

Habitat Exchange
FWS Formal Recommendations
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We'll need to flesh out the pros and cons of each recommendation and the potential implications.

1. Adaptive management – should we urge them to have triggers? What are we most concerned about for the exchanges??

I think we should and the SLT will probably agree. E.g. if the Reserve gets too low. If the balance of projects isn't right. If the combination of the Reserve plus conservation certificates is providing at least no net loss. Do we need a 95% confidence interval? Can we make a statistical argument? **Drue will write something.**

2. Net conservation benefit – should the Reserve plus conservation certificates be considered when estimating future benefit?

I don't think that should factor into the estimation of benefit. The **Reserve** is a risk management tool. How much confidence do we have that there will be at least no net loss? If there is more conservation benefit, we have higher confidence. **Drue**

Comment [SEP1]: This is the MRE in my car, not the food in my pantry and fridge.

Comment [LZC2]: Do you count your insurance accounts when you're calculating your net worth? I don't. (Or at least I don't think I would if I ever calculated my net worth)

3. Minimum contract duration – what is the recommendation? Probably 30 years. Need reasoning.

Anticipate literature citations from SLT, back up from Oregon, Nevada. Lee will add language here. If debit is less than 10 years. Contracts must be at least 10 years. If debits are anticipated to last more than 10 years, minimum contract duration is 30 years. [Connelley et al., 2000, pg.979](#)
[Braun, 1998, pg. 144](#)

In Nevada (specific to dynamic offsets): Each limited term credit project under a dynamic offset arrangement must have duration of at least 30 years because the debit project is permanent and rapidly changing habitat function (credit sites) can be detrimental to populations.

Oregon Language on Dynamic Credits – Mitigation Manual v. 1.0, December 2014:

Section 3.3 Calculating and Verifying Credits Needed (p. 35). Because of the threat wildfire and invasive species pose to crediting projects, the State's approach to demonstrating durability will allow dynamic permanent mitigation projects developed under the in-lieu fee program to offset up to 50% 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 in-lieu

Comment [SG3]: the Oregon language is vague, mostly because the manual has to be adopted as part of the state plan (next month) and the HQT is under construction. The current manual does not set a minimum for term (just simply duration must be met to provide net benefit, as measured by the HQT). However, there are rules for dynamic permanent – minimum 30 years, extra reserve contribution, and a cap on the amount of dynamic permanent credits at 50% of the program. They can do this because the program will be state administered and of the in lieu fee variety. While literature is not specifically cited, the reason given for allowing dynamic has to do with fire/invasives. I've included the appropriate excerpts here.

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fee program to respond to emerging threats and target mitigation funds 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. Permittees 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 ratio of term and permanent credits will be evaluated through the adaptive management process and may need to be adapted in the future.

Section 2.2.1 Adjusting quantification method values based on risk and uncertainty ... The primary remaining uncertainties relate to the risk of project failure or loss of habitat function due to fire, extreme weather, invasion by exotic species, or other unforeseen events. Significant uncertainty also exists around the quantification of avoided loss. In order to address the probability that a given site project will be affected by these adverse events in the course of a thirty-year project life, the program administrator will require permittees to purchase an additional 50% reserve pool contribution, beyond the credit amount needed to meet the net conservation benefit standard.* Those credits will help insure the mitigation program against the potential failure of projects. The program administrator and State Technical team will revisit the estimated probability of project failure as part of regular adaptive management reviews and adjust the reserve pool contribution requirement accordingly.

**Footnote:* The reserve pool contribution is a rough estimate of the likelihood of project failure due to unforeseen events. Following development of the habitat quantification tool in 2015, the amount of the reserve pool contribution will likely be revised through the program's adaptive management process to more accurately reflect a conservative estimate of the risk of fire and other unforeseen events that are not adequately addressed within the quantification tool.

