CHECKLIST ENVIRONMENTAL ASSESSMENT

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Agricultural Bitterroot Bridge Crossing</th>
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<tbody>
<tr>
<td>Proposed Implementation Date:</td>
<td>Summer/Fall 2022 or 2023</td>
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<tr>
<td>Proponent:</td>
<td>Jim Jensen of YC Properties LLC</td>
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<tr>
<td>Location:</td>
<td>NE ¼ of NE ¼ of Section 35, T6N, R21W</td>
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<tr>
<td>County:</td>
<td>Ravalli</td>
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</tbody>
</table>

I. TYPE AND PURPOSE OF ACTION

The Proponent, Jim Jensen of YC Properties LLC has applied for a Land Use License (LUL) and Right of Way (ROW) easement for a proposed agricultural bridge across the west channel of the Bitterroot River, approximately ¼ mile south and west of Hamilton, MT.

The LUL application is to place 0.006 acres of riprap below the low water mark. The proposed riprap is for the purpose of supporting and protecting an artificial embankment on the left bank of the western channel of the Bitterroot River. The 0.006 acres of riprap below the low water mark consists of the toe of the riprap. The requested duration of the LUL is through April 5, 2032.

The 0.024-acre ROW easement application is for a strip of land 16 feet wide and 68.25 feet long for the bridge span over the western channel of the Bitterroot River. The 68.25 feet is the surveyed length between low water marks that the bridge would span over the western channel of the Bitterroot River.

The State of Montana holds ownership of lands and minerals located below navigable rivers as established in the Equal Footing Doctrine, Montana statutes, and case law. The Department of Natural Resources and Conservation (DNRC), Trust Lands Management Division administers these lands on behalf of the state. Based on historical evidence supporting navigability, the Bitterroot River is commercially navigable from the mouth of Jennings Camp Creek on the east fork to its confluence with the Clark Fork. Therefore, the DNRC Montana Trust Lands Division claims ownership of this reach of the Bitterroot River.

DNRC Trust Lands Division does not have the authority to restrict or mitigate beyond our ownership and jurisdiction, which in this case is the bed of the river between the low-water marks. We consider the bridge in our analysis because it is part of the cumulative effect.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

   Provide a brief chronology of the scoping and ongoing involvement for this project. List number of individuals contacted, number of responses received, and newspapers in which notices were placed and for how long. Briefly summarize issues received from the public.

   SCOPING:

   Adjacent landowners and Ravalli County Commissioners were sent a scoping letter (see attached scoping notice). Additionally, the Bitterroot Star published the Public Notice on July 5, 2022. The DNRC received and accepted seven comments from the following interested parties (see Exhibit A for Comments Received).

   Carlotta Grandstaff of Bitterrooters for Planning.
   Bob Miller
   David Brooks, Executive Director, Montana Trout Unlimited
   Steve Hollowell
   Michele Dieterich
   James Cline
   Karl Kehmeier
All comments received were in opposition to the currently designed project. These comments have been read and considered in our analysis. However, the scope of the comments is mainly out of the purview of action and authority of the DNRC Montana Trust Lands Division. As is described in Section I of this analysis, this agency holds ownership and jurisdiction of the lands below navigable rivers, such as the west channel of the Bitterroot River where the bridge project is proposed. All comments received objected to the proposed project for reasons including aesthetics, aquatic habitat, fisheries (including Bull Trout), no public benefit, wildlife, flood and debris risk, and risk to other nearby infrastructure. Below we do analyze for some of these effects of the project to meet the requirements of the Montana Environmental Policy Act (MEPA) which is to ensure relevant environmental information is available to public officials before decisions are made and before actions are taken.

DNRC specialists and staff were consulted, including Andrea Stanley (Hydrologist/Soil Scientist), Carmen Evans (Right-of-Way Specialist), Lisa Axline (Right-of-Way Specialist), Ryan Weiss (Real Estate Management Bureau Chief), Patrick Rennie (Archeologist), Thayer Jacques (Forester).

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Examples: cost-share agreement with U.S. Forest Service, 124 Permit, 3A Authorization, Air Quality Major Open Burning Permit.

The proponent is a private (nongovernmental) entity proposing work in a perennial-flowing stream and is therefore required to obtain a Montana Natural Streambed and Land Preservation Act (310) permit. Their application was accepted by the Bitterroot Conservation District. The 310 permit application was reviewed by Conservation District staff and board, and a Montana Fish, Wildlife & Parks (FWP) Biologist. During the application review concerns were raised and Montana FWP received a technical review of one of the initial proposed designs. The 310 permit was issued after the project design was modified to address received concerns. These changes are listed in the 310 permit and are listed below:

- In the event the natural migration of the river leaves the bridge inoperable a 310 application will be submitted for the removal of the bridge (in reference to the landowners volunteered deed restriction filed with the Ravalli County Clerk and Recorder).
- For the stability of the bridge abutments, the proposed self-launching riprap component has been removed extending riprap toe below the channel thalweg to the calculated 100-year scour depth. The volume, thickness, and size class of the rock has been increased.

Other restrictions of the 310 permit include clean equipment, and re-seeding of disturbed areas with wetland and upland native seed mixes along with willow cuttings throughout all areas of the project. The permit (BT053-2020) was initially approved following modification of the initial design. Subsequently, the permit was approved for extension on November 30, 2021 (new number BT085-2021). The extension expires on November 30, 2022.

