April 11, 2022

Conversion of Expired Conservation Reserve Program (CRP) Acres to Healthy Grazing Lands

Targeted Implementation Plan (TIP) – FY23
Sidney NRCS Field Office
Richland County, Montana
Dawson-Richland-Wibaux County Work Unit

LOCATION: Expired and expiring CRP acres from 2020-2023 in Richland County.

GOAL STATEMENT: Keep 7,500 expired/expiring CRP acres in perennial vegetative cover and to assist producers in converting these acres into productive livestock grazing lands to improve ecological function and address livestock feed and forage concerns.

PROBLEM STATEMENT: There are over 32,000 acres in CRP contracts that will expire over a four-year period that may be at risk of conversion to annual cropland or may be left idle.

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PURPOSE

The purpose of this Targeted Implementation Plan (TIP) is to maximize the conversion of expired and expiring Conservation Reserve Program (CRP) acres to livestock grazing land in Richland County. This TIP will address the Local Working Group (LWG) identified resource concerns in the Richland County Long Range Plan (LRP):

1) Livestock production limitations such as a comprehensive lack of adequate forage, adequate stockwater, noxious weed control, healthy plant communities, and erosion control.
2) Soil quality, soil erosion, and degraded plant condition which all tie back to the livestock production concern (LRP pg. 39, 2019).

Figure 2: CRP in Richland County

Resource concerns will be addressed through conservation plans that include practices such as fencing and stockwater, to facilitate prescribed grazing on existing CRP acres.

Once the land is taken out of CRP, it is vital to protect the USDA's and taxpayer's investment that has gone into these acres for the protection from excessive soil erosion. Infrastructure can be a large out-of-pocket expense for producers. A CRP conversion TIP will assist interested producers in implementing costly practices on their expired CRP acres, as well as other grazing acres that may be incorporated into a prescribed grazing plan. Implementing conservation on the associated acres will help to ensure plant health and productivity can be addressed on the CRP acres. By keeping these acres in perennial cover and facilitating management, other resource concerns such as wildlife habitat and farm sustainability will also be addressed. If the TIP is not implemented the expiring acres may be converted to conventional cropping or be left idle.

BACKGROUND INFORMATION

The Conservation Reserve Program (CRP) is a federally funded land conservation program administered by the Farm Service Agency that began in 1985. Its purpose is to convert highly erodible

annual cropland to perennial cover to minimize erosion. Participants receive rental payments and are required to maintain the perennial stands. CRP contracts last for 10 to 15 years; participants have the option to renew their contracts. Since 1985, the program has changed to target different resource concerns and realize additional benefits to water quality, sequestration of carbon in soils, and enhancement of wildlife habitat (FSA, n.d.). CRP contracts funded through the 2008 and 2014 Farm Bills were only allowed grazing as a mid-contract management activity or during environmental disaster events such as drought.

As of August 2021, there are a total of 562,791 CRP contracts in the United States covering about 20.6 million acres. Montana has 798,926 acres enrolled in CRP. Nearly 456,000 of those acres are in contracts set to expire between 2021-2024 (FSA, 2021). Richland County administers a total of 16,323 acres in CRP contracts due to expire in the next two years. An additional 15,851 acres are included in contracts that expired in 2020 and 2021. This TIP covers an area in Richland County that has the greatest density of acres in expired or expiring CRP contracts, which includes 32,174.63 available treatment acres (See map on page 4). The goal is to implement TIP conservation activities on 3,000 acres in the first and second year and 1,500 acres in the last year to equal a total of 7,500 acres.

Year	Acres Expired/Expiring
2020	13,774.27
2021	2,076.81
2022	5,920.30
2023	10,403.25

Table 1: Expired/Expiring CRP acres per year.

