WORLD WILDLIFE FUND'S RANCH SYSTEMS & VIABILITY PLANNING PROJECT

OVERVIEW

WWF supports ranching as it conserves intact grasslands and wildlife in the Northern Great Plains. Grasslands sequester carbon, filter water and provide important habitat for grassland species such as songbirds, sage grouse, and pronghorn. Good grazing management facilitates the coexistence of livestock with native wildlife, promotes vegetation productivity, ensures healthy root and microbial systems, and protects soil from erosion. Ranchers use grazing management plans to manage grasslands while also managing emissions, promoting carbon sequestration, and improving soil health and water infiltration. This can also have positive effects on ranch profitability.

With funding from Cargill, McDonalds, and the Walmart Foundation, WWF seeks to engage ranchers on private and tribal lands and provide educational workshops, ongoing technical expertise, cost share and monitoring to help ranchers design, document, and implement ranch plans. Such planning and monitoring enable ranchers to adapt their plans to improve conservation and economic outcomes. We will also emphasize peer-to-peer learning among project participants.

RANCH SYSTEMS & VIABILITY PLANNING

Ranch planning is a process of establishing goals to properly manage the resources on the ranch, which include economics, livestock, natural resources, wildlife, and people. By understanding their resources and setting goals, ranchers can establish plans that will help them build more successful businesses, improve ecological function, increase stewardship of wildlife, increase productivity of livestock, build stronger communities, and improve work life balance. To achieve these outcomes, participating ranches will consider the following iterative process.

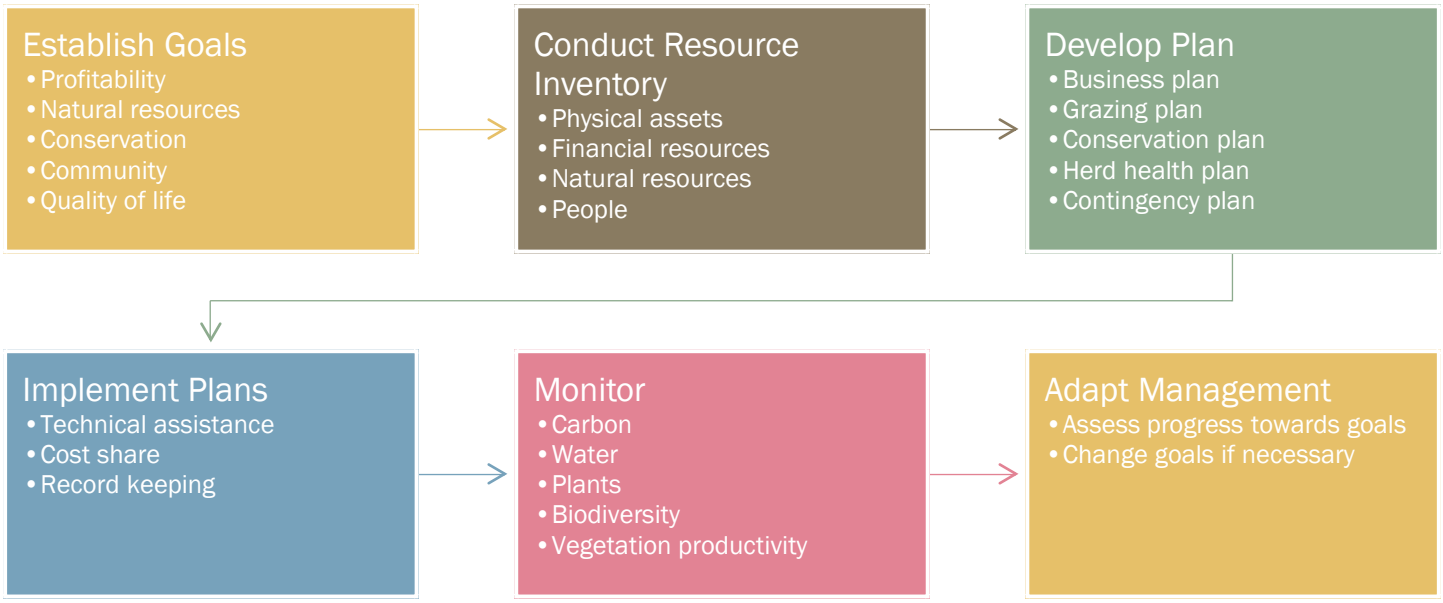

FIGURE 1. THE RANCH PLANNING PROCESS IS ITERATIVE. ADAPTING MANAGEMENT CAN MEAN REVISING YOUR GOALS AND STARTING THE PROCESS AGAIN.

