FUTURE FISHERIES IMPROVEMENT PROGRAM GRANT APPLICATION

All sections must be addressed, or the application will be considered invalid

I. APPLICANT INFORMATION

A. Applicant Name: Big Hole Watershed Committee,

Mailing Address: P.O. Box 21

City: Divide State: MT Zip: 59727

Telephone: 406.925.3643 E-mail: nsalix@bhwc.org

B. Contact Person (if different than applicant): Nolan Salix

Address: P.O. Box 21

City: Divide State: MT Zip: 59727

Telephone: 406.834.3677 E-mail: nsalix@bhwc.org

C. Landowner and/or Lessee Name (if different than applicant): Peter Kamperschroer

Mailing Address: 66031 MT HWY 43

City: Wise River State: MT Zip: 59762

Telephone: 406-832-3334 E-mail:

II. PROJECT INFORMATION

A. Project Name: Kamperschroer Spring Creek Spawning and Rearing Enhancements

River, stream, or lake: Unnamed tributary to the Big Hole River

Location: Township: 1N Range: 11W Section: 26, 35

Latitude: 45.7990038° N Longitude: 112.9352627°W *Within project (decimal degrees)*

County: Beaverhead

B. Purpose of Project: *(high level, focus on why the project is important)*

The purpose of this project is to restore and enhance critical trout spawning and juvenile rearing habitat in Kamperschroer Spring Creek, one of the most important spring-fed tributaries to the Big Hole River. Trout populations in the Big Hole River have experienced significant declines in recent years, and improving access to reliable, high-quality spawning habitat is essential to supporting long-term fisheries recovery. By restoring natural stream function and creating durable spawning habitat, this project will help increase trout reproduction and juvenile survival in a watershed that supports nationally recognized wild trout fisheries.

This project is especially important because Kamperschroer Spring Creek has exceptional untapped potential. The creek provides cold, stable water temperatures and perennial flows that can serve as a refuge during periods of drought, low flows, and warming river temperatures in the mainstem Big Hole River. However, despite these favorable conditions, much of the stream currently lacks suitable spawning substrate and channel conditions needed to support strong fish production. Restoring this tributary represents a strategic opportunity to maximize the biological value of an already resilient water source.

The proposed restoration will create a more stable and functional stream channel specifically designed to perform under the creek's current hydrology. By improving sediment transport, restoring clean spawning gravels, and increasing juvenile cover habitat, the project will produce measurable ecological benefits while improving the long-term resilience of the fishery. Because Montana Fish, Wildlife & Parks maintains an established fisheries monitoring site downstream, the project's success can be tracked through ongoing redd surveys and fish population monitoring, providing valuable data on habitat effectiveness and trout recovery over time.

C. Brief Project Description (attach additional information to end of application). Please include the anticipated construction schedule:

Over the past six years, trout populations in the Big Hole River have declined significantly, underscoring the urgent need to restore and expand high-quality spawning and juvenile rearing habitat. One of the most promising opportunities for meaningful recovery exists in Kamperschroer Spring Creek, the largest spring-fed tributary to the Big Hole River. Located on private land near Wise River in Beaverhead County, this tributary possesses exceptional water quality and reliable year-round flows, yet currently provides very limited successful trout spawning habitat.

Although the creek has strong potential to function as a critical spawning refuge for both brown and rainbow trout, the existing channel conditions severely limit fish production. Much of the stream is excessively wide and shallow, preventing flows from effectively transporting and flushing fine sediment. In the few locations where water depth and velocity are appropriate for spawning, the streambed consists of oversized rock or gravel embedded with silt, making it unsuitable for trout to construct successful redds (nests). As a result, spawning habitat is currently confined to only an estimated 130 feet of the entire stream corridor.

Montana Fish, Wildlife & Parks redd surveys clearly demonstrate this limitation. In 2022, only two redds were documented, largely due to beaver dams blocking fish passage. After dam removal, redd counts increased to 29 in 2023, confirming that trout are actively attempting to utilize the creek when access is available. However, the overwhelming majority of the channel still lacks suitable spawning substrate and hydraulic conditions necessary to support strong recruitment and long-term population recovery.