Recommendation:

1. Minimum duration of credit projects used to offset debits that last 10 years or less should be 10 years.
2. Debits that persist longer than 30 years need to be offset by credit projects with a minimum duration of 30 years and dynamic credit projects should be in 30 year increments
3. Minimum duration requirements for credit projects may be relaxed when applied to restoration projects since those credits represent an immediate increase in functional habitat availability.

Language from the Framework:

Short term impacts are often mitigated through permanent compensation actions, either at the same or a reduced amount of permanent impacts (e.g. a short term impact may

Comment [LZC4]: I've struggled with this more than I thought I would. We want to ensure that credit projects provide benefits that grouse utilize, and avoid volatile landscapes with rapidly changing conditions that birds cannot adapt to.

From the little literature I've looked at, it sounds like it can take at least 20 years for grouse populations to re-establish following reclamation of a site, but I haven't found information on the time period it might take for grouse to recolonize other areas (assuming they are displaced). I have not found a justification that sits well with me for why we would require a 10-year credit project for an 8-year debit, then require a 30-year credit project for a 12-year debit. We may be able to get creative with using the reserve account or requiring certain types of credit projects (enhancement instead of preservation, or vice versa), but I need to think more on that – maybe lightning will strike over the weekend.

Comment [SG5]: I think 10 year is a good minimum for term, anything more than that can be that duration (so 12 years would be 12 year term) but when it comes to dynamic, I'm inclined for something larger than 10 years. I'm going with 30 in these edits with 30 year increments.

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Comment [SG6]: If CHE sticks with 10 yr minimums for dynamic then we can tackle our regulatory certainty part by parsing out which aspects of the program we "sign off" on (e.g. we wouldn't accept 10 yr permanent dynamic credits but would provide regulatory certainty to longer terms, etc)

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Comment [SG7]: New idea – thoughts?

What this means in practice is a 35 year debit would need either a 35 year term credit or two 30 year dynamic credits. Dynamic permanent would only be a series of 30 year credits. If this is too harsh we could just say permanent dynamic projects have to be in 30 year increments only (but a 40 year could be 30 yr plus a 10 year project)

Comment [LZC8]: One benefit of requiring 30-year dynamic offset increments for long-term debits is that it could create more demand (and hopefully more supply) for longer-term (>30-year duration) credit projects since a credit buyer could offset a 40-year debit with two

Comment [LZC9]: And enhancement?

Comment [LZC10]: Throwing out ideas here

Comment [SG11]: If we go with 30 year minimum, then we may not need this #3.

Also, we need to know more about species needs in certain areas - we wouldn't want to disincentivize preservation if that is top

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require 1 permanent credit as offset where the same impact that is permanent may require 5 credits to fully compensate). This is preferable to limited-term credits given the economies of scale gained from the longer term management and protections of permanent mitigation sites. Potential scenarios where limited-term credits may effectively be used as an offset include:

1. applying higher ratios for limited-term credits;
2. limiting use of limited-term credits within a service area or program to a small percentage of total credits available;
3. use of limited-term credits on restored habitats instead of preserved areas to reduce risk of net loss to existing habitat;
4. setting the duration of the offset to include the restoration period of the impacted site plus additional time to recover lost productivity; and
5. using only a portion of limited-term credits in a given area and permanently retiring the rest to address risk and uncertainty.

In any situation, the rationale for development of temporary compensation should be biologically justified.

4. CCAAs. We need to make the formal recommendation – what is above and beyond a CCAA should be counted.

Shauna will add language per national policy discussions. The SLT will need to identify what that measurement baseline is.

Recommendation:

1. The Service shall provide, where appropriate, regulatory certainty through the mitigation program to obviate the need for landowners to obtain or keep a CCAA on the same lands.

