



Montana Fish, Wildlife & Parks

Region One
490 North Meridian Rd.
Kalispell, MT 59901
(406) 752-5501
FAX: 406-257-0349
Ref: JS040-12
February 27, 2012

Ladies and Gentlemen:

Montana Fish, Wildlife & Parks (FWP), Region One, has completed an environmental assessment (EA) proposing to examine and make a decision on whether or not to grant approval for a Montana Stream Protection Act (SPA 124) permit application submitted by the City of Kalispell to stabilize 650 l.f. of stream bank at the Buffalo Hill Golf Course on the Stillwater River to arrest erosion and protect several holes and infrastructure of the golf course.

Based on information derived from the application, environmental review, and public comment, as well as FWP's own expertise, I recommend that FWP issue a 124 permit to Flathead County for the proposed project. A copy of the decision notice is enclosed. Please contact Fisheries Biologist Mark Deleray at (406) 751-4543 or e-mail to mdeleray@mt.gov with questions or comments.

Sincerely,

James R. Satterfield Jr., Ph.D.
Regional Supervisor

Enclosure

c: *Governor's Office, Attn: Mike Volesky, PO Box 200801, Helena, MT 59620-0801
*Environmental Quality Council, PO Box 20, Helena, 59620-1704
*Dept. of Environmental Quality, Planning, Prevention & Assist., PO Box 200901, Helena, 59620
*Dept. of Environmental Quality, Permitting Compliance, PO Box 200901, Helena, 59620-0901
*Montana Fish, Wildlife & Parks - Director's Office: Reg Peterson; Fisheries: Bruce Rich; Rebecca Cooper; & Legal Unit: Jessica Fitzpatrick
*DNRC, PO Box 201601, Helena, 59620-1601 (Patty Greene)
*DNRC, Bob Sandman, Kalispell
*Montana Historical Society, SHPO, 225 North Roberts, Veteran's Memorial Bldg., Helena, 59620
*Montana State Library, 1515 East Sixth Ave., Helena, 59620-1800
*Adam McLane, Montana Environmental Information Center, PO Box 1184, Helena, 59624
George Ochenski, 4 Harrison Road, Helena, 59601
*Wayne Hirst, Montana State Parks Foundation, PO Box 728, Libby, 59923
*Montana State Parks Association, PO Box 699, Billings, 59103
*Joe Gutkoski, President, Montana River Action Network, 304 N 18th Ave., Bozeman, 59715
*Representatives Bill Beck, Keith Regier, Derek Skees, Jerry O'Neil, Steve Lavin & Randy Brodehl
*Senators Bruce Tutvedt, Ryan Zinke & Jon Sonju
*Flathead County Commissioners, 800 S Main Street, Kalispell, MT 59901
Interested Parties

* E-mailed



Montana Fish, Wildlife & Parks

Region 1
490 N. Meridian Road
Kalispell, MT 59901

**Decision Notice
and
Finding of No Significant Impact
for
Issuance of a 124 Permit to the City of Kalispell for Installation of Rock Riprap at the
Buffalo Hill Golf Course on the Stillwater River, Montana
Environmental Assessment**

2/27/2012

Description of the Proposed Action:

Fish, Wildlife & Parks (FWP) proposed to issue a 124 permit to the City of Kalispell for a stream construction project on the Stillwater River. The City of Kalispell proposed to stabilize 650 linear feet of eroding stream bank to prevent further erosion toward the Buffalo Hill Golf Course. The proposal employs a rock toe and rootwad armoring, and a vegetated soil technique from the lower water mark up to flood elevation. The 650 l.f. is divided into four segments on outside bends of meanders. During construction, about 3,250 square feet of upland vegetation will be disturbed. Following construction all disturbed areas and an additional 1,200 l.f. of bank will be revegetated.

Public Comment:

Notice was published in the legal notices in the Daily Inter Lake and on the FWP website. An environmental analysis was published on the FWP website. FWP issued a news release regarding the draft EA and opportunity for public comment, and the draft EA was available at state and local libraries. Copies of the draft EA were sent to adjacent landowners.

