



What's good for grouse is good for ranching

A Blueprint for Creating Long-term, Market-based
Incentives for Ranchers to Conserve Sage-Grouse

July 2011

USDA Natural Resources Conservation Service

This plan was developed by Natural Resources Conservation Service
in collaboration with Montana Stockgrowers Association and the
Montana Field Office of The Nature Conservancy.



Photo By: Oregon NRCS
Cover Photo: Oregon NRCS

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ACKNOWLEDGEMENTS

- » **Jeremy Maestas (author), NRCS-Oregon**
- » Catherine Bailey (document design), NRCS-Oregon
- » Jay Bodner, Montana Stockgrowers Association
- » Shawn Cleveland, The Nature Conservancy–Montana
- » Joe Fidel, NRCS-Montana
- » Tim Griffiths, NRCS
- » Bee Hall, The Nature Conservancy–Montana
- » Kellee James, USDA
- » Sara Magenheimer, NRCS-Oregon
- » Brian Martin, The Nature Conservancy–Montana
- » Carl Mattson, Montana Stockgrowers Association
- » Dave Naugle, NRCS & University of Montana
- » Errol Rice, Montana Stockgrowers Association
- » Steve Roth, Montana Stockgrowers Association
- » Gerald Schaefer, NRCS-Montana
- » Joyce Swartzendruber, NRCS-Montana



A Blueprint for Creating Long-term, Market-based Incentives for Ranchers to Conserve Sage-Grouse by Linking NRCS' Sage-Grouse Initiative with Grassbanks

Contents

Vision/Goals/Objectives	1
Purpose and Need	2
Linking the SGI with Grassbanking.	4
The SGI-Grassbank Conservation Model	10
SGI-Grassbank Financial Plan	16

Vision

A sustainable conservation model that maintains large and intact landscapes in order to support viable livestock ranching and abundant sage-grouse populations. A future where ranching is recognized as fully supportive and beneficial to healthy sage-grouse habitat and populations and where public and private investments reward ranchers for providing these ecosystem services on private lands.

Goals

- » Secure and expand the conservation benefits being generated by ranchers participating in the NRCS Sage-Grouse Initiative (SGI) by establishing market-based incentives for ranchers to continue providing benefits into the future,
- » Develop and demonstrate a market-based approach that produces tangible benefits for grouse and ranchers in a way that is economically viable, environmentally responsible, and socially beneficial.

Objectives

- » Link the NRCS Sage-Grouse Initiative with the concept of grassbanking to show how grassbank forage can be used to leverage long-term sage-grouse conservation,
- » Define the specific conservation benefits that can be exchanged for discounted forage on SGI-Grassbanks,
- » Design a model that is financially sustainable and make the business case for investing in SGI-Grassbanks.



Photo: Montana Stockgrowers Association

Purpose and Need Statement

Working ranches play a critical role in maintaining large and intact landscapes needed to support world-class wildlife populations. With fully half of the West in private ownership, successful conservation strategies cannot rely solely on public land management to sustain landscape-scale species. Yet, western livestock ranchers who own most of these private lands face a multitude of challenges including shrinking profit margins, increased environmental regulation, and an aging ranching population. For instance, the average age of ranchers is 57, with 30% age 65 and older and only 5% under age 35 according to the 2007 U.S. Census of Agriculture.

Under these pressures, private ranchlands are increasingly transitioning to new, non-traditional

owners buying land at prices that far exceed agricultural values. In some cases, ranches are being subdivided and converted to other land uses, such as residential development, that fragment the landscape and are incompatible with healthy, native wildlife populations. The conservation community shares these concerns because habitat fragmentation is one the primary threats to many at-risk species, including sage-grouse. Sage-grouse are an icon of western sagebrush rangelands and were recently placed on a list of species awaiting protection under the federal Endangered Species Act. This potential regulatory protection would further challenge the viability of western ranching.

In response to growing concern over these issues, the USDA Natural Resources Conservation Service (NRCS) launched the Sage-Grouse Initiative (SGI) in the spring of 2010 seeking



to achieve sage-grouse conservation through sustainable ranching and reduce the need for regulatory protection. Through SGI, NRCS targets federal Farm Bill incentive programs to ensure the right conservation practices are implemented in the right locations to maximize benefits for sage-grouse. Capitalizing on the strong link between sustainable ranching and healthy sage-grouse populations, SGI has proven popular among ranchers and conservation partners. To date, NRCS has made available more than \$100 million in cost-share assistance to ranchers; funding that is projected to remove threats to sage-grouse and enhance ranch sustainability on over 1.5 million acres across the West.

While conservationists appreciate the scale and importance of these investments, questions remain about how to build on these near-term conservation gains by ensuring they persist



Photo: Oregon NRCS

long after Farm Bill contracts expire. With record federal deficits and repeated calls to trim budgets, relying on federal incentives to produce SGI outcomes indefinitely is unrealistic at the scale needed to conserve grouse. Innovative, market-based approaches to conservation must be linked to SGI to ensure incentives continue for ranchers to sustain productive habitat for grouse.