CRP has provided an income source to producers for marginal cropland, but recent changes in the CRP program have made the decision to reenroll more challenging. The 2018 Farm Bill increased the enrollment cap but reduced rental rates. Reduced payments and stricter renovation requirements factor into the producers' decisions not to reenroll. A producer could choose to leave the land idle, which would require practically no inputs but could result in weed infestations, reduced nutrient cycle function, heavy litter build up, reduced plant diversity, and an overall decline in soil health. Returning the land to agricultural production entertains three options: hayland, conversion to annual cropland, or grazing. Hayland and cropland would not require any additional infrastructure, but would require equipment, time, and labor. Producers have expressed concerns about livestock production limitations and are interested in implementing grazing plans and facilitating activities on former CRP fields. Grazing lands would require both infrastructure, time, and labor which can be costly and not likely be the choice for producers if financial and technical assistance is not provided.

PROJECT MAP

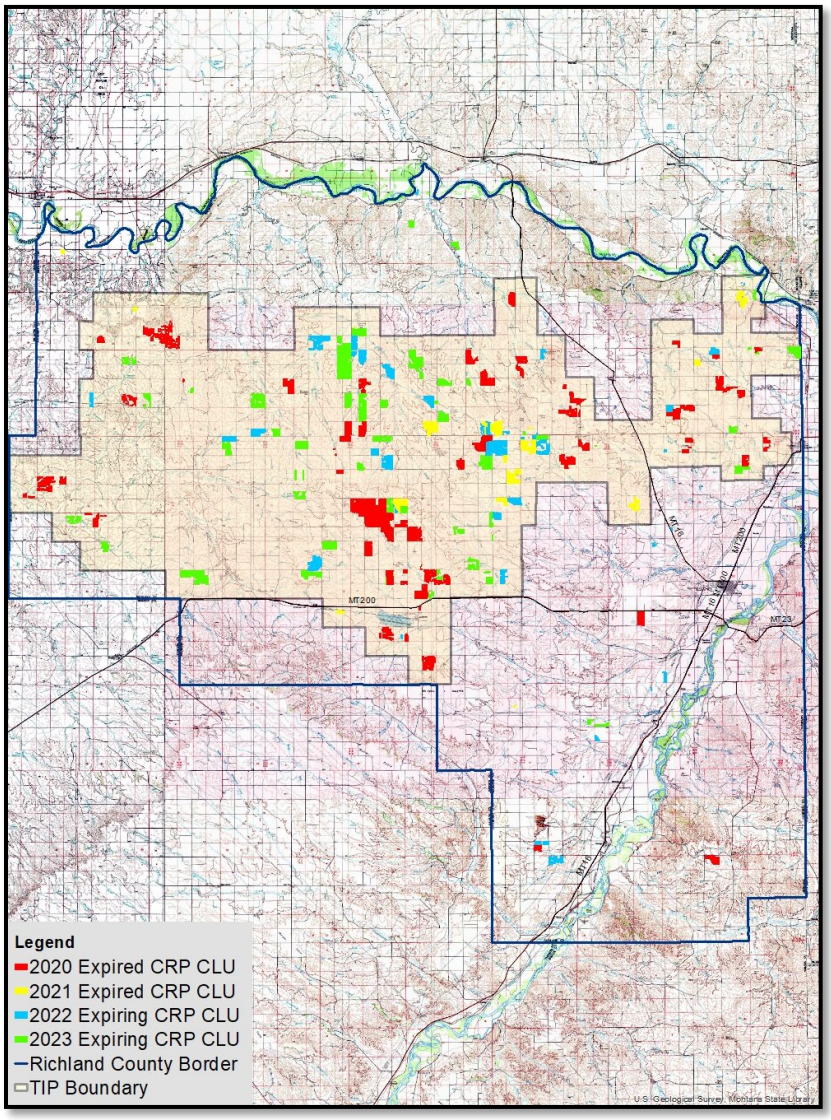

Figure 3 (Map Description): The light-yellow shaded polygon represents the TIP area. The red, yellow, blue, and green polygons represent the expired/expiring Conservation Reserve Program (CRP) acres from 2020-2023 as represented through the Richland County Common Land Unit (CLU) records.

