## Future Fisheries Improvement Program Future Fisheries Improvement Program Funding Winter 2024

1. <u>008-2024 Flathead Creek streambank restoration (Gallatin County)</u>. Flathead Creek is a tributary to the Shields River west of Wilsall that supports a population of Yellowstone cutthroat trout with high conservation value. It also contains brown trout, longnose suckers, mountain suckers, mountain whitefish, white suckers and brook trout. In the project area, the stream was degraded due to past grazing activities and encroachment of agricultural activities. The stream became channelized and incised, the riparian area was diminished, channel length was reduced, and banks were instable and erosive with excess sediment entering the stream. The proposed project would install composite-wood treatments, construct bankfull benches, and revegetate to increase stability and natural stream and floodplain function. The landowner will fund fencing setbacks to limit livestock access to the creek. The goals are to increase stream-floodplain connectivity, increase overhanging cover, increase instream habitat complexity, and improve water quality.

Project Name	Flathead Creek streambank restoration
Request	\$100,375.00
Match	\$61,600.00
Total Project Cost	\$240,936.00
% FFIP Request	42%
<b>Construction Schedule</b>	Spring or Fall 2024
Requested Items	Permitting, engineering, construction materials, excavation, disposal, and construction
FWP Recommendation	Full funding (\$100,375.00), with budget and design clarification
Panel Recommendation	Full funding (\$100,375)
<b>Commission Decision</b>	Full funding (\$100,375)

2. <u>012-2024 Little Casino Creek fish passage (Fergus County).</u> Little Casino Creek is a tributary to Big Spring Creek within the City of Lewistown that contains brook trout, rainbow trout, and brown trout as well as numerous native and nonnative nongame species. In the project area, the creek was heavily manipulated and confined to accommodate urban development; there are five road crossings in the lower 1,000 feet of creek. Despite these issues, the creek provides important habitat and recreational value and is used as a spawning tributary for both rainbow and brown trout. This project focuses on the lowest road crossing (3<sup>rd</sup> Avenue bridge) that is failing due to age. The bridge crossing is to be replaced with a concrete box culvert that is designed to pass 100-year flow events, accommodate natural streambed materials, and maintain aquatic organism passage and connected habitats. The goal is to maintain aquatic habitat benefits.

Project Name	Little Casino Creek fish passage
Request	\$32,625.00
Match	\$21,718.68
Total Project Cost	\$66,324.08
% FFIP Request	49%
Construction Schedule	Fall 2024
Requested Items	Box culvert
FWP Recommendation	Full funding (\$32,625.00), with clarification on design alternatives

Panel Recommendation	Full funding (\$32,625.00)
<b>Commission Decision</b>	Full funding (\$32,625.00)

3. <u>005-2024 Fifer Gulch stream restoration (Anaconda-Deer Lodge County).</u> Fifer Gulch is a tributary to Warm Springs Creek near Anaconda. It primarily contains populations of brown trout, but also includes westslope cutthroat and brook trout. Bull trout have been found in Warm Springs Creek. In the project area, the Fifer Gulch stream has been channelized and is incised. A nearby spring creek has been ditched into nearby Warm Springs Creek as well. This project would connect and re-naturalize these channelized and incised streams, adding over 1,000 feet of meandering stream, spawning habitat, physical fish habitat, and wetland areas. Additionally, this project would establish a youth fishing opportunity at the project site. The goals of the project are to enhance fish habitat and support robust populations of wild fish while also providing angling opportunities to the Anaconda community.

Project Name	Fifer Gulch stream restoration
Request	\$154,730.00
Match	\$132,250.00
Total Project Cost	\$286,980.00
% FFIP Request	54%
<b>Construction Schedule</b>	Fall 2024
Requested Items	Construction materials, equipment and labor, mobilization, (GPS equipment and crew per diem - not allowed)
FWP Recommendation	Partial funding (\$128,730.00), due to unallowed budget items
Panel Recommendation	Partial funding (\$143,730.00)
Commission Decision	Partial funding (\$143,730.00)