Photo: Oregon NRCS



Linking the Sage-Grouse Initiative with Grassbanking

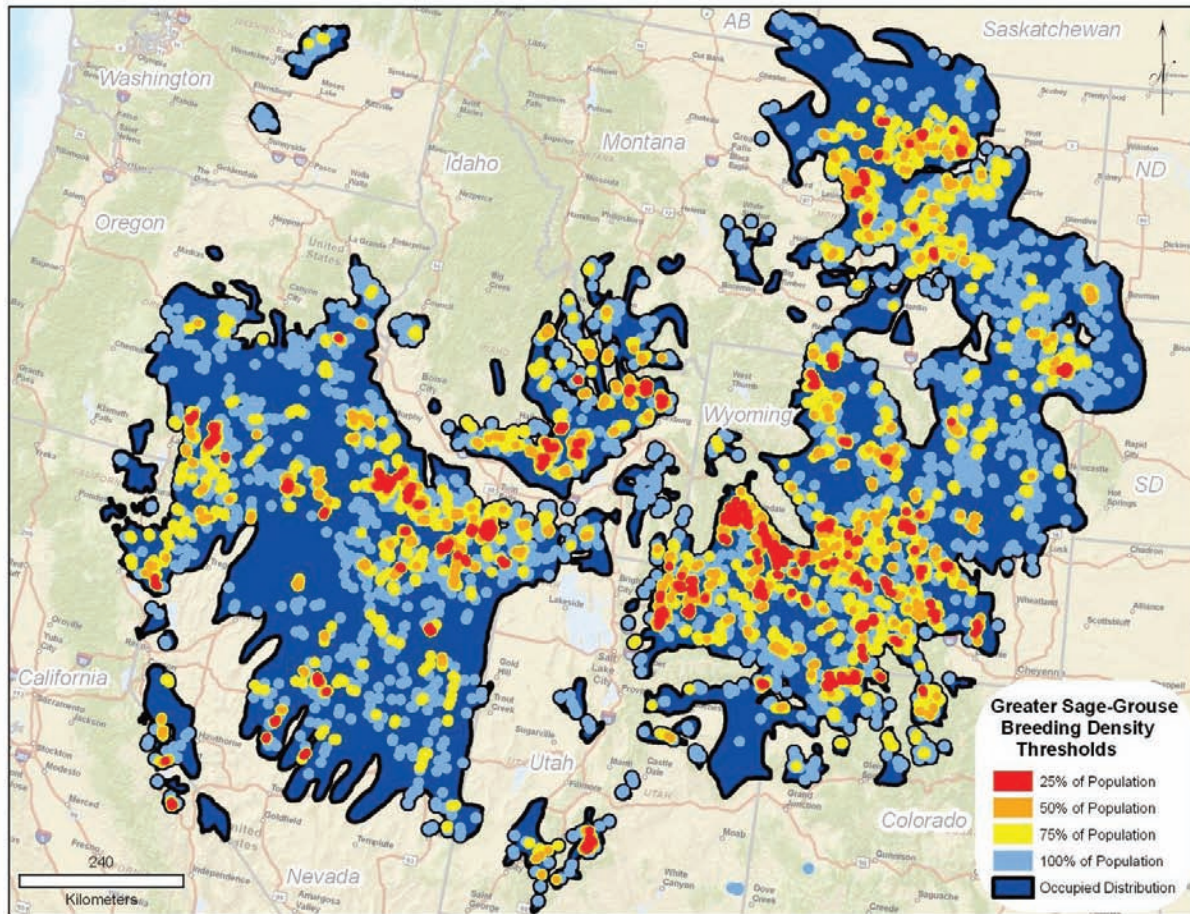
Introduction to SGI: Wildlife Conservation through Sustainable Ranching

In March 2010, the U.S. Fish and Wildlife Service issued a finding that sage-grouse were ‘warranted but precluded’ for listing under the Endangered Species Act. This determination put sage-grouse on a list of candidate species waiting their turn for future federal regulatory protection. Sage-grouse occupy more than 186 million acres of rangeland across 11 western states (CA, CO, ID, MT, NV, ND, OR, SD, UT, WA, and WY) and two Canadian provinces. As a result regulatory protections would have unprecedented ramifications for western communities and economies. At the same time, placing sage-grouse on the candidate species list also provides a rare window of opportunity to proactively improve conditions for sage-grouse and potentially avoid the need for federal regulation.

In response, NRCS launched an aggressive campaign called the Sage-Grouse Initiative (SGI) designed to enable ranchers to lead the way on improving the fate of sage-grouse. SGI is a strategic and science-based approach to landscape-scale conservation that seeks to deliver enough of the right conservation practices in the right places to elicit positive responses in sage-grouse populations. SGI marshals existing federal Farm Bill incentive programs to assist private landowners in proactively removing threats to sage-grouse while improving the sustainability of working ranches. NRCS is focusing popular programs, including the Environmental Quality Incentives Program (EQIP), Wildlife Habitat Incentive Program (WHIP), Wetlands Reserve Program (WRP), Grassland Reserve Program (GRP), and Farm and Ranch Land Protection Program (FRPP) to assist producers across the entire range of sage-grouse in the West. To date, more than \$100 million has been committed through these programs for on-the-ground conservation.



Photo: Oregon NRCS



Map By: Bureau of Land Management

Core Area Map: 'Core areas' represent landscapes with the highest sage-grouse population densities (indicated here by red, orange and yellow colors).

One of the overarching principle of SGI is to strategically focus conservation actions to maximize biological benefits to sage-grouse populations. NRCS is targeting conservation programs in sage-grouse 'core areas' to help maintain large and intact working landscapes rather than attempting to maintain small declining populations at the cost of further loss in the best remaining areas. Sage-grouse core areas represent locations of high abundance population centers containing a majority of birds. Although sage-grouse occupy extremely large landscapes, their distribution is aggregated in comparably smaller identifiable core areas, with 75% of birds occurring on about a quarter of the entire range.

