by a project developer with potential debits, potential credits, or both.~~

~~(16) Compensatory mitigation plans must, at a minimum, meet the following standards:~~

~~(a) avoid or minimize impacts to all possible extent;~~

~~(b) demonstrate that reasonable alternatives have been considered to avoid and minimize impacts that have not been avoided or minimized;~~

~~(c) provide net conservation gain for the duration of any habitat impacts mitigation is intended to offset;~~

~~(d) provide additionality;~~

~~(e) mitigate actions in core areas, connectivity areas, general habitat or other priority locations identified by the Montana Sage Grouse Oversight Team; and~~

~~(f) create a significant number of credits relative to the cost of the project.~~

~~(17) Compensatory mitigation plans must provide for in-kind replacement of habitat quality and quantity. MSGOT may, on a case-by-case basis, approve out-of-kind mitigation if greater benefits to sage grouse are clearly demonstrated.—~~

~~(18) Compensatory mitigation plans submitted for debit projects must incorporate at a minimum:~~

~~(a) a participant agreement between the credit provider and the credit purchaser;~~

~~(b) the location and duration of impacts to sage grouse habitat;~~

~~(c) the location of the mitigation site;~~

~~(d) estimated debits (baseline condition and anticipated impacts);~~

~~(e) the location of the mitigation site offsetting the impacts;~~

~~(f) baseline condition;~~

~~(g) monitoring protocols;~~

~~(h) performance standards;~~

~~(i) mechanisms to address credit impairment or project failure through financial assurances;~~

and

~~(j) a description of the service area.~~

~~(19) Compensatory mitigation plans submitted for credit projects must incorporate at a minimum:~~

~~(a) the location, duration, and type of conservation activities used for mitigation;~~

~~(b) estimated credits, baseline condition, and desired future conditions;~~

- ~~(c) management and long-term stewardship activities and costs;~~
- ~~(d) performance measures, monitoring protocols, and credit verification procedures to track progress toward anticipated conservation benefits;~~
- ~~(e) reporting requirements;~~
- ~~(f) assurances and contingency plans for maintaining habitat quantity and value for the duration of the project;~~
- ~~(g) mechanisms for adaptive management;~~
- ~~(h) a site protection instrument; and~~
- ~~(i) a description of the service area.~~

~~(20) All projects used for compensatory mitigation must submit an annual monitoring report to MSGOT and the Program describing credits generated, credits transferred, management activities taken, and project performance consistent with the compensatory mitigation guidance and procedures document.~~

~~(21) Site protection instruments executed in compensatory mitigation plans approved by MSGOT must:~~

- ~~(a) designate the Program, or any other party approved by MSGOT, as a third-party beneficiary with rights of entry for monitoring, credit verification, and enforcement;~~
- ~~(b) permit the Program, or any other party approved by MSGOT, to calculate and verify credits on the site; and~~
- ~~(c) prohibit incompatible uses that would jeopardize the conservation objectives of the mitigation site.~~

~~(22) Compensatory mitigation plans approved by MSGOT must include financial assurances guaranteeing:~~

- ~~(a) the availability of funds for the inspection, monitoring, verification, and completion of all mitigation activities; and~~
- ~~(b) methods to account for mitigation project failure and credit impairment, including program-level assurances against project failure, such as a credit reserve account.~~

~~(23) Financial assurances of credit development projects may be provided through a number of methods, including but not limited to establishment of an endowment fund, insurance, or a bond.~~

~~(24) MSGOT will designate service areas that reflect the need for genetic connectivity between designated core areas, general habitat areas, and connectivity in the state of Montana.~~

~~(25) MSGOT will require compensatory mitigation to occur in the same core area, general habitat area, or connectivity area as the impacts in Montana.~~

~~(a) MSGOT may consider and approve compensatory mitigation plans in a different core area, general habitat area, or connectivity area as the impact, on a case-by-case basis when suitable compensatory mitigation sites cannot be secured within the same core area as the impact within Montana; and~~

~~(b) when a greater conservation benefit to the species or population can be provided by compensatory mitigation outside of the core area, general habitat area, or connectivity area.~~

~~(26) MSGOT may consider and approve compensatory mitigation plans in a different service area as the impact:~~

~~(a) on a case-by-case basis when suitable compensatory mitigation sites cannot be secured within the same service area as the impact within Montana; and~~

~~(b) when a greater conservation benefit to the species or population can be provided by compensatory mitigation outside of the service area.~~

AUTH: [76-22-104](#), MCA

IMP: [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-111](#), [76-22-112](#), [76-22-113](#), [76-22-114](#), [76-22-118](#), MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) which requires MSGOT to: "adopt rules to administer...methods of compensatory mitigation available...". This rule partially implements the requirements of that bill.

NEW RULE III METHOD TO TRACK AND MAINTAIN THE NUMBER OF CREDITS AND DEBITS AVAILABLE AND USED- (1) MSGOT will assign a unique identifier for each credit created independent of, or through funds disbursed from the Sage Grouse Stewardship special revenue account.

~~(2) MSGOT will assign a unique identifier for each credit created through conservation activities funded or implemented independently from the Sage Grouse Stewardship special revenue account.~~

(3) MSGOT will assign a unique identifier for each debit created by a project developer.

(4) MSGOT will establish a database and tracking system that contains, but is not limited to:

(a) the number of credits generated by conservation activities independent of, or through ~~funded, at least in part, by~~ funds disbursed from the Sage Grouse Stewardship special revenue account;

Comment [LB28]: We propose simplifying language to clarify that all credits produced, whether through Stewardship Account funds or not, need to have a unique identifier and be included in a tracking system.

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(b) the number of credits generated by conservation activities not funded through the Sage Grouse Stewardship special revenue account and used as compensatory mitigation by project developers;

(eb) the number of debits created by unavoidable impacts to habitat due to the activities of a project developer;

(dc) the location of all credits generated and debits generated; and

(ed) credit transactions between parties.

(5) The information within the tracking system will be available to the public on the Program's web site.

AUTH: [76-22-104](#), MCA

IMP: [76-22-104](#), [76-22-105](#), [76-22-109](#), [76-22-110](#), [76-22-111](#), [76-22-112](#), [76-22-118](#), MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) which requires MSGOT to: (1) "adopt rules to administer...a method to track and maintain the number of credits attributable to projects funded . . . that are available to a project developer to purchase for compensatory mitigation to offset debits under [67-22-111](#);" (2) "adopt rules to administer . . . review and monitoring of projects funded pursuant to [Part 1]; (3) "review compensatory mitigation plans proposed under [76-22-111](#). If the plan includes a financial contribution to the sage grouse stewardship account established in [76-22-109](#), the oversight team will, using the habitat quantification tool, determine how to secure enough credits with the financial contribution to offset the debits of a project." This rule partially implements the requirements of that bill.

NEW RULE IV METHOD TO ADMINISTER THE REVIEW AND MONITORING OF MSGOT FUNDED PROJECTS (1) MSGOT and the Program will establish a database and tracking system to review and monitor projects funded by MSGOT using the Sage Grouse Stewardship special revenue account.

(2) The database and tracking system will contain information including, but not limited to:

(a) the name of the Stewardship Fund grant recipient(s);

(b) the amount awarded;

(c) the date the state funds were transferred to the grant recipient(s) if a one-time lump sum grant, or

(d) the dates state funds were transferred to the grant recipient(s) if the award was a reimbursable grant;

(e) a description of characteristics of the project including, but not limited to:

(i) type of project;

(ii) number of acres; and

(iii) land ownership;

(f) the duration of the project;

(g) any expected conservation benefits of the project;

(h) the geospatial location where the project was implemented;

(i) the number of credits generated, and their characteristics;

(j) the unique identifier assigned to each of the those credits;

(k) transactions of credits created;

- (l) progress and final reports submitted by the grant recipient(s);
- (m) annual monitoring reports in the case of conservation easements or leases;
- (n) sage grouse leks on and in the vicinity of the project area and trend data on the number of breeding males on those leks; and
- (o) the grant agreement number assigned by the Program.

AUTH: [76-22-104](#), MCA

IMP: [76-22-104](#), [76-22-105](#), [76-22-109](#), MCA

REASONABLE NECESSITY: This rule is reasonably necessary for MSGOT to comply with the requirements of SB 261 (Session Laws of Montana 2015, Chapter No. 445, Section 2, codified at [76-22-101](#), et seq. MCA) which requires MSGOT to: (1) "adopt rules to administer...the review and monitoring of projects funded." This rule partially implements the requirements of that bill.

5. Concerned persons may submit their data, views, or arguments either orally or in writing at the hearing. Written data, views, or arguments may also be submitted to: Carolyn Sime, Sage Grouse Habitat Conservation Program Manager, Montana Sage Grouse Oversight Team, c/o Department of Natural Resources and Conservation, P.O. Box 201601, Helena, MT 59620-1601; telephone (406) 444-0554; fax (406) 444-6721; or through the public comment web application tool located on the MSGOT web page at <https://sagegrouse.mt.gov/msgot.html>. All comments must be received no later than 5:00 p.m., January 23, 2017.

6. Carolyn Sime, Sage Grouse Habitat Conservation Program Manager, Montana Sage Grouse Oversight Team, has been designated to preside over and conduct these hearings.

7. The Governor's Office maintains a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list must make a written request that includes the name, e-mail, and mailing address of the person to receive notices and specifies for which program the person wishes to receive notices. Notices will be sent by e-mail. Such written request may be mailed or delivered to the Natural Resource Policy Advisor, P.O. Box 200801, 1301 East Sixth Avenue, Helena, MT 59620; fax (406) 444-4151; or may be made by completing a request form at any rules hearing held by the Governor's Office.

8. An electronic copy of this proposal notice is available through the Secretary of State's web site at <http://sos.mt.gov/ARM/Register>. The Secretary of State strives to make the electronic copy of the notice conform to the official version of the notice, as printed in the Montana Administrative Register, but advises all concerned persons that in the event of a discrepancy between the official printed text of the notice and the electronic version of the notice, only the official printed text will be considered. In addition, although the Secretary of State works to keep its web site accessible at all times, concerned persons should be aware that the web site may be unavailable during some periods, due to system maintenance or technical problems.

9. The bill sponsor contact requirements of [2-4-302](#), MCA, apply and have been fulfilled. The primary bill sponsor was contacted by e-mail on November 2, 2016, and again on November 30, 2016.

10. With regard to the requirements of [2-4-111](#), MCA, the Governor's Office has determined that the amendment and adoption of the above-referenced rules will not significantly and directly impact small businesses.

/s/ Andy Huff
Andy Huff
Rule Reviewer

/s/ Tim Baker
Tim Baker
Natural Resource Policy Advisor
Governor's Office

Certified to the Secretary of State December 12, 2016

|

My opinions are:

14.6.101 Definitions

3) Baseline cannot be defined by baseline. I suggest "pre project habitat" replace baseline.

8) Effectiveness, remove "at least".

18) Troubled with "net conservation gain". I habitat and populations are reducing, then maintaining is a net gain.

24) Remove "or historic". Natural is what we factually have. Historic is an opinion.

25) "Service Area" means the geographic area within which impacts to designated species' habitat can be offset at a particular habitat site.

26) I question the word "ensure"?? Remove all words and definition ends after "consistent".

Rule 1

Delete "and the USFW completes sufficiency review".

3) Delete in its entirety. We will have a quantification tool, so there is no need for "an interim".

5g) Delete

7,8,9, 10) MTSGOT only is the vote. Program should be moved as it answers to the MTSGOT. Delete references to USFW.

Two things need to be addressed also. If one has a MT permit prior to the implementation of the sage grouse program there is no need for intervention by the MSGOT and or the sage grouse program. MSGOT needs to clarify and define the permit exemptions.

Rule II

4) Delete "the USFW through review".

6-7) Delete references to program and USFW.

11) MSGOT may. Delete "will".

12b) Delete "USFW through 2014".

20) Delete "and the program".

Page 2

Rule IV

- 1) Delete “and the program”.

Thank You

Let’s protect sage grouse populations through habitat conservation.

Sincerely,

Mike Lang

PO Box 109

Malta, MT 59538



January 23, 2017

Montana Department of Natural Resources Conservation
Montana Sage Grouse Oversight Team
P.O. Box 201601
Helena, MT 59620-1601

Submitted via Sage Grouse Public Comment Tool:
<https://apps.dnrc.mt.gov/pubcomment/commentpage.aspx?cmntkey=87xnm3g4E>

Re: Montana Administrative Register Notice 14-4

Dear Members of the Montana Sage Grouse Oversight Team:

Sweetwater Ranches Conservancy, LLC (SRC) appreciates the opportunity to provide the Montana Sage Grouse Oversight Team with comments related to its rulemaking captioned: *In the matter of the amendment of ARM 14.6.101 and 14.6.102 and adoption of New Rules I, II, III, and IV, pertaining to implementation of the Sage-Grouse Stewardship Act*. SRC owns and operates the Sweetwater River Conservancy Greater Sage-Grouse Habitat Conservation Bank, which is the first bank approved by the U.S. Fish and Wildlife Service to offset impacts to the Greater sage-grouse in the United States. The SRC Sage-Grouse Bank is also the largest single conservation bank in the nation, providing a truly landscape-based approach to mitigation. SRC also owns and operates the Dumbell Ranch Mitigation Bank, the first and only wetland, stream and riparian bank approved by the U.S. Army Corps of Engineers in Wyoming.

General Comments:

SRC commends the State of Montana for continuing to develop the mitigation component of its Greater Sage-grouse Conservation Strategy as referenced in both the Montana Greater Sage-Grouse Stewardship Act (SB0261) and Montana Executive Order 12-2015. It is a critical need that will ensure both conservation and economic interests important to Montana are met. In its extensive work in the space of sage-grouse conservation, SRC has found mitigation to be one of the more challenging aspects - both from a biological and a policy perspective.

Since both Rule I and Rule II address aspects of mitigation, the generalized comments set forth below apply to both proposals. Comments specific to each rule and Rule III are also provided under separate headings.

As a general, but critically important matter, the scale of greater sage-grouse mitigation (that is, the biological reality that sage-grouse are a true landscape scale species) requires a different mitigation paradigm than has traditionally been used. Sage-grouse mitigation is not wetland mitigation. It is not a no net loss proposition; the impact of an acre gained or acre lost can extend far beyond the acre in question. While this may seem obvious, there is a very real and tempting trap to look at an acre versus acre offset paradigm; including using a fine scale analysis of a given acre to determine its value to sage-grouse. As described below under New Rule I: Habitat Quantification Tool, it is not the quality or quantity of habitat that matters, but rather its ecological value to the species as part of a conservation strategy. Quality and value can be very different things as evidenced by the a priori identification of strategically more valuable areas (Core Areas, Connectivity Areas) than less valuable areas (General Habitat).

As a point of clarification, both rules refer to a “habitat exchange”. It is confusing, however what is meant by this term in the rules. As the holder of an approved sage-grouse conservation bank, SRC can interpret habitat exchange as used in the proposed rules, to simply mean a Bank selling approved credits to a developer that is tracked via RIBITS (or other, state-mandated tracking system). Conversely, it could refer to the idea of a Habitat Credit Exchange, which is a new and untested alternative (as described in recent guidance issued by the U.S. Fish and Wildlife Service) to Conservation Banks. Banks, in contrast are established, tested and recognized by the U.S. Fish and Wildlife Service. We believe these rules should not discourage the development of Habitat Credit Exchanges but rather set forth expectations as to the basic requirements of an acceptable sage grouse credit – requirements that should apply no matter the instrument used to create or provide the credit. These criteria should be science-based with all credit providers being held to the same, high standard.

We recommend the proposed rules be revised to reflect that a habitat exchange is clearly defined as a mechanism by which credits and debits are exchanged to offset residual impacts and not a Habitat Credit Exchange. As such, a habitat exchange could be how Montana executes and tracks the offsets of debits with credits; or is what an independent Bank does with a developer and permitting agency that is tracked via RIBITS.

New Rule I: Habitat Quantification Tool

We believe the Habitat Quantification Tool rule as currently proposed is premature and creates confusion in the middle of a difficult, ongoing process to develop a mitigation program that works for Montana. If it is necessary by statute, policy or procedure, to create a mechanism that will allow an interim process to determine debits and credits, as described in the draft rule, we recommend a clearer, more defined, interim framework be presented in the rule. The current criteria are confusing and lack clarity. Following are a series of

examples of this based on our extensive expertise and experience with sage-grouse in general and in Wyoming with sage-grouse mitigation, in particular.

One of the stated purposes of this rule is “(1) MSGOT will designate a habitat quantification tool (Tool) to assess the quality and quantity of sage grouse habitat and to calculate the value of credits and debits...”. We assume the use of the term “value” in this context refers to ecological value, or “the attainment of resource functions or value at a proposed project site” as defined in the Montana Greater Sage-Grouse Stewardship Act (MGSGSA), and not economic value. If this is correct, we recommend language more consistent with the MGSGSA be used in the rule in place of habitat “quality and quantity” (see Section 5 (d); see also Section 17 in New Rule II: Mitigation). Ecologically, one can find high quality habitat (e.g., desired amount of cover, forbs, understory and disturbance) in various quantities, that are not of high ecological value. Core Areas, General Habitat Areas and Connectivity Areas were defined differentially in Montana because of this scientific fact. Each of these zones represent different ecological value to a given population and/or the species; even though high quality habitat may be found in each area. This is more than a semantic exercise. Proper valuation of ecological value is essential for a mitigation program to succeed. The U.S. Fish and Wildlife Service Greater Sage-Grouse Range-wide Mitigation Framework states this as a Principle of Mitigation (page 8); and refers to it directly and indirectly in Sections 2, 3, 4, and 5 of their framework.

Related to ecological value, it is unclear why the Tool is limited to 2 spatial scales (see Section 5 (b)). Why 2? What 2? As a prerequisite to the U.S. Fish and Wildlife Service’s approval of SRC’s sage-grouse bank, we were required to consider, explicitly and implicitly, all scales relevant to Greater sage-grouse.

Furthermore, with respect to spatial scales, if the Tool is to be used for both credits and debits, it seems crucial that all scales be considered in some fashion, as debits and credits may occur far from one another (i.e., potentially encompassing up to 4th order scales such as occupied range or Western Associations of Fish and Wildlife Agencies Management Zones).

Also, with respect to scale, Section 5 (c) states that “MSGOT will designate a tool: (c) that incorporates environmental data gathered and analyzed *at an appropriate, meaningful scale* [emphasis added] and resolution, such as a combination of remote sensing data and on-site visits”. Is the “appropriate and meaningful scale” referenced in this section the same as the 2 spatial scales referenced in 5 (b)?

Also with respect to Section 4(b), it is unclear why the Tool “...considers *any* [emphasis added] of the threats identified by the U.S. Fish and Wildlife Service”. It would seem appropriate for the Tool to consider all the threats identified by U.S. Fish and Wildlife Service or at least the primary threats identified by U.S. Fish and Wildlife Service and states. When multiple threats occur on a potential credit site, it would seem necessary for

the Tool to apply and consider each in determining a valuation. Likewise, the U.S. Fish and Wildlife Service Greater Sage-Grouse Range-wide Mitigation Framework lists population-level threat reduction as a Mitigation Program Goal (page 4) and refers to the need to reduce or eliminate threats throughout.

The intent of Montana Executive Order 12-2015 is for Montana to be “generally consistent with the efforts of the State of Wyoming in implementing its Greater Sage-Grouse Core Area Strategy”. To this end, SRC suggests that Montana reference the DDCT process both Wyoming and Montana use to determine avoidance, minimization and residual effects--which are those effects that are to be offset by compensatory mitigation. This is a clearer, simpler, and more effective approach that is consistent with the intent of the Montana EO and the mitigation sequence/hierarchy.

For example, if a project meets the requirements of the Montana EO (e.g., less than 5% disturbance in a DDCT, no surface occupancy within 0.6 miles of a lek) the requirements of avoidance and minimization are met. If not, the impacts of exceeding 5% or development within 0.6 miles of lek are the residual impacts that must be compensated for in a mitigation program. Montana has the advantage of a minimize and avoidance rule set in place and operational, as part of its Sage-Grouse Conservation Strategy. We strongly encourage Montana to use this as the basis for its mitigation program. The U.S. Fish and Wildlife Service has endorsed Montana’s conservation strategy by reference in its 2015 finding. As such, one would expect a mitigation program based on that strategy to better meet the U.S. Fish and Wildlife Service sufficiency review required by this rule and the Montana Greater Sage-Grouse Stewardship Act (SB0261). Lastly, the U.S. Fish and Wildlife Service Greater Sage-Grouse Range-wide Mitigation Framework states that existing processes should be integrated into a mitigation program, and to not “...reinvent the wheel...” (#2 page 4).

The State of Wyoming has adopted a compensatory mitigation framework by reference under its Executive Order 2015-04, which is based on the same avoidance, minimization and residual effects determination that Montana uses. As an ecological matter Montana and Wyoming share WAFWA Management Zones and are part of the Rocky Mountain portion of the greater sage-grouse range. We therefore recommend that any interim HQT or the final HQT strive for consistency with the Wyoming Mitigation Framework, which would also be consistent with Montana’s own EO—instead of a series of obscure and difficult to define attributes.

New Rule II: Mitigation

Because this rule references the subject of Rule I, and both are the subject of mitigation, many of our comments regarding New Rule I apply to this rule on Mitigation. In addition, as with Rule I, we provide below comments specific to this rule.

We agree with the intent of this rule to follow the mitigation sequence and that there needs to be procedures, processes and assurances that the sequence will be followed. We again commend Montana for being one of only 3 states the U.S. Fish and Wildlife Service recognized in their 2015 not warranted finding for their commitment to Sage-Grouse Conservation. The intent of this rule reflects that ongoing commitment. However, we restate the opportunity Montana has via its existing processes and U.S. Fish and Wildlife support thereof, to establish a mitigation process.

Specifically, Montana is currently applying the “avoid” and “minimize” steps in the hierarchy via the project review process described in EO 12-2015. As previously noted in our comments on Rule I, this project review process produces, by definition, the residual impacts that require compensatory mitigation. Therefore, we found many of the proposed criteria specified in this rule to be somewhat redundant with existing direction and processes, and, at times, confusing or confounding with existing processes in place (e.g., Section 16 (a)). As such, we recommend that the Rule reference these existing processes that are already applying the mitigation sequence and have the Rule build on them for the additional procedural needs for the mitigation step that follows naturally from them.

With respect to Sections 18-24, we note that such requirements are inherent in a U.S. Fish and Wildlife Service Approved Conservation Bank.

With respect to Section 25 we disagree with “requiring” compensatory mitigation to occur in the same core area, general habitat area, or connectivity area. Where mitigation offsets occur should be driven by the ecological value of the offset available, or by securing habitat that ensures the needs of sage-grouse at various scales. Such offsets may indeed be in the same area, but they may not. For example, why would you require an impact in general habitat be offset with general habitat if unsecured core habitat could be used and secured? We reference our earlier comments on the subject of ecological value within the context of a conservation strategy and its reference in the U.S. Fish and Wildlife Services Greater Sage-Grouse Range-Wide Mitigation Framework.

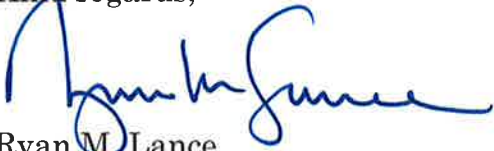
New Rule III: Method to Track and Maintain the Number of Credits and Debits Available and Used.

SRC is mindful that Montana must be able to track and maintain a ledger of credits and debits. As an alternative to the required tracking system contemplated in proposed Rule III, it may be appropriate to include a provision which allows Montana to recognize RIBITS as an acceptable tracking device for approved banks to avoid duplicative work by the State of Montana, the project developer and the bank owner. At some point, credit and debit tracking will have to be unified between and among the states and federal government, especially where projects cross jurisdictional boundaries.

Summary Comments

SRC appreciates the opportunity to provide comments as you engage the very challenging work of setting parameters for mitigation for impacts to the Greater sage-grouse. Our comments are borne out of extensive and, at times, incredibly frustrating and difficult experiences in helping to craft a workable system in Wyoming and with federal agencies. Ultimately, any mitigation structure can be made to work so long as it is geared to further the scientifically based, ecological values that underpin Montana's conservation strategy and so long as that standard is applied to everyone, equally.

Kind regards,



Ryan M. Lance

Senior Vice President and General Counsel



File Code: 2600
Date: January 23, 2017

Ms. Carolyn Sime
Sage Grouse Habitat Conservation Program Manager
Montana Sage Grouse Oversight Team, c/o
Montana Department of Natural Resources and Conservation
P.O. Box 201601
Helena, MT 59620-1601

Dear Ms. Sime:

This letter is the Northern Region Forest Service response to the Montana Sage Grouse Oversight Team's (MSGOT) solicitation for public comment on proposed State administrative rules relating to greater sage-grouse mitigation, and the development of a tool to quantify sage grouse habitat quality. Thank you for the opportunity to review and comment. After reviewing the Great Basin Record of Decision to the sage-grouse forest plan amendments, of which the Beaverhead-Deerlodge National Forest is a part (hereafter ROD), the guidance in the administrative rules closely aligns with the guidance in the ROD. As a federal land management agency, the Forest Service follows the mitigation language in the ROD, some of which is excerpted below:

When authorizing new land uses that result in habitat loss or degradation, the Forest Service will require mitigation that provides a net conservation gain to the GRSG. Analysis of mitigation will include consideration of any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the Council on Environmental Quality (40 CFR, Part 1508.20 Mitigation; e.g. avoid, minimize, and compensate). Any compensatory mitigation for residual impacts to GRSG will be durable, timely, and in addition to what would have resulted without the compensatory mitigation.

The following forest plan component in the sage-grouse amendment specifically addresses mitigation:

GRSG-GEN-ST-005-Standard – In priority, general, and important management areas and sagebrush focal areas, only allow new authorized land uses if, after avoiding and minimizing impacts, any remaining residual impacts to the greater sage-grouse or its habitat are fully offset by compensatory mitigation projects that provide a net conservation gain to the species, subject to valid existing rights by applying beneficial mitigation actions. Any compensatory mitigation will be durable, timely, and in addition to what would have resulted without the compensatory mitigation as addressed in the Mitigation Framework (Appendix B).



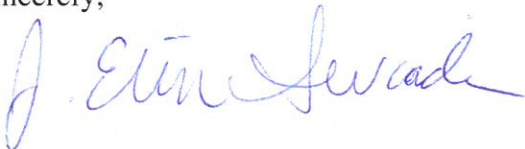
The above language clearly articulates the goal of a "net conversation gain". This is consistent with the language in the mitigation rule. It is important that we follow this in our mitigation process and therefore are reassured that the language in the mitigation rules also address a net conservation gain.

While there may be a few minor differences in our ROD language and that of the mitigation rules, overall, the direction is well aligned, again, with the goal of following the mitigation sequence/hierarchy with the intent of a net conservation gain. We also feel that if the edits/additions provided by the FWS are incorporated into the document, all the necessary safeguards will be in place to ensure a transparent, well vetted, scientifically defensible, and accountable process which will track and report conservation actions. In addition, we are pleased that monitoring is included in the rules, as we also require monitoring to track our progress in addressing impacts to sage-grouse habitat and achieving a net conservation gain.

Finally, at the project level, the Forest Service will use our NEPA process in addressing impacts to sage-grouse habitat and populations. At the project level, we will be able to discern any possible conflicts, but at this time we do not see any conflicts in implementation of these rules. We appreciate working with all members of the interagency state sage-grouse working group and look forward to many more productive meetings and discussions regarding sage-grouse habitat protection and restoration work in the future.

If you have any questions please contact Mary Manning, regional vegetation ecologist, at (406) 728-6056.

Sincerely,



for CHRISTINE DAWE

Director Renewable Resources Management

cc: Mary Manning, Erin Swiader, Christine Dawe

WYO-BEN, INC.

January 23, 2017

Carolyn Sime
Sage Grouse Habitat Conservation Program Manager
Montana Sage Grouse Oversight Team
c/o Department of Natural Resources and Conservation
P.O. Box 201601, Helena, MT 59620-1601

Wyo-Ben, Inc. appreciates the opportunity to provide comments regarding the proposed new rules pertaining to the implementation of the Montana Sage Grouse Stewardship Act. Wyo-Ben is a small family-owned business headquartered in Billings, MT, with bentonite mines in Wyoming and Montana. Wyo-Ben has several bentonite claims, leases and private holding in Carbon County, Montana, most of which lie in the Carbon County Sage Grouse Core Area. Wyo-Ben supports sage grouse conservation efforts. However, without knowing the ultimate impact to our company these rules will impose, it is difficult to determine whether we should support or oppose them, especially rule number 2-Mitigation. With that uncertainty in mind, some concerns we have are as follows:

- Cost of obtaining credit vs. the ability to pay for the credit from future earnings.
 - o Bentonite is a low-value commodity, and as such may not have the value necessary to overcome the cost of imposed credits needed to mine in certain sage grouse habitats.
 - o Not only do potentially onerous credits have the ability to preclude the opportunity to mine, but the added expense of monitoring mitigation projects will add to that burden.
 - o Number 10 of these rules states that a small business impact analysis concluded that these rules should not have a significant impact on small business. We adamantly disagree with this analysis in regards to mining in sage grouse habitats.
- Private property rights; "takings" due to economic barriers.
 - o If the concern above is legitimate, many of the private lease holdings we have may not be produced, thus precluding private landowners the opportunity to obtain an income from their minerals.
- Recognition that all disturbance is not created equal.
 - o The rules do not take into account the temporary nature of some disturbances such as bentonite mining, and the fact that the castback mining technique that we utilize results in timely reclamation of disturbed lands.

WYOMING OPERATIONS OFFICE

P.O. Box 1072
Greybull, Wyoming 82426 USA
307-765-4446 Telefax 307-765-2664

SAGE CREEK PLANT
Lovell, Wyoming

• LUCERNE PLANT
Thermopolis, Wyoming

• STUCCO PLANT
Greybull, Wyoming

• CORPORATE HEADQUARTERS
Billings, Montana

January 23, 2017

Page 2

- The apparent absence of valuation for habitat that is undergoing some level of restoration.
 - o The rules do not appear to recognize or “credit” restoration projects, such as mine land reclamation, that is providing some level of useful habitat, but may not yet be considered restored
- The rules have the potential to result in tremendous complexity that will obscure a proponent’s true conservation effort for public and private benefit
- The rules contain too many variables, subjecting a project to personal judgments that cannot be independently verified, and/or reliant on as-yet-to-be-determined precedents that are not affordable for many projects
- Regulators choosing winners and losers based on the depth of a proponent’s pocket
 - o As stated above, Wyo-Ben is a small family-owned business that mines and sells the low-valued commodity bentonite. Our resources and income potential will not allow us to participate in a conservation program that is financially onerous.

Carolyn, please let me know if you need additional information or clarification on any of the comments above. Additionally, Wyo-Ben actively participated throughout the deliberations of the Governor’s Sage Grouse Council. As a result, we would appreciate it if you would add us to the list of Stakeholders for these proposed rules.

Sincerely,
Wyo-Ben, Inc.



Matthew Call
Environmental Supervisor.



January 20, 2017

Submitted online via appsi.dnrc.mt.gov/pubcomment/

Ms. Carolyn Sime
Sage Grouse Habitat Conservation Program Manager
Montana Sage Grouse Oversight Team
Department of Natural Resources and Conservation
P.O. Box 201601
Helena, MT 59620-1601

Re: Sage Grouse Mitigation Proposed Rule

Dear Ms. Sime:

Western Energy Alliance appreciates the opportunity to submit comments on the proposed rule for the Sage Grouse (GrSG) Habitat Conservation Program (HCP) in Montana. We support the State of Montana's efforts to establish a conservation program that will aid the GrSG and prevent a future listing under the Endangered Species Act (ESA), but we are concerned by several aspects of the proposed rule that we believe will inhibit conservation efforts.

Western Energy Alliance represents over 300 companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas in Montana and across the West. The Alliance represents independents, the majority of which are small businesses with an average of fifteen employees.

We wish to incorporate by reference the comments submitted by the Montana Petroleum Association, the Montana Coal Council, the Montana Contractors Association, the Montana Electric Cooperative Association, and the Treasure State Resources Association (the Trades) on January 20th, 2017. These organizations have been intimately involved in development of the HCP, and their comments provide substantive concerns with the proposed rule. We support their continued work on the HCP in Montana, and believe their voice is critical to achieving the goal of a workable program that benefits the GrSG.

Western Energy Alliance shares the concerns the Trades expressed in their comments, and want to highlight several concepts that are especially troubling to us. Additionality, durability, landscape-scale, and net conservation gain are all terms that are defined in the proposed rule and used throughout.

These terms are consistent with the Bureau of Land Management's (BLM) GrSG land use plans and several mitigation policies that were released by the U.S. Fish and Wildlife Service (FWS) under the previous presidential administration, but we believe those policies

exceed statutory authority. We have filed a legal challenge on the land use plans, and our litigation is ongoing.

We also submitted extensive comments opposing the FWS ESA Compensatory Mitigation Policy (FWS Policy), and those comments are submitted separately as File 2. Please see pages 22 through 30 for a full discussion of how FWS is exceeding its authority, which we summarize thusly: the ESA “does not provide a means by which FWS can commandeer the various agencies to protect both listed and unlisted species, impose use restrictions across expansive landscapes, and require agency decisions to result in ‘net conservation gain.’”

Unlike FWS and BLM, the State of Montana is not bound by the ESA in crafting its HCP. However, we believe it is ill-advised, at best, to model the state’s plan on federal policies that are unlawful and likely to be modified or eliminated altogether under the new presidential administration. The concepts listed above are all problematic for legal and practical reasons, as outlined in the Trades’ comments and our comments on the FWS Policy.

The State of Montana can and should craft an HCP that balances GrSG habitat conservation with active development of land in the species’ habitat. Unfortunately, the proposed rule does not achieve that goal, so we request the State withdraw the proposed rule and continue working with the Trades to find an appropriate solution. Thank you for the opportunity to comment, and please do not hesitate to contact me with any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "Tripp Parks" with a stylized flourish at the end.

Tripp Parks
Manager of Government Affairs



October 17, 2016

Public Comments Processing, Attn: FWS-HQ-ES-2015-0165
 Division of Policy, Performance, and Management Programs
 U.S. Fish and Wildlife Service
 MS: BPHC
 5275 Leesburg Pike
 Falls Church, VA 22041-3803

RE: Comments on the U.S. Fish and Wildlife Service's Draft Endangered Species Act
 Compensatory Mitigation Policy
 (FWS-HQ-ES-2015-0165)
 81 Fed. Reg. 61.032 (September 2, 2016)

Dear Sir/Madam:

The American Exploration and Production Council (AXPC), American Petroleum Institute (API), Independent Petroleum Association of America (IPAA), International Association of Geophysical Contractors (IAGC), and Western Energy Alliance ("The Alliance") (collectively "the Trades"), submit these comments on the U.S. Fish and Wildlife Service's (FWS or "the Service") Draft Endangered Species Act Compensatory Mitigation Policy ("Draft Compensatory Mitigation Policy" or "Draft Policy").¹ The Trades share the Service's interest in improving the efficacy and efficiency of the conservation programs implemented pursuant to the Endangered Species Act (ESA or "the Act"); however, we are concerned that the Draft Compensatory Mitigation Policy will not bring forth the clarity, predictability, or transparency that the Service anticipates. Indeed, we believe that the Draft Policy, if finalized as proposed, is too complex, would only deter participants from engaging in compensatory mitigation, and would make the Service's approach to mitigation more costly, burdensome, opaque, and unpredictable. The Trades' member companies are proud of the conservation benefits that have been realized through their

¹ 81 Fed. Reg. 61,033 (Sept. 2, 2016).

participation in compensatory mitigation, and strongly wish to see the Service's compensatory mitigation program structured in a way that maintains a focus on conservation and incentivizing participation. As such, we encourage FWS to allow stakeholder to use all the tools in the conservation toolbox and not use the Draft Policy to favor certain specific mitigation instruments.

As detailed throughout these comments, the adverse policy outcomes that would result from this Draft Policy are the unfortunate product of the Service's attempt to exercise authority beyond what Congress has conferred through the ESA or any other statute. The Draft Compensatory Mitigation Policy reaches exceptionally, but falls significantly short of its stated goals. Under the Draft Policy, compensatory mitigation will be required in contexts in which it has never before been used, at unprecedented scales, on impracticable deadlines, for species over which FWS has no jurisdiction, and to achieve goals that FWS is not authorized to require permittees, applicants, and conservation sponsors to achieve.

The Draft Policy's stated goals are undermined by the piecemeal approach through which FWS is attempting to entirely restructure its approach to conservation and mitigation. As discussed further in these and other comments submitted by the Trades, the discrete policies that the Service is promulgating cannot be viewed in isolation—they are artificially isolated components of a larger, more comprehensive, substantive policy shift. The Service's decision to partition a comprehensive policy into multiple separate policies purposely downplays the magnitude of the policy changes, impedes stakeholder engagement, makes it significantly more difficult for stakeholders to fully evaluate and provide meaningful comments on the benefits and the impacts, and leads to an indiscriminant sequencing where, for instance, the justification and support of one draft policy is supplied by one or more policies that also remain in draft form.

The result of this circular justification and statutory overreach is a suite of policies that are substantively unworkable and which will only serve to undermine the effectiveness of conservation programs implemented under the ESA. For instance, the Draft Policy affirmatively dissuades the use of permittee-responsible mitigation, which has traditionally been the most utilized and successful compensatory mitigation mechanism, in favor of conservation banks, which are not widely available, and landscape-scale mitigation requirements, which reduce the incentive to conduct mitigation through added complexity, costs, and delay.

As such, the Trades request that FWS withdraw the Draft Policy and all those similarly drafted pursuant to the November 3, 2015 Presidential Memorandum ("Presidential Memorandum").² If FWS wishes to continue with a comprehensive restructuring of the ESA's conservation program, it should proceed within the contours of its statutory authority and through a single rulemaking that complies with the Administrative Procedure Act (APA). Although these various policy revisions are characterized as clarifications and updates to existing policies, the expansive changes should be made through rulemaking, especially since agency staff will treat these policies as regulation.

² Mitigating Impacts on Natural Resources from Development and Encouraging Private Investment (80 Fed. Reg. 68,743).

The Trades herein incorporate their comments on the Service's Draft Mitigation Policy,³ the Service's Proposed Revisions to Regulations for Candidate Conservation Agreements with Assurances (CCAA),⁴ and the Service's draft Habitat Conservation Plan Handbook.⁵ We further request that FWS treat the present comments as responding to the Draft Compensatory Mitigation Policy, Draft CCAA Revisions, and all other actions proposed by FWS or other agencies drafted pursuant to the Presidential Memorandum.

I. Summary of Comments

The Draft Compensatory Mitigation Policy will not bring forth the clarity, predictability, or transparency that the Service anticipates; instead, it would only make the Service's approach to mitigation more opaque and unpredictable, and undermine the effectiveness of conservation programs implemented under the ESA.

➤ The Draft Compensatory Mitigation Policy will not fulfill, and will actually undermine, the Service's stated objectives. By shoehorning into a single framework a conservation mechanism used in many distinct contexts, the Draft Policy is rendering a reasonably well-understood and nimble conservation tool unapproachable and indecipherably complex.

➤ FWS lacks authority to promulgate key elements of the Draft Compensatory Mitigation Policy. The Service does not have authority under the ESA or any other statute to require compensatory mitigation as outlined in the Draft Policy.

➤ The Draft Compensatory Mitigation Policy violates the ESA. The Service's decision to significantly expand the list of threatened and endangered species does not justify this expansive rewriting of the Service's mitigation framework. The Draft Compensatory Mitigation Policy plainly exceeds the Service's authority under the ESA, and is fundamentally incompatible with the ESA and the Service's regulations thereunder. Key elements of the Draft Policy violate multiple federal statutes and provisions of the ESA in addition to Sections 7 and 10.

➤ Key elements of the Draft Compensatory Mitigation Policy violate multiple statutes and regulations. The Draft Policy's "no net loss/net gain" requirements, additionality requirements and mitigation ratios, advance mitigation requirements, and definition of "at-risk species" are inconsistent with and violate a number of federal environmental and wildlife statutes and policies.

➤ The procedures by which FWS is promulgating the Compensatory Mitigation Policy are impermissible. The Draft Policy is impermissible because it cannot be credibly construed as a mere policy statement or simply guidance to Service personnel. It is a proposed rule that, if finalized, would fundamentally change the Service's compensatory mitigation requirements, create substantive new obligations, and expand the jurisdiction of FWS through interpretations of numerous statutes.

³ 81 Fed. Reg. 12,380 (Mar. 8, 2016).

⁴ 81 Fed. Reg. 26,769 (May 4, 2016).

⁵ 81 Fed. Reg. 41,986 (June 28, 2016).

➤ FWS is attempting to entirely restructure its approach to conservation and mitigation through a piecemeal process. The discrete policies that the Service and other agencies are promulgating cannot be viewed in isolation—they are artificially isolated components of a larger, more comprehensive, policy shift. This process downplays the magnitude of the policy changes, impedes stakeholder engagement, and leads to circular justification and support for one draft policy through one or more other draft policies.

For these reasons, the Trades request that FWS withdraw the Draft Policy and all those similarly drafted pursuant to the Presidential Memorandum. If FWS continues with a comprehensive restructuring of the ESA’s conservation program, it should proceed within the contours of its statutory authority and through a single rulemaking.

II. The Trades

Each of the Trades represents member companies engaged in the exploration and production of natural gas and crude oil. Collectively, these same member companies are among the foremost participants in federal, state, and private efforts to protect and conserve endangered and threatened species. The oil and gas industry has played a key role in voluntary conservation efforts to protect the dunes sagebrush lizard, lesser prairie-chicken, greater sage-grouse, Graham’s and White River beartongues, and many more species. These member companies have enrolled millions of acres in conservation plans and committed tens of millions of dollars to fund habitat conservation and restoration programs.

AXPC is a national trade association representing 31 of America’s largest and most active independent natural gas and crude oil exploration and production companies. AXPC’s members are “independent” in that their operations are limited to the exploration for and production of natural gas and crude oil. Moreover, its members operate autonomously, unlike their fully integrated counterparts, which operate in additional segments of the energy industry, such as refining and marketing. AXPC’s members are leaders in developing and applying the innovative and advanced technologies necessary to explore for and produce natural gas and crude oil that allows our nation to add reasonably priced domestic energy reserves in environmentally responsible ways.

API is a national trade association representing over 640 member companies involved in all aspects of the oil and natural gas industry. API’s members include producers, refiners, suppliers, pipeline operators, and marine transporters, as well as service and supply companies that support all segments of the industry. API member companies are leaders of a technology-driven industry that supplies most of America’s energy, supports more than 9.8 million jobs and 8 percent of the U.S. economy, and since 2000, has invested nearly \$2 trillion in U.S. capital projects to advance all forms of energy, including alternatives.

IPAA is the national association representing the thousands of independent crude oil and natural gas explorer/producers in the United States. It also operates in close cooperation with 44 unaffiliated independent national, state, and regional associations, which together represent thousands of royalty owners and the companies which provide services and supplies to the domestic industry. IPAA is dedicated to ensuring a strong and viable domestic oil and natural gas

industry, recognizing that an adequate and secure supply of energy developed in an environmentally responsible manner is essential to the national economy.

IAGC is the international trade association representing companies that provide geophysical services, geophysical data acquisition, seismic data ownership and licensing, geophysical data processing and interpretation, and associated services and products to the oil and gas industry. IAGC is the leader in technical and operations expertise for the geophysical industry and represents more than 150 member companies from all segments of the geophysical industry. IAGC member companies play an integral role in the successful exploration and development of offshore hydrocarbon resources through the acquisition and processing of geophysical data.

The Alliance represents over 300 companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas in the West. Alliance members are independents, the majority of which are small businesses with an average of fifteen employees.

III. The Draft Compensatory Mitigation Policy Will Not Fulfill, And Will Actually Undermine, the Service's Stated Objectives

Among the Service's stated objectives in undertaking this monumental restructuring of its approach to mitigation is the improvement of the consistency and predictability of compensatory mitigation requirements.⁶ The Trades understand the Service's interest in consistency. However, by shoehorning into a single framework a conservation mechanism used in many distinct contexts, the Draft Policy is rendering a reasonably well-understood and nimble conservation tool unapproachable and indecipherably complex. While the Trades share the Service's interest in improving predictability, we believe that the Draft Policy undermines, rather than furthers, the predictability of compensatory mitigation requirements, as set forth specifically below. Indeed, the structure of the Draft Policy strongly suggests that it is being promulgated to constrain public land access and to use the Service's permit and approval authority to leverage fees to fund the Service's conservation mandates.

a. Flaws in Consistency

Compensatory mitigation requirements may vary because the contexts in which compensatory mitigation are recommended or preferable differ. Whether compensatory mitigation should be required, and at what level, stage, or through what mechanism is highly dependent on the impacts to be mitigated and the species potentially affected. It is also dependent on the statutory authority under which the compensatory mitigation is required or prohibited from being required. While the contexts in which compensatory mitigation are used may differ, there is no basis for the Draft Policy's attempt to impose compensatory mitigation as a requirement. Given the impracticability of conducting mitigation outside of conservation banks under the framework proposed by the Draft Policy, requiring compensatory mitigation amounts to a mandatory user fee.

The Draft Compensatory Mitigation Policy and the Service's March 8th Draft Mitigation Policy⁷ collectively cite more than a dozen statutes, policies, and departmental guidance under which

⁶ 81 Fed. Reg. at 61,033.

⁷ 81 Fed. Reg. 12,380.

compensatory mitigation plays a role in conservation or permitting, or where the role of compensatory mitigation is defined or constrained. There is simply not enough commonality between these laws and policies on which to base a single compensatory mitigation framework. Moreover, a single compensatory mitigation policy does not afford the proper flexibility to account for the differing contexts that arise under these laws and policies. The Service has written the Draft Policy in an effort to remain consistent with each of these differing authorities; however, the result is a policy that is confusing or riddled with caveats so pervasive and capacious that there is little chance that the Draft Policy could be implemented in a consistent manner.

What FWS is attempting to solve through the heavily circumscribed Draft Policy is not a problem that requires a solution. A variety of compensatory mitigation mechanisms allows flexibility for species, fact-specific application, and developer preference, which incentivizes conservation and ultimately makes it more effective.

That being said, the Trades do not believe the diverse and varied nature of compensatory mitigation applications entirely deprives FWS of the opportunity to improve consistency. A compensatory mitigation policy could, for instance, identify certain minimal and broadly applicable foundations to which diverse compensatory mitigation requirements could be tailored. That is not what FWS did here. Instead, the Draft Policy takes a top-down approach and attempts to establish the most expansive and aggressive compensatory mitigation requirements possible, complete with 30+ pages of caveats, conditions and carve-outs to account for the many different contexts where compensatory mitigation cannot be used to satisfy the Service's restrictive land-use goals.

If improvement is needed, FWS can bolster the consistency of its mitigation requirements by updating those requirements comprehensively, rather than relying on its current piecemeal approach. As noted above, the Draft Compensatory Mitigation Policy is only one of several interrelated mitigation policies in various stages of development at FWS. Each of these policies is dependent on one another and each policy attempts to further the same goals. Yet, FWS is not providing stakeholders the opportunity to comment on the Service's comprehensive approach. It is unclear why FWS has chosen to segregate these proposals and policies, but it is clearly not for the benefit of, or in furtherance of, consistency.

b. Lack of Predictability

The Trades support the Service's efforts to make compensatory mitigation requirements and recommendations more predictable, but we do not see how the Draft Policy accomplishes this goal. To begin with, and as discussed above, compensatory mitigation requirements will necessarily differ and therefore may remain somewhat unpredictable depending on the context in which they are used. While predictability should be maximized to the extent possible, FWS should not sacrifice flexibility and effectiveness to facilitate a predictable, but also overly formulaic, program. For example, the Service could further predictability by providing the following information:

- Distinct timelines for decisions and implementations of the Draft Policy, such as deadlines for approval of third-party mitigation instruments and the determination of debit and credit for projects;

- Clarification on how FWS intends to implement the Draft Policy along with the other related mitigation policies that are also currently in draft form;
- Clarification on how the Draft Policy should be implemented in states like Alaska, which contain a large amount of public lands and no conservation banks;
- Clarification on the circumstances where FWS would require, rather than recommend, compensatory mitigation;
- A description of how FWS would evaluate the adequacy of compensatory mitigation for a project that potentially impacts multiple species sharing the same habitat;
- Clarification on how FWS will assess compensatory mitigation measures for species with no recovery plans or established metrics for assessing threats or necessary conservation measures;
- A description of how FWS intends to review and approve third-party conservation instruments and how the Service intends to consider public comment on approval of these instruments;
- Clarification on how compensatory mitigation can be used to address concerns about species allegedly threatened by the impacts of climate change. The precise effects of climate change are poorly understood (particularly in the Arctic) and it is difficult, if not impossible, to predict the future response of species or to what regions species may migrate based on climatological impacts that have not yet occurred. Faced with such uncertainty, it is impossible to determine where compensatory mitigation will be required, for which species it will be required, or how a net conservation gain can be demonstrated;
- Clarification on the circumstances under which the Draft Policy could be applied retroactively. The Draft Policy states that it “does not apply retroactively to approved mitigation programs; however, *it does apply to amendments and modifications to existing conservation banks, in-lieu fee programs, and other third-party compensatory mitigation arrangements unless otherwise stated in the mitigation instrument.*”⁸ Given that the Draft Policy seems to preserve for FWS the discretion to require amendments and modifications to existing compensatory mitigation programs under the auspices of “adaptive management,” the retroactive application of the Draft Policy may not be restricted at all. Retroactive application of the Draft Policy would violate the terms of existing conservation agreements and dissuade parties from participating in such programs. The Draft Policy must therefore clarify the narrow circumstances under which it can be applied retroactively;
- Clarification on how FWS will protect confidential business information under the Draft Policy;

⁸ 81 Fed. Reg. at 61,036 (emphasis added).

- Clarification on how the Draft Policy’s credit/debit methodology will be applied. The Draft Policy would place limitations on the transferability of credits, but does not explain how limits on the transferability of credits would apply in instances where the property or mineral right transfers before the credit is used;
- Clarification on the precise circumstances under which adaptive management would cause FWs to require changes to an existing compensatory mitigation project. Conservation is a dynamic process and recovery is seldom linear. Absent some reasonable guidelines as to what constitutes a change requiring adaptive management, FWS could impose an ever-changing process under which project developers would have no certainty or no ability to establish a budget. Absent some reasonable threshold for triggering a change in conservation management, this uncertainty would surely undermine participation in compensatory mitigation programs; and,
- Clarification on the financial assurance that the Draft Policy will require in order to assure long-term funding. Given the Draft Policy’s insistence on the Service’s ability to change mitigation requirements at any point in the future, project sponsors have no way of knowing the full scope of their financial obligation. The Trades believe that FWS should address this uncertainty by providing some limits (temporal or otherwise) on the scope of project sponsors’ obligations. This uncertainty is not resolved by adding a similarly uncertain obligation to assure financial resources to comply with any change that FWS may once day require.

Additionally, FWS should recognize and address the ways that the Draft Policy makes compensatory mitigation *less predictable*, and therefore *less desirable* to potential sponsors, applicants, and permittees. Consider the Draft Policy’s expansion of the compensatory mitigation framework to at-risk species, which are defined as “candidate species and other unlisted species that are declining and are at risk of becoming a candidate for listing under the [ESA].”⁹ With this change alone, the Draft Policy expands the applicability of compensatory mitigation requirements from a large but readily identifiable group of threatened and endangered species to a seemingly unlimited universe of species. Notably, FWS does not even limit the definition of “at-risk” species to those at risk of becoming listed as threatened or endangered—it extends the definition to those species *at risk of even being considered* for a potential future listing. FWS should explain how this expansion from a known universe of species to an utterly unknowable universe of species furthers predictability.

Consider also the Draft Compensatory Mitigation Policy’s “no net loss/net gain” requirements. While permittees and applicants have previously endured some level of unpredictability over the precise amount of compensatory mitigation that would be required for a proposed action, they could use their knowledge of the potential impacts to the species or habitat as a rough measure of how much compensatory mitigation would be required to offset the potential impacts, to the maximum extent practicable. The Draft Policy, on the other hand, removes the predictability that was inherent in this proportionality approach in favor of “no net loss/net gain” and “additionality” requirements, under which applicants/permittees would be required to compensate not only for

⁹ 81 Fed. Reg. at 61,058.

their projects' impacts, but also for some unknown level of impacts posed by broad and unrelated threats like climate change or invasive species that may not be measurable at the project scale. FWS should explain how abandoning the cornerstone mitigation principles of proportionality and comparability provides applicants and permittees more predictability. If applicants and permittees are required to mitigate impacts extraneous to proposed projects, it will be difficult, if not impossible, to predict how much mitigation FWS will require or recommend.

Finally, the Draft Policy's advance mitigation requirements and utilization of performance criteria require compensatory mitigation to be in place before the start of the project. They also ostensibly require a measurable and positive biological response to the mitigation before the project can be initiated.¹⁰ Using performance criteria in conjunction with advance mitigation is unpredictable—and predictability does not increase by requiring permittees and applicants to await positive biological responses that may not be observable or measurable, or which may be delayed or impeded by unrelated factors.

