Maximizing Conversion of Expired CRP to Healthy, Productive Grazing Land

Targeted Implementation Plan (TIP) – FY22

Circle NRCS Field Office

McCone County, Montana

Garfield-McCone County Work Unit

Location: Expired and expiring CRP acres in McCone County.

Goal Statement: Maximize the conversion of expired/expiring CRP land to grazing land.

Problem Statement: There are over 65,000 acres of CRP land coming out of CRP over a 4-year period that could potentially be converted to annual cropland.

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Purpose of this Targeted Implementation Plan

The McCone County Conservation District initiated this TIP to address natural resource and social/economic concerns across the county. The purpose of this Targeted Implementation Plan (TIP) is to maximize the conversion of expiring/expired Conservation Reserve Program (CRP) acres to grazing land in McCone County, thereby addressing Local Working Group (LWG) identified concerns in the McCone County Long Range Plan (LRP): 1) inadequate livestock water, and 2) land use and profitability (next generation of agricultural producers and declining populations and bigger operations). Resource concerns will be addressed through conservation plans that include necessary practices, such as livestock water and wildlife friendly fencing, to facilitate a prescribed grazing rotation on the existing grass stands of expired CRP. By retaining these lands in perennial cover and facilitating sustainable management, secondary resource concerns will also be addressed: prairie bird and other wildlife habitat, rangeland degradation, and carbon sequestration and climate change.

Local Working Group Top Identified Concerns

1) Inadequate Livestock Water
2) Invasive & Noxious Weeds
3) Next Generation of Farmers and Ranchers.
4) Rangeland Degradation
5) Declining Populations & Bigger Operations

Overview / History

The Conservation Reserve Program (CRP) is a federally funded program that started in 1985 to convert highly erodible annual cropland to perennial cover to minimize erosion on these farmed soils. Participants received rental payments and had to maintain these stands. CRP contracts lasted for 10 or 15 years and were renewable for even longer periods. Since its inception, the program has changed over time to target different resource concerns and the documented environmental benefits of CRP have since expanded to include the improvement of water quality, sequestration of carbon within the soils and enhancement of wildlife habitat. Specifically, CRP has provided millions of acres of habitat for honeybees and other pollinators (Otto et. al., 2018).

There are currently 603,045 total CRP contracts in the nation encompassing 22.4 million acres. Of these, 1.58 million acres enrolled in CRP are in contracts that have expired as of September 2019. Montana currently has over 1.6 million acres of land enrolled in the program.

In the next three years, over 573,000 acres of CRP land will expire (Conservation Reserve statistics, 2013).

There is a total of 65,460 acres of land in CRP contracts that will expire in McCone County within the next 3 years. Over 28,000 acres of CRP land expired in 2020, with over 34,000 acres expiring in the next three years. This TIP covers two-thirds of these CRP lands in the northern two-thirds of McCone (see Figure 1, Target Area). Although the TIP boundary encompasses a large area (776,803 acres) because of how widely distributed CRP land is, the planned treatment area is focused on enrolling 8,000 acres of expired/expiring CRP per year over the next three years. The remaining one-third of the acres are covered under the 2021-2023 Improving Grazingland Health and Ranch Viability in Southern McCone County TIP.

Although CRP has been beneficial by providing an income source to landowners for marginal cropland, there have been recent challenges associated with keeping the land within the program and in perennial cover. As contracts have expired, landowners have been faced with decisions about the future of that land. The recent 2018 Farm Bill, despite increasing the enrollment cap of the program, has also reduced program payments (i.e. rental rates) to landowners. This, in addition to new, stricter requirements for stand renovation, has dissuaded many landowners from reenrollment.

The option of returning the land to agricultural production has three alternatives in McCone County. The land can be hayed, converted back to annual cropland, or converted to grazing land. The first and second alternatives do not often require any additional infrastructure but would require equipment, labor and time. Many landowners have expressed interest in the third alternative, converting expired CRP acres to grazing land. Without financial and technical assistance to implement the conversion, it is likely that some, if not most, of this land will return to annual cropland. This can present its own challenges for landowners as much of the land is marginal for farming and was likely enrolled in CRP for that very reason. There is currently a TIP in the southern part of McCone County (see map) that addresses inadequate livestock water in that location. This TIP can also be used to convert expired CRP to grazing land.