SGI capitalizes on the strong link between conditions required to support sustainable ranching operations and habitat characteristics that support healthy sage-grouse populations. Several large-scale threats facing sage-grouse also undermine the sustainability and productivity of grazing lands throughout the West. Examples of threats that negatively affect both include exotic species invasions, unsustainable grazing systems, conversion of rangeland to cropland, residential development, and conifer tree encroachment. Fragmentation of sagebrush rangelands due to factors such as these has been identified by western state wildlife agencies and the U.S. Fish and Wildlife Service as the primary cause of sage-grouse population declines.

LINKING SGI WITH GRASSBANKING



SGI aims to remove or reduce these fragmentation threats to enhance the viability of sage-grouse populations and ranching. Acknowledging that threats and conservation opportunities vary across the West, NRCS has worked in close consultation with stakeholders, including local, state, and federal agencies, tribes, and non-government organizations to develop state-specific implementation strategies to guide SGI delivery. These strategies ensure SGI program funds are focused on addressing the right threats, in the right places in each state.

To further strengthen SGI, NRCS proactively sought the advice of the U.S. Fish and Wildlife Service on 40 conservation practices to ensure that they would benefit sage-grouse. Using the conferencing procedures afforded under Section 7 of the Endangered Species Act, NRCS and U.S. Fish and Wildlife Service completed a historic Conference Report at a regional level that identifies conservation measures associated with each practice to achieve the desired benefits for grouse. This Conference Report provides certainty to cooperators who voluntarily implement SGI practices that they will be in compliance with the Endangered Species Act should sage-grouse be listed as a threatened or endangered species.



Photo: Montana Stockgrowers Association

At the ranch level, NRCS and partners work one-on-one with landowners who voluntarily choose to participate in the SGI to develop conservation plans. Extensive inventories are conducted on participant lands to identify threats and limiting factors to sage-grouse and rangeland health. Based on inventory results, treatment alternatives are developed and discussed with landowners.

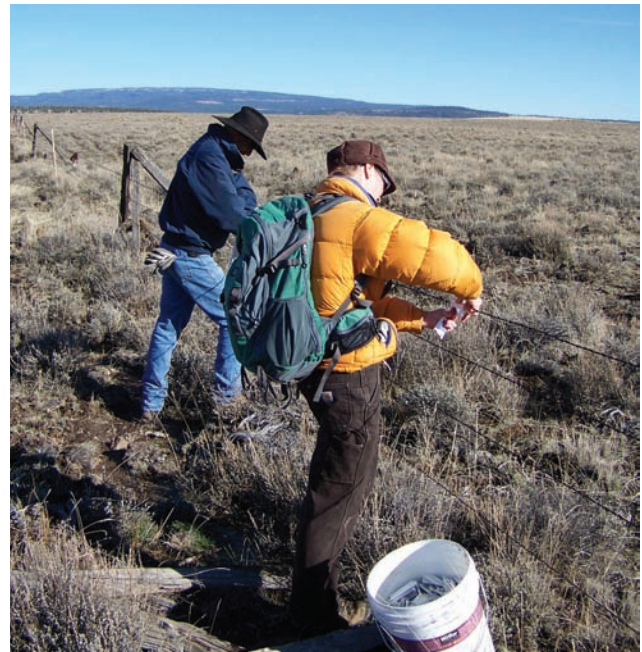


Photo: Oregon NRCS

Custom conservation plans are then developed identifying conservation practices needed to benefit sage-grouse and improve or maintain ranch sustainability. SGI plans are designed under the umbrella of the NRCS' Upland Wildlife Habitat Management conservation practice standard to eliminate the possibility of using practices that solely benefit livestock production but not sage-grouse. This standard requires that a habitat evaluation be conducted and that limiting factors be reduced in order of their significance to sage-grouse populations.



Typical practices in SGI plans include prescribed grazing systems that balance forage supply with livestock demand (based upon 25% harvest efficiency) and increase nesting cover for grouse, marking or removing fences near breeding sites to reduce accidental grouse collisions and mortalities, removal of encroaching conifer trees from sagebrush rangelands to restore habitat suitability, and range seeding and weed control to improve habitat quality. A 'threats checklist' is completed for each ranch to document that necessary conservation measures have been adopted to address all identified threats.

Farm Bill programs provide financial incentives for participants to accelerate implementation of conservation practices. Most SGI participants receive financial assistance through cost-share agreements that reimburse landowners a portion of the cost associated with applying conservation practices, typically 75% of the average cost. Permanent easements and long-term rental agreements are also available. Although participation in Farm Bill programs is voluntary, producers that receive financial assistance enter into binding contracts or easements to ensure that conservation practices are applied according to schedule and in compliance with NRCS standards and specifications. Contracts are generally 3-5 years in length and practice payments are made only after inspection and certification by NRCS. Participants are not obligated to continue implementing practices after contracts expire, which could be a challenge for securing long-term environmental benefits of practices that require regular management (e.g., improved grazing systems).

Finally, outcome-based evaluations carried out by reputable, independent scientists are underway to measure the biological response

of sage-grouse populations to SGI conservation practices, to assess effectiveness, and to adaptively improve program delivery. Nine SGI-sponsored evaluations and planning tools are underway in Montana, Utah, Wyoming, Oregon, Nevada, and California to evaluate the effectiveness of improved grazing systems, removal of encroached conifers, halting tillage in native rangeland, and biological benefits of conservation easements. Rather than a focus on acres treated, the SGI monitoring approach is biologically-based and uses sage-grouse habitat and population responses at multiple scales to evaluate program benefits.