The Draft Policy's use of performance criteria also undermines predictability even when not used in conjunction with the proposed advance mitigation requirements. Under the Draft Policy, many types of mitigation projects will be required to remain in place in perpetuity and the performance criteria for these projects will be requested to remain in perpetuity as well.¹¹ "Should a mitigation project fail to meet its performance criteria and therefore fail to provide the expected conservation for the species, the responsible party must provide equivalent compensation through other means."¹² Accordingly, a party that undertakes a mitigation project for a species that declines in abundance decades in the future and for reasons unrelated to the mitigation project may then be required to undertake new mitigation efforts to reverse the downtrend. How is a project sponsor's mitigation obligation at all predictable when those obligations can change or increase years into the future for reasons outside of the sponsor's control?

In reality, the Draft Compensatory Mitigation Policy is not credibly intended to increase predictability. It is intended to increase the stringency of compensatory mitigation programs and to shift the government's obligation to manage species and habitat onto those individuals and industries that require access to public lands and other federal authorizations. These are policy goals and they are not tools in furtherance of clarity, consistency, or predictability. Indeed, aspects of this Draft Policy cannot even be construed as furthering conservation goals. Much of what the Draft Policy holds out as conservation tools are in reality, land use restrictions and user fees having nothing to do with compensatory mitigation. As discussed below, because the Draft Policy aims to substantively change the Service's compensatory mitigation requirements in ways that exceed FWS's statutory authority, it is impermissible and should be withdrawn.

IV. FWS Lacks Authority to Promulgate Key Elements of the Draft Compensatory Mitigation Policy

Fundamental to our system of divided government is that Congress crafts the laws that the executive branch, through federal agencies or otherwise, enforces. Stated differently, federal

¹⁰ 81 Fed. Reg. at 61,038.

¹¹ 81 Fed. Reg. at 61,038.

¹² 81 Fed. Reg. at 61,038.

agencies have no authority to act or restrict actions outside of the authority specifically conveyed to them through a statute that has passed the U.S. House and Senate and been signed into law by the President. The Bureau of Land Management (BLM), for instance, has no independent authority to manage public lands. BLM's authority comes from the Federal Lands Policy & Management Act (FLPMA), the Mineral Leasing Act (MLA), and various other land management statutes. Similarly, the U.S. Environmental Protection Agency (EPA) can regulate air emissions and discharges to waterbodies, but only because Congress conveyed EPA that authority through the Clean Air Act and the Clean Water Act (among other statutes). Agencies can interpret the authority granted through their governing statutes and can promulgate regulations in furtherance of the statutes' objectives, but they cannot wield authority that has not been specifically conveyed to them by Congress or the U.S. Constitution. Nor can the President or other agencies convey to an agency authority which has not first been granted to the executive branch by Congress. To do so is to upset a system of checks and balances essential to our system of government.

With this framework in mind, FWS states that it developed the Draft Compensatory Mitigation Policy pursuant to its authority under the ESA.¹³ While the ESA undoubtedly grants FWS authority to facilitate federal wildlife conservation activities, it does not convey to the Service the authority to undertake many of the key elements of the Draft Policy. FWS acknowledged this in stating that “[t]he Service’s authority to require compensatory mitigation is limited, and our authority to require a ‘net gain’ in the status of listed or at-risk species has little or no application under the ESA.”¹⁴ Notwithstanding this acknowledgement, FWS nevertheless claimed authority to promulgate the Draft Policy embedded within the advisory role that FWS fulfills in compliance with the ESA and other statutes.¹⁵ These jurisdictional conclusions are plainly wrong.

The Draft Policy’s analysis, which consists solely of a list of statutes under which FWS is allowed to make conservation recommendations to other agencies, is not a credible recital of statutory authority. FWS provides no specific citations and no meaningful explanation of the type or scope of authority FWS purports to possess. At base, the Draft Policy’s discussion of jurisdiction is not even a recital of the Service’s statutory authority—it is a list of statutes that FWS believes do not *prohibit* the Draft Policy. The absence of an explicit prohibition, however, does not amount to a statutory authorization. Further, as discussed in Sections V and VI below, FWS is also incorrect that many of the cited statutes fail to prohibit the key elements of the Draft Policy.

In reality, the Draft Compensatory Mitigation Policy draws its authority, not from a statute, but from a unilateral directive—the Presidential Memorandum.¹⁶ Indeed, FWS stated with no ambiguity that this “draft new policy is needed to implement the recent Executive Office and Department of Interior (DOI) mitigation policies . . .” and that it “adopts the mitigation principles” of the same.¹⁷

¹³ 81 Fed. Reg. at 61,032.

¹⁴ 81 Fed. Reg. at 61,032.

¹⁵ 81 Fed. Reg. at 61,035-36.

¹⁶ “Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment,” 80 Fed. Reg. 68,743 (Nov. 3, 2015).

¹⁷ 81 Fed. Reg. at 61,032-33.

FWS identified further authority for its actions in a strategy report a FWS task force developed without notice and comment and submitted to FWS and DOI,¹⁸ a departmental landscape-scale mitigation policy that was also developed without notice and comment,¹⁹ and the Service's March 8th, 2016 draft revision of its Mitigation Policy.²⁰ While the Trades appreciated the opportunity to comment on the March 8th Draft Mitigation Policy, we are concerned that the Service does not intend to consider our comments or deviate substantially from its initial draft.

Despite being in draft form, and despite that FWS should still be considering comments and allowing stakeholder input to help shape the contours of a final mitigation policy, the March 8th Draft Mitigation Policy *already* provides the goals FWS "intends to achieve" with this Draft Compensatory Mitigation Policy.²¹ Similarly, this Draft Compensatory Mitigation Policy *already* "adopts" the principles of the March 8th Draft Mitigation Policy and *already* relies on it as support for its hierarchal approach, landscape-scale approach, characterization of lands eligible for compensatory mitigation, identification of conservation objectives, and for several key definitions.²² The Trades request clarification from the Service regarding how it will implement the March 8th Draft Mitigation Policy alongside the Draft Compensatory Mitigation Policy.

As such, FWS has not only established its own independent, non-statutory authority to promulgate the Draft Compensatory Mitigation Policy (and other related policies), it is doing so with only the appearance of stakeholder engagement. Therefore, as discussed further in these comments, the Draft Compensatory Mitigation Policy violates multiple statutes that circumscribe the Service's jurisdiction, as well as the APA's rulemaking procedures and standards for assessing the rationality of the Service's interpretation of its statutory authority. Therefore, the Draft Policy should be withdrawn.

V. The Draft Compensatory Mitigation Policy Violates the ESA

FWS erroneously identified the ESA as providing both the underlying rationale for and primary statutory authority for the Draft Compensatory Mitigation Policy.²³ The Service's pessimistic view of its ability to manage listed species or fulfill its conservation mandate does not justify this action or allow FWS to summon regulatory authority where none exists. The Draft Policy is fundamentally incompatible with the ESA and its implementing regulations.

a. The Service's Decisions to List More Species as Threatened or Endangered Do Not Justify the Draft Compensatory Mitigation Policy

FWS suggests that the changes contemplated in the Draft Compensatory Mitigation Policy are a necessary response to the steep increase in the number of listed species and the Service's assumption that the number of listed species will continue to outpace the FWS's ability to recover and delist those species.²⁴ According to FWS, the sheer number of listed species and critical

¹⁸ *Clement et al.* 2014; 81 Fed. Reg. at 61,033.

¹⁹ "Implementing Mitigation at the Landscape-Scale" (600 DM 6); 81 Fed. Reg. at 61,033.

²⁰ 81 Fed. Reg. 12,380.

²¹ 81 Fed. Reg. at 61,033, 35.

²² 81 Fed. Reg. at 61,033, 36, 42, 43, 57, 58, 59, 60, 61.

²³ 81 Fed. Reg. at 61,034.

²⁴ 81 Fed. Reg. at 61,034.

habitat designations and the prospect of more listings/designations justify landscape-scale mitigation, advance mitigation, and a need to force permittees and applicants to offset not only the impacts of their project but also potential adverse impacts from climate change, invasive species, and human population growth.²⁵ Oddly, the large and growing number of listed species also seemingly justifies expanding the Service’s authority beyond the thousands of existing and proposed threatened and endangered species that FWS cannot presently manage to potentially thousands more “at-risk” species that are not on the brink of extinction or likely to become so in the foreseeable future. These justifications are improper for many reasons, but most profoundly because FWS is seemingly arguing for the inevitability that more species will be driven to the brink of extinction without any analysis, support, or reasoned explanation for its position. These assumptions are improper and expressly contravened by the ESA.

While FWS is correct that the number of listed species has substantially increased in recent years, that increase was driven by litigation and a long-standing misapplication of the ESA’s definitions of endangered and threatened species. The litigation pressure is driven by a handful of groups that have exploited the ESA’s citizen suit provisions to compel FWS to subjugate the goal of species conservation to a strategy under which groups petition to list as many species as possible regardless of conservation benefit—in fact, at the price of conservation.²⁶ According to a law review article published by an Attorney-Advisor at the DOI directly involved with the citizen suit issue:

The Fish and Wildlife Service’s (FWS) program to list species under the Endangered Species Act (ESA) has been mired in litigation and controversy for decades. Much of that litigation has addressed not substantive decisions, but FWS’s inability to comply with the ESA’s deadlines for taking action. With limited resources, effectively unlimited workload, and strict statutory deadlines, each management or litigation strategy that FWS has used to try to address this conundrum ultimately failed. As a result, court orders and settlement agreements swamped the listing program and FWS lost any ability to prioritize its efforts and get the most bang for the buck in protecting imperiled species. This race-to-the-courthouse environment decreased the program’s efficiency and further limited the number of species actually listed and protected by the ESA.²⁷

The means by which these groups compelled this shift from a conservation-driven agenda for the most imperiled species to a listing-volume agenda are numerous and beyond the scope of these comments. The result of this shift, however, is clear—more species, subspecies, and distinct population segments are being listed under the ESA, almost all of those listings are directed by

²⁵ 81 Fed. Reg. at 61,034.

²⁶ In a settlement executed with the Service’s primary litigants (the “2011 Settlement”), FWS agreed to undertake hundreds of listing actions while at the same time refraining from finding, as the ESA allows, that listing some species may be warranted but precluded by higher priority species. *In re Endangered Species Act Section 4 Deadline Litigation*, No. 10-377 [EGS], MDL Docket No. 2165 (D.D.C. May 10, 2011).

²⁷ Benjamin Jesup, *Endless War or End This War? The History of Deadline Litigation Under Section 4 of the Endangered Species Act and the Multidistrict Litigation Settlements*; Vermont Journal of Environmental Law (Vol. 14, Dec. 2013).

interest groups' litigation, and this litigation pressure has caused the ESA's high standards for listing species to erode.

The ESA's high standard for listing is found within the ESA's definitions of endangered and threatened species. The ESA defines an "endangered" species as one presently in danger of extinction throughout all or a significant portion of its range.²⁸ A "threatened" species is one that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.²⁹

FWS interprets the phrase "in danger of extinction" as "currently on the brink of extinction," and courts have upheld this interpretation.³⁰ Accordingly, a "threatened species" is one which is likely to be placed on the brink of extinction within the foreseeable future throughout all or a significant portion of its range. In short, by definition, FWS is statutorily prohibited from listing a species as threatened absent some demonstration that future extinction throughout all or a significant portion of its range is both likely and foreseeable. And courts have universally held that the decision to list a species may not be based on speculation or an intent to err on the side of conservation:

Under Section 4, the default position for all species is that they are not protected under the ESA. A species receives the protections of the ESA only when it is added to the list of threatened species after an affirmative determination that it is "likely to become endangered within the foreseeable future." Although an agency must still use the best available science to make that determination, *Conner [v. Burford]*, 848 F.2d 1441 (9th Cir. 1988)] cannot be read to require an agency to "give the benefit of the doubt to the species" under Section 4 if the data is uncertain or inconclusive. Such a reading would require listing a species as threatened if there is any possibility of it becoming endangered in the foreseeable future. This would result in all or nearly all species being listed as threatened.³¹

Unfortunately, FWS has responded to the litigation pressure applied by a handful of groups by listing more species, subspecies, and population segments that are healthy, abundant, and even increasing in population and range based on speculative threats—some of which may occur (or not) decades in the future. But the ESA does not bestow protections based on a finding that species are being harmed, may be harmed in the future, or that certain threats are adversely impacting the

²⁸ 16 U.S.C. § 1532(6).

²⁹ 16 U.S.C. § 1532(20).

³⁰ *In re Polar Bear Endangered Species Act Listing & 4(d) Litig.*, 794 F. Supp. 2d 65, 89 (D.D.C. 2011), *aff'd sub. nom. In re Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litig. – MDL No. 1993*, 709 F.3d 1 (D.C. Cir. 2013).

³¹ *Trout Unlimited v. Lohn*, 645 F. Supp. 2d 929, 947 (D. Or. 2007); *see also Center for Biological Diversity v. Lubchenco*, 758 F. Supp. 2d 945, 955 (N.D. Cal. 2010) (finding the "benefit of the doubt" concept does not apply in the listing context); *Oregon Natural Resources Council v. Daley*, 6 F. Supp. 2d 1139, 1152 (D. Or. 1998) (ESA requires a determination as to the likelihood—rather than the mere prospect—that a species will or will not become endangered in the foreseeable future); *Federation of Fly Fishers v. Daley*, 131 F. Supp. 2d 1158, 1165 (N.D. Cal. 2000) ("The ESA cannot be administered on the basis of speculation or surmise.").

species' abundance. Listing status is bestowed based on the likelihood and foreseeability that the species will cease to exist.

The Service's unwillingness to adhere to this high listing standard in the face of tremendous litigation pressure is causing the increase in ESA listings that the Draft Policy then cites as its primary justification. The complexity inherent in managing the conservation of, and mitigating impacts on over 2,200 listed species is further complicated because FWS is extremely reluctant to delist any species—even those that have met all of their recovery plan goals. Far from justifying a fundamental restructuring of its conservation and mitigation programs, the ever-increasing number of listed species signals a need to restructure the Service's listing program.

The Service's presumption that the number of listed species will only increase is an acknowledgement that FWS has failed to meet the ESA's mandate to conserve and recover species, and that the Service has no expectation of meeting that mandate in the future. Not only does this approach misapply the ESA's listing standards and violate the statute's conservation mandate, it actually impedes conservation and recovery.

As of October 17, 2016, a total of 2,271 plant and animal species were listed as endangered or threatened under the ESA,³² and only 68 species have been removed.³³ Of those 68 species, roughly half (39) were delisted based on recovery.³⁴ In most cases, the recovery was widely attributed to factors other than the species' inclusion on the ESA's list of threatened and endangered species.³⁵ Even attributing each of 39 recovered species to the ESA and the regulatory protections thereunder, those delistings represent a recovery rate of 0.017%—hardly an effective mechanism for recovery.

There are a number of reasons why listing species for protection under the ESA has resulted in recovering species only 0.017% of the time. According to a 2007 study in *Ecological Economics*, listing a species under the ESA without allocating the species significant funding for recovery can actually be injurious to species on private land.³⁶ The study hypothesized that the ESA's "take" prohibitions under Section 9 can only be effective when matched with a credible threat of enforcement—which is very difficult on private land.³⁷ Listing can also incentivize some landowners to make their property less suitable as habitat for listed species. Different studies have examined other statutory prohibitions and procedures that come into force when a species is listed under the ESA. Several studies found that the designation of critical habitat confers no

³² *Summary of Listed Species Listed Populations and Recovery Plans*, U.S. FISH & WILDLIFE SERVICE (Oct. 17, 2016 4:47 PM), http://ecos.fws.gov/tess_public/reports/box-score-report.

³³ *Delisting Report*, U.S. FISH & WILDLIFE SERVICE, https://ecos.fws.gov/tess_public/reports/delisting-report (last visited Oct. 17, 2016).

³⁴ *Id.*

³⁵ See Jonathan Adler, *The Leaky Ark*, AMERICAN ENTERPRISE INSTITUTE (Oct. 5, 2011), <https://www.aei.org/publication/the-leaky-ark/>.

³⁶ Paul J. Ferraro, Craig McIntosh, & Monica Ospina, *The Effectiveness of the U.S. Endangered Species Act: An Econometric Analysis Using Matching Methods*, 54 J. ENVTL. ECON. & MGMT. 245, 246 (2007) ("Our results indicate that success can be achieved when the ESA is combined with substantial species-specific spending, but listing in the absence of funding appears to have adverse consequences for species recovery. This implies that using scarce conservation funding in the contentious process of listing a species may be less effective than using this funding to promote recovery directly").

³⁷ Ferraro, *supra* note 36, at 256.

conservation benefit on listed species.³⁸ Notably, the Department of the Interior has reached the same conclusion.³⁹ Another study identified a modest conservation benefit from the ESA's Section 7 consultation requirements, but deemed it "the best among the weak predictors of recovery."⁴⁰

Critically, in all instances where benefits from listing were identified, those benefits accrued only when the listing of the species was accompanied by funding to develop and implement recovery plans.⁴¹ Unfortunately, the Service has been unable to meet its duty to develop and implement recovery plans for listed species. Of the 2,271 species listed on the ESA, roughly half (1,156) have active Recovery Plans.⁴² FWS has also struggled to properly fund those recovery plans: out of 167 taxa with reported species-specific recovery costs, 18 received less than one-tenth of the funding called for in their plans.⁴³ In FY2014, FWS spent \$162,011,371 on species conservation for 1,474 of the 1,523⁴⁴ listed species within U.S. jurisdiction.⁴⁵ For these 1,474 species, FWS spent, on average, less than \$110,000 per species.⁴⁶ Not only is this funding level low, it reflects a significant downward trend in conservation spending. The chart below reflects average per-species conservation spending (in 2007 dollars) from 2007 to 2014—the latest year available.

³⁸ See, e.g., Timothy D. Male & Michael J. Bean, *Measuring Progress in US Endangered Species Conservation*, 8 ECOLOGY LETTERS 986, 988 (2005) ("The designation of critical habitat was not correlated with improved status"); J. Alan Clark et al., *Improving U.S. Endangered Species Act Recovery Plans: Key Findings and Recommendations of the SCB Recovery Plan Project*, 16 CONSERVATION BIOLOGY 1510, 1515 (Dec. 2002) ("the status trends of species with designated critical habitat [are] not significantly different from those for species with no such designation").

³⁹ News Release, U.S. Department of the Interior, Endangered Species Act "Broken" – Flood of Litigation Over Critical Habitat Hinders Species Conservation (May 28, 2003), available at https://www.doi.gov/sites/doi.gov/files/archive/news/archive/03_News_Releases/030528a.htm ("Designating critical habitat for species already on the endangered species list provides little conservation benefit to species").

⁴⁰ See Katherine E. Gibbs and David J. Currie, *Protecting Endangered Species: Do the Main Legislative Tools Work?*, PLOS ONE (May 2, 2012), available at <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0035730>.

⁴¹ Madeleine C. Bottrill et al., *Does Recovery Planning Improve the Status of Threatened Species?*, 144 BIOLOGICAL CONSERVATION 1595 (2011).

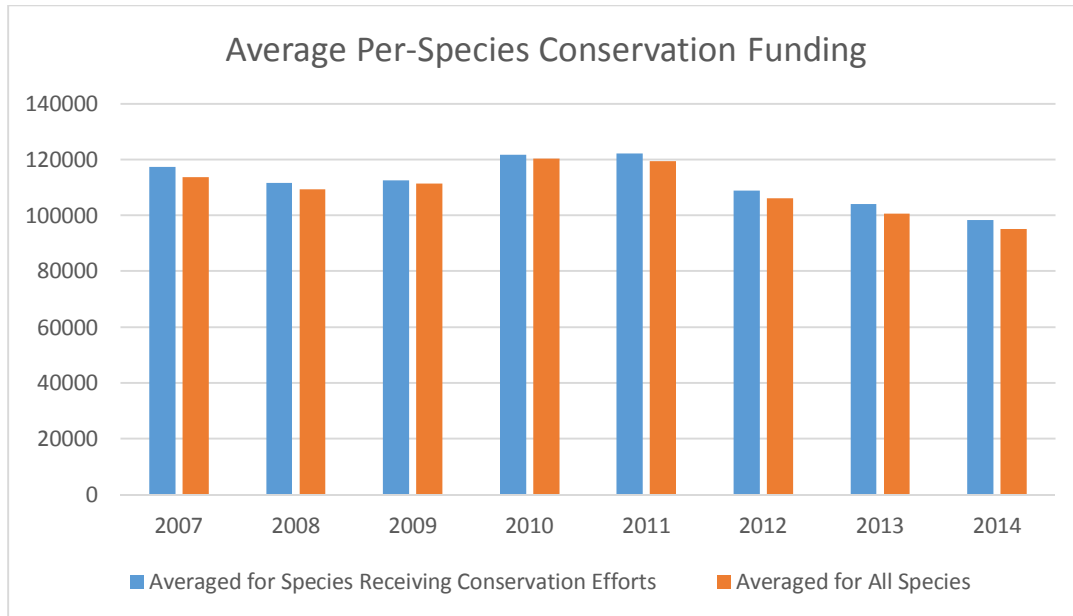
⁴² *Summary of Listed Species Listed Populations and Recovery Plans*, *supra* note 32. FWS notes that 19 animal species are counted more than once because of their listing as Distinct Population Segments.

⁴³ See Daniel M. Evans et al., *Species Recovery In the United States: Increasing the Effectiveness of the Endangered Species Act*, 20 ISSUES IN ECOLOGY at 10 (Winter 2016).

⁴⁴ Forty-nine species received no funding for conservation efforts at all.

⁴⁵ FEDERAL AND STATE ENDANGERED AND THREATENED SPECIES EXPENDITURES: FISCAL YEAR 2014, U.S. FISH & WILDLIFE SERVICE at tbl. 2, available at https://www.fws.gov/Endangered/esa-library/pdf/20160302_final_FY14_ExpRpt.pdf [hereinafter ESA EXPENDITURES FY2014].

⁴⁶ ESA EXPENDITURES FY2014, *supra* note 45, at tbl. 2.



While somewhat flat appropriations contribute to the downward trend, it is more directly attributable to the number of species being listed. Importantly, these “average” funding levels cloak the true extent of FWS’s inability to fund recovery. In 2014, 62% of the listed species in U.S. jurisdiction received \$20,000 or less in conservation funding from FWS.⁴⁷ Twelve species received only \$100 each in conservation funding.⁴⁸

While the best available evidence strongly suggests that funding recovery programs provides the best opportunity for FWS to meet its conservation mandate and move more species toward recovery and delisting, litigation pressure has diverted resources away from recovery planning and implementation. Instead, FWS is increasingly listing species without funding their recovery—and listing without funding is the only action under the ESA shown to harm at-risk species. This is an important problem, and the solution to it rests on adherence to the ESA’s high listing standard. The Service’s problem with listing more species than it can manage is not solved by scaling up compensatory mitigation requirements far beyond what the ESA, or any other statute, allows. Nor is it acceptable or permissible for FWS to use its statutory overreach in the listing program as a justification for overreaching its authority through the imposition of mitigation requirements.

b. The ESA Does Not Authorize or Allow the Draft Compensatory Mitigation Policy

FWS identifies ESA Sections 7 and 10 as the sources of the Service’s authority to require compensatory mitigation as structured and defined by the Draft Policy.⁴⁹ While both of these sections contain mechanisms whereby applicants/permittees can use compensatory mitigation to offset impacts of their projects on listed species, Sections 7 and 10 cannot be read to require, or even permit, the use of compensatory mitigation as described in the Draft Policy. In fact, a close read of these sections demonstrates that the Draft Compensatory Mitigation Policy plainly exceeds

⁴⁷ ESA EXPENDITURES FY2014, *supra* note 45, at tbl. 1.

⁴⁸ ESA EXPENDITURES FY2014, *supra* note 45, at tbl. 1.

⁴⁹ 81 Fed. Reg. at 61,039, 61,041.

the Service's authority under the ESA, and that the Draft Policy is fundamentally incompatible with the ESA and the Service's regulations thereunder.

Moreover, the Draft Policy is fundamentally at odds with the very purpose of the ESA. The Draft Policy is not designed to compensate for the potential adverse effects of a project; it requires fees and land use restrictions without any consideration of conservation or biological need, and it dissuades use of the permittee-responsible and short-term mitigation projects that have been most used and most successful. The Draft Policy cites the ESA for the sole purpose of misappropriating its powerful land-use and land-access restrictions, and in doing so, neglects to consider the fundamental conservation purpose for which the ESA required those statutory tools be used.

1. Section 7

There are three provisions within Section 7 of the ESA that FWS relies on to recommend/require compensatory mitigation as outlined in the Draft Policy:

- Section 7(a)(1)
- Section 7(a)(2)
- Section 7(a)(4)

None of these provisions convey FWS the authority suggested in the Draft Policy. In fact, these provisions make it clear that the Draft Compensatory Mitigation Policy exceeds the Service's authority under the ESA and undermines the ESA's conservation purpose.

Section 7(a)(1) – Section 7(a)(1) requires all federal agencies, “in consultation with and with the assistance of [FWS],” to utilize their authorities “for the conservation of endangered species and threatened species” The Draft Policy states that FWS will use this statutory authority for “[d]evelopment of landscape-scale conservation programs for listed and at-risk species that are designed to achieve a net gain in conservation for the species,”⁵⁰ but it is unclear how such an expansive restructuring of the Service's conservation and mitigation programs can be premised on such a narrow provision.

To begin with, while the Draft Policy cites to Section 7(a)(1) as validation for the Service's authority to require compensatory mitigation for “at-risk species,” the applicability of Section 7(a)(1) is *expressly* limited to “endangered species and threatened species.” “At-risk species” are “candidate species and other unlisted species . . . at risk of becoming a candidate for listing under the [ESA].”⁵¹ FWS cannot credibly interpret a provision expressly limiting the Service's jurisdiction to *listed* species as conferring authority over any species that might someday be considered for listing.

Secondly, the mandate contained in Section 7(a)(1) rests with the agencies conferring with FWS. The Service's role is merely advisory. Further, while these agencies are required to utilize their statutory authorities to help conserve endangered and threatened species, contrary to the Service's implication, Section 7(a)(1) does not force agencies to subordinate the goals of other statutes they

⁵⁰ 81 Fed. Reg. at 61,039.

⁵¹ 81 Fed. Reg. at 61,058.

are required to implement to the singular goal of conserving endangered and threatened species. Nor does Section 7(a)(1) provide federal agencies any additional authority to undertake or require conservation activities.⁵² Section 7(a)(1) simply confers federal agencies the discretion to incorporate conservation objectives into decisions so long as the agencies utilize that discretion within the bounds of their existing statutory authority.⁵³

For instance, the United States Court of Appeals for the Fifth Circuit invalidated EPA's disapproval of Louisiana's National Pollution Discharge Elimination System (NPDES) permitting program because it illegally established conditions to protect endangered or threatened species.⁵⁴ The court reasoned that the EPA must manage its NPDES program consistent with the criteria contained in the Clean Water Act (CWA), and that it could not add conditions pursuant to the ESA.⁵⁵ This same construct would apply for each of the federal agencies FWS envisions will mandate new compensatory mitigation programs under the Draft Policy. BLM, for instance, must continue to manage land "on the basis of multiple use and sustained yield" pursuant to FLPMA.⁵⁶ Section 7(a)(1) does not authorize BLM to abandon its multiple use mandate to manage lands for a single purpose under its jurisdiction through "landscape-scale conservation programs . . . designed to achieve net gain."

Nor does Section 7(a)(1) allow FWS to compel or encourage federal agencies to abandon some of the most well-used and successful mitigation mechanisms in favor of conservation banking, advance mitigation requirements, or mandatory perpetual commitments—each of which is aimed more toward constraint than conservation. Short-term mitigation measures, which the Draft Policy expressly disfavors,⁵⁷ have been successful because they can be readily implemented and are appropriate when used to mitigate short-term impacts. Applicants should not be required to purchase advance perpetual conservation credits to mitigate short-term or temporary impacts. The Draft Policy's requirements to do so have no basis in conservation and can be more appropriately characterized as user fees.

In sum, Section 7(a)(1) requires agencies to find ways to use their statutory authorities to help conserve endangered and threatened species, but it does not provide a means by which FWS can commandeer the various agencies to protect both listed and unlisted species, impose use restrictions across expansive landscapes, and require agency decisions to result in "net conservation gain." Far from authorizing the expansive mitigation program outlined in the Draft Compensatory Mitigation Policy, Section 7(a)(1) closely circumscribes the Service's authority. FWS's suggestions otherwise are arbitrary, capricious, and in clear conflict with the ESA.

⁵² *Platte River Whooping Crane Critical Habitat Maint. Trust v. Fed. Energy Regulatory Comm'n*, 962 F.2d 27, 33 (D.C. Cir 1992); *Seattle Audubon Soc'y v. Lyons*, 871 F. Supp. 1291, 1314 (W.D. WA. 1994).

⁵³ *Strahan v. Linnon*, 967 F. Supp. 581, 596 (D. Mass. 1997) (the ESA "does not mandate particular actions be taken by federal agencies to implement section 7(a)(1)"); *Hawksbill Sea Turtle v. Federal Emergency Management Agency*, 11 F. Supp. 2d 529 (D. VI 1998) (quoting *Strahan*); *Coalition for Sustainable Res. v. Forest Service*, 45 F. Supp. 2d 1303 (D. WY 2003) (Discretion "abundant").

⁵⁴ *American Forest and Paper Ass'n v. US EPA*, 137 F.3d 291 (5th Cir. 1998).

⁵⁵ *American Forest and Paper Ass'n*, 137 F.3d 291.

⁵⁶ 43 U.S.C. § 1701(a)(7).

⁵⁷ 81 Fed. Reg. at 61,048.

Section 7(a)(2) – Section 7(a)(2) requires that each federal agency “insure that any action authorized, funded, or carried out, by such agency . . . is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of [critical] habitat.”⁵⁸ In a Section 7(a)(2) consultation, FWS prepares a biological opinion to explain and document its determination of the potential impact of the federal action on the species or its habitat.

“No Jeopardy/No Adverse Modification” Finding – For actions that are not likely to jeopardize listed species or cause adverse modification of critical habitat, but that may nonetheless result in incidental take of listed species, the Service will include an incidental take statement (ITS) in the biological opinion that specifies: (1) the impact of the incidental taking on species; (2) “reasonable and prudent measures that the Secretary considers necessary or appropriate to minimize such impact;” and (3) measures, if any, necessary to comply with the Marine Mammal Protection Act. (MMPA)⁵⁹ The ITS also includes “terms and conditions” to implement the measures.⁶⁰

Reasonable and prudent measures (RPM) are defined as “those actions the Director believes necessary or appropriate to minimize the impacts, i.e., amount or extent, of incidental take.”⁶¹ While FWS has some discretion to design the elements of an ITS, they must be commensurate with and proportional to the impacts associated with the action.⁶² Additionally, “[r]easonable and prudent measures, along with the terms and conditions that implement them, cannot alter the basic design, location, scope, duration, or timing of the action and may involve only minor changes.”⁶³

The Draft Policy interprets these statutory and regulatory provisions—requiring *only the minimization* of potential impacts—as allowing FWS to require compensatory mitigation sufficient to *fully offset all* potential impacts of the proposed action *as well as the impacts of threats wholly unrelated to the proposed action*.⁶⁴ In doing so, FWS ignores the full purpose of Section 7(a)(2) within the ESA.

Section 7(a)(2) requires FWS to assist agencies in identifying and balancing the needs of listed species with the expectation that the non-jeopardizing action will be permitted to continue. FWS must strike this balance by setting the “price” of the ITS as the cost of undertaking reasonable efforts to reduce potential impacts to listed species. The Draft Policy undermines this balance by failing to recognize that, under Section 7(a)(2) and the Service’s implementing regulations, a non-

⁵⁸ The ESA Section 7 regulations define “jeopardize the continued existence of” as “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02 (emphasis added). “Destruction or adverse modification” is defined as “a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species.” 50 C.F.R. § 402.02 (emphasis added). Accordingly, the ESA allows for actions that may “reduce” the likelihood of survival and recovery of a listed species and that may “diminish” critical habitat—it is only when that reduction or diminishment becomes “appreciable” that it rises to the level of jeopardy or adverse modification of critical habitat.

⁵⁹ 16 U.S.C. § 1536(b)(4).

⁶⁰ 16 U.S.C. § 1536(b)(4).

⁶¹ 50 C.F.R. § 402.02.

⁶² 50 C.F.R. § 402.14.

⁶³ 50 C.F.R. § 402.14(i)(2).

⁶⁴ 81 Fed. Reg. at 61,040.

jeopardizing action may have some impact on listed species and critical habitat, and may result in incidental take of listed species. The “price” of the ITS issued under the Draft Policy becomes the *full cost* of all potential impacts from the proposed action, plus additional costs to protect the listed species from threats unrelated to the proposed action.

The Draft Compensatory Mitigation Policy’s “no net loss/net gain,” additionality, and mitigation ratio requirements fundamentally and impermissibly change the Service’s role, and the applicants’ burden, under Section 7(a)(2). Any federal project applicants and proponents seeking an ITS could and likely will be required to shoulder a portion of FWS’s duty to protect and conserve endangered and threatened species. Under the Draft Policy, the burden assigned to those seeking an ITS under Section 7(a)(2) would no longer be designed to “minimize” impacts and need not be commensurate with or proportionate to the anticipated impact of the project. The Draft Policy would permit FWS broad discretion to require compensatory mitigation at levels completely unmoored to the potential impact of the proposed project and could require any party seeking an ITS to fund conservation efforts unrelated to their proposed action.

In the context of Section 7(a)(2), the Draft Compensatory Mitigation Policy and its requirements for “no net loss/net gain,” additionality, landscape-scale mitigation, and advance mitigation essentially mandate conservation banking (that may or may not be available) and establish a clear—and impermissible—new fee structure for ITS:

- To increase the likelihood that FWS will determine a proposed action will not jeopardize a listed species, project applicants will need to have compensatory mitigation in place at least prior to the permitted activity, and even in advance of applying for the permit.⁶⁵
- The compensatory mitigation will be required to extend well beyond the proposed action area because of the Draft Policy’s requirements for landscape-scale mitigation, additionality and mitigation that exceeds what is necessary to minimize the potential impact of the proposed action.⁶⁶
- Because the compensatory mitigation will need to occur in advance of the permit/impact, be part of a landscape-scale mitigation program, and provide disproportionately more conservation than necessary to offset the proposed action, purchasing credits from an existing conservation bank is likely to be the only option for most parties seeking an ITS under Section 7(a)(2).

The credits that project applicants will be required to purchase from conservation banks essentially become application fees, the proceeds of which fund conservation efforts unrelated to the proposed action and outside the proposed action area. These fees are not designed to “minimize” impacts, are not commensurate with or proportional to the impacts associated with the action,⁶⁷ and are not

⁶⁵ 81 Fed. Reg. at 61,041.

⁶⁶ 81 Fed. Reg. at 61,041.

⁶⁷ 50 C.F.R. § 402.14.

“minor changes”⁶⁸ to the scope and design of the proposed action.⁶⁹ This misuse of authority is even more conspicuous when applied to situations where permittees are required to provide perpetual protections for projects with, at most, short-term or ephemeral impacts. Because these provisions of the Draft Policy are fundamentally incompatible with, and impermissible under the ESA and the Service’s implementing regulations, they must be withdrawn. FWS should be encouraging use of all tools in the conservation tool box, and not any particular mitigation mechanism.

“Jeopardy/Adverse Modification” Finding – When FWS issues a finding of jeopardy or adverse modification of critical habitat under Section 7(a)(2) for a listed species or under Section 7(a)(4), for proposed species/critical habitat the Service includes Reasonable and Prudent Alternatives (RPAs) that avoid jeopardizing the continued existence of the species or destroying/adversely modifying critical habitat.⁷⁰ As with Resource Management Plans (RPMs), RPAs cannot alter the basic design, location, scope, duration, or timing of the action and may involve only minor changes.⁷¹ RPAs can also only be applied to avoid or offset the presumed impacts of the proposed action.⁷² Agencies can only adopt or require RPAs to the extent the alternatives are consistent with the agencies’ existing authorities and are shown to be economically and technologically feasible.⁷³

While the Draft Policy correctly states that RPAs can include compensatory mitigation,⁷⁴ it errs in suggesting that FWS can mandate compensatory mitigation and further errs in suggesting that RPAs can be used to conscript applicants into mitigating impacts unrelated to the “intended purpose of the action.” RPAs are not generalized conservation obligations that can be imposed on all parties’ pursuing proposed actions that may jeopardize listed species or destroy/adversely modify critical habitat. RPAs are designed solely to offset the impacts anticipated from the proposed project, and may only be implemented if feasible and if consistent with the federal agency’s legal authority. Under Sections 7(a)(2) and 7(a)(4), RPAs can only be required to offset impacts on species that are listed or proposed to be listed or on critical habitat that is designated or proposed to be designated. To the extent that the Draft Compensatory Mitigation Policy suggests otherwise, it is in violation of the ESA and the Service’s implementing regulations.

2. Section 10

Section 10(a)(1)(B) of the ESA requires that incidental take permits (ITP) issued by FWS be based on a finding that the permit applicants will “minimize and mitigate” the impacts of the proposed taking “to the maximum extent practicable.”⁷⁵ No part of this statute gives FWS authority to

⁶⁸ 50 C.F.R. § 402.14(i)(2).

⁶⁹ Indeed, the Draft Policy could have avoided this *de facto* fee structure by allowing compensatory options that need not be tied to land restrictions. Research and education are important components of conservation and could provide applicants alternatives to conservation banks, but FWS suggests research and education can only be used as compensation in “rare circumstances.” 81 Fed. Reg. at 61,049.

⁷⁰ 81 Fed. Reg. at 61,040.

⁷¹ 50 C.F.R. § 402.14(i)(2).

⁷² 50 C.F.R. § 402.02.

⁷³ 50 C.F.R. § 402.02.

⁷⁴ 81 Fed. Reg. at 61,040.

⁷⁵ ESA § 10(a)(1)(B)(ii).

impose measures that will result in a “net gain” or “no net loss.” Nor does this provision allow FWS to disfavor short-term mitigation as compensation for short-term impacts. Rather, the Service can only ensure that the applicant minimizes and mitigates the impact on listed species “to the maximum extent practicable.”⁷⁶

The absence of authority to require a “net conservation gain” or “additionality” from incidental take permit applicants under section 10(a)(1)(B) is underscored by the ESA’s legislative history. A draft version of the ESA contained a requirement that Habitat Conservation Plans (HCPs) yield a benefit for species by “promot[ing] the conservation of listed species or critical habitat.”⁷⁷ Congress, however, elected to only require that HCPs “minimize and mitigate” the impacts of a taking “to the maximum extent practicable.”⁷⁸ Congress’s clear and documented choice in this respect confirms that it never intended to prohibit all impacts or allow FWS to require mitigation that produces a “net conservation gain.” The Draft Policy ignores Congress’s intent and the standards Congress incorporated into the ESA.

The Draft Policy not only departs from the Service’s statutory mandates, it departs from the Service’s existing interpretation of these statutory mandates. The Service’s Habitat Conservation Planning Handbook, which has been in effect for nearly 20 years, expressly recognizes that “[n]o explicit provision of the ESA or its implementing regulations requires that an HCP must result in a net benefit to affected species.”⁷⁹ As a result, the Service repeatedly emphasizes that it may only encourage minimization and mitigation measures that yield a “net benefit” but cannot require such measures:

- “Wherever feasible, the FWS and NMFS should *encourage* HCPs that result in a ‘net benefit’ to the species.”⁸⁰
- “During the HCP development phase, the Services should be prepared to advise section 10 applicants on . . . [p]roject modifications that would minimize take and reduce impacts, or, ideally, and with concurrence of the applicant, would generate an overall measurable net benefit to the affected species.”⁸¹
- “[A]pplicants should be *encouraged* to develop HCPs that produce a net positive effect for the species or contribute to recovery plan objectives.”⁸²

Therefore, the language of the ESA, its legislative history, and the Service’s interpretations of the Act in its Habitat Conservation Planning Handbook demonstrate that the Service may not require mitigation that yields a “net conservation gain” or “no net loss” from applicants for incidental take permits. The Service cannot ignore Congress’s specific statutory directive when implementing the ESA or abandon without explanation its long-held interpretation of that directive. The Service

⁷⁶ ESA § 10(a)(1)(B)(ii).

⁷⁷ See S. 2309, 97th Cong. § 7(o)(1)(A) (as introduced, Mar. 30, 1982).

⁷⁸ See 16 U.S.C. § 1539(a)(2)(A)(ii).

⁷⁹ FWS and National Marine Fisheries, Habitat Conservation Planning Handbook 3-21 (1996).

⁸⁰ FWS and National Marine Fisheries, Habitat Conservation Planning Handbook at 3-21 (emphasis added).

⁸¹ FWS and National Marine Fisheries, Habitat Conservation Planning Handbook at 3-7 (emphasis added).

⁸² FWS and National Marine Fisheries, Habitat Conservation Planning Handbook at 3-20 (emphasis added).

may not apply the Draft Policy to incidental take permits under Section 10(a)(1)(B) and associated HCPs. The Draft Policy is impermissible under the Service's authorizing statute, and must be withdrawn.

VI. Key Elements of the Draft Compensatory Mitigation Policy Violate Multiple Statutes and Regulations

The preceding discussion explains how the Draft Policy is fundamentally incompatible with the precise subsections of the ESA under which FWS expects the Draft Policy to be utilized. Sections 7 and 10, however, are not the only statutory limitations on the Service's ability to recommend and require compensatory mitigation as outlined in the Draft Policy. Key elements of the Draft Compensatory Mitigation Policy violate multiple federal statutes and provisions of the ESA other than Sections 7 and 10.

a. No Net Loss/Net Gain

The Draft Policy's "no net loss/net gain" requirements are arguably the most legally suspect element of the revisions proposed by FWS. The Trades understand and share the Service's desire to seek out and incentivize superior levels of conservation benefit/gain. These interests, however, do not relieve FWS of the practical constraints imposed by numerous statutes and regulations.

1. *Marine Mammal Protection Act*

The mitigation goals of "net conservation gain" and "no net loss" are inconsistent with the standards for authorizing incidental take under the MMPA, which allows some impact on marine mammal species or stock. Section 101(a)(5) of the MMPA directs that, upon request, the Secretary allow incidental taking of small numbers of marine mammals of a species or stock during periods as long as five years if certain procedures and requirements are met. These requirements include: (1) a finding by the Secretary that "the total of such taking during each five-year (or less) period concerned will have a negligible impact on such species or stock"; (2) a finding by the Secretary that "the total of such taking during each five-year (or less) period concerned . . . will not have an unmitigable adverse impact on the availability of such species or stock for taking for subsistence uses"; and (3) regulations setting forth "means of effecting the least practicable adverse impact on such species or stock and its habitat," as well as other requirements.⁸³ FWS will issue Letters of Authorization (LOAs) that authorize specific activities upon a determination that the level of taking will be consistent with the findings made for the total allowable taking.⁸⁴ Thus, through the MMPA, Congress specifically allowed incidental takes of marine mammals, and allowed those incidental takes to result in adverse impacts so long as they were not "unmitigable."

The Service's regulations interpreting the MMPA do not deviate from Congress' clear intent. The Service has defined "negligible impact" as an impact "that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of

⁸³ 16 U.S.C. § 1371(a)(5)(A).

⁸⁴ 50 C.F.R. § 18.27(f)(2).

recruitment or survival.”⁸⁵ Thus, the Service has recognized that incidental take of marine mammals may have some, albeit negligible, net impact to species or stock. Although the Service’s definition of “unmitigable adverse impact” recognizes that FWS may require mitigation,⁸⁶ “net conservation gain” and “no net loss” are not the operative standards.⁸⁷ In the preamble to the final rule defining “unmitigable adverse impact,” FWS explained that this standard “does not require the elimination of adverse impacts, only mitigation sufficient to meet subsistence requirements.”⁸⁸

Because Congress recognized that the incidental taking of marine mammals could have some albeit minor impacts on species or stock, the goals of “net conservation gain” and “no net loss” are inconsistent with the standards for authorizing incidental take under the MMPA.⁸⁹

2. *Fish and Wildlife Coordination Act*

FWS cites the Fish and Wildlife Coordination Act (FWCA) as providing authority for the Draft Policy and presumably for the “no net loss/net gain” requirements proposed therein.⁹⁰ The FWCA, however, cannot be interpreted to require compensatory mitigation of this magnitude. The FWCA expressly requires that wildlife conservation shall receive “*equal consideration . . . with other features of water-resource development programs . . .*”⁹¹ Courts have interpreted the FWCA as requiring agencies to consult with federal and state wildlife agencies prior to authorizing a project impacting water resources,⁹² but have never interpreted “equal consideration” as requiring anything more than what the phrase’s plain meaning suggests.

Under the FWCA, agencies have authorized, and courts have upheld, projects that adversely impact listed species and their habitat.⁹³ Because the FWCA allows for authorization of projects adversely impacting species and habitat and because the FWCA does not allow agencies (including FWS) to give unequal weight to conservation considerations, the Draft Policy’s “no net loss/net gain” requirements are impermissible under the FWCA.

3. *Clean Water Act*

The Draft Policy’s “no net loss/net gain” requirements are inconsistent with the U.S. Army Corps of Engineers (USACE) regulations implementing section 404 of the Clean Water Act.⁹⁴ These regulations require compensatory mitigation “to offset environmental losses resulting from

⁸⁵ 50 C.F.R. § 18.27(c).

⁸⁶ 50 C.F.R. § 18.27(c).

⁸⁷ See 16 U.S.C. § 1371(a)(5)(D)(i).

⁸⁸ 54 Fed. Reg. 40,338, 40,344 (Sept. 29, 1989).

⁸⁹ In the Draft Compensatory Mitigation Policy and the March 8, 2016 Draft Mitigation Policy, the Service suggests that it will recommend but not require mitigation to yield “net conservation gain” or “no net loss.” As discussed in subsection-VI.b. below, the Service’s assertions are undermined by the mandatory nature of the “additionality” and mitigation requirements.

⁹⁰ 81 Fed. Reg. at 61,035, 36.

⁹¹ 16 U.S.C. § 661 (emphasis added).

⁹² *Confederated Tribes and Bands v. FERC*, 746 F.2d 466 (9th Cir. 1984).

⁹³ See *Northwest Resource Information Center, Inc. v. Northwest Power & Conservation Council*, 730 F.3d 1008 (9th Cir. 2013).

⁹⁴ 33 U.S.C. § 1344. See 33 C.F.R. part 332 (2015).

unavoidable impacts to waters of the United States.”⁹⁵ As such, the regulations impose a ‘no net loss’ standard, requiring that the “amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions.”⁹⁶ When establishing compensatory mitigation requirements, the USACE uses a “watershed approach” that considers impacts to species and their habitats, among other factors.⁹⁷

The Service’s “net conservation gain” requirement is inconsistent and incompatible with the USACE’s requirement of no net loss of wetlands. The Draft Policy both duplicates and adds to the USACE’s mitigation requirements. The Draft Policy duplicates the USACE’s mitigation requirements because, when evaluating compensatory mitigation requirements, the USACE considers species and their habitats.⁹⁸ Thus, the Draft Policy would require that proponents offer compensatory mitigation to offset impacts that are addressed by the USACE’s required mitigation.

Additionally, the Draft Policy would increase the amount of compensatory mitigation otherwise required by the USACE’s regulations to yield a “net conservation gain.” This increase places the Draft Policy in direct conflict with the usage regulations. Therefore, the Service’s “net conservation gain” goal is inconsistent with, and impermissible under, the USACE’s regulations implementing the Clean Water Act.

4. *Various Multiple Use Statutes*

The essential premise of the Draft Policy, and particularly the “no net loss/net gain requirements” is that the Service’s conservation mandate allows FWS to disturb the balancing of interests required under various multiple use statutes. This premise is incorrect and impermissible.

Although the ESA, Migratory Bird Treaty Act (MBTA), the Eagle Act, and MMPA impose on the Service a heightened obligation to protect trust resources, many of the other statutes the Service cites as authority for the Draft Policy require that conservation be balanced with other land and resource uses. For instance:

- The Federal Power Act allows the Federal Energy Regulatory Commission to decline to adopt recommendations of the Service;⁹⁹
- The Outer Continental Shelf Lands Act affords the Service only a commenting role on applications for dredge and fill permits when Section 7 consultation is not required;¹⁰⁰ and,
- FLPMA declares national policy that the public lands be managed “on the basis of multiple use and sustained yield.”¹⁰¹

⁹⁵ 33 C.F.R. § 332.3(a)(1), (2).

⁹⁶ *Id.* § 332.3(f).

⁹⁷ *Id.* § 332.3(c)(1), (2).

⁹⁸ 33 U.S.C. § 332.3(c)(2).

⁹⁹ 16 U.S.C. § 803(j).

¹⁰⁰ 33 U.S.C. § 1344(m).

¹⁰¹ 43 U.S.C. § 1701(a)(7).

The Draft Policy fails to recognize these statutory directives and does not balance conservation with principles of multiple use. In fact, aspects of the Draft Policy like the “no net loss/net gain,” additionality, and mitigation ratio requirements may not serve conservation goals at all. Because these provisions impermissibly disrupt the balance mandated by various multiple use statutes, they must be withdrawn.

5. *Council on Environmental Quality (CEQ) Regulations*

The Draft Compensatory Mitigation Policy cites to the Council on Environmental Quality’s (CEQ) regulations under the National Environmental Policy Act (NEPA) as providing authority for the policy and several of its key elements.¹⁰² These regulations, however, demonstrate that the compensatory mitigation applicable to NEPA reviews cannot be interpreted to require “net gain/no net loss.” Under CEQ’s regulations, compensatory mitigation need only compensate “for the impact [of the action] by replacing or providing substitute resources or environments.”¹⁰³ Compensatory mitigation under the CEQ regulations is further aimed at “repairing, rehabilitating, and restoring the affected environment.”¹⁰⁴ In crafting these regulations, CEQ preserved the ordinary meaning of the word “compensatory” as a counterbalance to adverse impacts, and preserved Congress’s intent in drafting NEPA to help reduce adverse impacts to the environment.

The Draft Policy’s “net gain/no net loss” mandates require far more than compensation, restoration, or rehabilitation of the adverse impacts of a proposed project. These mandates require permittees and applicants to improve the status of species to levels dictated by FWS and without regard to the potential adverse impact of the project. The “net gain/no net loss” mandate cannot be interpreted as a goal of “compensatory mitigation” under NEPA, CEQ’s regulations, or any statute referenced above because the “net gain/no net loss” mandate is not designed to compensate for losses and because it bears no relationship to any adverse impact caused by those that FWS would require to/recommend undertake compensatory mitigation. The Draft Policy’s “net gain/no net loss” mandate is nothing more than a fee that FWS intends to impose on any entity with a project potentially impacting species. Because FWS has no authority to impose such a fee, and in fact is prohibited from imposing such a fee under many statutes, the Draft Policy’s “net gain/no net loss” mandate should be withdrawn.¹⁰⁵

¹⁰² 81 Fed. Reg. at 61,033, 61,035, 61,048, 61,058, 61, 059, 61,060.

¹⁰³ 40 C.F.R. § 1508.20(d).

¹⁰⁴ 40 C.F.R. § 1508.20(c).

¹⁰⁵ The Service may not condition the approval of a land use permit on a “net conservation gain” standard without risking a compensable taking under the Fifth Amendment of the U.S. Constitution. The U.S. Supreme Court has held that a compensable taking occurs when the government conditions approval of a land use permit on the dedication of property or money to the public unless there is a “nexus” and “rough proportionality” between the government’s requirements and the impacts of the proposed land use. *Koontz v. St. Johns River Water Mgmt. Dist.*, 570 U.S. ___, 133 S. Ct. 2586, 2595 (2013); *Dolan v. City of Tigard*, 512 U.S. 374, 391 (1994); *Nollan v. Cal. Coastal Comm’n*, 483 U.S. 825, 837 (1987). The Supreme Court reasoned that “[e]xtortionate demands for property in the land-use permitting context run afoul of the Takings Clause not because they take property but because they impermissibly burden the right not to have property taken without just compensation.” *Koontz*, 133 S. Ct. at 2589–90. A requirement that a project proponent provide mitigation that yields a “net conservation benefit” would result in a compensable taking because it requires a proponent to provide more mitigation than necessary to offset an impact. The amount of mitigation therefore lacks a “rough proportionality” to the impact, leading to a compensable taking. The Service should not adopt a compensatory mitigation policy that can lead to compensable takings. See Executive Order No.

b. Additionality and Mitigation Ratios

The Draft Compensatory Mitigation Policy’s overall “net gain/no net loss” mandate is implemented through strict “additionality” requirements and mitigation ratios that are weighted to achieve policy objectives quite distinct from conservation and compensation. These policy objectives aim to discontinue use of permittee-responsible mitigation in favor of broad landscape-scale conservation banking regardless of the relative unavailability of conservation banks (or complete unavailability in states like Alaska) and without consideration of whether added costs and complexity decrease the level of participation in compensatory mitigation. Because these are strict and inflexible requirements for compensatory mitigation and because they are not grounded on accepted notions of conservation or compensation, the additionality requirements and mitigation ratio directives are impermissible and must be withdrawn.

