

2023 319 Application Form - General and Focus Watershed

General Information

Project Name Truman Creek Restoration at Montana Better Be	eef
Sponsor Name Montana Audubon	
Registered with the Secretary of State? Y UEI # Y8HPLZM5NG43	Registered with SAM? Y Does your organization have liability insurance? Y
Primary Contact Chris Meny	Signatory Larry Berrin
Title ACR Manager	Title Executive Director
Address P.O Box 595	Address P.O Box 595
City Helena State MT Zip Code 59624	City Helena State MT Zip Code 59624
406-443-3949 Phone Number	Phone Number 406-443-3949
Email cmeny@mtaudubon.org	Email Address <u>lberrin@mtaudubon.org</u>
Signature	Signature

Technical and Administrative Qualifications

Montana Audubon works with National Audubon to administer the Audubon Conservation Ranching (ACR) program in Montana. Currently two full-time staff, with a 3rd FT staff to be added in 2023, provide the primary technical staff support to the ACR program and the individual ranchers enrolled in the program. Both are biologists by training who will support the design, implementation, administration and monitoring for the project. Collectively, they bring over 30 years of avian and vegetation monitoring experience to the project in addition to their experience administering grants and projects for Montana Audubon. As part of enrollment into the ACR program, Audubon staff, along with the support from partners organizations like Xerces Society, County weed districts, and/or Conservation Districts, create individual Habitat Management Plans (HMP) tailored to each ranch. The ranch-specific HMPs include land management objectives and actions for enhancing ecosystem resilience and conserving key grassland bird species. HMPs are used to provide technical guidance for land management practices including regenerative grazing, non-chemical pest control, invasive species management, and the development of infrastructure projects that improve rangeland and watershed health. Once adopted, ranch HMPs provide an action timeline for management goals related to priority bird habitats, bird monitoring, water quality and storage, rangeland and soil health, drought management, and carbon sequestration. The Montana Better Beef Ranch is currently operating under an ACR certified HMP that was adopted in August of 2021. Goals within the plan seek to reduce the operation's reliance on haying one field east of Truman Creek, a tributary to the impaired Ashley Creek. Guidance within Montana Better Beef's HMP, the Flathead-Stillwater Watershed Restoration Plan, and the 2017 Montana Nonpoint Source Management Plan, all support the need for activities necessary to carry out this proposed project. The landowner is invested in the project and has decades of experience working on this landscape. Restoration activities planned for 2023 will launch the project and are currently also supported by the Flathead Conservation District.

Budget Summary: *Fields outlined in <u>black</u> on this page will auto-populate from other sections of the application form. Fields outlined in <u>red</u> on this page will not auto-populate. You must manually input the information for fields outlined in <u>red</u>.

jieius outillieu III <u>ieu</u> .	319 Funding Request	Non-Federal Match	Other Funding	Total Cost
Education and Outreach Project	\$ 2,232	\$0	\$ 0	\$ 2,232
Administration	\$ 1,154	\$3,464	\$ 0	\$ 4,618
Project 1 Name	Truman Creek Restor	ation at Montana Better	Beef	
Project Planning	\$ 2,480	\$ 0	\$ 0	\$ 2,480
Landowner Agreements	\$ 288	\$ 0	\$ 0	\$ 288
Project Implementation	\$ 6,865	\$ 13,990	\$ 0	\$ 20,855
Project Effectiveness Monitoring	\$ 3,720	\$ 0	\$ 0	\$ 3,720
Total	\$13,353	\$13,990	\$ 0	\$27,343
Project 2 Name				
Project Planning				\$ 0
Landowner Agreements				\$ 0
Project Implementation Project				\$ 0
Effectiveness Monitoring				\$ 0
Total	\$ 0	\$ 0	\$ 0	\$ 0
Project 3 Name				
Project Planning				\$ 0
Landowner Agreements				\$ 0
Project Implementation Project				\$ 0
Effectiveness Monitoring				\$ 0
Total	\$ 0	\$ 0	\$ 0	\$ 0
Project 4 Name				
Project Planning				\$ 0
Landowner Agreements				\$ 0
Project Implementation Project				\$ 0
Effectiveness Monitoring				\$ 0
Total	\$ 0	\$ 0	\$ 0	\$ 0
Grand Total	\$ 16,740	\$ 17,454	\$ 0	\$34,193

Education and Outreach

Developing good projects often requires a considerable amount of time and effort up front to build relationships and trust with individual landowners and stakeholder groups. It also requires adequate training for project sponsor staff (e.g., technical training, project management, public procurement, technical writing, etc). To promote the development of future projects, DEQ is encouraging project sponsors to use up to \$5,000 in 319 funding for education and outreach to develop and capitalize on critical relationships and to improve organizational capacity. DEQ also encourages applicants to incorporate on-the-ground projects into education and outreach efforts through on-site demonstrations and project tours. 319 funding may not be used to pay for food and beverages, or for honorariums and gifts.

Activity (method of delivery)

Education and Outreach for the Truman Creek restoration project will be supported through Montana Audubon's staff capacity to bring volunteers on site for project implementation. Montana Audubon's Volunteer Coordinator will assist with capacity.

Target Audience

Montana Audubon supporters and volunteers

Goals

For these and other on-ranch projects, Montana Audubon seeks to provide monthly newsletter updates for supporters and Audubon Chapters in Montana. In addition to write-ups, 1-2 in-person volunteer education and outreach and training days will be organized as workdays for woody vegetation planting goals of the Truman Creek project.

Effectiveness Evaluation

Because restoration projects through ACR represent some of Montana Audubon's first onthe-ground projects, we expect our supporters to be very supportive of, and motivated by, projects like the Truman Creek Restoration. In addition to opening rates (discussed below), our projects will be deemed successful if we are able to connect with about a dozen on-theground project volunteers.

Activity (method of delivery)

Education and Outreach for the Truman Creek restoration project will be supported through Montana Audubon's staff ability to communicate with the public through print and social media.

Target Audience

Montana Audubon supporters (6,000+), ACR ranches in MT (12)

Goals

Open rates for e-newsletters are often an indicator of project success for organizations. Montana Audubon's success rate is ~18% for many project articles, with some open rates even higher. This project will support quarterly electronic updates to Montana Audubon supporters via our eNews and social media channels, and a print update upon completion.

Seeing the project to completion and reporting by the time of printing Montana Audubon's Fall 2024 newsletter will demonstrate project completion within an effective timeline.

Effectiveness Evaluation

Activity (method of delivery)

Education and Outreach for the Truman Creek restoration project will be supported through Montana Audubon's staff connection to the western US-wide Audubon Conservation Ranching network and staff. Network staff meet bi-weekly to discuss HMPs, issues, and projects. National Audubon staff meet ACR staff monthly to discuss state by state success.

Target Audience

National Audubon ACR staff and the 115 ranchers they work with across 3.5 million acres

Goals

Make other state ACR staff aware of the planning, execution, administration, success and pitfalls that can accompany a project of this scale. Share methods and best management practices for working with unique sources of state restoration funding for private lands. Share lessons regarding how soil monitoring contributes to understanding water quality.