The creek's hydrology presents both an opportunity and a design challenge. Kamperschroer Spring Creek is fed by two distinct water sources: perennial groundwater springs that provide a stable base flow of approximately 5 cubic feet per second (cfs), and seasonal irrigation diversions from the nearby Wise River during summer months. Together, these sources create a highly variable or "flashy" flow regime, with streamflows fluctuating from approximately 5 cfs to more than 20 cfs. Any successful restoration effort must therefore be carefully engineered to remain stable and functional across this wide range of flow conditions.

A previous habitat enhancement project completed more than twenty years ago attempted to improve habitat through the construction of deep pools and riffles. While well-intentioned, that design ultimately failed because the creek's low base flows were insufficient to keep pools scoured clean. Over time, the pools filled with sediment and became wide, shallow, and unsuitable for spawning or rearing. This history has provided valuable lessons that directly informed the current restoration strategy.

In July 2024, at the direction of Big Hole Watershed Committee, Tetra Tech developed a new restoration design specifically tailored to the creek's unique hydrology and habitat limitations. The proposed project will strategically narrow approximately 1,600 feet of stream channel to create the ideal water depths and velocities necessary for successful brown and rainbow trout spawning. The redesigned channel will efficiently transport fine sediments across flows ranging from 2–20 cfs while avoiding velocities strong enough to wash away spawning gravels.

Initial plans relied primarily on material available adjacent to the stream channel. However, after consultation with experienced restoration contractors, it became clear that a more durable and resilient approach was necessary to ensure long-term project success. The updated design now includes importing high-quality quarry rock to construct a stable channel framework, along with clean, appropriately sized spawning gravel (2-inch minus) sourced offsite to provide ideal redd-building material. Although these improvements increase project costs, they substantially improve the likelihood of achieving lasting biological outcomes and protecting the investment over time.

Channel narrowing will be accomplished by placing imported material to form new streambanks, which will then be stabilized using sod mats salvaged from the immediate project area. In addition to improving spawning habitat, the project will significantly enhance juvenile trout rearing habitat along approximately 720 feet of stream. Mature willow transplants will be installed into the outer banks of existing pools, extending 4–8 feet into the water column to create critical overhead cover, habitat complexity, and refuge for juvenile fish prior to their migration into the Big Hole River.

This project represents a rare opportunity to restore a high-potential tributary capable of making a measurable contribution to recovery of the Big Hole River fishery. Because Montana Fish, Wildlife & Parks maintains a long-term fisheries monitoring site just one mile downstream on the Big Hole River, project outcomes can be quantitatively evaluated over time through continued redd surveys and fish population monitoring.

Construction is scheduled to begin during low-flow conditions in the fall, minimizing disturbance while maximizing implementation efficiency. By combining sound engineering, durable construction materials, and habitat designs specifically adapted to the creek's complex hydrology, this project will transform Kamperschroer Spring Creek into a productive and resilient spawning and rearing tributary capable of supporting the long-term recovery of trout populations in the Big Hole River watershed.

D. What was the cause of habitat degradation and how will the project correct the cause?

Habitat degradation in Kamperschroer Spring Creek resulted from long-term hydrologic changes combined with an outdated channel design. Over time, conversion from flood irrigation to sprinkler irrigation reduced return flows to the creek, creating lower base-flow conditions than the channel was originally designed to handle more than 30 years ago. As a result, the stream became overly wide and shallow, reducing its ability to transport fine sediment and maintain clean spawning gravels. Pools filled with silt, and much of the habitat became unsuitable for trout spawning and juvenile rearing.

This project directly addresses those issues by redesigning approximately 1,600 feet of channel to function under current flow conditions. The channel will be strategically narrowed to create the depths and velocities needed to transport sediment, maintain clean spawning habitat, and improve habitat complexity. Imported quarry rock and high-quality spawning gravels will create a more durable, resilient stream channel capable of supporting increased trout production in the Big Hole River watershed.