An additional challenge to converting the CRP land to grazing land is that one-third of the landowners are absentee with 37% of the expired/expiring CRP owned by absentee landowners. This creates difficulties with outreach and limits interest in infrastructure

development either by the owner or lease. Landowners may not want to invest in infrastructure because of operation and management limitations, and leasees may not want to because they do not want to make investments into land that is not under their control long-term.

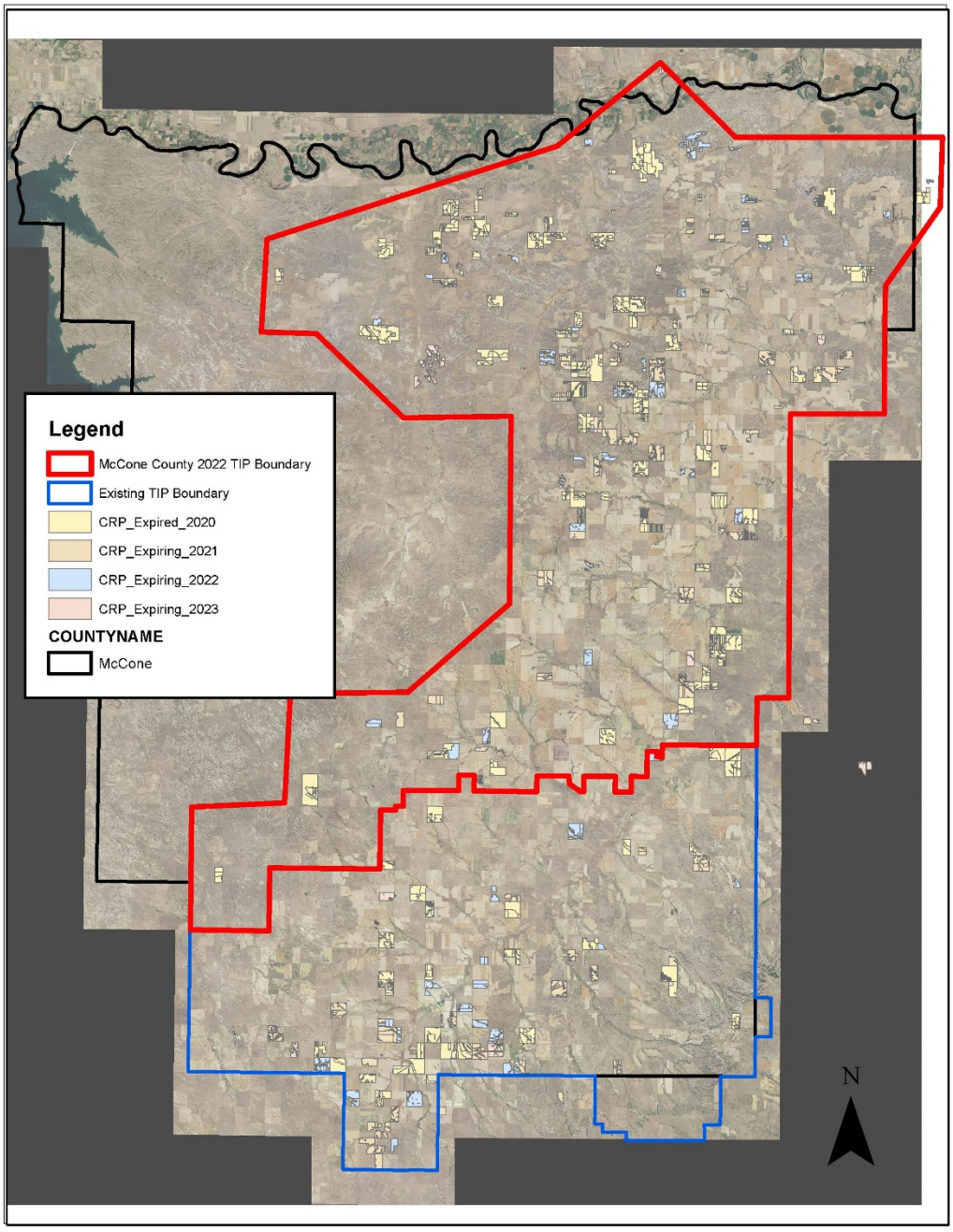

Figure 1. Expired/Expiring CRP land in McCone County 2020-2023, TIP Boundaries

Problem Statement

There are over 65,000 acres of land coming out of CRP over a four-year period, 2020-2023, that could potentially be converted to annual cropland. Additional acres were released in 2018-2019, with some still at risk for conversion to annual cropland.