The Bitterroot River is a Waters of the U.S. and under the authority of Section 404, the U.S. Department of Army Corps of Engineers (DA) permits are required for the discharge of fill material into waters of the U.S. below the ordinary high-water mark. Based on information provided by the proponent to the DA, the DA determined that the proposed work is exempt from regulation under the Section 404(f) exemption found at 33 CFR Part 323.4(a) (6). As is stated in the letter from the DA to the proponent (December 23, 2020), the exemption is contingent on the road and bridge be constructed and maintained in accordance with best management practices (BMPs) to assure that flow and circulation patterns and chemical and biological characteristics of waters of the U.S. are not impaired, that the reach of the waters of the U.S. are not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized. Other baseline provisions of the exemption are included in the above-mentioned DA letter.

The proposed project is a new structure within the Regulated Flood Hazard Area of the Bitterroot River within Ravalli County and is subject to Ravalli County Floodplain Hazard Regulations. All required local, state, and federal permits or proof of waiver must be issued prior to issuance of a floodplain permit. The Ravalli Floodplain Administrator has determined a floodplain permit is required. A floodplain permit implementing a physical change cannot be approved until a Conditional Letter of Map Revision (CLOMR) has been issued by the Federal Emergency Management Agency (FEMA). The Floodplain Administrator may approve, conditionally approve, or deny the application. If constructed (following receipt of necessary permits), the proponent must submit evidence of submittal of a FEMA Letter of Map Revision (LOMR) to FEMA within 6 months of project completion. Note that the Floodplain Management Program of the Water Resources Division of the DNRC
manages a program that acts in an advisory capacity to County Floodplain Administrators including Ravalli County. Consequently, the Ravalli County Floodplain Hazard Management Regulations frequently mentions the DNRC. For clarity, the "DRNC" that is mentioned in the County’s Floodplain Regulations is the Water Resources Division of the DNRC, which is not influenced or coordinated with the DNRC Trust Lands Division.

The DNRC Trust Lands Division is the author of this environmental review and is limited to the purview and effects associated with LUL and ROW applications for the proposed project. Approval or denial of a permit from the DNRC Trust Lands Division would have no bearing on the authority or guidance of the Floodplain Management Program of the Water Resources Division of the DNRC.

3. ALTERNATIVE DEVELOPMENT:
Describe alternatives considered and, if applicable, provide brief description of how the alternatives were developed. List alternatives that were considered but eliminated from further analysis and why.

Proposed Alternative: Approve the request by Jim Jensen of YC Properties LLC to issue a LUL and ROW easement for an agricultural bridge on the west channel of the Bitterroot River. Project implementation may occur contingent on receipt of Floodplain Permit from Ravalli County.

No Action Alternative: Deny the request by Jim Jensen of YC Properties LLC to issue a LUL and ROW easement for an agricultural bridge on the west channel of the Bitterroot River. An assumption with the no action alternative is the proponent would continue to use the existing ford crossing with this alternative. The existing ford crossing is located approximately 300 feet upstream (south) of the proposed bridge crossing and is described by the proponent as a hardened stream ford crossing. The ford crossing is visible in aerial imagery and is located at 46.2378°N and -114.1796°W.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.
- Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.
- Enter "NONE" if no impacts are identified or the resource is not present.

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:
Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify direct, indirect, and cumulative effects to soils.

The underlying geology is composed of fluvial deposits of well-rounded, well-sorted gravel and sand with minor amounts of silt and clay (Lonn and Sears, 2001). Materials come from the entire drainage basin and include granitic, volcanic, metamorphic, and sedimentary rocks (Lonn and Sears, 2001). Regional well logs show an average thickness of 40 feet (Lonn and Sears, 2001), and local well logs show a thickness of approximately 100 feet.

Within the proposed project reach, the Bitterroot River is multi-channeled with a pool-riffle morphology and a meandering plan-view form with channel bends, point bars, and gravel bars indicating a streambed that is mobile and dynamic with a proclivity to laterally migrate with time. The dynamics of the channel co-exist and are influenced by woody vegetation on bars and floodplains (Bywater-Ryes et al., 2018). Beyond a sediment budget, the river also has a significant flux of large wood that provide significant physical and biological ecosystem benefits (Wohl et al., 2016). Grain size of the bed of the channel is cobbles. The banks are sandy.

According to observations documented by WGM Group (see Section III.13) the west channel where the project is proposed originates at a split on the mainstem approximately 6,000 feet upstream. This split location has remained unchanged since the early 1990s, however since the 1990s, the west channel has grown in size and has increased the proportion of river flow relative to the east channel over the past 25 years. The amount of flow that has and will occur in the area or the proposed project is determined by channel dynamics upstream, mainly the split between the west and east channel upstream. That configuration is expected to change with time due
to the dynamic and shifting nature of the Bitterroot River. Factors that could cause a shift include a mobile streambed, sediment flux, shifting large wood jams, ice jams, migrating gravel bars, and lateral stream migration.