Effectiveness Evaluation

ACR staff meet up to 36 times a year online to discuss program activities and implementation. Montana Audubon's presence at each of those meetings is a strong metric of our state's contribution to the overall ACR initiative. Currently, we are not aware of how other states make use of important funding sources that are similar to Montana's 319 program. Our work and communication will be effective if other states begin to utilize similar sources of funding, begin to grow connections to Conservation Districts (or their state's equivalent), and if we can share soil data across the network to understand its connection to water quality.

319 Funding Request	Non-Federal Match	Other Funding*	Total
\$ 2,	232	<u> </u>	\$ 2,232
Match Source			Secured
Match Source			Secured
Match Source			Secured

^{*}Use this space to record any funding that will be used to support creation of the task deliverables, but will not be reported as match. The purpose of this information is to give application reviewers a clearer understanding of the total amount of funding required to complete a task.

Project Administration

Project administration includes book keeping, invoicing, interim/annual/final report preparation, office supplies, rent, communications, etc. 319 funding applied to this task must not exceed 10% of the total amount of 319 funding requested, or \$12,000, whichever is lower. Like all other tasks, payment is by reimbursement for actual expenses incurred.

319 Fun Reque	-	Non-Federal Match	Other Funding*		tal ost
	\$1,154	\$3,464			\$4,618
Match Source ⁷	5% of Montana Au	idubon administration costs		Secured	
Match Source				Secured	,

^{*}Use this space to record any funding that will be used to support creation of the task deliverables, but will not be reported as match. The purpose of this information is to give application reviewers a clearer understanding of the total amount of funding required to complete a task.

Project 1

Project Form

A separate Project Form *(including providing separate attachments)* must be submitted for each project included in your application. Use the following examples to help determine when to lump and when to split projects. For additional assistance, contact Mark Ockey at mockey@mt.gov or 406-444-5351.

<u>Splitting Examples (fill out multiple Project Forms)</u>

- Stream restoration work occurring on two separate streams, on parcels owned by two separate individuals
- Two projects with significantly different sets of project partners
- Two projects that address substantially different pollution sources (e.g., one project moves a corral off of a streambank, and another removes mine tailings, with both projects being on the same property)

Lumping Examples

- Contiguous stream restoration work spanning multiple land parcels
- 3 projects that address similar sources of pollution on a single land parcel (e.g., moving a corral off a stream, implementing a grazing management plan, and relocating a manure storage facility out of the floodplain, all on the same ranch)

Project 1 - Problem Description

Select the watershed restoration plan (WRP) that your project will help implement.

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Flathead Stillwater - Flathead Conservation District	
Y Letter of support from author entity a	ttached? (If no, explain why below.)
Waterbody name from the 2020 List of Impaired Waters	(Middle) Ashley Creek – Smith Lake to Kalispell
Probable causes of impairment to be addressed	Sediment, Temperature, and Total Nitrogen
Waterbody name from the 2020 List of Impaired Waters	
Probable causes of impairment to be addressed	
Name of healthy waterbody to be protected	Truman Creek, Tributary to Impaired Middle Ashley Creek
Description of identified threat to non- impairment status	Sediment, Temperature, and Total Nitrogen are probable causes of impairments to Ashley Creek downstream, and are probable impairments to Truman Creek due to current ranching activities.
Name of healthy waterbody to be protected	
Description of identified threat to non- impairment status	

Detailed Problem Description

Provide a detailed description of the nonpoint source pollution problem you are attempting to address. Be sure to include the following:

- Identify the primary types of pollution
- Identify the primary sources of the pollution
- Identify the root causes of the pollution
- Describe any previous work done to address the problem (who, what, where, when)
- Describe the impacts of the problem (who, what, where)

The Montana Better Beef Ranch operates 4 properties at the foot of the Salish Mountains in northwestern Montana, all of which are 10-30 miles west of Kalispell, MT. Montana Better Beef's grazing strategy can be summarized as intensive rotational grazing, supplemented by haying for high quality feed later in the year. Cattle are rotated through cells at semi-regular intervals based on grass height status. The ranch consists of approximately 1,460 acres, including 860 family owned acres across 4 properties, and 600 acres on state lease parcels. Approximately 1,120 acres are pasture, 240 are crop, and 100 are wetlands, woodland, open water, or stream. The properties can produce enough forage and hay to finish 90 animals a year.

The proposed project site is unique within the ranch because of its proximity to important wildlife refuges, a variety of ecotypes, and an abundance of water relative to other ranches in Montana. Smith Lake Waterfowl Production area lies just to the west and the highwater table maintains wet pastures on either side of Truman Creek (proposed project site). This pasture experiences seasonal flooding, which allows the property to host a diverse array of bird species and bird habitats.

Sparse stream-side production and cattle grazing introduce point source pollution in terms of erosion/sediment and nitrogen from waste into the waterway. Creek crossings by machinery, for haying, and by cattle both contribute directly to sediment loads and sparse vegetation exposes the waterway to intense sunlight and evaporation. Aged fencing allows cattle easy access to riparian areas. The concern with non-point source pollution created at this site is its upstream proximity to the impaired Ashley Creek waterway. Here, streambank erosion has been identified as a major source of sediment loading.

Restoring the riparian vegetation, as well as maintaining stable streamchannel bankfull width and instream discharge conditions during the hottest summer months, are important for meeting TMDL temperature reduction goals. A primary concern with rising stream temperatures are the effects warmer water has on native fish populations, such as westslope cutthroat trout, which is listed as a species of concernin Montana and occur in Ashely Creek and Whitefish River. Without proper management, these native fish have the potential to be out-competed by non-native fish species that are adapted to warmer temperatures (DEQ, 2014b).

Planting riparian vegetation provides shade and intercepts direct sunlight before it reaches a waterbody. Its presence also reduces nearstream wind speed and traps air against the water surface, which reduces heat exchange with the atmosphere. Lastly, a lack of established riparian vegetation can increase streambank erosion, leading to overwidened streams, which increases surface area for solar radiation.

Improving the water quality of Truman Creek has downstream effects on water quality for the impaired Ashley Creek and the Flathead Lake watershed. Current sediment loads increase turbidity, decrease dissolved oxygen and impact wildlife directly through food-web impacts that start with macroinvertebrates. Increased water temperature negatively impacts the 8 species of native cold-water fish in the watershed, including two native cutthroat species. Issues that can impact entire watersheds affect communities' quality of life, the quality of outdoor recreation, and economic opportunities in rural communities.

The landowner at Montana Better Beef has started to address these problems by developing a Habitat Management Plan (HMP) as a participant in the Audubon Conservation Ranching (ACR) program, and by collaborating with the Flathead Conservation District to develop a streamside vegetation and fencing plan. These partners developed a plan to reduce the need to cross the stream with heavy equipment for haying, and to transition the field running along the eastern border of Truman Creek from a hay field to grazing pasture. Electric fencing for this proposed project has already been purchased.