2. When regulatory certainty through a mitigation program is not available and where CCAAs and mitigation agreements may cover the same lands, the following measures will apply to ensure both CCAA and mitigation program standards are retained (i.e. the CCAA standard and mitigation additionality standard):

1. Baselines are measured using the same metric and at the same time (within 2 years) – OR - baseline measures are reconciled in a transparent, scientific way (approved by FWS?).
 - i. If land has been under a CCAA for > 5(?) years or is within 2 years of its termination date, this provision need not apply.
 - ii. If the CCAA is surrendered and the original CCAA baseline metrics meet this provision, the original CCAA baseline may be used as the mitigation baseline.
2. At least 15(?)% additional uplift from measureable activities is available for mitigation – OR – for preservation situations, the financial and real estate provisions under the mitigation agreement provide protection for at least the duration of the CCAA (longer?) and such protections demonstrate avoided loss

Comment [LZC12]: What it sounds like OR is doing with the 50% cap on dynamic permanent credits

Comment [LZC13]: See recommendation 3

Comment [LZC14]: I don't know how long that is, but it sounds like it could be decades in some cases.

Comment [SEP15]: Certainty for what types of activities? If the CCAA and mitigation program provide coverage for different activities, then they might both have value for the landowner.

Comment [SG16]: Good question. Theoretically coverage could overlap, especially as mitigation should cover whatever is under land protection instrument and thus any conservation activities. However, I supposed it's possible to have them separate. We'd need to add some language for those circumstances in part 2...

Comment [SEP17]: Not sure if I understand this correctly, so please disregard if this is off the mark. What I am assuming is that the baseline would be measured by the landowner and/or a participating agency for the CCAA, and the CHE for the Exchange... If that's the case, then something to consider is that depending on their comfort level, landowners can work with different participating agencies for their CCAA baseline measurements, i.e., it is highly unlikely the same metrics will be used for all properties enrolled in an umbrella/programmatic/individual CCAA, and therefore unlikely those metrics will match with those of the CHE.

Comment [SG18]: For CO that may be true. I'm thinking of a broader recommendation (trying to encourage alignment) but recognize that this will not always be the case and we need a way to reconcile

Comment [SEP19]: CO has been using pretty uniform in metrics so far (GUSG programmatic CCAA), though that may change with GRSG CCAAs. WY is where landowners are working with multiple participating agencies, partly because it's an umbrella, not programmatic, agreement. OR is probably pretty standardized with the SWCDs?

Comment [SG20]: Wow – didn't realize WY may not have standard baseline assessments in its CCAA. Oregon's are standardized.

Comment [SEP21]: This might be more realistic...and also more difficult.

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3. A process is identified for communication and reporting of measures for each program

Language from the Framework:

Landowners enrolled in CCAA/CCAs can provide compensatory mitigation if the actions related to mitigation are additional to the minimum conservation measures required by the CCA/CCAA. In order to track conservation actions and ensure additionality, conservation measures and mitigation-related conservation actions should be independently accounted for and reported to each respective program.

Opportunities and Challenges:

Candidate agreements (CCAA/CCA) and mitigation agreements both provide incentives for land owners/managers to conserve sage-grouse.

- Leaving it open to choose one or both agreements, in any order, encourages early enrollment (i.e. landowners are less likely to delay entry into an agreement for fear a better option opens up later)
- Mitigation agreements are typically perpetual in length though several state sage-grouse programs are proposing 10 to 30 year minimum agreements. Sage-grouse CCAAs thus far are 30 year agreements. Allowing both agreement types on a property can extend the conservation actions of the other past the agreement term
- The ability to fund conservation measures on individual properties through mitigation dollars could further secure positive conservation actions

Status of sage-grouse CCAAs:

- Completed sage-grouse CCAAs (ID, OR, WY) cover only ranching lands; several additional ranch-related agreements are being considered (MT, NV, UT)
- Several CCAAs (WY, CO) being drafted will include various degrees of anthropogenic (energy-related) development
- One CCA (ID) covers maintenance/operations on a federal energy facility while another (OR) covers grazing allotments on BLM lands and works in conjunction with CCAAs

Challenges with combining the two agreements on the same property revolve around accounting of conservation measures such that standards for both programs are intact.