4. <u>006-2024 First Chance Gulch habitat improvements (Anaconda-Deer Lodge County).</u> First Chance Gulch is a placer-mined stream within the French Creek watershed and the Mount Haggin Wildlife Management Area. It is a tributary to French Creek and contains Arctic grayling and westslope cutthroat trout, as part of the larger French Creek restoration effort. The area was extensively placer mined during the period of 1864-1911 and the stream was straightened and became severely incised. Current conditions are a channelized and homogenous stream system with very little instream habitat (including pools and suitable spawning substrate). This project would construct 50-80 simple log structures within a 1.5 mile reach. The goal is to improve tributary habitat for native species in an important conservation area. This watershed includes a critical population of Arctic grayling. Future Fisheries supported many projects in the watershed, including restoration in French Creek and French Gulch, culvert removals and replacements, and a fish barrier.

Project Name	First Chance Gulch habitat improvements
Request	\$24,000.00
Match	\$1,083.60
Total Project Cost	\$25,083.60
% FFIP Request	96%
<b>Construction Schedule</b>	Fall 2024
Requested Items	Permitting, oversight, labor
FWP Recommendation	Full funding (\$24,000.00) with budget clarification
Panel Recommendation	Full funding (\$24,000.00)
Commission Decision	Full funding (\$24,000.00)

5. <u>001-2024 Albert Creek culvert replacement (Missoula County).</u> Albert Creek is a tributary to the Middle Clark Fork River near Frenchtown that primarily supports a resident bull trout population as well as westslope cutthroat trout. Two culvert barriers exist on roads in the lower two miles of Albert Creek, which are considered partial barriers to adult, fluvial fish and full barriers to smaller fish. By increasing fish passage, this stream could potentially support more fluvial fish. The project would replace the upper barrier with a 12-foot wide bottomless arch culvert. The second barrier, located two miles downstream of the project, ensures that non-native species do not migrate up Albert Creek from the Clark Fork River. **Note:** No support letter included; FWP fish biologist sees this as a high priority and supports the project.

Project Name	Albert Creek culvert replacement
Request	\$45,300.00
Match	\$200,000.00
Total Project Cost	\$244,297.90
% FFIP Request	19%
<b>Construction Schedule</b>	Summer 2024
<b>Requested Items</b>	Construction materials
FWP Recommendation	Full funding (\$45,300.00)
Panel Recommendation	Full funding (\$45,300.00)
<b>Commission Decision</b>	Full funding (\$45,300.00)

6. <u>007-2024 Flat Creek tailings removal and restoration (Mineral County</u>). Flat Creek is a tributary to the Clark Fork River near Superior that contains westslope cutthroat trout and brook trout. The project area has been affected by extensive mining, which led to heavy metal contamination, tailings piles, and loss of stream/floodplain function. In 2022 and 2023, work was done to remove tailings and rehabilitate the floodplain. However, the volume of tailings discovered exceeded estimates and additional work is needed to complete the restoration. The proposed work includes additional repository cell construction, tailings removal, floodplain grading and restoration, and revegetation. The goal of the project is to enhance fish habitat through floodplain creation and a functional stream. Note: A support letter was not available from the FWP fish biologist, but he expressed support for the project. Pure westslope cutthroat trout are found in the headwaters (this project is in the lower section).

Project Name	Flat Creek tailings removal and restoration
Request	\$53,310.00
Match	\$709,748.73
Total Project Cost	\$763,706.40
% FFIP Request	7%
<b>Construction Schedule</b>	Summer/Fall 2024
Requested Items	Oversight, construction materials, labor and equipment
FWP Recommendation	Full funding (\$53,310.00) with budget clarification
Panel Recommendation	Full funding (\$53,310.00)
<b>Commission Decision</b>	Full funding (\$53,310.00)

7. <u>013-2024 Marshall Creek riparian fencing (Missoula County).</u> Marshall Creek is a tributary to the Clark Fork River, east of Missoula, that contains westslope cutthroat trout with over 90% genetic purity in the upper reaches. It also provides trout recruitment to the Clark Fork. The project area, which is the location of a former

Future Fisheries fencing project that met its 20-year maintenance obligation, has experienced normal wear and tear on the riparian fence and water gaps. The Future Fisheries project was considered a success, with vegetation and stream habitat improved during the project life. The landowner intends to repair the fence and water gaps and continue protecting the stream and riparian area along 2,500 feet of Marshall Creek. The goal is to maintain quality stream habitat and riparian habitat in an important stream.

