

**FUTURE FISHERIES IMPROVEMENT PROGRAM  
FWP RECOMMENDATIONS TO THE  
FUTURE FISHERIES REVIEW PANEL  
WINTER 2012**

1. Browns Gulch (Silver Bow County) is a tributary to Silver Bow Creek located near the community of Ramsey that supports westslope cutthroat trout in the upper reaches and brook trout in the lower reaches. With the continued clean-up of Silver Bow Creek, there is potential to re-establish migratory connectivity for westslope cutthroat trout between Silver Bow Creek and Browns Gulch. This project calls for installing 5 denil-style fish ladders on existing irrigation structures located on the Ueland and Liva ranches to enhance fish passage. Additionally, the project calls for replacing an undersized culvert, installing a headgate on one of the diversions, stabilizing about 1,200 feet of stream channel, installing 6,500 feet of fencing and constructing two livestock water gaps. The applicant is asking for \$56,705 in Program funds and is providing \$72,085 in matching funds and \$5,900 in in-kind services toward completion of the project. We support the project as proposed (\$56,705). (RIT eligible)
  
2. Cottonwood Creek (Powell County), a tributary to the Clark Fork River at Deer Lodge, recently has been documented to support fluvial cutthroat trout, as well as brown trout. Portions of Cottonwood Creek historically were channelized and over-grazed by livestock. This project calls for restoring stream channel habitat on about 2,200 feet of stream located on the Johnson Ranch. Project activities would include reconstructing about 940 feet of new channel alignment, constructing 1,400 feet of inset floodplain benches, installing several rock weirs and vanes and installing 5,000 feet of electric fencing to protect the riparian corridor. The applicant is seeking \$60,558 in Program funds and is providing \$61,305 in matching funds and \$18,200 in in-kind services toward completion of the project. We generally support the channel restoration and riparian protection efforts that are being proposed, but have concerns over some aspects of the design, as well as concerns about the cost of installing willow sprigs. We feel that the rock structures (weirs and vanes) being proposed are not appropriate for this channel type. Additionally, we feel that the proposed cost of \$2.00 per willow sprig is excessive. As a result, we recommend removing the Program cost of \$9,340 for the rock structures and cutting the sprigging cost in half (\$1.00 per sprig); reducing the request by a total of \$12,752. (Reduce funding to \$47,806) (RIT eligible)
  
3. Greenhorn Creek (Madison County) is a tributary to the Ruby River that supports non-hybridized westslope cutthroat trout. This population of westslope cutthroat trout is unlikely to persist without conservation efforts that reduce or eliminate competition and potential hybridization from non-native brook trout and rainbow trout. This project calls

for constructing a migration barrier near the confluence of the North and South forks to help protect about 12 miles of cutthroat habitat. The barrier would be located on state lands currently leased by Turner Enterprises, Inc. Since 2007, state and federal agencies have removed brook trout from this reach of stream using multiple pass electrofishing techniques. Removal efforts would continue after barrier construction. The applicant is asking for \$81,983 in Program funding and is contributing \$92,000 in matching funds towards completion of the project. While we have serious concerns over attempting to install a fish barrier within a wider floodplain that requires construction of berms to confine a 50-year stream discharge event, we support the concept of protecting native westslope cutthroat trout populations. As a result, we accept the risk and support the project as proposed. (\$81,983) (RIT eligible)

4. Haskill Creek (Flathead County) is a tributary to the Whitefish River located near the town of Whitefish that supports a brook trout fishery. A few westslope cutthroat trout also are found in the stream. Past channel straightening and riparian vegetation clearing have impaired stream conditions and increased sediment supply to the stream. This project, located on property owned by Kurt Reimer, calls for stabilizing 1,222 feet of channel by constructing floodplain benches using two different techniques. The first technique involves installing a series of fabric wrapped soil lifts incorporated with layers of willow sprigs. The second technique involves the construction of a stream bank composed of large pieces of stacked rootwads located at the toe of the constructed bank. Transplanted willow clumps would be interspersed among the wood pieces. The intent of the project is to improve water quality and provide a demonstration site for potential future channel stabilization projects. The applicant is requesting \$10,909.54 in Program funding and is providing \$40,000 in matching funds and \$23,692 in in-kind services towards completion of the project. We support the project as proposed. (\$10,909.54)
5. The Helena Valley Regulating Reservoir (Lewis and Clark County), located near Helena, supports a popular kokanee fishery. The reservoir provides a source of water for the Helena Valley Irrigation District and is owned and operated by the U.S. Bureau of Reclamation. This kokanee population is maintained primarily through hatchery stocking. Reservoir releases into the canal are known to entrain some kokanee into the canal. The applicant is asking for \$10,000 in Program funding and is providing no matching funds toward installation of a fish screen at the canal entrance. Trapping studies conducted by the local FWP biologist have shown a relatively low number of fish being entrained into the canal over the past two years. Additionally, screening such a large canal entrance (at least 100 cubic feet per second) likely would cost 30-fold what the applicant is requesting. As a result, we recommend that this funding request be denied. (Deny)