1. *Additionality*

The Draft Policy directs that “[c]ompensatory mitigation must provide benefits beyond what would otherwise have occurred through routine or required practices or actions or obligations required through legal authorities or contractual agreements.”¹⁰⁶ The Draft Policy characterizes this requirement as an “additionality” requirement,¹⁰⁷ but it does so in a way that creates an entirely new and impermissible compensatory mitigation requirement.

Current FWS policies and the Draft Compensatory Mitigation Policy define “additionality” as “conservation benefits of a compensatory mitigation measure that improve upon the baseline conditions of the impacted resources and their values, services, and functions in a manner that is demonstrably new and would not have occurred without the compensatory mitigation measure.”¹⁰⁸ Under existing FWS policy, the Service need only undertake a *consideration* of additionality in assessing landscape-scale approaches.¹⁰⁹ The Draft Policy, on the other hand, makes additionality a *mandatory component* of compensatory mitigation by requiring that “[c]ompensatory mitigation *must* provide benefit beyond what would otherwise have occurred . . .”¹¹⁰

In addition to converting a factor to be examined in compensatory mitigation decisions into a mandatory factor of all compensatory mitigation mechanisms, the Draft Policy shifts the baseline from which “additionality” is measured, and in doing so, severs the concept of additionality from its biological underpinnings. Under the Service’s existing policies, “additionality” is the improvement upon the baseline conditions of the species or habitat—it is a measure of biological or ecological improvement. Under the Draft Policy, however, “additionality” is the improvement on baseline regulations or contractual obligations (“benefits beyond what those that would otherwise have occurred through routine or required practices or actions or obligations required through legal authorities or contractual agreements.”)¹¹¹ The difference between these baselines

12630, 53 Fed. Reg. 8859 (Mar. 15, 1988) (directing that agencies “should review their actions carefully to prevent unnecessary takings”).

¹⁰⁶ 81 Fed. Reg. at 61,037.

¹⁰⁷ 81 Fed. Reg. at 61,037.

¹⁰⁸ Departmental Manual 600 DM 6; 81 Fed. Reg. at 61,057.

¹⁰⁹ Departmental Manual 600 DM 6.

¹¹⁰ 81 Fed. Reg. at 61,037 (emphasis added).

¹¹¹ 81 Fed. Reg. at 61,037.

is immensely important because it shows that the Draft Policy’s baseline bears no relationship to conservation or compensation.

Consider a circumstance where applicants for temporary use permits are already required to not only remediate the impact area to pre-use conditions, but also reseed the area to propagate plant species beneficial to the target species and/or remove any invasive species encountered. Under the Service’s existing policies, the requirements already imposed in this area would qualify as “additionality” because they improve upon the biological or ecological baseline. Under the Draft Policy, however, the existing requirements represent baseline conditions which *must* be improved upon through compensatory mitigation. Indeed, under the Draft Policy, *any* existing protection provided by statute, regulation, contract, or otherwise is *per se* insufficient. Under the Draft Policy, “additionality” means that compensatory mitigation must require something more than what may already fully compensate for the impact of a proposed action or improve the status of the species/habitat. As such, it ceases to be compensatory. And, because the Draft Policy would apply the “additionality” requirement as a formulaic “+1” on existing protections regardless of conservation need, it ceases to further any credible conservation goal, and it violates the ESA’s requirement that determinations such as these be based on the best scientific and commercial information available. There is no scientific basis for an “additionality” requirement that must be applied without any consideration of the sufficiency of existing protections or needs of the species.

The Draft Policy’s interpretation of additionality also violates FLPMA and other statutes with multiple use mandates because the interpretation does not allow for the balancing of multiple uses. The Draft Policy states that compensatory mitigation must always require more land use constraints and protections regardless of the sufficiency of the status quo and without consideration of the amount of mitigation required to offset the impacts of the proposed action.

Further, the Draft Policy’s statement that additionality will be very difficult to demonstrate on public lands indicates that additionality requirements will be used for federal control over private lands.¹¹² If compensatory mitigation will be required for a proposed action on public land and the compensatory mitigation will require additionality that cannot be demonstrated on public land, then permittees/applicants’ only option is to demonstrate additionality with protections on private land. Regardless of whether these protections take place on the permittee’s land or are obtained through the purchase of credits from a conservation bank, the result is the same—FWS is claiming authority to direct private actions on private land.

2. Mitigation Ratios

The Draft Policy’s discussion of mitigation ratios also makes clear that its requirements for compensatory mitigation serve goals entirely distinct from conservation objectives. Section 6.6.4 of the Draft Policy states that “[m]itigation ratios can be used as a risk-management tool to address uncertainty, ensure durability, or *implement policy decisions to meet the net gain or no net loss goal.*”¹¹³ As such, the Draft Policy characterizes its “net gain/no net loss” requirements as policy

¹¹² 81 Fed. Reg. at 61,038.

¹¹³ 81 Fed. Reg. at 61,046.

objectives separate and distinct from the conservation objectives FWS elsewhere claims as justification for this action.¹¹⁴

Similarly, the Draft Policy identifies eight biological and conservation-based factors that should be considered in adjusting mitigation ratios.¹¹⁵ Each of these eight factors attempts to assess the nature and extent of the impacts of the proposed action, and therefore the nature and extent of the mitigation necessary to compensate for impacts of the proposed action.¹¹⁶ These eight *conservation-based* considerations, however, are followed by two factors that *bear no relationship* to compensatory mitigation and which can only be viewed as putting a thumb on the scale in favor of conservation banking and furthering constraints on access to public lands for reasons unrelated to conservation.¹¹⁷

The first policy factor states that:

Mitigation ratios can be adjusted to achieve conservation goals. For example, mitigation ratios may be adjusted upward to create an incentive for avoidance of impacts in areas of *high conservation concern* (e.g., zoned approach). Or they may be adjusted downward to provide an incentive for project applicants to use conservation banks or in-lieu fee programs that conserve habitat in *high priority conservation areas* rather than permittee-responsible mitigation. . .¹¹⁸

While the Draft Policy asserts that this factor is in furtherance of conservation goals, there is little to suggest it has anything to do with conservation. The phrases “high conservation concern” and “high priority conservation areas” are not defined anywhere within the Draft Policy. Absent definitions for these phrases, “high conservation concern” and “high priority conservation areas” could be interpreted by FWS or other agencies to allow the use of heavily weighted compensatory mitigation ratios to extract protections for, and restrict access to, scenic areas, areas of historical significance, or any area a federal agency desires to protect regardless of the presence of listed or proposed species or of designated or proposed critical habitat. It is indeed noteworthy that FWS declined to use the well-known statutory definition of “critical habitat” in favor of two phrases that would allow FWS and agencies broad authority to design mitigation ratios to effectuate land-use or development restrictions. It is not even clear how these particular designations satisfy the Service’s conservation goals or how preservation of these areas compensates for impacts.

The second policy factor states that, “[m]itigation ratios may also be adjusted upward to move from a no net loss goal to a net gain goal.”¹¹⁹ In this instance, the Draft Policy makes no attempt to characterize the “net gain goal” as in furtherance of conservation or as a mechanism for compensating for impacts from a proposed action. Instead, the “net gain goal” and the mitigation ratios that would facilitate that goal are designed to control land use and land-use industries—they are not designed to compensate for the impacts of proposed actions. They are federal zoning

¹¹⁴ Additionally, FWS suggests that it will increase mitigation ratios in response to uncertainty, when in fact adaptive management can and should be used when new peer-reviewed science becomes available.

¹¹⁵ 81 Fed. Reg. at 61,046.

¹¹⁶ 81 Fed. Reg. at 61,046.

¹¹⁷ 81 Fed. Reg. at 61,046.

¹¹⁸ 81 Fed. Reg. at 61,046 (emphasis added).

¹¹⁹ 81 Fed. Reg. at 61,046.

requirements which cannot be read in harmony with FLPMA or other statutes with multiple use mandates. These ratios have no scientific basis and pursue no identifiable biological or compensatory goals, and are therefore impermissible under the ESA.

Indeed, because these policy factors (and the biological factors) all appear to address large-scale, programmatic mitigation delivery systems, they are too burdensome for individual projects that represent the lion's share of existing compensatory mitigation projects and the readily available and tangible benefits they provide. This Draft Policy therefore profoundly undermines conservation. Because these interrelated requirements for "no net loss/net gain," additionality, and policy-driven mitigation ratios are the foundation of the Draft Compensatory Mitigation Policy, FWS must withdraw the entire Draft Policy and redraft it consistent with the Service's existing and prescribed authority.

c. Advance Mitigation Requirements and Implementation

The Draft Compensatory Mitigation Policy instructs that compensatory mitigation should be implemented in advance of actions adversely impacting the species or critical habitat.¹²⁰ No statutory or regulatory authority, however, allows FWS to delay approval of a permit or action while mitigation is implemented. In attempting to confer to itself the authority to require advance mitigation, FWS is creating a framework that could indefinitely delay commencement of lawful development projects and dissuade use of permittee-responsible mitigation in favor of conservation banks that may or may not be available.

There are a myriad of circumstances that could delay the implementation of compensatory mitigation, ranging from seasonal restrictions on wildlife to the lack of lands available for compensatory mitigation. This requirement essentially prioritizes implementation of compensatory mitigation over the initiation of any federal or private action for which mitigation is necessary, regardless of the circumstance (even an emergency). And, in doing so, it impermissibly upsets the balancing of multiple uses that is required by FLPMA and other statutes. Additionally, the Draft Policy seeks to require compensatory mitigation to be in place before the start of the project triggering the need to undertake compensatory mitigation, but it may also require a positive biological response to the mitigation to be measured before the project can be initiated.¹²¹ Under Section 6.6.3 of the Draft Policy, FWS may prohibit the release of credits from a compensatory mitigation project until specific performance criteria are met.¹²² Performance criteria are "observable or measurable administrative and ecological (physical, chemical, or biological) attributes that are used to determine if a compensatory mitigation project meets the agreed upon conservation objectives."¹²³

Using performance criteria as triggers for the release of credits is immensely problematic because the ability to proceed with a proposed action is premised on factors outside of the control of the party seeking the permit. Even a well-executed mitigation project can fail to result in a positive ecological or biological response. Threatened and endangered species are rarely in peril because

¹²⁰ 81 Fed. Reg. at 61,038.

¹²¹ 81 Fed. Reg. at 61,038.

¹²² 81 Fed. Reg. at 61,045.

¹²³ 81 Fed. Reg. at 61,060.

of a single threat or a single type of threat, and actions that remove or mitigate a single threat can seldom be expected to result in a positive biological response, much less an immediate response. And, in many cases, positive responses are not observable or measurable. FWS lists numerous species for which habitat modification is a proxy for a threat because it is impossible or impracticable to survey the species or observe population trends.

Performance criteria should be based on what the ESA requires of compensatory mitigation projects and what compensatory mitigation is supposed to accomplish—if the mitigation project mitigates the amount of threat anticipated from the proposed action or is projected to do so, credits should be released.

Further, in most if not all circumstances, these advance mitigation requirements will amount to a de facto requirement to purchase credits from a conservation bank or in-lieu program. Even where conservation banks and in-lieu programs are not rigidly required or available, the Draft Policy suggests that FWS will punish those who cannot or will not agree to advance mitigation by increasing the mitigation ratio that FWS will require for the project.¹²⁴ Again, when the Draft Policy’s advance mitigation requirements are viewed alongside the “net gain/no net loss” requirements, it becomes clear that Draft Compensatory Mitigation Policy is seeking to impose on those parties required to obtain federal approvals and/or permits a new fee that need not be commensurate or in proportion to the project for which the permit is sought. Under the Draft Policy, permit seekers must be prepared to purchase credits in excess of what is necessary to mitigate, minimize, or offset their project. These permit seekers must, for the first time, fund the Service’s conservation obligations simply because they engage in an activity that requires a federal action and/or permit.

These fees are not permitted under the ESA and affirmatively prohibited under FLPMA and other land use statutes. Given the lack of authority for the surcharges that would be imposed by the Draft Policy, it must be withdrawn.

d. At-Risk Species

In the Draft Policy, the Service attempts to assert jurisdiction over nearly any species conceivable by proposing to expand the compensatory mitigation framework to at-risk species, which are defined as “candidate species and other unlisted species that are declining and are at risk of becoming a candidate for listing under the [ESA].”¹²⁵ As noted within this definition, the Draft Policy does not even limit the definition of “at-risk” species to those at risk of becoming listed as threatened or endangered—it extends the definition to those species *at risk of even being considered* for a potential future listing. Such a definition provides no limitation on the Service’s ability to extend its jurisdiction over any species because there are no standards by which to assess the likelihood that FWS will consider a species for listing. In fact, the Service has unlimited authority to *consider* whether to list species. The ESA provides standards for making listing decisions and responding to petitions, but offers no constraint on the Service’s ability to contemplate listing a species. Indeed, even a threadbare and unscientific petition to list a species requires FWS to *consider* listing.

¹²⁴ 81 Fed. Reg. at 61,038.

¹²⁵ 81 Fed. Reg. at 61,058.

Further, given the Service's heightened concern over broad threats such as climate change, population growth, and natural resource demands,¹²⁶ it is not unfathomable that FWS would declare all domestic species or all species within a region or habitat type as at risk of at least being considered for listing. Because FWS may always *consider* listing a species and because there is no standard by which to surmise the risk that FWS may consider a species for listing, the Draft Policy's assertion of jurisdiction over at-risk species amounts to an assertion of jurisdiction over any species the Service desires. This is clearly an impermissible outcome, and one which Congress directed FWS to avoid through numerous statutes.

Congress has only charged the Service with management of trust resources under the ESA, MBTA, the Eagle Act and MMPA.¹²⁷ Although Congress has conferred some authority over non-trust resources under other statutes, this authority is limited to particular roles or projects. For example, although the FWCA requires the Service to consult regarding unlisted fish, wildlife, and their habitats, the Service's consultation obligation only relates to water-related projects developed by federal agencies.¹²⁸ And, unlike the paradigm proposed by the Draft Policy, the FWCA requires conservation concerns to share an equal footing with development projects.

Furthermore, the Service's asserted authority upsets the balance between state and federal management of species. States have "broad trustee and police powers" over wildlife and other natural resources within their jurisdiction and may exercise those powers "in so far as [their] exercise may be not incompatible with, or restrained by, the rights conveyed to the Federal government by the constitution."¹²⁹ Unless the federal government exercises one of its enumerated powers to manage wildlife species, the states retain authority to manage wildlife and their habitat.¹³⁰

The Service's assertion of jurisdiction over at-risk species causes each aspect of the Draft Policy to extend well beyond the authority conferred by Congress to FWS and the various federal agencies. Absent authority over at-risk species, and in the face of affirmative prohibitions of asserting jurisdiction over at-risk species, the Draft Policy must be withdrawn.

e. Split Estates

The Draft Policy illogically and impermissibly discourages compensatory mitigation on lands where different parties own the surface and the mineral rights.¹³¹ But, as FWS acknowledges, these split estates represent some of the most high-value conservation areas.¹³² This conservation value

¹²⁶ 81 Fed. Reg. at 61,035.

¹²⁷ See 16 U.S.C. §§ 668-668c, 703-712, 1361-1423h, 1531-1539.

¹²⁸ 16 U.S.C. §§ 661-667e.

¹²⁹ *Kleppe v. New Mexico*, 426 U.S. 529, 545 (1976); *Mountain States Legal Found. v. Hodel*, 799 F.2d 1423, 1426 (10th Cir. 1986) (citing *Geer v. Connecticut*, 161 U.S. 519, 528 (1896), *overruled on other grounds*, *Hughes v. Oklahoma*, 441 U.S. 322 (1979)).

¹³⁰ *Minnesota v. Mille Lacs Band of Chippewa Indians*, 526 U.S. 172, 204 (1999) (noting that the states' authority over wildlife "is shared with the Federal Government when the Federal Government exercises one of its enumerated constitutional powers, such as treaty making") (emphasis added); see also *Maine v. Norton*, 257 F. Supp. 2d 357, 374-75 (D. Me. 2003) (finding listing of salmon under ESA injured state's sovereign interest in managing its own wildlife resources sufficient to confer constitutional standing).

¹³¹ 81 Fed. Reg. at 61,043.

¹³² 81 Fed. Reg. at 61,043.

has also been recognized by the Internal Revenue Service, which identifies split estates as qualifying for conservation easements and tax benefits. Rather than identifying areas to exclude from its compensatory mitigation program, FWS should be identifying ways to facilitate conservation. For instance, instead of essentially compelling the use of conservation banks, short-term and/or discrete mitigation projects can provide significant conservation benefits regardless of whether ownership and control of the estate is unified or split.

Discouraging the use of compensatory mitigation on split estates only furthers access constraints, increases the scarcity of available mitigation areas, and therefore increases the likely cost of credits sold from conservation banks operating in those areas. The Draft Policy should not artificially facilitate a shortage of mitigation areas in order to create the economic incentive to develop conservation banks to sell credits in those areas.

f. Short-Term Mitigation

Short-term compensatory mitigation is a valuable conservation tool because it can be implemented quickly and efficiently. And because short-term mitigation can be implemented quickly and efficiently, it has been a well-utilized conservation tool. Multiple individual short-term mitigation projects can also be stacked over time to create a comprehensive, long-term conservation benefit.

The Draft Policy's dismissal of short-term mitigation for compensation in favor of larger, more complex mitigation projects would remove this accessible and nimble approach and risk losing the participation of those project proponents that would only engage in compensatory mitigation if it could be implemented quickly and at a cost that is justified by the project for which the mitigation would be undertaken. As such, once again, the Draft Policy's inflexible focus on perpetual landscape-scale mitigation through conservation banking may undermine conservation by effectively eliminating an accessible and well-used mitigation option.

Further, the Draft Policy's dismissal of short-term compensatory mitigation underscores once again that the Draft Policy is not designed to obtain conservation at all—it is designed to facilitate large-scale public set-asides and access fees. Short-term mitigation should be allowed to compensate for projects with short-term impact. When FWS requires long-term or permanent protections for ephemeral disturbances, it ceases to be requiring compensation for a project's potential impacts. It is using the issuance of a permit to exact permanent compensatory mitigation or other longer-term conservation efforts from land users, amounting to charging a fee for obtaining a permit.

While FWS may have some flexibility in crafting its regulations for compensatory mitigation, it cannot wholly eliminate the concept of compensation from its mitigation requirements. Nor can the Service structure its compensatory mitigation program to dissuade the use of the most accessible, most utilized, and therefore most successful type of compensatory mitigation. As such, the Draft Policy's approach to short-term mitigation should be withdrawn and redrafted so that it facilitates greater conservation and reflects its compensatory purpose.

VII. The Procedures by which FWS is Promulgating the Compensatory Mitigation Policy are Impermissible

In addition to claiming jurisdiction in excess of, and inconsistent with, the ESA and numerous other statutes, the Draft Policy is impermissible because it cannot be credibly construed as a mere policy statement or simply guidance to Service personnel. It is a proposed rule that, if finalized, would fundamentally change the Service's compensatory mitigation requirements, create substantive new obligations, and expand the jurisdiction of FWS through interpretations of numerous statutes. Because the Draft Compensatory Mitigation Policy is, in reality, a substantive rule, FWS must promulgate it according to the procedures set forth in the APA and elsewhere. Additionally, the Service must comply with other laws and executive orders applicable to substantive rules, including the Regulatory Flexibility Act, which requires the Service to prepare a draft regulatory flexibility analysis analyzing the economic impacts of the Draft Policy, and NEPA, which requires an analysis of the Draft Policy's impacts on the environment.

a. If Finalized, the Draft Policy Would be a Rule

The Draft Policy constitutes a substantive rule under the APA for several reasons. First, the Draft Policy imposes new duties on the Service, other agencies, and the regulated public. Second, the Draft Policy's goals of "net conservation gain" and "no net loss" reflect legislative line-drawing. Finally, the Draft Policy amends the Service's existing regulations governing incidental take permits under the ESA and incidental take authorizations under the MMPA. Because the policy constitutes a legislative rule, the Service cannot finalize the Draft Policy without revision and republication.

1. *The Draft Policy Imposes New Duties on the Service, Other Agencies, and Regulated Parties*

The APA defines a rule as a "statement of general or particular applicability and future effect" that is "designed to implement, interpret, or prescribe law or policy" that "includes the approval or prescription for the future of . . . valuations, costs, or accounting, or practices bearing on any of the foregoing."¹³³ The APA imposes notice and comment procedures on substantive rules but not interpretive rules.¹³⁴ To determine whether a rule is substantive or interpretive, courts have examined whether the rule explains an existing requirement or imposes an additional one. Rules that "affect[] individual rights and obligations" are substantive rules.¹³⁵ In contrast, rules that merely explain ambiguous statutory and regulatory terms or restate existing duties are interpretive rules.¹³⁶

Although it is sometimes difficult to distinguish substantive rules from interpretive rules, courts have identified characteristics of substantive rules. Substantive rules grant rights, create new

¹³³ 5 U.S.C. § 551(4).

¹³⁴ See 5 U.S.C. § 553.

¹³⁵ *Coal. for Common Sense in Gov't Procurement v. Sec'y of Veterans Affairs*, 464 F.3d 1306, 1317 (Fed. Cir. 2006); *United States v. Picciotto*, 875 F.2d 345, 347–48 (D.C. Cir. 1989).

¹³⁶ *Picciotto*, 875 F.2d at 347–48.

duties, or impose new obligations.¹³⁷ Agencies announce substantive rules when they act legislatively by establishing limits or drawing lines—in other words, when agencies “make[] reasonable but arbitrary (not in the ‘arbitrary or capricious’ sense) rules that are consistent with the statute or regulation under which the rules are promulgated but not derived from it, because they represent an arbitrary choice among methods of implementation.”¹³⁸ Additionally, a substantive rule “does not genuinely leave the agency free to exercise discretion.”¹³⁹

The Draft Policy is a substantive rule because it imposes new obligations on both the FWS and entities outside of the agency. These new obligations include, but are not limited to:

- a new requirement that FWS secure mitigation that achieves a “net conservation gain” or, at a minimum, “no net loss;”¹⁴⁰
- a new mandate that all compensatory mitigation must include additionality;¹⁴¹
- a new requirement that requires applicants to demonstrate financial assurance to fund long-term management of the species, and any changes to management that may be required by FWS in the future;¹⁴²
- a new requirement that FWS and other agencies require compensatory mitigation for proposed actions that may impact any species at risk of being considered for listing; and,¹⁴³
- a new advance mitigation requirement that effectively requires applicants to purchase credits from conservation banks or endure punitive mitigation ratios for projects that are not completed in advance.¹⁴⁴

The fact that the Service purports to apply the Draft Policy only to the extent allowed by applicable statutory authority does not alter the substantive effect of the Draft Policy because the Service identifies few if any circumstances in which statutory authority limits its ability to apply the Draft Policy. Accordingly, the numerous elements set forth in the Draft Policy constitute substantive rules under the APA.

¹³⁷ *Coal. for Common Sense in Gov’t Procurement*, 464 F.3d at 1317; *Picciotto*, 875 F.2d at 347–48.

¹³⁸ *Catholic Health Initiatives v. Sebelius*, 617 F.3d 490, 495 (D.C. Cir. 2010) (quoting *Hector v. U.S. Dep’t of Agric.*, 82 F.3d 165, 170 (7th Cir. 1996)) (internal quotations omitted).

¹³⁹ *Am. Mining Cong. v. Mine Safety & Health Admin.*, 995 F.2d 1106, 1111 (D.C. Cir. 1993) (quoting *Alaska v. Dep’t of Transp.*, 868 F.2d 441, 445 (D.C. Cir. 1989)) (internal quotations omitted).

¹⁴⁰ 81 Fed. Reg. at 61,033, 61,035, 61,036, 61,039, 61,040, 61,041, 61,046.

¹⁴¹ 81 Fed. Reg. at 61,037.

¹⁴² 81 Fed. Reg. at 61,038.

¹⁴³ 81 Fed. Reg. at 61,058.

¹⁴⁴ 81 Fed. Reg. at 61,038.

2. *The Draft Policy Contains Numerous Instances of Legislative Line-Drawing*

Legislative line-drawing is a conspicuous hallmark of a substantive rule, and numerous aspects of the Draft Policy reflect “an arbitrary choice among methods of implementation.”¹⁴⁵ A non-exclusive list of examples of legislative line-drawing in the Draft Policy include:

- The “no net loss/net gain” requirement – FWS could have adopted a variety of other standards—such as “mitigate to the maximum extent practicable” or “mitigate to the maximum extent technologically and economically feasible.” The Service’s decision to adopt goals of “net conservation gain” and “no net loss,” rather than the other available standards, is the type of legislative line-drawing that falls squarely within the definition of a substantive rule under the APA.
- The application of the Draft Policy to “at-risk” species – FWS could have limited (and was in fact required to limit) the scope to proposed and existing threatened and endangered species. In choosing to extend the reach of the policy to “at-risk” species—defined as such for the first time in the various draft policies—FWS engaged in legislative line-drawing.

b. FWS Has Not Complied with the APA’s Rulemaking Requirements

The Draft Policy, if finalized, would constitute a rule. As such, FWS is obligated to promulgate it in accordance with the APA. Under the APA, agencies must publish notice of proposed rules and “include a reference to the legal authority under which the rule is proposed.”¹⁴⁶ The APA further requires that agencies specify the legal authority for a proposed rule “with particularity” in order “to apprise interested persons of the agency’s legal authority to issue the proposed rule.”¹⁴⁷

The Service’s generalized references to statutory authority are inadequate to satisfy this requirement. As explained above, the primary authorities cited by the Draft Policy are other administrative policies and actions—not statutes. While some statutes are identified in the Draft Policy, FWS does not cite to any provisions within these statutes that confer the authority the Draft Policy claims. The only exception to the Draft Policy’s lack of citation is the Service’s assertion that it will implement the Draft Policy through Sections 7 and 10 of the ESA—and, as discussed above, FWS profoundly misapprehends its authority under these sections. Accordingly, the Service cannot finalize the Draft Policy without republishing it with specific citations to the relevant legal authority.

Further, FWS has not provided the public with a meaningful opportunity to comment on the Draft Policy.¹⁴⁸ In order to provide a meaningful opportunity to comment on an agency action, the agency must “provide sufficient factual detail and rationale for the rule to permit interested parties

¹⁴⁵ See *Catholic Health Initiatives v. Sebelius*, 617 F.3d 490, 495 (D.C. Cir. 2010) (quoting *Hector v. U.S. Dep’t of Agric.*, 82 F.3d 165, 170 (7th Cir. 1996)).

¹⁴⁶ 5 U.S.C. § 553(c).

¹⁴⁷ *Global Van Lines, Inc. v. Interstate Comm. Comm’n*, 714 F.2d 1290, 1298 (5th Cir. 1983) (quoting H.R.Rep. No. 1980, 79th Cong., 2d Sess. 24 (1946); *U.S. Dep’t of Justice, Attorney General’s Manual on the Administrative Procedure Act* 29 (1947)).

¹⁴⁸ See 5 U.S.C. § 553; *Honeywell Int’l, Inc. v. Env’tl. Prot. Agency*, 372 F.3d 441, 445 (D.C. Cir. 2004).

to comment meaningfully.”¹⁴⁹ The Draft Policy, however, does not provide factual details or explanations of its rationales sufficient to permit meaningful comment.

Stakeholders simply have no way to meaningfully comment on whether FWS has interpreted its authority consistent with statutory standards because the Draft Policy does not cite to any statutory standards. Nor does FWS impose any standards on itself. The Service’s attempts to evade more than a dozen statutes, policies, and departmental guidance (existing and proposed) render the Draft Policy nearly indecipherable. The Draft Policy does not clearly communicate to the public the circumstances in which it will be applied, fundamental aspects of the Draft Policy are premised on goals and frameworks laid out on other draft policies currently under review and subject to revision, and key terms are not defined or defined ambiguously. Indeed, the Draft Policy is so lacking in detail and specificity that it is, at times, indecipherable. As such, it does not provide factual detail and rationale sufficient to allow interested parties to comment.

Additionally, the public cannot meaningfully comment on the Draft Policy because it is but one part of a larger, more comprehensive restructuring of the Service’s mitigation program. The Draft Policy is intertwined with, and attempts to derive authority from the March 8th Draft Mitigation Policy, proposed regulations governing Candidate Conservation Agreements with Assurances (CCAAs), and its CCAA Policy.¹⁵⁰ Additionally, the Service is in the process of finalizing the Habitat Conservation Planning Handbook and finalizing its draft policy on pre-listing conservation actions.¹⁵¹

These forthcoming policies and regulations are intertwined and all further an administration-wide goal of restricting development and constraining access to public land. There is no credible rationale for separating these regulatory efforts and forcing interested parties to surmise the total impact of the restructuring by cross-referencing several different dockets. By reviewing and commenting on only pieces of a larger, coordinated strategy, the public cannot meaningfully comment on the Service’s mitigation strategy as a whole.¹⁵² In fact, the artificial segregation of these intertwined policies appears designed to cloak the full impact of the overall strategy and stymie stakeholder engagement. Accordingly, should FWS wish to continue with a comprehensive restructuring of its mitigation program, it should proceed within the contours of its statutory authority and through a single rulemaking that complies with the APA.

¹⁴⁹ *Honeywell*, 372 F.3d at 445 (quoting *Fla. Power & Light Co. v. United States*, 846 F.2d 765, 771 (D.C. Cir. 1988)).

¹⁵⁰ See 81 Fed. Reg. 26,817 (May 4, 2016); 81 Fed. Reg. 26,769 (May 4, 2016). The disconnect that is created by segregating a single overarching policy into several individual actions is clear when evaluating CCAAs. Elsewhere, FWS encourages use of CCAAs, while in this Draft Policy undermines their use by suggesting that CCAAs can be converted to credit systems. See 81 Fed. Reg. at 61,041.

¹⁵¹ See Energy & Climate Change Task Force, *A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior* 15 (2014); 79 Fed. Reg. 42,525 (July 22, 2014).

¹⁵² See *Prometheus Radio Project v. Fed. Comm’n Comm’n*, 652 F.3d 431 (3d Cir. 2011) (finding agency failed to solicit comment on “the overall framework under consideration, how potential factors might operate together, or how the new approach might affect” the agency’s other rules).

c. FWS Must Fully Comply with NEPA

The Trades agree with the Service's decision to analyze the impacts of the Draft Policy in a NEPA document.¹⁵³ The Service, however, should prepare an environmental impact statement (EIS) rather than an environmental assessment (EA) because the Draft Policy will have significant impacts requiring preparation of an EIS.¹⁵⁴ FWS itself identifies the Draft Policy as not purely administrative and not subject to any categorical exclusion.¹⁵⁵ And, there is no question that the Draft Policy is a major federal action that significantly affects the human environment. As the Trades have explained throughout these comments, the Draft Policy fundamentally restructures the role of compensatory mitigation in federal decision-making, permitting, and access decisions. If the Draft Policy is finalized, compensatory mitigation will be required in contexts in which it has never before been used, at unprecedented scales, and on impracticable deadlines. It will be used for species over which FWS has no jurisdiction, and to achieve goals that FWS is not authorized to require permittees, applicants, and conservation sponsors to achieve.

The significance of the impact of the Draft Policy is plainly evident based on an examination of the Draft Policy alone, but again, the Draft Policy cannot be viewed in isolation. As significant as the Draft Policy may be, it is merely one part of a much more far-reaching rewrite of the federal government's framework for using compensatory mitigation to constrain access to public lands. As such, FWS must conduct a single NEPA review for all of the various draft and recently finalized policies, guidance, and regulations related to the Service's restructuring of its mitigation policies. These efforts are inextricably intertwined and explicitly acknowledged as such within the Draft Policy. NEPA's requirement that analyses assess the cumulative impacts of related actions prohibits segregation of the forthcoming NEPA reviews and mandates a comprehensive examination of all of the Service's ongoing compensatory mitigation restructuring efforts.¹⁵⁶

If the Service elects to move forward with an EA, even though, as discussed above, an EA would be inappropriate under these circumstances, it should allow the public to review and comment on a draft EA prior to finalizing it. The CEQ NEPA regulations direct that agencies involve the public in the preparation of EAs "to the extent practicable."¹⁵⁷ Public review of a draft EA is consistent with the Service's NEPA Manual, which directs that the Service "should circulate the draft and final EA to the public with the accompanying draft and final project documents, such as the plan, permit, or rule."¹⁵⁸ Furthermore, the Service should make any draft finding of no significant impact (FONSI) available for public review because the Service's adoption of generalized mitigation goals of "net conservation gain" and "no net loss" is "without precedent."¹⁵⁹

In any NEPA analysis, the Trades request that the Service analyze the following alternatives and impacts.

¹⁵³ 81 Fed. Reg. at 61,062.

¹⁵⁴ See 40 C.F.R. § 1508.27.

¹⁵⁵ 81 Fed. Reg. at 61,062.

¹⁵⁶ 40 C.F.R. § 1508.7.

¹⁵⁷ 40 C.F.R. § 1501.4(b).

¹⁵⁸ 550 FW 1 § 2.5(B)(2).

¹⁵⁹ 40 C.F.R. § 1501.4(e)(2)(ii).

- First, the Service must analyze a reasonable range of alternatives to the proposed mitigation goals of “net conservation gain” and “no net loss” beyond simply the “no action” alternative.¹⁶⁰ For example, FWS should analyze mitigation goals that are consistent with statutory authority, such as goals of mitigating to the “maximum extent practicable” as used in the ESA,¹⁶¹ or “sufficiently” mitigating to “allow subsistence needs to be met” as used in the MMPA.¹⁶²
- Second, the NEPA document should analyze the impacts of the mitigation goal and habitat policy on: (1) domestic production of oil and natural gas resources; (2) production of the federal oil and natural gas estate that the Department of the Interior manages and that is subject to Section 7 consultation and NEPA review; and (3) socioeconomics, particularly in states where oil and natural gas development contributes significantly to the states’ economic growth.
- Third, the Service must analyze the availability of private lands on which compensatory mitigation projects may be implemented and the willingness of land owners to engage in mitigation projects.
- Finally, the Trades request that the Service analyze how changes to its mitigation policies will apply to areas of split-estate lands in which the surface and mineral estates are severed. Mitigation efforts can be challenging to implement on split estate lands where the mineral estate owner or lessee has a right to use a reasonable portion of the surface for development of the mineral estate.

d. Improper Cost Estimates under Multiple Statutes

FWS was required to consider the costs of the Draft Policy under multiple statutes and executive orders. The Service, however, only estimated the anticipated costs of the Draft Policy under the Paperwork Reduction Act of 1995 (PRA),¹⁶³ and that analysis was plainly incomplete. The Service’s PRA estimates were unrealistic and incomplete because FWS failed to attribute costs to several burdensome aspects of the Draft Policy, underestimated the burdens associated with items the Service did consider, and impermissibly segregated the presumed costs of the Draft Policy from the costs associated with the more comprehensive restructuring of the Service’s mitigation framework.

The Service impermissibly erred in its attempt to estimate the costs solely attributable to the Draft Policy. As discussed throughout these comments, the Draft Compensatory Mitigation Policy cannot be viewed in isolation. The Draft Policy is one (albeit important) element of a larger, more comprehensive restructuring of the Service’s mitigation framework. The burden and cost required to be estimated under the PRA is the sum total of the costs across all the various policies that will implement this more comprehensive restructuring.

¹⁶⁰ See 40 C.F.R. § 1502.14.

¹⁶¹ 16 U.S.C. § 1533(a)(2)(B)(ii).

¹⁶² 50 C.F.R. § 18.27(c).

¹⁶³ 81 Fed. Reg. 61,062.

In addition to improperly isolating the PRA estimate to those costs attributable solely to the Draft Policy, FWS significantly underestimated the hourly and cost burdens associated with the Draft Policy. While it is not possible to determine the burden and cost FWS attributed to specific data collection and reporting requirements, it is plainly evident that the estimates fail to consider the added costs inherent in the more complex and protracted process proposed in the Draft Policy.

The Draft Policy, for instance, would impose new requirements for landscape-scale mitigation, long-term or perpetual protections and monitoring, and complex requirements for assessing baseline conditions. Yet, the information collection costs FWS attributes to the Draft Policy are more closely akin to the costs we would expect from permittee-responsible mitigation and short-term mitigation projects—the precise type of mitigation projects the Draft Policy suggests should not be used. FWS cannot, on the one hand, insist on larger and more complex compensatory mitigation projects and, on the other hand, ignore the additional costs inherent in larger and more complex projects.

Similarly, the Draft Policy seeks to a very detailed and complex set of metrics for generating and redeeming conservation credits.¹⁶⁴ These metrics are further complicated because they are based on an increasingly intricate evaluation of baseline conditions.¹⁶⁵ The analysis that will be required under the Draft Policy’s new system for establishing metrics and baseline conditions will come at a significant costs. And, because FWS will not be able to provide this analysis in many cases (*e.g.*, for at-risk species), the cost of additional analysis will fall on project applicants, and will detract from funds available for actual conservation.

In addition to estimating costs under the PRA, the Service is also required to estimate the costs and benefits of its significant regulatory actions under Executive Order 12,866 (“EO 12866”)¹⁶⁶ and the Regulatory Flexibility Act (RFA).¹⁶⁷ EO 12,866 requires that agencies conduct cost/benefit analyses for “significant regulatory actions” having an annual effect on the economy of \$100 million or more, and requires those same actions to be reviewed by the Office of Management and Budget (OMB).¹⁶⁸ The RFA requires agencies to conduct a regulatory flexibility analysis for proposed actions that will have a “significant economic impact on a substantial number of small entities.”¹⁶⁹

FWS did not conduct either of these required analyses. As discussed throughout these comments, there is no doubt that the Draft Policy, in finalized, would impact a substantial number of small entities. Under the Draft Policy, compensatory mitigation will be required in contexts in which it has never before been used, at unprecedented scales, and on impracticable deadlines. It will be used for species over which FWS has no jurisdiction, and to achieve goals that FWS is not authorized to require permittees, applicants, and conservation sponsors to achieve.

¹⁶⁴ 81 Fed. Reg. at 61,037.

¹⁶⁵ 81 Fed. Reg. at 61,037.

¹⁶⁶ Exec. Order No. 12,866, 58 Fed. Reg. 51,735 (1993).

¹⁶⁷ 44 U.S.C. § 3501 *et seq.*

¹⁶⁸ Exec. Order No. 12,866 at §§ 1, 6(a)(2)(C).

¹⁶⁹ 5 U.S.C. § 603(a).

Additionally, the Trades believe that the full cost of the Draft Policy's requirements alone could well exceed \$100 million. The Draft Policy would expand mitigation requirements to an unknown but potentially vast number of unlisted species and areas that are not designated as critical habitat. The Draft Policy's requirements for landscape-scale mitigation, additionality, advance mitigation, and its punitive credit ratios also effectively compel use of, and therefore establish a captive market for, conservation banks. In a captive market where project applicants must essentially choose between abandoning a project and purchasing credits from a conservation bank, the conservation bank can set excessive prices for credits and remain reasonably assured that desperate project applicants will pay the premium.¹⁷⁰

In addition to the increased costs inherent in a captive market, the Draft Policy will also increase credit costs by artificially creating a scarcity of land that could qualify for compensatory mitigation. The Draft Policy affirmatively disfavors compensatory mitigation on public lands and split-estates, and largely ignores the prospect that research activities could serve a compensatory mitigation role. The Draft Policy also prohibits mitigation projects from being used to compensate for multiple different species and further requires each mitigation project to be perpetual, thereby forever disqualifying and locking away any land that has been improved through a compensatory mitigation project. When this artificial scarcity of qualifying land is combined with a captive market for conservation banking, the cost to purchase mitigation credits will likely be excessive and the prospect that the Draft Policy's requirements will cost more than \$100 million becomes quite realistic.

Notwithstanding the significant impact posed by the Draft Policy alone, much like the PRA analysis, the Draft Policy cannot, and should not, be assessed in isolation. The Draft Policy is a component of a larger, more comprehensive restructuring of the Service's mitigation framework. It is the sum total of the costs of each of those components that FWS was required to assess under EO 12,866 and the RFA. FWS, however, not only failed to conduct these analyses for the Draft Policy, but for each of the other recognized elements of the Service's multi-prong policy change.

FWS dismissively concluded that the draft CCAA Policy will have little to no economic impact because it would not change current practice or place any new requirements on non-Federal property owners, nor would it substantially affect small businesses or impose new recordkeeping or reporting costs on governments, individuals, businesses, or organizations.¹⁷¹ The Service made similar findings for its 2014 draft Policy Regarding Voluntary Prelisting Conservation Actions, determining its effects would be "very limited" and would create reporting requirements only for those that choose to participate.¹⁷² Other key components of this larger restructuring, such as the March 8th Draft Mitigation Policy, the Presidential Memorandum, the FWS task force report,¹⁷³ and the departmental landscape-scale mitigation policy¹⁷⁴ contained no cost estimates at all.

¹⁷⁰ The Draft Policy also ignores the cost of potentially having to abandon a project because of the unavailability of credit banks in states like Alaska and elsewhere.

¹⁷¹ 81 Fed. Reg. at 26,770–71.

¹⁷² 79 Fed. Reg. 42,525, 42, 530 (July 22, 2014).

¹⁷³ *Clement et al.* 2014; 81 Fed. Reg. at 61,033.

¹⁷⁴ "Implementing Mitigation at the Landscape-Scale" (600 DM 6); 81 Fed. Reg. at 61,033.

FWS has explicitly acknowledged that these draft policies are all components of a single comprehensive restructuring of the Service's mitigation framework. Offering only an incomplete and disaggregated analysis of the costs of this restructuring undermines the purpose of the PRA, RFA, and EO 12866; deprives FWS of any ability to understand the full economic impact of its actions; deprives OMB of the ability to review the action, and cloaks from stakeholders the true scale and impact of the Service's comprehensive restructuring. FWS's choice to separate these costs out into a number of regulatory actions avoided triggering the threshold values for "significant regulatory actions" under EO 12866¹⁷⁵ and "significant economic impact" under the RFA,¹⁷⁶ which would require the Service to conduct more extensive economic, cost-benefit, and alternatives analyses. FWS cannot evade its obligation to proffer a comprehensive cost estimate for its mitigation restructuring effort by proceeding through multiple policies and guidance documents instead of one. Because the Service has failed to treat the promulgation of the Draft Policy as the rule that it actually constitutes, FWS has violated a number of statutes in advancing the Draft Policy and should therefore withdraw it.

VIII. Conclusion

The Draft Compensatory Mitigation Policy exceeds the Service's statutory authority and relies instead on authority FWS seeks to confer to itself. The Draft Policy undermines the objectives it purports to advance because, in reality, it has been designed to pursue objectives that are completely distinct from conservation. It is intended to increase the stringency of compensatory mitigation programs and to shift the government's obligation to manage species and habitat onto those individuals and industries that require access to public lands and other federal authorizations. These are policy goals and are not tools in furtherance of clarity, consistency, or predictability. Furthermore, the Service's piecemeal approach in separating a comprehensive policy into multiple separate policies purposely downplays the magnitude of the policy changes, obscures the actual statutory authority on which these changes are purportedly based, and impedes stakeholder engagement.

Indeed, aspects of this Draft Policy cannot even be construed as furthering conservation goals. Much of what the Draft Policy holds out as conservation tools are in reality, land use restrictions and user fees having nothing to do with compensatory mitigation. As such, the Trades request that FWS withdraw the Draft Policy and all those policies drafted pursuant to the November 3, 2015 Presidential Memorandum. Should FWS wish to continue with a comprehensive restructuring of the ESA's conservation program, it should encourage use of all the tools in the conservation tool box, proceed within the contours of its statutory authority, and utilize a single rulemaking that complies with the APA.

¹⁷⁵ A "significant regulatory action" has an annual effect on the economy of \$100 million or more, and The Service would have to undertake a cost-benefit analysis. Exec. Order No. 12,866 at §§ 1, 6(a)(2)(C).

¹⁷⁶ If a proposed rule will have a "significant economic impact on a substantial number of small entities" (a case-specific standard that varies by industry and effect), FWS must develop an initial regulatory flexibility analysis. 5 U.S.C. § 603(a).

Very truly yours,



Richard Ranger
API



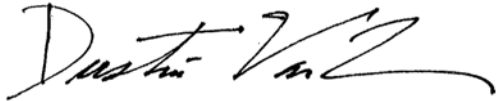
Dan Naatz
IPAA



Bruce Thompson
AXPC



Kathleen M. Sgamma
Western Energy Alliance



Dustin Van Liew
IAGC

From: Rusty Shaw
To: [Sime, Carolyn](#)
Cc: [Rusty Shaw](#)
Subject: MT Sage-grouse Administrative Rule Public Hearings Notes
Date: Tuesday, January 17, 2017 9:49:32 PM

Carolyn,

Below are the notes from the public hearings.

The January 12, 2017 hearing; Dillon, MT – Beaverhead-Deerlodge National Forest Office, 420 Barrett St., Dillon, MT 59725 @ 2:00 pm

The January 16, 2017 hearing; Roundup, MT – Musselshell County Ambulance Barn, 704 1st St E, Roundup, MT 59072 @2:00 pm

The January 17, 2017 hearing; Malta, MT – First State Bank of Malta, 1 S 1st St E, Malta, MT 59538 @ 2:00 PM

At each meeting:

-Carolyn Sime opened each hearing with an overview of the sage-grouse conservation program.

-Carolyn read the formal hearing guidelines per the Montana Administrative Procedures Act.

-Carolyn's Introductory Comments:

- Carolyn gave an overview of the history of sage-grouse conservation in MT from the 2013 Sage-grouse Advisory Council to the 2015 legislative session passing of the MT Sage-grouse Stewardship Act to the 2015 decision by the USFWS that the sage-grouse is not warranted for protection under the Endangered Species Act (ESA).
- Carolyn went through the mitigation hierarchy of avoid, minimize, restore/reclaim, compensate.
- Carolyn stated that the stewardship act requires an HQT to be established.
- Carolyn stated that a mitigation policy will be established to determine the amount of debits and credits needed for a project.
- Carolyn stated that the proposed rule is developed using the guidelines from the USFWS Sage-grouse Mitigation Framework.

-Carolyn walked through the proposed administrative rule.

-Carolyn stated the locations for public hearings would be in Dillon, Malta, and Roundup. Carolyn stated the public comments would be brought back to the stakeholder group and a revised rule to incorporate the comments would be presented to the MSGOT in late February.

The January 12, 2017 hearing; Dillon, MT – Beaverhead-Deerlodge National Forest Office, 420 Barrett St., Dillon, MT 59725 @ 2:00 pm

Attendees: (7) Carolyn Sime, MTDNRC, MT Sage-grouse Conservation Program Manager;
Kyle Tackett, NRCS;

Kelly Bockting, Dillon BLM;
Craig Fager, Dillon FWP;
Rusty Shaw, Denbury Resources, Inc., Environmental Compliance Manager;
Katie Benzel, Dillon BLM;
Bruce Nelson, Gallatin Wildlife Association (GWA) in Dillon

-Carolyn asked that comments be given in the order of Proponent Comments, Opponent Comments, and Other Comments.

Proponents Comments: None

Opponents Comments:

Bruce Nelson, Gallatin Wildlife Association: Bruce asked that additional definitions be included to define "Stakeholder Group" and "MSGOT". Bruce asked, "Who are Stakeholders?" Carolyn covered the individuals/groups that are represented in the stakeholder group.

Bruce asked, "Who actually sits on the MSGOT?" Carolyn named the MSGOT members.

Bruce asked, "Why are energy sector members not a part of the stakeholder group?" Carolyn then named the members (MPA, MT Coal Council, MT Electric Coops, to name a few) of the stakeholder group from the energy sector.

Other Comments: None

Formal Hearing ended.

Additional discussion occurred after the formal hearing but nothing substantive for note taking purposes.

The January 16, 2017 hearing: Roundup, MT – Musselshell County Ambulance Barn, 704 1st St E, Roundup, MT 59072 @2:00 pm

-

Attendees: (8) Carolyn Sime, MTDNRC, MT Sage-grouse Conservation Program Manager;
Rusty Shaw, Denbury Resources, Inc., Environmental Compliance Manager;
Jeff Wingerter, Hohn Engineering, Inc., VP of Geology and Technical Services, Billings, MT, also an oil and gas operator;
Jacob Hohn, Hohn Engineering, Inc.;
Mark Szczypinski, FWP, Field Crew Lead for the sage-grouse research project in the Roundup area that started in 2011;
Sam Milodragovich, Northwestern Energy, Biologist;
Shirley Parrot, Lower Missouri Conservation District;
Bill Milton, Milton Ranch, Roundup, MT

-Carolyn asked that comments be given in the order of Proponent Comments, Opponent Comments, and Other Comments.

Proponents Comments:

Sam Milodragovich, Northwestern Energy – supports the rule. Will submit written comments.

Opponents Comments: None

Other Comments: None

Formal Hearing ended.

Other Discussion:

-Bill Milton – Where are we with developing the HQT? Carolyn explained the status of developing the HQT.

-Bill also verified with Carolyn that if a landowner received funds from the stewardship account; the credits generated, if sold, would go to the state and not to the landowner.

-Bill: Would there be any association between USFWS CCAA and credit generation? Carolyn referred to the US Fish and Wildlife Mitigation Framework language and explained that any piece of property offering credits not part of the CCAA would be acceptable for credit generation as part of this program.

-Jeff Wingerter-When will this administrative rule be final? Carolyn responded, end of February or Early March to have interim rule in place following MSGOT. June 1st or shortly thereafter to have rule final.

-Jeff: Do you foresee allowing MT credits to be used in WY? Carolyn responded saying that MSGOT may approve this on a case by case basis.

-Jeff: Will I trigger compensatory mitigation if I expand existing oil and gas operations by adding a pipeline and new wells? Carolyn explained that you will likely not trigger compensatory mitigation but will have to be reviewed on a case by case basis.

-Mark Szczypinski: Mark asked who would set the price for a contribution to the stewardship fund? Carolyn said that decision is yet to be made. Carolyn stated that the Program may check with Sweetwater River Conservancy on the going rate for a credit.

The January 17, 2017 hearing: Malta, MT – First State Bank of Malta, 1 S 1st St E, Malta, MT 59538 @ 2:00 PM

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Attendees: (7) Carolyn Sime, MTDNRC, MT Sage-grouse Conservation Program Manager;
Rusty Shaw, Denbury Resources, Inc., Environmental Compliance Manager;
Bruce Christofferson , County Commissioner
John Carnahan, County Commissioner
Richard Dunbar, County Commissioner
Tom and Lorraine Watson , Ranchers in South Phillips County

-

-

-Carolyn asked that comments be given in the order of Proponent Comments, Opponent Comments,

and Other Comments.

Proponents Comments:

-Richard Dunbar -Supports the rule. Rule is looking strictly at habitat, which is good. Bird count should be taken into account. What is scientific methods? What does that consist of? Other than that anything we can do to keep the sage grouse from being listed is important.

-John Carnahan-What is scientific methods? Is all this coming from FWP, USFWS, or who? If a landowner wants to improve habitat, who does the landowner see to start the process?

-Bruce Christofferson-How are we handling predator impacts to sage grouse? We need to look at predation more than landowner impacts to sage-grouse.

Opponents Comments: None

Other Comments: None

Formal Hearing ended.

-

Other Discussions:

-

-Tom Watson-Are there any studies going on to determine why the sage grouse population is going down? All focus seems to be on habitat. Are there other scientific studies going looking at why bird numbers are going down? Do you have a list of projects a person can do? BLM implemented contouring tool to help collect water in hard pan. The contouring tool was an implement to pull with the tractor and would be a great thing to do for sage grouse to get sage brush and grass to start growing.

-John Carnahan-Are there any disease that caused sage grouse to die?

-Tom Watson-Said that DDT could be a cause. He said he has not seen a frog in 30 years.

-Carolyn stated that in MT, cultivation is a big concern.

-Richard Dunbar-Rule says debits and credits should be bought close to disturbance. Richard says that an oil and gas developer will probably have to go outside the same area for credits.

-Carolyn said that it is expected that most of the credit supply in MT will be from private landowners.

-Bruce Christofferson-How do you get your credits valued? Carolyn explained the HQT and how it would work in a GIS platform.

-Tom Watson-says it looks like oil and gas credits and conservation easements are going to lock horns with each other.

-Bruce Christofferson-So if credits are sold to somebody and the land is sold, how does that work? Can credits be re-sold or are they a one-time purchase? Carolyn explained that a contract is issued when a credit is purchased. Sometimes that may not work for some folks. Carolyn explained that one example for credits to be sold again would be for a buried pipeline project where the impact would be temporary. The land use practices in the conservation contract would have to be followed.

-Bruce Christofferson stated that the sage grouse program review of a gravel pit project was reasonable and much easier than the MTDEQ mining permit.