Comments received during scoping on the potential adverse effect of the project on geomorphology of the river include the following:

- Paraphrased: The Bitterroot River is constantly changing its course and the proposed action would cause a significant alteration to this process. The bridge would require additional maintenance riprap as the river encroaches on the bridge infrastructure. The bridge would channelize the local reach of the river.
- “We have concerns about the construction and maintenance of a permanent bridge in the floodplain of a highly dynamic stretch of the Bitterroot River…. A permanent bridge in the proposed location also presents potential negative impacts to the river and the aquatic life it supports. The river is very braided in this area. That braiding is a sign of dynamic character of the river especially its tendency toward lateral movement and channel instability in this section…. Building a bridge over a channel that is likely to experience unpredictably high or low flows, as well as shift laterally, could compromise the stability of the bridge, its abutments, and associated riprap, as well as render the bridge useless if/when the channel moves or new channels open on either side of the bridge.”
- Paraphrased: The long-term impacts of maintaining a permanent structure in this location would likely have cumulative detrimental impacts downstream of the bridge.
- Paraphrased: Building a permanent bridge with associated riprap around the abutments will have a relatively small footprint and effect on the overall riparian quality and river function in this stretch. But doing so would create a permanent structure in a place on a river that is highly likely to change. Therefore, as the channel changes or new channels beginning forming around the bridge, additional bank hardening would be a likely solution to keep the bridge viable. “That ongoing effect to stabilize a naturally unstable, healthy section of river would lead to significant additional negative impacts to this stretch of river and well downstream.”
- “We also offer the more specific recommendation that any bridge in this reach of river ought to be fully demountable and not utilize permanent abutments.”
- “It [the bridge] is not in keeping with the wild nature of the river.”
- “The waterway is constantly in flux. The channels change. What happens when the channels no longer run under the bridge and there is a structure in the floodplain? Or when the river shifts and the bridge starts in the middle of the river creating an obstacle for river users. The construction would require rip rap on the bank. This will obstruct the natural meandering of the river and channels.”
- “The amount of gravel and downed woody debris that move with these events [pear runoff observed 2010-2011, 2017] was almost unimaginable. Huge whole trees rammed into the channels and blocked flow, piling up massive amounts of gravel. I cannot imagine any bridge being constructed that could withstand that type of natural redistribution of material. They are ignoring the true nature and potential harm a bridge could do if and when it is dislodged and floats downstream.”

No Action Alternative: No change in the existing condition which includes use of the existing hardened stream ford crossing.

Proposed Alternative: The proposed project includes a 129-foot clear span bridge supported by an abutment on each bank, and riprap armoring for abutment protection and additional lengths totally approximately 200 feet along each bank. The designs submitted by the proponent calls for 2,650 cubic yards of MDT Class 3 riprap (0.75 to 2.75 feet diameter) in order to place riprap along the banks that is a minimum thickness of four feet. The bridge is expected to have a freeboard of 3 feet during the 100-year flood event. The structure and the bank stabilization work are assumed to be sized to the current proportion of Bitterroot River flow and flood flows recruited at the split of the west and east channel 6,000 feet upstream. If the river form changes upstream, which is considered likely, the proportion of flood flows moving through the proposed project could change (increase or decrease). If an increase occurs, there is significant risk of scour and flow that exceeds the design capacity of the project.

At its current design of 3 feet of freeboard during a 100-year event. Even with this 3-foot freeboard, there is a risk of rafting ice or wood jamming at the bridge. This could increase risk of increased flooding to adjacent areas and increased duration of local flooding and scour.
If the structure were to fail because of scour the riprap is unlikely to be recruited by the stream and is most likely to remain in or near its placed position despite river movement. This phenomenon has been observed at other locations along the Bitterroot where riprap has been flanked by bank scour and remains stranded mid-river.

**Potential mitigation to proposed alternative:** Require as a condition of the ROW easement that the proponent must remove any materials, including any portion of the bridge or riprap, from below the low water mark in the event of a full or partial structure failure.

**References:**

5. **WATER QUALITY, QUANTITY AND DISTRIBUTION:**
*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify direct, indirect, and cumulative effects to water resources.*

The project is located within the middle section of the Bitterroot River, defined in water quality assessment (TMDL) and restoration plans as beginning below Skalkaho Creek and ending at the Eightmile Creek confluence. This section of river is classified as B-1, meaning that according to the Clean Water Act this river is to be maintained suitable for drinking, culinary and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply. All Total Maximum Daily Loads (TMDLs) needed to rectify all identified threats or impairments have been completed and approved by U.S. Environmental Protection Agency for this reach of the Bitterroot River. Within the last 11 years this reach of the Bitterroot River has been delisted for Total Phosphorus, Sedimentation/Siltation, and Nitrate/Nitrite. This section of the Bitterroot has been determined to be fully supporting drinking water and agricultural uses, while not fully supporting aquatic life, per the last assessment cycle in 2016. This section of the Bitterroot River is still listed as impaired for temperature, lead, and alteration in stream-side or littoral vegetative cover. Identified sources include agriculture, riparian and shoreline grazing, streambank modification/destabilization, flow regime modification (irrigation diversion), and stormwater runoff (Montana DEQ and U.S. EPA, 2014, and BRWF 2020).

The cobble, gravel, sand – sized streambed is an area important for hyporheic exchange which can influence temperature.

**No Action Alternative:** No change in the existing condition which includes use of the existing hardened stream ford crossing. Each equipment or vehicle crossing would continue to cause minor riparian habitat diminishment, compacting of streambed material, and sedimentation. Depending on level of improvement or hardening of the ford approaches, equipment, vehicle, and cattle crossing may dislodge and destabilize local stream banks thereby reducing vegetative cover, vegetative erosion resistance, and delivery of sediment and debris to the river.