Data from the Rangeland Analysis Platform shows the cultivation risk in McCone County to be medium to high in the areas with expired/expiring CRP contract.

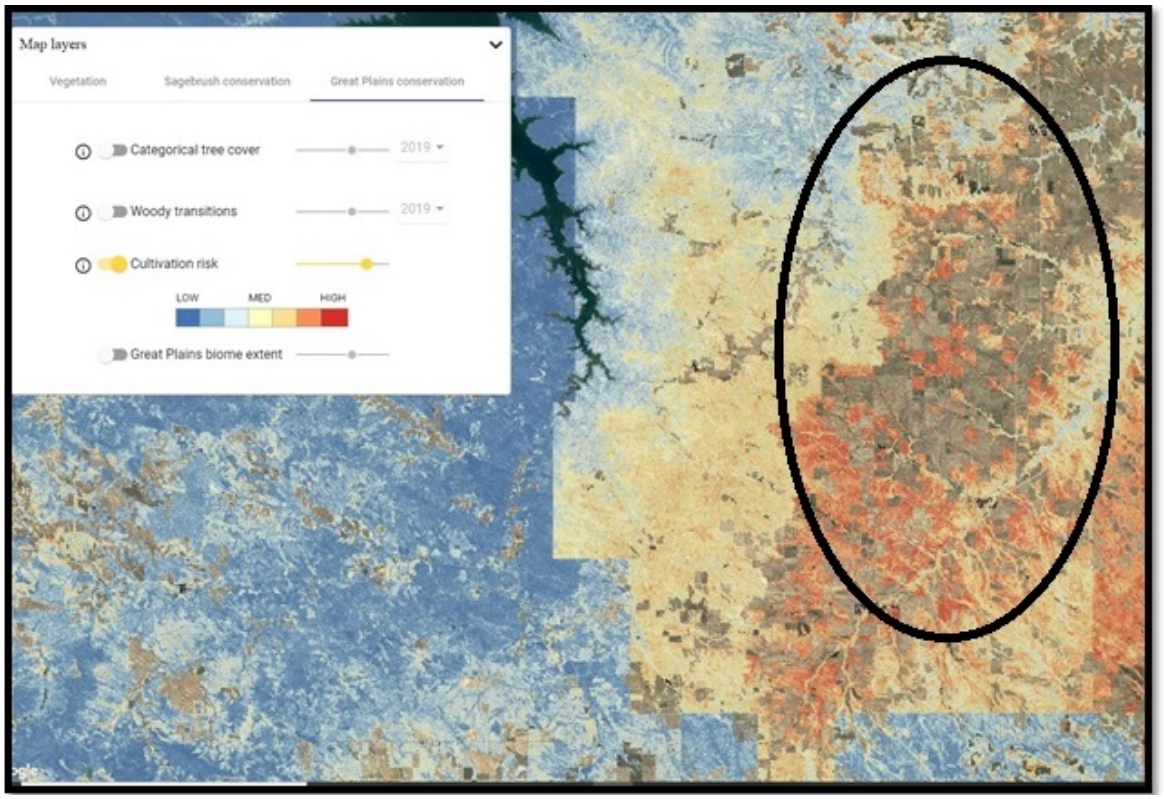

Figure 2. https://rangelands.page.link/yS1Cys6xaYh3b9TS8

In order to provide timely, focused assistance to landowners, this TIP strives to enable interested landowners to successfully convert their expired CRP to grazing land use. The most common barrier for this conversion is the cost of necessary livestock management infrastructure. CRP fields are usually not fenced and have no source of water for livestock. In some instances, this land has been fenced off from surrounding grazing land and may require the removal of fences in order to incorporate it into a grazing rotation. Installing or removing infrastructure to facilitate grazing is often cost-prohibitive.