-Bruce Christofferson- Is it possible to get a permit in core area? Carolyn stated that would be more challenging.

-Richard Dunbar-Will bird count be included in status review report? Carolyn stated MTFWP will include lek counts as part of the USFWS status review report.

-Richard Dunbar-Introduction of the swift fox by MTFWP could cause an issue on bird populations.

-Bruce Christofferson-Said my father-in-law (Tom Watson) is working with MT Land Reliance on an easement where some of the money comes from the stewardship account. Carolyn stated that the Land Reliance holds the easement and does the annual reports. Carolyn also stated that the credits can be generated and sold by the private landowner without going through the stewardship account.

Thanks,

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DRAFT

STATE OF MONTANA

Greater Sage-Grouse Habitat Mitigation Guidance Document

Version 0.8
Last updated May 5, 2017

Acknowledgements

The Greater Sage-Grouse Mitigation Guidance Document was developed by the Montana Mitigation Stakeholders Team, hosted by the Montana Sage-Grouse Conservation Program. This collaborative group met from September 2016 through June 2017 and provided significant input from a wide diversity of organizations and individuals, but does not represent the consensus opinions of that Team or the approval of any group or individual involved. Participants included:

ABS Legal	Montana Fish, Wildlife, and Parks
Browning, Kaleczyc, Berry & Hoven	Montana Land Reliance
Cloud Peak Energy	Montana Petroleum Association
Denbury Resources	Montana Rangeland Resources Committee
Diane Ahlgren (MSGOT)	Montana Sage-Grouse Conservation Program
Environmental Defense Fund	Montana Stockgrowers Association
Great Northern Properties	Natural Resource Conservation Service
HC Resources	Renewable Northwest
Mike Lang (MSGOT and Montana Senate)	The Nature Conservancy
Montana Association of Land Trusts	Theodore Roosevelt Conservation Partnership
Montana Audubon	Treasure State Resources
Montana Coal Council	Trout Headwaters
MT Dept. of Natural Resources & Conservation	US Bureau of Land Management
Montana Electric Cooperatives' Association	US Fish and Wildlife Service
Montana Farm Bureau Federation	US Forest Service

Sara O'Brien and Bobby Cochran at Willamette Partnership provided facilitation and technical support for the Stakeholders Team's work on this Guidance. SWCA Environmental Consultants provided technical support and led development of the associated Habitat Quantification Tool. In addition, many individuals and organizations provided essential guidance, insight, and support to ensure that the document is consistent with Montana state policy and the needs of key constituents and is a viable means for species conservation.

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Front page photo credit:

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Contents of this Document

The Greater Sage-Grouse Mitigation Guidance Document (“Guidance”) defines the processes and information necessary for creating, buying, and selling 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, and will apply identical or equivalent standards and criteria to any other sage-grouse mitigation programs or projects that seek approval to create, buy, or sell credits for use in Montana. This approach is expected to provide a consistent and integrated approach to fulfilling mitigation requirements for impacts to sage-grouse habitat on all public and private lands in Montana.

Mitigation Guidance 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 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 Credit Buyers	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	

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1. INTRODUCTION

The Greater sage-grouse ("sage-grouse") is an iconic species of the sagebrush-grassland habitats of Montana. While the species is common in high-quality habitat, ongoing fragmentation and degradation of sage-grouse habitat (see Box 1.2) have prompted legislative and executive action at the state 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 and restore high-quality habitat.¹ The primary threats to the species in the state are habitat fragmentation due to energy and other infrastructure development (especially in the eastern and south-central portions of the state) and conversion of native habitat to invasive annual grasses (especially in the southwest). Improper livestock management practices are also identified as a threat throughout the state.²

Through Montana's Executive Order No. 10-2014 and 12-2015, the State of Montana established the Montana Sage Grouse Oversight Team ("MSGOT") and the Montana Sage Grouse Habitat Conservation Program ("the Program") as the entities responsible for oversight, guidance, and staffing of the

state's sage-grouse conservation efforts. The executive orders also:

- Outlined stipulations and a review process for land uses and activities occurring in sage-grouse habitat; and
- Requires new land uses and activities subject to state review or permitting 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.

In 2015, Montana's Greater Stewardship Act provided further guidance on developing a consistent approach to meeting compensatory mitigation requirements in the state. It 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 funds to be awarded to projects that generate *credits* for compensatory mitigation, effectively establishing a revolving fund for advance funding of mitigation projects.³

This Guidance outlines Montana's approach to mitigation for impacts to sage-grouse habitat, which is based on science outlined primarily in U.S. Fish and Wildlife Service's Conservation Objectives Report (COT)⁴ and the 2014 Montana Greater Sage-Grouse Habitat Conservation Strategy.⁵ These

Commented [SO6]: Or "sage grouse?" Different MT policies and documents use each.

Commented [SO7]: Any other references to add here?

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").

² US Fish and Wildlife Service. 2013. Final Report From the Sage-Grouse Conservation Objectives Team (COT). Available at:

<https://www.fws.gov/mountain-prairie/species/birds/sagegrouse/>. ("COT Report")

³ MCA 76-22-101 et seq.

⁴ COT Report.

⁵ Montana's Greater Sage-grouse Habitat Conservation Advisory Council. Greater Sage-Grouse Habitat Conservation Strategy (2014) (hereafter "2014 Strategy"), available at

documents describe the key threats to sage-grouse and their habitat and offer biologically-based strategies for management and conservation.

The principles and elements of the mitigation program that this Guidance defines are derived from

- Montana Executive Orders 10-2014 and 12-2015 and the Montana Greater Sage-Grouse Stewardship Act;
- The Bureau of Land Management's (BLM's) *Manual Section 1794 and Mitigation Handbook*;⁶
- The U.S. Fish and Wildlife Service's (USFWS) *Greater Sage-Grouse Range-Wide Mitigation Framework*;⁷ and
- The USFWS's *Policy Regarding Voluntary Prelisting Conservation Actions*.⁸

1.1 Goals of the Program

This Guidance is part of the State of Montana's broader approach to avoiding, minimizing, and compensating for development impacts to sage-grouse habitat (i.e., application of the *mitigation hierarchy*). The Guidance represents the efforts of the Montana Sage-Grouse Oversight Team (MSGOT), and its Stakeholders Team, which includes private, local, state, industry, and non-profit partners, as well as the Bureau of Land Management, the U.S. Forest Service, and the U.S. Fish and Wildlife Service. It is the intent and expectation that federal partners will work with the State to the extent practicable to use this approach to implement their mitigation policies and requirements.

http://governor.mt.gov/Portals/16/docs/GRSG%20strategy%2029Jan_final.pdf. ("MT 2014 Strategy")

⁶ U.S. Bureau of Land Management Instructional Manual Section 1794 and Mitigation Handbook H-1794-1 (2016), available at <https://www.blm.gov/policy/im-2017-021>.

⁷ U.S. Fish & Wildlife Service, *Greater Sage-Grouse Range-Wide Mitigation Framework* (2014), available

The intent of this Guidance is to guide and coordinate sage-grouse habitat mitigation efforts within the State, regardless of the future status of the species under the federal Endangered Species Act. It defines the processes and information necessary for creating, buying, and selling mitigation credits within the Montana Sage-Grouse Stewardship Account or any other sage-grouse mitigation programs or projects that seek approval to create, buy, or sell credits for use in Montana. This approach aims to provide certainty and transparency that actions funded by the Stewardship Account and/or funded and implemented as mitigation through other mechanisms are contributing to state species management goals and objectives. 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.

The mitigation approach outlined in this Guidance has three overarching goals.

1. Provide a *net conservation benefit* for sage-grouse habitat.
2. Support rangeland health and responsible economic development within the sage-grouse range; and
3. Provide an approach to mitigation decision-making that is predictable, flexible, transparent, equitable, and science-based.

1.2 Guidance Objectives

This Guidance is designed to achieve the following objectives:

at http://www.fws.gov/greatersagegrouse/documents/Landowners/USFWS_GRSG%20RangeWide_Mitigation_Framework20140903.pdf.

⁸ 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>

Commented [SO8]: May need to revise once Interior review process is complete.

1. Describe the State’s goals, methods, and roles and responsibilities related to sage-grouse mitigation actions (**Sections 1**);
2. Define standards and requirements for compensatory mitigation that help achieve sage-grouse management objectives and promote healthy sage-grouse populations and habitats (**Section 2**);
3. Use the full mitigation hierarchy, including compensatory mitigation, to steer development away from the areas most important for supporting current sage-grouse populations, minimize and reclaim unavoidable impacts, and ensure residual impacts are effectively compensated (**Section 3**);
4. Identify tools for managing risk or *uncertainty* associated with mitigation actions that collaboratively engage landowners in conservation and to ensure an adequate reserve of credits to guard against unforeseen losses of habitat or failed mitigation sites (**Sections 2 and 3**); and
5. Establish *adaptive management* and effectiveness monitoring processes to improve mitigation performance over time and ensure net conservation benefit is provided by mitigation actions (**Section 4**).

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

Box 1.2

For the purposes of this Guidance, “sage-grouse habitat” includes sage-grouse Core Areas, connectivity areas, and general habitat as defined and mapped in Montana’s Greater Sage-Grouse Habitat Conservation Strategy.⁹ These include areas that are expected to support the greater sage-grouse under current and/or likely future conditions. Information on the actual presence of sage-grouse on a site is not necessary to determine whether a given area is or is not sage-grouse habitat.

Figure 1.1 below provides a coarse-scale map of likely areas of sage-grouse habitat. However, a site-level assessment will be required to identify areas of habitat and non-habitat within the project area of a particular debiting or crediting action.

The sections of this Guidance document are organized to provide the information needed for particular audiences:

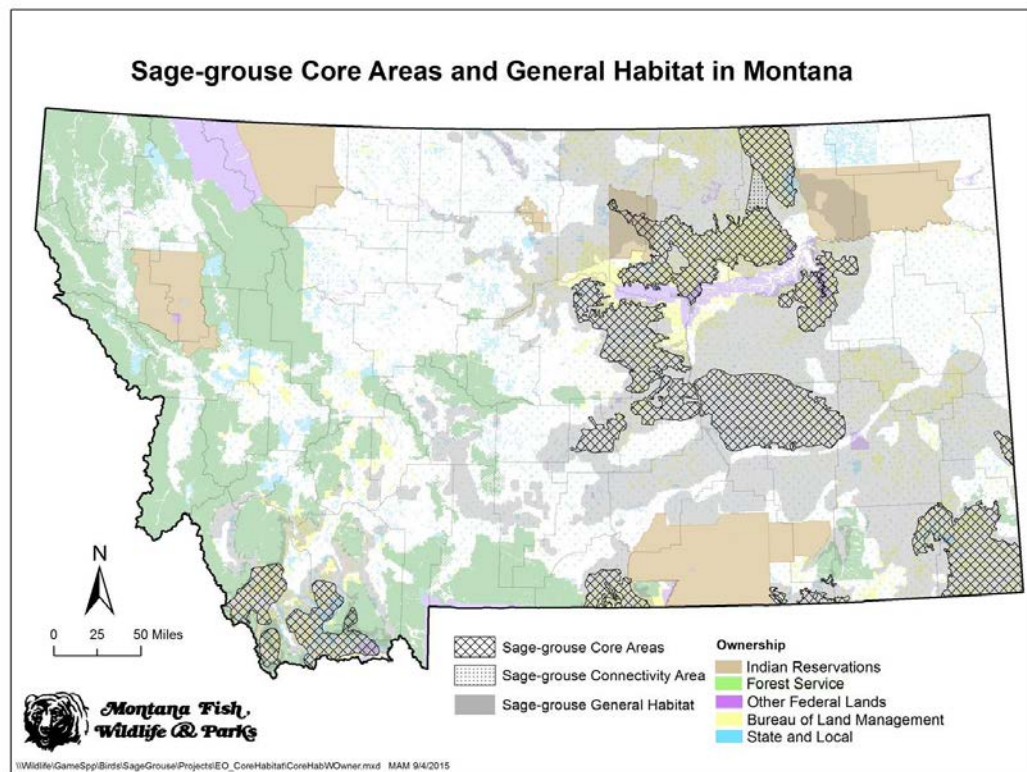
- **All Mitigation Participants and the Interested Public:** stakeholders interested in the standards and processes for sage-grouse habitat mitigation and the associated roles and responsibilities of participants (**Section 1 and 4**);
- **Credit Providers:** individuals, entities, or groups generating credits as mitigation for impacts to sage-grouse habitat (**Section 2**);
- **Credit Buyers:** individuals, entities, or groups with mitigation responsibilities resulting from impacts or proposed impacts to sage-grouse habitat (**Section 3**).

Commented [SO9]: Program folks please review and revise as needed.

Commented [SO10]: Update with full citation

⁹ MT 2014 Strategy.

Figure 1.1 – Map of Sage-Grouse Habitat in Montana



1.3 Roles and Responsibilities

This section provides an 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 Section 4.

Montana Sage Grouse Habitat Conservation Program (Program):

Established by Montana Executive Order No. 12-2015, the Program is responsible for consulting with and providing guidance to other state agencies and other entities permitting agencies and development project proponents on how to meet avoidance, minimization, and compensatory mitigation requirements in existing state policies. The Program is also responsible for providing staff support for MSGOT in executing its responsibilities in funding and oversight of Stewardship Account grant projects. The Program may designate a third-party to fulfill some of its responsibilities with MSGOT approval.

Montana Sage Grouse Oversight Team (MSGOT):

Established under the Montana Greater Sage-Grouse Stewardship Act of 2015, the MSGOT provides oversight and direction to the Program in implementing its mitigation responsibilities under the Act and relevant Executive Orders. MSGOT is responsible for evaluation and funding of grant applications to the state's Stewardship Account.

Permitting Agencies: Under Executive Order No. 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.¹⁰ Agencies reviewing, approving, or

authorizing these new land uses or activities in sage-grouse habitat must consult with the Program to ensure these requirements are met. 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 Guidance.

Interagency Review Team: As needed to provide efficient consultation for development actions with multiple permitting agencies, the Program will convene a team of staff from all relevant permitting agencies to coordinate mitigation requirements, standards, and expectations.

Debit Project Proponent: An individual, entity, or group seeking to undertake a new 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 any and all relevant permitting agencies to determine necessary avoidance, minimization, reclamation, and compensatory mitigation requirements. The project proponent may meet any compensatory mitigation requirements for residual impacts by purchasing credits from the Stewardship Account or other approved mechanisms, or by conducting permittee-responsible mitigation that meets the standards and processes outlined in this Guidance.

Credit Provider: A credit provider is an individual, entity, or group that undertakes voluntary *preservation, restoration, or enhancement* actions in sage-grouse habitat to generate credits 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

¹⁰ EO 12-2015 5(G)

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 Guidance, including approval, verification, and tracking requirements.

Technical Support Provider: The Program may provide technical support to both project proponents 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 recognize qualified technical support providers to support verification, tracking, and other administrative activities consistent with this Guidance.

1.4 Program Overview

This section provides a brief overview of the steps used to generate and acquire credits under the Stewardship Account and other mitigation mechanisms in the State of Montana. These steps are also depicted in **Figure 1.2**. Blue chevrons signify the steps undertaken to generate credits, green chevrons represent the steps to acquire credits, and the grey connector 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.

1.4.1 Generating Credits

The following steps outline the process for generation, *verification*, and *registration* of credits created by a conservation project:

Propose crediting project: Crediting projects may be proposed through a request for proposals (RFP) issued by the program administrator under the state’s Stewardship Account program. 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. Projects may also be proposed by development project proponents intending to conduct their own *permittee-responsible mitigation* (PRM) projects to *offset* development impacts.

Calculate 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) to estimate the anticipated number of credits available at the site. A full proposal, including site plan and credit estimate, is submitted to the Program for review.

The Program will review and evaluate proposed projects for constancy with policy and guidance, and MSGOT will provide final approval.

Figure 1.2 - Overview of Steps in the Mitigation Program Process



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 Guidance and associated policies and agreements were followed correctly and estimated credits have been appropriately calculated and match on-the-ground conditions.

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. If the Program determines that performance standards are met or partially met, the release of credits is allowed as described in **Section 2**.

1.4.2. Acquiring Credits

The following steps outline the process to determine and meet mitigation responsibilities consistent with Montana state policy. Potential credit buyers 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.

Propose debiting project: The project proponent contacts the Program when proposing a project that impacts sage-grouse habitat and is not identified as an *exempt activity*.

Avoidance and minimization review: The project proponent provides the Program with a project description, including the potential effects on sage-grouse and application of

avoidance and minimization *stipulations*. The Program reviews impacts and stipulation measures and determines whether the proposal meets any and all state-required stipulations and whether residual impacts remain that will require compensatory mitigation. Projects requiring federal permitting may be subject different or additional mitigation requirements, and the Program may convene an interagency review team to coordinate as needed.

Calculate and verify credits needed for compensatory mitigation: If compensatory mitigation for impacts to sage-grouse habitat is necessary, the project proponent (or designee) uses the HQT to calculate the number of credits needed to meet the State of Montana's net conservation benefit standard by determining *baseline* and post-project conditions of the debit site.

The project proponent provides the Program with a draft *impact assessment* that includes details of the proposed project, its location and associated actions, HQT results, and an estimate of credits needed.

The Program reviews the draft impact assessment to determine that State policy and guidelines are met and *credit need* is appropriately calculated, working with the project proponent and any permitting agencies involved to resolve any concerns as described in Section 3.

Purchase or create credits: A project proponent may purchase needed credits from the Stewardship Account, making a payment into the Account if credits are not available, or propose their own crediting projects to meet compensatory mitigation requirements. Credits may also be purchased through any other MSGOT-approved mitigation mechanisms. All credits are tracked using unique serial numbers to ensure that credits used cannot be purchased or used again.

2. FOR CREDIT PROVIDERS: GENERATING CREDITS FOR COMPENSATORY MITIGATION

Mitigation credits may be produced through funding provided by the Stewardship Account, created and used by project proponents conducting their own compensatory mitigation projects to offset development impacts, or developed under any other MSGOT approved mitigation mechanism (e.g., habitat exchange). Projects funded by the Stewardship Account may be proposed through a request for proposals (RFP) by the Program, or at any time by project proponents, non-profit organizations, mitigation bankers, or other entities or groups.¹¹ This section describes the process

for developing sage-grouse habitat credits for compensatory mitigation, including the review and approval process for a compensatory project.

The overall management goal of crediting projects is to increase the quantity and/or quality of sage-grouse habitat beyond baseline conditions. Mitigation actions may create credit through preservation, restoration, or enhancement of sage-grouse habitat. The *conservation measures* taken at a given credit site should reflect its ecological context and current and likely future threats (see table 2.1).

Table 2.1 – Examples of Eligible Conservation Measures¹²

Legal protection from conflicting uses
Conifer removal
Invasive weed management
Restoration of native vegetation
Fire management
Fence marking, perching platforms
Reduction of predator perches or other attractants
Removal of unneeded infrastructure

¹¹ Individual private citizens may not receive Stewardship Account funds; however, they may be eligible to produce mitigation credits through other mechanisms, or private landowners may work with other organizations or agencies, such as a land trust or other non-profit to create crediting projects

¹² Stewardship Account funds may not be used for fee simple acquisition of private land; to purchase water rights; to purchase a lease or easement that requires recreational access or prohibits hunting, fishing, or trapping; or to allow the release of any federally listed species

2.1 Proposing a Crediting Project

Eligibility criteria help to ensure that crediting projects will provide a net conservation benefit to sage-grouse habitat and support the long-term health of sage-grouse populations and habitats. The Program, with guidance, oversight, and approval from MSGOT, determines whether proposed projects meet all eligibility requirements.

Crediting projects may occur on private or public lands. To generate credits, a mitigation site will need to occur in core, connectivity, or general sage-grouse habitat and meet the eligibility criteria in **Table 2.2**. The proposal review process will include a pre-proposal step to screen for project eligibility and provide an estimate of credit potential based on remotely sensed and modeled information.

Recommendations to approve crediting project proposals, and to fund Stewardship Account projects, will be made by the Program, with final decisions made by MSGOT. MSGOT may also provide guidance on general funding priorities for the Stewardship Account.

2.1.1 Project additionality

Additionality refers to the requirement that credit-generating benefits from a project must be in addition to what would have happened in the absence of a mitigation project and what is already otherwise required by existing law and legal commitments. Each crediting project will receive credit only for actions that are considered additional.

Additionality includes both legal and financial components, as described below. For actions that meet these two additionality tests, credit will be available based on projected future conditions, discounted according to an

Table 2.2 - Eligibility Requirements for Crediting Projects

Eligibility Requirement	Criteria
Conservation measures are additional	■ Credit provided for avoided loss ■ Exceeds pre-existing legal obligations ■ Use of public conservation funds (other than Stewardship Account) prohibited from generating credits
Project benefits are durable	■ Legal protection of site ■ No imminent threat ■ Benefits expected to meet or exceed duration of impact ■ Financial assurances ■ Stewardship plan
Appropriate site selection and conservation measures	■ Site within core, connectivity, or general habitat ■ Will "maintain, enhance, restore, expand, or benefit sage grouse habitat and populations" ■ Consistent with state management plan and strategies ■ Site-appropriate conservation measures

estimate of the likelihood of future loss in the absence of mitigation measures (“avoided loss”), as described in Section 2.1.4.

To demonstrate legal additionality, credit-producing conservation measures 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, and other land use or management restrictions that are not discretionary.

Financial additionality ordinarily requires that mitigation credit not be allowed for actions that receive public conservation funding (such as that provided by the Natural Resource Conservation Service’s conservation programs). Funds provided by the state’s Stewardship Account, which requires the full cost of credit production to be repaid by credit buyers, may be used to create mitigation credits. Projects that are partially funded by public conservation funds may generate credits in proportion to the amount of private investment and non-conservation public funds (including required matching funds). That is, the amount of credit generated by a project should be reduced by the proportion of public conservation funds used.

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* – that is, the period of time that mitigation is effective must be equal or greater in duration to 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 habitat needs

(such as high level of site fidelity) and life cycle. 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 to the minimum credit duration) at the Program’s discretion and with MSGOT approval.

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

Legal protection may be demonstrated through term or permanent conservation easements, or deed restrictions. 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.

Crediting projects on public lands must also demonstrate durability as defined above, although the legal instruments available to meet that standard may differ from those on private lands. Land use planning designations are reversible and therefore insufficient to establish durable site protection, so demonstrating durability is likely to require a “layering” of protection tools sufficient to meet that standard. These may include, but are not limited to, planning designations, conservation rights-of-way, resource withdrawals, cooperative agreements, and Recreation and Public Purposes Act leases.

All credit projects must also provide **financial assurances** of durability, including demonstrating the availability of funding for **implementation of conservation measures**, long-term site management, and/or credit

Commented [SO11]: I assume Montana will want to take advantage of this allowance in the pre-listing policy.

Commented [SO12]: We discussed 15 and 30 as options. I thought we landed at 15 for regular term and 30 for dynamic, but please weigh in.

replacement in case of avoidable credit project failure. These assurances could include financial instruments such as an endowment, bond, contingency fund, 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 measures, and other project characteristics.

In addition to project-level financial assurances, the Program or a designated third party will manage a *reserve account* of funds and/or credits that effectively insure against unavoidable causes of project failure such as fire. Reserve account credits will be included in the state's credit registry and may not be sold. The reserve account is funded through required contributions by development project proponents that 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 measures

Conservation measures that involve preservation, restoration, and/or enhancement actions may be appropriate for creating credit, provided they are site-appropriate and meet the requirements of this Guidance and relevant policies. Each credit provider must develop and submit a site management plan ("site plan"), which identifies the extent, type, and description of all proposed conservation measures.

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; and
- Specific conservation practices that will be implemented on the site to maintain or improve habitat for the species.

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

Appropriate compensatory mitigation site selection is key to ensuring the use of mitigation funds provides the greatest possible benefit for sage-grouse. 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 must occur in core, connectivity, or general sage-grouse habitat and should be targeted to the extent possible to the locations where the greatest benefit to sage-grouse habitat and populations can be provided. Crediting projects may not be located on sites that are under imminent threat of direct or indirect disturbance likely to prevent the project from meeting performance standards. Recently acquired subsurface rights, development plans, or development designations could constitute evidence of an imminent threat.

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 measures that will receive preference for funding. They may be based on best available science, information on landscape-scale priorities, and/or local knowledge about sage-grouse habitat use and management needs.

The Program will provide credit producers with guidance and information on site-appropriate measures. The Program may consider approving credit for conservation measures 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,

Commented [SO13]: Reference ecological site descriptions or some other framework here?

implement, and maintain those conservation measures over time.

Not all possible conservation measures will be appropriate for generating credits on every site. The measures 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 measures will likely occur on a single site.

Project proponents conducting permittee-responsible mitigation should consult with the program administrator for assistance in identifying appropriate compensatory mitigation sites and conservation measures to ensure consistency with policies and to maximize credit availability.

2.1.4 Calculating 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. Montana's Sage-Grouse Habitat Quantification Tool (HQT) is used to measure the results of all debiting and crediting projects. It measures not only the quantity of habitat affected by an action, but also its quality in terms of functional value to sage-grouse. The HQT's assessment of habitat quality includes both local context and site condition, combined into a single metric of *functional acres*.

To estimate the amount of credit that could be created by a proposed project, a credit provider will provide the Program with information about site location and condition, and Program staff will use geospatial information system (GIS) data sources and field collected data to run the HQT.

The Program will use the HQT to estimate the results of conservation measures 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 measures will affect future condition (for example, juniper removal would be assumed to reset juniper canopy cover to 0%).

At the completion of the credit project, the Program runs the HQT a final time 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.

2.1.5 Adjustments to Credit Amounts

The amount of credit available on a project site is adjusted according to the following factors:

Avoided loss: The total amount of credit available at a given site is estimated by discounting projected future functional acres by a standard multiplier that estimates the likelihood that habitat on the site would be lost or significantly degraded in the absence of the mitigation project. Because development poses a significant threat and a strong need to incentivize legal protection of intact, high-quality habitat, credit will be available for 80% of projected future condition, rather than calculating credit availability based on the change between pre-project baseline and projected post-project condition. This multiplier reflects a conservative estimate that approximately 80% of current habitat would be lost or significantly degraded in the absence of protection and active management. The Program will work to estimate rates of actual habitat loss and may adjust this multiplier accordingly over time through the adaptive management process described in Section 4.

Durability: As described in Section 2.1.2, the Program and MSGOT may under certain conditions allow the use of alternative approaches to demonstrating durability, such

Commented [SO14]: Would love to hear some ideas on how to better identify and justify this estimate.

Commented [SO15]: I'm suggesting not including a positive multiplier for permanent easements here, because I think our credit pricing approach (full cost accounting +) for Stewardship Account will accurately reflect the greater commitment made. Would like to discuss this with the full stakeholder group and see if there's strong support for a positive multiplier, though.

as conservation rights-of-way or agricultural leases, provided those credits are discounted to reflect the greater likelihood of project failure through **default**.

Additional adjustments applied to debit projects are described in Section 3.3.1.

2.2 Implementing and Verifying Conditions

This section describes the process that all mitigation 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.

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 the Program, use standardized forms and processes, and have the expertise needed to use the HQT and identify problems with project implementation and outcomes.

An initial verification will occur in year “zero” of a project that includes a site visit and review of documentation. The initial verification confirms mitigation site eligibility, estimates of credits, 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 verification cycle below is a suggested default option, unless the credit provider proposes and the program administrator approves a modification based on relevant factors:

Year 0: Full verification prior to signing a mitigation site agreement/instrument

Years 1-5: Annual review of monitoring reports and site visits as needed to confirm progress toward agreed-to performance standards

Years 5 until 5 years after the last credit is sold (project closure date): Review of at least 2 consecutive years of monitoring data prior to a new credit release (e.g., a project developer submits 2 consecutive years of monitoring reports leading up to a request for credits to show the site is meeting performance standards)

Project closure date to Year 30 (for longer-term and permanent projects): As a site moves into stewardship, the project steward submits a monitoring report no less frequently than every 5 years until Year 30 of the project for the purposes of monitoring program effectiveness. For perpetual projects, the legal protection and stewardship requirements described in **Section 2.1** are expected to result in perpetual maintenance of benefits after Year 30, and regular monitoring and verification is no longer required. However, the Program may conduct audits as needed to ensure expected benefits are being provided.

Differences in opinion may occur between the Program or verifier and a credit provider. These disagreements might involve the adequacy of documentation, whether the project was installed correctly, whether credits are estimated accurately, whether a credit provider is correctly estimating for ongoing performance costs, or other concerns.

The resolution of these disputes depends on which entity acts as the verifier. When an agency conducts verification, disputes will likely be handled through the administrative and dispute resolution processes at that agency. When a third party conducts verification, dispute resolution processes should be determined ahead of time and incorporated into the contract for third-party services. The Program may choose to set up internal processes to deal with disputes involving its decisions. These may include

Commented [SO16]: Stakeholder group may want to revisit HQT results and consider an additional core area multiplier if the HQT does not appear to strongly incentivize mitigation projects in core habitat

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

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

needed to gain final approval of a *mitigation instrument* and release the initial phase of credits.

2.3.2 Registering credits

The State of Montana will identify or develop a database to track creation and sale of sage-grouse habitat mitigation credits, 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, and other permitting agencies to determine compliance with applicable rules and laws. The database will include geographic locations, site plans, verification

Commented [SO17]: Will the Program need MSGOT approval to release credits, or can they just sign off on criteria and process? If so, every credit release, or just initial and final?

Table 2.3 – Mitigation Instruments: Documents Needed for Final Approval	
Document Title	Description
Eligibility checklist	Documentation of site eligibility
Credit estimate	Estimate of project sage-grouse habitat benefits based on HQT results
Site plan	Description of the location, extent, type, and design of conservation measures
Stewardship plan	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.
Financial management plan	Detailed <i>financial management plan</i> 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
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

Prior to project approval and credit release, the Program will review the following documentation for completeness and accuracy. **Table 2.2** lists the documents

documents, credit quantities, and credit purchases. 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 transparency and confidence in the system's outcomes.

2.3.3 Credit release

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 final, 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 directly to the Program, with payment issued to the credit provider. Credits that are released are available for offsetting impacts. Credits developed by private mitigation bankers and unused credits from permittee-responsible mitigation may also be purchased by the Stewardship Account at the Program's discretion and with MSGOT approval.

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

Not all credits are released immediately on approval of a site plan, recording of a land protection agreement, or project implementation. Similarly, some credits can be released as a project is implemented, but before it is achieving its full habitat function. *Phased release of credits* (releasing a limited number of credits from a project 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 measures. For Stewardship Account projects, the amount and timing of payments to credit providers will not necessarily match the timing of credit release in order to better match expenses with reimbursements.

A default credit release schedule is included below, although the schedule included in a

specific mitigation proposal may have additional phases and requirements necessary for credit release. 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 2.5.4** below.

Default Credit Release Schedule:

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 measures have been implemented and appropriate progress toward performance standards is documented and verified;

Phase 3: Up to 20% of credits are released when the stewardship endowment is fully funded, provided appropriate progress toward performance standards is documented and verified; and

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.

2.4 Ongoing 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 (before December 31 of each year in which a report is required) on the verification schedule agreed to in the site plan to the Program for review. The Program will review monitoring reports

and report a summary of results across projects to MSGOT.

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. 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 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 and verification

Monitoring and verification reports will be required, as described in the site plan. 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, at a minimum:

- 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, 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;
- 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

Projects can fail to meet performance standards for three reasons: A) unavoidable events beyond the credit provider's control, such as wildfire, flooding, extreme drought, or the unintended failure of management interventions; B) avoidable implementation failure, neglect, or actions that are willful or that a credit provider has the reasonable ability to foresee and correct; and C) 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 Guidance. 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.

Unavoidable Failure: When a project fails to meet performance standards as a result of an unavoidable event, the credit provider should notify the Program as soon as possible, and both parties should work together to identify an acceptable time-frame and actions needed to correct the issue and return to a positive trajectory, if at all possible. At the end of that set time, the Program should re-evaluate the conservation outcomes. If the project is still failing to move toward performance standards, the Program should suspend the release of credits from the project and determine whether to allow access to any reserve account of credits. 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 with credits in the reserve account managed by the Program or its designee. Permittee-responsible mitigation projects may contribute to and access the pooled reserve account, or may create their own pool of reserve credits to access in case of project 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. If the project remains deficient at the end of that time-frame, the Program will suspend the release of credits and associated payments. The credit provider may then fix the practice to restart the credit release process, purchase replacement credits from the Stewardship Account or

reserve account (at the discretion of the Program and at full cost plus a penalty), 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) 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 durability requirements for eligibility described in **Section 2.1**. However, in rare cases, it may be

not be possible to legally preclude all incompatible uses on mitigation lands (for example, mining rights or loss of land due to eminent domain). In general, when a project fails to meet performance standards because of a legally unavoidable land use conflict, the party creating the new impact is responsible for replacing the credits, either through purchasing credits from the Stewardship Account or reserve account (at the discretion of the Program) or by implementing a crediting project at another site.¹³ The Program and credit provider should work together to establish an acceptable time-line and means for replacing all lost credits. "

Commented [SO18]: I've gotten some early feedback that this paragraph is confusing and may warrant some further discussion at the June 1 meeting. My intent here is to address causes of project failure that are related to the inability to legally preclude certain land uses. This may be better rolled into the "unavoidable failure" section.

¹³ This requirement may only be enforceable when the secondary impact is also subject to state or federal permitting.

3. FOR PROJECT PROPONENTS: APPLYING THE MITIGATION HIERARCHY AND ACQUIRING CREDITS

The following section outlines the steps development project proponents take to meet avoidance and minimization requirements and then compensate for residual impacts to sage-grouse habitat for a proposed project.

3.1 Proposing a Debiting Project

This section addresses development activities that are subject to avoidance, minimization, and compensatory mitigation requirements under state and/or federal law.

Under Montana Executive Order 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.¹⁴

Table 3.1 provides an example list of such activities. **EO 12-2015 Attachment F** provides a list of activities exempt from these requirements under Montana law, although projects reviewed, approved, or authorized by federal agencies may have additional avoidance, minimization, reclamation, and mitigation requirements under federal law

Project proponents proposing affected development activities 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.

Permitting agencies requiring mitigation of impacts to sage-grouse habitat in Montana will refer the project proponent to the Program for guidance and information about developing a draft impact assessment and *mitigation plan* that is consistent with all

relevant policies and agreements. A methodology (HQT) is currently under development for quantifying the impacts of these development activities on the functional value of sage-grouse habitat. Development activities not in **Table 3.1** should be reviewed by the permitting agency for impacts to sage-grouse, in coordination with the Program, on a case-by-case basis to determine whether they are subject to mitigation requirements.

Table 3.1 - Examples of Development Activities Likely to Be Affected

Agriculture

Energy

Forestry and Habitat Treatment

Infrastructure

Mining

Commented [SO19]: Copy into an appendix to this document? The list is too detailed for an in-text table.

¹⁴ EO 12-2015 Section 10.

3.2 Avoidance and Minimization Review

To initiate a review of sage-grouse impacts and mitigation requirements, a project proponent provides the Program with a draft impact assessment that describes the location and type of land use or activity being proposed and whether and how applicable avoidance and minimization measures will be met. For purposes of compliance with State policy, avoidance and minimization measures will be focused around stipulations outlined in Executive Order 12-2015 (Attachment D), although Program staff may also work with the project proponent 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.

If appropriate, the Program will convene an interagency review team, composed of staff members from the Program and all permitting agencies relevant to the proposed project. The interagency review team is convened on as needed to review and evaluate the draft impact assessment and mitigation proposal and ensure consistency with relevant State policies, this Guidance, and all other relevant policies and agreements. Project proponents proposing affected development activities should continue to communicate with the interagency review team as needed to finalize an approved final impact assessment and mitigation plan. Guidelines for convening and operating an interagency review team, including a process for timely dispute resolution, will be outlined in an interagency agreement.

3.3 Calculating and Verifying Credits Needed

Once avoidance and minimization measures have been met to the extent practicable, compensatory mitigation will be required for any residual impacts to sage-grouse habitat, including temporary or indirect impacts.¹⁵

Based on information provided by the project proponent, the Program will use the approved version of the HQT to determine the number and duration of credits needed to compensate for residual impacts. The applicant may then either purchase the needed credits from the Stewardship Account, make a payment to the Stewardship Account if credits are not available, or submit a proposal and site plan for a permittee-responsible project. Additional details on meeting compensatory mitigation requirements are outlined in **Sections 3.3.1 – 3.3.4** below.

To quantify debits, the Program will use information provided by the project proponent to define the *assessment area* (including areas of indirect impact), run the approved HQT on current conditions to determine baseline, and run the HQT on anticipated future conditions after project implementation. The difference in functional acres between post-project and pre-project condition will be used to determine credit need (see Section 3.3.1 below for additional adjustments to credit need that may be required). For projects with multiple implementation or reclamation stages, a phased assessment may be needed to determine credit needs of different durations. The Program or a designated third-party verifier may also conduct site visits or any other forms of verification needed to assess the accuracy of the estimate.

The State of Montana will develop a database to track debiting (development) and crediting actions affecting sage-grouse habitat, including all permittee-responsible compensatory mitigation projects.

3.3.1 Adjustments to Credit Need

The amount of credit available on a project site is adjusted according to the following factors:

Reserve Account: To address the risk that a given mitigation project will be affected by unforeseen adverse events in the course of its project life, the project proponents will be required to purchase additional credits to provide a 10% reserve account contribution. Reserve account credits will be used to help insure against the potential failure of projects due to unavoidable causes, such as fire or extreme weather, and are necessary to allow the transfer of mitigation responsibility from the project proponent.

The Program will revisit the predicted and actual rate of project failure as part of regular adaptive management reviews and adjust the reserve account contribution requirement or adopt other tools for managing uncertainty and risk.

Net Benefit: To ensure compensatory mitigation helps meet the goal of keeping sage-grouse populations healthy and in state management, and to meet the USFWS standard for voluntary prelisting conservation programs and Greater Sage-Grouse Range-wide Mitigation Framework, projects will be required to provide a net benefit to sage-grouse. Project proponents will be required to purchase or create additional credits to provide 10% net benefit contribution, and these credits will be set aside to ensure the state's net benefit goal is met.

Commented [SO20]: As we discussed on the policy subgroup call, I've suggested not including a multiplier for proximity here, largely because it seems like a lot of transactions at least initially will be through the Stewardship Account, where the debit project proponent may not have much choice about where (within the service area) their credits come from.

Happy to discuss and change if folks feel another approach makes more sense.

Commented [SO21]: When we've got these pinned down, I'll make a simple diagram or equation to show how they all interact.

Commented [SO22]: I think I heard from the group that we want to include this in order to be consistent with the Service's prelisting mitigation policy and to clearly define the State's net benefit goal and how it will be met in mitigation. To be clear, this is not intended to cover uncertainty, risk, or any losses due to impacts that are not mitigated. Happy to discuss, especially if I've misinterpreted the group's intent.

Commented [SO23]: Refer to policy when final.

¹⁵ EO 12-2015, Section 10

Core Area Stipulations: The core area stipulations outlined in EO 12-2015 provide a framework for meeting the State’s avoidance and minimization requirements for new land uses and activities in sage-grouse Core Areas. These stipulations include limitations on surface disturbance, surface occupancy, noise, and seasonal use, as well as siting and design requirements for roads, pipelines, powerlines, and communication towers, among others. Among these stipulations, limitations on surface disturbance and the siting of impacts near active sage-grouse leks are particularly critical to meeting the State’s management goals. To further incentivize compliance with these stipulations, an additional credit requirement of 50% of functional acre change will be applied to actions that:

- Result in a DDCT calculation of local surface disturbance greater than 5%;¹⁶ or
- Occur within 0.6 miles of the perimeter of active sage-grouse leks and do not meet stipulations related to season or time-of-day limitations and/or design requirements intended to minimize these impacts.

Advance Payment: The Montana Greater Sage Grouse Stewardship Act allows payments to be made directly into the Stewardship Account if credits are not available for purchase. These advance payments, which are to be based on the average cost of credits that would otherwise be required, improve certainty for project proponents by ensuring that mitigation requirements can be met and development projects can move forward regardless of credit availability. However, advance payments create significant uncertainty for the State and Program about when and much

habitat benefit will result from the payments. They may create a lag effect, in which impacts to the species occur in advance of mitigation actions and cause temporal losses in habitat.

State administrative rules require advance payment funds to be spent within 3 years of deposit. The Program will require an additional contribution of 10% of functional acre change for project proponents making advance payments, to compensate for the temporal lag of up to 3 years from development impact to mitigation benefit.

3.3.2 Service areas and off-site preference

Service areas define the area within which an impact in a given location must be mitigated to ensure species-specific habitat needs are met. For purposes of sage-grouse mitigation, there are three service areas in Montana, outlined in the map provided in Figure 3.2 and described in the Appendix. These service areas are based on a combination of geographic boundaries and barriers and studies of genetic variability.¹⁷

When credits are not available within the relevant service area, the Program may allow advance payments into the Stewardship Account or may, on rare occasions and with formal MSGOT approval, allow the use of credits from outside the service area (potentially including credits from outside the State of Montana). Credits from outside the service area may only be used when a greater benefit to the species and populations can be achieved by doing so. When allowing credits from outside a service area, the Program may also adjust the credit amount needed to reflect the increased geographic and population disconnected.

Commented [SO24]: I’m assuming/recommending this be included in the new rule. If not, it could be included in an MOA among implementing agencies, or the amount of this multiplier would need to be revisited (and this paragraph redrafted!)

Commented [SO25]: I’m thinking of this as a 3% discount rate over 3 years, and then it seemed silly to say 9% rather than 10% - but would welcome feedback on how we can find a firmer scientific basis. I would note that the lag to actual on-the-ground benefits to the species might be substantially greater than 3 years, depending on project type.

¹⁶ 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 30%, or where co-location with existing impacts is used to minimize impacts to sage-grouse.

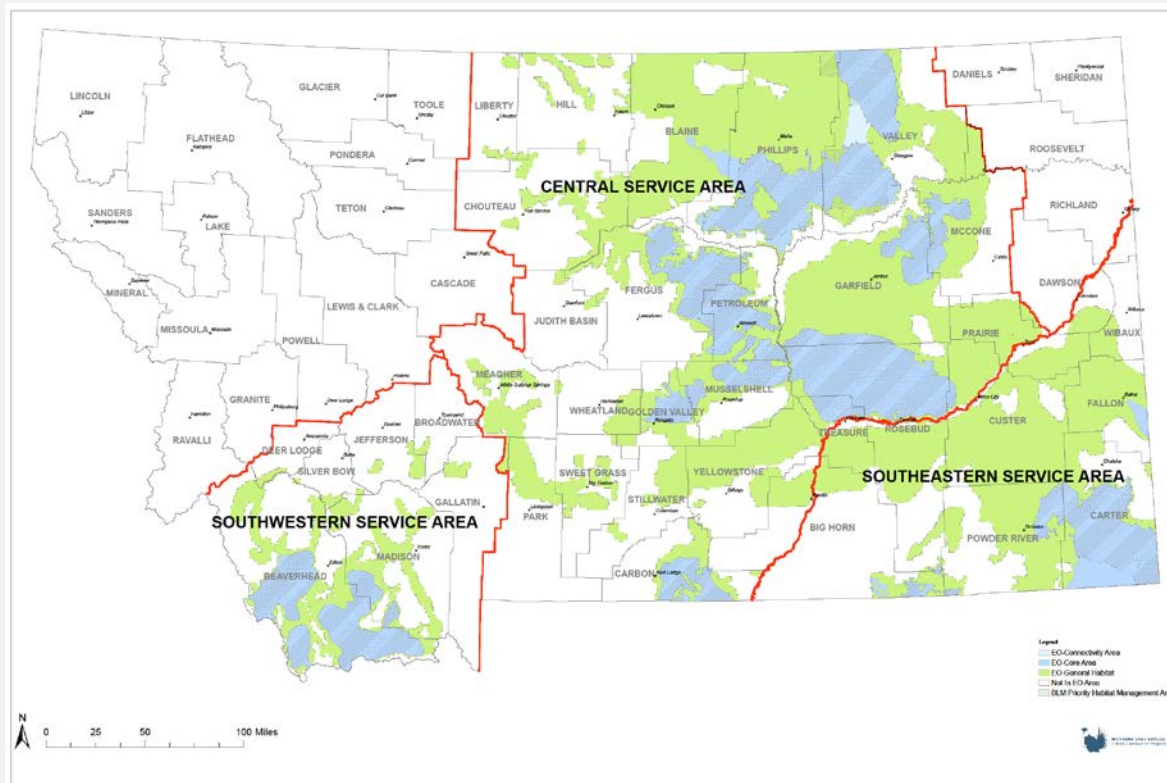
¹⁷ Cross, T., et al. 2016. Hierarchical population structure in greater sage-grouse provides insight into management boundary delineation. Conservation Genetics.

As a default, compensatory mitigation is strongly preferred on sites that are not part of the site impacted by the development action (i.e., *offsite*) and are large enough to support high-quality sage-grouse habitat.

Compensatory mitigation *onsite* (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 negatively affected by the impact.

DRAFT

Figure 3.1 - Map of Service Area Boundaries



3.3.3 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. The minimum acceptable duration of 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.

The State's approach to demonstrating durability will allow dynamic permanent mitigation projects to offset up to 25% of permanent impacts. These projects may be created by renewable term contracts of no less than 30 years. 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 projects remain long enough in duration to provide expected benefits to the species. Project proponents using dynamic permanent credits will be responsible for demonstrating durability for the life of the impact by purchasing or creating additional credits as needed when 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 as needed to ensure mitigation goals are being met.

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). Replacement of seasonal habitat types is not required, nor is the function of different seasonal habitat types quantified or tracked within the HQT.

3.3.4 Purchasing or Creating Credits

Based on the credit requirement outlined in the impact assessment, the project proponent will develop a draft mitigation plan outlining the intended path and timeline for purchasing or creating credits. A very simple mitigation plan could be used to indicate a plan for credit purchase or payment to the Stewardship Account, or a more detailed plan may be needed for permittee-responsible creation of credits, including associated credit-side requirements outlined in Section 2.

The Program notifies permitting agencies and the project proponent when a mitigation plan has been approved by the Program and/or an interagency review team as meeting the requirements outlined in this Guidance and in State policy. The Program may also request guidance from MSGOT in reviewing and approving more complex impact assessments and mitigation plans. The project proponent must then purchase or create the needed credits within the designated timeframe. Proposed projects may also be subject to other agency-specific permitting requirements.

3.4 Ongoing Verification, Tracking, and Adaptive Management

The impact assessment and mitigation plan, once approved by the Program and/or MSGOT, are not subject to change unless the actual impact deviates from the project activities that were planned, proposed, and approved in these documents. The Program may not change the credit requirement or require additional credit purchase as long as the debiting project is executed as proposed. The project proponent is responsible for notifying the Program as soon as possible of any changes in proposed activities or impacts, and for providing the Program with any information needed to review and revise the impact assessment and mitigation plan accordingly.

Commented [SO26]: ?

Commented [SO29]: Require MSGOT approval?

Commented [SO27]: This concept has only been floated by the stakeholder group once, and may require some further discussion at the June 1 meeting

Commented [SO28]: Is this correct?

Similarly, purchase of credits from the Stewardship Account, as well as from most approved private conservation banks, involves a transfer of credit responsibility from the debit project proponent, who 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 2.5.

Responsibility for the results of permittee-responsible mitigation remains with the project proponent unless it is contractually transferred to a third party responsible for implementing the 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 tracked by the Program through a designated registry to ensure that, once used, they cannot be resold.

4. ADMINISTRATION AND ADAPTIVE MANAGEMENT

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 Guidance document, the HQT, and associated products;
- 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 proponents in meeting avoidance, minimization, reclamation, and compensatory mitigation requirements;
- Run the HQT with information provided by credit providers and debit project proponents to estimate habitat function gained or lost by individual proposed projects;
- Convene an interagency review team as needed to coordinate review of proposed projects by multiple permitting agencies;
- Receive and disburse funds from the Stewardship Account for approved projects;
- Develop and maintain a statewide credit registry, and register and track approved credits that are created, bought, sold, and used in the state.
- Manage, or designate a third party to manage, reserve account contributions;
- Analyze and communicate program outcomes to MSGOT and the interested public.

Montana Sage Grouse Oversight Team (MSGOT):

- Provide oversight and direction to the Program in executing mitigation responsibilities;
- Evaluate and approve funding of grant applications to the state's Stewardship Account;
- Review and approve mitigation credit projects funded through other mitigation mechanisms (such as a future Habitat Exchange or permittee-responsible mitigation);
- Review and approve debit project impact assessments and mitigation plans, at the Program's request;
- 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, and review and approve Program proposals for adaptive management of this Guidance and the HQT.

Permitting Agencies:

- Refer project proponents 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 Guidance document and the HQT.

Commented [SO30]: Should content in this section be moved to appendices or rolled into section 1? I worried it would make section 1 too lengthy, even in table form.

Debit Project Proponent:

- Notify and consult with the Program in a timely fashion on avoidance, minimization, reclamation, and mitigation requirements for new land uses and actions that may impact sage-grouse habitat;
- Provide geographic and site-level information needed for Program to run HQT and determine debit amount;
- Complete draft and final impact assessment and mitigation plan for review, if required;
- Purchase or create mitigation credits, if needed, consistent with an approved mitigation plan.

Credit 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 measures;
- Provide geographic and site-level information needed for Program to run HQT and determine credit need;
- 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;
- Provide monitoring results 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 Adaptive Management

This Section describes a process for transparent, science-based, and inclusive

adaptive management of the Guidance, HQT, and associated products.

To ensure the sage-grouse mitigation program is meeting the goals outlined in **Section 1.1** of this document:

1. Within 1 year of the finalization and approval of this Guidance and the HQT, the Program will work with MSGOT and key stakeholders to **identify measurable objectives and specific indicators of success or failure** in meeting those objectives, that would indicate whether significant changes to the program are needed;
2. On an annual basis, the Program will **provide a brief adaptive management report**, assessing whether the program is meeting goals and objectives, including:
 - A report of program performance, including a synthesis of monitoring and tracking of pre-project and post-project conditions for both crediting and debiting projects;
 - A quantification of the net conservation benefit provided by the program in terms of functional habitat acres;
 - A list of recommended changes to the Guidance and associated documents, processes, and tools needed to meet (or continue to meet) program goals and objectives; and
 - A prioritized list of monitoring and research needs for better guiding mitigation efforts, developed in collaboration with MSGOT and stakeholders.
3. On an annual basis, the MSGOT will **review the adaptive management report** and assess whether major or minor changes to the approach are needed, and review and approve any adaptive management actions recommended by the Program or other stakeholders.

4. MSGOT will **host an annual adaptive management meeting**, open to the public, to share the results of the adaptive management review, describe suggested changes to the program, processes, or tools, and receive stakeholder feedback. Changes deemed to be necessary or beneficial should be adopted at that meeting and released as part of a publicly-available report.

Commented [SO31]: Suggested based on other states' approaches, but we have not discussed this on the stakeholder team.

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.¹⁸

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.¹⁹

Assessment Area: The area associated with a project's potential impact/uplift. This defines the boundaries of the calculation of debits or credits.

Avoidance: Avoiding an impact from a proposed debit project altogether by not taking a certain action or parts of an action.²⁰

Baseline: The pre-existing condition of a resource, at all relevant scales, which can be quantified by an appropriate metric(s).²¹

Certification: The formal application and approval process of the credits generated from a conservation measure. Certification occurs after verification.

Compensatory Mitigation: Actions that provide compensation for unavoidable adverse impacts to species or their habitat.²²

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

Core Area: 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 mapped by the Montana Sage-Grouse Habitat Management Program.²³

Credit: A defined unit of trade representing the accrual or attainment of resource functions or value at a proposed project site.²⁴

Commented [SO32]: I've tried to take these from Montana documents when possible, but let me know if you see some I've missed.

Commented [SO33]: May need to revise to reflect state's use or definition in final policy.

¹⁸ See 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>.

¹⁹ US Fish and Wildlife Service. 2017. Director's Order No. 218: Policy Regarding Voluntary Prelisting Conservation Actions. Section 2.

²⁰ 40 CFR 1508.20(a)

²¹ Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

²² US Fish and Wildlife Service. 2017. Director's Order No. 218: Policy Regarding Voluntary Prelisting Conservation Actions. Section 2.

²³ MCA 76-22-103

²⁴ MCA 76-22-103

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

Credit Provider: An individual, entity, or group generating credits as mitigation for impacts to sage-grouse habitat, whether that entity is the project proponent, a contractor of the project proponent that develops or aggregates credits, or a landowner or other entity creating credits to sell to the in lieu fee program.

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.²⁵

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 public land use, including resource, administrative, and financial considerations.²⁶

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.²⁷

Exempt Activity: Land uses and landowner activities identified in Executive Order 12-2015 Attachment F as exempt from compliance with state mitigation requirements.

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.

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.

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.²⁸

²⁵ MCA 76-22-103

²⁶ Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

²⁷ Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

²⁸ MCA 76-22-103

Impact Assessment: A quantitative assessment of the credit need associated with a given debit project, based on results from the habitat quantification tool.