Project Name	Marshall Creek riparian fencing
Request	\$2,000.00
Match	\$4,000.00
Total Project Cost	\$6,000.00
% FFIP Request	33%
<b>Construction Schedule</b>	Spring/Summer 2024
Requested Items	Construction materials
FWP Recommendation	Full funding (\$2,000)
Panel Recommendation	Full funding (\$2,000)
<b>Commission Decision</b>	Full funding (\$2,000)

8. <u>003-2024 Blind Canyon Creek fish barrier (Beaverhead County).</u> Blind Canyon Creek is a tributary to the Big Hole River south of Jackson that supports a population of aboriginal, genetically unaltered westslope cutthroat trout. This project is intended to support the FWP goal of increasing secured westslope cutthroat trout habitat to 20% across its native range in the Upper Missouri watershed. A perched culvert and periodic drying of the streambed has prevented brook trout expansion upstream of Skinner Meadows Road. The culvert is deteriorating, is undersized, and only has a 2-foot drop (not the 6-foot drop recommended to protect a population from invasion). This project would replace the culvert with a larger, squash pipe culvert that would have a 6-foot drop and a splash pad to prevent a jump pool from forming below the culvert. No fish removal (i.e., rotenone treatment) is needed as part of this project. The goal is to prevent brook trout invasion in upper Blind Canyon Creek and maintain a conservation population of westslope cutthroat trout.

Project Name	Blind Canyon Creek fish barrier
Request	\$20,000.00
Match	\$21,258.00
Total Project Cost	\$41,258.00
% FFIP Request	48%
<b>Construction Schedule</b>	Fall 2024
<b>Requested Items</b>	Construction materials, mobilization
FWP Recommendation	Full funding (\$20,000.00) with clarification on tree removal
Panel Recommendation	Full funding (\$20,000.00)
<b>Commission Decision</b>	Full funding (\$20,000.00)

9. <u>018-2024 Parsons Slough Willow Springs water lease (Madison County).</u> Parsons Slough and Willow Springs are tributaries to the Jefferson River south of Whitehall that contain brown trout, rainbow trout and mountain whitefish. Water from Parsons Slough and Willow Springs has been legally appropriated to croplands through a ditch diversion and two pump sites. This infrastructure and water diversion reduced streamflow in these high quality creeks, led to fish loss in an irrigation canal, and restricted fish passage. This project intends to relocate the diversion water sources to 1) a pump site on the Jefferson, leaving colder water in the spring creeks and

eliminating the fish passage and entrainment issues or 2) instream flow. Specifically, the two pump sites on the spring creeks will be removed, shifting a pump site to the Jefferson River and reducing irrigation use (shifting the water to instream flow). The result would be improved streamflow in Parsons Slough and Willow creek (estimated to be 9.45 cfs in Parsons Slough and 2.05 cfs in Willow Springs), two streams with colder water and habitat for juvenile rearing. This colder water would then be available to the Jefferson River and irrigation needs would be met using (warmer) Jefferson River water.

Project Name	Parsons Slough Willow Springs water lease
Request	\$50,000.00
Match	\$200,000.00
Total Project Cost	\$250,000.00
% FFIP Request	20%
Construction Schedule	30 year lease
Requested Items	Water lease
FWP Recommendation	Full funding (\$50,000.00)
Panel Recommendation	Full funding (\$50,000.00)
Commission Decision	Full funding (\$50,000.00)

10. <u>002-2024 Benedict Creek fish passage (Missoula County).</u> Benedict Creek is a tributary to the Clearwater river near Seeley Lake that primarily supports populations of westslope cutthroat trout. An existing irrigation diversion is impacting the stream by restricting upstream fish passage, limiting channel function, and potentially entraining trout and aquatic species. The project would upgrade an existing irrigation diversion with a headgate, valve, and a Zinvent fish screen. An 80-foot pipeline would also be installed to transport diverted flows into the existing water storage tank. Diversion infrastructure would be replaced by a channel step-pool with wood and rock. The goal is to upgrade the diversion point with a fish screen and step-pool to improve fish passage, prevent entrainment, and to better regulate flows.