**Proposed Alternative:** Implementation of the proposed action will result in a temporary increase in sedimentation from heavy equipment access and installation of abutments, riprap, and bridge structure. These impacts would be reduced by the following mitigations listed by the proponent in their letter (January 20, 2022):
- construction would occur during low water conditions
- coffer dams during abatement construction to isolate the work area from the river
- dewatering excavations will discharge to well vegetated areas away from the river
- concrete will be contained within the coffered areas,
Additionally, according to stipulations of the U.S. Department of Army Corps of Engineers 404 exemption, the proponent is required to include construction and design practices that avoid or minimize erosion and discharge to the river.

Implementation of the proposed action would result in the assumed abandonment of vehicle, equipment, and cattle use of the existing ford crossing, which would alleviate the existing minor riparian habitat diminishment, compacting of streamed material, and sedimentation that occur with ford use.

Implementation of the proposed action would likely create a long-term risk of interruption to unpredictable future natural channel migration and/or channel avulsion in the area. These processes could present a risk to the structure and structure failure, or maintenance, and present a risk of a chronic water quality issue associated with excessive scour, repeat reconstruction, and loss of natural vegetative cover.

References:

6. AIR QUALITY:
   What pollutants or particulate would be produced (i.e. particulate matter from road use or harvesting, slash pile burning, prescribed burning, etc)? Identify the Airshed and Impact Zone (if any) according to the Montana/Idaho Airshed Group. Identify direct, indirect, and cumulative effects to air quality.

No Action Alternative: No change in the existing condition which includes use of a native soil or gravel road surface that likely creates dust which may affect local air quality.

Proposed Alternative: Implementation of the proposed action will result in a temporary increase in emissions and dust from heavy equipment that will be used to grade and install the abutments, riprap, and bridge structure. These impacts should be short in duration and not a long-term adverse impact to air quality.

7. VEGETATION COVER, QUANTITY AND QUALITY:
   What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify direct, indirect, and cumulative effects to vegetation.

No Action Alternative: No change in the existing vegetation cover, quantity and quality.

Proposed Alternative: The proposed action would result in the clearing of some bank vegetation and vegetation adjacent to the river for grading and installation of the bridge structure, abutments, riprap, and associated road approaches.

The 310 Permit issued by the Bitterroot Conservation District includes a requirement that vegetation disturbed along the stream bank and outside the newly constructed crossing site be reseeded with wetland and upland native seed mixes along with willow cuttings throughout all areas of the project.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
   Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify direct, indirect, and cumulative effects to fish and wildlife.

An area search of the Montana Natural Heritage Program database (Township 6 North and Range 21 West) identified 27 species of concern: Townsend’s Big-Eared Bat, Wolverine, Long-eared Myotis (Bats), Fringed Myotis (Bats), Long-legged Myotis (Bats), Fisher, Golden Eagle, Great Blue Herron, Brown Creeper, Evening Grosbeak (Finches), Bobolink (Blackbirds), Pileated Woodpecker, Peregrine Falcon, Cassin’s Finch, Varied Thrush, Lewis’s Woodpecker, Clark’s Nutcracker, Pacific Wren, Northern Alligator Lizard, Western Skink, Westslope Cutthroat Trout, Bull Trout, Suckley Cuckoo Bumble Bee, Hooked Stonefly, Marbled Jumping-slug, Oblique Ambersnail, and Bald Eagle.
The bed of the Bitterroot River within this project reach is assumed to be a valuable over-wintering habitat for native Westslope Cutthroat and Bull trout (BRWF 2020).

**No Action Alternative:** No change in the existing condition which includes use of an existing road and unimproved native ford crossing located approximately 300 feet upstream (south) of the proposed bridge crossing. According to the description provided by the proponent (letter dated January 20, 2022), use of the ford is limited during periods of high runoff. The proponent also describes continued impacts to stream bed and banks, turbidity, and sediment delivery and mobilization during use of the ford crossing by vehicles, farm equipment, and cattle.

**Proposed Alternative:** In their letter (dated January 20, 2022), the proponent states that the ford would be used during bridge construction to allow for mobilization of construction equipment to the east bank of the western channel. The proponent also alludes to the abandonment of the existing ford with implementation of the proposed action. Following implementation, use of the bridge instead of the ford would eliminate the chronic streambed disturbance caused by equipment and cattle use of the ford crossing. This would be expected to reduce local turbidity and sediment delivery and mobilization. These direct effects would be favorable to aquatic life and habitats.

As is described in Section III.4. the project would likely influence local channel morphology in the long term with risk of interruption to unpredictable future natural channel migration and/or channel avulsion in the area. These processes would present a risk to the structure and structure failure, or maintenance present a risk of a chronic aesthetic issue associated with flanked riprap, a failed structure, repeat reconstruction, and loss of natural vegetative cover.

The proposed alternative would increase access across the river from seasonal to year-around which could have adverse effects to terrestrial and avian life and habitat.

**References:**

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**9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:**

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify direct, indirect, and cumulative effects to these species and their habitat.

Bull trout are listed as threatened by the U.S. Fish and Wildlife Service and are listed as a Species of Concern by Montana. West Slope Cutthroat Trout are listed as a Species of Concern by Montana. Both occur within the project reach of the Bitterroot River according to fish distribution data maintained by Montana Fish, Wildlife, and Parks (MFISH). Sub-adult and adult fluvial Bull Trout reside in larger streams and rivers and spawn in smaller tributary streams. Open migratory corridors in river systems are critical for maintaining their populations.