During the public comment period, FWP received ten written comment letters. Three of the written comments were from organized groups, Flathead Valley Chapter of Trout Unlimited, Kalispell Chamber of Commerce, and the Juniper Bend Homeowners Association. The remaining seven comments were from private individuals. Seven comments supported the proposed project, two comments opposed the proposal, and one comment did not state a position.

FWP Response to Comments:

Comment 1: Issue the permit before any more significant erosion occurs.

Response: We are following the process for permitting stream construction projects as provided in §87-5-503 Mont. Code Ann. and §87-5-504 Mont. Code Ann.

Comment 2: The proposed project would further channelize the flow of the river to the detriment of other landowners and river quality.

Response: The proposed project stabilizes the bank at its existing location in the four sites. Within the project area, the river is currently in a single channel and would not be further channelized. Unfortunately, in dynamic systems, it is extremely difficult to predict whether this bank stabilization project will have minor impacts or significant impacts to the adjacent landowners. There is potential for some type of impact downstream of the proposed stabilization.

At the treatment sites, riparian vegetation will be established and improved where currently little or none exists. The total length of rock riprap on the structures is relatively short when compared to the combined length of stream banks that are not being treated or are in a natural condition.

It is difficult to determine the potential secondary impacts of the proposed project since erosion is currently occurring at the treatment sites and on adjacent banks. Arresting erosion at the treatment sites may increase erosion on other sites, but it is unknown if in total more or less erosion would occur in the project area following the proposed construction.

Comment 3: There is a weakness in the analysis caused by comparing present river conditions rather than the original conditions of the river prior to construction of previous manmade structures. This analysis does not consider cumulative impacts of past activities. There is an incremental approach to stream flow analysis. There will be future stabilization projects proposed in this area and these should be considered cumulatively. An EIS is needed for the entire Stillwater River or at least this area. This would eliminate the piecemeal approach to bank stabilization.

Response: The project area contains over 5,000 feet of river or over 10,000 feet of bank. The west bank of the river has little development at this time. Currently on the east bank, there are about 450 feet of riprap. The proposed project stabilizes 650 feet of bank. The majority of stream bank at this time is not being treated or is in a natural condition. At this time, it is difficult to determine the potential for future projects since none are proposed. Arresting erosion at the treatment sites may increase erosion on other sites, but it is unknown if in total more or less erosion would occur in the project area following the proposed construction. This project proposes to improve the vegetation on about 2,000 feet of bank, which will improve the terrestrial condition of this area.

Comment 4: Figure 1 in the RKL Hydro report shows part of Lawrence Park as included in the Buffalo Hill Golf Course, which should be corrected.

Response: The first figure in the RLK Hydro, Inc., report, Analysis of Impact Potential Along the Stillwater River, is an overview of the project area. The figure identifies Lawrence Park as the Buffalo Hill Golf Course. The City of Kalispell owns both the golf course and park lands. We will notify the City of Kalispell and their consultant about this concern.

Comment 5: The Stillwater River has been an important bull trout migration stream, and there are spawning gravels in this stretch of river and downstream. These gravels could be mobilized as a result of the increased velocity due to the proposed riprap installation.

Response: There is no bull trout spawning or rearing habitat in the project area. This river reach is not identified as Critical Habitat for bull trout by the U.S. Fish and Wildlife Service. The Flathead River system is a large open basin where fish can move between drainages. Bull trout can access this stretch of river. This reach of stream is not known to be a migration corridor for bull trout from Flathead Lake.

Comment 6: Westslope cutthroat trout migrate through this reach in the spring. Since construction is proposed during migration and spawning period, extra care should be taken to limit in-stream construction activities and sediment creation.

Response: Construction would occur prior to spring runoff. Westslope cutthroat trout spawn on the descending limb of the hydrograph, following the peak in spring runoff. The proposed activities would not impact westslope cutthroat trout spawning. In addition, the project location does not contain westslope cutthroat trout spawning habitat. The proposed project will not inhibit fish movement through the project area. During construction fish may avoid the site. Construction will not occur continually over a 24-hour period. There will be opportunity daily for fish to move through the reach. At this time, we are unaware of a westslope cutthroat trout migration through this area during the proposed construction period.