Project Name	Benedict Creek fish passage
Request	\$11,400.00
Match	\$26,309.05
Total Project Cost	\$37,709.05
% FFIP Request	30%
<b>Construction Schedule</b>	Summer/Fall 2024
<b>Requested Items</b>	Oversight, construction materials, equipment, labor, mobilization
FWP Recommendation	Full funding (\$11,400.00)
Panel Recommendation	Full funding (\$11,400.00)
<b>Commission Decision</b>	Full funding (\$11,400.00)

11. <u>016-2024 Nevada Creek restoration phase 7 (Powell County).</u> Nevada Creek is a tributary to the middle Blackfoot River near Helmville that supports populations of westslope cutthroat trout, rainbow trout, and brown trout. The project area had past channel manipulations and streamside vegetation removal that led to bank erosion issues. In 2010 and 2017-2023, nearby Future Fisheries channel restoration projects addressed extensive instream and riparian habitat and resulted in reduced sediment, increased stream complexity, improved riparian condition, and increased trout abundance. This project is phase 7 and would continue the restoration downstream; it intends to restore natural stream and riparian function by reducing sediment loading and improving trout habitat with channel restoration, bank treatments, floodplain connectivity, wetland restoration, and aquatic habitat complexity. Specifically, the project would incorporate side channel and meander activation,

bank treatments to address eroding banks, and floodplain grading. The goal is to improve instream, riparian, and upland habitat within a working landscape to benefit aquatic species.

Project Name	Nevada Creek restoration phase 7
Request	\$275,000.00
Match	\$628,238.00
Total Project Cost	\$903,238.40
% FFIP Request	30%
<b>Construction Schedule</b>	Fall 2024
<b>Requested Items</b>	Mobilization, equipment, labor
FWP Recommendation	Partial funding (\$150,000.00) in consideration of the overall budget
Panel Recommendation	Partial funding (\$150,000.00)
<b>Commission Decision</b>	Partial funding (\$150,000.00)

12. <u>014-2024 Miller Creek restoration Leik property (Missoula County).</u> Miller Creek is a tributary to the Bitterroot River near Lolo that contains brook trout and hybridized westslope cutthroat trout, with conservation populations of westslope cutthroat trout in an adjacent tributary. In the project area, past land management and channel manipulation are believed to have resulted in a modified stream and riparian environment that resulted in reduced trout densities, simplified habitat, increased sediment loads, and elevated stream temperatures. Changes in land management resulted in opportunities to improve stream and riparian conditions. This project would build upon 2 miles of stream restoration in Miller Creek and diversify the channel plan form and realign it away from eroding banks, add grade and elevation controls to increase floodplain connectivity, use large wood/debris matrix structures to increase instream habitat complexity, and employ large scale riparian planting to facilitate recovery of the riparian community. The goals are to reduce sediment delivery to the stream, promote riparian recovery, increase floodplain connectivity, and increase habitat complexity to improve fish habitat. **Note:** No support letter was included but the FWP fish biologist supports the project.

Project Name	Miller Creek restoration Leik property
Request	\$69,790.00
Match	\$127,650.00
Total Project Cost	\$197,440.00
% FFIP Request	34%
Construction Schedule	Fall 2024
Requested Items	Construction materials, equipment, labor, and mobilization
FWP Recommendation	Full funding (\$69,790.00), but ask the applicant to elaborate on the fencing
	setback in the grazing pasture.
Panel Recommendation	Full funding (\$69,790.00)
<b>Commission Decision</b>	Full funding (\$69,790.00)

13. <u>020-2024 Tin Cup Creek fish screen update (Ravalli County)</u>. Tin Cup Creek is a tributary to the Bitterroot River west of Darby that contains bull trout and westslope cutthroat trout. In the project area, fish entrainment was a problem and a fish screen was installed in 2012. The screen operated well for 11 years but is need of repair to keep it functioning. The project would replace the needed parts and plan for maintenance over the next 20 years. The goal is to maintain fish passage in Tin Cup creek for aquatic species, especially for native trout. Note: no FWP biologist letter is attached, but they support the project.