Project 1 - Solution Description

Provide a detailed description of the solution you are proposing to implement to address the nonpoint source pollution problem described in the previous section. Be sure to include the following:

- Describe the range of options available for solving the problem, including a no-action alternative
- Describe the practices you intend to design and/or implement to solve the problem (what, where, when, how much or how many)
- Explain why the chosen alternative is the best alternative
- Describe any pre-project planning that has already taken place (e.g., design work, permitting consultation, Endangered Species Act consultation, wetland delineations, landowner agreements, community outreach)
- Describe the anticipated maintenance needs (what, where, who, how long)

The Truman Creek Restoration project is a two-parted and two-phased solution to reduce probable causes of nonpoint source pollution to Truman Creek, Ashley Creek downstream, and the Flathead Watershed. Because the probable causes of impairment include sediment, temperature, and total nitrogen, the preferred options for addressing these threats include increasing riparian vegetation and protecting the riparian areas. An additional alternative is to build a permanent bridge structure over Truman creek to reduce the impact of both cattle and heavy equipment that are needed to access for haying the eastern 62-acre field. However, the field's proximity to an emergent wetland means the continuation of haying will continue to degrade soil health and grassland bird/wildlife habitat. Under a no-action alternative, ~160 head of cattle will continue to contribute nonpoint pollution to Truman Creek at creek crossings where stream bank structure and vegetation has been compromised over time. As well, under a no-action alternative Montana Better Beef will likely have to continue to hay the 62-acre field overlaying an emergent wetland, and lying directly to the east of Truman Creek.

The preferred alternative restoration project includes riparian plantings of willow, hawthorn, rose, and choke cherry along both banks (1,440') of Truman Creek. Along with the riparian planting, the preferred alternative excludes cattle from the riparian area on the east side while removing the hay operation on 62 acres there. Forage improvements are needed to assist the haying reduction. Because the need to address pollution on Ashley creek is so immediate, the proposed alternative of riparian plantings and protection is the most time-sensitive and cost-effective action to take. Riparian plantings can quickly increase stream shading, reduce stream bank erosion, and increase groundwater recharge. Further, the landowner has already obtained funding for phase one of the preferred alternative. Funding for the bridge improvement is also a challenge at this time, and would be more manageable as a structure for just a cattle crossing rather than cattle and heavy equipment. Funding saved under the preferred alternative can be utilized to improve pollinator habitat along field edges, and for project maintenance and monitoring costs.

Pre-project Planning: MTA has worked with MTBB since the winter of 2021 and MTBB's HMP was accepted by the ACR program in August 2021. The Truman Creek project has been reviewed and supported by the Flathead Conservation District, the Flathead Land Trust, and MTA. The goals of the HMP and ranch management have been certified by Food Alliance. The landowner has received financial support from the Flathead Conservation District, and the landowner has committed his own time and funding for the initial phase of Truman Creek Restoration along a 1,440' section. The landowner has consulted with Flathead Land Trust (with whom he holds an easement agreement). Montana Audubon has agreements with the landowner to achieve ready access, and access has been granted to Land Trust and Flathead Conservation District Partners. Plans, as required by Audubon Bird-Friendly Certification, are in place for bird and vegetation monitoring during the summers of 2023 and 2024.

Anticipated Maintenance need: Phase one riparian plantings and tree tubes along Truman Creek will need to be installed, maintained, and potentially replaced. The purchase of riparian planting materials under this proposal is a direct result of the anticipated maintenance needs for phase one of this overall project (taking place in the summer of 2023). Based on the assessment of 2023 plantings, additional plants and tree protection tubes will be purchased to enhance the first year's plantings. Volunteers will be trained to maintain the 2023 plantings and those that did not survive will be replaced during 2 days in the summer of 2024. If need be, volunteers will be recruited for an additional day of local vegetation harvesting for the riparian plantings. Additionally, the proposal has estimated the number of acres east of Truman creek that may need reseeding at 15, in case seeding in 2023 was unsuccessful. The landowner will implement the reseeding operation and anticipates needing 9 days to plant in both phase one and phase two.

Project 1 - Goals and Effectiveness Evaluation

List the specific, measurable nonpoint source goals for your project.

1. Plant woody riparian plants with protective fencing along 1,140' on both sides of Truman Creek.

2.	Construct an additional riparian fence (450 yards) on the east side of Truman Creek, at an approximate distance of 50 feet from the streambank.
3.	Complete elimination of haying on 62 acres east of Truman Creek, which will eliminate all machinery crossings to swath, bale, and transport hay from the east side of Truman Creek, a total of about 80 crossings with a tractor and implement.
•	n how you will determine whether the you have met the goals described above. Identify any data you intend to , calculations you'll make, or methods you intend to use.
the pote nerbace and for grasses,	ion to new water quality measurements that will be needed, vegetative cover is an important indicator of soil health and ential of the soil to sequester carbon. Vegetation monitoring conducted by Montana Audubon each year includes: exotic eous species cover (i.e., invasive annual grasses and noxious weeds), brush and tree cover, species composition of grasses be (used to establish diversity), vegetative structure (overall and by growth form [e.g. overstory shrubs and understory /forbs]), bare ground and forage cover by growth form. Surveys at approximately 10 bird and vegetation plots will be ted during both phases of the project.
rack so samplin certified	ion, ACR adopted soil health monitoring protocols that strive to make sure each ranch receives the resources needed to ill carbon, soil nutrients, soil organic matter, and microbial biomass, and perform the Haney Soil Health Test. These direct g methodologies will pair well with the vegetation structure and biological data collected to assess the overall health of d ranchers landscapes and inform the implementation of regenerative grazing practices through each ranches' HMP. This seline soil sampling will be completed at least once per restoration ranch during the project duration for four new studies

Project 1 - Location

Upstream End	Latitude	48.09174	Longitude	-114.4728				
Downstream End	Latitude	48.09551	Longitude	-114.47151				
Centerpoint	Latitude	48.09363	Longitude	-114.47231				
Upstream End	Latitude		Longitude					
Downstream End	Latitude		Longitude					
Centerpoint	Latitude		Longitude					
Upstream End	Latitude		Longitude					
Downstream End	Latitude		Longitude					
Centerpoint	Latitude		Longitude					
Detailed Project site map(s) Attach a map or set of maps showing the location and size of proposed activity. The map scale must be between 1:1,000 and 1:12,500. The map(s) must have an aerial photo background (e.g., USDA NAIP photography, Google Earth imagery, etc.). The map(s) must show the latitude, longitude, site name, and landowner for the activity site. The map(s) should also identify waterbodies affected by the pollution that the activity is designed to address. Other Attachments - (These documents are not required, but may be submitted to provide more specific details								
about a project or to demonstrat of time it will take an application appropriate; do not attach WRP	reviewer to	o find relevant information with	in a documen					

Project 1 - Partners

Identify each of the project partners and describe their contribution to the project. Include landowners, land managers, project designers, funders, and your own organization. Indicate whether each partner, other than your organization, has provided a letter of support. (*Note: each landowner must provide a letter of support.*)

Letter of

Landowner	Contributions to Project	Support Attached?
Pete Wade, Montana Better Beef	Planning, funding for phase one of the project, labor, materials procurement.	✓
Project Partner	Contributions to Project	Letter of Support Attached?
Flathead Conservation District	Planning, funding for phase one of the project, project support and technical advice.	•
National Audubon Society	Support for soil health testing, including monitoring soil carbon, water infiltration, soil microbial biomass, and soil nutrient status.	~

Project 1 - Budget

Use the space below to outline your project budget.