Grassbanking: A Tool for Leveraging Conservation and Enhancing Sustainability

Grassbanking is a relatively new and innovative conservation tool designed to maintain and enhance working landscapes. A 'grassbank' is a physical place where forage is made available to ranchers, at a reduced fee, in exchange for tangible conservation benefits being produced on participant home ranches. Market-based incentives for ranchers to apply conservation are generated by offering forage on the grassbank to willing participants at below market value. The main goal of grassbanking is community-based conservation that provides meaningful benefits for the environment and participating ranchers.

Roughly two dozen grassbanks have emerged across the U.S. over the last 15 years. Grassbank lands can be entirely private, public, or a mix of both. Typically, grassbanks are operated by a conservation organization and include a privately-owned base property with associated public land grazing allotments.

LINKING SGI WITH GRASSBANKING



Participation in grassbanks is voluntary and forage is generally made available to ranchers on a competitive basis. Grazing on grassbank lands is leased to willing participants in exchange for application of specific conservation actions on other lands.

Regardless of the land ownership arrangement, the concept of quid pro quo is a common element to all grassbanks. In the grassbank quid pro quo, discounts off the market price of forage are exchanged for specific conservation benefits of equal value. Examples of benefits being traded for forage include native rangeland restoration, at-risk species habitat enhancement, and protection of open space. Producing these benefits often requires periodic rest from grazing, changes in management, or other actions that result in forgone income to ranchers. Providing access to grassbank forage at a discounted fee gives ranchers the flexibility and economic incentive to be able to implement conservation practices on their home ranches

while reducing the financial risk associated with having to destock or secure alternate forage at market price. Grassbanks are designed to achieve conservation while helping keep people on the land.

From a conservation investment standpoint, the ability to leverage is an important aspect of grassbanks that makes them an attractive tool. For example, consider the Matador Ranch in northeast Montana owned and operated by The Nature Conservancy. The 60,000-acre Matador Ranch is using forage on the grassbank to leverage rare species conservation on four times as many acres (over 240,000 acres), thus maintaining large and intact landscapes with fewer resources. In contrast to the traditional model of setting aside ‘preserves’ to protect wildlife, grassbanks represent a new working lands paradigm that leverages investments to achieve conservation at scales that are biologically relevant.



Photo: Montana Stockgrowers Association



Photo: Montana Stockgrowers Association

Linking SGI with Grassbanks to Leverage Long-term Sage-Grouse Conservation Benefits

While conservationists appreciate the sage-grouse benefits being produced through SGI, questions remain about how to secure the benefits of initial federal investments well into the future. SGI contracts with landowners are typically 3-5 years in length, leaving landowners few financial incentives to continue protecting grouse habitat. This is particularly worrisome for conservation practices requiring active management such as prescribed grazing systems that benefit grouse, which may be more prone to being abandoned over time. Perhaps most significantly, without incentives for ranchers to maintain large and intact grazing lands, sage-grouse habitat will continue to be fragmented by conversion to incompatible land uses (e.g., subdivision, cropland) due to market pressures.

With record federal deficits and repeated calls to trim budgets, relying solely on federal incentives to secure SGI outcomes is unrealistic. Market-based approaches to conservation must be linked to SGI to ensure incentives continue for ranchers to maintain or improve habitat for grouse.

Regional environmental markets that reward private land stewards for providing ecosystem services have been elusive. Credit trading paradigms for species conservation are being explored but are proving more complex than first thought and have yet to yield benefits to agricultural producers. Innovative solutions that produce tangible benefits are needed.

Linking SGI with grassbanking is one novel idea that could provide the economic incentives necessary to secure sage-grouse benefits long after Farm Bill contracts expire. Building on the successes of SGI, community-based grassbanks could be established in core areas where ranchers have already been working to grow more grouse. Grassbank forage at below market value could be exchanged for continued adherence to SGI conservation plans that have been planned and certified by NRCS. Once established, these 'SGI-Grassbanks' could use the free market to leverage forage for sage-grouse conservation indefinitely. This model would enable SGI to provide initial federal support to assist producers in making the necessary changes to their ranch and rely on locally-run grassbanks to provide the incentive to maintain these benefits into the future, all while helping to keep private lands and ranchers in ranching.



The SGI-Grassbank Conservation Model

A variety of entities interested in community-based conservation and ranch sustainability could potentially own or lease a ranch to run as an ‘SGI-Grassbank.’ The following business plan has been developed to define the SGI-Grassbank model mechanics and advance adoption of this market-based approach. This plan is designed to provide a general framework for interested parties to use in evaluating opportunities for piloting this new conservation model.



Photo: Montana Stockgrowers Association

The SGI-Grassbank Property

Using the biology of the birds as a guide, a grassbank would be established in a sage-grouse core area where the potential to maximize biological benefits exists and the likelihood of long-term persistence of the birds is high. The grassbank would be located away from areas destined for extensive development activities, such as energy production and subdivision, that would undermine conservation efforts. These are the same landscapes the SGI is currently targeting for conservation actions. Besides being located in the right landscape, a grassbank property would be selected that had its own high intrinsic value for sage-grouse and other species.

Secondly, the grassbank would be located in an area where it would be viewed as socially beneficial by the local community. Recognizing that grassbanks are collaborative partnerships that only work if participants want them to succeed, selection of the grassbank location would consider the needs and desires of the local community. A key goal of the grassbank is to establish long-term, community-based roots in order to foster an enduring culture of conservation and sustainability.

Using these guiding principles, a property of sufficient size and productivity to leverage landscape-scale conservation would be identified and purchased from a willing seller and improved for sage-grouse. As an alternative to fee-title acquisition, a ranch could be leased on a long-term basis (>30 years) from a non-traditional landowner interested in conservation and desiring land stewardship. With an increasing number of non-traditional owners purchasing ranches around the West for their amenities or other values, opportunities may exist to work with owners to utilize these lands



Photo: Montana Stockgrowers Association

for grassbanking. This may be the only viable option for a SGI-Grassbank in high-amenity areas where land values far exceed agricultural values.