Project Name	Tin Cup Creek fish screen update
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Request	\$18,200.00
Match	\$44,252.00
Total Project Cost	\$62,452.00
% FFIP Request	29%
Construction Schedule	2024
Requested Items	Oversight, maintenance, materials, labor
FWP Recommendation	Full funding (\$18,200.00)
Panel Recommendation	Full funding (\$18,200.00)
<b>Commission Decision</b>	Full funding (\$18,200.00)

14. <u>017-2024 North Burnt Fork Creek fish passage supplement (Ravalli County)</u>. North Burnt Fork Creek is a tributary to the Bitterroot River near Stevensville that currently supports bull trout, westslope cutthroat trout, brown trout, rainbow trout, brook trout, and other non-game species. It was once a major spawning tributary to the Bitterroot River but a relic water control structure has been a fish barrier for over 50 years. This applicant is seeking supplemental funding for a project that was approved in Winter 2023, which would open fish passage and retain connection to the trail on the Lee Metcalf National Wildlife Refuge. In addition to some minor design changes, contractor and material expenses exceeded original budget estimates. The current project would replace the barrier with a 32-foot span, prefabricated aluminum box culvert that will allow full conveyance of bankfull flows. The project goals are to fully reconnect fish passage between the Bitterroot River and 2.5 miles of spawning habitat in North Burnt Fork Creek and to improve 0.5 mile of riparian habitat. Outreach and education will also be a component of this project.

Project Name	North Burnt Fork Creek fish passage supplement
Request	\$75,190.00
Match	\$75,190.00
Total Project Cost	\$422,478.75
% FFIP Request	18%
Construction Schedule	Fall 2024
Requested Items	Construction materials, equipment and labor
FWP Recommendation	We support the project but don't recommend funding without additional budget explanation describing the need.
Applicant Notes	Budget sheet is accurate. Some of the available funds decreased, making the deficit over \$196k. Non-federal match is also required.
Panel Recommendation	Partial funding (\$55,190)
Commission Decision	Partial funding (\$55,190)

15. <u>010-2024 Granite Creek Upper Alder restoration (Madison County).</u> Granite Creek is a tributary to Alder Gulch, which flows into the Ruby River between Alder and Virginia City. It is home to westslope cutthroat trout, brown trout, brook trout, rainbow trout, cutbow hybrids, and mountain whitefish. Historically, the Alder Gulch watershed was extensively dredged to mine for placer gold deposits. Dredging left acres of cobble and boulder piles, some of which created impoundments that affected the streamflow of Granite Creek through a defined channel into Alder Gulch. The Granite Creek bridge on Highway 287 was affected, as was the stream, riparian, and floodplain function. MDT reconstructed the highway in the area, replaced the bridge, and restored the Granite Creek channel through the right of way. A separate project would focus on the riparian conditions above the highway down to Alder Gulch. This project would focus on restoring Alder Gulch and would complete restoration on 900 feet of stream and the adjacent riparian and floodplain areas. Fascine and course wood

materials would be used to restore the streambanks and vegetation would be planted in the riparian areas. The goals are to improve degraded, disconnected, and nonfunctional aquatic habitat in Alder Gulch. The project should benefit the fishery by improving aquatic habitat, including proper stream function, spawning gravels and overhead cover. A soils analysis was completed and also informed the proposed restoration.