In-Kind Mitigation: Designed to replace lost resources with identical or very similar resources.

Indirect Impacts: Effects that are caused by or will ultimately result from an affected development activity. Indirect effects usually occur later in time or are removed in distance compared to direct effects.

Legal Protection: The enforceable agreements to protect conservation benefits provided at a mitigation project site, which may include leases, contracts, easements, or other agreements.

Lek: Traditional arenas where male prairie grouse, e.g., sage grouse, gather during early spring to conduct a courtship display, attract females, and breed.²⁹

Minimization: Minimizing impacts by limiting the degree or magnitude of the action and its implementation.³⁰

Mitigation Hierarchy: The process of first avoiding impacts to resources, then minimizing, and finally allowing for compensatory mitigation in the case of unavoidable impacts. 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.³¹

Mitigation Instrument: A formal agreement between credit providers and the mitigation program administrator 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.

Mitigation Project: Conservation measures, including preservation, taken by an entity on a mitigation credit project site.

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

Net Conservation Benefit: The actual benefit or gain above baseline conditions, after deductions for impacts, in habitat function or value to species covered by a mitigation program.

Offset: The act of fully compensating for environmental impacts; accomplished through compensatory mitigation.

Offsite: Outside the development project site or area; refers to mitigation.

Onsite: On or proximate to the development project site; refers to mitigation.

²⁹ Montana's Greater Sage-grouse Habitat Conservation Advisory Council. Greater Sage-Grouse Habitat Conservation Strategy (2014) (hereafter "2014 Strategy"), available at http://governor.mt.gov/Portals/16/docs/GRSG%20strategy%2029Jan_final.pdf.

³⁰ 40 CFR 1508.20(b)

³¹ See 40 CFR 1508.20

Permittee-Responsible Mitigation: A compensatory mitigation site that provides ecological functions and services established as part of the conservation measures associated with a project proponent's action. The project proponent retains responsibility for ensuring that the required conservation measures 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 and the Bureau of Land Management.

Phased Release of Credits: Releasing a limited number of credits from a project in stages prior to its completion for the purpose of balancing the time delay in realizing the ecological benefits of a project with the need for up-front funds to finance implementation measures.

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.³²

Project Proponent: An individual, entity, or group seeking to implement an affected development activity.

Commented [SO34]: Shift to project developer as per Stewardship Act?

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

Project Site (Project or Site): The location at which conservation measures or affected development activities are undertaken or installed.

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

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.

Reserve Account: A pool of 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.

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.³³

Service Area: The geographic area within which credits may be applied to offset debits associated with future development activities. Service areas are mapped geographies with unique ecological

³² Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

³³ Bureau of Land Management. 2016. Manual Section 1794: Mitigation.

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.³⁴

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

Stewardship Plan: Identifies a long-term steward of a development 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.

Stipulations: Avoidance and minimization measures applicable to development activities proposed in sage-grouse Core Areas, as outlined in Montana Executive Order 10-2014, Appendix D.

Uncertainty: Refers to the inability to obtain knowledge about factors that may negatively impact mitigation projects. 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).

Verification: An independent, expert check on the credit estimate, processes, services, or documents provided by a project developer. 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

³⁴ US Fish and Wildlife Service. 2017. Director's Order No. 218: Policy Regarding Voluntary Prelisting Conservation Actions. Section 2.

6. APPENDIX: DESCRIPTION OF SERVICE AREA

Southwestern Service Area Western Boundary

- Beginning at the county line between Ravalli and Beaverhead counties
- Continuing north east between Granite and Deer Lodge counties
- Continuing east between Powell and Deer Lodge
- Continuing north east between Powell and Jefferson counties
- Continuing north east between Lewis and Clark and Broadwater counties
- South along the Broadwater and Meagher county lines
- Continuing south between the Broadwater and Meagher county lines
- East along the Meagher and Gallatin county line
- South along the western boundary of General Habitat in north east Gallatin County
- Continuing south along the Gallatin and Park county lines
- Following the Montana State line west between Idaho and Gallatin, Madison and Beaverhead counties.

Central Service Area Eastern Boundary

- Beginning at the county line between Valley and Daniels counties to the intersection at the north east corner of Valley County and northwest corner of Roosevelt County.
- From the north east corner of Valley County and north west corner of Roosevelt County running south to the eastern border of General Habitat in Roosevelt county
- East along the Missouri River between the Roosevelt and McCone county line
- Following the county line between Richland and McCone counties and Dawson and McCone county
- Following the Dawson and Prairie county line to the eastern border of General Habitat in Dawson county
- To a point where the General Habitat boundary leaves Dawson county, then continuing along the Dawson and Prairie county line to the Yellowstone River
- Following the western or northern boundary of the Yellowstone River through Prairie, Custer, Rosebud and Treasure counties.
- Continuing along the western boundary of the Big Horn River between Yellowstone and Treasure county
- Continuing south along the western boundary of the Bighorn River in Bighorn and Carbon counties
- Following the Montana state line east between Wyoming and Carbon and Park counties

Central Service Area Western Boundary

- Beginning at the county line between Toole and Liberty counties
- Continuing south between the Pondera and Choteau county lines
- Continuing south between the Teton and Choteau county lines

- Continuing east between the Choteau and Cascade county lines
- Continuing south between the Cascade and Judith Basin county line
- West along the Cascade and Meagher county lines
- South along the Lewis and Clark and Meagher county lines
- Continuing south between the Broadwater and Meagher county lines
- East along the Meagher and Gallatin county line
- South along the western boundary of General Habitat in north east Gallatin County
- Continuing south along the Gallatin and Park county lines

Southeastern Service Area Western Boundary

- Beginning at the Bighorn and Carbon county line and border with Wyoming, along the eastern boundary of the Big Horn River
- Continuing along the eastern boundary of the Big Horn River to Yellowstone and Treasure county
- Continuing along the eastern boundary of the Big Horn River between Yellowstone and Treasure county
- Following the eastern or southern boundary of the Yellowstone River through Treasure, Rosebud, Custer and Prairie counties.
- Continuing northeast through Dawson, Wibaux and Richland counties along the Yellowstone River to the North Dakota state line.
- Running south along the North Dakota state line and Richland, Wibaux, Fallon and Carter counties
- West along the Wyoming state line and Carter, Powder River and Big Horn counties

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State of Montana Greater Sage-Grouse Habitat Quantification Tool Technical Document

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1. INTRODUCTION AND PURPOSE

The State of Montana (hereafter the State) and a multi-agency, multi-disciplinary stakeholder group has developed a Habitat Quantification Tool (HQT) for purposes of mitigating impacts to greater sage-grouse (*Centrocercus urophasianus*, hereafter GRSG) and its associated habitats. The HQT quantifies gains and losses of functional habitat that may result from conservation and/or development projects in GRSG habitats in Montana. These habitat gains and losses are used as the basis for calculating habitat credits and debits generated by a project. Units of functional habitat are used as the common currency for calculating conservation benefits from mitigation projects and both project impacts from development projects.

The HQT uses a four order habitat assessment process (Boyd et al. 2014, Stiver et al. 2015, Environmental Defense Fund [EDF] 2015a, EDF 2015b) to quantify functionality of GRSG habitat across all seasons (Figure 1). The first and second order habitat assessments determine whether a project is located within current defined boundaries of GRSG occupied habitat and within the State's core, general, and connectivity habitats. Third and fourth order assessments are used to quantify habitat functionality by scoring fine-scale and site-scale features of GRSG habitat.

The HQT scores habitat functionality across multiple project milestones (construction, operation, reclamation, etc.) to quantify functional habitat gains or losses over the life of a project. Direct and indirect impacts of natural or anthropogenic factors are considered during each milestone to adjust estimates of habitat functionality over each phase of a project. Differences between the functional habitat score before the project and the functional habitat score during each project milestone are quantified and summed over time to calculate total functional habitat losses or gains that would result from project implementation. Total functional habitat gains or losses resulting from a project become the base value from which final credits and/or debits are calculated by the HQT. Adjustments to final credit and/or debit calculations may be made through policy decisions to determine mitigation requirements.

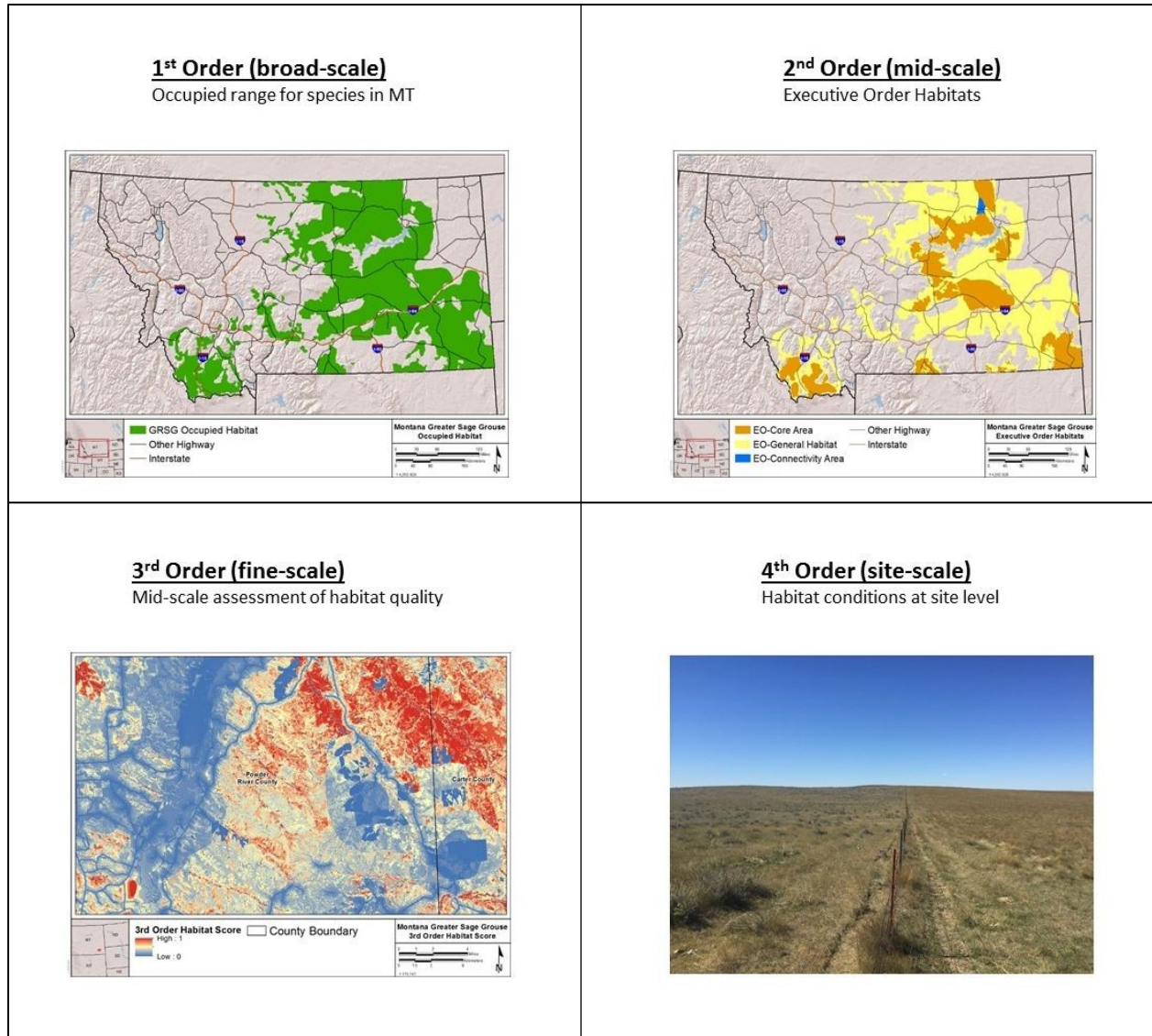


Figure 1. Illustration of the four assessment orders included in the Montana HQT.

2. OVERVIEW OF THE MONTANA HQT

The Montana HQT consists of a four order assessment of GRSG habitat consistent with the multi-order assessment of habitat use and selection by wildlife species described by Johnson (1980). The Montana HQT first and second orders evaluate the availability of GRSG habitat across broad geographies and are consistent with first order (broad-scale) and second order (mid-scale) assessments included in multiple other GRSG habitat assessment frameworks (Boyd et al. 2014, Nevada Natural Heritage Program and the Sagebrush Ecosystem Technical Team [NNHP and SETP] 2014, Stiver et al. 2015, EDF 2015a, EDF 2015b). This approach has also been used to evaluate GRSG habitat use and quality in Montana (Montana Sage Grouse Work Group [MSGWG] 2005, Doherty 2008). The Montana HQT third order is consistent with third order (fine-scale) habitat assessments in these other habitat assessment frameworks, but also incorporates aspects of fourth-order (site-scale) assessment from these frameworks to score habitat functionality. The fourth order is a field-based evaluation of site-specific habitat characteristics and will be used to confirm and/or adjust estimates of functional habitat gains and losses that are generated in the third order assessment.

The final functional habitat score for a milestone is the product of the scores for each of the four orders (**Equation 1**); the score for each order ranges in value from 0 (unsuitable) to 1 (optimal).

Equation 1:

$$\text{Functional Habitat Score} = \text{1st order Score} * \text{2nd order score} * (\text{3rd order score as modified by the 4th order score})$$

To receive a functional value of 1, habitat would be required to fall within the boundaries of the first and second order assessment areas and have habitat characteristics as measured in the third and fourth orders that are optimal for GRSG.

The components of each assessment order are described in this section (Section 2). The scoring of these components is described in Section 3. Examples of project scoring are provided in Section 0.

2.1. FIRST ORDER ASSESSMENT

The State has already completed the first order assessment of habitat in Montana. The first order (broad-scale) consists of the currently defined occupied habitat for GRSG in Montana (Montana Fish, Wildlife, and Parks [MTFWP] 2015). Projects located in the first order assessment area are evaluated as part of the second order assessment process. Projects located outside of the first order area are not further evaluated as part of the Montana HQT.

2.2. SECOND ORDER ASSESSMENT

The State has already completed the second order assessment of habitat in Montana. The second order (mid-scale) consists of the identification of general habitat, core habitat, and connectivity habitat areas for GRSG (Montana Executive Order 12-2015). Projects located in the second order assessment area are evaluated as part of the third and fourth order assessment processes. Projects located outside of the second order area are not further evaluated as part of the Montana HQT.

2.3. THIRD ORDER ASSESSMENT

The third order assessment for mitigation quantifies the functionality of GRSG habitat across the second order (mid-scale) assessment areas by scoring habitat features that are associated with GRSG selection and use. This approach is consistent with third order (fine-scale) assessments described by Johnson (1980) and used in multiple other habitat assessment frameworks for GRSG (Boyd et al. 2014, NNHP and SETP 2014, Stiver et al. 2015, EDF 2015a, EDF 2015b).

The third order assessment of the Montana HQT uses a geospatial model that quantifies functional habitat available over the life of a project. As such it considers not only the functional acres present in a project site but also the temporal availability of those functional acres as project activities are implemented. The functional habitat score at any given time is the product of a raw habitat score and a habitat score modifier, which adjusts the scores for natural and anthropogenic factors that affect habitat function. Changes in the functional habitat score over the life of a project are used to calculate initial estimates of functional habitat gains and losses for credit and debit calculations. The landscape-scale geospatial model used in the Montana HQT is also useful for purposes of project siting alternatives to evaluate various avoidance and minimization efforts.

The third order assessment is a four step process that uses the Montana HQT geospatial model to quantify functional acre gains and/or losses resulting from a project over time. The four steps used in the third order assessment are as follows:

1. Enter project information, plans of development, and GIS files – This information is necessary to identify the type of project being proposed, the duration of the project, and the potential direct and/or indirect impacts that may result from its implementation.
2. Determine the project-specific assessment area – The project assessment area is the combined area of the direct project footprint as well as the spatial extent of the indirect impacts, if any. This is the area in which functional acre gains and/or losses may accrue as a result of project implementation.
3. Estimate pre-project functional habitat scores in the assessment area – Using the HQT variable scores and habitat modifier values described in subsequent sections, estimates of functional habitat occurring within the project assessment area are calculated. This process results in a calculation of functional acres present in the project assessment area prior to project implementation.
4. Estimate functional acres gained and/or lost over the life of the project – This process quantifies the number of functional acres present in the assessment area over the life of the project. These calculations consider habitat gains as a result of conservation actions as well as habitat losses as a result of construction and operation of a project. Calculations of functional acres present over time also consider the gradual return of habitat function as a result of reclamation activities in disturbed areas. The area (acres) and value (functional habitat score) of habitat in the assessment area will be quantified over the life of a project to determine the total functional habitat gains and losses (measured in functional-acres) that occur over time. These estimates of functional habitat

gains or losses are the basis for determining the number of debits or credits generated over the life of a project. The process for calculating functional habitat gains and losses over the life of a project is described in the following sections. Figure 2 illustrates how functional acres gains and losses are quantified and accounted for over the life of the project.

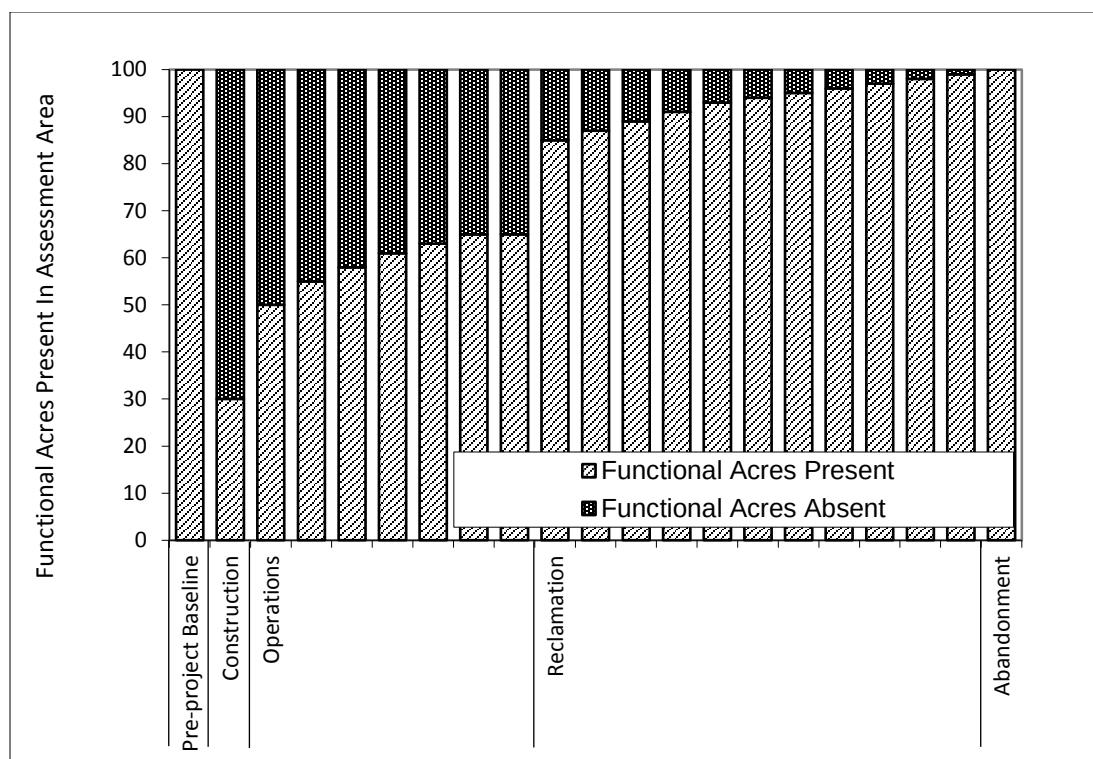


Figure 2. Example of functional acres present and absent over the life of a project.

2.3.1. THIRD ORDER HABITAT VARIABLE SELECTION

Habitat function in the third order habitat assessment is calculated using habitat metrics to produce a raw habitat score. The two separate metrics (upland and mesic) were developed to account for impacts to winter, breeding, and nesting use habitats, as well as mesic brood-rearing and summer use habitats in Montana. The two habitat metrics include different habitat indicators and are spatially independent; a patch of habitat would be scored with one or the other, but not both. Each habitat indicator is associated with multiple measurable habitat features, which are called habitat variables.

Selection of the habitat variables for the habitat metrics considered best available scientific information regarding greater GRSG habitat as well as the public availability of datasets and GIS layers to inform variable scores and resulting geospatial models of habitat function. Table 1 describes the upland and mesic metrics, the habitat indicators they include, and the associated variables that are scored to produce the third order raw habitat score.

Table 1. Montana HQT third order GRSG habitat metrics.

Habitat Metric	Habitat Indicator	Habitat Variable
Upland Metric	Breeding and Nesting Indicators	Distance to Lek (km)
		Breeding Density ¹
	Sagebrush Indicators (all seasons)	Proportion of vegetation community that contains sagebrush within a 1-km moving window
		Sagebrush canopy cover (%)
		Sagebrush canopy height (cm)
Mesic Metric	Mesic Habitat Indicators	If mesic habitat, distance to shrub habitat (m).
		Average upland habitat metric score within 1.6-km moving window

¹Doherty et al. 2010a

It is recognized that numerous other habitat variables could be included to help describe GRSG habitat and probability of use. However, habitat variables in Table 1 were selected specifically for purposes of developing a metric that is useful for mitigation planning purposes and because of availability of datasets that are suitable for analysis.

2.3.2. THIRD ORDER RAW HABITAT SCORE

Each habitat variable in Table 1 is scored based its habitat function value, ranging from 0 (no value) to 1 (maximum value). Detailed descriptions of habitat variables and their scoring are provided in Section 3 of this document. Score ranges were assigned based on the best available scientific information and peer-reviewed scientific literature. When possible, Montana-specific data and information were used to establish and/or adjust scores to better match known patterns of use by GRSG in Montana.

The third order raw habitat score also ranges from 0 (no value) to 1 (maximum value). The individual variable scores are combined using a hierarchical approach to produce the raw habitat score. The mean of the individual habitat variable scores is the habitat indicator score (Table 1 – *Habitat Variable*; **Equation 2–Equation 4**). The upland metric score is the mean of the scores for the two habitat indicators in the upland metric (**Equation 5**). The mesic metric score is same as score for the one habitat indicator in the mesic metric (**Equation 6**).

Equation 2:

$$\text{Breeding and Nesting Indicator Score} = [(distance\ to\ lek\ score) + (breeding\ density\ score)] / 2$$

Equation 3:

$$\text{Sagebrush indicator score} = \sqrt[3]{(sagebrush\ abundance\ score) + (sagebrush\ height\ score) + (sagebrush\ cover\ score)}$$

Equation 4:

$$\text{Mesic brood indicator score} = [(distance\ to\ shrub\ habitat\ score) + (average\ upland\ quality\ score)] / 2$$

Equation 5:

$$\text{Upland metric score} = [(breeding\ and\ nesting\ indicator) + (sagebrush\ indicator)] / 2$$

Equation 6:

$$\text{Mesic metric score} = (\text{mesic brood indicator})$$

Equation 7:

$$\text{Raw Habitat Score} = [(\text{Upland Metric}) + (\text{Mesic Metric})]$$

The third order raw habitat score is comprised of separate upland and mesic metrics (Table 1 – *Habitat Metric*, **Equation 7**). Mesic and upland habitat areas are spatially discrete and separate geospatial models were developed for each area and then spatially joined after being created to provide a single, continuous surface that quantifies the third order raw habitat score across general habitat, core habitat, and connectivity habitat areas.

These third order raw habitat scores are then adjusted by third order habitat modifiers to account for the influence of natural and anthropogenic factors that affect GRSG habitat function to produce the final third order score (Section 2.3.3).

2.3.3. THIRD ORDER HABITAT MODIFIERS

The third order raw habitat score does not consider the landscape, direct and indirect anthropogenic disturbances, or other natural habitat modifiers that affect habitat function. These factors are accounted for through the development of a habitat score modifier.

Disturbance, vegetation, and topographic score modifiers are applied to the third order raw habitat scores. Each modifier type (disturbance, vegetation, or topographic) will receive a score of 0 to 1. The product of these scores is the habitat score modifier (**Equation 8**), which is used to adjust the third order raw habitat scores calculated in Section 2.3.3. Table 2 describes the modifier types.

Unsuitable land cover types (pre-project) are removed from the HQT credit and debit calculations at this step. Unsuitable land cover types are assigned a score of 0, which produces a third order score of 0 and effectively removes them from land cover datasets. These land cover types are not removed earlier in the analysis to ensure that the HQT considers all land cover classes and potential direct and indirect impacts of those lands during third order scoring.

Equation 8:

$$\text{Habitat Modifier Score} = [\text{Product of all Habitat Modifiers}]$$

Table 2. Third order habitat modifier types used to adjust third order raw habitat scores.

Modifier Type	Modifier Description
Anthropogenic Modifiers	Direct and indirect effects of major and moderate roads, cities and urbanization, oil and gas wells, mines, wind energy projects, transmission lines, pipelines, active construction sites, cropland, noise sources, etc. The impacts of each infrastructure type will be determined from existing literature. ¹
Land cover, Landform, and Vegetation Modifiers	Unsuitable Land Cover Types including open water, forested ecosystems, row crop agriculture, existing surface disturbances, etc. Slope
	Conifer Cover within 1-km ² (%)
	Annual grass or invasive species cover (%) – primarily cheatgrass.
	Preferred forb abundance ²

¹ Descriptions of each infrastructure type considered in the third order assessment are provided in Section 3.3.3.

² Stiver et al. 2015

2.3.4. THIRD ORDER FUNCTIONAL ACRE CALCULATIONS

The third order raw habitat score does not consider the landscape, direct and indirect anthropogenic disturbances, or other natural habitat modifiers that affect habitat function. These factors are accounted for through the habitat score modifier. The product of the raw habitat score and the habitat score modifier results in a calculation of habitat functionality (**Equation 9**). The Montana HQT geospatial model calculates this value at a 30 meter pixel resolutions (30m x 30m pixel, 900 m²). The sum of habitat function in all of the 30 meter pixels across a project assessment area is calculated and a unit adjustment factor is applied to convert the results from a measure of square meters to acres. This results in an estimate of the functional acres present in the assessment area at any given time (**Equation 10**).

Equation 9:

$$Third\ Order\ Functional\ Habitat_p = [(Raw\ Habitat\ Score_p) \times (Habitat\ Modifier\ Score_p)],$$

where p is the 30-m pixel in which the functional habitat score is being calculated.

Equation 10:

$$Functional\ Acres_t = \sum_1^n Third\ Order\ Functional\ Habitat,$$

where t is the year in which the functional habitat score is being calculated for the assessment area and, where n is the total number of 30-m pixels in the assessment area after a unit conversion factor is applied to convert the units to acres.

Calculating the difference between the acres that would be present in the assessment area if the project were not implemented (**Equation 11**) and functional acres present in the assessment area over the life of a project (**Equation 12**) results in final third order estimates of functional acres gained and/or lost over the life of a project (**Equation 13**). Calculation of equation 12 and 13 values require consideration of changing functional habitat conditions in the assessment area as a result of changing direct and indirect impact footprints and magnitudes as well as reclamation and revegetation efforts. To account for these changing conditions over time, functional acres must be estimated for the following project milestones (Figure 2):

- **Pre-project Baseline**—This project milestone quantifies functional habitat present in the assessment area before project implementation. The calculation of functional acres present at Pre-Project Baseline is described in the previous section. This analysis milestone will be used for all project types (credit and debit).
- **Construction** – The construction milestone quantifies functional habitat present in the assessment area during construction. Construction impacts are dependent on the type of impact and duration of construction and will follow the methods described in Section 3.3.3 of this document. For credit projects that place easements on property but do not change the underlying value of habitat, the construction milestone functional habitat is equal to the pre-project baseline value.
- **Operations and Maintenance** – This milestone quantifies the functional habitat present in the assessment area after the project has been constructed, interim reclamation activities have been initiated (where applicable), and operations and maintenance activities are ongoing. During this period, functional habitat is gradually returned in areas that have been reclaimed (Figure 2). For credit projects that place easements on property but do not change the underlying value of habitat, the operations and maintenance milestone functional habitat is equal to the pre-project baseline value.
- **Reclamation** – The reclamation milestone quantifies functional habitat present in the assessment area after project activities are complete final reclamation has been initiated. Generally, indirect impacts of a project cease in this first year of this project phase and the remaining functional losses from direct impacts are gradually returned as final reclamation activities are implemented (Figure 2). The return of functional acres is dependent on the vegetation being reclaimed and the expected duration of reclamation.
- **Abandonment** - The abandonment milestone quantifies functional habitat present in the assessment area after the habitat has reclaimed to the greatest extent expected. For projects with no permanent impact, the functional habitat present in the assessment area is equal to the pre-construction baseline value.

Reclamation is an important consideration when determining the return of habitat function of the life of a project. As vegetation reclamation takes hold, functional habitat increases (Figure 2). Accounting for reclamation activities over time requires consideration of the expected reclamation success and timeframe for each vegetation community. It also must consider the type of impact to the vegetation as bladed and cleared habitat recovers at a different rate than mowed habitat and mowed habitat recovers at a different rate than crushed habitat. To account for these differences, reclamation recovery timeframes have been developed for each of these scenarios (Table 3).

Equation 11:

$$Functional\ Acres_A = \sum_1^T Functional\ Acres_0,$$

where $Functional\ Acres_A$ is the functional acres that would be present if the project was not implemented and, where T is the number of years in the life of the project and, where $Functional\ Acres_0$ are the functional acres present in the assessment area in year 0 (pre-construction).

Equation 12:

$$Functional\ Acres_B = \sum_1^T Functional\ Acres_t,$$

where $Functional\ Acres_B$ is the functional acres present over the life of the project and,
where T is the number of years in the life of the project and,
where $Functional\ Acres_t$ is the functional acres present in a given year.

Equation 13:

$$Functional\ Acres_{G,L} = |Functional\ Acres_A - Functional\ Acres_B|,$$

where $Functional\ Acres_{G,L}$ is the functional acres gained or lost over the life of the project.

2.4. FOURTH ORDER ASSESSMENT

The fourth order assessment will consist of field validation of scores from the third order assessment. This assessment level is consistent with the fourth order (site-scale) assessments described in Johnson (1980), is consistent with research and management activities in Montana (MSGWG 2005, Doherty 2008), and has been used in multiple other habitat assessment frameworks for GRSG (Boyd et al. 2014, NNHP and SETP 2014, Stiver et al. 2015, EDF 2015a, EDF 2015b); however, the results of the fourth order assessment will be used to validate and/or correct results of the third order assessment and adjust estimates of functional habitat as appropriate. Protocols and processes for completing the fourth order assessment are described in Section 0.

Table 3. Percent of functional habitat present in each year of reclamation by habitat and disturbance type.

Reclamation Year	Cleared Habitat	Mowed Habitat	Drive and Crush Habitat
Year of Reclamation	0% of all vegetation communities	100% of agriculture, developed, badland/break, grassland, and riparian/wetland 0% of remaining classes	100% of ag, developed, badland/break, grassland, and riparian/wetland 0% of remaining classes
1 year after Reclamation	100% of agricultural and wetland 25% of grassland and riparian 5% non-sage shrub 0% of sagebrush	100% of agricultural, wetland, grassland, and riparian 10% shrub and low sagebrush 2% of big sagebrush	100% of agricultural, wetland, grassland, and riparian 20% shrub and low sagebrush 7% of big sagebrush
5 years after Reclamation	100% of agricultural, wetland, grassland, and riparian 25% shrub 20% mesic sagebrush 10% big sagebrush 5% of xeric sagebrush	100% of agricultural, wetland, grassland, and riparian 50% shrub and low sagebrush 10% of big sagebrush	100% of agricultural, wetland, grassland, and riparian, shrub and low sagebrush 33% of big sagebrush
10 years after Reclamation	100% of agricultural, wetland, grassland, and riparian 50% shrub 40% mesic sagebrush 20% big sagebrush 10% of xeric sagebrush	100% of agricultural, wetland, grassland, and riparian, shrub and low sagebrush 20% of big sagebrush	100% of agricultural, wetland, grassland, and riparian, shrub and low sagebrush 67% of big sagebrush
15 years after Reclamation	100% of agricultural, wetland, grassland, and riparian 75% shrub 60% mesic sagebrush 30% big sagebrush 15% of xeric sagebrush	100% of agricultural, wetland, grassland, and riparian, shrub and low sagebrush 30% of big sagebrush	100% of all vegetation communities
20 years after Reclamation	100% of agricultural, wetland, grassland, riparian, and shrub 80% mesic sagebrush 40% big sagebrush 20% of xeric sagebrush	100% of agricultural, wetland, grassland, and riparian, shrub and low sagebrush 40% of big sagebrush	100% of all vegetation communities
25 years after Reclamation	100% of agricultural, wetland, grassland, riparian, shrub, and mesic sagebrush 50% big sagebrush 33% of xeric sagebrush	100% of agricultural, wetland, grassland, and riparian, shrub and low sagebrush 40% of big sagebrush	100% of all vegetation communities
50 years after Reclamation	100% of agricultural, wetland, grassland, riparian, shrub, mesic sagebrush, and big sagebrush 66% of xeric sagebrush	100% of all vegetation communities	100% of all vegetation communities
75 years after Reclamation	100% of all vegetation communities	100% of all vegetation communities	100% of all vegetation communities

3. HQT DEVELOPMENT

The HQT will be used to establish pre-project (baseline) functional habitat scores, evaluate changes in functional habitat scores as projects are implemented, and calculate the credit or debit produced by projects over time. For projects that generate debits, the HQT will be used to quantify the baseline functional habitat score as well as to measure reductions in the functional habitat score during construction, operation, reclamation, and decommissioning of the project. Similarly, for projects that generate credits, the HQT will be used to measure gains in the functional habitat score over time as the credit generation project is implemented and matures. The following sections describe the implementation of the HQT for purposes of quantifying credits and debits produced over the life of a project.

3.1. HQT FIRST ORDER ASSESSMENT SCORING

Projects that are located within currently defined occupied habitat in Montana receive a first order score of 1 and are further assessed as part of the second order assessment. Habitats outside of the currently defined occupied habitat in Montana receive a first order score of 0 and are not required to complete any additional habitat assessment under the Montana HQT.

3.2. HQT SECOND ORDER ASSESSMENT SCORING

Projects that received a first order score of 1 must complete the second order assessment. Habitats within the general habitat, core habitat, and connectivity habitat areas in Montana receive a second order score of 1 and are further assessed as part of the third and fourth order assessments. Habitats outside of the general habitat, core habitat, and connectivity habitat areas in Montana receive a second order score of 0 and are not required to complete any additional habitat assessment under the Montana HQT.

3.3. HQT THIRD ORDER ASSESSMENT SCORING

Projects that received first and second order scores of 1 must complete the third and fourth order assessments. The completion of the third and fourth order assessments provides users of the HQT with an estimate of functional habitat credits and debits resulting from project implementation. An assessment area will be defined for each project for the third and fourth order assessments. A project's assessment area will be the combined area of the direct footprint of the project and the spatial extent of the indirect effect area surrounding the project. The indirect effect areas for each project type are described in subsequent sections.

This section describes the scoring of the variables in the habitat metrics to produce the third order raw habitat score and the score adjustment factors that contribute to the third order habitat score modifier. The product of the raw habitat score and the habitat score modifier is the third order score or preliminary functional habitat score at a single point in time.

3.3.1. GEOSPATIAL MODEL DEVELOPMENT

The Montana HQT uses a geospatial model of habitat function as the basis for third order assessment calculations. The development of the geospatial model of functional habitat enables

HQT users to evaluate potential project impacts and/or conservation benefits using various project siting and development scenarios. It also enables HQT users to evaluate multiple project sites and configurations to maximize functional habitat gained by credit projects or minimize functional habitat lost by debit projects. This added utility enables HQT users, land managers, and species managers to make informed decisions before making final project decisions and implementing fourth order field assessment methods.

The geospatial model was developed using the variables and modifiers described in Table 1 and Table 2.

3.3.2. THIRD ORDER RAW HABITAT SCORING

Habitat indicators used for the third order assessment include variables identified by the best available scientific information as having influence on the quality of seasonal GRSG habitats, including dominant vegetative components and anthropogenic influences. The habitat variables included were limited to those for which reliable and consistent data are currently available across all core, general, and connectivity habitats in Montana. Scores between 0 and 1 were assigned to each measure or range of measurements each habitat variable. Breakpoints in the scores for each habitat indicator variable were independently determined based on information contained in the best available scientific information regarding GRSG habitat use, giving additional consideration to regional conditions and known GRSG habitat use patterns in Montana. The following sections describe the scoring process that was used for each variable in third order raw habitat score.

3.3.2.1. Upland Habitat Metric

The upland habitat metric of the HQT considers the upland vegetation and breeding indicators that characterize greater GRSG upland use throughout all seasons. The following sections describe the habitat variables that collectively comprise the upland habitat metric and contribute to the third order raw habitat score. Tables and figures of variable scores are provided for each variable below.

3.3.2.1.1. Breeding Habitat Indicator Variables

3.3.2.1.1.1. Distance to lek

Current GRSG habitat management guidance uses occupied leks as focal points for breeding nesting habitat management (Connelly et al. 2000; Connelly et al. 2011); therefore, distance to lek was used as a variable in the upland habitat metric. This variable is intended to increase measures of habitat functionality close to leks where the majority of breeding and nesting activities occur. Leks also are often an indicator of high quality sagebrush habitat that is important during other seasons of use (Connelly et al. 2011).

Available literature and datasets related to lek to nest distances in Montana were used to establish scores for this variable. Foster et al. (2014) found that 3.2 and 8.0 kilometer buffers around all leks were adequate to protect 84% and 100% of nests used by radio tagged hens in southeast Montana, respectively (Table 3). Foster et al (2014) found that this relationship remained relatively consistent when only active leks were included in the analysis. In southeastern Montana and northeastern Wyoming, Doherty (2008) found that 95% of all nesting activity was contained within 10 km of a lek. *The Final Management Plan and Conservation Strategies for Sage-Grouse in Montana* [MSGWG 2005] describes similar lek to nest distance relationships. Wallestad and Pyrah (1974, from MSGWG 2005) reported that 68% of all nests were located within 2.4 km of a lek in central Montana (Table 4). Martin (1970, from MSGWG 2005) found that greater than 80% of nests were located within 3.2 km of leks in southwestern Montana. While not specific to Montana, the MSGWG (2005) reported that unpublished data from Idaho (Autenrieth 1976, unpublished data) found that 59%, 85%, and 96% of nests occurred within 3.2 km, 6.4 km, and 8.0 km of leks, respectively.

Montana-specific datasets related to lek to nest distances are very similar to those observed elsewhere across the range of the GRSG. Holloran and Anderson (2005) studied nesting GRSG at 30 leks in central and western Wyoming and determined that 45% and 64% of female GRSG nested within 3.2 km and 5.0 km, respectively, of the lek where the hen was radio-collared. Moreover, statistical analyses suggested that the area of interest for nesting GRSG should be truncated at 8.5 km from a lek. Although it occurs infrequently, female GRSG do occasionally nest at greater distances from a lek. The farthest distance reported in Holloran and Anderson (2005) was 27.4 km. Coates et al. (2013) observed declining surface use beyond 9.6 km, and that the majority of utilization for breeding populations, including migratory populations, was contained within 15 km.

Because of the similarities between Montana-specific data and range-wide datasets, variable scores for the distance to lek variable are based entirely on Montana data out to a distance of 10 km from a lek. Scores for the variable beyond 10 km use the analyses by Coates et al. (2013) and Holloran and Anderson (2005) and their reported observations of declining use beyond 10 km out to approximately 20 km. To develop scores for the variable, the Montana-specific lek to nest distance data (Table 4) were analyzed to evaluate potential breakpoints and score magnitudes. Because the percent of nests within each distance in Table 4 is a cumulative total of all nests between the specified distance and the lek, it is difficult to directly use that measure to establish variable scores. To provide a measure better for analysis and scoring purposes, the percent of nests occurring beyond each distance [$y = 1 - \text{percent of nests within distance}$] was calculated

(Table 4). This provides a better measure for establishing scores because habitats closer to the leks receive higher values. After calculation, values were standardized by dividing by the percentage of leks beyond the smallest lek buffer (distance to lek 1.6 km) to produce a standardized range of values between 0 and 1.

Table 4. Lek to nest distances reported for Montana and calculated values used to establish habitat variable scores.

Distance to lek (km)	Nests (%) Within Distance	Nests (%) Beyond Distance	Standardized Value Nests Beyond Distance	Source
1.6	59%	41%	1.00	Foster et al. (2014)
3.2	80%	20%	0.49	Martin 1970
3.2	59%	41%	1.00	Autenrieth (1976), unpublished data
3.2	84%	16%	0.39	Foster et al. (2014)
3.2	68%	32%	0.78	Wallestad and Pyrah (1974)
4.8	93%	7%	0.17	Foster et al. (2014)
6.4	85%	15%	0.37	Autenrieth (1976), unpublished data
6.4	97%	3%	0.07	Foster et al. (2014)
8.0	96%	4%	0.10	Autenrieth (1976), unpublished data
8.0	100%	0%	0.00	Foster et al. (2014)
10.0	95%	5%	0.12	Doherty 2008

A 3-period moving average was used to identify scores for the distance to lek habitat variable. This approach provided values that took into account the range of values reported for each distance value and provided results that are easily adjusted to establish variable scores for each distance bin. Figure 3 and Table 5 illustrate the final scores used for the distance to lek habitat variable. Scores for distances greater than 10 km were calculated as 50% of the score for the 8.0 to 10.0 km bin.

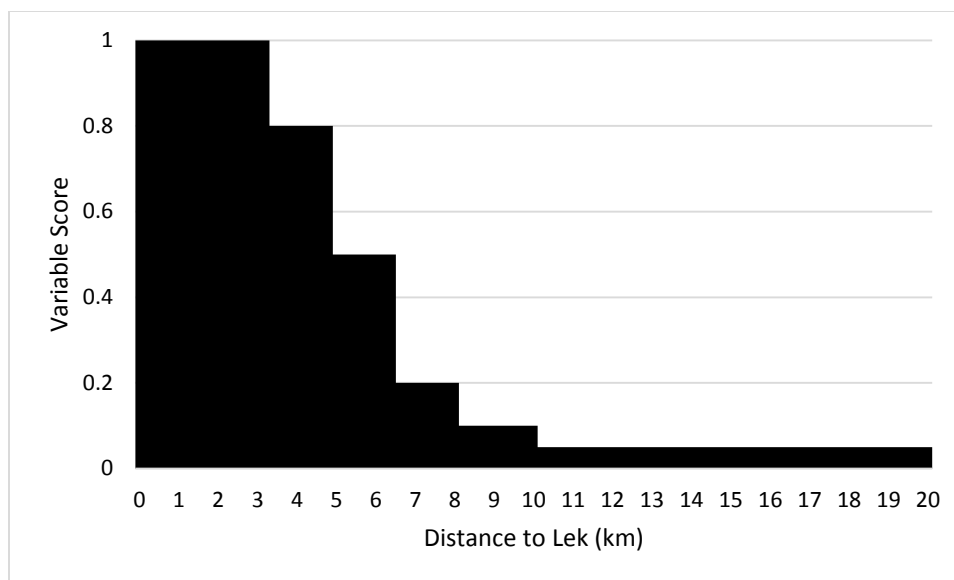


Figure 3. Scores for the distance to lek habitat variable.

Table 5. Scores for each distance bin for the distance to lek habitat variable.

Distance to lek (km)	0-3.2	>3.2-4.8	>4.8-6.4	>6.4-8.0	>8.0-10.0	>10-20	>20
Variable Score	1	0.8	0.5	0.2	0.1	0.05	0

3.3.2.1.1.2. Breeding Density

Leks are widely recognized as a focal point for occupancy and seasonal use, and provide a reasonable index to relative abundance of GRSG populations (Reese and Bowyer 2007). Studies show that during breeding seasons (lekking and nesting), GRSG select habitat near and surrounding occupied leks (Holloran and Anderson 2005, Cagney et al. 2009, Doherty et al. 2011, and Fedy et al. 2012). Higher occupancy leks likely influence GRSG populations more than lower occupancy leks, and the birds using these leks may use habitats across broader spatial scales (Coates et al. 2013).

Breeding density models will be used to identify areas with higher function for GRSG populations. Doherty et al. (2010a) developed a widely used spatial model of breeding density that can be used in the HQT. The Doherty et al. (2010a) model provides a spatially explicit, continuous variable that identifies breeding density across the range of the species. The Doherty et al. (2010a) model will be re-run with the most current lek count data prior to HQT finalization and it is expected that this habitat variable in the upland habitat metric will be re-run at regular intervals.

The breeding density model (Doherty et al. 2010a) is commonly classified into 25%, 50%, 75%, and 100% cumulative breeding quartiles with the highest relative breeding density in the 25% quartile and the lowest breeding density in the 100% quartile (Figure 4). These thresholds were used to assign habitat variable scores with the scores of 1 being assigned to the areas with the highest breeding density (25% quartile) with scores decreasing linearly to 0.25 for the 100% quartile (Table 6). Areas outside of the breeding density model (modeled breeding density of 0) receive a score of 0 (Table 6).

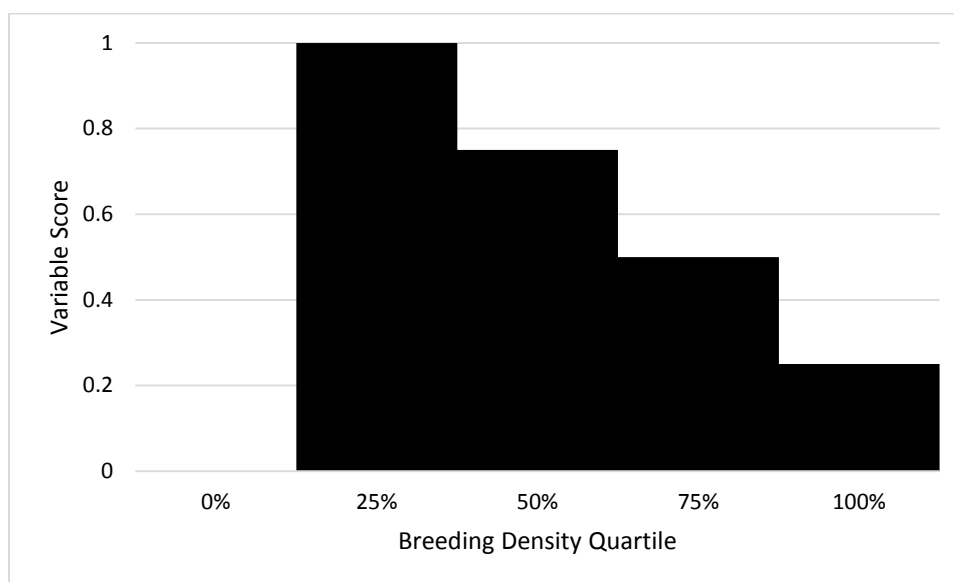


Figure 4. Scores for the breeding density habitat variable.

Table 6. Scores for each breeding density quartile bin for the breeding density habitat variable.

Breeding Density ¹	25%	50%	75%	100%	Outside of density model
Variable Score	1	0.75	0.5	0.25	0

¹Doherty et al. 2010a

3.3.2.1.2. Sagebrush Habitat Indicator Variables

3.3.2.1.2.1. Proportion of 1-km moving window characterized as sagebrush

Walker et al. (2007) found that the proportion of habitat that was classified as sagebrush within a 6.4-km of a given location was a strong predictor of lek persistence in the Powder River Basin of Wyoming and Montana. Areas with less than 30% of sagebrush within 6.4 km of the lek center had a lower probability of lek persistence. Aldridge and Boyce (2007) used a moving window (1-km²) to measure sagebrush cover and availability on the landscape. Their resource selection function found that GRSG selected nesting habitat that contained large patches (1-km²) of sagebrush with moderate canopy cover and moderate sagebrush availability (i.e., heterogeneous distribution of sagebrush). Aldridge and Boyce (2007) found increasing probability of population persistence with increased availability of sagebrush on the landscape. Carpenter et al. (2010) found similar results. Their top resource selection functions included a quadratic function for sagebrush availability on the landscape, which indicates that areas of moderate sagebrush were selected more frequently than areas of low or homogenous sagebrush abundance. Doherty (2008) found that odds of GRSG use increased with increasing availability of sagebrush within 100 meters of a location. Wisdom et al. (2011) found that landscapes with less than 27% sagebrush availability were not different from landscapes from which GRSG have been extirpated. Similar to Aldridge and Boyce (2007), Wisdom et al. (2011) found that 50% sagebrush across a landscape was a good indicator of GRSG persistence.

Available literature did not use consistent analysis areas for purposes of calculating scores for this variable. As a result, the average probability of use of sagebrush by GRSG (odds or population persistence were also used, depending on study design) was calculated for projects occurring in Montana or in nearby states or Canadian provinces. Average values from Doherty (2008), Walker et al. (2007) and Aldridge and Boyce (2007), were calculated and standardized to a range of values between 0 and 1.

Using this approach, sagebrush covering 80% to 100% of a 1-km² window was characterized as having high habitat function and was assigned a score of 1 for this variable (Figure 5 and Table 7). Sagebrush covering 40% to 80% of the window was determined to still have high habitat function and was assigned a score of between 0.75 and 0.9. Moderate functional scores (0.5-0.6) were assigned for areas having between 20% and 40% sagebrush in the assessment area. Areas with little sagebrush occurring in the assessment area received lower scores although areas having as little as 2% of the landscape characterized as sagebrush still received a score of 0.15.

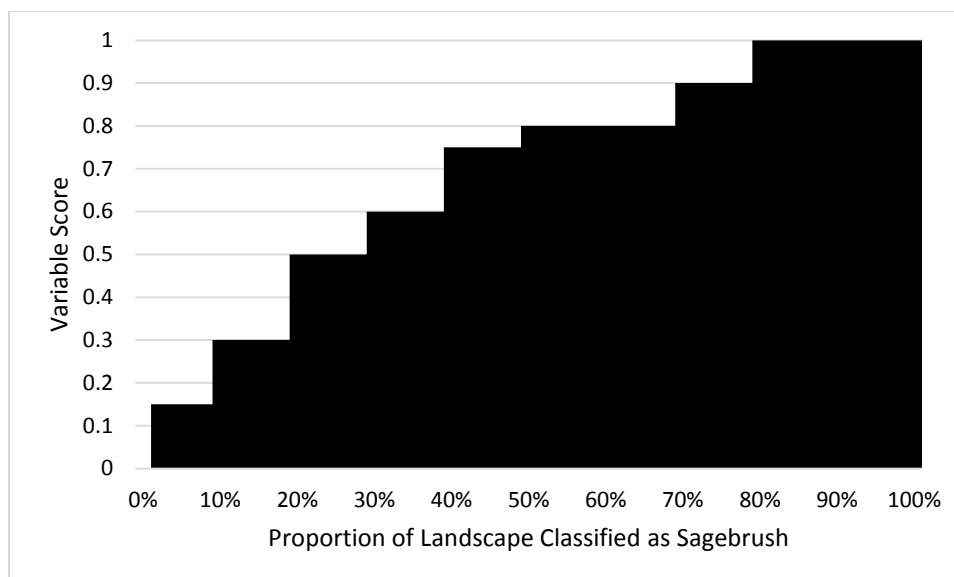


Figure 5. Scores for the proportion of land cover classified as sagebrush in a 1-km² moving assessment window habitat variable.

Table 7. Range of values and variable scores for the proportion of land cover classified as sagebrush in a 1-km² moving assessment window habitat variable.

Proportion of 1-km ² Analysis Area Characterized as Sagebrush	0 - <2%	2 - <10%	10 - <20%	20 - <30%	30 - <40%	40 - <50%	50 - <70%	70 - <80%	80 - 100%
Variable Score	0	0.15	0.3	0.5	0.6	0.75	0.8	0.9	1

3.3.2.1.2.2. Sagebrush cover

The presence of sagebrush is a primary characteristic of GRSG habitat (Connelly et al. 2000, Hagen et al. 2007, Connelly et al. 2011). However, literature recommendations for sagebrush canopy cover for GRSG habitat varies seasonally and regionally. Scores for this habitat variable were calculated by evaluating average seasonal sagebrush requirements for GRSG populations in Montana. Sagebrush canopy cover was characterized for winter, nesting/breeding, and brood/summer use periods.

Connelly et al. (2000) cite 13 references to suitable sagebrush cover that range from 15% to 38% mean canopy cover surrounding the nest. Citations contained within Crawford et al. (2004) reported 12% to 20% cover, including 41% cover in nesting habitat. In their species assessment, Connelly et al. (2000) conclude that 15% to 25% canopy cover is the recommended range for productive GRSG nesting habitat. This is also the range identified in the *Sage-grouse Habitat Assessment Framework* (Stiver et al. 2015) as providing the highest function for GRSG based on a review of the available literature. Wallestad and Pyrah (1974) reported that successful nests were in stands where sagebrush cover approximated 27%. This cover range is used as a goal in some GRSG management guidelines (Bohne et al. 2007, BLM et al. 2000). Cagney et al. (2009) guidelines for grazing in GRSG habitat, which use information synthesized from over 300 sources, state that hens tend to select an average 23% live sagebrush canopy cover when selecting nesting sites. While outside the optimal range, canopy cover greater than 25% may still provide moderate suitability for nesting. For example, sagebrush canopy cover was higher on average around successful nests (33%) than unsuccessful nests (22%) in Wildcat Knoll, Utah (Perkins 2010). In Montana, sagebrush cover used during nesting and breeding use periods are similar to those reported elsewhere across the range of GRSG. Doherty (2008) reported 20-30% cover surrounding nest locations in the Powder River Basin. Foster et al. (2014) found that habitat use by radio-collared GRSG during the breeding and nesting season was highest between 15-25% canopy cover. Tack (2009) reported similar results with an average of approximately 15% canopy cover around nest locations.