In addition to providing technical assistance, this TIP can provide the necessary financial assistance for maximizing conversion of CRP acres to grazing land. Although the plant communities on idle CRP land may be low in vigor due to lack of nutrient cycling, low tiller development and excess litter buildup, the potential exists to establish and maintain health and productivity with appropriate gazing management techniques. Grazing of expired CRP would also allow this land to support the next generation of ranchers by adding value to their operations by adding AUMs and extending grazing days. Expired CRP averages 0.5 AUM/acre for grazing at $25/AUM. The grazing value of 65,000 acres would be $812,500 per year.

Although CRP land may not always consist of the most biologically diverse plant communities, it can be of great value to wildlife if kept in perennial cover. Furthermore, grazing can increase the current wildlife and environmental benefits of the program. The McCone County Long Range Plan (LRP, 2020) has identified several declining grassland bird species within the county including Chestnut-collared longspur, McCown's longspur, Sprague's pipit, Baird's sparrow, and the long-billed curlew. McCone County consists of some of the most important remaining prairie habitat in the northern Great Plains with 67% intact. Importantly, 79% of the land in the county is privately owned, thereby presenting an opportunity to benefit these species through the conservation efforts of private landowners.

Grazing management has numerous benefits for grassland birds because it can create habitat heterogeneity for a variety of species, including the identified species of concern (Figure 3. Toombs, 2010). Although tame monoculture grass stands do not usually provide the best nesting cover and food for many of these bird species, grazing these stands can still provide an indirect benefit to grassland birds. Specifically, many of the planted CRP grass species are cool-season introduced grasses, such as crested wheatgrass, and can provide good early-season forage for livestock. Thus, they could be used as part of a larger rotation that allows for the early-season deferment of native rangeland. In Montana, managing early season recovery on native range is critical, especially in April, May and June. During this time, expired CRP would be ideal for grazing and allow for the recovery of native rangeland, with indirect benefits for the grassland birds that nest there.