- Ranching CCAAs are most likely to meet the CCAA standard and still provide opportunity for additional uplift that may be used for mitigation. For those lands maintaining high quality habitat, proving additionality for mitigation through avoided loss will be challenging
- Non-ranching CCAAs, whose conservation measures have to overcome the negative impacts from energy development on a site to meet the CCAA standard, may not be able to provide enough conservation to meet additionality for mitigation. Also, except for very large land holdings, a site with anthropogenic disturbance is unlikely to meet siting needs for effective mitigation.

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- If baseline measures for CCAAs use a different metric from mitigation, or are taken years apart, the ability to separate out conservation actions will be compromised

Robust mitigation programs may include an agreement with the Service that provides a mechanism for regulatory predictability (i.e. pre-listing mitigation) for participants, potentially removing the impetus for a CCAA. In these cases, and for clearer accounting, landowners should be encouraged to have a mitigation agreement only. However, pre-listing mitigation agreements are a relatively undeveloped tool and some mitigation programs may not have this level of approval from the Service; therefore, the ability for landowners to combine the assurances they receive with a CCAA with a mitigation agreement may be important to the success of both programs.

5. Providing predictability to credit providers through the CHE. R1 wants to be able to provide a level of predictability for participating credit providers through the Exchange agreement. **Alternative is that credit providers need to seek regulatory predictability from traditional means. Shauna will add language.**

Recommendation:

As a signatory to the CHE Exchange Agreement, provide language that recognizes the following:

- Conservation benefit of the CHE as a voluntary mitigation program
- Methodology in determining the amount of compensatory mitigation required to offset unavoidable impacts (see Barrick language below)
- Value of verified and released credits for future consultation in a post-listing scenario (see Barrick language below)
- Desire for credit providers to have seamless take coverage of their on-going conservation actions, should the species be listed.
 - Similar to SGI and CCAAs, the Service would develop an intra-Service conference opinion on signature of the Exchange Agreement. The opinion would programmatically cover participant contracts (that qualify or meet the standards outlined in the Agreement). The opinion may be rolled over to a biological opinion should the species be listed.
 - Credit providers with existing HCPs or Conservation Banking Agreements will not need to be covered under the conference opinion. Additionally, preference is for those with CCAAs to surrender their agreements in lieu of the mitigation agreement.
 - Credit providers in SGI agreements will need coverage for the non-SGI portion of their land or actions under the mitigation agreement (due to additionality requirements, it is unlikely the same action under SGI would qualify as mitigation).

Comment [SG22]: This caveat allows us to not have to recognize, for example, permanent dynamic projects that are 10 years...

Generally, providing FWS-level regulatory certainty through a mitigation program serves multiple purposes:

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1. provides a pilot program/proof of concept for developing Service pre-listing and mitigation policies.
2. provides incentive for early conservation actions from both industry and land owners.
3. provides incentive for mitigation, and continuation of the mitigation program, regardless of listing status.
4. obviates need for landowners to obtain or keep a CCAA on lands used for mitigation.

Language in the Framework:

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A program that utilizes prelisting mitigation credits could provide a major incentive to get conservation on the ground now and may also be a market driver for mitigation programs. In this guidance, prelisting mitigation refers to explicit recognition from the Service that actions or credits developed or acquired both in advance of impacts, and in advance of a listing decision, will be considered as a conservation action in a status review. These credits may be used as compensatory mitigation through ESA consultations should the species be listed, in which case the status review will evaluate the net effect of the actions or credits produced. Additionally, suppliers of compensatory mitigation may be able to attain regulatory predictability that, should the species become federally listed, the management to which they agreed will not change and/or incidental take coverage will be provided for these management actions.