Upon securing a grassbank, NRCS would assist the grassbank operators in developing and implementing an SGI conservation plan on the property. Ideally, a permanent easement would be placed on the grassbank land to ensure conservation benefits are secured in perpetuity. Collectively, these actions would make an important contribution to sage-grouse conservation even before operating as a grassbank.

Once functioning, the grassbank would leverage additional conservation benefits on nearby ranches willing to exchange conservation actions for discounted forage. Grassbank participants would have ready access to expertise to help them solve the difficult challenges of balancing conservation with viable livestock production. Ultimately, the SGI-Grassbank would serve

as a local source of incentives and support for conservation and sustainable ranching practices. Recognized threats to sage-grouse and sustainable ranching would be alleviated across both the grassbank property and participating ranches; enhancing the integrity of a large and intact landscape and reducing the need for regulatory species protection.

SGI-Grassbank Discounts: The *Quid Pro Quo* & Expected Conservation Outcomes

Market-based incentives for conservation created by grassbanks are embedded in the financial discounts they offer on forage. Clearly articulated discounts make it easy for ranchers to know what conservation benefits they need to produce in order to receive forage at a reduced fee. Grassbank participants pay the difference between the Full Market Value of forage and the value of discounts they accrue by implementing management actions on their home ranches.

SGI-GRASSBANK MODEL



On the SGI-Grassbank, discounts on forage would be exchanged for management actions that create a ‘Sage-Grouse Friendly Ranch.’ At a minimum to be deemed a Sage-Grouse Friendly Ranch, participants would be required to adopt all of the following conservation measures on their home ranches:

- » **Follow an SGI conservation plan.** Participants agree to implement and maintain an NRCS-certified SGI conservation plan that addresses all of the identified threats to sage-grouse and either meets or exceeds NRCS quality criteria for sustainable grazing on their private lands.
- » **No sod-busting.** Participants agree not to convert native rangelands to cropland or other non-native vegetation on private lands

with potential for conversion (NRCS Land Capability Classes 3, 4, 5, or 6).

- » **No sagebrush eradication.** Participants agree to refrain from active sagebrush control, except where necessary as part of a treatment designed to mimic natural ecological processes or restore the native plant community (consistent with the NRCS Ecological Site Description).

Financial discounts for each of these actions would be earned according to the table below. Additional discounts could be offered for actions that achieve further threats reduction for sage-grouse or other desired outcomes in specific landscapes.

SGI-Grassbank Discount Structure

ACTION	CRITERIA	DISCOUNT
SGI Conservation Plan (Tier 1)	Full implementation and maintenance of a SGI conservation plan that addresses all identified threats to sage-grouse, meets or exceeds NRCS quality criteria for sustainable grazing, and provides annual rest from grazing on 20% of sage-grouse habitat with >5% sagebrush cover.	\$\$\$ per acre of Home Ranch meeting criteria
SGI Conservation Plan (Tier 2)	Full implementation and maintenance of a SGI conservation plan that addresses all identified threats to sage-grouse and meets or exceeds NRCS quality criteria for sustainable grazing.	\$\$ per acre of Home Ranch meeting criteria
SGI Conservation Plan (Tier 3)	Progressive implementation of practices in a SGI conservation plan that addresses all identified threats to sage-grouse and meets or exceeds NRCS quality criteria for sustainable grazing. Full implementation will be reached within 3 years.	\$ per acre of Home Ranch meeting criteria
No sod-busting	No conversion of land in NRCS Land Capability Classes 3, 4, 5, or 6 that is currently in native rangeland cover. Conversion is defined as any action that would substantially reduce the cover of native species. Examples include: plowing to convert to cropland and treatments to establish non-native vegetation.	\$\$ per acre of Home Ranch private land in native rangeland that is potentially convertible
No sagebrush eradication	Refrain from active sagebrush control on ecological sites that naturally support sagebrush. Sagebrush management is acceptable on limited scale where necessary as part of a treatment designed to mimic natural ecological processes or restore the native plant community consistent with the NRCS Ecological Site Description. Consult with grassbank manager prior to conducting sagebrush management.	\$ per acre of Home Ranch private land with sagebrush cover >5%

- » \$\$\$ Displayed to show expected, relative value of discounts. Actual discounts will be determined locally based upon economic assessment of the value of conservation benefits.



A major advantage of the SGI-Grassbank model over other grassbanks is the connection to NRCS and their strategic, science-based initiative. Extensive input by U.S. Fish and Wildlife Service, state wildlife agencies, and other partners ensures the right practices are applied in the right places to maximize benefits for sage-grouse. Regional, SGI-sponsored evaluations are quantifying outcomes of conservation efforts by documenting the effects of SGI practices on sage-grouse populations. Additional ranch-level monitoring on the SGI-Grassbank and participating home ranches would be done to verify management actions are being applied and are effective. Benefits would be tracked by NRCS and included in reporting to the U.S. Fish and Wildlife Service so grassbank owners and ranchers get ‘credit’ for their efforts in listing decisions.