According to stipulations of the U.S. Department of Army Corps of Engineers 404 exemption for this agricultural bridge, the proponent shall not take, or jeopardize the continued existence of, a threatened or endangered species as defined under the Endangered Species Act, or adversely modify or destroy the critical habitat of such species.

**No Action Alternative:** No change in the existing condition. See the description of the effects of a No Action Alternative in response to #8-above for a description of the effects to stream/fish habitat.

**Proposed Alternative:** See the description of the effects of the Proposed Alternative in response to #8-above for a description of the effects to stream/fish habitat.

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**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

Identify and determine direct, indirect, and cumulative effects to historical, archaeological or paleontological resources.

A Class I (literature review) review was conducted by the DNRC staff archaeologist for the State Land portion of the area of potential effect (APE). This entailed inspection of project maps, DNRC’s sites/site leads database,
land use records, General Land Office Survey Plats, and control cards. The Class I search results revealed that no cultural or paleontological resources have been identified in the APE. The APE on state land is restricted to the bed of the active Bitterroot River. As such, no additional archaeological investigative work will be conducted in response to this proposed development. Issuance of the subject easement and Land Use License will have No Effect to Antiquities. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify direct, indirect, and cumulative effects to aesthetics.

Comments received during scoping on the potential adverse effect of the project on aesthetics include the following:
- “It [the bridge] is not in keeping with the wild nature of the river.”
- “The bridge… [would break] the viewshed for watercraft users and fishermen.”
- “… riprap on the bank… is also an unsightly visual for water recreators.”

Implementation of the proposed action could likely create a long-term risk of interruption to unpredictable future natural channel migration and/or channel avulsion in the area. These processes could present a risk to the structure and structure failure, or maintenance, and present a risk of a chronic aesthetic issue associated with flanked riprap, a failed structure, repeat reconstruction, and loss of natural vegetative cover.

Construction of the project would cause temporary noise impacts.

**No Action Alternative:** No change in the existing condition. The existing ford is visible to the adjacent landowner (the project proponent) and river recreationists who have access to the area according to the Montana Stream Access Law.

**Proposed Alternative:** The proposed project is in an area surrounded in all directions by land owned by the project proponent for a ¼ mile or more (except for the streambed). The project would be directly visible to river recreationists who have access to the area according to the Montana Stream Access Law. River recreationists using the west channel of the Bitterroot River in the area of the project would have to pass under the proposed bridge to move along the river.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify direct, indirect, and cumulative effects to environmental resources.

**No Action Alternative:** No change to the existing condition. No significant increased demands on environmental resources.

**Proposed Alternative:** Implementation of the proposed action is not expected to have a significant impact on demand on environmental resources over the existing condition.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

**WGM Group Technical Memorandum (October 15, 2020):**
The Bitterroot Conservation District has issued a 310 permit for the project as described in section II.2 of this EA. During their review of the project, several alternatives and design modifications were considered and adopted into the project design by the proponent. During this review and permitting process the Bitterroot Conservation District was advised by the Montana Department of Fish Wildlife
and Parks (MFWP). MFWP contracted a technical review by WGM Group who produced a 10-page report summarizing observations and recommendations for project alternatives based on:

- Site visit in October 2020.
- Historical data including on-site observations beginning in 1992, aerial imagery from 1974 to present, and historical data on channel manipulations including impoundments dating back to 1891.
- Review of the hydraulic analysis (flood modeling and scour prediction) completed by RESPEC, inc. to evaluate the bridge design.

Hydraulic analysis and reporting of expected changes to hydraulic characteristics of Bitterroot Flooding and review by Federal Emergency Management Agency (FEMA)

A requirement of the proposed development within the floodplain of the Bitterroot River is the proponent must complete a hydraulic analysis and report the expected resulting change to the existing regulatory floodway, the effective Base Flood Elevations (BFEs), and the Special Flood Hazard Area (SFHA). According to the proponent, this analysis was to FEMA, and FEMA responded with a Conditional Letter of Map Revision (CLOMR). A CLOMR indicates that if built as proposed, the project would be recognized by FEMA. After construction, the local Flood Insurance Rate Map (FIRM) would be revised based on an as-built hydraulic analysis. Based on the submitted hydraulic analysis, the project would increase base flood elevation in some areas by 0.6 feet.

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14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

No Action Alternative: No change to the existing condition. The ford crossing is likely unsafe for use during periods of high river runoff.

Proposed Alternative: Implementation of the proposed action would increase crossing safety for agricultural personnel and equipment crossing the west channel of the Bitterroot River.

Implementation of the proposed action could increase the risk of log debris jams occurring at the crossing. These could produce additional risk to river recreationists.

The project is proposed within the Regulated Flood Hazard Area of the Bitterroot River and consequently Ravalli County and FEMA have regulatory authority to review the proposed project for effects to flood risk.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

No Action Alternative: No change to the existing condition. No significant loss or gain in industrial, commercial, and agricultural activities and production.

Proposed Alternative: Implementation of the proposed action would increase landowner access to agricultural areas located beyond the west channel crossing. The existing hardened ford crossing has periods of limited or no use during high river runoff. The bridge would allow for potentially year-around access to agricultural areas beyond the west channel crossing. This could add agricultural activities and production.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify direct, indirect, and cumulative effects to the employment market.
No Action Alternative: No change to the existing condition. No significant loss or gain in quantity and distribution of employment.