Language in the Barrick Agreement:

If the sage-grouse is listed or proposed for listing as threatened or endangered under the ESA, FWS agrees that Barrick may incorporate Credits that have been or will be Released to Barrick pursuant to an approved Project Plan under this BEA prior to the conclusion of Section 7 consultation or conference into a proposed action to approve a future proposed Plan of Operations or amendment in the Service Area. ...to assess the impacts to the sage-grouse of such proposed action based on the calculation of Credits and Debits generated by the TNC Methodology...or other methodology mutually agreed upon... if FWS determines that these Credits are sufficient to achieve a Net Conservation Gain to offset the adverse effects of habitat loss or modification (i.e., Debits) of such Plan of Operations or amendment upon the sage-grouse, no additional requirements related to sources of adverse effects that are addressed in the TNC Methodology will be included in the reasonable and prudent measures to the extent that use of the TNC Methodology is consistent with applicable law and regulations.

If the lands within the Service Area are not in federal ownership...FWS agrees to accept those Credits as satisfaction of Barrick's obligation to mitigate impacts to the sage-grouse to the maximum extent practicable...

6. Avoidance and minimization requirements – describe what will be required to provide confidence on private lands - the BLM RMP amendment equivalent **conceptually**. **What about valid existing rights. Apple will add language.** *see language pulled from the OR RMP on avoidance and minimization – it is not very specific. The appendix language is the same in all RMPs.

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The CHE is designed as a tool for compensatory mitigation of unavoidable, residual impacts from development on Federal, State, and private lands. The Exchange has a goal of providing a net conservation benefit to the species. It does not recommend, nor have authority over, any avoidance or minimization activities that may occur before a participant seeks credits through the program.

BLM and Forest Service lands will be subject to the conservation measures and stipulations identified in the Northwest Colorado Greater Sage-Grouse Final Resource Management Plan and Environmental Impact Statement (NWCO GRSG FEIS). These measures address the entire mitigation hierarchy as outlined by the Council on Environmental Quality—avoiding, minimizing, rectifying, reducing, and compensating (2012; 40 CFR 1508.20). They are regulatory in nature and require a net conservation gain for the species.

The Colorado Oil and Gas Conservation Commission (COGCC) 1200-series Protection of Wildlife Resources rules address all lands in Colorado. Federal minerals are subject to these rules in addition to those described in the NWCO GRSG FEIS. Private and State lands are subject only to the 1200-series rules. These measures, combined with the May 2015 Executive Order issued by Governor Hickenlooper, still leave the state without an adequate regulatory mechanism for GRSG conservation because implementation of most of the mitigation measures is voluntary.

Adequate avoidance and minimization requirements on State and private lands should track closely with those on Federal lands. The BLM and Forest Service (NWCO GRSG FEIS, Appendix G) describe the overarching principles of their avoidance and minimization strategy as:

- Avoidance
 - Include avoidance areas (e.g., right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g., Resource Management Plans, Forest Plans, and State Plans); and
 - Include any potential, additional avoidance actions (e.g., additional avoidance best management practices).
- Minimization
 - Include minimization actions (e.g., required design features and best management practices) already included in laws, regulations, policies, land use plans, and/or land-use authorizations; and
 - Include any potential, additional minimization actions (e.g., additional minimization best management practices).

The following types of measures address these principles:

- No surface occupancy (NSO) or restricted surface occupancy (RSO) in priority GRSG habitat.

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- No surface occupancy (NSO) or restricted surface occupancy (RSO) within a certain distance from active leks in general GRSG habitat (2 miles in the NWCO GRSG FEIS).
- Lek buffers for activities that may cause impacts (e.g., linear features, infrastructure from development, low and tall structures, surface disturbance, noise and other disruptive activities) consistent with the distances identified in the United States Geological Survey's report, *Conservation buffer distance estimates for Greater Sage-grouse—A review* (Manier et al. 2014).
- Limit surface disturbance and disruption by the use of a disturbance cap and density limit (NWCO GRSG FEIS: 3% disturbance cap, and ≤ 1 disruptive facility per 640 acres).
- Timing restrictions/limitations for activities associated with development within a certain distance from leks (4 miles in the NWCO GRSG FEIS) during lekking, nesting, and early brood-rearing, approximately March 1 to July 15.