Project Planning This includes costs for surveying, engineering, permitting, procurement, construction oversight, and overall coordination of the proposed project. This does not include things like reporting, book keeping, communications, office space, or utilities, which are all covered in the Project Administration budget.

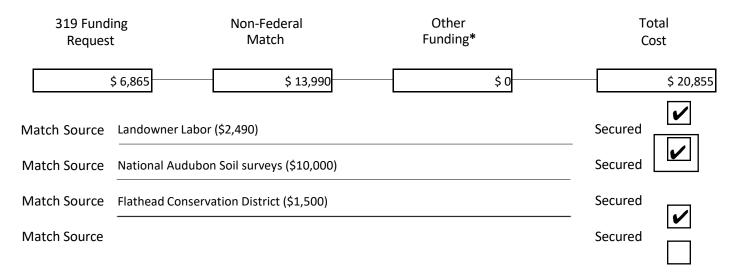
319 Funding Request	Non-Federal Match	Other Funding*	Tot Co	
\$ 2,480		\$ 0		\$ 2,480
Match Source			Secured	
Match Source			Secured	
Match Source			Secured	
Match Source			Secured	
			_	

Landowner Agreements This includes costs for developing and managing landowner agreements. The landowner agreement(s) must verify that Contractor and DEQ staff may access the project site, at reasonable times and with prior notification, for the purposes of project planning, implementation, and post-implementation monitoring. The agreement(s) must ensure appropriate operation and maintenance of all structures, vegetation, and management measures for the life of the project. If grazing will be allowed within the project area, the agreement(s) must include a sustainable management plan for livestock grazing, designed to protect and enhance riparian function.

319 Fundin Request	•	Non-Federal Match	Other Funding*		Total Cost
	\$ 288			<u> </u>	\$ 288
Match Source				Sec	cured
Match Source				Sec	cured
Match Source				Sec	cured
Match Source				Sec	cured

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Project Implementation This includes costs for all materials, labor, equipment, and as-built surveys associated with implementing the plans developed under the Project Planning task. If you are requesting funding for design only, leave this task blank.



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Project Effectiveness Monitoring This includes costs for developing and implementing a reasonable method or set of methods for evaluating and reporting on the effectiveness of the project in achieving NPS pollution goals. It includes preparation and implementation of a monitoring plan, and preparation of a monitoring report. If the project goals include reducing sediment, nitrogen and/or phosphorus, this task will also include calculation of annual load reduction estimates. Photo-point monitoring is also a standard requirement for this task. If you are requesting funding for design only, you may either leave this task blank or request funding for plan development and pre-project monitoring.

319 Funding Request	Non-Federal Match	Other Funding*	Total Cost
\$ 3,720	\$0	\$ 0	\$ 3,720
Match Source			Secured
Match Source			Secured
Match Source			Secured Secured
Match Source			Secured Secured

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Project 1 - Project Timeline

3Q 4Q 1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q 2Q

Task Description

Project planning - Asses results of phase 1 10 acre						
planting that took place in spring of 2023						
Project planning - Asses results of phase 1 woody vegetation planting along Truman Creek						
Project planning - Obtain landowner agreements for access for DEQ staff, etc.						
Project planning - start planning volunteer planting events and make plant purchasing plans						
Project execution - purchase additional seed						
Project execution - plowing, disking, floating, and drilling for sewing additional 10-15 acres						
Project execution - work to purchase any additional tree protection tubes						
Project execution - work to communicate project successes via print newsletters, social media, etc.						
Project execution - annual soil and bird monitoring						

Project 1 - Bigger Picture Benefits

Environmental Justice

Explain how your project incorporates disadvantaged community populations and priorities, Tribal and community leader engagement, or socioeconomic barriers in the context of equal protection and access to a healthy environment.

The proposed restoration project takes place in the rural community of Kila, MT, about 10 miles west of downtown Kalispell. By supporting improved grazing management and a reduced reliance on annual hay production, this project will reduce bottom-line costs for the management of Montana Better Beef Ranch (MTBB). MTBB contributes healthy organic meats to the local community.

As business owners, rural ranchers face increasing market barriers to turning their ranching operation into a profit that can keep families and the land intact. Reducing inputs keeps production and labor costs lower, while reducing the environmental impacts of meat production and increasing the resilience of the land. Ranchers participating in ACR have access to markets with increased premiums. Along with access to grant funding, this financial support should allow Montana Better Beef to adjust their management practices for the benefit of wildlife, water quality, and operational sustainability. What Montana Audubon learns in this project is amplified across the ACR network to all of the rural ranching communities where we operate.

Climate Change/Resilience

How will your project improve climate change resilience for communities, native plants, wildlife, or ecosystems?

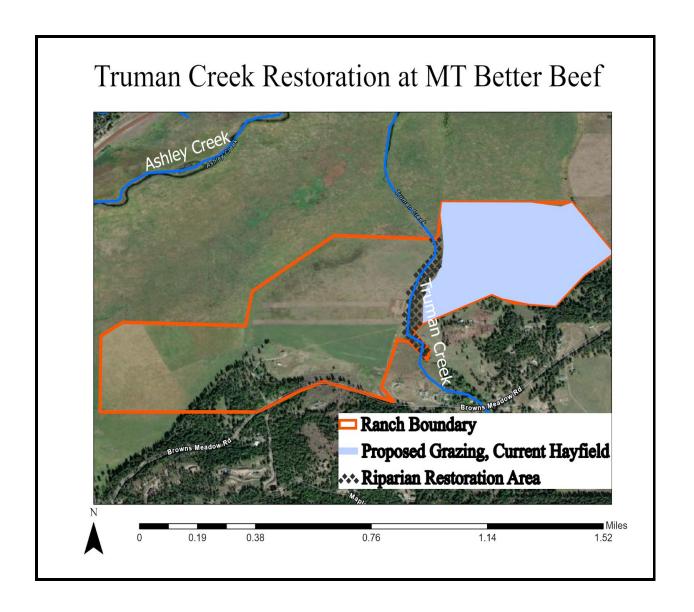
The Intergovernmental Panel on Climate Change's Special Report on Climate Change and Land identifies "better grazing land management" as having large potential for climate change mitigation in livestock systems through increases in soil carbon stocks (IPCC 2019), and recent research shows that grasslands can store up to 200 metric tons of carbon per acre. This comes with environmental co-benefits such as biodiversity conservation: for example, one of the key findings of National Audubon Society's Natural Climate Solutions Report (2021) is the significant overlap in grasslands that provide value for both sequestering atmospheric carbon and preserving habitat for birds. Part of each ranch HMP considers how the ranch can implement climate-smart production and land management practices that sequester carbon and increase habitat resilience. Reducing MTBB's reliance on annual haying, and improving the forage abundance and quantity of the ranch will improve soil health, create carbon capture, and improve resilience through increased vegetative species diversity.