Construction will introduce sediments but the impact will be short-term in duration. The turbidity will be of short duration and relatively low volume. The impact will be mitigated by constructing the project during low stream flow period, using clean materials, and installing silt fencing or other techniques to minimize the introduction of sediments during construction. The vegetation once established should reduce sediment inputs.

Comment 7: Much of the rock intended to be used for the bank revetment is smaller than shown in the contract documents and plan sheets, and the smaller rock will washout within a few years, forcing the city to repair and refund the project. Riprap with an average size of 1.2 foot diameter is basically two foot minus riprap and would be heavy enough to interlock and hold the banks for many years.

Response: This technical comment refers to the engineered design of the project and does not influence impacts to fish and wildlife habitat. We will notify the City of Kalispell and their consultant about this concern.

Comment 8: The municipal golf course, sewer line, and improvements are important infrastructures that need protection.

Response: The purpose of the proposed project is to protect this infrastructure.

Comment 9: The consulting hydrologist concluded that this proposed work will not yield adverse impacts.

Response: The City's consultant addressed stream velocities in the RLK Hydro, Inc., report, Analysis of Impact Potential Along the Stillwater River. RLK Hydro, Inc.,

concluded the proposed bank stabilization at Site 4 does not yield an adverse impact on adjacent property.

Comment 10: Erosion is a natural occurrence and human development at the golf course has not affected erosion along the river or the Juniper Bend property. The proposed project will not increase erosion along the river.

Response: Rock riprap may increase velocities and depth along treated banks, with significant impacts up and downstream. Riprap may interfere with natural stream dynamics, shifting problems to adjoining banks. All four of the proposed sites may negatively impact adjacent banks. Site 4 is immediately upstream of Juniper Bend, a housing development perched on the high steep bank on the west side of the river and on the opposing bank. The toe of the high steep bank is currently eroding, threatening the stability of the bank. It appears the bank will continue to erode or waste until stabilized or it reaches a new equilibrium. The proposed bank stabilization on Site 4 may negatively impact the high steep bank downstream.

RLK Hydro, Inc., provided an analysis of impacts at Site 4, Analysis of Impact Potential Along the Stillwater River. The report concluded that the proposed bank stabilization at Site 4 did not yield an adverse impact on adjacent property.

There remains some uncertainty regarding potential negative impacts to adjacent properties. The modeling conducted by RLK Hydro, Inc., is limited and cannot predict all changes to stream dynamics that may result from a given bank stabilization treatment. The proposed bank stabilizations will obstruct lateral channel migration; the stream will adjust somewhere else in the system to accommodate this new geomorphic input. Stabilization at one site will have some type of effect at another. Unfortunately, in dynamic systems, it is extremely difficult to predict whether this bank stabilization project will have minor impacts or significant impacts to the adjacent landowners. There is potential for some type of impact downstream of the proposed stabilization.

Comment 11: The proposed riprap rock is larger and has a larger coefficient of drag than the rock in native soils. The riprap will actually slow down water velocities in comparison to the native soils resulting in less erosion.

Response: This comment partially contradicts the conclusion of the City's consultant who addressed stream velocities in the RLK Hydro, Inc., report, Analysis of Impact Potential Along the Stillwater River. RLK Hydro, Inc., calculated a small increase in velocity at one site and no increases at others in the area at Site 4. The consultant did not analyze all sites. It is likely that, similar to Site 4, there may be increases in velocities at some sites.

Comment 12: Using more wood, sod mats, and riparian vegetation would be preferable to the use of angular rock to decrease the effects downstream due to increased velocity.

Response: Soil lifts and riparian vegetation will be used at all proposed sites. The proposed design incorporates wood rootwads into the toe of the structures. This comment refers to the engineered design of the project. We will notify the City of Kalispell and their consultant about this concern. The City's consultant addressed stream velocities in

the RLK Hydro, Inc., report, Analysis of Impact Potential Along the Stillwater River. RLK Hydro, Inc., concluded the proposed bank stabilization at Site 4 does not yield an adverse impact on adjacent property.

Comment 13: Recent bank failures are due to the stream undercutting shrubs, which fall in leaving unprotected areas. If the goal is to stop erosion then must stop undercutting of vegetation. If the goal is to stop erosion and nutrient pollution of rivers from collapsing banks, then stop the undercutting by using rock riprap.