PROBLEM STATEMENT

There are 32,825 acres of land in CRP contracts that will have expired or will be expiring in Richland County from 2020 through 2023. These acres are at risk for conversion to annual cropland. This TIP covers 32,174 of those acres and provides focused assistance to producers who wish to convert land formerly enrolled in CRP to grazing lands. The TIP area focuses on the central portion of Richland County where majority of expiring/expired CRP acres are located. The number of expiring acres is dramatically reduced in 2024 and 2025, so now is the ideal time to offer our assistance.

A common barrier for conversion to grazing lands is the cost of the necessary infrastructure for livestock management. CRP fields are typically not fenced and have no livestock water source. In some cases, the CRP has been fenced off from other grazing land, resulting the in need for fence removal to incorporate it in the grazing rotation. Installation or removal of infrastructure to facilitate grazing is often cost-prohibitive for the producer.

Along with providing technical assistance, this TIP can provide the necessary financial assistance for the conversion of CRP to grazing land. Plant communities on idle CRP may have low plant vigor, low tiller development, and excess litter build up, but the potential to increase ecological function exists with implementing appropriate grazing management. Grazing expired CRP acres allows producers to add AUMs and extends their grazing days available.

Perennial cover that CRP provides has been beneficial for wildlife. Introducing grazing to this land can increase the current wildlife and environmental benefits. The Richland County Long Range Plan (LRP pg. 28 & 29, 2019) identifies many grassland bird species of concern including Baird's sparrow, thick-billed (McCown's) longspur, Chestnut-collared longspur, Sprague's pipit, and the Long-billed curlew. Grazing management can be influential to these grassland birds because it can create habitat heterogeneity (See figure below). CRP acres are often a mix of tame species and do not provide excellent nesting cover, but it

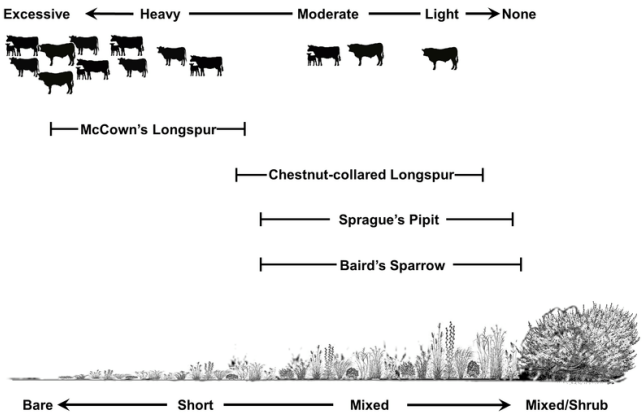

Figure 4: Heterogeneity for grassland bird species and their relationship to grazing intensity. Figure adapted from Knopf and Samson 1997 (Fields, et al., 2018).

can provide an indirect benefit to grassland bird species. Some CRP acres have been seeded with native species mixes, but often include other tame grasses and forbs. Tame plant communities are often cool-season grasses that provide good early season use for livestock. Early season use can result in deferment of the native rangeland until later into the growing season providing essential nesting habitat in the rangeland. Creating a grazing rotation, results in change in season of use of rangeland that can benefit the plant community by giving cool-season and warm-season plants a chance to recover, which in turn increases plant vigor. Grazing on expired CRP can also add nutrients into the soil through manure and leaving proper standing biomass for regrowth. Increased nutrient cycling can improve soil structure, water infiltration, and increase plant growth.

RESOURCE CONCERNS AND LAND USE INFORMATION

The primary resource concern that will be addressed is Livestock Production Limitation – Inadequate Feed and Forage. Secondary resource concerns include Livestock Production Limitation – Inadequate Livestock Water and Degraded Plant Condition – Undesirable Plant Productivity and Health.

The total TIP area includes 532,867 acres in Richland County. This TIP is limited to expired or expiring CRP acres and associated range or pasture acres that may be included in the grazing plan; therefore, the acreage available for contracting is significantly reduced.