Proposed Alternative: Implementation of the proposed action is not expected to have a significant impact on the quantity and distribution of employment aside from temporary work associated with the construction of the project.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify direct, indirect, and cumulative effects to taxes and revenue.

No Action Alternative: No change to the existing condition. No significant loss or gain in local and state tax base and tax revenues.

Proposed Alternative: Implementation of the proposed action is not expected to have a significant impact on local and state taxes beside potentially increasing local private property values and the potential qualification of the cost of the agricultural bridge as a decrease in tax liability as an agricultural business expense.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify direct, indirect, and cumulative effects of this and other projects on government services.

No Action Alternative: No change to the existing condition. No significant increased demand for government services.

Proposed Alternative: Implementation of the proposed action is not expected to have a significant impact on government services.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

No Action Alternative: No change to the existing condition. The existing hardened ford is assumed to be in compliance with local environmental regulations. The DNRC Trust Lands Division did not find a record of a ROW easement for the ford crossing.

Proposed Alternative: Implementation of the proposed action does not preclude the need for the project to comply with other State, County, and Federal requirements. Permitting requirements are summarized in Section II.2. The proponent has indicated that all needed permits for the project except for the Floodplain Permit have been issued.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify direct, indirect, and cumulative effects to recreational and wilderness activities.

Recreational activities are common in the area. River recreationists (mainly those fishing, wading, or floating) have access to the river below the ordinary high-water mark where project is proposed to span according to the Montana Stream Access Law.

No Action Alternative: No change to the existing condition. No significant change to recreation access or quality.

Proposed Alternative: According to the submitted project designs the toes of the proposed abutments and bank revetments at the bridge are located below the elevation of the ordinary high-water mark and are not
expected to impinge on the existing location of the high-water mark. The expected clearance from the bottom of
the low chord of the proposed bridge to the ordinary high-water elevation is 7.84 feet. According to these metrics
the proposed project should not reduce recreation access.

However, due to channel dynamics described in Section III.4. The channel bed and form beneath the proposed
bridge could change with time either decreasing or increasing river bed and water surface elevations. Additional
risks include debris jam formation at the bridge and river movement. If the structure were to fail, it could produce
a hazard or quality impact to river recreation in the area.

**Potential mitigation to proposed alternative:** Require as a condition of the ROW easement that the
proponent must remove any materials, including any portion of the bridge or riprap, from below the low water
mark in the event of a full or partial structure failure.

Project construction would have a temporary significant impact on access and quantity to river recreationists at
the project area.

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**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify direct, indirect, and
cumulative effects to population and housing.*

Neither the Action and No Action Alternatives are expected to have an effect on population and housing.

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**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

Neither the Action and No Action Alternatives are expected to have an effect on social structures and mores.

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**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

Neither the Action and No Action Alternatives are expected to have an effect on cultural uniqueness and
diversity.

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**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis
area other than existing management. Identify direct, indirect, and cumulative economic and social effects likely to
occur as a result of the proposed action.*

The standard charge for an LUL across a navigable river is $150.
The charge for the ROW easement would be $415.

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**EA Checklist**

| Prepared By: Name: Andrea Stanley          Date: August 5, 2022 |
|---------------------------|---------------------------|
| Title: Hydrologist/Soil Scientist |                           |

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**V. FINDING**

**25. ALTERNATIVE SELECTED: Action Alternative**

**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

In a project such as this (LUL and ROW easement application), the DNRC Montana Trust Lands Division does
not have the authority to restrict or mitigate impacts beyond our ownership and jurisdiction, which in this case is
the bed of the river between the low-water marks. As is described in Section II.2., of this analysis other agencies have the purview and ability to regulate and mitigate according to their regulatory responsibilities and authorities.

This analysis is assuming the effects of bridge and abutment placement with the Proposed Alternative, and the continued use of the existing ford crossing with the No Action Alternative. The State of Montana Department of Natural Resources and Conservation claims that the Bitterroot River is commercially navigable from the mouth of Jennings Camp Creek on the east fork (SW¼, Sec. 27, T2N, R18W) to its confluence with the Clark Fork River based upon historical documentation that the river segment was susceptible of navigation at statehood. Therefore, the state claims ownership of the bed of the Bitterroot River between low-water marks in this river segment. The proposed project is located in this river segment. The proponent of the bridge project filed a request for a LUL and easement related to the bridge infrastructure and associated bank armor. Pursuant to Rule 36.25.1102(3), a LUL and easement may be authorized to convey a contingent right to use the bed of the Bitterroot River based upon the validity and extent of the Land Board’s title to the riverbed. The proposed easement and LUL are subject to final Land Board approval. It is unknown if Ravalli County would consider the proponent’s Floodplain Permit application complete without a LUL and ROW easement.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

- [x] No Further Analysis

<table>
<thead>
<tr>
<th>EA Checklist Approved By:</th>
<th>Name: Sierra Farmer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Title: Trustlands Program Manager</td>
</tr>
</tbody>
</table>

Signature: [Signature]

Date: 8/17/2022
Exhibit A. Comments Received

Thayer Jacques  
Hamilton Unit Forester  
Hamilton DNRC  
PO Box 713  
Hamilton, MT 59840

Bitterrooters for Planning (BfP) is a non-profit 501©3 organization registered with the state of Montana which works to promote appropriate land use planning in Ravalli County.