Photo: Montana Stockgrowers Association

Dedicated Farm Bill program assistance provides a built-in funding mechanism to help ranchers fulfill their half of the quid pro quo. Ranchers participating in SGI already receive planning assistance from NRCS to develop conservation plans and cost-share assistance through contracts to make changes necessary to implement improved management practices. NRCS conservation practice standards and specifications within SGI plans serve as the metrics for certifying ranch sustainability and



Photo: Montana Stockgrowers Association

sage-grouse habitat benefits. These practices, such as fences, water development, seeding, and invasive plant control, can be extensive and would typically be cost-prohibitive for most ranchers to implement quickly without assistance. By linking to SGI, a grassbank is able to set a higher bar for discounts that moves beyond just the restoration phase to rewarding ranchers for ecosystem services provided by fully sustainable rangeland management systems.

So far across the West, ranchers implementing SGI plans are already generating important conservation outcomes. Elevated residual grass cover resulting from improved grazing systems is anticipated to increase sage-grouse nest success by 8-10% annually, over 1,000 square miles of sagebrush habitats. Accidental grouse mortality from fence collisions is being dramatically reduced by marking or moving 180 miles of ‘high risk’ fences near sage-grouse breeding sites. Research suggests fence marking can result in a six-fold decrease in collisions. Based on these figures, SGI fencing modifications alone are preventing 800-1,000 sage-grouse fence strikes per year which is equivalent to all of the male sage-grouse counted on breeding grounds in Alberta, Saskatchewan, Washington, and the Dakotas combined.



The SGI-Grassbank would play a vital role in securing these outcomes long term by providing an enduring source of incentives for participants to continue managing sustainably after Farm Bill contracts expire.

SGI-Grassbank Societal Benefits

In addition to producing important conservation benefits, the SGI-Grassbank could be viewed as socially beneficial at multiple levels. At the local level, it would help keep ranchers ranching; maintaining rural ways of life and revenue for local communities. The grassbank would also seek to bring together disparate groups in agriculture and conservation to foster goodwill and improve relationships. At broader scales, societal benefits would be generated by

enhancing sustainable food production while reducing the need for costly federal protection of sage-grouse under the Endangered Species Act.

Serving as a community-based demonstration ranch, the grassbank would also promote education and scientific understanding of how to achieve environmental stewardship through sustainable ranching. A learning environment would be created that engages conservation partners, universities, and corporations to monitor outcomes and test innovative concepts in sustainability. Grassbank participants would benefit by having ready access to expertise from diverse fields to help them solve complex challenges associated with balancing the needs of livestock, wildlife, and healthy rangelands.



Photo: Montana Stockgrowers Association



Photo: Bruce Waage

SGI-Grassbank Management and Operations

The grassbank owner or lessee (hereafter, grassbank owner) would be the primary entity responsible for ensuring proper grassbank management and operation. Depending upon the situation and available local resources, daily grassbank management could be achieved through traditional methods, such as, staffing with an on-site ranch manager or through creative means like a local management board with oversight provided by a grassbank coordinator. A ranch manager or coordinator would likely oversee grazing leases, ranch management, restoration and maintenance, compliance and biological monitoring, communications, and public relations. Seasonal labor and contractor services may also be employed as needed to assist with ranch management, maintenance, or monitoring activities.

At a minimum, livestock management and animal husbandry on the grassbank would be the responsibility of grassbank participants. Through individual grassbank grazing leases, each rancher would be required to be a member of the 'grassbank grazing group'. The grazing group would run livestock in common on the grassbank and follow the SGI conservation plan as it relates to stocking and timing of grazing. Additionally, grazing group members may contribute to herd movements, water and supplement provisioning, and basic infrastructure maintenance as a requirement or as part of an operational discount. The grazing group would be led by ranchers but overseen by the grassbank manager or coordinator. Requiring rancher participation in the grazing group would help create a vested interest in grassbank success and help minimize management expenses and burdens for the grassbank owners.



The grassbank grazing lease is the legally-binding agreement between the grassbank owner and participants that identifies the discounts for specific conservation actions lessees agree to take on home ranches. Although the grassbank owner would be responsible for determining eligibility for discounts and ensuring lease compliance, partners play an important role in helping to implement, monitor, and validate conservation on the grassbank and home ranches.

NRCS-approved SGI conservation plans would provide the foundation for certifying Sage-Grouse Friendly Ranches. NRCS would work directly with landowners to develop custom conservation plans for each home ranch and the grassbank property. Initial plan implementation would be certified on-the-ground by NRCS staff to validate conservation practices have been applied. After NRCS contracts expire, the grassbank owners would rely on participant records, monitoring data, aerial photographs, and on-site visits for continued verification of plan application. Third party verification on the grassbank property would be provided by the easement holder if applicable. SGI-sponsored evaluations of sage-grouse population responses to conservation efforts will help inform adaptive management and quantify biological benefits obtained.

SGI-Grassbank Financial Plan

The purpose of this financial plan is to illustrate projected expenses and revenue associated with owning and operating a hypothetical SGI-Grassbank in Montana. These estimates are being presented as an example to demonstrate how potential properties could be evaluated to ensure fiscal viability of the grassbank. Although the financial plan presented focuses on the

‘Cadillac’ scenario of owning and operating a grassbank property, innovative strategies can be explored to reduce overhead costs and improve grassbank profitability. Estimates have been broken down into three main categories: 1) land and other initial capital expenses, 2) annual operating expenses, and 3) revenue.

Land and Other Initial Expenses

The start-up costs for the grassbank represent the most significant challenge to implementing this conservation model. In particular, running a financially solvent grassbank depends upon quickly retiring land debt. Land identified for the SGI-Grassbank would primarily be private land, with associated public land leases, in native rangeland. However, the land could contain a component of hayland, pasture, or cropland. If cropland were present, it would most likely be retired and seeded to rangeland vegetation to improve wildlife habitat and support livestock grazing.