DESIRED FUTURE CONDITIONS & OUTCOMES

The desired future condition of expired CRP in Richland County is grazing land with healthy grass stands that resist weed invasion and provide quality feed and forage for livestock. The objective is to

create productive and sustainable grazing systems by converting expired CRP acres to healthy grazing lands with the necessary infrastructure. The intent of the TIP is:

1. Retain at least 7,500 acres of expired CRP over a three-year period in perennial grass cover and facilitate grazing on those acres through the implementation of infrastructure (stockwater and fence) and grazing management plans.
2. Improve ecological function measured by a Pasture Condition Score (PCS) higher than the baseline PCS, through grazing plans and facilitating practices. The PCS is formulated by evaluating the following indicators: desirable plants, percent legumes, live plant cover, plant diversity, soil cover, livestock concentration areas, compaction and regeneration, plant vigor, and pasture erosion.
3. Improve feed and forage for livestock to decrease livestock production limitations in Richland County. This will be measured in total biomass before and after contract implementation. An increase in total biomass could increase the AUMs/acre or pounds/acre. Also, adding grazing infrastructure on acres that weren't previously grazed could increase the total carrying capacity of the ranch.

Livestock water and wildlife friendly fences will be installed in years one and two of the contract, with prescribed grazing being implemented during years three through five. Necessary infrastructure will increase the acres able to graze and improve the grazing distribution and season of use throughout the operation.

ALTERNATIVES

NO ACTION ALTERNATIVE:

As CRP contracts expire, some producers may choose to re-enroll for CRP. CRP program budget constraints and competitive bids may result in many offers not being funded. Producers who choose not to re-enroll or those with unfunded applications may decide to let the land sit idle, use it for hayland, or return it to conventional annual crop production. Idle land can undergo weed invasion and result in poor plant health and a decline in wildlife habitat. Excessive litter build up can propose a fire hazard due to the increased fine fuel load. Returning the land into annual tillage could contribute to soil erosion and

the removal of perennial cover eliminating wildlife habitat. The no action alternative does not support the goals of the landowners or the Richland County Local Working Group.

ALTERNATIVE 1 (MANAGEMENT & INFRASTRUCTURE):

This alternative would include a small suite of structural practices necessary to implement a prescribed grazing plan to improve the health and vigor of expired CRP acres in Richland County. Appropriate infrastructure such as stockwater and wildlife friendly fencing will be implemented. Priority will be given to applicants that are willing to follow a prescribed grazing plan to establish proper grazing management and stocking rates. Stockwater and fencing would be allowed on non-CRP acres if it is necessary to implement the grazing plan on the expired or expiring CRP acres; but to be eligible prescribed grazing must be scheduled on those additional acres. This would be the preferred alternative.

ALTERNATIVE 2 (INFRASTRUCTURE):

This alternative would include necessary stockwater and fencing practices on expired CRP acres in Richland County. The TIP would address water quantity issues on these acres and may improve plant productivity and vigor by allowing grazing animals to forage and encourage regrowth of grasses and forbs. Alternative 2 was not chose because without prescribed grazing, the Richland County Local Working Group's priority resource concerns associated with soil and plant health may not be addressed.

EVALUATION AND MONITORING

Progress will be measured in the number of acres of grazing land provided with wildlife friendly fencing, prescribed grazing, and adequate livestock water quantity, quality, and distribution.

The Pasture Condition Score Sheet (PCS) will provide a baseline score before implementation and a final score will be recorded at the end of the contract. Plant health, vigor, and cover will be measured prior to implementation and at the end of the contract using permanent photo-points.

Total plant production and changes in plant litter will be measured at the beginning of the contract and after three years of grazing or at the end of the contract. Litter changes will be recorded using the photo-point transects; whereas the total plant production will be measured through a total biomass clipping near the transect. These factors will be an indication of nutrient cycling and soil biology relating to soil function.

Monitoring will be done by the producer with NRCS assistance. A portfolio of the baseline data will be provided to the producer at the beginning of the contract and then in the last year of the contract a final report will be provided for future reference and further improvements. The producer may also monitor more frequently and be included into this portfolio.