Connelly et al. (2000) found that productive brood-rearing habitat should include 10% to 25% cover of sagebrush. This is the range used as a goal in GRSG management guidelines in Oregon (Bohne et al. 2007, BLM et al. 2000). While sagebrush is a vital component of GRSG habitat, very thick shrub cover (e.g., >60%) may inhibit understory vegetation growth and reduce the birds' ability to detect predators (Wiebe and Martin 1998). In Montana, the range of canopy cover conditions reported for GRSG is largely consistent with reported values elsewhere in the range of the species. Klebenow (1969) reported that brood-rearing and summer use activities occurred in habitats having 15-35% cover. Martin (1970) reported brood and summer use activities in habitats having 10-35% cover. Foster et al. (2014) found that radio-collared GRSG in southeastern Montana used habitats having 10-35% cover with the majority of use occurring in areas having 15-25% cover. Woodward et al. (2011) and Lane (2005) reported brood/summer use in habitats having 10-15% cover.

Connelly et al. (2000) cite 10 references to sagebrush coverage in winter-use areas that range from 15% to 43% mean canopy cover [Crawford et al. (2004) also cites 2 of these references in their assessment]; however, they considered a canopy of 10-30% cover (above the snow) as a characteristic of sagebrush needed for productive GRSG winter habitat. This is the cover range

used as a goal in GRSG management guidelines in Oregon (Bohne et al. 2007, BLM et al. 2000). However, conditions in Montana may not be consistent with these studies because of differences in winter conditions and snow depth. Eng and Schladweiler (1972), Foster et al. (2014), Wallestad and Pyrah (1974), and Woodward et al. (2011) provide Montana-specific values of sagebrush canopy cover in winter use areas. Eng and Schladweiler (1972) found that GRSG winter use in eastern Montana generally occurred in areas with greater than 20% sagebrush canopy cover. Foster et al. (2014) found that 78% of all use by radio-collared GRSG in southeastern Montana occurred in sagebrush habitats having 11-25% cover with an average of 11-13% cover in critical and important habitats. Only 7% of all GRSG use occurred in habitats greater than 25% cover with no use in habitat having greater than 31% cover.

Seasonal canopy cover values were standardized to a range of values between 0 and 1 for habitat variable scoring purposes. The maximum standardized seasonal use value across all three seasons was used as the basis for variable scoring (Table 8). Recognizing that optimal canopy cover conditions may vary slightly across seasons, the maximum standardized seasonal value was used rather than the average standardized value. This approach ensures that the HQT score for this habitat variable receives the maximum score possible for each sagebrush cover bin that was identified.

Across all seasons, the highest reported GRSG use in Montana occurred in habitats having 15-25% cover with the lowest use occurring in areas with sparse or extremely high sagebrush canopy cover. Sagebrush percent canopy cover of 15% to 30% was assumed to provide the highest function and was assigned a score of 1.0 (Table 9, Figure 6). Consistency in use of this range of sagebrush cover across all seasons supports this score. Areas with moderately more (30-40%) or less (10-15%) cover than the optimal range were determined to be highly functional and received scores of 0.7 and 0.9, respectively using the maximum standardized seasonal values presented in Table 8. Areas with substantially more (>45%) or less (<10%) cover than the optimal range were given lower scores. Areas with less than 3% canopy cover were given a score of 0.

Table 8. Standardized seasonal canopy cover values used to develop the score for the sagebrush canopy cover habitat variable.

Percent Canopy Cover	Nesting/ Breeding	Brood/ Summer	Winter	Maximum Seasonal Value
0%	0.1	0.0	0.0	0.1
5%	0.4	0.4	0.0	0.4
10%	0.6	0.9	0.5	0.9
15%	1.0	1.0	1.0	1.0
20%	1.0	1.0	1.0	1.0
25%	1.0	1.0	1.0	1.0
30%	0.7	0.7	0.5	0.7
35%	0.6	0.7	0.5	0.7
40%	0.5		0.5	0.5
45%	0.4			0.4

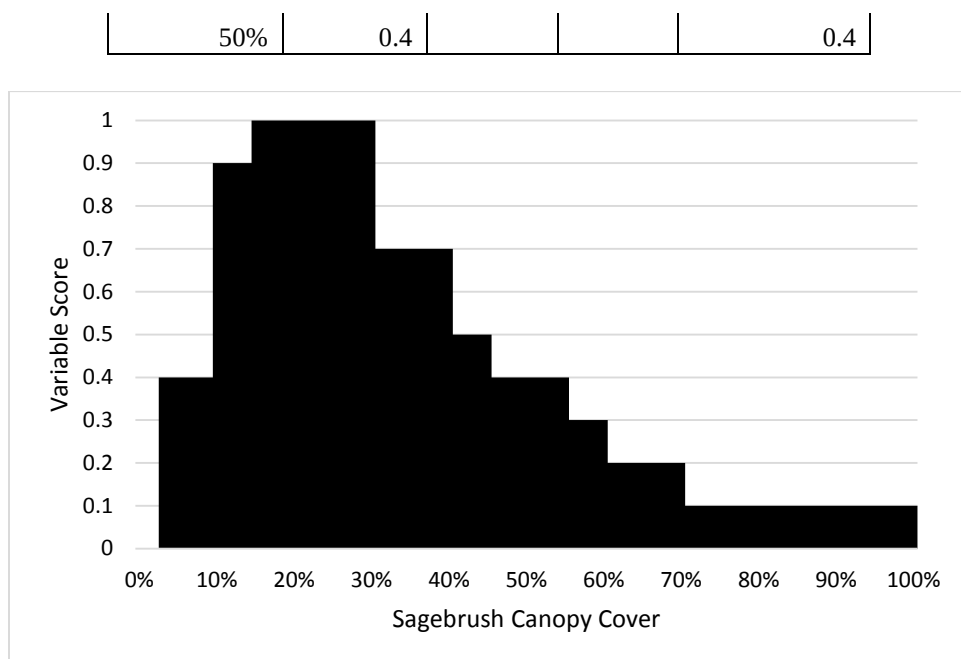


Figure 6. Scores for the sagebrush canopy cover habitat variable.

Table 9. Range of values and scores for the sagebrush canopy cover variable.

Sagebrush Cover (%)	0 - <3	3 - <10	10 - <15	15 - <30	>30 - 40	>40 - 45	>45 - 55	>55 - 60	>60 - 70	70 and greater
Variable Score	0	0.4	0.9	1	0.7	0.5	0.4	0.3	0.2	0.1

3.3.2.1.2.3. Sagebrush height

Sagebrush canopy height is an important aspect of all GRSG seasonal habitats. However, literature recommendations for sagebrush canopy cover for GRSG habitat varies seasonally and regionally. Scores for this habitat variable were calculated by evaluating reported average seasonal sagebrush requirements for GRSG populations in Montana. Sagebrush height was characterized for winter, nesting/breeding, and brood/summer use periods.

Important structural components in winter habitat include medium to tall (25-80cm) sagebrush stands (Crawford et al 2004). Connelly et al. (2000) cite 10 references to sagebrush height in winter habitat that range from 20 to 46 cm above the snow. Two studies cited by Connelly et al. (2000) measured the entire plant height and provided a range from 41-56 cm. In their assessment, Connelly et al. (2000) conclude that characteristics of productive winter habitat include sagebrush that is 25-35 cm in height above the snow. This is the height range used as a goal in GRSG management guidelines in Oregon (Bohne et al. 2007, BLM et al. 2000). Ranges developed across the range of the GRSG for winter use may not be representative of conditions in Montana because of differences in sagebrush communities as well as snowfall depths and winter conditions. For Montana GRSG, Eng and Schladweiler (1972) and Woodward et al. (2011) found that sagebrush height of 25-35 cm were most commonly used in winter months. In southeastern Montana, Foster et al. (2014) found that use by radio-collared GRSG occurred in habitats having sagebrush height between approximately 8 and 80 cm with mean sagebrush heights of 20-28 cm in important winter habitat areas.

Connelly et al. (2000) reports that sagebrush heights ranging from 29 to 79 cm mean height are most commonly used during nesting. In their assessment, Connelly et al. (2000) conclude that sagebrush with a height of 30 to 80 cm is needed for productive GRSG nesting habitat in arid sites and 40 to 80 cm in mesic sites. These ranges are used by Stiver et al. (2015), who recommend a range of 30 to 80 cm at arid sites, and BLM et al. (2000), which state that optimum GRSG nesting habitat consists of sagebrush stands containing plants 40 to 80 cm tall. Heights of 40-80 cm are rarely reported in literatures specific to GRSG in Montana. Because of the differences in reported Montana sagebrush height values and values reported elsewhere across the range of the species, Montana-specific data and literature were used to evaluate height requirements during the nesting season. In Montana GRSG nesting was most commonly reported in habitats having sagebrush heights between 15 and 50 cm (Eng and Schladweiler 1972, Lane 2005, Wisinski 2007, Woodward et al. 2011, Foster et al. 2014). Lane (2005) reported the most variable range of conditions with nesting occurring in sagebrush with heights between 25 and 50 cm. In southeastern Montana, Foster et al. (2014) reported that radio-collared GRSG most commonly nested in habitats having heights between approximately 30 and 40 cm. Wisinski (2007) reported similar ranges of conditions in nesting habitats with highest use reported for sagebrush heights between 25 and 45 cm.

During the brood rearing season, GRSG may use habitats that are not dominated by sagebrush (Connelly et al. 2000). Schreiber et al. (2015) found that while sagebrush was necessary to support brood-rearing in most cases, visual obstruction provided by all vegetation types between 0 and 45.7 cm was the most influential variable in models predicting brood survival. Hansen et al. (2016) found a similar influence of visual obstruction for nesting sites although sagebrush cover and height greater than 20 cm were also influential in models of nest site selection. In

Montana, sagebrush heights were reported for a number of studies and were used to evaluate Montana-specific requirements of sagebrush height during the brood-rearing and summer use periods. Sagebrush heights of 20 to 65 cm have been reported for brood and summer use habitats in Montana (Martin 1970, Lane 2005, Wisinski 2007, Woodward et al. 2011, Foster et al. 2014,). The most commonly reported range of sagebrush heights used in Montana falls between 20 and 45 cm (Lane 2005, Wisinski 2007, Foster et al. 2014).

Seasonal sagebrush height averages were standardized to a range of values between 0 and 1 for final scoring purposes. The maximum standardized seasonal value across all three seasons was used as the basis for the habitat variable scoring (Table 10). Recognizing that optimal sagebrush height conditions may vary slightly across seasons, the maximum standardized seasonal value was used rather than the average standardized value. This approach ensures that the HQT score for this variable receives the maximum score possible for each sagebrush height bin that was identified.

Across all seasons, the highest reported GRSG use in Montana occurred in habitats having sagebrush heights of 25-40 cm (Table 10). This range of values was assigned a score of 1.0 (Figure 7 and Table 11) for the sagebrush height habitat variable as that range has the potential to provide high quality habitat conditions across all seasons (Table 11). Based on the maximum standardized seasonal height values, sagebrush having heights between 15 and 25 cm and those with heights between 45 and 70 cm were assigned moderate to high scores (0.6-0.9). As sagebrush canopy height decreases, the value of a sagebrush plant to provide cover for nesting females and their nests/broods or provide winter habitat is diminished. Sagebrush heights of less than 10 cm were assigned a score of 0 due to the lack of reported use in habitats with extremely low growing sagebrush.

Table 10. Standardized seasonal sagebrush height values used to develop the score for the sagebrush height habitat variable.

Sagebrush Height (cm)	Nesting/ Breeding	Brood/ Summer	Winter	Maximum Seasonal Value
0	--	--	--	--
5	--	--	--	--
10	0.1	0.1	0.1	0.1
15	0.6	0.3	0.2	0.6
20	0.7	0.8	0.5	0.8
25	0.9	0.9	1.0	1.0
30	1.0	1.0	1.0	1.0
35	1.0	1.0	0.8	1.0
40	1.0	1.0	0.2	1.0
45	0.8	0.9	0.1	0.9
50	0.7	0.7	--	0.7
55	0.4	0.8	--	0.8
60	0.2	0.6	--	0.6
65	0.1	0.6	--	0.6



Figure 7. Scores for the sagebrush canopy height habitat variable.

Table 11. Range of values and scores for the sagebrush canopy height variable.

Sagebrush Height (cm)	0 - <10	10 - <15	15 - <20	20 - <25	25 - 45	>45 - 50	>50 - 60	>60 - 70	>70 - 85	85 and greater
Variable Score	0	0.1	0.6	0.8	1	0.9	0.7	0.6	0.3	0.2

3.3.2.2. Mesic Habitat Metric

The mesic habitat metric of the HQT quantifies the functionality of mesic habitats that are important during brood-rearing and summer use periods. This habitat metric includes measures of the quality of mesic habitats and availability of suitable surrounding upland habitats. Mesic habitat metric variables were developed to consider the importance of these habitats in Montana, and the evaluation was based primarily on the professional opinion and expertise of the MSGWG, state and federal biologists, and other species experts. There is a paucity of information pertaining to the use and characteristics of mesic habitats for GRSG, so professional opinion and expertise was used to develop these variables. The following sections describe the habitat variables that collectively comprise the mesic habitat metric of the HQT. Tables and figures of variable scores are provided in each section below.

3.3.2.2.1. Distance to suitable upland GRSG habitat

As described previously, the mosaic of upland and mesic habitat is important to support populations of GRSG (Connelly et al 2000, Schreiber et al. 2015). Donnelly et al. (2016) used an internal buffer of 400 meters from the edge of mesic habitats to remove areas inside large wet meadow, hay, or other mesic habitat complexes. A multiple internal buffer has been developed as the basis for determining scores for this variable. While vegetation and forage characteristics within mesic areas may not vary with distance to upland habitats, mesic habitats closer to adjacent upland habitats are expected to have a higher level of functionality because they are closer to adjacent escape and roost cover. As a result, mesic habitats within 50 and 100 meters of upland habitat receive higher variable scores than those mesic habitats that are between 100 and 400 meters from the upland-mesic edge (Figure 8 and Table 12). Consistent with Donnelly et al. (2016) areas more than 400 meters from upland habitats will receive a score of 0 for this variable.

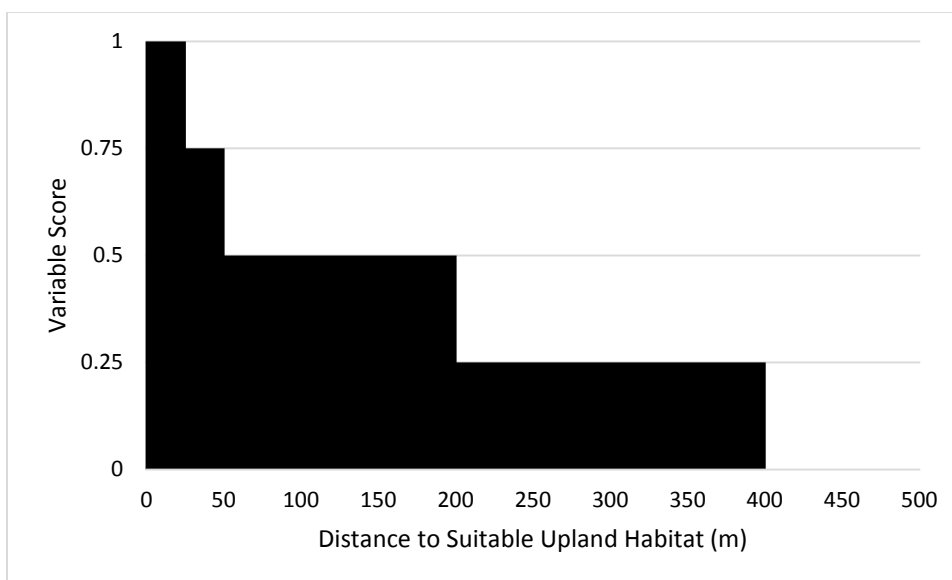


Figure 8. Scores for the distance to suitable upland habitat variable.

Table 12. Range of values and scores for the distance to suitable upland habitat variable.

Distance to Suitable Upland Habitat (m)	0 - 50	>50 - 100	>100 - 200	>200 - 400	400 and greater
Variable Score	1	0.75	0.5	0.25	0

3.3.2.2.2. Average upland habitat suitability within 1.6 km

Brood-rearing habitat often consists of a mosaic of upland sagebrush and shrub habitats and mesic habitats (Connelly et al 2011). This mosaic of suitable upland habitats adjacent to mesic habitats is necessary to provide roosting, escape cover, and foraging habitat to support summer and brooding use by GRSG. Because both upland and mesic habitats are important, assessments of functionality of mesic foraging areas must consider the quality of adjacent upland habitats that provide roosting and escape cover habitats. A high quality mesic habitat surrounded by low suitability or unsuitable upland habitats provides limited habitat function when compared to high quality mesic habitats surrounded by high quality upland habitats.

A moving window approach that quantifies the average scores of the upland habitats within 1.6 km of lowland habitat areas is used to assign scores to this variable. The quartiles of the possible upland scores were used as the breakpoints. Using this approach, a window with highly functional upland habitat (average upland metric score of 0.75-1.0) would receive a score of 1.0 for this variable (Figure 9 and Table 13). Decreases in the average upland functionality would result in lower scores for this variable.

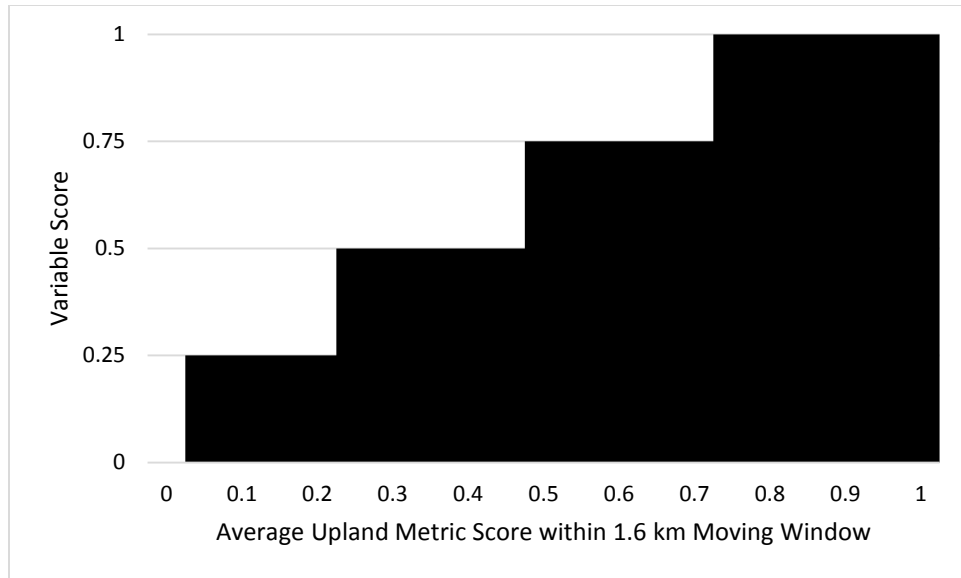


Figure 9. Scores for the average upland suitability habitat variable.

Table 13. Range of values and scores for the average upland suitability habitat variable.

Average Upland Habitat Suitability Score Within 1.6 km	0 - <0.05	0 - <0.25	0.25 - <0.5	0.5 - <0.75	0.75 - 1
Variable Score	0	0.25	0.5	0.75	1

3.3.3. THIRD ORDER HABITAT SCORE MODIFIER

Natural and anthropogenic factors affect the functionality of GRSG habitat. These effects were quantified and used to modify the raw habitat scores. For each modifier variable, a score adjustment factor between 0 and 1 was assigned to reflect the level of expected impact that the modifier variable has on habitat functionality. The product of the score adjustment factors for all modifier variables is multiplied by the raw habitat score described in the sections above to calculate the initial functional habitat score, which is the final product of the third order assessment process.

3.3.3.1. Vegetation, Landform, and Land Cover Modifier Types

3.3.3.1.1. Land Cover Class

When a basic life requisite of GRSG is absent from an area, the area is not considered GRSG habitat. Land cover classes that do not provide these basic life requisites for GRSG may include urban, disturbed footprints, recent burns (<10 years), open water, certain types of agriculture (primarily orchards and row crops), and forests.

Areas with these unusable land cover classes are assigned a score adjustment factor of 0 (resulting in a functional habitat score of 0) while those that provide basic life requisites (grasslands, shrublands, etc.) are assigned a score adjustment factor of 1 (Table 14).

Table 14. Scores adjustment factors for the land cover class habitat modifier variable.

Land Class Designation	Score Adjustment Factor
Suitable Land Class/No Disturbance	1
Unsuitable Land Class/Disturbed Land	0

3.3.3.1.2. Slope

Slope was used to refine GRSG habitat functionality. GRSG generally use flat or gently sloping terrain (Connelly et al. 2011, Eng and Schladweiler 1972, Nisbet et al. 1983, Rogers 1964). Beck (1977) plotted the distribution of 199 GRSG flocks in Colorado and found that 66% of flocks were on slopes less than 5% and only 13% of flocks were on slopes greater than 10%.

Habitats located on slopes of less than 5% are assigned a score adjustment factor of 1 for the slope modifier variable (Table 15). Areas with >40% slope were assigned a score adjustment factor of 0 and excluded from the HQT as they likely provide little or no habitat function to GRSG.

Table 15. Score adjustment factors for the slope habitat modifier.

Slope (%)	Score Adjustment Factor
0 - 5	1.00
>5 - 15	0.75
>15 - 30	0.50
>30 - 40	0.25
40+	0.00

3.3.3.1.3. Conifer Cover within 1 km (%)

Conifer encroachment into upland sagebrush habitats, particularly juniper (*Juniperus* spp.) and pinyon pine (*Pinus edulis*), has the potential to substantially reduce the availability of suitable habitat for GRSG through large parts of the species' range (Patten et al. 2005). Sagebrush with conifer encroachment often has decreased understory vegetation and may be strongly avoided by GRSG (Doherty et al. 2008, Doherty et al. 2010b, Miller et al. 2000).

A habitat score adjustment that reduces habitat function according to conifer cover provides incentive for pinyon-juniper removal projects and/or co-location of new disturbances in areas that are already compromised by conifer encroachment. Removal of the pinyon-juniper cover can restore the understory production, provided the conifers cover less than 20% of the habitat (Miller et. al 2005).

Because geospatial data are not available at a resolution that enable accurate determination of conifer cover, this habitat modifier variable will be assigned a score adjustment factor of 1 in the third order assessment. This adjustment factor may be updated on a project-specific basis as part of the fourth order assessment process described in subsequent section. After fourth order field assessment are complete, score adjustment factors for the conifer cover modifier will be updated as follows. Habitats with less than 1% conifer cover within 1 km of a project receive the full habitat value (Table 16). Habitats with 1-3% cover within 1 km of a project will be adjusted to 75% of their original value, 3-7% cover will be adjusted to 50% of their original value, and 7-10% cover will be adjusted to 25% of their original value. Areas covered by more than 10% conifer cover within 1 km of a project will be scored as 0.

Table 16. Score adjustment factors for the conifer cover modifier.

Conifer Cover within 1-km²	Score Adjustment Factor
0-1%	1.00
>1-3%	0.75
>3-7%	0.50
>7-10%	0.25
>10%	0.00

3.3.3.1.4. Annual grass and invasive species cover (%)

Annual grasses in sagebrush steppe are often non-native and do not provide the habitat structure and cover from predators that the perennial grasses provide. Shrub cover, perennial forb cover, and perennial grass cover, which are important because they habitat structure and forage for GRSG, may be competitively excluded by non-native grasses (Vitousek 1990, Mooney and Cleland 2001, Rowland et al. 2010). Furthermore, these habitats are vulnerable to changes fire frequency and intensity (Balch et al. 2013), which may lead to the loss of fire intolerant species such as big sagebrush (Connelly et al. 2004).

Because geospatial data are not available at a resolution that enable accurate determination of annual grass and invasive species cover, this habitat modifier variable will be assigned a score adjustment value of 1 in the third order assessment. This value may be updated on a project-specific basis as part of the fourth order assessment process described in subsequent section. After fourth order field assessments are complete, score adjustment factors for the annual grass and invasive species modifier will be updated as follows. Habitats with less than 1% annual grass/invasive species cover will receive a score adjustment factor of 1. Habitats with 1-5% cover will be reduced to 75% of their original score, and habitats with >15% cover will be reduced to 50% of their original score (Table 17)

Table 17. Score adjustment factors for the annual grass and invasive species cover modifier.

Annual grass and invasive species cover	Score Adjustment Factor
0-1%	1.00
>1-15%	0.75
>15%	0.50

3.3.3.1.5. Preferred Forb Cover

Characterization of sites used by GRSG broods universally includes mention of forb abundance and cover (Connelly et al. 2000; Crawford et al. 2004). Studies have indicated a positive relationship to plant species richness, especially forbs, with brooding areas (Autenrieth 1981; Dunn and Braun 1986; Klott and Lindzey 1990; Drut et al. 1994; Apa 1998). As abundance and diversity of herbaceous vegetation, including forbs, increases, insect biomass and diversity also increase. This increase in both forbs and insects provides increased foraging opportunities during two critical life stages, 1) egg-laying females and, 2) chicks within the first few months of life. The diet of GRSG chicks is primarily comprised of forbs during their first 12 weeks (Peterson 1970). This period is especially critical as about 90% of chick mortality occurs prior to chicks being capable of strong flight at three weeks of age (WGFD 2009).

Many authors have noted that GRSG move into more mesic sites, such as wet meadows, as sagebrush habitats desiccate during late brood-rearing (BLM et al. 2000, Connelly et al. 2000). Mesic brood-rearing habitat should include >15% cover of grasses and forbs (Connelly et al. 2000; Sveum et al. 1998). Stiver et al. (2015) identified perennial forb cover >10% at mesic sites and >5% at arid sites to be characteristic of suitable habitat.

Scoring for the preferred forb cover modifier variable generally followed the values assigned by Stiver et al. (2015) for mesic and xeric sites (Table 18). Mesic scores would be applied to habitats in the mesic habitat metric while the xeric scores would be applied to habitats in the upland habitat metric. Because geospatial data are not available at a resolution that enable accurate determination of preferred forb cover, this habitat modifier variable will be assigned a score adjustment factor of 1 in the third order assessment. This adjustment factor may be updated on a project-specific basis as part of the fourth order assessment process described in subsequent section. After fourth order field assessments are complete, score adjustment factors for the preferred forb cover modifier variable will be updated according to the values in Table 18. These adjustment factors may only be updated if data are collected during the preferred forb growing season and the brood-rearing season (ideally between June 1 and July 31).

Table 18. Score adjustment factors for the preferred forb cover modifier.

Preferred Forb Cover	Mesic Score Adjustment Factor	Upland Score Adjustment Factor
>10%	1	1
5-10%	0.75	1
3-<5%	0.5	0.75
>0-<3%	0.25	0.5
0%	0	0.25

3.3.3.2. Anthropogenic Modifier Types

3.3.3.2.1. Oil and Gas Wells

Oil and gas wells consistently had a deleterious effect on habitat selection by GRSG and on lek persistence and attendance, although the size of the effect varied by region, development type, and season (e.g., Walker et al. 2007; Dinkins et al. 2014a, Doherty et al. 2008; Doherty et al. 2010b; Johnson et al. 2011; Blickley et al. 2012). At a local scale, recorded noise from natural gas drilling rigs (continuous noise <2 kHz, simulating a 400 m proximity) and traffic on gas-field access roads (intermittent noise <2 kHz) resulted in immediate decreases in lek attendance over three seasons (29% and 73% reductions, respectively) in a field experiment in Fremont County, Wyoming (Blickley et al. 2012). Noise may not be the only mechanism for an effect though; results from studies of GRSG response to natural gas development suggest that birds may have been avoiding human activity rather than the infrastructure itself (Dzialak et al. 2012, Holloran et al. 2015).

At a larger landscape scale, ranging 3-5 km, well density rather than distance to well appears to significantly influence lek persistence (Walker et al. 2007; Doherty et al. 2010b); lek attendance (Johnson et al. 2011; Doherty et al. 2010b); and habitat selection (Dinkins et al. 2014a; Doherty et al. 2008; Holloran et al. 2015). The density of oil and gas structures (number per km²) within 3.0 km reduced the probability of habitat selection by hens in the early brood rearing (odds ratio 0.47) and late brood rearing (odds ratio 0.57) seasons in south Central Wyoming (Dinkins et al. 2014a). The effect was less pronounced in winter; within a 4 km² area, the probability of habitat selection by hens was reduced by 3% with each additional structure (odds ratio 0.97; Doherty et al. 2008). Increasing the density of oil and gas structures (number per km²) within 3.2 km increased the risk of lek loss and resulting in a decline in the number of active leks between 1997 and 2007 in Wyoming (Doherty et al. 2010b; Table 19).

Table 19. Decline in active leks by well density in Wyoming GRSG Management Zones I and II 1997-2007 reported by Doherty et al. (2010b).

Number of Wells Within a 3.2 km Buffer	Decline in Active Leks (%)		Decline in Males (%) on Remaining Active Leks		Average of Effect
	Zone I	Zone II	Zone I	Zone II	
1-12	-0.70%	-1.00%	-2.10%	0.00%	-1%
13-39	-11.50%	-12.10%	-31.40%	-55.50%	-28%
40-100	-47.20%	-16.10%	-32.60%	-59.00%	-39%
100-199	-55.10%	NA	-77.30%	-69.50%	-67%

Landscape-level effects are more relevant to the purposes of mitigation and land use planning than site-level effects (Decker et al. 2017). However, the large buffer sizes (3.2-km and 5-km) were not well suited to evaluating site-level effects in HQT as they under-valued edge habitats. In order to maintain value in the edge habitats for the purposes of mitigation and land use planning, a 1-km buffer was selected for this modifier variable. The well density categories identified by Doherty et al. (2010b) was used to set the adjustment factor levels with the average of the effect (from Table 19) set as the score adjustment factor (Table 20 and Figure 10). The

number of wells in each category was adjusted to maintain the same well density at the 1-km buffer scale as was identified as being significant at the 3.2-km scale.

Table 20. Score adjustment for well density within 1 km.

Well Density (# of wells within 1 km buffer)	Approximate Well Spacing	Reduction in Habitat Function	Score Adjustment Factor
0-1	640+	0%	1.0
>1-4	160-640 acres	30%	0.7
>4-10	64-160 acres	40%	0.6
>10-20	32-64 acres	70%	0.3
>20-40	16-32 acres	90%	0.1
>40	<16 acres	100%	0.0

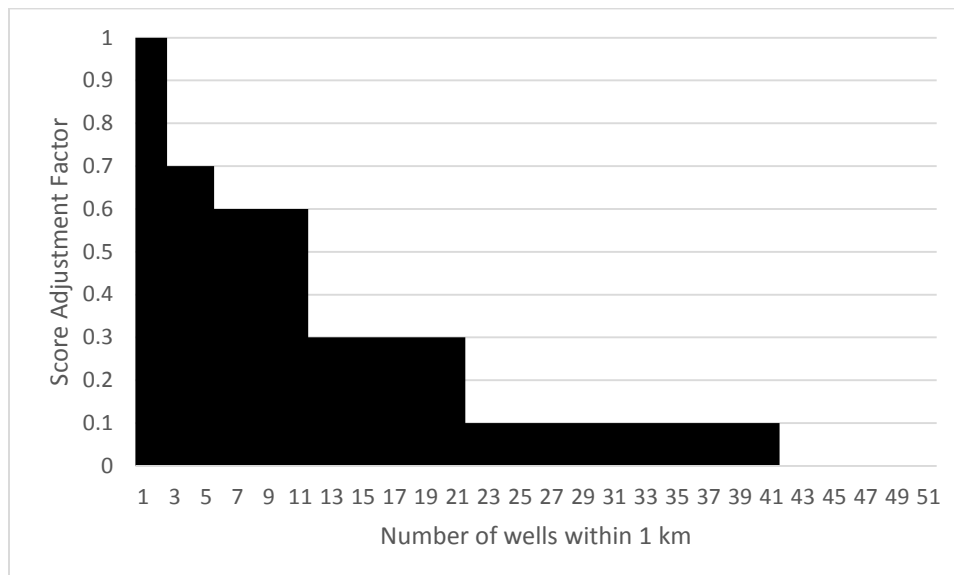


Figure 10. Adjustment of scores for well density within a 1-km buffer.

3.3.3.2.2. Transmission Lines

The effects of transmission lines on GRSG have been considered in several recent studies of habitat use and lek attendance (e.g., Walker et al. 2007, Dinkins et al. 2014b; Knick et al. 2013; LeBeau 2012, Johnson et al. 2011; Hanser et al. 2011; Gillan et al. 2013; Shirk et al. 2015; Gibson et al. *In Review*), but have been difficult to quantify due to several confounding factors (Walters et al. 2014). Most of these studies group transmission lines with distribution lines and telephone lines (i.e., a diverse set of “power lines” with potentially diverse effects); are unable to isolate the effects power lines co-located with roads, houses, or other energy infrastructure; and inadequately account for underlying habitat quality as a predictor of habitat use and GRSG survival. As such, it is not surprising that there is no consensus among these studies whether transmission lines or power lines have any effect on GRSG at the individual or population level.

There is some evidence for decreased use of habitat (avoidance) by GRSG near power lines and transmission lines (e.g., Braun 1998)¹, however the specific mechanism, magnitude, and extent of avoidance is unknown. A spatial analysis of GRSG telemetry data from west-central Idaho detected significantly fewer occurrences of GRSG within 600-m of power lines than was predicted by the null model (Gillan et al. 2013); however the change in the magnitude of use was not evaluated (J. Gillan, New Mexico State University, personal communication with A. Widmer, SWCA, 7/7/2015). Models of GRSG scat (i.e., pellets) locations in the Wyoming Basin Ecoregional Assessment areas that considered biotic, abiotic, and anthropogenic effects identified distance to power line to be a significant predictor of GRSG habitat use (Hanser et al. 2011). The results of the study indicate an avoidance effect that decreases with distance from the line. However, the size, number, location, and configuration of power lines evaluated were not described by Hanser et al. (2011), creating uncertainty in how to incorporate other aspects of the results to the model of a new transmission line. Expert opinion-based models of GRSG movement developed in Washington State predicted that power lines would significantly reduce GRSG movement to distances greater than 500 m; spatial patterns in gene flow and lek activity were consistent with model predictions (Washington Wildlife Habitat Connectivity Working Group [WHCWG] 2012; Shirk et al. 2015). These results provide evidence of power line impacts suggesting that avoidance behavior has the potential to result in a population-level effect.

Gibson et al. (*In Review*) quantified the effects of the Falcon-to-Gondor 345 kV Transmission Line in Nevada on two GRSG populations over 10 years of operation. This study provides strong evidence of transmission line effects to GRSG demographic parameters (female survival, nest site selection and success, and brood survival), largely in part because of the length of the study, the large number of data points collected (GRSG locations and habitat measurements), and the statistical analysis that isolated the effects of the transmission line from the effects of habitat quality and other covariates. The authors identified several demographic parameters that were affected by the transmission line, and variation in the magnitude of the effect was largely explained by raven abundance. The authors also took the analysis a step further to estimate the impact that transmission lines have on females, nests, and chicks at the population level. Using lek attendance as a surrogate for population size, the authors estimated that population growth

¹ In this document, 115 kilovolts was used as the threshold to differentiate between transmission lines and distribution (power) lines.

was reduced by 3% directly below the transmission line and the effect decreased linearly with distance to 0% at 10 km from the Falcon-to-Gondor transmission line. Population growth was reduced by 8% directly below “all power lines” (transmission line and distribution lines grouped) and the effect decreased linearly with distance to 0% at 10 km.

Two indirect effect zones were defined for the transmission line habitat score modifier based on the literature:

- Avoidance (0-600 m [0.6 km])
- Decreased Population Growth (0 m to 10,000 m [10 km])

Avoidance is a behavioral response by GRSG that has been documented in proximity transmission lines, although the mechanism for avoidance is unknown. It results in decreased use of habitat in areas within 600 meters of a transmission line. Using professional judgment, it was decided that avoidance effect would increase proportionally with the number of transmission lines, where the lines are sited less than 600 m apart.

Decreased population growth is not behavioral and instead is a result of changes in population demographics (e.g., nest success, brood survival, etc.) that lead to the population level impact described in Gibson et al. (*In Review*). Based on this study, it affects the area 10 km to either side of a transmission line. Raven abundance is the primary mechanism identified for decreased population growth. Where decreased population growth zones overlap or where one overlaps with an avoidance zone, the larger effect is modeled.

Both effects occur across all seasons; apply to both sexes and all age groups; and occur for the operating lifetime of the project. The magnitude of the indirect effect is described for each zone below.

Avoidance (0-600 m)

Reduced use (avoidance) near transmission line is greatest directly under the line, decreasing out to 600 m based on peer-reviewed literature. The avoidance effect is only modeled in cells with relatively high habitat scores (third order raw habitat score ≥ 0.7), where the majority of GRSG habitat use occurs. The impacts of avoidance are expected to occur where GRSG use is consistently observed. While marginal or unsuitable habitats are occasionally used by GRSG, use is often associated with movement patterns between patches of high quality, suitable habitat. These movement patterns include use of habitats within and adjacent to transmission line corridors and other energy corridors.

Avoidance is modeled as a loss in habitat functionality that decreases linearly from 75% loss immediately below the line to 0% loss 600 m from the line². The score adjustment factor is calculated as $[1 - 1.25(0.6 - x)]$, where ‘x’ is the distance from the transmission line in km (Figure 11).

² Professional judgment was used to develop the 75% reduction in use immediately below the line with the likelihood of use increasing with increasing distance from the transmission line.

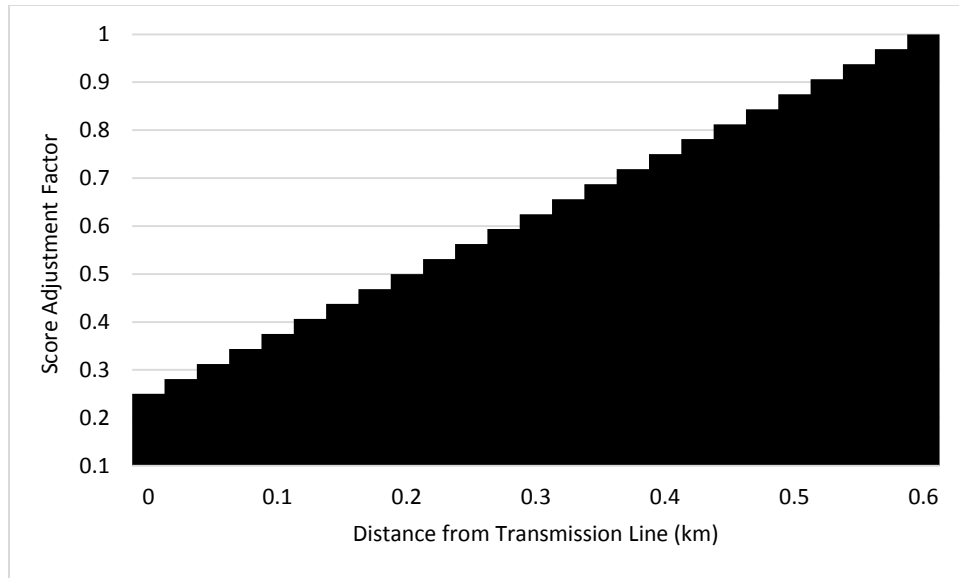


Figure 11. Adjustment of scores for habitat avoidance with proximity to transmission line.

Decreased Population Growth (0 m to 10,000 m)

Decreased population growth near transmission lines will be modeled in all occupied habitat, regardless of raw habitat score. Decreased population growth is modeled as a loss of habitat functionality that decreases linearly from 3%³ directly below the line to 0% loss 10,000 m (10 km) from the line⁴. The score adjustment factor is calculated as $[1 - 0.003(10 - x)]$, where 'x' is the distance from the line in km (Figure 12). This approach is consistent with recommendations made by Gibson et al. (*In Review*) for the Falcon-to-Gondor Transmission Line.

³ This value is provisional until Gibson et al. (*In Review*) is published, because it has the potential to change during the peer review process.

⁴ The effects of transmission lines is being modeled, not the effects of "all power lines". Distribution line data is not available for the entire analysis area. Without accurate and complete distribution line data, the baseline condition with existing power lines could not be accurately characterized and the baseline habitat scores would be inaccurate.

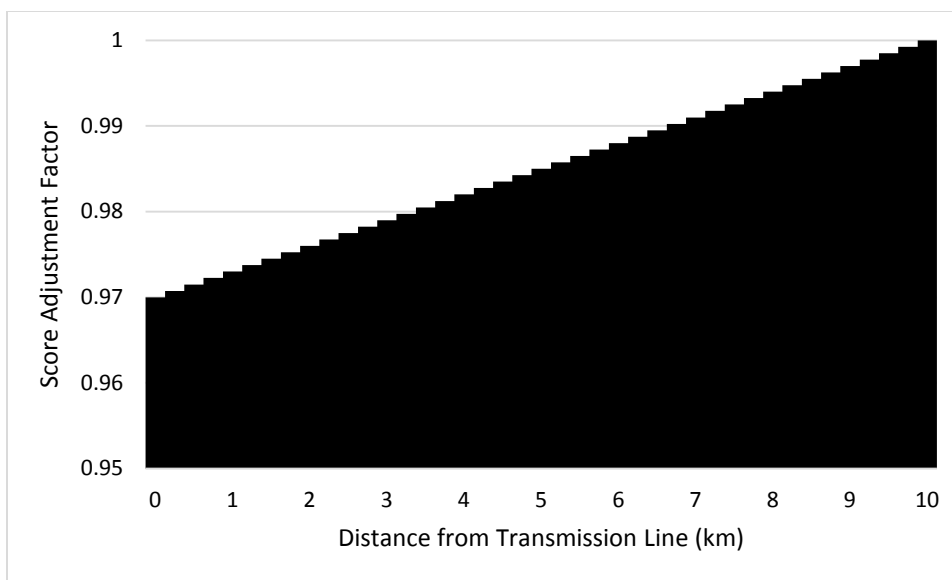


Figure 12. Adjustment of scores for decreased population growth with proximity to transmission line.

3.3.3.2.3. Agriculture, Mining, and Other Large-scale Land Conversion Processes

Conversion of GRSG habitat to agricultural lands is another source of habitat loss and degradation of habitat value at the landscape scale (e.g., Knick et al. 2013; Smith et al. 2016). This same conversion process may also be present for other moderate to large-scale land uses, including mining. The effects of mines on GRSG have not been specifically studied and are likely to vary widely based on the type of mine (e.g., surface or below ground) and infrastructure. Removal of vegetation during surface mining would make the area unsuitable for GRSG similar to the conversion of sagebrush to agriculture.

In their survey of lek locations throughout the western half of the species range, Knick et al. (2013) found that the percent agriculture varied widely across individual lek locations, but <2% of the leks were in areas surrounded by >25% agriculture within a 5-km radius, and 93% by <10% agriculture. Focusing on the northern Great Plains portion of the GRSG range, the study by Smith et al. (2016) found that the number of active leks decreases rapidly as the landscape is converted to agriculture. They estimated that a 10 percentage point increase in the proportion of land that is agriculture within a 3.2 km radius (a 32.2 km² area) would result in a 51% decrease in the density of active leks (measured as active lek sightings per km²).

The habitat value is reduced as the proportion of the surrounding landscape that is converted to other land uses increases, specifically the proportion of the area within a 3.2 km radius (Table 21 and Figure 13). Habitats surrounded by less than 10% agriculture, mining, or other land conversion types within 3.2 km have no reduction in value in the model, consistent with the finding by Knick et al. (2013). A 10 percentage point increase in the proportion of conversion is estimated to decrease the number of active leks by approximately 51% (Smith et al. 2016), so habitat value in the model is decreased by 50% where the surrounding area is 10-25%

agriculture. Fewer than 2% leks are surrounded by >25% agriculture (Knick et al. 2013). Where have >25% agricultural cover within 3.2 km, the habitat value is reduced by 85% consistent with the approximate reduction in lek activity predicted in Figure 2 of Smith et al. (2016).

Table 21. Score adjustment factor for percent agriculture within a 3.2 km radius.

Percent agriculture within a 3.2 km radius	Score Adjustment Factor	Source
0-10	1.0	Smith (2016), Knick et al. (2013)
10-25	0.50	Smith (2016)
25-40	0.15	Smith (2016), Knick et al. (2013)
40-60	0.10	Smith (2016)
>60	0	Smith (2016)

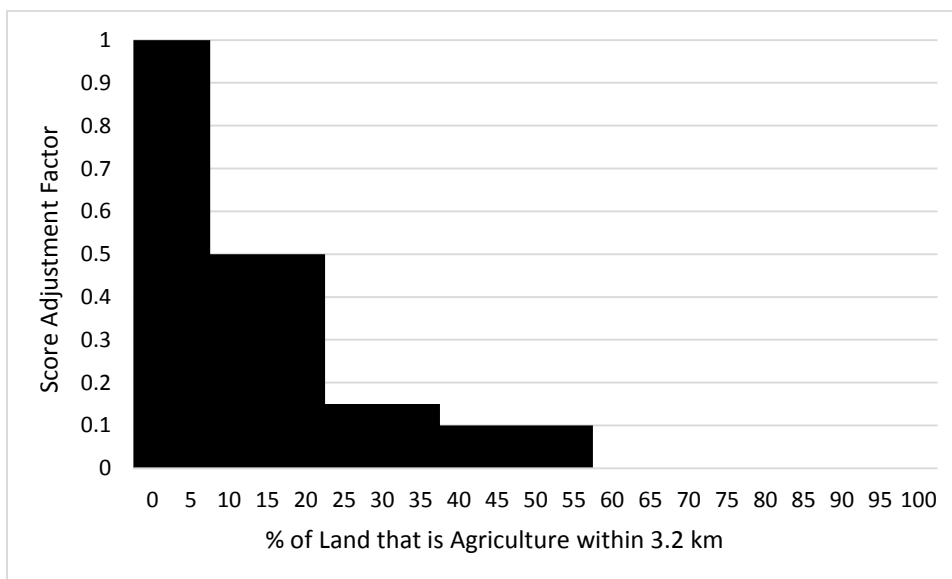


Figure 13. Adjustment of scores for agriculture within a 3.2 km radius.

3.3.3.2.4. Roads, Railroads, Urban Areas, Pipelines, and Active Construction Sites

Research into the effects of roads on GRSG is varied. For instance in Colorado, Rogers (1964) mapped 120 leks with regard to distance from roads and found that 42% of leks were over 1.6 kilometers (km) (1 mile) from the nearest improved road, but that 26% of leks were within about 90 m (about 100 yards) of a county or state highway, and two leks were on a road. Connelly et al. (2004) also note the use of roads for lek sites. LeBeau (2012) found evidence for avoidance of roads by hens in the nesting and brood rearing seasons at one study site, but not the other; avoidance by hens was documented at both sites during the summer season only. Similarly, Pruett et al. (2009) found that lesser prairie-chickens (*Tympanuchus pallidicinctus*) avoided one

of the two highways in the study by 100 m; however, some prairie-chickens crossed roads and had home ranges that overlapped the highways, thus roads did not completely exclude them from neighboring habitat.

In contrast, Craighead Beringia South (2008) reported results from a 2007 to 2009 study of GRSG seasonal habitat use in Jackson Hole, Wyoming. Results indicate that GRSG avoid areas within approximately 100 m of paved roads. Similarly, Knick et al. (2013) found that high value lek habitats had $<1.0 \text{ km/km}^2$ of secondary roads, $<0.05 \text{ km/km}^2$ of highways, and $<0.01 \text{ km/km}^2$ of interstate highways. Johnson et al. (2011) examined the correlation between trends in lek attendance and the environmental and anthropogenic features within 5- and 18-km buffers around leks. They found that lek attendance declined over time with length of interstate highway within 5 km, although the authors note that this trend was based on relatively few data points and no pre-highway data were available for comparison. Interstate highways $>5 \text{ km}$ away and smaller state and federal highways had little or no effect on trends in lek attendance. Thresholds less than 5 km were not examined.

Relatively few studies have been conducted on the indirect effects of pipelines on GRSG distribution. Where the effects of pipelines have been considered, the results are inconclusive because the pipelines are included as one factor in a long list of potential explanatory variables, many of which have confounding effects (e.g., Knick et al. 2013; Johnson et al. 2011). During construction of a pipeline, traffic and human presence are similar to that of a moderate-traffic road can be modeled using the same approach during the period of construction.

Habitats located within 250 m of a high-traffic road (such as an interstate highway or high-traffic federal or state highway, for example), mainline railroad, or urban area are considered to provide no functional habitat to GRSG due to traffic and associated noise/human disturbance (A moderate-traffic road score adjustment factor will also be applied around project footprints for the duration of active construction of other project types to account for increased traffic, disturbance, and human presence of the landscape.

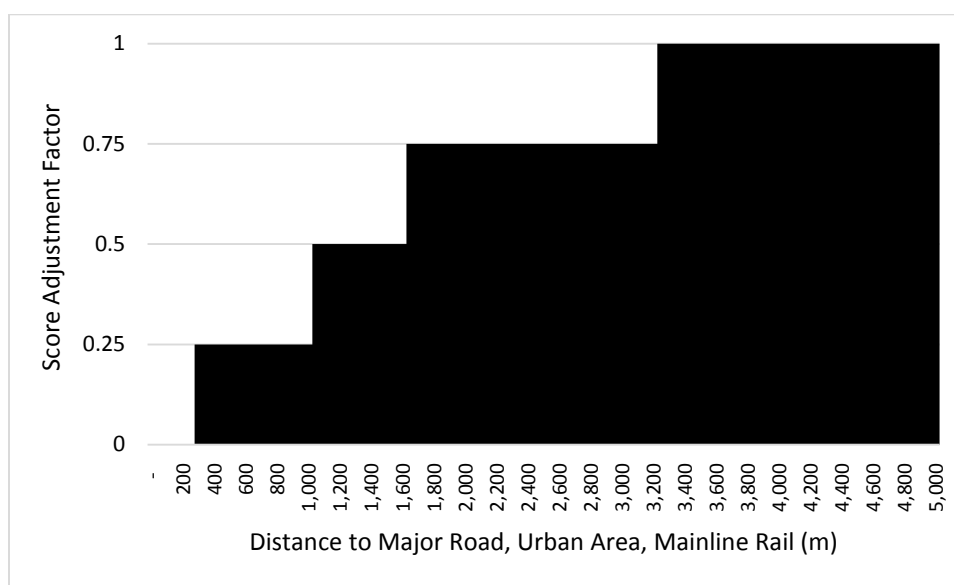
Table 22 and Figure 14). Likewise, habitats within 25 m of a moderate-traffic road (a low-traffic federal or state highway, for example), spur railroad, mine footprint, or pipeline under construction are considered to provide no functional habitat (Figure 15). Habitats within these buffers are adjusted by a factor of 0 for a final functional habitat score of 0. Those habitats located farther than 500 m and 3,200 m, respectively, of a moderate-traffic road or high-traffic road were considered the most serviceable to GRSG and were assigned a score adjustment factor of 1.0.

While the application of score adjustment factors is not perfectly supported in the peer-reviewed literature, our approach places a larger adjustment on habitats that are bisected by all types of large roadways and railways. Adjustments are higher for facilities that typically have higher traffic levels and risk to greater GRSG (e.g., mortality from collision, noise disturbance) than less-utilized facilities that generally have less traffic and implied risk.

A moderate-traffic road score adjustment factor will also be applied around project footprints for the duration of active construction of other project types to account for increased traffic, disturbance, and human presence of the landscape.

Table 22. Score adjustment factor for agriculture for proximity to road or urban area.