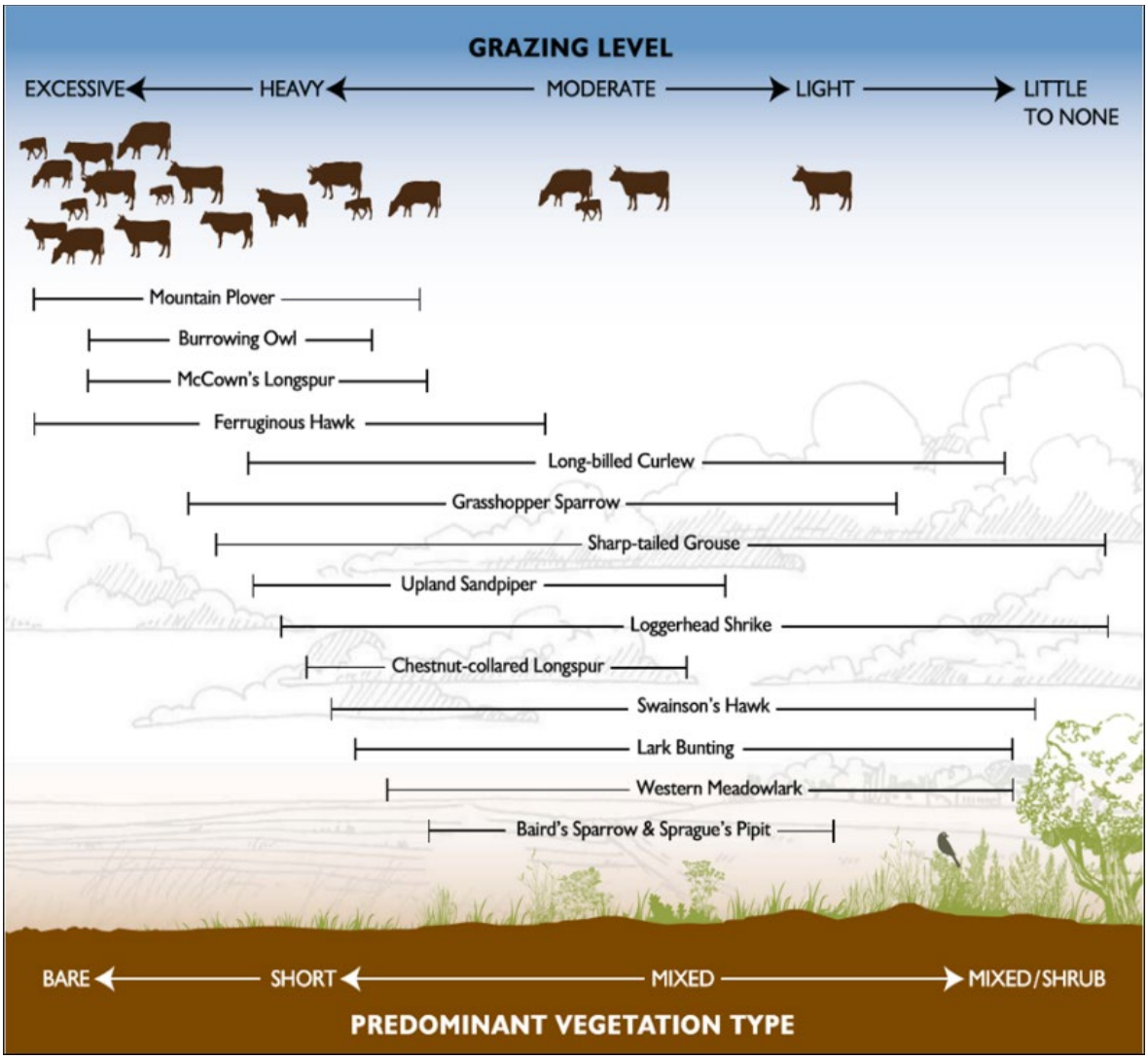

Figure 3. A representation of the importance of heterogeneity on the landscape for supporting multiple grassland bird species. Figure adapted from F. Knopf 1996 (Toombs, 2010).

Desired Future Conditions & Outcome

The desired future condition of expired CRP fields is grazing land with healthy, resilient plant communities that resist weed invasion and provide income for ranchers in the county. The aim is to create productive, sustainable grazing systems by converting expired CRP lands to grazing lands with necessary infrastructure. Planner discretion will be used to determine what infrastructure is needed, if any, to meet the intent of this TIP. Outcomes include:

1) Retaining at least 8,000 acres of expired CRP a year over the next three years in perennial cover and facilitate grazing on those acres through infrastructure development (water, fence) and grazing management plans. Adjacent and incidental grazing acres may be included in applications if required to achieve outcomes on the targeted CRP acres. Since applications will vary extensively, planner discretion will be used when including additional acres.
2) Improve the ecological function of the enrolled acres, demonstrated by a Pasture Condition Score (PCS) higher than the baseline PCS, through improved grazing management and facilitating practices. Field office experience indicates that PCS of less than 30 will be common within applications, and an achievable outcome would be to improve PCS to be greater than 30.
3) Improve economic viability of the operations for the next generation of ranchers. This will be measured in current year biomass before and after contract implementation.

Livestock water and fences will be installed in years one and two of the plan, with prescribed grazing being implemented during years three through five.

Infrastructure will increase the acres that can be grazed as well as improve the grazing management across entire operations, which allows for the implementation of "a grazing rotation that improves rangeland health, productivity, and resilience; ultimately making the operation more profitable and economically viable, even through droughts and natural disasters." (LRP - pg. 42)

Grazing land health is foundational to ecosystem function, making the land capable of supporting wildlife, livestock and humans synchronously. Research demonstrates that compared to annual cropland, perennial grasslands contain more organic matter, carbon, nitrogen, water infiltration, soil aggregation, and microbial activity (Nation 1995; Culman et al. 2009), and therefore support improved soil health. This desired future outcome is linked to both nation-wide and identified local concerns (LRP 2020):

> "Improving the county's soil health, and therefore farm productivity/profitability, may ultimately be part of the solution to the county's declining population trends, and may encourage and help local youth stay involved in agriculture." (page 46 – LRP).