Guiding Principles of the Project

First, we seek to develop guiding principles and a framework for success. Ranchers are very independent, and their resources and experiences vary greatly in the region. It is important that the project remain outcome-based, practice agnostic, and voluntary. Because the shared goal is to conserve grasslands, participants must agree to not convert grasslands under their care for a minimum of 10 years. (Various options for grassland protection will be offered for consideration, including easements, but placing land in an easement is not a requirement.) **We seek partner input and collaboration in developing guiding principles.**

Ranch & Viability Plans

Ranch plans help ranchers establish goals and adapt management over time to build more successful businesses, improve ecological health, conserve wildlife, and build stronger communities. WWF will establish the basic elements that must be part of a ranch plan, including a grazing management plan and monitoring plan, recognizing that each state or rancher-led organization may want to pursue this project somewhat differently (see structure outlined on the first page). Each rancher will customize their plan. It will focus on achieving improvements in management that result in improved carbon sequestration, water infiltration, biodiversity, and overall success of the ranching business. **We seek partner input and collaboration on developing the finer details of ranch planning.**

Technical Assistance and Cost-share

After a rancher attends a ranch planning workshop, the next step toward improved outcomes is ensuring that they have the technical assistance needed to develop and implement their plan. In some cases, developing a ranch plan can be a daunting and challenging task, not to mention time consuming. By providing technical assistance, WWF intends to ease the burden.

WWF will support existing or new partner positions to assist with project implementation and technical assistance. The partner positions will be spread equally across three states with positions in each of Montana, South Dakota, and Nebraska. All technical support personnel, including workshop facilitators, will be versed in ranch planning and have the necessary skills to assist ranchers in developing and implementing plans.

Additionally, WWF will set up cost-share programs whereby ranchers can apply for funds to offset a portion of the costs associated with changing practices to achieve conservation outcomes. WWF will form a committee to evaluate applications. **We seek partner input and collaboration on developing these positions and the cost-share program.**

Monitoring and Technology

A key component to successful ranch planning is measuring and monitoring to ensure outcomes are achieved or to adjust as needed if the plan is falling short of its goal(s). WWF's project will assist ranchers through technical support in implementing monitoring plans. Prior to beginning the monitoring plan, a baseline assessment will be conducted to provide a starting point for improvements. Each monitoring plan will be specific to the respective ranch but will, at a minimum, measure soil organic carbon, range condition, water infiltration, and grassland bird species present. WWF will partner with third-party entities to conduct the baseline assessments and ongoing monitoring (conducted in the second and third years after the baseline assessment) and synthesize the data to be shared with the ranchers as well as anonymously with WWF and funding partners. The ranchers must agree in writing to share their anonymized data in order to receive technical support and third-party monitoring services.

The use of technology to assist ranchers in adaptive management and monitoring is another incentive to participate in ranch planning. Generally, a grazing management plan is most critical when ranchers are at their busiest. It is challenging for ranchers to find the time to sit down and record important items like rainfall data or plan a grazing move. Additionally, ranchers have different objectives and plans for when the grass is growing versus when it isn't. Technology can assist ranchers in addressing these issues as well as adaptive management even when they are busy. Many apps tie herd, pasture and grazing data together giving a more holistic view of ranch planning. This project will offer trainings and access to grazing management software and/or other monitoring technology (e.g., Quick Carbon, a bird monitoring app, etc.) to assist ranchers in easily measuring and monitoring the impacts of their management. **We seek partner input and collaboration on exploring monitoring and technology opportunities.**

Peer-to-Peer Learning

An important part of scaling up this project is through peer-to-peer learning. Ranchers learn best from each other in an environment that is familiar and practical. This form of learning supports less of a "teacher/student" environment, but rather promotes sharing between ranchers instilling greater confidence and understanding of the subject material. WWF and partners will organize ranch tours or learning events in years three and four to show other ranchers how ranch planning can not only have conservation outcomes but also improve their bottom lines. **We seek partner input and collaboration on hosting tours and other learning events.**

RETURNS AND CO-BENEFITS

Project co-benefits include conserving intact grasslands and supporting a variety of grassland species. Improved grazing management can have significant effects on soil health, water quality, biodiversity, rancher profitability, and cattle performance, as well as provide resilience to climate change (Teague et al. 2016). Climate change effects are predicted to increase the importance of more adaptive grazing management (Beschta et al. 2013).

Grazing management plans that incorporate biodiversity measures can increase habitat for rapidly declining species of wildlife and plants, such as over 24 bird species that nest only in grasslands, the American burying beetle, and the western prairie fringed orchid. Grazing management that results in increased landscape heterogeneity can generally support more biodiversity than uniform grazing and can even enhance biodiversity if the range condition has been previously degraded through overstocking or by exotic species such as crested wheatgrass (Progue et al. 2018). Increased native species biodiversity also promotes ecosystem function resulting in greater ecosystem services and long-term resiliency.

Improved grazing can increase above ground productivity, promote healthy root and microbial systems, protect soil from wind and water erosion, and increase soil carbon and water infiltration rates (Teague et al. 2011). The return on investment on ecosystem services will vary depending on current rangeland conditions and the potential for improvement based on abiotic and biotic factors. For example, grazing management can result in large improvements in soil carbon on rangelands that are heavily degraded; however, such changes can result in only smaller changes on rangelands that are already suitably stocked or managed (Conant et al. 2017). Prior land use and time in grass can also have a strong influence on rates of carbon sequestration.