E. Length of stream or size of lake that will be treated (project extent): 2,390 ft of streambank

Length/size of impact, if larger than project extent (e.g., stream miles opened): _____

F. Project Budget Summary:

Grant Request (Dollars):	**$**	**88,327.93**
Matching Dollars:	**$**	
Matching In-Kind Services:*	**$**	**36,600.00**

**salaries of government employees <u>are not</u> considered matching contributions*

Other Contributions (not part of this app)	**$**	**241,200.07**
Total Project Cost:	**$**	**$366,128.00**

G. Attach itemized (line item) budget – *see budget template*

H. Attach project location map(s) that include:

- [X] Extent of the project, including context (relation to major landmark or town)
- [X] Indication of public and private property (design sheet G-1)
- [ ] Riparian buffer locations and widths (if applicable) and grazing locations

I. Attach project plans:

- [X] Detailed sketches or plan views with the location and proposed restoration
- [X] Pre-project photographs (GPS location strongly recommended)
- [ ] If water leasing or water salvage is involved, attach a supplemental questionnaire (*https://myfwp.mt.gov/getRepositoryFile?objectID=36110*)

J. Attach support letters or statements of (e.g., landowner consent, community or public support). For FWP statement, attach provided template. List any other project partners:

FWP Statement - Jim Olsen, Montana FWP Fisheries Biologist FWP (attached)

III. MAINTENANCE AND MONITORING (attach additional information to end of application):

A. A 20-year maintenance commitment is required*. Please confirm that you will ensure this protection and describe your approach. Attach any relevant maintenance plans.
**If it is a water leasing project, describe the length of the agreement.*

Yes	No
X	

The primary maintenance tool required will be the upkeep of the riparian fence and beaver management to ensure the channel is open to fish and the habitat is not impounded by dams.

B. Will grazing be part of or adjacent to the project? If so, describe or attach land management plans, including short term and long term grazing regimes. If the landowner is not the applicant, please describe their involvement in the project. *If you want assistance with grazing plan development, note your need.*

No, grazing will not be ap art of or adjacent to the project. The area is currently excluded from grazing by a riparian fence.

C. Will the project be monitored to determine if goals were met? If so, what are the short-term and long-term plans to assess benefits and lessons learned? Were pre-project data collected? Will monitoring information be shared with FWP?

Yes. FWP has begun annual redd counts in the creek. FWP also maintains a long-term population monitoring section less than 1 mile downstream from the confluence of the spring creek with the Big Hole River.

IV. PROJECT BENEFITS (attach additional information to end of application):

A. What species of fish will benefit from this project?

It is anticipated that this spring creek will enhance the recruitment of juvenile brown and rainbow trout to the Big Hole River. The amount of available spawning habitat will increase 10 times, and rearing habitat will be enhanced. It is anticipated that the creek will become one of the main producers of juvenile fish in the area. There is very limited spawning habitat in the Big Hole River in this area. The river is narrow and fast with predominantly small boulder substrate.

B. How will the project protect or enhance wild fish habitat?

The intent of this project is to enhance the spawning habitat for wild fish from the Big Hole River.

C. What is the expected improvement to fish populations, both short term and long term? How might the project translate to angler success?

The brown and rainbow trout populations were at all-time lows in the Big Hole River in 2023. One of the main drivers for the population decline is the lack of juvenile recruitment. Poor juvenile recruitment appears to be closely associated with flow when in low flow years juvenile fish survival suffers greatly. A spring creek should be buffered from the effects of flow and should be consistent producer of cold consistent water. With the proposed spawning enhancements, the Kamperschroer Spring Creek could supply a significant number of juvenile fish to the Big Hole River.

D. Will the project increase public fishing opportunity for wild fish and, if so, how? Is public fishing allowed onsite? Is it allowed by permission? If not, describe how the public would benefit.

Yes, this creek is being enhanced for the sole purpose of spawning and juvenile rearing habitat. It is anticipated that the fish produced in the creek will migrate to the Big Hole River to mature and eventually return to the creek to spawn.

E. Aside from angling, what local or large-scale public benefits will be realized from this project?

F. Will the project interfere with water or property rights of adjacent landowners? (explain):

No.

G. Will the project result in the development of commercial recreational use on the site (including paid access)? Explain:

No. The Complete Flyfisher (located adjacent to Kamperschroer property) currently leases cabins near the creek, but no fishing occurs on the creek.