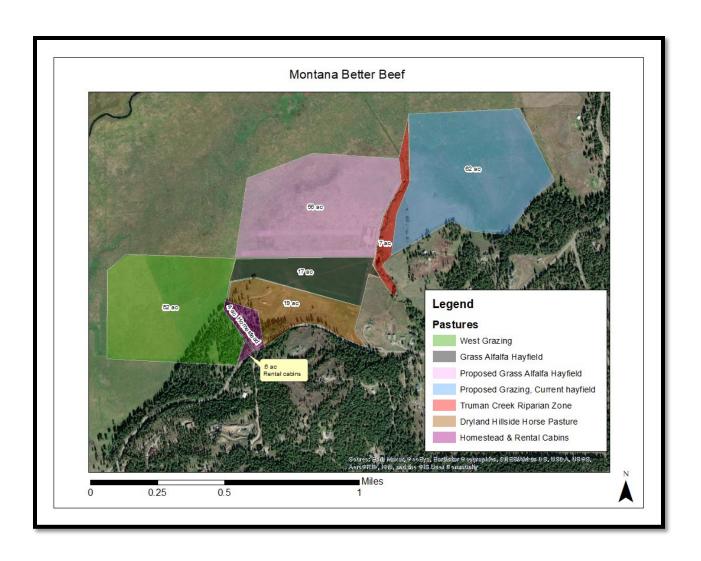
Impacts to Downstream Human, Plant and Animal Communities

What sort of an impact will your project have on downstream human, plant or animal communities?

Ranches with ACR-enrolled lands provide contiguous migratory corridors and stopover sites for wildlife, maintain intact prairie and grasslands at the heart of Montana communities, and help protect water quality. By working under an HMP, the rancher has committed to working under improved management and technical grazing plans that improve soil health, and help sequester carbon. Montana Better Beef's (MTBB) Truman Creek restoration project will amplify the good management they have committed to by reducing the sediment load, nitrogen content, and temperature of the impaired Ashley Creek in the Flathead Watershed. All of the creeks in this area drain into Flathead Lake which supports a vibrant local community, important tourism industry, and other valuable wildlife. Flathead County is one of the fastest growing counties in Montana, and maintaining water quality will be important to sustain a growing population. Passive and active improvements to the riparian area along Truman Creek have the downstream benefits of improving groundwater recharge, reducing flood severity, and preventing streambank erosion. A reduction in having will save fuel, increase soil health, and increase the soil's ability to sequester carbon.

Map





Letters of Support



Audubon Conservation Ranching 1725 South La Frenz Liberty, Missouri 64068

October 6, 2022

Dear DEQ 319 Nonpoint Source Project Program,

This letter serves to document in-kind match of \$10,000 from the National Audubon Society for Montana Audubon's grant application to the DEQ 319 Nonpoint Source Project Program to support the implementation of the Audubon Conservation Ranching (ACR) program in Montana. For almost three years Montana Audubon has been our key partner organization for ACR in Montana, a state that harbors vast areas of intact native grassland critical to populations of several imperiled grassland bird species.

As outlined in the proposal, this funding will allow for the implementation of key restoration activities within Montana Better Beef Ranch, an ACR certified ranch containing waterways noted in the Flathead-Stillwater Watershed Restoration Plan. The restoration of streams like Truman Creek helps support the goals of ACR along with broader water quality and soil health goals across the landscape. National Audubon staff will work collaboratively with Montana Audubon staff and other key partners on this important project, as this work represents the first effort to directly address stream quality through ACR in Montana serve as a transferable model for others to emulate and adapt.

As part of the monitoring on this Audubon Certified ranch, National Audubon Society will be conducting baseline soil health/soil carbon monitoring on the ranch. This monitoring includes sampling to one meter in depth to provide a highly reliable estimate of existing soil carbon within the soils of the ranch. The cost of this monitoring is expected to be approximately \$10,000.

I would be happy to elaborate on this monitoring effort as needed. My email is cwwilson@audubon.org.

Sincerely,

Chris Wilson

Christopher Wilson
Director, Audubon Conservation Ranching

Montana Better Beef Ranch

September 30, 2022

Re: DEQ 319 Nonpoint Source Project Program

To Whom It May Concern,

I am very pleased to support watershed restoration through Montana Audubon's DEQ 319 Nonpoint Source Project Proposal and the Audubon Conservation Ranching Initiative (ACR) in general. As a producer who is part of the ACR Initiative, I have partnered with Montana Audubon with a shared understanding and goal of helping keep open spaces open and improving habitats for birds, wildlife, water quality, and my organic grass-fed/finish ranching operation. I consider this partnership a key part of Montana Better Beef's conservation and improvement efforts.

The proposed project site, including 61 acres of family owned grasslands and the streambanks surrounding 1,440 feet of Truman Creek, is an important contributor to the health of the Middle section of Ashley Creek; a downstream creek listed as impaired under Montana's 2019 Impaired waterways listing. Project efforts aim to tackle probable sources of impairment to Ashley Creek, including increased nitrogen, increased temperature, and increased sediment, by reducing those same threats along Truman Creek.

Improved pasture condition in the fields east of Truman creek will reduce our ranch's need to hay those same fields, and therefore the need to drive heavy equipment across Truman Creek. It will allow our cattle to better utilize the pastures east of the creek, and the riparian fencing will maintain their distance from the creek bottom itself. Planting woody vegetation along the riparian corridor will enhance the stream's ability to naturally regenerate, and should help mitigate water temperature.

This project seeks to build and protect Truman Creek's riparian areas while improving utilization of the grasslands at Montana Better Beef. We are excited to have the opportunity to work with Montana Audubon and feel that by executing the conservation action items outlined in our ACR Habitat Management Plan (and this proposal) not only will our livestock and livelihood benefit, so will the birds and wildlife that depend on our ranch lands.

On behalf of Montana Better Beef, I would highly recommend Audubon as a partner and as a grantee.

Thank you,

Thank you,

Pete Wade

Supplemental Attachment 1

Flathead Conservation District
Conservation Grant Program Application and Subsequent Funding
Contract



CONSERVATION GRANT PROGRAM APPLICATION

Application Deadline: April 30th				
Instructions: This application must be control practice. <u>Incomplete applications will not</u>				or each
By mail: Flathead Conservation District 133 Interstate Lane Kalispell, MT 59901	<u>OR</u>	By email: samantha@t	flatheadcd.org	
Applicant Information The applicant is responsible for researching.	, planning, and imp	olementing the conser	vation practices.	
Name(s): Ronald K. Ry	ete Wa	de		381 11 1
Mailing Address: POBox 317	>			
City/Town: <u>Kilz</u> Phone: <u>400 260 3927</u>	E	mail: pwade 4	-2@icloud	, com
Landowner Information Skip this section if Landowner is the Applica Name(s):	nt			
Mailing Address:				
City/Town:				
Phone:	E	mail:		

OFFICE USE ONLY:

Application #:

Date Received: APR 2 8 2022

Site Visit Date:

CG-2022-03

Flathead CD

Droid	ot Cit	o In	form	ation
Prole	CL 211	e m	orm	alion

Provide as much information below as possible.