Response: The proposed design for bank stabilization is a rock toe from the streambed up to the low water level. Above this elevation vegetation will be reestablished using soil lifts and cuttings. The rock toe is designed to prevent undercutting of the vegetation.

Comment 14: Preventing erosion at one spot will not increase erosion at another because the repair methods mimic existing conditions.

Response: The proposed stabilization will prevent future channel migration to the east at these sites and the stream will adjust somewhere else in the system to accommodate this new geomorphic input. Stabilization at one site will have some type of effect at another. Unfortunately, in dynamic systems, it is extremely difficult to predict whether this bank stabilization project will have minor impacts or significant impacts to the adjacent landowners. There is potential for some type of impact downstream of the proposed stabilization.

Comment 15: Capping the riprap with vegetative soil lifts will reestablish these areas to nearly native conditions.

Response: Capping the riprap with vegetation is the proposed design.

Comment 16: Building homes on the top of a cliff at Juniper Bend is bad planning. Bank erosion at the base of the cliff is inevitable and private property owners need to take similar protective actions to protect their property.

Response: Planning and development strategy and recommendations for future stream construction projects are not proposed by the City of Kalispell in this permitting process. We will notify the City of Kalispell and their consultant about this concern.

Comment 17: Juniper Bend private property concerns should not prevent the City from constructing the proposed project.

Response: There remains some uncertainty regarding potential negative impacts to adjacent properties. The proposed bank stabilizations will obstruct lateral channel migration; the stream will adjust somewhere else in the system to accommodate this new geomorphic input. Stabilization at one site will have some type of effect at another. Unfortunately, in dynamic systems, it is extremely difficult to predict whether this bank stabilization project will have minor impacts or significant impacts to the adjacent landowners. There is potential for some type of impact downstream of the proposed stabilization.

Comment 18: Human beings are a part of nature and human development and protection of the golf course are not un-natural.

Response: In this permitting process we will not be able to address the question of the role of human beings in nature or the appropriateness of human actions. We will address impacts to fish and wildlife habitat.

Comment 19: There will be future bank repairs and maintenance needed. River banks will continue to erode.

Response: Stream banks erode and channels move over time. No additional future projects are proposed at this time. The proposed bank stabilizations will obstruct lateral channel migration; the stream will adjust somewhere else in the system to accommodate this new geomorphic input. Stabilization at one site will have some type of effect at another. Unfortunately, in dynamic systems, it is extremely difficult to predict whether this bank stabilization project will have minor impacts or significant impacts to the adjacent banks.

Comment 20: Pumping flood water back into the river is a detriment of other landowners and river quality.

Response: Flood response activities are not direct, secondary, or cumulative impacts of the proposed project. The proposed project will not raise the height of the bank beyond the existing or base flood level. The proposed project and 124 permit under consideration do not impact flood levels or direct flood response activities. We will notify the City of Kalispell and their consultant about this concern.

Comment 21: Extreme flood events should be allowed to release across the golf course to reduce impacts downstream.

Response: Flood response activities are not direct, secondary, or cumulative impacts of the proposed project. The proposed project will not raise the height of the bank beyond the existing or base flood level. The proposed project and 124 permit under consideration do not impact flood levels or direct flood response activities. We will notify the City of Kalispell and their consultant about this concern.

Comment 22: During last year's spring flood event, the Golf Course placed sand bags along the course to prevent flood waters from accessing the golf course. The modified golf course bank abnormally raised river levels and resulted in erosion of the Juniper Bend bank just downstream. Photos depict erosion during this induced flooding. The Kalispell Public Works Department has photos. The City did not respond to concerns or require floodplain permitting. The RLK report did not address the practice of sandbagging the east bank during flood events which diverts water directly into the east bank below the Juniper Bend development.

Response: Flood response activities are not direct, secondary, or cumulative impacts of the proposed project. The proposed project will not raise the height of the bank beyond the existing or base flood level. The proposed project and 124 permit under consideration

do not impact flood levels or direct flood response activities. We will notify the City of Kalispell and their consultant about this concern.