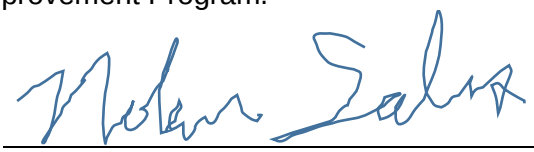
H. Is this project associated with the reclamation of past mining activity?

No

Each approved project applicant must enter into a written agreement with Montana Fish, Wildlife & Parks specifying terms and duration of the project. The applicant must obtain all applicable permits prior to project construction. A competitive bid process must be followed when using State funds.

V. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature:  Date: 5/12/26

Submittal: **Applications must be signed and received on or before November 15 and May 15 to be considered for the subsequent funding period**. Late or incomplete applications will be rejected.

Mail to:	FWP Future Fisheries Fish Habitat Bureau PO Box 200701 Helena, MT 59620-0701	Email:	Future Fisheries Coordinator FWPFFIP@mt.gov (electronic submissions must be signed) For files over 10MB, use https://transfer.mt.gov and send to mmcgree@mt.gov

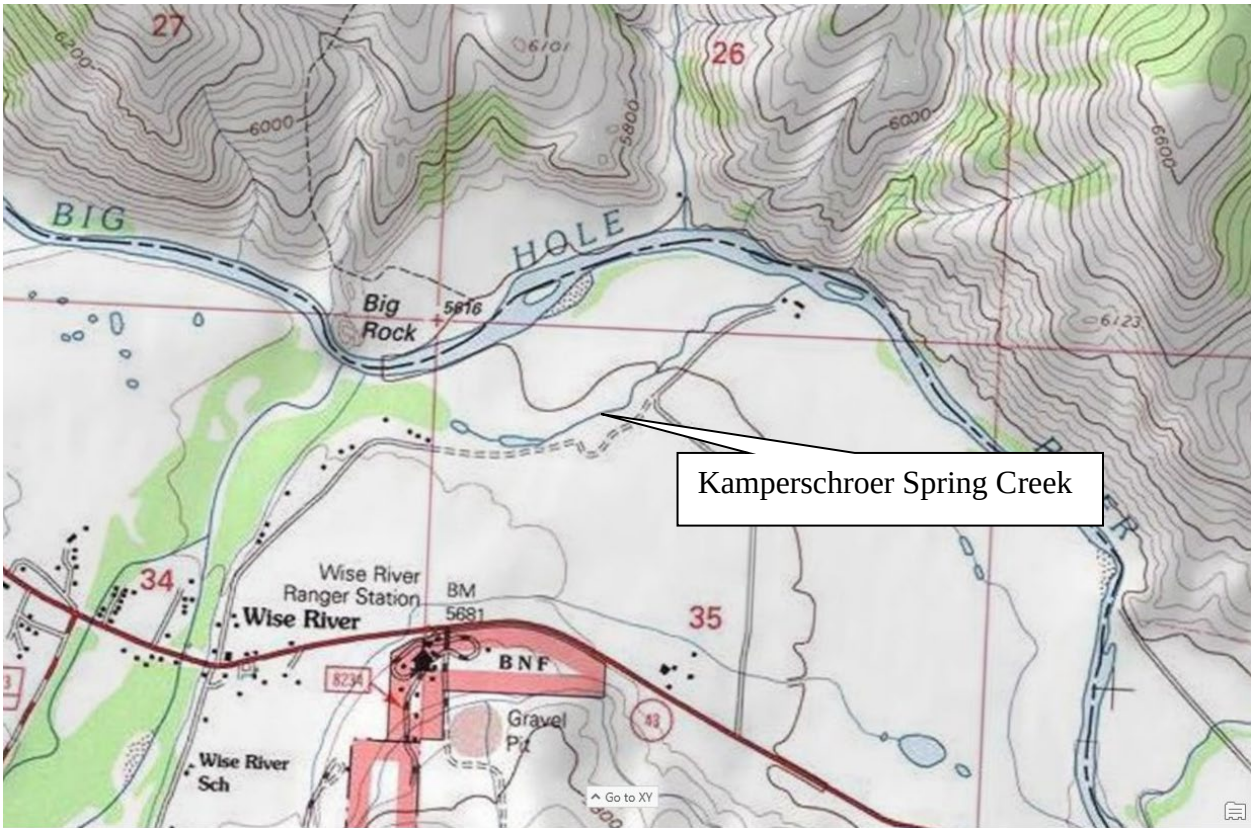


Figure 1. Kamperschroer Spring Creek immediately northeast of the town of Wise River.