BfP opposes proposed the YC Properties bridge construction project over a west channel of the Bitterroot River in Hamilton.

YC Properties is required to obtain permits or exemptions from various state, federal and local authorities, including the Montana Department of Natural Resources and Conservation.

A 318 Authorization must be obtained prior to initiating a project that will cause short term or temporary violations of state surface water quality standards for turbidity. The authorization may be obtained from the Montana Department of Environmental Quality (DEQ) or may be waived by the Montana Department of Fish, Wildlife and Parks (FWP) during its review process under the 310 Permit or the Stream Protection Act (SPA 124 Permit). YC Properties received a 318 Authorization waiver from FWP on Dec. 1, 2020 as part of the 310 Permit review process, and the 310 Permit was thereafter approved on Dec. 8, 2020. Given the scope of this project and sparse Bitterroot Conservation District (BCD) record on the 310 Permit, it is unclear how the waiver was granted and excluded from DEQ review. FWP’s response to BfP’s public records request did not clarify why it granted the waiver despite its consultant’s reservations on the project. A follow up public records request did not clarify the issue.

A DNRC Land Use License or Easement is required for any entity proposing a project on lands below the high water mark of navigable waters. The construction of the bridge would require a permit since it is a structure or improvement in, over, below or above the Bitterroot River. Additionally, the project requires DNRC approval pursuant to MCA 75-5-203 since it would revise or update the specific maps and data that alter the established floodplains or floodway of the Regulated Flood Hazard Area. (Ravalli County Floodplain Regulations 4.3) The alteration petition must include information that demonstrates that the development is for a public use or benefit. (RCFR 4.3.5(4), a fact that was mentioned as a potential barrier to approval by DNRC NFIP/CAP Coordinator Traci Sears on a Dec. 18, 2020 Zoom call with state and local floodplain officials.

However, a public records request to DNRC produced no responsive documents to elucidate DNRC’s position or requirement. A second public records request was submitted to ensure than an application or approval is not within DNRC’s records. If I remember correctly, we asked for information from DNRC and received no response. We asked a second time and were told it would cost us $500 for DNRC to come up with any records the agency might have related to this project.
We are a small, local citizen-driven, non-profit organization operating on funds donated by citizens in our community. Requiring $500 for a record search was an outrageous and insurmountable financial barrier to our organization that we could not afford, especially since we had to hire an attorney to help us get some answers to our questions in the first place. That BfP had to raise money to hire an attorney to help Montana citizens get records from a state agency that is supposed to work for the public is outrage enough. Asking for another $500 was an insult. Additionally, your own employee, Traci Sears, could not get an answer to the question of public benefit of this project. The Zoom meeting showed that the question was glossed over, unanswered, and the participants to the discussion simply moved on to other issues.

The lack of clear answers from the various agencies, the lack of records from DNRC and the inability to identify a public benefit to this bridge project prompt BfP to request that DNRC deny approval of this permit.

Thank you for your consideration,

Carlotta Grandstaff
Bitterrooters for Planning
PO Box 406
Hamilton, MT 59840

From: Bob and Sylvia Miller <bobnysmiller@msn.com>
Sent: Wednesday, July 6, 2022 9:17 AM
To: Jacques, Thayer
Subject: [EXTERNAL] YC properties bridge request

Thayer,
I think this easement request should be denied. Currently the main channel runs East of the island where the access is proposed. About 6 years ago that was not the case as that Eastern channel was almost dewatered and the main flow ran to the west of the island and 30 years ago the main channel ran to the west of the island for many years. The Bitterroot river is constantly changing its course and by granting an easement for this proposed bridge the DNRC will be allowing for a significant alteration to this process. If the bridge is built the next time the river migrates West the landowner almost certainly will be requesting riprap etc to stop the river from encroaching on the bridge infrastructure. Additionally I suspect the infrastructure which is going to be built to access the bridge will begin to channelize that part of the river during high water which will make walking thru that area of the river very difficult if not impossible except at very low water. Currently that section of the river makes for a very pleasant walk and wade fishing experience. In summary I don’t think you should accommodate actions that will substantially change the character of the river.

Thanks,
Bob Miller
Hamilton, Mt

Sent from Mail [go.microsoft.com] for Windows
July 7, 2022
Bitterroot Trout Unlimited
PO Box 262
Hamilton, MT 59840

Re: Scoping comments for YC Properties LLC proposed Bridge on Bitterroot River

Hello Mr. Jacques,

Thank you for considering scoping comments from Bitterroot chapter of Trout Unlimited and Montana Trout Unlimited. Because of our organizations’ shared mission to conserve, protect and restore coldwater fisheries and their habitats in Montana, we have concerns about the construction and maintenance of a permanent bridge in the floodplain of a highly dynamic stretch of the Bitterroot River.

The current and historic access to the private cultivated lands on the island created by the split in the Bitterroot River above the proposed bridge site has been a river ford. Crossing the river with agriculture equipment and associated vehicles comes with minor riparian habitat diminishment, compacting of streambed material, and sedimentation issues. Thus, a bridge is worth considering to reduce the impacts of fording the river regularly. But, a permanent bridge in the proposed location also presents potential negative impacts to the river and the aquatic life it supports.