Road Size Categories	Score Adjustment Factor				
	1.0	0.75	0.50	0.25	0
Distance to high-traffic road, urban area, or mainline rail (m)	>3,200	1,600-3,200	1,000-1,600	250-1,000	<250
Distance to moderate-traffic road (i.e. county roads, low traffic highways, etc.) or spur rail (m). Does not include two-tracks. Distance to pipeline during year(s) of construction.	>500	300-500	100-300	25-100	<25

**Figure 14. Adjustment of scores for proximity to a high-traffic road, urban area, or mainline rail.**

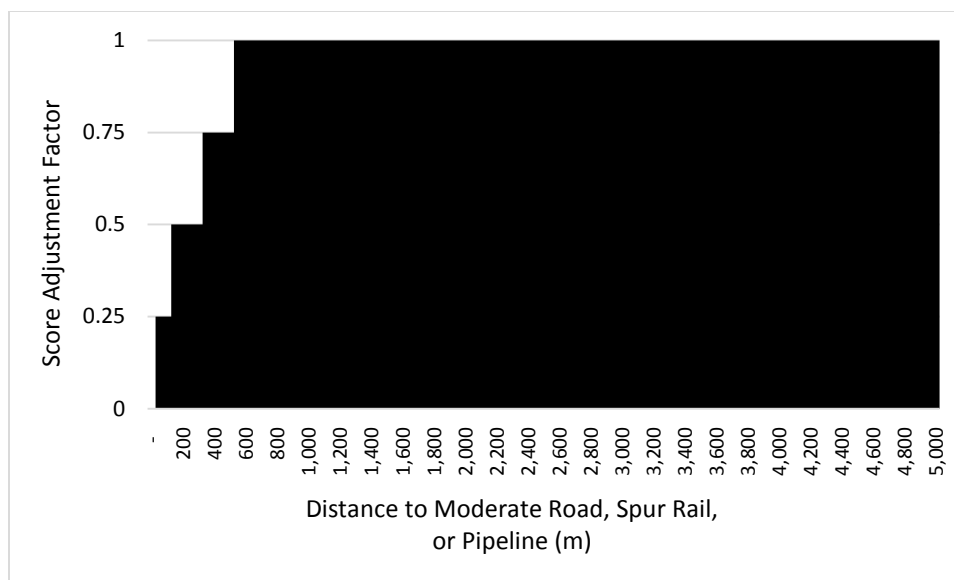


Figure 15. Adjustment of scores for proximity to a moderate-traffic road, spur rail, or pipeline.

3.3.3.2.5. Compressors, Substation, and Similar Noise Sources

The noise produced by compressor stations or substations has the potential to locally decrease GRSG habitat use. While the effects of compressor stations have not been specifically studied, this noise type (point source) and level may be comparable to that of a natural gas drilling rig. Blickley et al. (2012) recorded noise from natural gas drilling rigs (continuous noise <2 kHz) and played them at leks in Fremont County, WY at a volume that simulated a 400-m distance from the noise source. Compared to experimental controls, a 29% decrease in attendance occurred over three breeding seasons. The effect of the noise was immediate and sustained, having the potential to affect the size and persistence of the local population, although lek attendance rebounded the year after the treatment was stopped.

The model will assume an effect that is similar in magnitude to that measured by Blickley et al. (2012) for drilling rigs on lek attendance, and that is greatest close to the source and attenuates with distance (Table 23 and Figure 16). Within 50 m of the compressor station, 75% of habitat value is lost (i.e., 0.25 adjustment factor). This value returns over a distance of 450 m; beyond 450 m, there is no decrease in habitat value.

Table 23. Score adjustment factor for agriculture for proximity to compressor stations and substations.

Distance	Adjustment Factor
0 – 50	0.25
50 – 100	0.50
100 – 450	0.70
>450	1.00

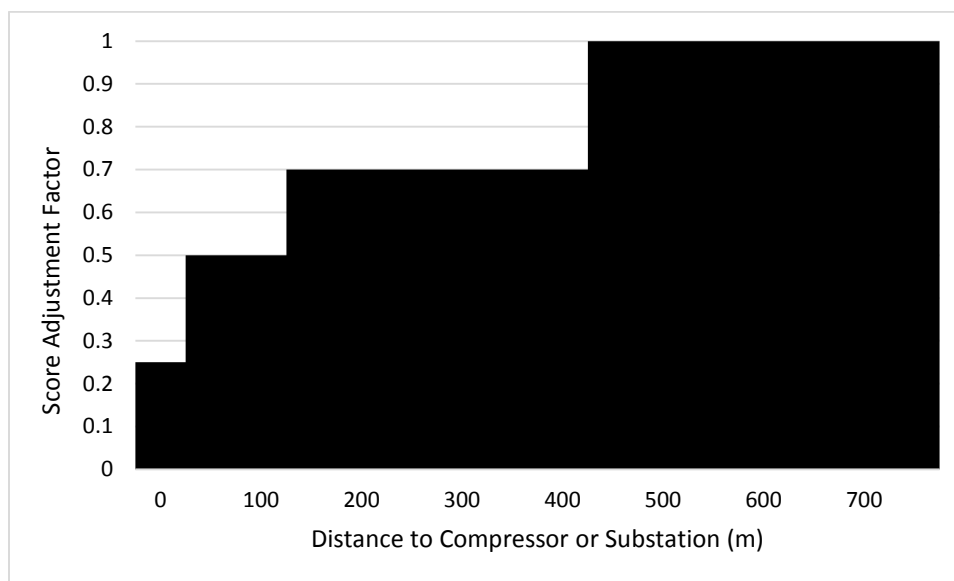


Figure 16. Adjustment of scores for proximity to a compressor station, substation, or similar noise source.

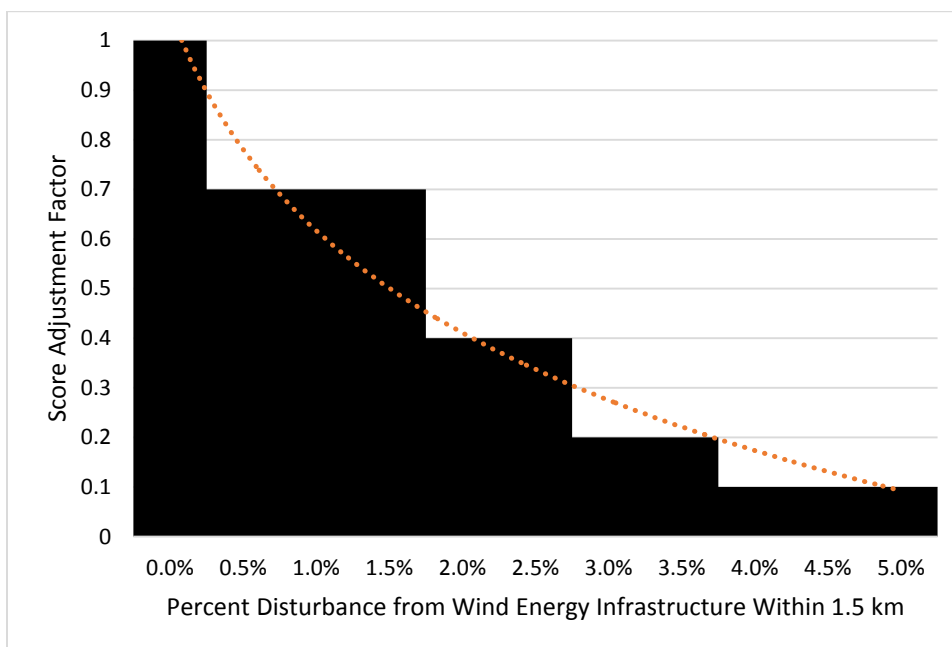
3.3.3.2.6. Wind Facilities

LeBeau (2012) detected no decrease in habitat use with proximity to turbines by hens in the nesting, brood rearing, or summer seasons in southern Wyoming. While there was no effect to hen survival, LeBeau (2012) detected a decreased probability of nest and brood survival with proximity to turbine out to approximately 5 km, and speculated that the effect may be attributed to increased predation due to the presence of human development and edge effects. In the same study area, LeBeau et al. (2017) determined that the percent area disturbed by wind facility infrastructure is a stronger predictor than distance to turbine. This pattern suggests that use in some seasons occurs around the edge of the facility and in less densely developed areas, but less so within the facility. The relative probability of GRSG selecting brood-rearing and summer habitats decreased as percentage of surface disturbance associated with the facility infrastructure increased out to approximately 1.2 km, and this relationship strengthened after a 3 year lag time. Wind facility disturbance in the study area ranged 0 to 2.7%; a 2% disturbance resulted in a 60% reduction in the probability of habitat use. The percentage of surface disturbed did not affect selection of nest sites, or survival of hens, nests, or brood (LeBeau et al. 2017).

Because of the lack of scientific research on the effects of wind energy, a conservative approach was used to develop scores for this habitat modifier variable. The percentage of the surface disturbed by wind energy facilities within 1.5 km will be used to determine scores (Table 24) following the results described in LeBeau et al. (2017). A 60% reduction in habitat function (score = 0.4) will be applied when wind energy infrastructure disturbs 2-3% of the area in a 1.5 km moving window (LeBeau et al. 2017). Remaining scores were determined by fitting a logarithmic curve centered on the 60% reduction value at 2% (Table 24 and Figure 17).

Table 24. Score adjustment factor for area covered by wind energy facilities.

Percent Disturbance from Wind Energy Infrastructure within 1.5 km	Score
0-<0.5%	1.00
0.5-<2%	0.70
2-<3%	0.40
3-<4%	0.20
>4%	0.10

**Figure 17. Adjustment of scores for area covered by wind energy facilities. Orange line is logarithmic curve used to develop scores for this habitat adjustment factor.**

3.3.3.2.7. Other Impact Types

Additional anthropogenic features that are likely to have an indirect effect on GRSG survival or habitat use, but for which the effect is not well defined, are included in this section. These features include, but are not limited to, communications towers, houses, and distribution lines.

Communications towers provide perch and nesting structures for raptor and corvids, which potentially raises the predation pressure on GRSG in the areas surrounding structures (Dinkins et al. 2014b). In their survey of lek locations throughout the western half the species range, Knick et al. (2013) found that high value habitats had <0.01 towers/km², and lower value habitats had >0.08 towers/km² within a 5 km radius. Communications towers themselves were not a significant predictor of hen summer survival, but increased site-specific exposure to raptors (specifically golden eagles in flatter habitats) was a significant predictor (Dinkins et al. 2014b).

The effect of rural houses has been considered by a couple of studies (e.g., Dinkins et al. 2014a; Dinkins et al. 2014b). House density did not significantly affect mortality risk for GRSG hens (Dinkins et al. 2014b). However, odds of habitat selection by hens increases with distance from rural homes out to 1.0 km in the early brood rearing (odds ratio 8.67) and late brood rearing (odds ratio 12.94) seasons (Dinkins et al. 2014a).

Anthropogenic features in this section will be modeled using the moderate-traffic road level score adjustment factor.

3.4. HQT FOURTH ORDER ASSESSMENT SCORING

The fourth order assessment (field-based assessment) must be completed after the third order assessment process has been completed. The fourth order assessment process provides a site scale definition of habitat functionality using detailed vegetation indicators; it allows project proponents to field verify the existing conditions of their project area that may not be accurately reflected in the third order assessment. Vegetation indicators measured in the fourth order include: sagebrush canopy cover, sagebrush canopy height, invasive plant species cover, conifer cover, and forb availability. These indicators provide the basis for GRSG habitat functionality but are difficult to accurately model in the third order assessment. Data collection will be the responsibility of the project proponent/applicant; this data will be submitted to the State for validation of the third order. All individuals collecting fourth order data during the assessment are expected to have relevant vegetation monitoring experience.

The three main goals of the fourth order assessment are:

1. To validate the data and output from the third order assessment including sagebrush canopy cover, and sagebrush canopy height habitat variables; and potentially unmapped disturbances or modifiers on the landscape;
2. To measure important sage grouse habitat score modifiers not directly characterized in the third order due to lack of spatial data; these include invasive species cover, conifer cover, and forb availability; and
3. To collect data that helps inform long term monitoring and adaptive management for a project.

3.4.1. FOURTH ORDER PROTOCOL

Fourth order assessment methods will vary with the project type, project size, project location, and desired level of detail. At a minimum, data must be collected at a resolution to inform the habitat variable bin memberships and scores as outlined in the third order assessment. There are a number of methods that can be used to measure the fourth order assessment vegetation indicators as shown below in Table 25. Project applicants will have the option to choose which methods they use to collect data for each vegetation indicator. The methods identified below are the desired for measurement of each vegetation indicator. However, it is recognized that additional methods may be appropriate. If additional methods are proposed, project applicants should work with the State to ensure appropriateness of methods for fourth order analysis.

In addition to the quantitative methods described above, each project is required to collect a series of photopoints to document habitat conditions. Photopoint documentation is important to illustrate field conditions and to validate that data collected using quantitative methods generally match the expected conditions observed in the photo documentation. Photo documentation will consist of a series of five photographs per point (four in each cardinal direction and one nadir photo) all taken from an approximate height of 5 feet from the ground surface.

Table 25 Preferred data collection methods for fourth order field evaluation.

Vegetation Indicator	Project Type Applicability	Method Options for Fourth Order Assessment Field Evaluation
Sagebrush Canopy Cover	Debit, Credit	Continuous line intercept Relevé stand sampling Line point intercept
Sagebrush Canopy Height	Debit, Credit	Continuous line intercept Relevé stand sampling Line point intercept
Invasive Species Cover	Debit, Credit	Line point intersect Quadrat method (Daubenmire) Relevé stand sampling Photo point monitoring and software (SamplePoint, Canopeo, etc.)
Conifer Cover	Debit, Credit	Relevé stand sampling Heads-up digitization
Forb Availability	Credit	Line point intercept Quadrat method (Daubenmire) Relevé stand sampling Photo point monitoring and software (SamplePoint, Canopeo, etc.)

Each project should collect, at a minimum, one set of photopoints per representative vegetation cover type in the project assessment area. It is recommended that more than one photo point is established per major vegetation type for large projects having an assessment area greater than 640 acres or for linear projects that span multiple vegetation cover types. Photopoint locations for larger projects should adequately document vegetation conditions across the project assessment area and should be spatially balanced to provide adequate coverage across the assessment area and multiple vegetation cover types.

3.4.2. UPDATES TO THIRD ORDER RESULTS

Results of fourth order data collection efforts will be used to confirm, and where needed update, third order assessment habitat variable scores. The third order assessment provides estimates of sagebrush canopy cover and height (scores range from 0 – 1 for each) from publically available datasets, but these may not always accurately reflect the existing on-the-ground conditions at a given site. Invasive plant species, conifer cover, and forb availability habitat modifier variables are not directly assessed in the third order assessment, but are treated as though they provide the maximum suitability for GRSG as a default (invasive plant species cover adjustment factor = 1, conifer cover adjustment factor = 1, forb availability adjustment factor = 1). The results of the fourth order field validation will inform new habitat variable scores and habitat score modifiers and overwrite the original third order assessment scores for the assessment area. This will result in corrected final estimate of the functional habitat score.

4. PROJECT CALCULATION OF GAINS OR LOSSES

The following section provides an example of how a small project may progress through the HQT to determine the number of functional acre gains or losses that may result from project implementation. The example is for a project having a 5-acre project area located inside of core area habitat. This example is the same as would be used for any other type of project that may use the HQT but has been simplified for illustration purposes only. Scenarios evaluating differences between debit generation projects and credit generation projects are provided for comparison purposes.

4.1. FIRST ORDER ASSESSMENT

A project applicant identifies that their project occurs in the occupied range of GRSG in Montana. A score of 1.0 is assigned for the first order (Table 26) and the project application progresses to the second order assessment. The first order assessment is same for both credit generation and debit generation projects.

4.2. SECOND ORDER ASSESSMENT

After completing the first order assessment, the project applicant identifies that their project occurs in Montana core area habitat. A score of 1.0 is assigned for the second order (Table 26) and the project application progresses to the third and fourth order assessments. The second order assessment is same for both credit generation and debit generation projects.

Table 26. First and second order scores for example project.

First Order Assessment	Score
Is project located in occupied range of GRSG? If yes, score is 1. If no, score is 0 and no mitigation is required.	1.00
Second Order Evaluation	Score
Is project located in core, general, or connectivity habitat? If yes, score is 1. If no, score is 0 and no mitigation is required.	1.00

4.3. THIRD ORDER ASSESSMENT

After completing the first and second order assessment, the project application identifies that their project may require mitigation for impacts to GRSG. The third order assessment is completed to determine initial estimates of functional acre gains/losses over the life of the project.

4.3.1. STEP 1 – ENTER PROJECT INFORMATION, PLANS OF DEVELOPMENT, AND GIS FILES

There are different approaches for evaluating functional habitat gained from credit generation projects and functional habitat lost from debit generation project. Generally, GIS shapefiles and detailed description of project components, activities, and durations will be required. For the third order assessment, the following information is provided by the project applicant for purposes of estimating project impacts/benefits for all project types (debit or credit):

- Total Project Footprint
- Project Duration

For debit generation projects, the additional information is needed:

- Impact type for each project component (road, oil and gas, wind, transmission, etc.)
- Direct project footprint and duration for the following project evaluation milestones:
 - Construction
 - Operations
 - Reclamation
 - Abandonment

Table 27 has been populated using data for the 5- acre project area used in this example. These values would be auto-populated from the GIS shapefiles and project descriptions provided by the project applicant. The credit generation project in Table 27 consists of an easement that will be held for 60 years to conserve GRSG habitat. The debit generation project consists of a paved lot that will be constructed in a single year with interim reclamation of 1 acre of the 5 acres of disturbance. The paved lot will be operated for a period of 30 years and will have impacts consistent with those associated with a moderate road during construction and operations. To maintain a consistent 60 year timeline for both project types, it is assumed that a 30 year revegetation period will be required to reclaim the disturbance resulting a total 60 year assessment period.

Table 27. Project-specific information necessary to inform the third order assessment.

Project Information	Credit Project	Debit Project
Initial Project Footprint (acres)	5	5
Project Duration (years)	60	30
Project Type	Easement	Paved lot
Construction Footprint (acres)	NA	5
Construction Duration (years)	NA	1
Operations Footprint (acres)	NA	4
Operations Duration (years)	NA	30
Reclamation Footprint (acres)	NA	0
Abandonment Footprint (acres)	0	0

4.3.2. STEP 2 – DETERMINE THIRD ORDER ASSESSMENT AREA

Projects evaluated in the third and fourth order assessment processes will require a determination of the assessment area in which functional acre gains and/or losses will be calculated. Each project will have a different assessment area depending on the size, shape, and type of project being implemented. The assessment area for a project will be the combination of the direct impact footprint of a project as well as the indirect impact footprints as described for each project type in section 3.3.3.2. For example, for a major road, the assessment area would be the footprint of the improved road surface as well as the 3,200 meter buffer around that road surface as described in section 3.3.3.2.4. For the easement (credit generation project), the assessment area for the credit generation project is 5 acres (direct footprint only). The assessment area for the paved lot (debit generation project) is 316.1 acres (direct footprint plus 500-meter buffer around direct footprint consistent with moderate road indirect impacts). Table 28 describes the direct and indirect footprints and the final assessment area for each project type.

Table 28. Assessment area for example five acre credit and debit generation projects.

	Credit Project	Debit Project
Direct Footprint Acres	5.0	5.0
Indirect Footprint Acres	0.0	311.1
Total Assessment Area Acres	5.0	316.1

4.3.3. STEP 3 – ESTIMATE PRE-PROJECT FUNCTIONAL HABITAT SCORE IN THE ASSESSMENT AREA

After the assessment area has been defined, the third order geospatial model will generate results that describe the habitat variable scores as well as the final functional acre estimates in the assessment area. As described in Section 2.3.2 habitat functionality is calculated using **Equations 2–6** resulting in a raw habitat score that is then modified by the product of natural and anthropogenic factors described in section 3.3.3

The HQT will generate tabular estimates of variable scores and functional acre calculations for a project (**Equation 10**). For purposes of illustration of the HQT process, it is assumed that the 5 acre projects and their assessment areas are located in optimal GRSG habitat with both variable and habitat score modifiers of 1.0 and no modifiers that decrease the functionality of habitat. Table 29–Table 31 provide detailed third order assessment results for the example 5 acre credit and debit generation projects. Table 29 describes the variable scores, indicator scores, and metric scores used to determine the raw habitat score. Table 30 describes the habitat modifiers present in the assessment areas for each project. Table 31 provides an estimate of functional acres present in the assessment area for each project. As indicated in Table 31, there are 5 functional acres of habitat in the assessment area for the credit project and 316.1 functional acres of habitat in the debit project. The gray cells in Table 29–Table 30 illustrate the third order variable values that may be adjusted during the fourth order assessment.

Table 29. Variable scores, indicator scores, and final habitat metric scores in the assessment areas of the example projects. Gray cells illustrate the third order variable values that may be adjusted during the fourth order assessment.

HQT Variable/Indicator	Credit Project	Debit Project
Distance to Lek	1.00	1.00
Breeding Density	1.00	1.00
Breeding Indicator	1.00	1.00
Sagebrush Cover	1.00	1.00
Sagebrush Height	1.00	1.00
Sagebrush Abundance	1.00	1.00
Sagebrush Indicator	1.00	1.00
Distance to shrub	1.00	1.00
Average upland score	1.00	1.00
Mesic Indicator	1.00	1.00
Upland Metric Score	1.00	1.00
Mesic Metric Score	1.00	1.00

Table 30. Habitat modifier scores in the assessment area of each example project. Gray cells illustrate the third order variable values that may be adjusted during the fourth order assessment.

Habitat Modifiers	Credit Project	Debit Project
Veg, Landform, and Land Cover Modifiers		
Land cover	1.00	1.00
Slope	1.00	1.00
Conifer cover	1.00	1.00
Annual grass/invasive cover	1.00	1.00
Preferred forb cover	1.00	1.00
Anthropogenic Modifiers		
Oil and gas	1.00	1.00
Transmission lines	1.00	1.00
Ag, mining, land conversion	1.00	1.00
Major roads, rails, urban	1.00	1.00
Moderate roads, rails	1.00	1.00
Compressors, substations, noise sources	1.00	1.00
Wind energy facilities	1.00	1.00
Other impact types	1.00	1.00
Modifier Score	1.00	1.00

Table 31. Final calculation of functional acres present in the pre-project assessment area for the example projects.

	Credit Project	Debit Project
Assessment Area Acres	5.00	316.10
Acres Upland	4.00	300.00
Acres Lowland	1.00	16.10
Upland Metric Score	1.00	1.00
Lowland Metric Score	1.00	1.00
Functional Acres Upland	4.00	300.00
Functional Acres Lowland	1.00	16.10
Total Functional Acres	5.00	316.10
Habitat Modifier	1.00	1.00
Final functional acres	5.00	316.10

4.3.4. STEP 4 – ESTIMATE FUNCTIONAL ACRES PRESENT OVER LIFE OF PROJECT

Once the pre-project estimates of functional acres in the third order assessment area have been completed, changes in functional acres present must be determined over expected life of the project (**Equations 11-13**). Functional acres must be estimated for the following project milestones (Figure 2):

- **Pre-project Baseline**
- **Construction**
- **Operations and Maintenance**
- **Reclamation**
- **Abandonment**

Reclamation is considered between the operations and maintenance milestone (interim reclamation) and the abandonment milestone. During these periods, acres that are reclaimed gradually return to pre-project baseline conditions following the vegetation-specific reclamation recovery timeframes in Table 3.

Functional acres present for the life of the five acre example projects were calculated for comparison purposes. The credit generating project would protect a total of 300 functional acres over the life of the project (5 functional acres per year * 60 years). This assumes that no additional impacts from projects outside of the 5 acre project would occur over the 60 year assessment period and that the functionality of habitat remains optimal (score of 1.0) for that duration. No reclamation activities occur as part of this project resulting in 5 functional acres present each year in the life of the project.

Over the 60 year life of the debit generating project there would be 18,966 functional acres present if the project was not constructed (316.1 functional acres * 60 years). The debit generating project would result in functional acre losses of 3,616.8 functional acres over the life of the project (Table 32). This value is the summation of the functional acres lost per year of the project and accounts for the functional acres lost from direct and indirect impacts during the construction, operation, and reclamation periods of the project.

Table 32 illustrates the functional acre returns that would occur from interim reclamation (note slight annual increases in functional acres present during the interim reclamation activities associated with the operations period as well as the functional acre returns occurring annually during the reclamation period. Over the 60 life of the project, there would be a 19.1% reduction in functional habitat in the assessment area as a result of the project's implementation. Figure 2 provides an illustration of how functional habitat changes over the life of a project.

The estimate of 300 functional acres gained for the credit generating project and the 3,616.8 functional acres lost for the debit generating project are the final outputs from the third order assessment. These values may be adjusted depending on the findings of the fourth order assessment which will be used to calculate the final functional acres gained or lost.

Table 32. Functional acres for the example 5-acre debit generation project.

Milestone	Functional Acres Possible	Functional Acres Present	Functional Acres Lost	Percent Remaining
Construction	316.1	191.4	124.7	60.6%
Operations	316.1	192.0	124.1	60.7%
Operations	316.1	192.6	123.5	60.9%
Operations	316.1	193.2	122.9	61.1%
Operations	316.1	193.8	122.3	61.3%
Operations	316.1	194.4	121.7	61.5%
Operations	316.1	195.0	121.1	61.7%
Operations	316.1	195.6	120.5	61.9%
Operations	316.1	196.2	119.9	62.1%
Operations	316.1	196.9	119.2	62.3%
Operations	316.1	197.5	118.6	62.5%
Operations	316.1	198.1	118.0	62.7%
Operations	316.1	198.7	117.4	62.8%
Operations	316.1	199.3	116.8	63.0%
Operations	316.1	199.9	116.2	63.2%
Operations	316.1	200.5	115.6	63.4%
Operations	316.1	201.1	115.0	63.6%
Operations	316.1	201.7	114.4	63.8%
Operations	316.1	202.3	113.8	64.0%
Operations	316.1	202.9	113.2	64.2%
Operations	316.1	203.5	112.6	64.4%
Operations	316.1	204.1	112.0	64.6%
Operations	316.1	204.7	111.4	64.8%
Operations	316.1	205.3	110.8	65.0%
Operations	316.1	205.9	110.2	65.1%
Operations	316.1	206.5	109.6	65.3%
Operations	316.1	207.1	109.0	65.5%
Operations	316.1	207.8	108.3	65.7%
Operations	316.1	208.4	107.7	65.9%
Operations	316.1	209.0	107.1	66.1%
Operations	316.1	209.6	106.5	66.3%
Reclamation	316.1	313.9	2.2	99.3%
Reclamation	316.1	314.0	2.1	99.3%
Reclamation	316.1	314.1	2.0	99.4%
Reclamation	316.1	314.1	2.0	99.4%
Reclamation	316.1	314.2	1.9	99.4%
Reclamation	316.1	314.3	1.8	99.4%
Reclamation	316.1	314.4	1.7	99.5%
Reclamation	316.1	314.4	1.7	99.5%
Reclamation	316.1	314.5	1.6	99.5%
Reclamation	316.1	314.6	1.5	99.5%
Reclamation	316.1	314.7	1.4	99.5%
Reclamation	316.1	314.7	1.4	99.6%
Reclamation	316.1	314.8	1.3	99.6%
Reclamation	316.1	314.9	1.2	99.6%
Reclamation	316.1	315.0	1.1	99.6%
Reclamation	316.1	315.0	1.1	99.7%
Reclamation	316.1	315.1	1.0	99.7%
Reclamation	316.1	315.2	0.9	99.7%
Reclamation	316.1	315.3	0.8	99.7%
Reclamation	316.1	315.3	0.8	99.8%
Reclamation	316.1	315.4	0.7	99.8%
Reclamation	316.1	315.5	0.6	99.8%
Reclamation	316.1	315.6	0.5	99.8%
Reclamation	316.1	315.6	0.5	99.9%
Reclamation	316.1	315.7	0.4	99.9%
Reclamation	316.1	315.8	0.3	99.9%
Reclamation	316.1	315.9	0.2	99.9%
Reclamation	316.1	315.9	0.2	99.9%
Reclamation	316.1	316.0	0.1	99.9%
Totals	18,966.0	15,349.2	3,616.8	19.1%

4.4. FOURTH ORDER ASSESSMENT

Results from the third order assessment provide initial estimates of functional acre gains and losses from project implementation. To finalize calculations of functional acre gains and losses, results from the fourth order assessment (site-scale field assessment) are used to confirm and/or adjust the third order variable and habitat score modifiers. Using the 5-acre project examples, fourth order field validation results were simulated to illustrate how changes in variable and habitat score modifiers could change final estimates of functional acre gains and losses.

For the 5-acre credit generation project, it is assumed that during the fourth order assessment field surveys, the following values were measured (Table 33 and Table 34):

- Sagebrush cover – 13%
- Sagebrush height – 22 cm
- Conifer cover within 1 km – 3%
- Annual grass and invasive species cover – 0%
- Preferred forb cover – 7%

Based on these field measurements, the scores for each of the variables would be adjusted from 1.0 to the following values according to the methods described in section 3 (Table 33 and Table 34):

- Sagebrush cover – 0.9
- Sagebrush height – 0.8
- Conifer cover within 1 km – 0.75
- Annual grass and invasive species cover – 1.0
- Preferred forb cover – 0.75

As a result of these changed values, total functional acres present in the 5 acre credit generating project are reduced from 5 to 2.7 (Table 35). Over the 60 year life of the project, this reduces the number of functional acres present from 300 to 162, a 54% reduction. However, the fourth order assessment also enables the project applicant to identify that through conifer removal and enhancement of forb availability, most of the reduction (126 functional acres) can be immediately regained and used for conservation purposes and calculation of additional credits.

Table 33. Measured values for fourth order assessment variables and resulting changes in the fourth order scores as well as the value of the upland metric.

HQT Variable/Indicator	Third Order Score	Fourth Order Assessment	Fourth Order Score
Distance to Lek	1.00		1.00
Breeding Density	1.00		1.00
Breeding Indicator	1.00		1.00
Sage Cover	1.00	13%	0.90
Sage Height	1.00	22 cm	0.80
Sage Abundance	1.00		1.00
Sagebrush Indicator	1.00		0.90
Distance to shrub	1.00		1.00
Average upland score	1.00		1.00
Mesic Indicator	1.00		1.00
Upland Metric Score	1.00		0.95
Mesic Metric Score	1.00		1.00

Table 34. Measured values for fourth order habitat modifiers and the resulting changes in the modifier score.

Habitat Modifiers	Third Order Score	Fourth Order Assessment	Fourth Order Score
Veg, Landform, and Land Cover Modifiers			
Land cover	1.00		1.00
Slope	1.00		1.00
Conifer cover	1.00	3%	0.75
Annual grass/invasive cover	1.00	0%	1.00
Preferred forb cover	1.00	7%	0.75
Anthropogenic Modifiers			
Oil and gas	1.00		1.00
Transmission lines	1.00		1.00
Ag, mining, land conversion	1.00		1.00
Major roads, rails, urban	1.00		1.00
Moderate roads, rails	1.00		1.00
Compressors, substations, noise sources	1.00		1.00
Wind energy facilities	1.00		1.00
Other impact types	1.00		1.00
Modifier Score	1.00		0.56

Table 35. Third order estimates of functional acres versus final calculations of functional acres gained from the 5 acre credit generating project following the fourth order assessment.

	Third Order Results	Fourth Order Results
Assessment Area Acres	5.00	5.00
Acres Upland	4.00	4.00
Acres Lowland	1.00	1.00
Upland Metric Score	1.00	0.95
Lowland Metric Score	1.00	1.00
Functional Acres Upland	4.00	3.80
Functional Acres Lowland	1.00	1.00
Total Functional Acres	5.00	4.80
Habitat Modifier	1.00	0.56
Final functional acres	5.00	2.70
Functional Acres - Life of Project	300.0	162.0

For the 5-acre debit generation project, it is assumed that during the fourth order assessment field surveys, the same values were measured (Table 33 and Table 34):

- Sagebrush cover – 13%
- Sagebrush height – 22 cm
- Conifer cover within 1 km – 3%
- Annual grass and invasive species cover – 0%
- Preferred forb cover – 7%

Based on these field measurements, the scores for each of the variables would be adjusted from 1.0 to the following values according to the methods described in section 3 (Table 33 and Table 34):

- Sagebrush cover – 0.9
- Sagebrush height – 0.8
- Conifer cover within 1 km – 0.75
- Annual grass and invasive species cover – 1.0
- Preferred forb cover – 0.75

As a result of these changed values, total functional acres present in the 5 acre debit generating project assessment area are reduced from 316.1 to 169.3 (Table 36). Over the 60 year life of the project, this reduces the number of functional acres present from 3,616.8 to 1,937.9, a 54% reduction. However, the fourth order assessment also enables the project applicant to identify that by completing a mitigation project of conifer removal in the surrounding landscape, 646 functional acres can be immediately returned to the assessment area, resulting in a reduction in the number or project debits generated.

Table 36. Third order estimates of functional acres versus final calculations of functional acres gained from the 5-acre debit generating project following the fourth order assessment.

	Third Order Results	Fourth Order Results
Assessment Area Acres	316.10	316.10
Acres Upland	300.00	300.00
Acres Lowland	16.10	16.10
Upland Metric Score	1.00	0.95
Lowland Metric Score	1.00	1.00
Functional Acres Upland	300.00	285.00
Functional Acres Lowland	16.10	16.10
Total Functional Acres	316.10	301.10
Habitat Modifier	1.00	0.56
Final functional acres	316.10	169.37
Functional Acres - Life of Project	3616.8	1937.9

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zero deaths | zero serious injuries
on Montana roadways

Montana Department of Transportation

2701 Prospect
PO Box 201001
Helena MT 59620-1001

Michael T. Tooley, Director

Steve Bullock, Governor

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FEB 16 2017

DNRC

February 13, 2017

Mr. Patrick Holmes
Policy Advisor for Natural Resources
Montana Governor's Executive Office
State Capitol, Room 204
PO Box 200801
Helena, MT 59620-0801

Subject: Annual Report for E.O. No. 12-2015; Executive Order Amending and Providing for Implementation of the Montana Sage Grouse Conservation Strategy

Dear Mr. Holmes,

This letter is in response to Item 37 on page 7 of Attachment A of Executive Order (EO) 12-2015, which requires state agencies to report to the Office of the Governor by no later than January 31st annually detailing their actions to comply with this Conservation Strategy. Following are the practices the Montana Department of Transportation (MDT) has taken and will continue to take based on the EO implementation date of January 1, 2016.

Item H. 23. on page 5 of the Executive Order (EO) recognizes that "Existing land uses and activities (including those authorized by existing permit but not yet conducted) shall be recognized and respected by state agencies, and those uses and activities that exist at the time the Program becomes effective will not be managed under the stipulation of this Conservation Strategy. Examples of existing activities include.....within a defined property boundary, (i.e. ROW)". MDT continues to coordinate with the Montana Sage Grouse Habitat Conservation Program (Program) on the determination of whether MDT projects occurring within existing MDT rights-of-ways (ROW) and those necessary for the operation and maintenance of the highway system within MDT's ROW will be required to be managed under the stipulations of this Conservation Strategy or not. Additionally, existing activities associated with materials pits, mitigation sites, or other highway proprietorships currently held by MDT will not be managed under the stipulations of this Conservation Strategy.

In the past year (Jan. 1, 2016 – Dec. 31, 2016), MDT has complied with the Program by following the EO on all construction projects that have occurred in general or core sage grouse habitat (no MDT projects occurred in connectivity areas). This was accomplished by consultation with the Program and including special provisions in construction contracts based on the stipulations in the EO. These special provisions have included timing restrictions for construction activities to protect sage grouse.

MDT has worked closely to meet the EO requirements and with Program personnel in 2016 as follows:

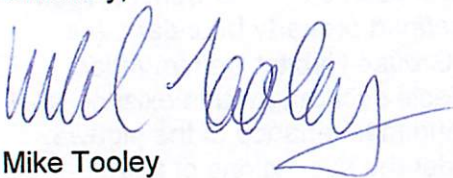
- All MDT projects are reviewed to determine if the project limits fall within the designated habitats for sage grouse. If project limits fall within a designated habitat, this information is recorded in MDT's Biological Resources Report.
- Consultation with the Program occurs on all MDT projects that require MDT to obtain a state permit, and/or new surface occupancy will occur, and/or stipulations of the EO will not be met.
- MDT submitted 17 project review applications to the Program and received concurrence letters on all 17. One project (Rosebud County Line – East) did not meet the stipulation for distance to a lek in core habitat; this project was elevated to the Sage Grouse Oversight Team and was approved to continue as planned.
- MDT met with the Program several times during 2016 to discuss what is working and what MDT has concerns with. All meetings were very productive and MDT will continue to meet with the Program in the future.
- MDT has attended webinars and meetings on various items the Program has put forward (i.e. habitat quality tool, rulemaking process) and provided input.

MDT will continue to increase the awareness of our personnel to the EO and the Program requirements/updates. MDT will work closely with the Program and other resource agencies (MT FWP, MT DEQ, USFWS, etc.) to mitigate potential effects on sage grouse by utilizing existing, new, and modified measures to meet the requirements of the EO.

MDT's actions and approach outlined above are consistent with and demonstrate compliance with the EO, and display attentive sensitivity to the environment.

If you have any questions concerning MDT's response to EO 12-2015 or would like additional information, please let me know.

Sincerely,



Mike Tooley
Director

copies: John Tubbs, Director, DNRC ✓
Martha Williams, Director, FWP
Tom Livers, Director, DEQ
Tom Martin, MDT
Carolyn Sime, DNRC



FORMULA FOR SUCCESS:



Montana's Sage-grouse Program

Montana has a cutting edge sage-grouse conservation program. Built from the ground up after a three-year conversation among diverse Montanans, the program is part of Montana's comprehensive conservation strategy for sage-grouse, which led the U.S. Fish and Wildlife Service in September of 2015 to decide the bird did not warrant protection as a threatened or endangered species under the federal Endangered Species Act. ►►

Hosted by DNRC, the staff implements Governor Steve Bullock's 12-2015 and 21-2015 Executive Orders and the Greater sage-grouse Stewardship Act of 2015 as its blueprint. Across the 38 counties with habitats designated for conservation, activities requiring a permit—oil or gas pipelines, subdivisions, irrigation works, wind farms and other forms of human disturbance to the land—are required to undergo a review process. It's the New Normal. A good many people don't necessarily like it, but everyone agrees the alternative—federal management of an endangered species—would be far more problematic for the state's economy. And the clock is ticking. In five years, the U.S. Fish and Wildlife Service will again review the status of the greater sage-grouse in the West. If the Montana population is holding its own along with 10 other western states, Montana will likely maintain control of the conservation effort.



MONTANA SAGE GROUSE HABITAT CONSERVATION PROGRAM

"When Montanans from diverse viewpoints put aside their differences and focus on addressing a challenge, we can accomplish great things for our state," said Governor Steve Bullock. "Montanans recognize that it is in the best interest of our state, its economy, and our quality of life to maintain state management of the greater sage-grouse. Taking the necessary steps to curtail habitat fragmentation and loss of sagebrush is a shared sacrifice, but one that provides a home-grown solution to conserving this

iconic bird, first described by the Lewis and Clark Expedition near the mouth of the Marias River."

The sage-grouse Habitat Conservation Program's work to fully implement Montana's strategy launched a mere six months ago. Montana's "core areas" approach identifies key habitats where Montana can conserve 76-80% of the breeding males on about 28% of Montana's landscape.

What does it take to conserve Montana's sage-grouse while maintaining economic activity? Carolyn Sime, manager of the program, says that proactive planning and collaboration are the key. "We have found proponents are very open to our suggested modifications to the location of a project or the timing of its implementation to avoid and minimize impacts to sage-grouse," she said. "Effective conservation in Montana requires an 'all hands, all lands' approach where we work cooperatively with business interests,

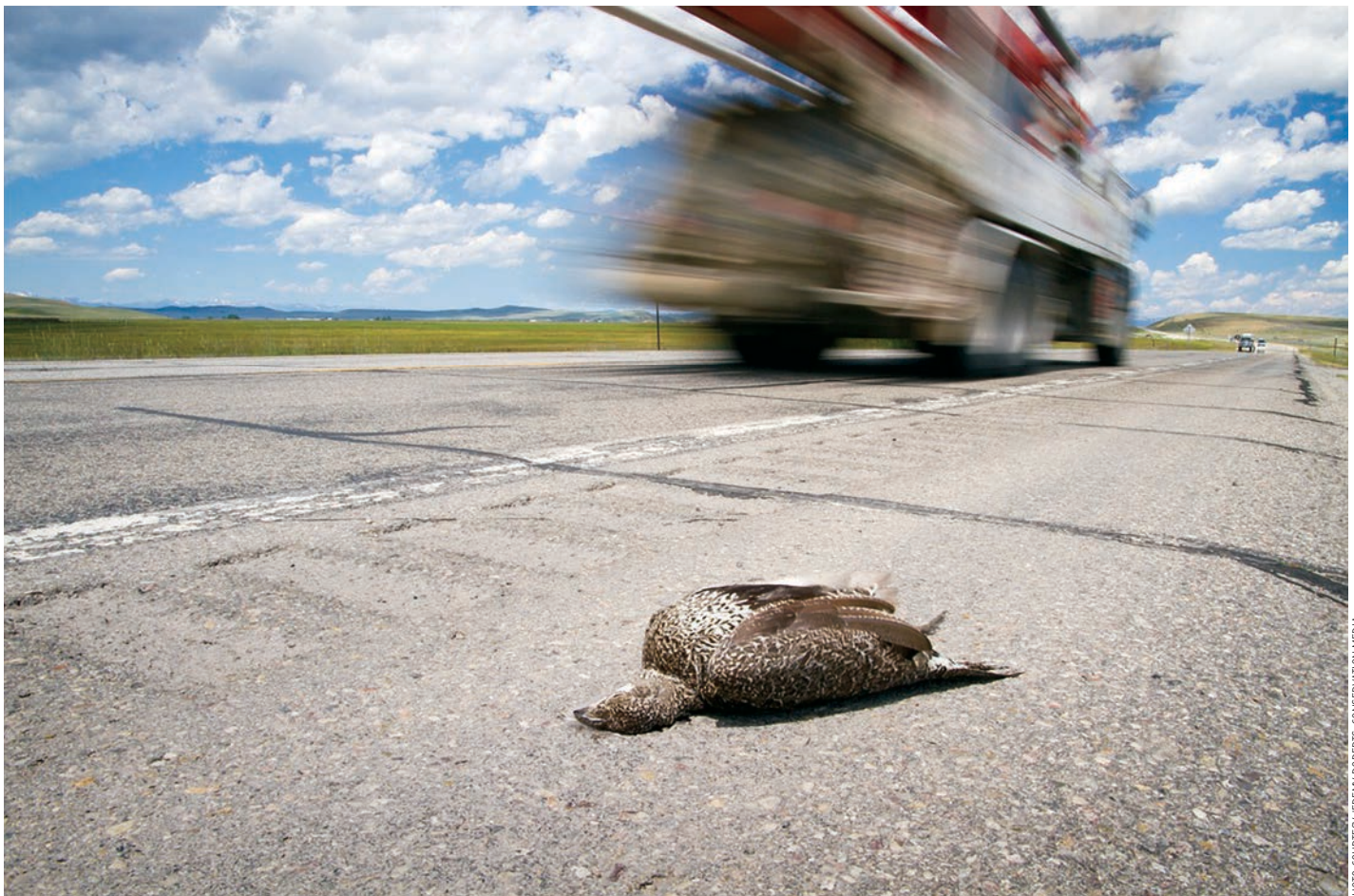


PHOTO COURTESY JEREMY ROBERTS, CONSERVATION MEDIA

The biggest threat to sage-grouse is habitat loss when sagebrush prairie is plowed up for wheat or corn, and from oil and gas development, wind farms, new subdivisions, and the roads built to access these activities.

“If the Bullock Administration had not taken this on, I believe we’d have a federally listed species. The governor’s aggressive approach to sage grouse conservation has enabled us to stand a program up operationally in less than six months. By any measure, we’ve done a lot and I am proud of DNRC’s efforts.”

—John Tubbs, *Director, Montana DNRC*

private landowners, and public land management agencies to find the best outcomes for the bird and for people.”

In reviewing projects proposed in sage-grouse country, the program is guided by the mitigation hierarchy. The top priority is to avoid impacts to critical habitat and the seasonal activities of the birds, such as mating, nesting and brood-rearing. If there’s no way to avoid a disturbance, the next-best alternative is to minimize it. Once a project is complete, it may be necessary to reclaim or restore habitat. The final tenet, compensate, means that if prime habitat must be given up to development, an equivalent amount must be identified or created somewhere else to replace what was lost.

The consultation process begins online at the state’s sage-grouse Habitat Conservation Program web site. The client enters detailed information about the location and type of project using a GIS-based analytic tool created by DNRC. Next, program staff begin a review. They identify whether the project is located in one of three designated habitat classifications: core, general, or connectivity, each of which carries a set of guidelines for project development. Follow-up phone calls with the client help verify all aspects of the project. With all the information in hand, staff then determine how, where, and when the project can proceed, and what mitigations may be needed afterward.

Results of the consultation process are



PHOTO COURTESY JATIANA GETTLMAN

Montana is lucky to have landed Therese Hartman

A wildlife biologist, she worked eight years for the state of Wyoming’s sage grouse conservation effort. In January of 2016, she came to Montana on a temporary assignment to help with the rollout of Montana’s program. In April of 2016, she accepted Montana’s job offer to join the program. Hartman’s expertise in reviewing projects and working with businesses has been a major factor in the early success of the sage grouse program. DNRC’s Web and GIS teams have also played a big role in getting the program underway.

The biggest misconception about the review process for activities in sage grouse country has to do with the individual attention given to each project.

“It’s not a one-size-fits-all process,” she says. “For example, I review a lot of pipeline projects and there are dozens of variables—is the pipeline above or below ground, where is it going in relation to core habitat, are there leks nearby, how wide is it, what kinds of equipment will be used to install it, how often will it need to be maintained? There’s a unique solution for each project.”

Project proponents are often surprised at the amount of information required. But, Hartman says the more details she has, the more readily she can facilitate a solution that works for the business while safeguarding the birds and their habitat.

Earlier this year, Hartman reviewed a proposal from the Federal Highway Administration to regrade 75 miles of Malmstrom Air Force Base access roads, many of which were located in core habitat, the most sensitive and important habitat. After reviewing each segment of road, Hartman worked with the agency to alter the construction activity start dates so there was no heavy machinery on the landscape near leks during the birds’ mating and nesting periods. Auditory cues are an important aspect of breeding behavior. The review took less than three weeks.

“Our objective is not to be heavy-handed and tell people there are things they can’t do,” Hartman says. “But we are trying to implement Montana’s conservation strategy to keep the sage grouse from being listed. That would change everything. People understand that. As long as the state has the lead for sage grouse conservation, we can work more cooperatively and proactively.” ■

driven by how far away from active sage-grouse leks the activity would occur. Sage-grouse are very faithful to their leks, and some leks in Montana have been used for 80+ years. Too much habitat loss or fragmentation near leks will cause sage-grouse to abandon them, ultimately leading to population declines. Most project reviews are completed within two weeks, but sometimes within days. It all depends on where the proposed project is located and its size and complexity (see sidebar).

Soon after taking office in 2013, Governor Steve Bullock recognized Montana had fallen behind in sage-grouse conservation, and convened an advisory council for input on building a program.

“It became apparent early on that a significant amount of sage-grouse habitat and populations exist on private land,” says Glenn Marx, a council member and director of the Montana Association of Land Trusts. “One of the reasons that’s true is the very sound stewardship principles used by Montana landowners. We also recognized that conservation on private land had to be incentive-based and voluntary. You cannot regulate a solution on private land.

“We went throughout sage-grouse country to seek comments and recommendations,” Marx says. “One refrain was, ‘we do believe in sound stewardship, but if you want us to do something for sage-grouse, there’s going to have to be some kind of incentive attached to it.’”

With bipartisan support, the 2015 Montana Legislature authorized \$10 million for a Stewardship Fund Grant Program as part of the Greater sage-grouse Stewardship Act. Eligible projects include, for example, sagebrush habitat restoration, leases, and term or permanent conservation easements.

Stewardship grants

On May 24, 2016, the state effort took another giant step forward when the Montana Sage-grouse Oversight Team met to review the first round of Stewardship Fund Grant proposals. A total of five projects were awarded: four are conservation easements that will permanently conserve 34,688 acres of core sage-grouse habitat on private lands in Phillips, Valley, Golden Valley, Petroleum and Fergus counties; the fifth grant, in Beaverhead County, will restore sagebrush habitat on 1,100 acres of



PHOTO COURTESY LORELE BERKEY, MONTANA FWP

“Montana’s goal is to maintain viable sage grouse populations and conserve habitat so that Montana maintains flexibility to manage our own lands, our wildlife, and our economy so protection under the Endangered Species Act is not warranted in the future.”

—Steve Bullock, Governor of Montana

core habitat on private land by removing encroaching conifer trees. The five grants totaled about \$3 million.

The purpose of the Stewardship Fund is to fund voluntary conservation efforts primarily on private lands and keep working landscapes working. Sage-grouse require large, intact and interconnected expanses of sagebrush. About 70% of Montana’s core areas are comprised of private or state school trust lands. “Montanans deservingly take great pride in their wildlife and their lands,” said Sime. “Private landowners have played a significant role in conserving sage-grouse to date and these projects are a testament to their generations of stewardship.”

Along with conserving or improving sage-grouse habitat, the grant awards will play a key role in building another component of Montana’s conservation effort, a mitigation marketplace.

Stewardship Fund grants will generate

conservation “credits” which can then be sold to developers who need to offset impacts of projects in designated sage-grouse habitats. Creating a mitigation marketplace provides flexibility to Montana’s conservation strategy. The marketplace will provide economic incentives for landowners and developers to conserve and restore sagebrush habitats by making sage-grouse an asset, not a liability.

Diane Ahlgren is a lifelong rancher and the lone private landowner representative on the Montana sage-grouse Oversight Team. In February of 2016, Diane and her husband, Skip, were recognized for their outstanding commitment to promoting and leading conservation on private lands by the National Association of Conservation Districts. Their ranch in Petroleum and Garfield counties includes both core and general sage-grouse habitat. Asked if she has any special affinity for the birds, Ahlgren says, “No.”



Sage-steppe prairie habitat is critical to sage-grouse

But getting involved in the state's conservation effort, she says, has been both necessary and a tremendous learning experience.

"I feel quite a sense of responsibility being the only producer on the Team. It's a little intimidating for me, I've never been involved in politics per se. On a lot of this stuff, as a producer, we feel somewhat defensive, and my first instinct was to say hell no, but I've been around long enough to see that doesn't work either, so I think the best solution is to be involved and try to be heard."

The biggest challenge so far, she says, has been getting familiar with the program. "It's really complicated, there's a big learning curve. But just learning the different perspectives and opinions has been a very good process for me. This group has been really impressive in that respect."

After 6 Oversight Team meetings, Ahlgren says, "I think the program has come an amazing distance in terms of what's been accomplished. The state was behind with this whole process. And I'm really glad the program has options for term leases and easements for conservation. In our county, we've had quite a bit of conversion [of native sagebrush grassland] to farmland. I'd like to see those folks have an opportunity to participate and compete for some of those [grant] funds."

“We are implementing SB 461 as best it can be done. We are establishing a base line by which sage grouse habitat and populations can be tracked. We are hoping the BLM will concur with our program and make our state united on all lands for sage grouse. We are moving slow, as we learn, but in a positive development [manner] for the bird, landowner and industry. If we continue the respect for the landowner, we will be successful.”

—**Representative Mike Lang**, *R-Malta*
Sage Grouse Oversight Team member



Diane Ahlgren is a lifelong rancher and the lone private landowner representative on the Montana sage-grouse Oversight Team. "I think the program has come an amazing distance in terms of what's been accomplished," she says.

JACKIE BENEN

Improving the program

Montana is already fine-tuning its strategy. For example, upgrades to the online GIS tool are underway. At its April 19, 2016, meeting, the Montana Sage-grouse Oversight Team commenced work on an agenda item entitled "Programmatic Exceptions from Executive Order 12-2015 Consultation Requirement." At first glance the matter seemed clear enough: amidst the large swaths of land designated "core" and "general" habitat were cities and towns. If a project was proposed within the boundaries of these municipal jurisdictions, should the sage-grouse consultation requirement apply?

The simple answer was 'of course not.'

But as discussion ensued, Team members explored a host of scenarios. What about annexation? What about landfills and airports? Cemeteries? Wastewater treatment facilities? It was the kind of detailed, painstaking analysis that has characterized the early phase of the program, in which every situation is new and must be thoroughly considered.

After more than an hour of work on the subject, there was a natural pause as discussion wound down. Representative Mike Lang, R-Malta, the House representative to the team, offered a comment that summed up the day's business, and perhaps the entire effort to date. "My fear is turning to knowledge," he said. 

“Denbury is confident in what the State has been able to accomplish in a relatively short time and its ability to further build out the program. They have allowed transparency in their process which goes a long way toward understanding the direction of the State’s program. They value the stakeholders and have listened to those groups and their opinions about the framework of the program. We believe the foundation is strong and capable of supporting the sage-grouse conservation effort.”

—Rusty Shaw, Denbury Resources Inc.