Figure 2. Aerial photo showing existing condition of spring creek and extensive riparian area that is protected from grazing with a riparian fence shown in yellow.

Figure 4. Spring Creek where channel is too wide and shallow to produce scouring velocities and the channel has become heavily silted.

Figure 3 Kamperschroer Spring Creek, where channel is narrow and produces correct velocity and depth suitable for spawning habitat.

013-2026_Kamperschroer Spring Creek resubmit

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

Both tables must be completed or the application will be returned

PROJECT COSTS					CONTRIBUTIONS							
WORK ITEMS (Itemize by Category)	NUMBER OF UNITS	UNIT DESCRIPTION*	COST/UNIT	TOTAL COST	FUTURE FISHERIES REQUEST	MATCH (Cash or Services)**	Existing FFIP Grant	OTHER George Grant TU	Trout and Salmon Foundation	Skyline Sportsmen	WHIP and other Sources	TOTAL
Personnel* **												
Survey												$ -
Design												$ -
Engineering Firm-Bidding and Contracting Support	50	HR	$100.00	$ 5,000.00								$ -
BHWC Contracting	30	HR	$50.00	$ 1,500.00			1,500.00					$ 1,500.00
BHWC Permitting	20	HR	$50.00	$ 1,000.00			1,000.00					$ 1,000.00
BHWC Oversight	100	HR	$50.00	$ 5,000.00	2,500.00		2,500.00					$ 5,000.00
Engineerging Firm Oversight	100	HR	$100.00	$ 10,000.00								
			Sub-Total	$ 22,500.00	$ 2,500.00	$ -	$ 5,000.00	$ -	$ -	$ -	$ -	$ 7,500.00
Travel												
BHWC Mileage	1600	miles	$0.725	$ 1,160.00	1,160.00							$ 1,160.00
Per diem				$ -								$ -
			Sub-Total	$ 1,160.00	$ 1,160.00	$ -		$ -				$ 1,160.00
Construction Materials** **												
Willow Tranplant Clumps	60	EA	$250.00	$ 15,000.00		15,000.00						$ 15,000.00
Wetland Sod Mats	21780	SF	$0.50	$ 10,890.00		10,890.00						$ 10,890.00
Spawning Gravel (2.0- inch minus, well graded and washed)	500	CY	$10.00	$ 5,000.00		5,000.00						$ 5,000.00
Fill	1142	CY	$5.00	$ 5,710.00		5,710.00						$ 5,710.00
				$ -								$ -
				$ -								$ -
				$ -								$ -
				$ -								$ -
			Sub-Total	$ 36,600.00	$ -	$ 36,600.00		$ -				$ 36,600.00
Equipment, Labor, and Mobilization												
Mobilization, Bonding, and General Requirments	1	LS	$13,655.00	$ 13,655.00			13,655.00					$ 13,655.00
Surface Water Management	1	LS	$41,745.00	$ 41,745.00	12,106.05		6,261.75	4,424.97	1,419.33	834.90	16,698.00	$ 41,745.00
Borrow Area	1	LS	$141,190.00	$ 141,190.00	40,945.10		21,749.50	14,395.14	4,800.46	2,823.80	56,476.00	$ 141,190.00
Spawning Gravel import	500	CY	$79.10	$ 39,550.00	11,469.50		5,932.50	4,192.30	1,344.70	791.00	15,820.00	$ 39,550.00
Earthwork	1	LS	$49,987.00	$ 49,987.00	14,496.23		7,498.05	5,003.09	1,699.56	153.40	21,136.67	$ 49,987.00
Willow Plant Placement	1	LS	$15,120.00	$ 15,120.00	4,384.80		2,268.00	1,512.00	575.30	302.40	6,077.50	$ 15,120.00
Site Restoration and Seeding	1	LS	$4,725.00	$ 4,725.00	1,370.25		711.20	472.50	160.65	94.50	1,915.90	$ 4,725.00
				$ -								$ -
				$ -								$ -
				$ -								$ -
				$ -								$ -
			Sub-Total	$ 305,972.00	$ 84,771.93	$ -	$ 58,076.00	$ 30,000.00	$ 10,000.00	$ 5,000.00	$ 118,124.07	$ 305,972.00
			TOTALS	$ 366,232.00	$ 88,431.93	$ 36,600.00	$ 63,076.00	$ 30,000.00				$ 351,232.00

OTHER REQUIREMENTS:

All of the columns in the budget table and the matching contribution table MUST be completed appropriately or the application will be invalid. Please see the example budget sheet for additional clarification.