PROJECT TIMEFRAME AND IMPLEMENTATION

Applications will be taken in fiscal years 2023, 2024, and 2025. The TIP contracts are expected to last three to five years dependent on the infrastructure needed. A typical contract would include the first and second year of the contract installing infrastructure practices and then followed by three years of prescribed grazing.

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

Table 2: Available practices for each contract.

*NRCS will not provide financial assistance on this practice; management strategies outlined in an Upland Wildlife Habitat plan are generally incorporated into appropriate conservation practices, such as Prescribed Grazing.

BUDGET INFORMATION

Conservation plans may vary widely based on the operation and grazing units. The average sized EQIP contract for this TIP is estimated to require around $66,500 in EQIP funds; based on operations in the county and previous EQIP contracts. It is estimated this TIP would require around $1,662,500 to fund 25 conservation plans over three fiscal years.

Cost Estimate Breakdown for Typical Expected Contract				
Practice	**Cost/Unit**	**Unit**	**Extent**	**Cost/Practice**
Fence: Barbed/Smooth Wire	$2.20	Ft	10,560	$23,232
Pumping Plant: Electric	$1,808.02	HP	1.00	$1,808
Pumping Plant: Well pump test	$198.98	Hr	10	$1990
Watering Facility: Stocktank	$2.37	Gal	3,000	$7,110
Livestock Pipeline: Frost Free Buried	$2.15	Ft	5,280	$11,352
Water Well: Typical Well, 100-600 ft depth	$48.16	Lnft	350	$16,865
Prescribed Grazing – Range Standard (3yrs)	$3.35	Ac	150	$1,508
Prescribed Grazing – Pasture Standard (3yrs)	$5.82	Ac	150	$2,619
Total				**$66,484**

Table 3: Cost estimate breakdown for an expected contract.

Requested Funds by Signup Year				
Fiscal Year	**Expected Number of Contracts**	**Expected Acres Treated**	**Average Expected Cost Per Contract**	**Total Requested Funds**
2023	10	3,000	$66,500	$665,000
2024	10	3,000	$66,500	$665,000
2025	5	1,500	$66,500	$332,500
Total	**25**	**7,500**		**~$1,662,500**

Table 4: Funding request breakdown for the life of the three-year TIP.

WORKLOAD DEMANDS

Most of the workload demands will be handled at the field office level with assistance from Civil Engineers in the area. The Conservation District Administrator will assist with outreach. Some assistance may be needed from the Miles City Area engineering staff to survey and design planned stockwater projects.

PARTNERSHIPS

- Richland County Conservation District supports the Sidney Field office through outreach and education.
- Richland County Extension Office – MSU Extension will assist with outreach, providing facilities for meetings, and supplying some additional equipment.
- Montana Fish Wildlife and Parks has expressed the availability for additional cost share assistance for infrastructure through a competitive process. They also were interested in helping with grass stand improvement if necessary. Funding is pending their program approvals.
- Bird Conservancy of the Rockies has expressed the intent to help with additional cost share or have interest in infrastructure outside of EQIP (temp fencing, etc.). Funding is pending their program approvals.
- Dry-Redwater Regional Water Authority is planning a rural water system through Richland County and offered to help with planning and coordination.

RANKING

RANKING QUESTIONS

QUESTION	Ranking Points (Total 200)
Question 1: Does the application include Prescribed Grazing (528) on enrolled grazing land acres?	
Question 2: Pick one of the following: a. Based off the soils on the CRP acres in the application, do at least 51% of the CRP acres consist of soils with an I Factor Rating of greater than or equal to 86?	
b. Based off the soils on the CRP acres in the application, do at least 51% of the CRP acres consist of soils with an I Factor Rating of less than 86?	
Question 3: Pick one of the following: a. Based off the soils on the CRP acres in the application, do at least 51% of the CRP acres consist of soils with a T Value of 3?	
b. Based off the soils on the CRP acres in the application, do at least 51% of the CRP acres consist of soils with a T Value of 5?	
Question 4: Does the application include cross fencing to facilitate greater resting periods and a more progressive grazing rotation?	

REFERENCES

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