Additional considerations:

- Differences exist between requirements for valid existing rights and new leases. The NWCO GRSG FEIS measures and stipulations apply only to new leases. How might these differences be recognized on state and private lands?
- Waivers, exceptions, modifications—if allowed/granted, there is no public review process for private or State lands.
- The Exchange will not sell credits to developers within 0.6 miles of an active lek.

Manier, D.J., Bowen, Z.H., Brooks, M.L., Casazza, M.L., Coates, P.S., Deibert, P.A., Hanser, S.E., and Johnson, D.H., 2014, Conservation buffer distance estimates for Greater Sage-Grouse—A review: U.S. Geological Survey Open-File Report 2014–1239, 14 p., <http://dx.doi.org/10.3133/ofr20141239>.

7. Qualitative input from the state or state appointed body to compliment the HQT. Flesh out reason and description. **Drue will cover.**

Comment [SEP23]: We've got dancers (HQT) and choreographers (CHE), now we need the lighting (qualitative input).

Appendix C of the CHE Manual outlines the Exchange's guiding principles. Adding qualitative input aligns with the following guiding principles:

- Science-based, employing the best available science, including expert opinion, to determine the most appropriate conservation actions and quantification methods;
- Focused on meeting priority habitat and species conservation goals of the State [consider the example in Service Area 2 with the Meeker/White River and Parachute Piceance Roan populations—qualitative input on conservation goals in this area is vital];
- Complimentary to other conservation approaches [forthcoming WAFWA Management Zone Regional Mitigation Strategy];

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- Meets the standards and approval of key regulating entities, if and when regulatory approval is necessary (i.e., US Fish and Wildlife Service for species listed under the Endangered Species Act);
- Tailored to local community conditions [qualitative input could provide better conservation response to local threats to the species and habitat];
- Flexible and adaptable to specific local community and environmental conditions.

8. State selection of the Science Team, Oversight Committee, Administrator? Why this is important. **Drue will cover.**

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***OR RMP (Excerpts on Avoidance/Minimization):**

Mitigation Appendix

In undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation action

Avoidance

- Include avoidance areas (e.g. right-of-way avoidance/exclusion areas, no surface occupancy areas) already included in laws, regulations, policies, and/or land use plans (e.g. Resource Management Plans or State Plans); and,
- Include any potential, additional avoidance actions (e.g. additional avoidance best management practices) with regard to greater sage-grouse conservation.

If the project could have a direct or indirect impact to sage-grouse habitat or population, evaluate whether the proposal can be relocated to not have the impact and still achieve the intent of the proposal.

(Ch. 2, pg. 2-20) Action SSS 13:

All authorized actions in Greater Sage-Grouse habitat are subject to RDFs and BMPs in Appendix C and these disturbance screening criteria:

Where avoidance is not possible, disturbance would be allowed under the following conditions:

- Development in each Oregon PAC and PHMA does not exceed the disturbance cap at either the Oregon PAC scale or the project scale (Appendix I).
- New anthropogenic disturbance does not occur within 1.0 mile of an occupied or pending lek in PHMA or GHMA.
- Development meets noise restrictions in PHMA and GHMA.
- Analyze through implementation level NEPA seasonal protection and timing limitations of occupied and pending leks in PHMA and GHMA.
- All disturbance is subject to net conservation gain mitigation to Greater Sage-grouse and its habitat (see Appendix E, Mitigation) in PHMA and GHMA.
- All new permitted activities will follow Required Design Features (Appendix C) in PHMA and GHMA.
- To the extent feasible, development should only occur in non-habitat areas. If this is not possible, then development must occur in the least suitable habitat for Greater Sage-grouse.
- Apply buffers and seasonal restrictions in Table 2-8 {see page 2-51} to all occupied or pending leks in PHMA and GHMA to avoid direct disturbance to Greater Sage-grouse.
- Screening criteria and conditions would not be applicable to vegetation treatments being conducted to enhance GRSG habitat, except noise and seasonal restrictions would apply.