6. Little Otter Creek (Judith Basin County) is a tributary to Big Otter Creek located near the community of Raynesford that supports brook trout, brown trout and rainbow trout. An existing corral system located on the Vaskey Ranch is encroaching into the stream, causing excessive sedimentation and degraded water quality. The proposal calls for relocating the corral away from the stream corridor, re-vegetating the disturbed area with trees, shrubs and seed and fencing the riparian corridor to create a vegetative buffer. The project would restore between 100 and 300 yards of riparian corridor. The applicant is requesting \$6,020 in Program funding and is contributing \$20,614 in matching funds and \$10,000 in in-kind service towards completion of the project. We support the project as proposed. (\$6,020)
7. Racetrack Creek (Powell County), as it flows through three separate properties owned by Evan Johnson, Jules Waber and Rick Duncan near the community of Galen, has been degraded in the past by removal of riparian vegetation and trampling of stream banks by livestock. Also, an existing irrigation diversion is creating a partial fish migration barrier. Lower Racetrack Creek primarily supports brook trout and brown trout. This project calls for removing an existing riparian fence damaged by past flooding located on the Waber property and replacing it with 2,000 feet of new fence set back between 100 and 150 feet from the stream. Approximately 600 feet of old riparian fence would be removed on the Johnston property and replaced with 400 feet of new fenced installed on an adjacent terrace. In association, an off-site well would be drilled and two winterized stock tanks would be installed. Additionally, an existing rustic irrigation diversion would be rebuilt with a new pin and plank structure and a denil-style fish ladder installed to provide for upstream fish migration. On the Duncan property, 250 feet of new riparian fencing would be installed. The applicant is requesting \$46,037 in Program funding and is contributing \$2,100 in matching funds and \$6,820 in in-kind services towards completion of the project. We generally support the project, but would like to see a greater matching contribution. As a result, we support funding half of the cost of the following: off-site water development (\$9,570); fencing (\$2,319); diversion structure (\$8,200); heavy equipment and mobilization (\$3,300); as well as all of the cost of the fish ladder (\$3,000); for a total of \$26,389. (Reduce funding to \$26,389)
8. The Ruby River (Madison County) located downstream from Ruby Reservoir, supports a mixed trout fishery. Portions of the river located on the Miller Ranch historically were straightened and the riparian vegetation removed to make more room for farming. This project calls for reconstructing the straightened channel to increase sinuosity from an existing 1.2 to 1.8 by lengthening the channel from approximately 2,000 feet to 3,500 feet. The project also would relocate an existing feedlot away from the river channel, install about 7,000 feet of riparian fencing and construct a bridge. The applicant is requesting \$40,661 in Program funding and is contributing \$339,190 in matching funds and \$29,000 in in-kind services toward project completion. We generally support the

project but feel the cost of willow sprigs at \$1.75 per sprig is too high. We think \$1.00 per sprig is more than adequate. As a result, we recommend reducing the funding by \$3,857 (difference between \$1.75 and \$1.00 per sprig). We also recommend requiring construction oversight by the design consultant. (Reduce funding to \$36,804 and require construction oversight by design consultant)