Alternatives

1) No Action

No Action Alternative: Following the expiration of CRP contracts, some land may be successfully re-enrolled. Land that is not re-enrolled may be hayed, grazed or annually farmed. Returning land to conventional farming methods could contribute to a minimum of 1-2 tons of soil erosion per acre per year, where there was no soil loss when the land was under perennial cover. Of particular concern would be conversion to organic farming, which would involve a significant increase in soil erosion as tillage is the primary method of weed control. The no action alternative does not meet the goals of the landowners, McCone Conservation District, or the McCone County Local Working Group.

2) Alternative 1- Grazing Infrastructure with Prescribed Grazing

This alternative would include necessary facilitating practices to implement a prescribed grazing plan to improve plant health and vigor of the perennial grass in expired CRP fields (Table 1). Grazing infrastructure would include wildlife friendly fences and livestock water development as needed. In order to promote proper management of grazing land, grazing management will be incentivized to ensure that proper grazing management and stocking rates are applied on these acres. Stock water and fences would also be allowed on non-CRP acres *if* it allows the participant to implement a grazing plan; but for those acres to be eligible for infrastructure prescribed grazing must be contracted on the additional acres.

Code	Practice Name
382	Fence
500	Obstruction (Fence) Removal
642	Water Well
614	Watering Facility
516	Livestock Pipeline
533	Pumping Plant
528	Prescribed Grazing
645	Upland Wildlife Habitat Mgt*

Table 1. Alternative 1 Included Practices; * NRCS will not provide payments on this practice; management strategies outlined in an Upland Wildlife Habitat plan are generally incorporated into appropriate conservation practices, such as Prescribed Grazing.

There are Historically Underserved funding scenarios available for all the above-mentioned practices for qualified applicants. Information about the definitions of Historically Underserved categories, qualification criteria and The Financially Limited Farmer/Rancher self-determination tool are available from the NRCS at

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/people/outreach/slbfr/?cid=nrcsdev11_001040

Progress, Evaluation and Monitoring

- Progress will be measured by acres of grazing land that are provided with wildlife friendly fencing and adequate livestock water quantity, quality and distribution.

- Pasture Condition Scores will provide a baseline prior to implementation. Plant health and vigor will be measured before and after project completion by a permanent 100 ft photo-point transects.

- Total plant production and changes in decadent plant litter will also be measured at the beginning of the project and after three years of grazing or at the final year of the contract. These measurements will be an indication of nutrient cycling and thus soil function.

The above data will be included in a final report for future reference and to further improve focused conservation efforts.

Project Timeframe and Implementation

Applications will be taken in fiscal years 2022, 2023 and 2024 to match the expiration of CRP contracts within the county (Figure 1). It is expected that TIP contracts will last three to five years.

A typical contract would include the first two years being dedicated to installing water developments, followed by removal of old and/or installation of new fences, and then three years of prescribed grazing. Boundary fence would be allowed on expired CRP acres per policy from the Part 530 Working Lands Conservation Programs Manual (530.403H EQIP Planning).

Workload Demands*:*

At least 80% of the workload demands will be handled by the Circle Field Office with assistance from the Jordan Field Office Soil Conservation Technician. The Bird Conservancy of the Rockies Partner Biologist in Glendive, MT will assist the outreach. Some assistance may be needed from Area engineering staff to survey and design planned stockwater projects, including on pump tests, which will be required on all existing and new wells. Additional assistance may also be needed from Range Management Specialists to complete rangeland inventories and develop grazing plans. With support from McCone County Conservation District, a Sage Grouse Initiative (SGI) position is currently being advertised for placement in the Circle Field Office to assist with workload.

Budget

Conservation plans for this TIP may vary widely based on the characteristics of individual grazing units within the priority area. It is estimated that the average sized EQIP contract for this TIP would require around $57,000 in EQIP funds. This is based on discussions with interested parties and recently funded EQIP contracts in the county. It is estimated this TIP will require around $1,700,000 to fund 30 conservation plans.