Address (if different than Landowner address): See included svvvey					
City/Tov	/n:		State:	XX	Zip Code:
Geocode	D	- In the second			
1	/41/41/4, Sectio	n: <u> </u>	, Township: 27	N	, Range: <u>22 W</u> ,
Longitud	le:	-	, Latitude:		
Directio	ns to site from nearest highway:				
Agr	land use (for example: agricultur LCOLTUTE nd uses, including historic (if kno		dence, timber):		
	rvation Practice(s), check ation practices are the elements			l resou	rces.
X	Riparian fencing	X	Windbreak		Soil health projects
X	Riparian vegetation planting	X	Windbreak Wildlife habitat improvement		Other (list)
	Stream crossing installation / replacement / upgrade		Pollinator habitat	X	streambank restoration
	Wetland restoration		Grass and/or forb seeding	Х	sediment reduction in Trun
	Spring development		Reforestation	X	elimination of having
	Stock water tank and pipeline		Forest stand improvement	-	footprint in parcels 3
	Weed control		Forest disease reduction		

Technical Support

List of technical support from various professionals.

Samantha Tappenbeck, <u>samantha@flatheadcd.org</u>
Franz Ingelfinger, Montana Fish, Wildlife, Parks Service, <u>FIngelfinger@mt.gov</u>
Both provided information on riparian planting.

Agencies who support project.

Montana Audubon Society, Amy Seaman, aseaman@mtaudubon.org

How will this project benefit natural resources (soil, air, water, wildlife) and/or the public? Fencing to allow for rotational grazing: grazing by large herbivores is believed to benefit imperiled grassland biomes by increasing the number of forbs as well as developing and preserving the deep chernozem soils underneath, such as in the Great Plains (https://doi.org/10.1002/fee.2405 and https://doi.org/10.1002/fee.2448), and providing necessary habitat for grassland birds (Audubon Society). Healthy riparian zones provide natural habitat and cover for wildlife and birds, and enhance stream environment for invertebrates, amphibians, and fish.

Describe any previous conservation practices, funding, and/or partnerships.

This ranch has been certified organic by the Montana Department of Agriculture since 2004. It became an Audubon Certified Ranch in 2021. The owner, in conjunction with three other ranchers, received a western SARE grant in 2022 for a project titled: Establishing a cool season legume grass finishing pasture. The experimental pasture for this project will be on the southernmost side of parcel 4. All cattle on this ranch are raised and finished entirely on grass and forbs (no grain).

Project Details

Describe current condition of property and land use goals.

Parcels 3 and 4 are hayed in July and August; they are grazed during October and November. The Truman Creek riparian zone is fenced on both sides except for a low-water crossing/water gap. The last few hundred feet of riparian zone on my property below the low-water crossing has no woody plants at all. Above the crossing, there is mostly alder along the streambanks, but with several gaps. All of these gaps show considerable erosion and bank instability (one bank has eroded several feet, as evidenced by fence posts that are still attached to wire hanging alongside the bank. My goal is to convert parcels 3 and 4 to rotational grazing only (in conjunction with establishment of additional alfalfa-grass hayland on the opposite side of Truman Creek), with grazing from mid-May through November, and to plant Douglas fir on the east side of the riparian zone for a windbreak, plus several woody species on both sides of the creek for wildlife and bird habitat, and willows along the streambank for erosion control.

Provide a brief description of the project and include materials, dimensions, and methods.

Owner will supply wooden posts, floating braces, and some electric fence material (such as sleeves for high-tensile wire, insulated wire to connect high-tensile wire at wooden posts, etc.), plus labor to install fence. I've attached a Google Earth map (parcels 3 & 4 are shown in the legend) and survey of the property (dimensions are on the survey). Owner will supply some labor, and hire some labor, for plantings and installation of tree tubes for deer protection. Materials and their costs are shown on budget page 5.

Provide a timeline for project implementation.

Fencing: Begin fall, 2022; continue fall, 2023; finish fall 2024.

Planting: Spring, 2023.

How will you maintain the project in the future?

Fencing: All fencing requires regular inspection (weekly) and maintenance when needed. I now have four years of experience with high-tensile (electric) wire and polywire and rotational grazing. Cattle almost never bother the high tensile wire, because it's very hot and very strong. Polywire is also hot, but not as strong. However, it's designed to be moved regularly as livestock is rotated to another cell for grazing.

Planting: All plantings are inside a completely fenced riparian zone, and will be placed inside a tree tube.

Project Budget

Complete the table below and attach any quotes or formal estimates.

Practice Description	Unit	Cost per Unit	#/Amount of Unit Needed	Total Cost
Example: Herbicide application for weed control	Acres	\$120.00	14.5	(120 × 14.5 =) \$1,740.00
Example: Tree and shrub seedlings for windbreak	Seedlings	\$2.00	200	(2 × 200 =) \$200.00
Example: Native grass seeding	Acres	\$150.00	5	(150 × 5 =) \$750.00
Tree seedlings for windbreck	seedlings	1.26	130	163.80
Tree seedings for windbreck willow seedings for streambank shrub seedings for riparian 2011	e Seedlings	1.29	300	387.80
Showb seedlings for vipovious		1.80	48	86.40
Tree tubes	Pk of 250	136.95	2	273.90
Bamboo stakes	PK of 500	80,25	1	80.25
HI-TENSILE WIRE 12/240	2000 AOLL	84,75	3	254.25
permanent fiberglass posts	each	9.25	104	962.00
Polywire	1320 vol	49,75	3	149,25
step in posts	box of 50	249.75	l	249.75
Geored reel for polywire	each	83,25	3	249.75
Ratchet strainer	each	5.30	45	238.5
Insulators	each	1,95	30 2	88,20
Coffer pins for fiberglass pots	Pk of 100	1a.75	1	la,75
Electric fence signs	each	1.75	12	21.00
LABOR For planting	day	120.00	2	240,00
Total Project Cost:				3456 .80
Amount Requested from Flathead Conservation District: May not exceed 75% of total project cost				

Signature

I/we hereby declare that the information and all statements attached to this application are true, complete, and

Landowner Signature (if different than Applicant)

