Analyzing the feasibility of establishing a conservation bank to benefit Greater Sage-grouse in Montana

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Background
Decline of the Greater Sage-Grouse

- Greater Sage-grouse (Centrocercus urophasianus) are listed as a Threatened Species under the Endangered Species Act due to habitat loss, fragmentation, and overgrazing.
- Montana has experienced a 72% reduction in Sage-grouse habitat from 1980 to 2010.
- The species’ needs coincide with oil and gas development needs.

Montana Conservation Strategy
- Montana Executive Order 12-2015 mandates a 72% reduction in oil and gas development on critical habitat.
- Montana implemented a "core area" strategy which designates special requirements for conservation.

Should the American Prairie Reserve Establish a Conservation Bank?

Objectives
1. Increase the marketability of conservation banks to attract greater interest.

Methods
1. Conduct literature review
2. Develop a tool to consistently quantify habitat for Greater Sage-grouse
3. Estimate market for credits
4. Conduct financial assessment

Case Study: White Rock
- White Rock, spanning 5,830 acres, is one of America’s Prairie Reserve’s properties in Phillips County, MT.
- It currently has both high quality grouse habitat (green) as well as parts that could be improved for population. (Linear, 1980 - 2016)
- There are 4 breeding areas (lek) on-site, and 13 within 4 miles that habitat quantification model estimates 36% of 6,800 acres as 6.69% or 4,659 functional acres (available credits)

1. Conservation Banking

2. Habitat Quantification

3. Market Analysis

4. Financial Assessment

Summary
- Efficacy of Banks - Conservation banks can theoretically provide additional benefits to target species due to the permanent protection and management of large expanses of habitat, yet must be carefully evaluated and managed.
- Habitat Quantification - Developed a habitat quantification method that translates habitat quality into tradable credits.
- Market Assessment - Projected oil and gas development will provide sufficient demand for credits in the state.
- Financial Analysis - Financially profitable in 2 years
- Market Share: 31% of State Credit Supply

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Direct Costs: $1,017,292
- Pre-Bank Restoration 3%
- Endowment Establishment 12%
- Conservation Establishment 3%
- Consulting & Legal Drafting 20%

Revenue: $1,275,522
- Profit: $258,230
- Benefit/Cost Ratio: 1.25
- All Credits Sold in 2 Years

We recommend that APR participate in a conservation bank IF:
- Montana regulatory framework for mitigation meets identified efficacy requirements
- Quantification method accurately captures habitat values
- There is no alternative, more beneficial use of client funds
- Ensures additional benefits to Greater Sage-grouse

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References:
- Schroeder et al. (2013). Identifying the Optimal Elements of a Conservation Bank - Geographic Survey
- Montana Sage Grouse Supply Chain and Endowment Project on Sage Grouse.