Project Name	Granite Creek Upper Alder restoration
Request	\$100,000.00
Match	\$430,172.40
Total Project Cost	\$530,172.00
% FFIP Request	19%
<b>Construction Schedule</b>	Fall 2024
Requested Items	Construction materials
FWP Recommendation	We recommend full funding (\$100,000.00), but ask the applicant to clarify
	the budget.
Panel Recommendation	Full funding (\$100,000.00)
<b>Commission Decision</b>	Full funding (\$100,000.00)

16. <u>019-2024 Paulo Reservoir storage and habitat (Valley County).</u> Paulo Reservoir is located near Glasgow and contains self-sustaining populations of largemouth bass and bluegill. Common carp, black bullhead, channel catfish, and yellow perch are also present at low abundances. Drought-induced reductions in maximum water depth and storage capacity resulted in significant winterkills and desiccation of spawning habitat. To recover the fishery, the applicant proposes to increase the maximum depth and storage capacity of the reservoir by raising the dam and spillway elevation to increase the reservoir's depth and allow the recreational fishery to persist. Part of this project will also to be install two fishing docks, incorporating handicap accessible amenities. Note: this project will include an initial stocking to jumpstart the fishery, which will be self-sustaining and "wild," meeting the requirements of the Future Fisheries program.

Project Name	Paulo Reservoir storage and habitat
Request	\$33,181.00
Match	\$76,975.00
Total Project Cost	\$117,676.00
% FFIP Request	28%
Construction Schedule	Not provided
Requested Items	Lift on dam, build up spillway, mobilization
FWP Recommendation	Full funding (\$33,181.00)
Panel Recommendation	Full funding (\$33,181.00)
<b>Commission Decision</b>	Full funding (\$33,181.00)

17. <u>009-2024 Governor Creek streambank restoration (Beaverhead County).</u> Governor Creek is a tributary to the Big Hole River near Jackson that supports Arctic grayling, within the Big Hole Candidate Conservation Agreements with Assurances (CCAA). In the project area, high flow events and grazing-related vegetation disturbances caused five outside streambanks to become unstable with a high risk of channel avulsion. Instream habitat was also negatively affected and the channel became overwidened. This project would repair five unstable streambanks along Governor Creek and install willow stakes and sod mats. The goals are to improve bank stability, reconnect the floodplain to the stream, improve cover with deep rooting vegetation, and improve water quality and temperature. A functional stream and floodplain would promote natural function and needed habitat in an area that has been the focus of a watershed scale restoration effort for Arctic grayling.

Project Name	Governor Creek streambank restoration
Request	\$16,400.00
Match	\$23,500.00
Total Project Cost	\$39,900.00
% FFIP Request	41%
<b>Construction Schedule</b>	Fall 2024
Requested Items	Equipment and labor
FWP Recommendation	Full funding (\$16,400.00)
Panel Recommendation	Full funding (\$16,400.00)
<b>Commission Decision</b>	Full funding (\$16,400.00)

18. <u>011-2024 Hellroaring Creek streambank restoration (Madison County).</u> Hellroaring Creek is a tributary to Red Rock Creek, within the Arctic Grayling Centennial Valley Candidate Conservation Agreements with Assurances (CCAA), that contains Arctic grayling. In the project area, historical livestock and wildlife overgrazing contributed to reduced deep-rooted vegetation. This caused poor streambank stability and high risk for a channel avulsion. Healthy riparian areas enhance grayling habitat by increasing cover and reducing sediment inputs into the stream, which helps to maintain cold water habitat and contribute to cleaner, colder water and productive spawning areas. The purpose of this project is to increase healthy riparian habitat along Hellroaring Creek by stabilizing two outside streambanks through bank sloping, planting of mature *Salix* and *Carex* sod mats, and transplanting willows. The goal is to improve Arctic grayling habitat by improving bank stability, reconnecting the floodplain to the stream, maintaining and improving overhead cover and riparian vegetation, and improving water quality and temperature.

Project Name	Hellroaring Creek streambank restoration
Request	\$10,400.00
Match	\$15,600.00
Total Project Cost	\$26,000.00
% FFIP Request	40%
Construction Schedule	Spring 2024
Requested Items	Equipment and labor
FWP Recommendation	Full funding (\$10,400.00)
Panel Recommendation	Full funding (\$10,400.00)
Commission Decision	Full funding (\$10,400.00)

19. <u>004-2024 Cattail Creek spawning enhancement (Madison County).</u> Cattail Creek is a tributary to the Ruby River near Alder that is predominantly composed of brown trout. The project area has an artificial stream channel and pond system that was created in the 1990s. Over time, the existing system became over-widened, shallower, and slower, which resulted in fine sediment accumulation and degraded fish habitat. This project would retire the existing channel-and-pond system and create a new channel to increase spawning and rearing habitat. Activities include removal of three existing fish barriers, channel restoration, and the addition of spawning substrate and instream habitat. This is intended to improve recruitment and abundance in the Ruby River. The new channel would create 2,475 feet of enhanced spawning and rearing habitat that would be connected to the Ruby River. The goal is to improve habitat and enhance the brown trout population, as well as other aquatic species. Public access is granted through a managed access program at the Woodson Ranch.