TECHNICAL ASSISTANCE FOR CONSERVATION GRANT PROGRAM APPLICANTS & PARTICIPANTS

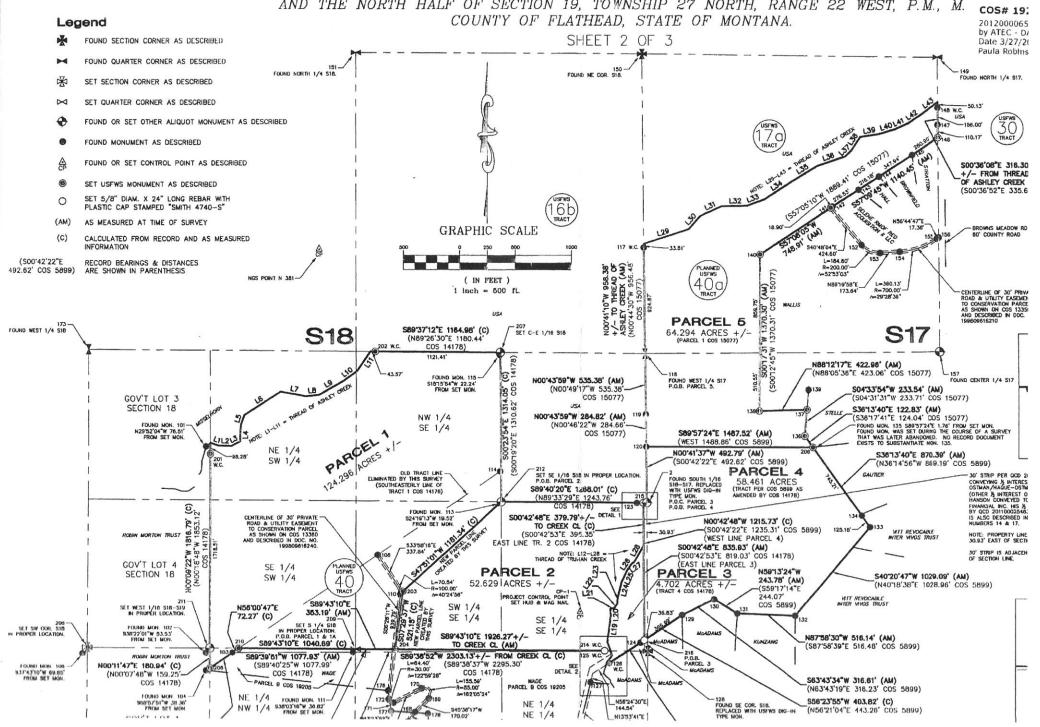
Flathead Conservation District 406-752-4220 133 Interstate Lane Kalispell, MT 59901 Flathead County Weed Department 406-758-5798 309 FFA Drive Kalispell, MT 59901 DNRC Service Forester (Northwest Land Office) 406-751-2268 655 Timberwolf Parkway, Suite 2 Kalispell, MT 59901

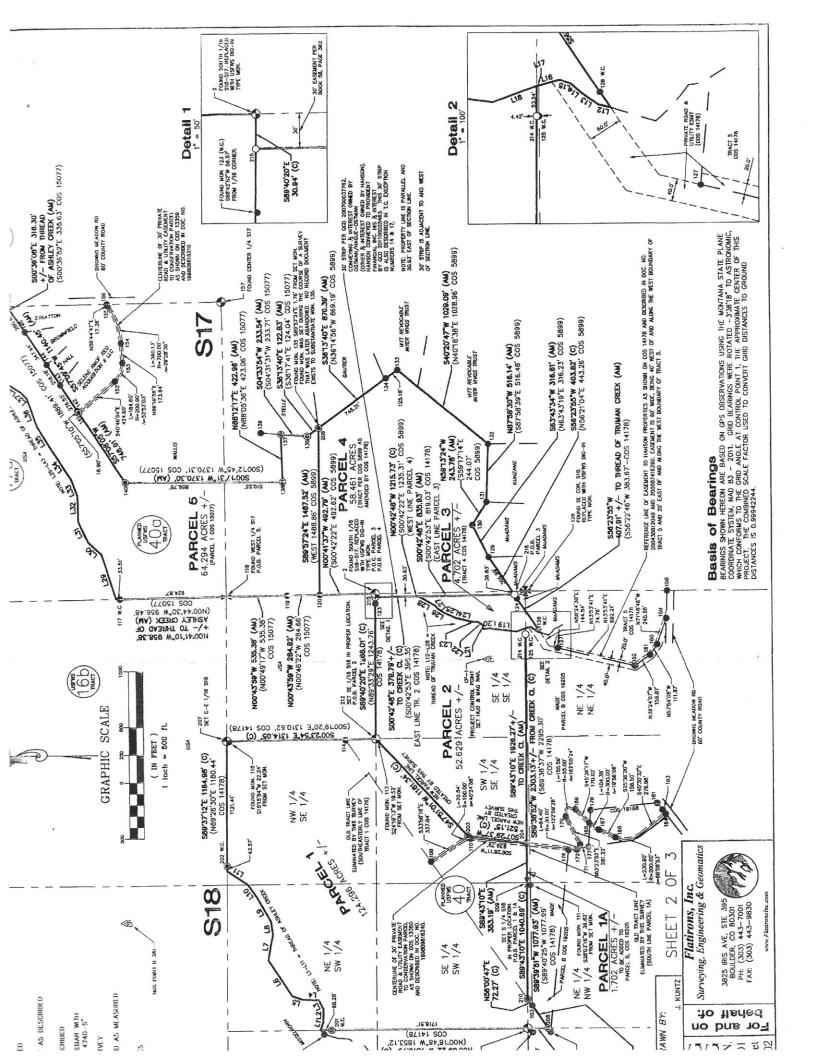
Natural Resources Conservation Service 406-752-4242 133 Interstate Lane Kalispell, MT 59901

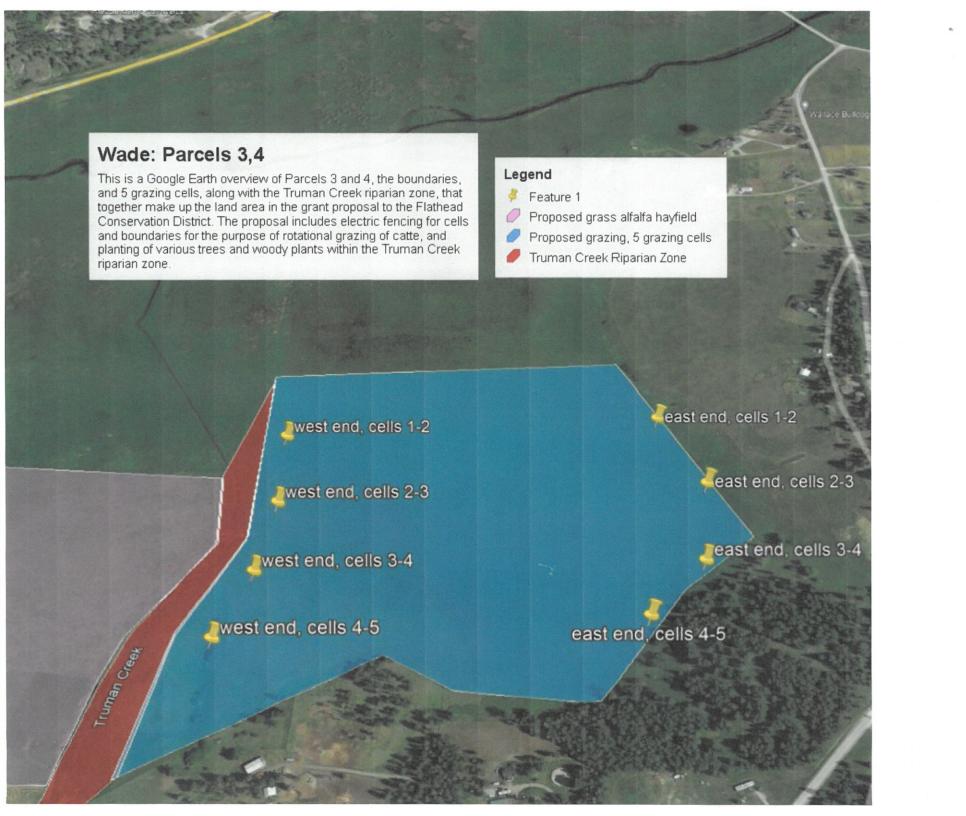
MSU Extension Office (Flathead County) 406-758-5553 1108 S Main St Suite 4 Kalispell, MT 59901 DNRC Montana Conservation Seedling Nursery 406-542-4244 2705 Spurgin Road Missoula, MT 59804