Capital Expenses	Estimated Costs
Land (includes value of deeded and leased lands, buildings, etc.)	\$350-1,200/acre*
Endowment	20% of land price
Equipment	\$75,000
Cash Reserve	\$40,000

*Average values of rangeland located in sage-grouse core areas in Montana.

Land costs could be significantly reduced if encumbered by a conservation easement. For example, land in native range with associated ranch buildings is estimated to cost \$350 per acre in Phillips County, Montana. If this land



were enrolled in an NRCS Grassland Reserve Program (GRP) easement in 2010, the owners would have been compensated at the Geographic Area Rate Cap of \$155 per acre for permanently protecting the land and managing according to an NRCS-approved prescribed grazing plan. In this example, over 44% of the land costs could be covered by enrolling the grassbank in an easement program.

Additional up-front capital costs may be incurred to obtain basic ranch equipment, such as, vehicles and ATV's. Establishing a cash reserve is also recommended to ensure sufficient funds are available to cover financial shortfalls in years when income is down due to reduced forage production or other emergencies. Incorporating the cost of a permanent endowment into land acquisitions is one advisable strategy for creating a fund to cover some annual or emergency expenses.

Annual Operating Expenses

The total estimated cost to operate the grassbank under this scenario is \$80,000 annually. Most operating expenses would be associated with labor to run the ranch. One ranch manager or coordinator would be employed to manage daily grassbank functions and coordinate activities with participants and partners. Seasonal labor would be hired to assist the manager with certain ranch activities. Contractor services would be secured as needed to help with specialized tasks.

Additional annual operating expenses would be incurred for supplies and maintenance and repair of existing equipment and infrastructure (estimate assumes large capital expenditures, like vehicles, have already been made and are just being maintained). A portion of these funds would be placed in the cash reserve

Annual Operating Expenses	Estimated Costs
Salaries and Benefits	
Ranch Manager/ Coordinator	\$45,000
Seasonal Labor	\$12,000
Contractors (as needed)	\$5,000
Living Quarters	\$3,000
Includes utilities, property tax, etc.	
Supplies, Maintenance & Repairs	\$15,000
Includes: maintenance and repair of vehicles, ATVs, fences, stock water, etc.;; purchase of fuel, tools, herbicides, etc.	
Total Expenses	\$80,000

to replace equipment and vehicles over time Expense estimates are based on the assumption that the grassbank is already functioning in good condition and not in need of significant restoration or infrastructure replacement. Operating expenses in initial years of grassbank establishment could be higher to make the ranch fully functioning. Also, expenses could vary significantly depending upon how the ranch is managed and the activities assumed by grassbank participants as part of lease negotiations.

Revenue

Revenue would be derived primarily through leasing of grazing rights on the grassbank. The grazing revenue potential is a function of the amount of available forage on the ranch, expressed in terms of Animal Unit Months (AUMs), and the price charged for AUMs. The rate each participant is charged for AUMs depends upon the discounts they earn by implementing certain management actions on their home ranches. AUM rates start at Fair Market Value and are reduced accordingly by



discounts earned. In keeping with the grassbank *quid pro quo* nature, discount values would be roughly equal to the value of conservation benefits produced on participant home ranches.

The SGI-Grassbank should be designed to generate at least enough revenue to pay for anticipated annual ranch operating expenses. Ideally, creative ranch management strategies would be established that reduce expenses and generate positive cash flow for the grassbank owner. Projected annual revenue from grazing fees can be evaluated by multiplying expected grassbank productivity by forage value after

discounts. In this example, Fair Market Value of forage is \$21/AUM. Using data from The Nature Conservancy’s Matador Grassbank in Montana, average price charged after discounts would be approximately \$15/AUM. Offering forage at that reduced rate, the SGI-Grassbank in this scenario would need to produce at least 5,300 AUMs of available forage to cover projected operating expenses of \$80,000/year.

Additional revenue may be generated if there is hayland associated with the property. If hayland were a component of the ranch, it should be run strictly as a revenue generator to support the

Annual Revenue Projections

AUM Price	AUMs Available								
	4,000	4,500	5,000	5,500	6,000	6,500	7,000	7,500	8,000
\$1	\$4,000	\$4,500	\$5,000	\$5,500	\$6,000	\$6,500	\$7,000	\$7,500	\$8,000
\$2	\$8,000	\$9,000	\$10,000	\$11,000	\$12,000	\$13,000	\$14,000	\$15,000	\$16,000
\$3	\$12,000	\$13,500	\$15,000	\$16,500	\$18,000	\$19,500	\$21,000	\$22,500	\$24,000
\$4	\$16,000	\$18,000	\$20,000	\$22,000	\$24,000	\$26,000	\$28,000	\$30,000	\$32,000
\$5	\$20,000	\$22,500	\$25,000	\$27,500	\$30,000	\$32,500	\$35,000	\$37,500	\$40,000
\$6	\$24,000	\$27,000	\$30,000	\$33,000	\$36,000	\$39,000	\$42,000	\$45,000	\$48,000
\$7	\$28,000	\$31,500	\$35,000	\$38,500	\$42,000	\$45,500	\$49,000	\$52,500	\$56,000
\$8	\$32,000	\$36,000	\$40,000	\$44,000	\$48,000	\$52,000	\$56,000	\$60,000	\$64,000
\$9	\$36,000	\$40,500	\$45,000	\$49,500	\$54,000	\$58,500	\$63,000	\$67,500	\$72,000
\$10	\$40,000	\$45,000	\$50,000	\$55,000	\$60,000	\$65,000	\$70,000	\$75,000	\$80,000
\$11	\$44,000	\$49,500	\$55,000	\$60,500	\$66,000	\$71,500	\$77,000	\$82,500	\$88,000
\$12	\$48,000	\$54,000	\$60,000	\$66,000	\$72,000	\$78,000	\$84,000	\$90,000	\$96,000
\$13	\$52,000	\$58,500	\$65,000	\$71,500	\$78,000	\$84,500	\$91,000	\$97,500	\$104,000
\$14	\$56,000	\$63,000	\$70,000	\$77,000	\$84,000	\$91,000	\$98,000	\$105,000	\$112,000
\$15	\$60,000	\$67,500	\$75,000	\$82,500	\$90,000	\$97,500	\$105,000	\$112,500	\$120,000
\$16	\$64,000	\$72,000	\$80,000	\$88,000	\$96,000	\$104,000	\$112,000	\$120,000	\$128,000
\$17	\$68,000	\$76,500	\$85,000	\$93,500	\$102,000	\$110,500	\$119,000	\$127,500	\$136,000
\$18	\$72,000	\$81,000	\$90,000	\$99,000	\$108,000	\$117,000	\$126,000	\$135,000	\$144,000
\$19	\$76,000	\$85,500	\$95,000	\$104,500	\$114,000	\$123,500	\$133,000	\$142,500	\$152,000
\$20	\$80,000	\$90,000	\$100,000	\$110,000	\$120,000	\$130,000	\$140,000	\$150,000	\$160,000
\$21	\$84,000	\$94,500	\$105,000	\$115,500	\$126,000	\$136,500	\$147,000	\$157,500	\$168,000