Sage-grouse numbers encouraging in 2016



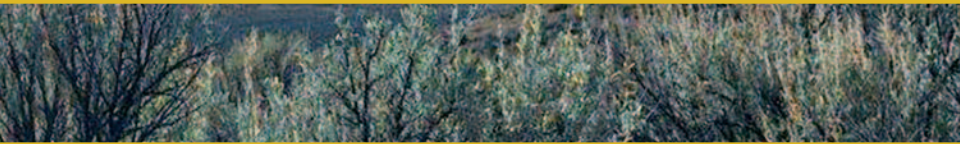
The most reliable means for estimating sage grouse populations is to survey the numbers of male grouse that congregate on leks each spring to compete for breeding females. The Montana Department of Fish, Wildlife & Parks (FWP) has surveyed sage grouse leks consistently for more than 30 years. Sage grouse populations are thought to be cyclical, rising and falling through roughly ten-year periods. In Montana, the most recent high point was in 2006 and 2007, after which survey numbers began to decline, reaching a low point in 2014. While it is too soon to credit conservation efforts, lek surveys in the spring of 2016 were 17 percent above the long-term average, about the same as was found in 2006 and 2007, and very encouraging; south-central Montana saw some leks with record numbers of males. FWP biologists also found birds on some leks that hadn't been used for several years, and in some places grouse were found to have staked out brand new leks. ■

PHOTO COURTESY U.S. FISH & WILDLIFE SERVICE

Montana Sage-Grouse Conservation Program



2016 ACHIEVEMENTS



The greater sage-grouse in 2015 was a candidate for federal listing as an endangered species. The U.S. Fish and Wildlife Service determined listing was not warranted at that time, but will review the progress of state conservation programs in 2020.

The future status of the sage-grouse will depend on Montana's efforts. Montanans can avoid the far-reaching impacts of an endangered species listing and maintain control of their lands, wildlife and economy by continuing to implement the state's conservation strategy.



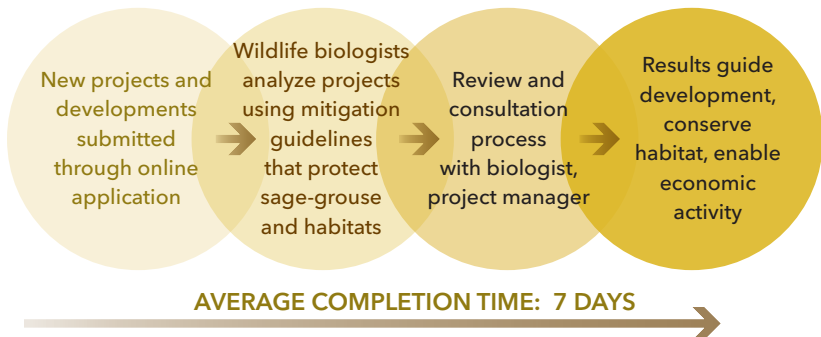
Greater sage-grouse

Centrocercus urophasianus



Montana has built a highly efficient and effective conservation program in 10 months

Montana's approach conserves sage-grouse and their habitat while maintaining the state's economic life.



A personal, timely, responsive process managed by expert staff using sound science and analytics. **And it's getting results:**

January 1, 2016 to December 6, 2016

838

PROJECTS SUBMITTED

738

COMPLETED REVIEWS /
PROJECTS MOVING FORWARD

757

PROJECTS FOR
PROGRAM REVIEW

97.5%

RESPONSE RATE





Montana has implemented a Sage-grouse Stewardship Fund

The 2015 Legislature provided \$10 million as a source of funding for competitive grants to support voluntary conservation actions on private lands, which support 64% of all sage-grouse habitat. Nine grant proposals were submitted during the first application cycle, which ran February through May 2016.

- ▶ Five projects approved for \$3.4 million in state investment
- ▶ State investments leveraged \$7.8 million in matching funds
- ▶ 45,961 acres of prime sage grouse habitat on private land permanently protected
- ▶ 1,223 acres of prime sage grouse habitat restored

Montana is building a Habitat Quantification Tool to support a Mitigation Marketplace for sage-grouse conservation

The most ambitious and far-reaching component of Montana's sage-grouse conservation effort will apply cutting-edge science and technology to fairly and effectively "score" the impacts of conservation or development activities on sage-grouse habitat. Conservation efforts, such as easements, will generate "credits," while new development will generate "debits." Developers of new projects can purchase credits to offset the loss of habitat, with the proceeds going into the Stewardship Fund to support new conservation projects that compensate for the impacts.



Habitat Quantification Tool

Impacted habitat generates debits, conservation projects generate credits



Mitigation Marketplace

Developers buy credits to offset impacts in sage-grouse habitats



Stewardship Fund

Revenue from purchased credits supports new conservation work



The Montana Sage-Grouse Conservation Program seeks **Reauthorization** from the 2017 Legislature

The Montana Sage-Grouse Habitat Conservation Program works to sustain viable sage grouse populations and conserve habitat, enabling Montanans to maintain control of their lands, wildlife, and economy by avoiding a listing of the greater sage-grouse under the federal Endangered Species Act.



TRANSPARENT ★ BIPARTISAN ★ STRATEGIC ★ SCIENTIFIC ★ COLLABORATIVE

“Denbury is confident in what the State has been able to accomplish in a relatively short time and its ability to further build out the program. They value the stakeholders and have listened to those groups and their opinions about the framework of the program. We believe the foundation is strong and capable of supporting the sage-grouse conservation effort.”

—**Rusty Shaw**, *Denbury Resources Inc., Sage Grouse Working Group member*



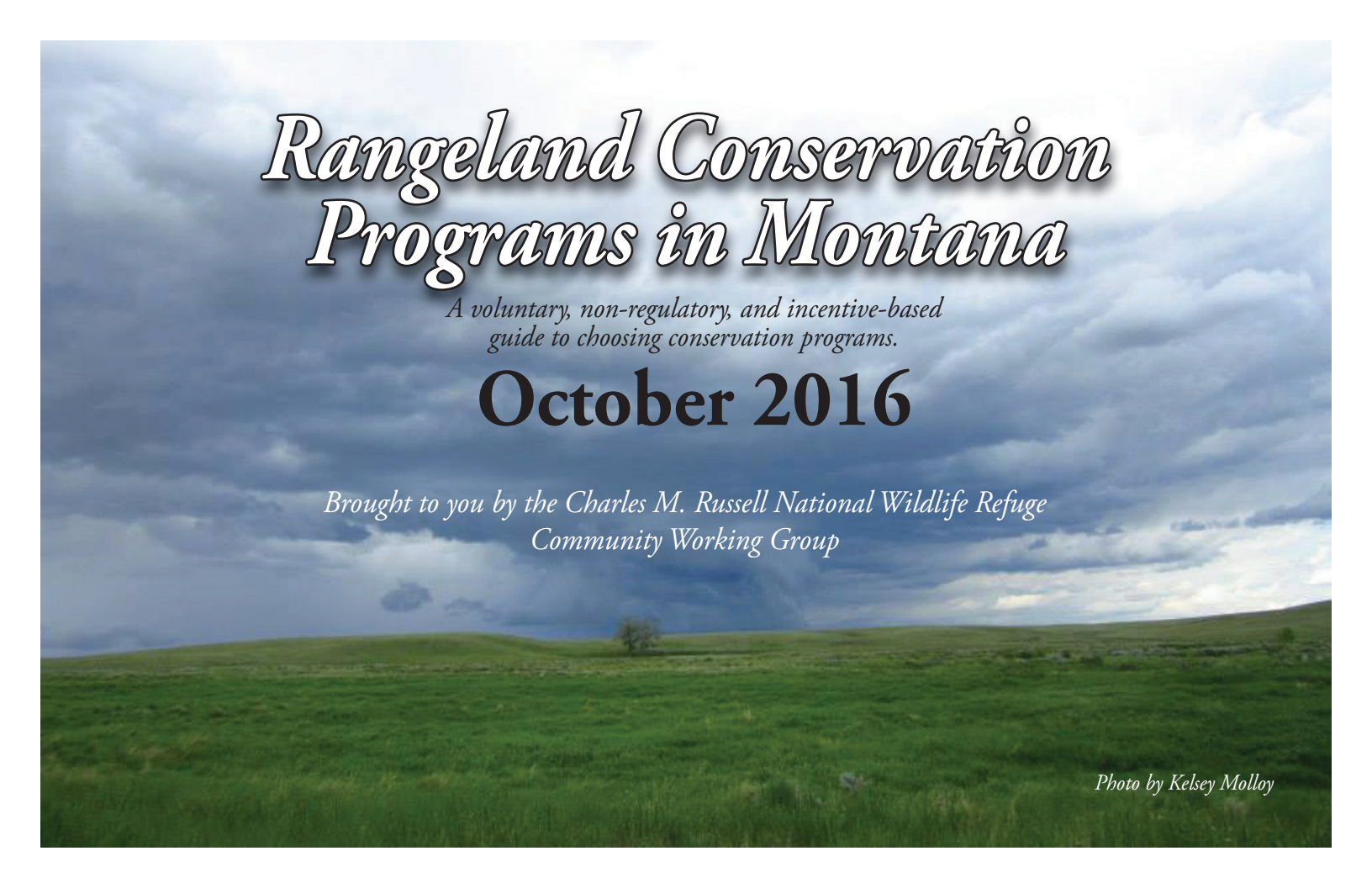
sagegrouse.mt.gov

Montana Sage Grouse Habitat Conservation Program

Carolyn Sime, Program Manager

444-0554 • csime2@mt.gov

This public document was produced at state expense. For details on cost and distribution, contact John Grassy, DNRC Public Information Officer at (406) 444-0465 or jgrassy@mt.gov



Rangeland Conservation Programs in Montana

*A voluntary, non-regulatory, and incentive-based
guide to choosing conservation programs.*

October 2016

*Brought to you by the Charles M. Russell National Wildlife Refuge
Community Working Group*

Photo by Kelsey Molloy

Definitions

ACEP - Agricultural Conservation Easement Program. Contains 2 options Agricultural Lands Easement or Wetland Reserve Easement

CCAA - Candidate Conservation Agreement with Assurances (for ESA candidate or at-risk species)

CRP - Conservation Reserve Program

CRP grasslands - Conservation Reserve Program for native grasslands/rangeland

CRP SAFE - CRP State Acres for Wildlife; 3 options in MT - Pheasant winter cover, Prairie Pothole, Sagebrush

CSP - Conservation Stewardship Program

CTA - Conservation Technical Assistance

EQIP - Environmental Quality Incentive Program

Habitat Montana - FWP's signature habitat program

HCP - Habitat Conservation Plan (for ESA listed species)

MBWP - Migratory Bird Wetland Program

MRP - Montana Rangelands Partnership

MSGOT - Montana Sage Grouse Oversight Team, funding committee for Montana's Sage Grouse Habitat Conservation Program

PFW - Partners for Fish and Wildlife

Safe Harbor - Safe Harbor agreement (for ESA listed species)

SGI - Sage Grouse Initiative

UGBEP - Upland Game Bird Enhancement Program

Montana is known as the “Last Best Place” because of its abundant natural resources that do more than provide beauty for the state, they provide the economic support for many families and rural communities in the state.

This Menu of Rangeland Conservation Programs in Montana was created to provide landowners with a list of conservation programs provided through federal, state, local, and private sources to help meet management and conservation needs on their land.

Although great effort was made to ensure the list is complete, it is not exhaustive and will continue to be updated as needed. The list is not an endorsement of the programs, nor is it meant to provide all the necessary information to enable landowners to make a decision between programs. What the Conservation Menu provides is a shopping list of the available programs for different conservation needs, and the contact information for those responsible for the programs.

We hope that simply knowing all the available options will empower you to select the program that best fits your need. Along with specific conservation actions, the menu provides information on estate planning and generational transitions for landowners, realizing this is a critical juncture for families and the future of their lands and livelihood.

It is the desire of the CMR Community Working Group that this resource be an advocate for voluntary, incentive-based conservation for the enhancement of the rangeland ecosystems of Montana.

LAND PROTECTION

Conservation Easements

USFWS Refuges/Realty: Bowdoin, Red Rock Lakes, Benton Lake NWR; Grassland/wetland easements

NRCS Agricultural Conservation Easement Program (ACEP)

FWP Habitat Montana, Migratory Bird Wetland Program (MBWP), Upland Game Bird Enhancement Program (UGBEP)

Ducks Unlimited Easement Holder

The Nature Conservancy Easement Holder

Pheasants Forever Donated Easements

MSGOT Montana Sage Grouse Habitat Conservation Program

Montana Land Reliance Easement Holder

Fee-title Acquisition

USFWS Refuges/Realty (statewide)

Ducks Unlimited Revolving Lands

Conservation Leases

NRCS Wetland Reserve Easement (WRE)

FWP MBWP, UGBEP periodically

MSGOT Montana's Sage Grouse Habitat Conservation Program

RANGE IMPROVEMENTS

Grazing Management Plans

USFWS Partners for Fish and Wildlife (PFW)

NRCS Environmental Quality Incentive Program (EQIP), Conservation Stewardship Program (CSP), Conservation Technical Assistance (CTA)

BLM Grazing Authorization Renewal Process

FWP Habitat Montana, MBWP, UGBEP

The Nature Conservancy Matador Ranch Grass Bank (Philips County)

MT Rangelands Partnership Technical expertise/assistance

MSGOT Montana Sage Grouse Habitat Conservation Program

Rangeland Monitoring

BLM Cooperative support and labor to establish monitoring

MT Rangelands Partnership Technical expertise/assistance

Ranch Infrastructure

USFWS Partners for Fish & Wildlife

NRCS EQIP, CTA

BLM Range Improvement Funds / special project funding

FWP Habitat Montana, MBWP, UGBEP

MSGOT Montana Sage Grouse Habitat Conservation Program

Ranch Infrastructure (continued)

DNRC Range Improvement Loan Program

Local Conservation Districts Cost share

Native Species Plantings

USFWS Partners for Fish & Wildlife

NRCS EQIP, CSP & CTA

FSA Conservation Reserve Program (CRP),

BLM Range Improvement Funds / special project funding

FWP Habitat Montana, UGBEP

MSGOT Montana Sage Grouse Habitat Conservation Program

Grassland Restoration

FSA Conservation Reserve Program for native grasslands/rangeland (CRP grasslands)

MSGOT Montana Sage Grouse Habitat Conservation Program

Conifer and Invasive Species Control

USFWS Partners for Fish & Wildlife

NRCS EQIP, CSP & CTA

Conifer and Invasive Species Control (continued)

BLM Range Improvement Funds /special project funding

FWP Habitat Montana, UGBEP

Local Conservation Districts Cost Share

MSGOT Montana Sage Grouse Habitat Conservation Program

Cover Crops

NRCS EQIP, CSP & CTA

FSA CRP

FWP UGBEP

Pheasants Forever Public Lands

SWCDM Cover Crop Education

Local Conservation Districts Cover Crop Education

Erosion Control

NRCS EQIP, CSP & CTA

FSA CRP; CRP grasslands; CRP SAFE

WETLAND CREATION / RESTORATION

Native Wetland Restoration

USFWS Partners for Fish & Wildlife

NRCS EQIP & CTA

FWP MBWP; Habitat Montana

Ducks Unlimited Technical Expertise

Invasive Species Control / Native Seedings

USFWS Partners for Fish & Wildlife

NRCS EQIP, CSP, & CTA

BLM Range Improvement Funds / special project funding

FWP MBWP; Habitat Montana

Riparian Fencing / Planting

USFWS Partners for Fish & Wildlife

NRCS EQIP, CSP & CTA

BLM Range Improvement Funds / special project funding

FWP MBWP; Habitat Montana

SWCDM Cost share for riparian fencing

Local Conservation Districts Cost share for riparian fencing

OTHER

Landowner Assurances

USFWS Candidate Conservation Agreement with Assurances (CCAA); Habitat Conservation Plan (HCP); Safe Harbor Agreement (SHA)

NRCS Working Lands for Wildlife (WLFW); Sage Grouse Initiative (SGI)

Estate & Transition Planning Education

MSU Extension Estate Planning

Montana Community Foundation Estate Planning

Planned Giving

Montana Community Foundation Planned Giving

Special Initiatives

NRCS Sage Grouse Initiative

Agency / Organization Contact Information

AGENCY / ORG	PROGRAMS	CONTACTS	EMAIL	PHONE
Ducks Unlimited	Revolving Lands, Technical Expertise	Bob Sanders	rsanders@ducks.org	406-492-2002
		Abby Dresser	adresser@ducks.org	406-587-6947
Farm Service Agency	CRP	Contact your local FSA office	For office locations, visit: www.fsa.usda.gov/state-offices/montana/index	
MT Community Foundation	Planned Giving	Amy Sullivan	amy@mtcf.org	406-443-8313
MT DNRC	Range Improvement Loan Program	Bill Herbolich	bherbolich@mt.gov	406-444-6668
Montana Fish, Wildlife and Parks	General Habitat Programs	Rick Northrup - statewide	rnorthrup@mt.gov	406-444-5633
		Catherine Wightman	cwrightman@mt.gov	406-444-3377
		Kelvin Johnson	kjohnson@mt.gov	406-228-3727
	Upland Game Bird Enhancement	Debbie Hohler - statewide	dhohler@mt.gov	406-444-5674
		Ken Plourde - Plentywood	kploudre.fwp@gmail.com	406-474-2244
		Jake Doggett - Conrad	jdoggett.fwp@gmail.com	406-271-2670
		Jackie Tooke - Miles City	jtooke@mt.gov	406-234-0940
	Migratory Bird Wetland	Catherine Wightman	cwrightman@mt.gov	406-444-3377
MSGOT	Sage Grouse Habitat Conservation	Carolyn Sime	csime2@mt.gov	406-444-0554
		Therese Hartman	thartman@mt.gov	406-444-1467
		Graham Neale	gneale@mt.gov	406-444-2613
Montana State University Extension	Economics	Marsha Goetting	goetting@montana.edu	406-994-5695
	Range Management	Jeff Mosley	jmosley@montana.edu	406-994-5601
The Nature Conservancy	Matador Grass Bank	Brian Martin	bmartin@tnc.org	406-443-6733

AGENCY / ORG	PROGRAMS	CONTACTS	EMAIL	PHONE
Montana Rangelands Partnership	Rangeland Monitoring	Stacey Barta	sbarta@mt.gov	406-444-6619
	Montana Rangeland Partnership Technicians	Cheryl Schuldt - Miles City	cschuldt@macdnet.org	406-945-0404
		Emily Standley - Lewistown	estandley@macdnet.org	406-396-5418
Pheasants Forever	Donated Easements	Julie Unfried - Chinook	junfried@pheasantsforever.org	406-357-2320 x116
		Michelle Downey - Scobey	mdowney@pheasantsforever.org	406-487-2872 x106
		Aaron Clausen - Conrad	aclausen@pheasantsforever.org	605-280-9212
Soil & Water Conservation Districts of MT	Cost share for riparian fencing	Jessica Makus	jessica@macdnet.org	406-443-5711
U.S. Fish and Wildlife Service	Partners for Fish and Wildlife	Greg Neudecker - statewide	greg_neudecker@fws.gov	406-793-7400
		Jim Magee - Dillon	james_magee@fws.gov	406-683-3893
		Loren Ruport - Malta	loren_ruport@fws.gov	406-654-2863
		Marisa Sather - Glasgow	marisa_sather@fws.gov	406-403-4678
		Dean Vaughn - Bison Range	dean_vaughn@fws.gov	406-644-2211
		Luke Lamar - Swan Valley	luke@svconnections.org	406-754-3137
USDA Natural Resources Conservation Service	EQIP, CSP	Contact your local NRCS	For office locations visit: www.nrcs.usda.gov/wps/portal/nrcs/site/mt/home/	
	ACEP	Contact your local NRCS	For office locations visit: www.nrcs.usda.gov/wps/portal/nrcs/site/mt/home/	
		Lisa McCauley, Director	lisa.mccauley@mt.usda.gov	406-587-6970
	Sage-grouse Initiative	Kelsey Molloy, Malta	Kelsey.molloy@mt.nacdnet.net	406 654-1334 x 119
		Luke McCarty, Glasgow	luke@macdnet.org	406-228-4321 x 132
		Heather Nennering, Forsyth	hnenninger@macdnet.org	406-346-7333 x109
		Justin Hughes, Ekalaka	jhughes@macdnet.org	406-775-6355 x112

CMR NWR Community Working Group

THREE-PART GOAL FOR THE LANDSCAPE

Describe the quality of life you would like to see be predominant in the region in 5 to 10 years.

We want this region to maintain a diversified economy within which a prosperous agriculture industry is sustained and local communities are prosperous with stable populations. We desire an atmosphere where agencies, local government, NGOs, and citizens work together to create positive outcomes for the community and citizens: focusing on common ground, mutual respect, and community-based decision making, where people are committed to the working group and access to public land is ensured for both the public and producers.”

What kind of production will be needed to sustain this quality of life?

A diversity of unique goods and services to support economic and social values will need to be produced from a working landscape that maintains its scenic value, healthy soils, and ecological integrity. We must also identify and implement best management practices that integrate local ecological knowledge, succession planning in all entities, local working groups to address challenges, incentives to practice conservation, steady tax base to support infrastructure and responsible, well-educated citizens.

What does the landscape need to look like to obtain your production?

We desire a landscape that provides habitat for diverse and healthy wildlife populations, where further conversion of native prairie is discouraged, and where the needs of natural resource dependent industries are balanced with conservation. In short, healthy agriculture lands cooperatively managed for the benefit of the resource, wildlife, industry, and community.

Rangelands...



**MONTANA
RANGELANDS**
PARTNERSHIP

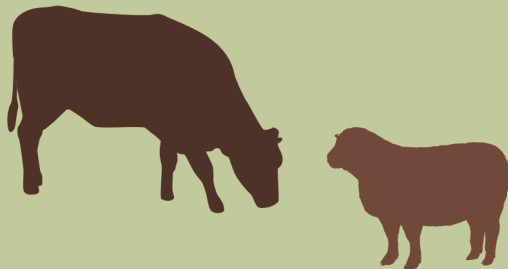
www.montanarangelandspartnership.org

...cover **68 million acres (over 70%)** of
Montana, with approximately **48 million acres**
under private ownership

...provide watershed services worth **\$14/acre**,
including water **collection**, groundwater
filtration and aquifer **recharge**



...support **584,000 deer**,
159,000 antelope, and
163,000 elk in Montana



...provide forage to support
Montana's **\$2.2 billion**
livestock industry

...provide opportunities for hunting and
fishing, which generated
\$1.3 billion for Montana in 2015

...maintain and **improve biodiversity** on the landscape, a service worth **\$19/acre**

...sequester more than **20%** of the world's terrestrial carbon, and provide **erosion
control** and **nutrient cycling** services valued at **\$106/acre**

Funding for this project provided by a grant from the National Fish & Wildlife Foundation with contributions provided by the Natural Resources Conservation Service, the Bureau of Land Management and BNSF Railway. This material is based upon work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under number 0103.15.049870. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture.



The Benefits of Grazing

Western **rangelands** evolved with **grazing animals**, which makes livestock an **important management tool** on these landscapes

Public land ranchers **save money** for the government:

The BLM spends **\$5 per acre** to maintain **ungrazed public land**, but only **\$2 per acre** for **grazed land** maintained by ranchers



Well-managed grazing...



facilitates diverse habitat for grassland birds

reduces fire fuel load and fire severity

can be used to **control noxious weeds**

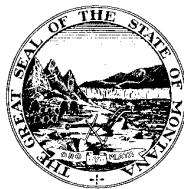
provides fertilizer to **improve the nutrient cycle**

Through **good stewardship** of their grazing lands, ranchers helped to prevent **Sage Grouse** from being listed as an endangered species



Livestock can **utilize land that is unsuitable for farming** or development, which **preserves open space** in Big Sky Country





AN ACT REVISING THE MONTANA GREATER SAGE-GROUSE STEWARDSHIP ACT; REQUIRING PROJECTS TO IMPACT HABITAT AND POPULATIONS; REQUIRING CONSIDERATION OF APPLICABLE U.S. FISH AND WILDLIFE SERVICE POLICIES; AMENDING SECTIONS 76-22-104, 76-22-110, AND 76-22-111, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Section 76-22-104, MCA, is amended to read:

"76-22-104. Montana sage grouse oversight team -- rulemaking. The oversight team shall adopt rules to administer the provisions of this part, including:

(1) eligibility and evaluation criteria for grants distributed pursuant to 76-22-110 for projects that maintain, enhance, restore, expand, or benefit sage grouse habitat ~~or~~ and populations, including but not limited to requirements for matching funds and in-kind contributions and consideration of the socioeconomic impacts of a proposed project on the local community. The evaluation criteria must give greater priority to proposed projects that:

- (a) involve partnerships between public and private entities;
- (b) provide matching funds;
- (c) use the habitat quantification tool adopted pursuant to subsection (2); and
- (d) maximize the amount of credits generated per dollars of funds awarded.

(2) the designation of a habitat quantification tool, ~~subject to the approval of the~~ in consideration of applicable United States fish and wildlife service sage grouse policies, state law, and any rules adopted pursuant to this part;

(3) subject to the provisions of 76-22-105(2), a method to track and maintain the number of credits attributable to projects funded pursuant to this part that are available to a project developer to purchase for compensatory mitigation to offset debits under 76-22-111;

- (4) methods of compensatory mitigation available under 76-22-111;

- (5) review and monitoring of projects funded pursuant to this part;
- (6) criteria for the acceptance or rejection of grants, gifts, transfers, bequests, and donations, including interests in real or personal property; and
- (7) guidance on management options for any real property conveyed to the state under this part, including its sale or lease."

Section 2. Section 76-22-110, MCA, is amended to read:

"76-22-110. Grants -- eligibility. (1) Subject to the provisions of 76-22-112, to be eligible to receive funds pursuant to this part, a proposed project must maintain, enhance, restore, expand, or benefit sage grouse habitat and populations for the heritage of Montana and its people through voluntary, incentive-based efforts, including:

- (a) reduction of conifer encroachment;
- (b) reduction of the spread of invasive weeds that harm sagebrush health or sage grouse habitat;
- (c) maintenance, restoration, or improvement of sagebrush health or quality;
- (d) purchase or acquisition of leases, term conservation easements, or permanent conservation easements that conserve or maintain sage grouse habitat, protect grazing lands, or conserve sage grouse populations;
- (e) incentives to reduce the conversion of grazing land to cropland;
- (f) restoration of cropland to grazing land;
- (g) modification of fire management to conserve sage grouse habitat ~~or~~ and populations;
- (h) demarcation of fences to reduce sage grouse collisions;
- (i) reduction of unnatural perching platforms for raptors;
- (j) reduction of unnatural safe havens for predators;
- ~~(k)~~(k) sage grouse habitat enhancement that provides project developers the ability to use improved habitat for compensatory mitigation under 76-22-111;

~~(h)~~(l) establishment of a habitat exchange to develop and market credits consistent with the purposes of this part. The habitat exchange must be authorized by the United States fish and wildlife service and must use the habitat quantification tool to quantify and calculate the value of credits and debits. Funds may be allocated to a habitat exchange:

(i) if the funds are used:

- (A) to create and market credits in a manner consistent with the habitat quantification tool;
- (B) for operational purposes, including monitoring the effectiveness of projects; or
- (C) for costs associated with establishing the habitat exchange; and

(ii) if the habitat exchange reimburses the state for its proportionate share of proceeds generated from the sale of credits created with funds distributed pursuant to this part. Any proceeds received by the state pursuant to this subsection ~~(1)(f)(ii)~~ (1)(l)(ii) must be deposited in the sage grouse stewardship account established in 76-22-109 and must be used only to acquire additional credits or for operational purposes, including monitoring the long-term effectiveness of compensatory mitigation projects.

~~(m)~~(m) other project proposals that the oversight team determines are consistent with the purposes of this part.

(2) Projects proposed by grant applicants may involve land owned by multiple landowners, including state and federal land, provided that the majority of the involved acres are privately held and that the proposed project benefits sage grouse across all of the land included in the project.

(3) Grants may be awarded only to organizations and agencies that hold and maintain conservation easements or leases or that are directly involved in sage grouse habitat mitigation and enhancement activities approved by the oversight team.

(4) Grants may not be used to supplement or replace the operating budget of an agency or organization except for budget items that directly relate to the purposes of the grant.

(5) If a grant is awarded to a proposed project that uses matching funds from a source that prohibits the generation of credits for compensatory mitigation, the oversight team, when possible, shall allocate the credits generated by the proposed project on a pro rata basis and make available for compensatory mitigation under 76-22-111 only those credits attributable to funds awarded pursuant to this section and any unrestricted matching funds."

Section 3. Section 76-22-111, MCA, is amended to read:

"76-22-111. Compensatory mitigation -- findings. (1) The legislature finds 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 habitat and populations. The project developer

may provide compensatory mitigation by:

(a) using the habitat quantification tool to calculate the debits attributable to the project; and

(b) under a mitigation plan approved by the oversight team, offsetting those debits in whole or in part by:

(i) purchasing an equal number of credits from a habitat exchange authorized by the United States fish and wildlife service or from the available credits tracked by the oversight team pursuant to 76-22-104. Payments received for credits tracked by the oversight team must be deposited in the sage grouse stewardship account established in 76-22-109.

(ii) if sufficient conservation credits are unavailable for purchase, making 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;

(iii) providing funds to establish a habitat exchange or finance a conservation project for the purpose of creating credits to offset debits. However, the funds may not be used to subsidize mitigation by or decrease the mitigation obligations of any party involved in the project.

(iv) undertaking other mitigation options identified and approved by the oversight team, including but not limited to sage grouse habitat enhancement, participation in a conservation bank, or funding stand-alone mitigation actions.

(2) All mitigation undertaken pursuant to this section must be consistent with the taken in consideration of applicable United States fish and wildlife ~~service's greater sage grouse range-wide mitigation framework,~~ service sage grouse policies, state law, and any rules adopted pursuant to this part.

(3) A mitigation action taken under this section must be conducted within general habitat, core areas, or connectivity areas."

Section 4. Effective date. [This act] is effective on passage and approval.

- END -

I hereby certify that the within bill,
SB 0284, originated in the Senate.

President of the Senate

Signed this _____ day
of _____, 2017.

Secretary of the Senate

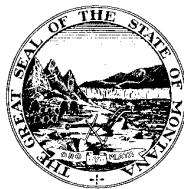
Speaker of the House

Signed this _____ day
of _____, 2017.

SENATE BILL NO. 284

INTRODUCED BY M. LANG, P. CONNELL

AN ACT REVISING THE MONTANA GREATER SAGE-GROUSE STEWARDSHIP ACT; REQUIRING PROJECTS TO IMPACT HABITAT AND POPULATIONS; REQUIRING CONSIDERATION OF APPLICABLE U.S. FISH AND WILDLIFE SERVICE POLICIES; AMENDING SECTIONS 76-22-104, 76-22-110, AND 76-22-111, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.



AN ACT REVISING FUNDING FOR THE MONTANA GREATER SAGE-GROUSE STEWARDSHIP ACT; DECREASING PREVIOUS TRANSFERS AND APPROPRIATIONS; PROVIDING FOR FUTURE TRANSFERS AND STATUTORY APPROPRIATIONS; ALLOWING FUNDING TO BE USED FOR ADMINISTRATIVE PURPOSES; AMENDING SECTIONS 15-1-122, 17-1-508, 17-7-502, AND 76-22-109, MCA, AND SECTION 18, CHAPTER 445, LAWS OF 2015; AND PROVIDING EFFECTIVE DATES AND A TERMINATION DATE.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Section 15-1-122, MCA, is amended to read:

"15-1-122. (Bracketed language effective July 1, 2021) Fund transfers. (1) There is transferred from the state general fund to the adoption services account, provided for in 42-2-105, a base amount of \$59,209, and the amount of the transfer must be increased by 10% in each succeeding fiscal year.

(2) For fiscal years 2016 through 2019, there is transferred \$1.275 million on an annual basis from the state general fund to the research and commercialization state special revenue account provided for in 90-3-1002.

(3) For each fiscal year, there is transferred from the state general fund to the accounts, entities, or recipients indicated the following amounts:

(a) to the motor vehicle recycling and disposal program provided for in Title 75, chapter 10, part 5, 1.48% of the motor vehicle revenue deposited in the state general fund in each fiscal year. The amount of 9.48% of the allocation in each fiscal year must be used for the purpose of reimbursing the hired removal of abandoned vehicles. Any portion of the allocation not used for abandoned vehicle removal reimbursement must be used as provided in 75-10-532.

(b) to the noxious weed state special revenue account provided for in 80-7-816, 1.50% of the motor vehicle revenue deposited in the state general fund in each fiscal year;

(c) to the department of fish, wildlife, and parks:

(i) 0.46% of the motor vehicle revenue deposited in the state general fund, with the applicable

percentage to be:

(A) used to:

- (I) acquire and maintain pumpout equipment and other boat facilities, 4.8% in each fiscal year;
- (II) administer and enforce the provisions of Title 23, chapter 2, part 5, 19.1% in each fiscal year;
- (III) enforce the provisions of 23-2-804, 11.1% in each fiscal year; and
- (IV) develop and implement a comprehensive program and to plan appropriate off-highway vehicle recreational use, 16.7% in each fiscal year; and

(B) deposited in the state special revenue fund established in 23-1-105 in an amount equal to 48.3% in each fiscal year;

(ii) 0.10% of the motor vehicle revenue deposited in the state general fund in each fiscal year, with 50% of the amount to be used for enforcing the purposes of Title 23, chapter 2, part 6, and 50% of the amount designated for use in the development, maintenance, and operation of snowmobile facilities; and

(iii) 0.16% of the motor vehicle revenue deposited in the state general fund in each fiscal year to be deposited in the motorboat account to be used as provided in 23-2-533;

(d) 0.81% of the motor vehicle revenue deposited in the state general fund in each fiscal year, with 24.55% to be deposited in the state veterans' cemetery account provided for in 10-2-603 and with 75.45% to be deposited in the veterans' services account provided for in 10-2-112(1); and

(e) to the search and rescue account provided for in 10-3-801, 0.04% of the motor vehicle revenue deposited in the state general fund in each fiscal year.

(4) The amount of \$200,000 is transferred from the state general fund to the livestock loss [reduction and] mitigation restricted state special revenue account provided for in 81-1-112 in each fiscal year.

(5) For fiscal years 2018 through 2021, there is transferred \$2 million on an annual basis from the state general fund to the sage grouse stewardship account provided for in 76-22-109.

~~(5)(6)~~ For the purposes of this section, "motor vehicle revenue deposited in the state general fund" means revenue received from:

- (a) fees for issuing a motor vehicle title paid pursuant to 61-3-203;
- (b) fees, fees in lieu of taxes, and taxes for vehicles, vessels, and snowmobiles registered or reregistered pursuant to 61-3-321 and 61-3-562;
- (c) GVW fees for vehicles registered for licensing pursuant to Title 61, chapter 3, part 3; and
- (d) all money collected pursuant to 15-1-504(3).

~~(6)(7)~~ Except as provided in ~~subsection~~ subsections (2) and (5), the amounts transferred from the

general fund to the designated recipient must be appropriated as state special revenue in the general appropriations act for the designated purposes. (Bracketed language in subsection (4) effective July 1, 2021--sec. 8, Ch. 349, L. 2015.)"

Section 2. Section 17-1-508, MCA, is amended to read:

"17-1-508. Review of statutory appropriations. (1) Each biennium, the office of budget and program planning shall, in development of the executive budget, review and identify instances in which statutory appropriations in current law do not appear consistent with the guidelines set forth in subsection (2).

(2) The review of statutory appropriations must determine whether a statutory appropriation meets the requirements of 17-7-502. Except as provided in 76-22-109 and 77-1-108, a statutory appropriation from a continuing and reliable source of revenue may not be used to fund administrative costs. In reviewing and establishing statutory appropriations, the legislature shall consider the following guidelines. A proposed or existing statutory appropriation may not be considered appropriate if:

- (a) the money is from a continuing, reliable, and estimable source;
- (b) the use of the appropriation or the expenditure occurrence is predictable and reliable;
- (c) the authority exists elsewhere;
- (d) an alternative appropriation method is available, practical, or effective;
- (e) it appropriates state general fund money for purposes other than paying for emergency services;
- (f) the money is used for general purposes;
- (g) the legislature wishes to review expenditure and appropriation levels each biennium; and
- (h) an expenditure cap and sunset date are excluded.

(3) The office of budget and program planning shall prepare a fiscal note for each piece of legislation that proposes to create or amend a statutory appropriation. It shall, consistent with the guidelines in this section, review each of these pieces of legislation. Its findings concerning the statutory appropriation must be contained in the fiscal note accompanying that legislation."

Section 3. Section 17-7-502, MCA, is amended to read:

"17-7-502. Statutory appropriations -- definition -- requisites for validity. (1) A statutory appropriation is an appropriation made by permanent law that authorizes spending by a state agency without the need for a biennial legislative appropriation or budget amendment.

(2) Except as provided in subsection (4), to be effective, a statutory appropriation must comply with both

of the following provisions:

(a) The law containing the statutory authority must be listed in subsection (3).

(b) The law or portion of the law making a statutory appropriation must specifically state that a statutory appropriation is made as provided in this section.

(3) The following laws are the only laws containing statutory appropriations: 2-17-105; 5-11-120; 5-11-407; 5-13-403; 7-4-2502; 10-1-108; 10-1-1202; 10-1-1303; 10-2-603; 10-3-203; 10-3-310; 10-3-312; 10-3-314; 10-4-301; 15-1-121; 15-1-218; 15-35-108; 15-36-332; 15-37-117; 15-39-110; 15-65-121; 15-70-101; 15-70-433; 15-70-601; 16-11-509; 17-3-106; 17-3-112; 17-3-212; 17-3-222; 17-3-241; 17-6-101; 17-7-215; 18-11-112; 19-3-319; 19-6-404; 19-6-410; 19-9-702; 19-13-604; 19-17-301; 19-18-512; 19-19-305; 19-19-506; 19-20-604; 19-20-607; 19-21-203; 20-8-107; 20-9-517; 20-9-520; 20-9-534; 20-9-622; 20-9-905; 20-26-617; 20-26-1503; 22-1-327; 22-3-116; 22-3-117; 22-3-1004; 23-4-105; 23-5-306; 23-5-409; 23-5-612; 23-7-301; 23-7-402; 30-10-1004; 37-43-204; 37-50-209; 37-51-501; 39-71-503; 41-5-2011; 42-2-105; 44-4-1101; 44-12-213; 44-13-102; 50-1-115; 53-1-109; 53-6-1304; 53-9-113; 53-24-108; 53-24-206; 60-11-115; 61-3-415; 69-3-870; 75-1-1101; 75-5-1108; 75-6-214; 75-11-313; 76-13-150; 76-13-416; 76-22-109; 77-1-108; 77-2-362; 80-2-222; 80-4-416; 80-11-518; 81-1-112; 81-7-106; 81-10-103; 82-11-161; 85-20-1504; 85-20-1505; [85-25-102]; 87-1-603; 90-1-115; 90-1-205; 90-1-504; 90-3-1003; 90-6-331; and 90-9-306.

(4) There is a statutory appropriation to pay the principal, interest, premiums, and costs of issuing, paying, and securing all bonds, notes, or other obligations, as due, that have been authorized and issued pursuant to the laws of Montana. Agencies that have entered into agreements authorized by the laws of Montana to pay the state treasurer, for deposit in accordance with 17-2-101 through 17-2-107, as determined by the state treasurer, an amount sufficient to pay the principal and interest as due on the bonds or notes have statutory appropriation authority for the payments. (In subsection (3): pursuant to sec. 10, Ch. 360, L. 1999, the inclusion of 19-20-604 terminates contingently when the amortization period for the teachers' retirement system's unfunded liability is 10 years or less; pursuant to sec. 10, Ch. 10, Sp. L. May 2000, secs. 3 and 6, Ch. 481, L. 2003, and sec. 2, Ch. 459, L. 2009, the inclusion of 15-35-108 terminates June 30, 2019; pursuant to sec. 73, Ch. 44, L. 2007, the inclusion of 19-6-410 terminates contingently upon the death of the last recipient eligible under 19-6-709(2) for the supplemental benefit provided by 19-6-709; pursuant to sec. 5, Ch. 442, L. 2009, the inclusion of 90-6-331 terminates June 30, 2019; pursuant to sec. 16, Ch. 58, L. 2011, the inclusion of 30-10-1004 terminates June 30, 2017; pursuant to sec. 6, Ch. 61, L. 2011, the inclusion of 76-13-416 terminates June 30, 2019; pursuant to sec. 13, Ch. 339, L. 2011, the inclusion of 81-1-112 and 81-7-106 terminates June 30, 2017; pursuant to sec. 11(2), Ch. 17, L. 2013, the inclusion of 17-3-112 terminates on occurrence of contingency;

pursuant to sec. 5, Ch. 244, L. 2013, the inclusion of 22-1-327 terminates July 1, 2017; pursuant to sec. 27, Ch. 285, L. 2015, and sec. 1, Ch. 292, L. 2015, the inclusion of 53-9-113 terminates June 30, 2021; pursuant to sec. 6, Ch. 291, L. 2015, the inclusion of 50-1-115 terminates June 30, 2021; pursuant to sec. 28, Ch. 368, L. 2015, the inclusion of 53-6-1304 terminates June 30, 2019; pursuant to sec. 5, Ch. 383, L. 2015, the inclusion of 85-25-102 is effective on occurrence of contingency; pursuant to sec. 5, Ch. 422, L. 2015, the inclusion of 17-7-215 terminates June 30, 2021; pursuant to sec. 6, Ch. 423, L. 2015, the inclusion of 22-3-116 and 22-3-117 terminates June 30, 2025; pursuant to sec. 10, Ch. 427, L. 2015, the inclusion of 37-50-209 terminates September 30, 2019; and pursuant to sec. 33, Ch. 457, L. 2015, the inclusion of 20-9-905 terminates December 31, 2023.)"

Section 4. Section 76-22-109, MCA, is amended to read:

"76-22-109. Sage grouse stewardship account. (1) There is a sage grouse stewardship account in the state special revenue fund established in 17-2-102. ~~Subject to appropriation by the legislature, money~~ Money deposited in the account is statutorily appropriated, as provided in 17-7-502, and must be used for the administration of and pursuant to the provisions of this part to maintain, enhance, restore, expand, or benefit sage grouse habitat and populations for the heritage of Montana and its people.

(2) The following funds must be deposited in the account:

(a) each fiscal year, the amount provided in 15-1-122 that is transferred to the account from the state general fund;

~~(a)(b)~~ money received by the department in the form of grants, gifts, transfers, bequests, payments for credits or financial contributions made pursuant to 76-22-111, and donations, including donations limited in their purpose by the grantor, or appropriations from any source intended to be used for the purposes of this account; and

~~(b)(c)~~ any interest or income earned on the account.

(3) Subject to subsections (4) and (5), the department shall make disbursements from the account to projects approved by the oversight team to receive grants.

(4) The majority of the funds in the account may not be disbursed before the habitat quantification tool has been adopted. The habitat quantification tool must be applied to any project funded after the habitat quantification tool has been adopted. The majority of the account funds must be awarded to projects that generate credits that are available for compensatory mitigation under 76-22-111. When selecting projects to receive funds, the oversight team shall prioritize projects that maximize the amount of credits generated per

dollars of funds awarded.

(5) Money deposited in the account may not be used:

(a) for fee simple acquisition of private land;

(b) to purchase water rights;

(c) to purchase a lease or conservation easement that requires recreational access or prohibits hunting, fishing, or trapping as part of its terms; or

(d) to allow the release of any species listed under 87-5-107 or the federal Endangered Species Act, 16 U.S.C. 1531, et seq.

(6) Administrative costs paid from the account are limited to \$400,000 in each fiscal year.

~~(6)~~(7) Any unspent or unencumbered money in the account at the end of a fiscal year must remain in the account."

Section 5. Section 76-22-109, MCA, is amended to read:

"76-22-109. Sage grouse stewardship account. (1) There is a sage grouse stewardship account in the state special revenue fund established in 17-2-102. ~~Subject to appropriation by the legislature, money~~ Money deposited in the account is statutorily appropriated, as provided in 17-7-502, and must be used for the administration of and pursuant to the provisions of this part to maintain, enhance, restore, expand, or benefit sage grouse habitat and populations for the heritage of Montana and its people.

(2) The following funds must be deposited in the account:

(a) money received by the department in the form of grants, gifts, transfers, bequests, payments for credits or financial contributions made pursuant to 76-22-111, and donations, including donations limited in their purpose by the grantor, or appropriations from any source intended to be used for the purposes of this account; and

(b) any interest or income earned on the account.

(3) Subject to subsections (4) and (5), the department shall make disbursements from the account to projects approved by the oversight team to receive grants.

(4) The majority of the funds in the account may not be disbursed before the habitat quantification tool has been adopted. The habitat quantification tool must be applied to any project funded after the habitat quantification tool has been adopted. The majority of the account funds must be awarded to projects that generate credits that are available for compensatory mitigation under 76-22-111. When selecting projects to receive funds, the oversight team shall prioritize projects that maximize the amount of credits generated per

dollars of funds awarded.

(5) Money deposited in the account may not be used:

(a) for fee simple acquisition of private land;

(b) to purchase water rights;

(c) to purchase a lease or conservation easement that requires recreational access or prohibits hunting, fishing, or trapping as part of its terms; or

(d) to allow the release of any species listed under 87-5-107 or the federal Endangered Species Act, 16 U.S.C. 1531, et seq.

(6) Administrative costs paid from the account are limited to \$400,000 in each fiscal year.

~~(6)~~(7) Any unspent or unencumbered money in the account at the end of a fiscal year must remain in the account."

Section 6. Section 18, Chapter 445, Laws of 2015, is amended to read:

"Section 18. Coordination instruction. If both House Bill No. 2 and [this act] are passed and approved, then:

(1) [sections 14 and 15 of this act] are void;

(2) the general fund appropriation to the department of natural resources and conservation for the sage grouse conservation fund contained in House Bill No. 2 is void;

(3) for the biennium beginning July 1, 2015, ~~\$10~~ \$2 million is transferred from the general fund to the sage grouse stewardship account established in [section 7 of this act]; and

(4) for the biennium beginning July 1, 2015, ~~\$10~~ \$2 million is appropriated from the sage grouse stewardship account established in [section 7 of this act] to the department of natural resources and conservation for the purposes of [this act]. If the United States fish and wildlife service lists the greater sage-grouse (*Centrocercus urophasianus*) as endangered under the Endangered Species Act, 16 U.S.C. 1531, et seq., any unencumbered portion of the appropriation made pursuant to this subsection (4) must revert to the general fund."

Section 7. Effective date. (1) Except as provided in subsection (2), [this act] is effective on passage and approval.

(2) [Section 5] is effective July 1, 2021.

Section 8. Termination. [Sections 1 and 4] terminate June 30, 2021.

- END -

I hereby certify that the within bill,
HB 0228, originated in the House.

Speaker of the House

Signed this _____ day
of _____, 2017.

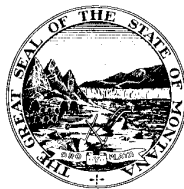
Chief Clerk of the House

President of the Senate

Signed this _____ day
of _____, 2017.

HOUSE BILL NO. 228
INTRODUCED BY J. KEANE

AN ACT REVISING FUNDING FOR THE MONTANA GREATER SAGE-GROUSE STEWARDSHIP ACT;
DECREASING PREVIOUS TRANSFERS AND APPROPRIATIONS; PROVIDING FOR FUTURE TRANSFERS
AND STATUTORY APPROPRIATIONS; ALLOWING FUNDING TO BE USED FOR ADMINISTRATIVE
PURPOSES; AMENDING SECTIONS 15-1-122, 17-1-508, 17-7-502, AND 76-22-109, MCA, AND SECTION 18,
CHAPTER 445, LAWS OF 2015; AND PROVIDING EFFECTIVE DATES AND A TERMINATION DATE.



AN ACT REQUIRING THE DEPARTMENT OF FISH, WILDLIFE, AND PARKS TO REPORT SAGE GROUSE POPULATION DATA ON AN ANNUAL BASIS; AND AMENDING SECTION 87-1-201, MCA.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Section 87-1-201, MCA, is amended to read:

"87-1-201. Powers and duties. (1) Except as provided in subsection ~~(11)~~ (12), the department shall supervise all the wildlife, fish, game, game and nongame birds, waterfowl, and the game and fur-bearing animals of the state and may implement voluntary programs that encourage hunting access on private lands and that promote harmonious relations between landowners and the hunting public. The department possesses all powers necessary to fulfill the duties prescribed by law and to bring actions in the proper courts of this state for the enforcement of the fish and game laws and the rules adopted by the department.

(2) Except as provided in subsection ~~(11)~~ (12), the department shall enforce all the laws of the state regarding the protection, preservation, management, and propagation of fish, game, fur-bearing animals, and game and nongame birds within the state.

(3) The department has the exclusive power to spend for the protection, preservation, management, and propagation of fish, game, fur-bearing animals, and game and nongame birds all state funds collected or acquired for that purpose, whether arising from state appropriation, licenses, fines, gifts, or otherwise. Money collected or received from the sale of hunting and fishing licenses or permits, from the sale of seized game or hides, from fines or damages collected for violations of the fish and game laws, or from appropriations or received by the department from any other sources is under the control of the department and is available for appropriation to the department.

(4) The department may discharge any appointee or employee of the department for cause at any time.

(5) The department may dispose of all property owned by the state used for the protection, preservation, management, and propagation of fish, game, fur-bearing animals, and game and nongame birds that is of no further value or use to the state and shall turn over the proceeds from the sale to the state treasurer to be credited

to the fish and game account in the state special revenue fund.

(6) The department may not issue permits to carry firearms within this state to anyone except regularly appointed officers or wardens.

(7) Except as provided in subsection ~~(11)~~ (12), the department is authorized to make, promulgate, and enforce reasonable rules and regulations not inconsistent with the provisions of Title 87, chapter 2, that in its judgment will accomplish the purpose of chapter 2.

(8) The department is authorized to promulgate rules relative to tagging, possession, or transportation of bear within or outside of the state.

(9) (a) The department shall implement programs that:

(i) manage wildlife, fish, game, and nongame animals in a manner that prevents the need for listing under 87-5-107 or under the federal Endangered Species Act, 16 U.S.C. 1531, et seq.;

(ii) manage listed species, sensitive species, or a species that is a potential candidate for listing under 87-5-107 or under the federal Endangered Species Act, 16 U.S.C. 1531, et seq., in a manner that assists in the maintenance or recovery of those species;

(iii) manage elk, deer, and antelope populations based on habitat estimates determined as provided in 87-1-322 and maintain elk, deer, and antelope population numbers at or below population estimates as provided in 87-1-323. In implementing an elk management plan, the department shall, as necessary to achieve harvest and population objectives, request that land management agencies open public lands and public roads to public access during the big game hunting season.

(iv) in accordance with the forest management plan required by 87-1-622, address fire mitigation, pine beetle infestation, and wildlife habitat enhancement giving priority to forested lands in excess of 50 contiguous acres in any state park, fishing access site, or wildlife management area under the department's jurisdiction.

(b) In maintaining or recovering a listed species, a sensitive species, or a species that is a potential candidate for listing, the department shall seek, to the fullest extent possible, to balance maintenance or recovery of those species with the social and economic impacts of species maintenance or recovery.

(c) Any management plan developed by the department pursuant to this subsection (9) is subject to the requirements of Title 75, chapter 1, part 1.

(d) This subsection (9) does not affect the ownership or possession, as authorized under law, of a privately held listed species, a sensitive species, or a species that is a potential candidate for listing.

(10) The department shall publish an annual game count, estimating to the department's best ability the numbers of each species of game animal, as defined in 87-2-101, in the hunting districts and administrative regions of the state. In preparing the publication, the department may incorporate field observations, hunter reporting statistics, or any other suitable method of determining game numbers. The publication must include an explanation of the basis used in determining the game count.

(11) The department shall report current sage grouse population numbers, including the number of leks, to the Montana sage grouse oversight team, established in 2-15-243, and the environmental quality council, established in 5-16-101, on an annual basis. The report must include seasonal and historic population data available from the department or any other source.

~~(11)~~(12) The department may not regulate the use or possession of firearms, firearm accessories, or ammunition, including the chemical elements of ammunition used for hunting. This does not prevent:

(a) the restriction of certain hunting seasons to the use of specified hunting arms, such as the establishment of special archery seasons;

(b) for human safety, the restriction of certain areas to the use of only specified hunting arms, including bows and arrows, traditional handguns, and muzzleloading rifles;

(c) the restriction of the use of shotguns for the hunting of deer and elk pursuant to 87-6-401(1)(f);

(d) the regulation of migratory game bird hunting pursuant to 87-3-403; or

(e) the restriction of the use of rifles for bird hunting pursuant to 87-6-401(1)(g) or (1)(h)."

- END -

I hereby certify that the within bill,
HB 0211, originated in the House.

Speaker of the House

Signed this _____ day
of _____, 2017.

Chief Clerk of the House

President of the Senate

Signed this _____ day
of _____, 2017.

HOUSE BILL NO. 211

INTRODUCED BY B. HAMLETT, P. CONNELL, A. DOANE, M. LANG, A. REDFIELD, R. SHAW

AN ACT REQUIRING THE DEPARTMENT OF FISH, WILDLIFE, AND PARKS TO REPORT SAGE GROUSE
POPULATION DATA ON AN ANNUAL BASIS; AND AMENDING SECTION 87-1-201, MCA.