PROPOSED TIMELINE

Below is an estimated timeline for the first two years of the 2020-2025 project. Activities 8-10 would repeat throughout the 5-year period, and monitoring would be staggered as ranch plans are developed. Lastly, repeat monitoring would occur two and years after the baseline survey.

	2020			2021					
Activity	Jul/Aug	Sep/Oct	Nov/Dec	Jan/Feb	Mar/Apr	May/Jun	Jul/Aug	Sep/Oct	Nov/Dec
1. Coordinate/contract with ranch planners									
2. Hire/increase support technical assistance positions									
3. Design cost share program									
4. Set up monitoring program									
5. Identify technology partner(s)									
6. Develop a no-conversion commitment mechanism									
7. Develop rancher recruitment plan									
8. Recruit ranching partners									
9. Technical assistance to develop plans									
10. Baseline assessments									

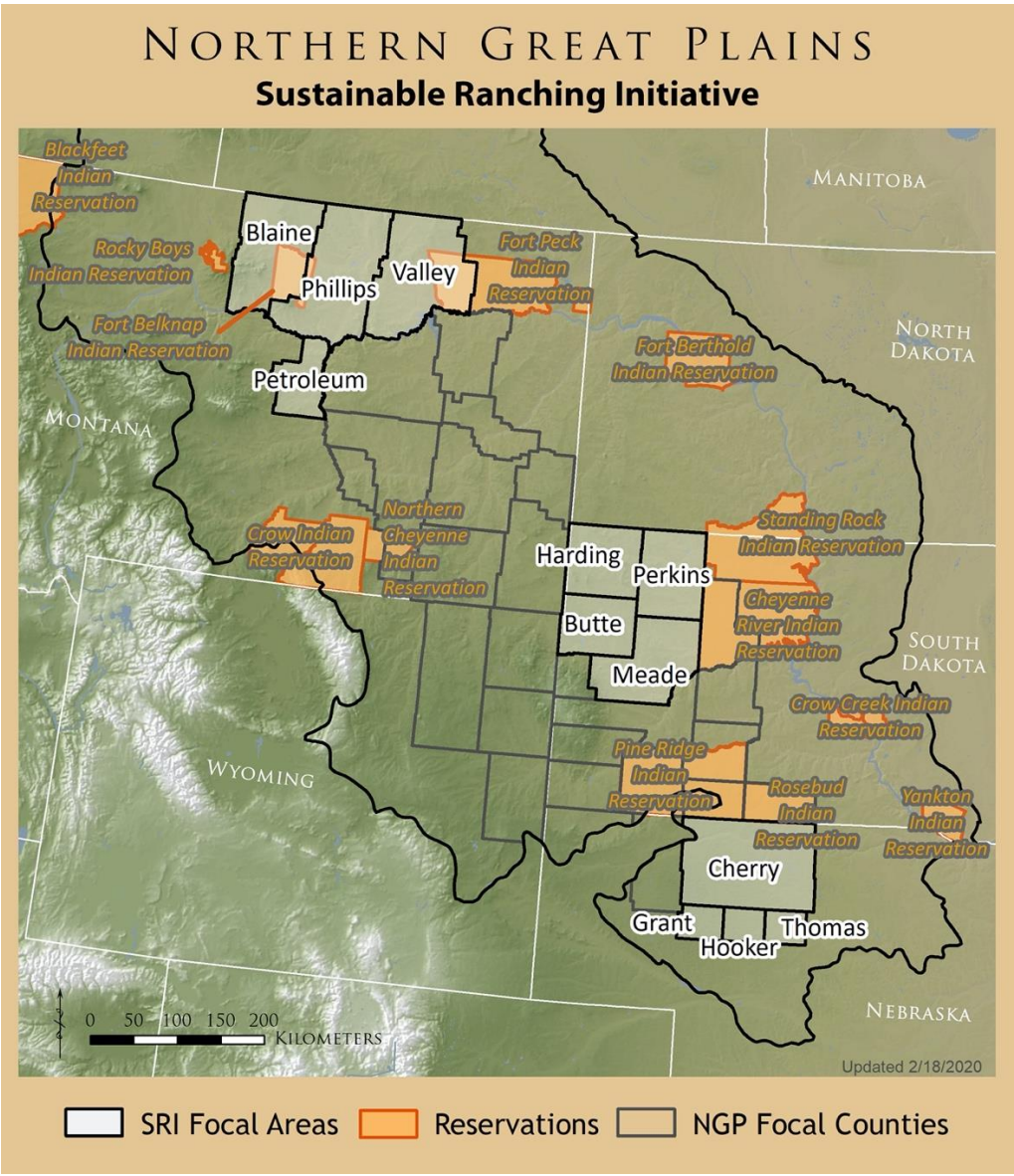

FIGURE 2. FOCAL COUNTIES FOR THE RSVP PROJECT. WWF WILL CONSIDER WORKING WITH ANY LIVESTOCK RANCHING PARTNERS WITHIN THE AREA MAPPED IN DARK GREEN WITHIN MONTANA, SOUTH DAKOTA, OR NEBRASKA WITH PRIORITY GIVEN TO PRODUCERS IN FOCAL COUNTIES.

LITERATURE CITED

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