*Assumes Fair Market Value of \$21/aum, average price charged after discounts of \$15/aum, & annual operating expenses of \$80,000/yr.



grassbank. Hay could be offered competitively to the local community on a 'you-cut' basis. Hayland could be an important supplement to grassbank revenue that would enhance financial viability.

Supplemental revenue could come from fees garnered for limited recreational access to the grassbank property. The ranch would likely support unique hunting, fishing, and wildlife viewing opportunities that could be marketed and sold. Recreational access should be controlled and only offered if determined to be consistent with the conservation goals of the grassbank.

Finally, grassbank owners and participants could explore other unique opportunities to enhance profitability. For example, value-added labeling and collective marketing of beef products could help ranchers increase production efficiencies and potentially command a higher product price. Also, environmental benefits generated

by the SGI-Grassbank and home ranches could be quantified and sold when and if ecosystem service credit systems become established in the future.

Fundraising

Start-up funds will have to be raised to establish the grassbank and build initial capacity to operate it. A number of donors, corporations, foundations, and conservation partners may be interested in financing the grassbank because it represents a true linking of triple bottom line performance; achieving important goals in environmental and social sustainability in an economically viable manner. Furthermore, the SGI-Grassbank builds upon existing federal investments in sustainability and leverages conservation at landscape-scales. The following categories of potential funding sources have been identified to begin assessing funder priorities and interest and determine modifications needed to the model to make it attractive to them for investment.



Photo: Kiley Martineil

Philanthropic Donors/Foundations: E.g., Doris Duke Foundation, Packard Foundation, Ford Foundation, private donors. Charitable groups and individuals provide funding for a wide variety of efforts that promote environmental protection and sustainability while enhancing human well-being. Grants and lost-cost loans are offered that may help acquisition and endowments.

Corporate Partners: E.g., Wal-Mart, Costco, Whole Foods, Safeway, Trader Joe's, ConocoPhillips. With a desire to manage their supply chains and associate their brands with environmental and social sustainability, food retailers may be interested in using the SGI-Grassbank communities to source their beef. Retailers, especially those with private labels, could work with their processors on developing a label or chain-of-custody initiative based on SGI priorities. Additionally, energy companies

actively developing in the West may be interested in contributing as a good corporate neighbor. Corporations may be a source of support for up-front capital to establish the grassbank.

Federal Partners: USDA is a key partner in the SGI-Grassbank model with a desire to enhance environmental and agricultural sustainability, reduce potential federal regulatory burdens, and establish environmental markets that attract private investment to reward good land stewards. Also, USDA already has a vested interest in ensuring conservation benefits being generated through SGI persist. Federal Farm Bill conservation programs will continue to play an integral role in initial implementation of conservation on grassbank participant lands.

Opportunities also exist to utilize these same programs to assist with grassbank acquisition, restoration, and operation. Conservation



easement programs, such as the Grassland Reserve Program (GRP), could be used to secure an easement on the grassbank and greatly reduce land debt. Cost-share programs like the Environmental Quality Incentives Program (EQIP) or Wildlife Habitat Incentive Program (WHIP) could be used to off-set up to 75% of the costs of restoring habitat and establishing infrastructure needed to implement a sustainable grazing system on the grassbank. The Conservation Innovation Grants (CIG) program is designed to stimulate the development and adoption of innovative conservation approaches and could be used to help fund initial costs associated with establishing a functional SGI-Grassbank. Finally, the Conservation Stewardship Program (CStP) could provide an additional source of revenue for managers that agree to adopt even higher levels of land stewardship.

Non-Profit Organizations: E.g., National Fish and Wildlife Foundation (NFWF), Rocky Mountain Elk Foundation, The Nature Conservancy, land trusts, etc. NFWF offers many grant programs targeted at enhancing and protecting wildlife habitat. Grants typically require a 1:1 match of cash or contributed goods and services. Conservation non-profits and land trusts may be very interested in partnering on various components of grassbank acquisition, restoration, and management when consistent with their missions and conservation objectives.



Photo: Oregon NRCS



United States Department of Agriculture
Natural Resources Conservation Service

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