*Units = feet, hours, inches, etc. Do not use lump sum unless there is no other way to describe the costs.

**Can include in-kind materials. Justification for in-kind labor (e.g. hourly rates used). Do not use government salaries as match. Describe here or in text.

***The Review Panel suggests that design and oversight costs associated with a proposed project not exceed 15% of the total project budget. If design and oversight costs are in excess of 15%, applications may require a justification or minimum of two competitive bids for the cost of undertaking the project. For projects that include a maintenance request, it must not exceed 10% of the total project cost.

****The Review Panel recommends a maximum fencing cost of $1.50 per foot. Additional costs may be the responsibility of the applicant and/or partners.

Additional details:

APPLICATION MATCHING

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

(do not include requested funds or contributions not

CONTRIBUTOR	IN-KIND	CASH	TOTAL		Secured? (Y/N)
Pete Kamperschroer (Landowner)	$ 33,800.00	$ -	$ 33,800.00		Yes
GGTU	$ -	$ 10,000.00	$ 10,000.00		No
	$ -				
	$ -	$ -	$ -		
	$ -	$ -	$ -		
	$ -	$ -	$ -		
	$ -	$ -	$ -		
	$ -	$ -	$ -		
TOTALS	$ 33,800.00	$ 10,000.00	$ 43,800.00		

OTHER CONTRIBUTIONS

(contributions not associated with the application)

CONTRIBUTOR	IN-KIND	CASH	TOTAL		Secured? (Y/N)
	$ -	$ -	$ -		
	$ -	$ -	$ -		
	$ -	$ -	$ -		
	$ -	$ -	$ -		
	$ -	$ -	$ -		
	$ -	$ -	$ -		
	$ -	$ -	$ -		
	$ -	$ -	$ -		
TOTALS	$ -	$ -	$ -		

MONTANA FISH, WILDLIFE & PARKS

Future Fisheries Improvement Program

Appendix: FWP Statement

Project Title: Kamperschroer Spring Creek Spawning and Rearing Enhancements.

Please describe the potential impact of the project, including the priorities of the Fisheries Division and the importance to Montana's anglers.

This spring creek restoration project has the potential to significantly enhance recruitment of juvenile brown and rainbow trout in the Big Hole River near Wise River. The Big Hole has seen significant population declines over the past 6 years, resulting in the lowest brown trout abundances since population estimates were performed starting in the late 1960's. Low water conditions and perhaps other factors have led to poor juvenile fish recruitment. The proposed project could significantly enhance juvenile fish recruitment to the Big Hole River and could significantly aid in the recovery of the fishery. Anecdotal evidence suggests that the creek used to be an important spawning area for trout from the Big Hole. However, through time, the spawning potential of the creek has declined significantly, and only a few short riffles have now produced adequate spawning habitat.

The declines in the Big Hole have garnered national attention and have become a high priority for the Fisheries Division. Significant research efforts are ongoing to understand the recent declines and how FWP can manage to help the fishery recover as quickly as possible. We currently know that water is an important driver of juvenile fish recruitment. While this project will not result in additional water to the Big Hole, it does have the potential to boost recruitment to the river, regardless of water conditions. This project will not solve the issues on the Big Hole right now, but it has the potential to significantly impact recruitment at the local level. FWP maintains a long-term population monitoring site at Jerry Creek less than a mile downstream from the confluence of the spring creek. Therefore, if the results of the project are an increase in spawning in the creek, these increases may be observable in the Jerry Creek Section of the Big Hole River.

Name of FWP Biologist Jim Olsen Date: 5/13/24

Please attach to the FFIP application and materials and submit according to listed deadlines.