Cost Estimate Breakdown for Typical Expected Contract

Practice	Cost Per Unit	Unit	Extent	Cost Per Practice
Fence: Barbed/Smooth Wire*	$2.00	Ft	9240	$18480
Obstruction (Fence) Removal	$0.79	Ft	2640	$2085
Pumping Plant: Electric	$1,135.42	HP	1	$1135
Pumping Plant: Well pump test	$149.80	Hours	20	$2996
Watering Facility: 1500 gallon stocktank	$1.74	Gal	1500	$2610
Livestock Pipeline: Frost Free Buried	$1.33	Ft	5280	$7022
Water Well: Typical Well, 100 to 600 ft	$29.57	Ft	200	$5914
Prescribed Grazing – Pasture Standard (3 yrs)	$5.64	Acre	800	$13536
Prescribed Grazing – Range Standard (3 yrs)	$3.20	Acre	320	$3072
Total	n/a	n/a	n/a	**$56,850**

**Boundary fence would be allowed on expired CRP acres per policy from the Working Lands Conservation Program Manual 530.403 H (ii): CPS Fence (Code 382) may be eligible if used for expired or expiring CRP land to establish a grazing operation.*

EQIP Required Funds by Signup Year				
Fiscal Year	Expected No. Contracts	Expected Acres Treated	Average Expected Cost Per Contract	Total Request Funds
2022	10	11,200	$57,000	$570,000
2023	10	11,200	$57,000	$570,000
2024	10	11,200	$57,000	$570,000
Total	**30**	**33,600**		**~$1,700,000**

Partnerships

- McCone County Conservation District (MCCD) supports the local NRCS Field Offices in organizing outreach meetings regarding the EQIP TIP sign-up, as well as educational workshops regarding grazing land management. MCCD also has the ability to apply for the Montana Department of Natural Resources and Conservation (MT DNRD) House Bill (HB) 223 grant program to assist landowners and USDA-NRCS in providing outreach and education to local landowners.
- Montana Association of Conservation Districts (MACD) has placed an SGI position in the Circle NRCS Field office to assist with technical assistance on the TIP.
- Northern Great Plains Joint Venture, World Wildlife Fund (WWF) and Bird Conservancy of the Rockies have expressed intent to offer financial assistance for temporary infrastructure that may be desired to achieve outcomes. Technical assistance may also be provided by these partners on conservation plans. Landowners who have expressed interest in renovation, whether to reenroll in CRP or to further develop fields for grazing, and who may also require financial assistance will also be referred to these potential partners.
- Private landowners will contribute labor and capital towards converting expired CRP fields to productive grazing lands.

Outreach

McCone County CD and the Bird Conservancy of the Rockies partner biologist will take the lead on the initial outreach. Outreach efforts have already begun through discussions with landowners during their final CRP contract status reviews. A list of producers with CRP contracts that are expired or will expire in 2023 or sooner in the focus area has been generated. Outreach efforts may also consist of:

- Informational flyers
- Article in local newspapers
- Webinar or online information for absentee landowners
- Workshops, if possible

Application Ranking Summary*:

2022 Targeted Implementation Plan

McCone County – Maximizing Conversion of Expired CRP to Healthy, Productive Grazing Land

- Ranking Date:
- Applicant:
- Final Ranking Score:
- Application Number:
- Planner:
- Phone:
- Farm Location:

1) Select one of the following:
   a) Does the application include Prescribed Grazing on all enrolled grazingland acres?
   b) Does the application include Prescribed Grazing on 51-99% of the enrolled grazingland acres?
   c) Does the application include Prescribed Grazing on 30-50% of the enrolled grazingland acres?
   d) Does the application include Prescribed Grazing on less than 30% of the enrolled grazingland acres?
2) Select one of the following:
   a) Are the majority (>50%) of the soils in the enrolled expired/expiring CRP acres of Land Capability Class 5-7?
   b) Are the majority (>50%) of the soils in the enrolled expired/expiring CRP acres of Land Capability Class 1-4?

**Most current screening tool will be used prior to ranking*

References

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