Project Name	Cattail Creek spawning enhancement
Request	\$107,358.00

Match	\$124,908.00
Total Project Cost	\$232,266.00
% FFIP Request	46%
<b>Construction Schedule</b>	Fall/winter 2024 or 2025
Requested Items	Oversight, travel (not allowed), construction materials, equipment, labor, mobilization
FWP Recommendation	Partial funding (\$105,558.00), without travel costs
Panel Recommendation	Partial funding (\$105,558.00)
<b>Commission Decision</b>	Partial funding (\$105,558.00)

20. <u>015-2024 Moore Creek restoration phase 1 (Madison County).</u> Moore Creek is a tributary to Ennis Lake near the town of Ennis that contains populations of brown trout and rainbow trout. In the project area,

approximately 3,200 feet of Moore Creek was ditched and channelized to drain the wetland complex in the area. This resulted in severe channel incision, which compromised streambank stability and impaired aquatic habitat and water quality. Intensive grazing also converted previous emergent and scrub-shrub wetland vegetation to upland grass species. Riparian vegetation has been lost, water temperature and water quality has been affected (*E. coli*, Nitrogen, Phosphorous), sedimentation has occurred, and instream habitat complexity was decreased. This project would return the stream to reference conditions and construct 1 mile of stream and floodplain features, using natural channel design, installation of vegetated wood matrix structures, willow plantings, riparian fencing, and reconnection to the floodplain. The goals are to improve water quality (e.g., sediment loading and nutrient filtration) in Moore Creek, to enhance available spawning and rearing habitat for trout, and return the area to a naturally functioning stream and floodplain. A Future Fisheries project was completed immediately upstream of this proposed work, where riparian fencing was installed and grazing management was addressed.

Project Name	Moore Creek restoration phase 1
Request	\$93,296.00
Match	\$131,174.00
Total Project Cost	\$223,943.00
% FFIP Request	42%
Construction Schedule	Fall 2024/Winter 2025
Requested Items	Permitting and agreements (not allowed), labor and equipment,
	contingency (not allowed), monitoring reports (not allowed)
FWP Recommendation	Partial funding (\$83,293.00), minus non-allowable costs
	Partial funding (\$83,293.00), contingent upon an approved grazing plan
Panel Recommendation	that includes 5 years of rest and monitoring that ensures grazing does
	not deteriorate stream conditions.
	(application withdrawn prior to Commission approval)

21. <u>021-2024 Warm Springs fish passage improvement (Anaconda-Deer Lodge County).</u> Warm Springs Creek is a tributary to the Clark Fork River west of Anaconda. It contains westslope cutthroat trout, bull trout, and other nongame species. In the project area, an undersized concrete box culvert has been limiting fish passage as a velocity barrier in high flow conditions. Floodplain and sediment transport processes have also been impaired by the road prism and the crossing is at risk of failure during extreme flow events. This project would accommodate 100-year streamflows, provide year-round aquatic passage, and reconnect floodplain surfaces. The box culvert would be replaced with a full channel-spanning concrete bridge. The goal is to improve fish passage, floodplain connectivity, and stream function in Warm Springs Creek.

Project Name	Warm Springs fish passage improvement
Request	\$52,800.00
Match	\$52,800.00
Total Project Cost	\$502,800.00
% FFIP Request	11%
Construction Schedule	Summer 2024
Requested Items	Road resurfacing, aggregate, concrete, beams installed
FWP Recommendation	Full funding (\$52,800.00), with design clarification
Panel Recommendation	No funding
Commission Decision	No funding