CERTIFICATE OF SURVEY

LOCATED IN THE WEST HALF OF SECTION 17, THE SOUTH HALF OF SECTION 18, AND THE NORTH HALF OF SECTION 19, TOWNSHIP 27 NORTH, RANGE 22 WEST, P.M., M.









CONSERVATION GRANT PROGRAM CONTRACT

Flathead CD

CONTRACT AGREEMENT: CG-2022-03

JUL II 2022

Parties. This contract is entered into by the Flathead Conservation District, 33 Interstate Lane, Kalispell, MT 59901, phone number 406-752-4220, referred to hereafter as the "District;" and, Ronald K. Pete Wade, PO Box 312, Kila, MT 59920, 406-260-3927), referred to hereafter as the "Contractor." District contact person is Jessie Walthers, Conservation Program Manager. Contractor contact person is Ronald K. Pete Wade.

I. Effective date, duration:

- 1. Following signature by both parties, this contract becomes effective on July 1, 2022. No project component installed prior to this date will be eligible for reimbursement.
- 2. Approved project must be completed by June 1, 2023, unless extended by mutual agreement of both parties in writing.
- 3. District may, by written notice to the Contractor, terminate this contract in whole or in part at any time the Contractor fails to perform according to this contract.

II. Services/Supplies. Contractor agrees to:

Contract Agreement CG-2022-03

- 1. Complete and submit the Attachment A (W-9 Form) to the District.
- Contact the District when the installation of the project begins and when project is completed.
- 3. Install the project as detailed in Attachment B (FCD Conservation Grant Application) and below, and if applicable, in project permits.

Practice	Total Cost	District Share	Landowner Share
Tree seedlings for windbreak	\$163.80	\$122.85	\$40.95
Willow and shrub seedlings for riparian planting	\$387.00	\$290.25	\$96.75
Shrub seedlings for riparian planting	\$86.40	\$64.80	\$21.60
Tree tubes	\$273.90	\$205.43	\$68.48
Bamboo stakes	\$80.25	\$60.19	\$20.06
High-tensile wire (12.5 ga)	\$254.25	\$190.69	\$63.56
Permanent fiberglass posts	\$962.00	\$721.5 P E	CEIVED\$240.50
1. Etc. renge vectors			

JUL 11 2022



CONSERVATION GRANT PROGRAM CONTRACT

Polywire	\$149.25	\$111.94	\$37.31
Step-in posts	\$249.75	\$187.31	\$62.44
Geared reel for polywire	\$249.75	\$187.31	\$62.44
Ratchet strainer	\$238.50	\$178.88	\$59.63
Split bolts and insulators	\$88.20	\$66.15	\$22.05
Cotter pins for fiberglass posts	\$12.75	\$9.56	\$3.19
Electric fence signs	\$21.00	\$15.75	\$5.25
Labor for planting	\$240.00	\$180.00	\$60.00
TOTALS	\$3,456.80	\$2,592.60	\$864.20

- 4. Maintain the project put into effect through this contract, and, if applicable, abide by Attachment C (Management Plan/Guidelines). This includes obtaining all necessary permits prior to maintenance activities.
- Retain all receipts for cost of materials and labor. Upon project completion, complete and return Attachment D (Conservation Grant Project Completion Form) along with any photos of the project and all paid receipts to the District for reimbursement. Receipts and documentation must be received by June 1, 2023.
- Allow the District and/or their representative to conduct an on-site review or inspection of approved work on the Contractor's property in his/her presence or, if necessary when he/she is not available, following notification of the property owner or their representative.
- 7. Follow all local, state, and federal laws, rules and regulations in undertaking said work.

III. Payment. District agrees to:

- 1. Reimburse the Contractor for installation of approved project at 75% of the cost, not to exceed \$2,592.60.
- Reimburse the Contractor following final inspection and determination that the project was implemented in accordance with the approved application and any applicable permits.
 Reimbursement will follow successful completion of each eligible project component.
 Contractor will be reimbursed for paid receipts and documented labor costs only.

IV. Hold harmless/Indemnification

Contractor agrees to hold the District and its employees, elected officials and agents, while acting within the scope of their duties as such, harmless from and against all claims, demands, causes of action of any kind or character, including the cost of defense thereof, arising in favor of third parties due to bodily or personal injuries, death or damage to property arising out of services performed or



CONSERVATION GRANT PROGRAM CONTRACT

omissions of services or in any way resulting from the acts or omissions of the Contractor and/or its agents, subcontractors, or representatives, except the sole negligence of the District, under this agreement.

V. Independent Contractor.

The parties agree that the Contractor is an independent contractor and that neither the Contractor nor any of the Contractor's employees are employees of the District. The Contractor is solely responsible for payment and withholding of all taxes and other such charges for the Contractor and the Contractor's employees including, but not limited to, State and Federal income taxes, FICA taxes, workers' compensation coverage, and State and Federal unemployment taxes.

VI. Execution. This agreement consists of 3 pages and 4 attachments.

SIGNATURES: Lduald K Wade	7/11/2022
Contractor	Date
Lete C. Ston	7/18/27
Flathead Conservation District Supervisor	(Board Position) Date

All programs and services of the Flathead Conservation District are offered on a nondiscriminatory basis, without regard to or on the basis of race, color, religion, creed, political ideas, sex, age, marital status, physical or mental disability, or national origin.

ATTACHMENTS:

ATTACHMENT A - W9 form (for reimbursement)

ATTACHMENT B – FCD Conservation Grant Application

ATTACHMENT C - Management Plan/Guidelines (if applicable)

ATTACHMENT D – FCD Conservation Grant Project Completion Form