9. Skalkaho Creek (Ravalli County) supports populations of westslope cutthroat trout and bull trout in its upper drainage. An existing culvert on the Bitterroot National Forest located approximately 20.5 stream miles upstream from the confluence with the Bitterroot River acts as a partial barrier to upstream migrating fish. The width of the culvert only accounts for 44% of the streams bank full width and is perched approximately 1 foot above the outlet. During higher stream flow, typically a time when westslope cutthroat trout and bull trout tend to move upstream, excessive velocities within the culvert make upstream fish passage very unlikely. This project calls for replacing the undersized culvert with a free span bridge. The applicant is requesting \$5,000 in Program funds to go toward a total estimated project cost of \$160,000. We support the project as proposed (\$5,000.00) (RIT eligible).
10. The tributaries of Divide Creek (Silver Bow County) support conservation populations of westslope cutthroat trout. The South Fork of the North Fork of Divide Creek is the only tributary in the drainage that supports non-hybridized westslope cutthroat trout. Presently, the South Fork of the North Fork Divide Creek enters a 0.6 acre settling basin before flowing into the 4.1 acre South Fork Reservoir through a perched culvert. South Fork Reservoir provides municipal water to the city of Butte. The function of the settling basin is no longer needed due to some new water treatment facilities and the perched culvert currently blocks upstream migration of trout residing in the reservoir. This project calls for replacing the perched culvert located between the settling basin and the reservoir with a series of rock step-pools. A total of 6 step-pools would be installed, consisting of 1 foot drops and 3 to 5-foot long pools with 1 foot residual pool depths. The step-pools would allow for upstream fish migration from the reservoir. The applicant is requesting \$2,000 in Program funds and is contributing \$3,500 in matching funds and \$1,000 in in-kind services. Recreational fishing on the reservoir is not allowed due to the site being a municipal water source. We generally support the project as proposed but need clarification on how Program dollars specifically would be used. (\$2,000, with budget clarification) (RIT eligible).
11. Twin Creek (Missoula County) is a tributary to Ninemile Creek that supports a mixed fish assemblage. Due to past placer mining activity, Twin Creek has been greatly altered, especially within its lower reaches near the confluence with Ninemile Creek. Altered conditions include ditching of the channel, dewatering, and loss of connection with Ninemile Creek. At the proposed project site, the stream is diverted into a series of man-

made ditches for about 200 feet before cascading down into an old dredge pond. This project calls for moving and re-grading about 10,000 cubic yards of mine tailings, filling in the dredge pond and constructing a new channel that connects directly with Ninemile Creek. Approximately 625 feet of new channel would be constructed. Approximately 40 step-pools, constructed of rock and log structures, would be incorporated into the design. The project also calls for extensive re-vegetation, including sowing native grass seed, incorporating willow cuttings into the newly constructed banks and planting containerized shrubs along the riparian corridor. The applicant is requesting \$41,000 in Program funding and is contributing \$102,850 in matching funds and \$16,100 in in-kind services. We support the project as proposed (\$41,000) (RIT eligible).

12. Willow Creek (Lewis and Clark County) is a tributary to the Blackfoot River located near the town of Lincoln that supports a mixed fish assemblage, including genetically pure westslope cutthroat trout. An existing road culvert located on property owned by Jerry and Susan Biresch acts as a partial fish migration barrier and creates localized bank erosion. This project calls for replacing the undersized and perched culvert with an appropriately sized free-span bridge. The applicant is requesting \$11,000 in Program funding and is contributing \$7,000 in matching funds and \$9,520 in in-kind services. We support the project as proposed. (\$11,000.00) (RIT eligible).
13. Wise River (Beaverhead County), the largest tributary to the Big Hole River, supports a mixed fish assemblage, including fluvial arctic grayling. A substantial irrigation infrastructure replacement project is being undertaken on the lower reaches of the Wise River. This infrastructure project involves consolidating five points of diversion into a single diversion point and installing one permanent diversion structure, a new headgate and a series of flow monitoring devices. The cost of this infrastructure replacement project totals \$200,000. The benefits of consolidating five points of diversion into one and eliminating the need for the annual construction of gravel berms are very high. As a small part of this project, the applicant is seeking Program funding to install a fish ladder into the diversion headgate to better enable fish entrained into the ditch to migrate back to the river once the headgate is shut at the end of the irrigation season. The applicant is requesting \$10,000 in Program funding and is not providing any associated match, except that associated with the larger infrastructure replacement project. We support the project as proposed. (\$10,000)