Comment 23: The golf course is a floodplain and without the proposed project and the sandbagging, the course would flood and the flow would cut a channel through the course. Stopping bank erosion and sandbagging on the eastside of the river leads to erosion on the hillside on the west side of the river below the Juniper Bend development. Flooding the golf course would decrease erosion on the west bank.

Response: Flood response activities are not direct, secondary, or cumulative impacts of the proposed project. The proposed project will not raise the height of the bank beyond the existing or base flood level. The proposed project and 124 permit under consideration do not impact flood levels or direct flood response activities. We will notify the City of Kalispell and their consultant about this concern. The proposed project would obstruct the river from eroding the banks in an easterly direction at these sites.

Comment 24: Current vegetation management and removal by Juniper Bend on their riparian park land is responsible for some, if not all, of the existing erosion of the toe of their slope due to increased water velocities during high water events.

Response: Adjacent land management recommendations are not proposed by the City of Kalispell in this permitting process. We will notify the Juniper Bend Homeowners Association about this concern.

Comment 25: All the large and most sapling cottonwoods in this river section have been cut and it is the policy to eliminate cottonwoods. This impacts fish and wildlife, why was this not mentioned in the EA?

Response: This comment refers to activities not proposed with this project. There are cottonwoods on the west side of the river. The City of Kalispell owns and manages the land. About 2,000 feet of bank will be vegetated in the proposed project, which will improve vegetation in this reach.

Comment 26: If the east bank of the river is stabilized then the west banks should also be as part of this proposal. Please consider stabilizing the west bank to help prevent further erosion caused by efforts to protect the golf course.

Response: Stabilizing the west bank is not included in the project proposal and will not be permitted under this current process. If private landowners want to pursue a construction activity within a stream, they are required to follow a permitting process. With the proposed project, there remains some uncertainty regarding potential negative impacts to adjacent properties. The proposed bank stabilizations will obstruct lateral channel migration; the stream will adjust somewhere else in the system to accommodate this new geomorphic input. Stabilization at one site will have some type of effect at another. Unfortunately, in dynamic systems, it is extremely difficult to predict whether this bank stabilization project will have minor impacts or significant impacts to the adjacent landowners. There is potential for some type of impact downstream of the proposed stabilization.

Finding of No Significant Impact (FONSI):

I have evaluated the EA public comment and applicable laws, regulations, and policies. Potentially significant impacts were identified in Sections 1, 3 and 7. These potential impacts were to Land Resources, Water, and Land Use. There is potential for some type of impact downstream of the proposed bank stabilization. If the proposed project significantly increases the rate of erosion on the toe of the Juniper Bend bank, the housing development may be at additional risk. This may cause concern and controversy regarding potential impacts of the proposed project. Unfortunately, because this is a dynamic system, it is practically impossible to predict whether this bank stabilization project will have minor impacts or significant impacts to the adjacent landowners. The City of Kalispell contracted RLK Hydro, Inc., to provide an analysis of impacts at Site 4 (Juniper Bend site), Analysis of Impact Potential Along the Stillwater River. This report concluded that the proposed bank stabilization at Site 4 did not yield an adverse impact on adjacent property. Therefore, I cannot find that the proposed action will have a significant effect on the human environment. Therefore, an environmental impact statement will not be prepared.

Decision:

The City of Kalispell applied to FWP for a Stream Protection Act permit. Under the Act, FWP’s decision-making authority is limited to considering the potential for adverse effects to fish or game habitat, §87-5-504, MCA. The project application and environmental assessment indicate that there will be only minor and short-term impacts to fish and wildlife habitat. No significant impacts to fish and wildlife habitat were identified in the environmental review. No cumulative or secondary impacts to fish and wildlife habitat were identified in this review.

Based on information derived from the application, environmental review, and public comment, as well as FWP’s own expertise, it is my decision that FWP will issue a 124 permit to the City of Kalispell for the proposed bank stabilization project on the Stillwater River. FWP will provide recommendations for minimizing short-term impacts to fish and wildlife habitat in a 124 permit, if provided to the City of Kalispell.

James R. Satterfield, Jr.

2/27/12

James R. Satterfield Jr., Ph.D.
Regional Supervisor

Date