The river is very braided in this area. That braiding is a sign of dynamic character of the river, especially its tendency toward lateral movement and channel instability in this section. A technical memo written in 2020 (WGM Group, 2020-10-15) states that “in the last 25 years, the west channel has tended to enlarge and convey a greater proportion of the river flow (than it does currently)...Predicting future channel conditions or the relative amount of peak flow or baseflow in the west channel is difficult.” Building a bridge over a channel that is likely to experience unpredictably high or low flows, as well as shift laterally, could compromise the stability of the bridge, its abutments, and associated riprap, as well as render the bridge useless if when the channel moves or new channels open on either side of the bridge.

This technical memo is worth quoting at length regarding the instability of the proposed bridge site and the long-term impacts of maintaining a ‘permanent’ structure in such a location, maintenance that would likely have cumulative detrimental impacts downstream of the bridge site (italics added for emphasis):
The proposed location of the bridge has enjoyed a relatively stable cross-section for many years. However, cross-sections immediately up and downstream of the side are actively enlarging and shifting across the floodplain. These too were once more stable than the present condition. Past performance does not necessarily guarantee future results. The assumption that the bridge location will remain stable into the future is the least probable interpretation of the long term situation. The area is highly dynamic. There is a significant risk that instability in the west channel will likely require substantial additional interventions over time to protect the bridge. If permitted, protecting the bridge may trigger an unknown amount of additional “channel training” projects for years to come. Riprap projects on the river fail frequently due to undermining and scour. …Unrelated to the permit, approximately 100 acres of floodplain has been cleared of native vegetation and converted to a cropping with permanent, underground irrigation infrastructure. This activity increases risk of potentially de-stabilizing the floodplain and river channels in this area.

Our synopsis of this evaluation is that building a permanent bridge with associated riprap around the abutments will have a relatively small footprint and effect on the overall riparian quality and river function in this stretch. But, doing so would create a permanent structure in a place that is highly unlikely to remain in its permanent condition. Furthermore, as the channel changes or new channels begin forming around the bridge, additional bank hardening would be a likely solution to keep the bridge viable. That ongoing effort to stabilize a naturally unstable, healthy section of river would lead to significant additional negative impacts in this stretch of river and well downstream.

In scoping this project, we strongly encourage DNRC to consider these factors. We also offer the more specific recommendation that any bridge in this reach of river ought to be fully demountable and not utilize permanent abutments.

Again, we appreciate the opportunity to comment in this early scoping stage of the process. If you have any questions about our comments, please contact us anytime.

Sincerely,

David Brooks
Executive Director, Montana Trout Unlimited
david@montanatu.org, 406-543-0054

David Ward
President, Bitterroot Chapter of Trout Unlimited
Dear Mr. Jacques,
I’m sure this is already a done deal, but for the record I am opposed to this bridge proposed by YC Properties LLC or any development on the banks of the Bitterroot River. This will no doubt be a massive structure to allow heavy farm equipment to pass over the river. It is not in keeping with the wild nature of the river. Thank you for your consideration.

Sincerely,
Steve Hollowell
Dear Thayer Jacques

Thanks so much for the opportunity to comment on the proposed bridge construction by YC properties. The bridge spans across the Bitterroot River from private land to a private island and is purportedly to be used to transport agricultural equipment to the island for farming.

I have been following this for almost 2 years now. I attended meetings and commented at the Bitterroot Conservation District.

DNRC has not adequately disclosed the public benefit of this project. The DNRC mentioned the public benefit requirement at a recent meeting in December but it was not adequately explained or addressed.

The bridge is for private use, but would span a public waterway, creating an obstacle and breaking the viewshed for watercraft users and fishermen.

The waterway is constantly in flux. The channels change. What happens when the channels no longer run under the bridge and there is just a structure in the floodplain? Or when the river shifts and the bridge starts in the middle of the river creating an obstacle for river users.

The construction would require rip rap on the bank. This will obstruct the natural meandering of the river and channels. It is also an unsightly visual for water recreationists.

To create space for cultivating crops on the island, the owner removed many cottonwoods near the shore. Please explain how this affects migratory birds and eagles, under the migratory bird act and eagle protection act. Explain how this affects public benefit, if any, that the bridge provides.

There has been some controversy and construction without proper permits for this project already. Why reward misconduct with permission to build a bridge across a public, free flowing waterway.

The Bitterroot River is bull trout critical habitat. How will bridge construction, the addition of rip rap to the banks, and use of the bridge year-round affect bull trout?

There is an historical ford that could be used instead of building a bridge. The owner has access to the island using this ford. I highly recommend that the owner be asked to use this rather than waste taxpayer dollars to evaluate and assess this private project for private gain. This bridge is a permanent structure. What happens if the river decides to swallow some of the island or meander away from the bridge? What happens when this owner sells and the new owner no longer wishes to maintain the bridge or have it on the property?

Thanks very much for the opportunity to comment on this project. I hope you deny the easement.
Sincerely,

Michele Dieterich

2099 Silver Ridge Rd
Hamilton, MT 59840
telechele@hotmail.com

To: Thayer Jacques, DNRC  
July 8, 2022

From: James Cline, montanakimo@gmail.com
Phone: 406-396-4516

RE: YC LLC Bridge proposal

Dear Thayer Jacques,

As per an article in the Bitterroot Star on the proposed bridge for YC properties on the Bitterroot River near Hamilton, I would like to comment. My name is James Cline and I have been a resident of Ravalli County for seventeen years the first twelve (2005-2017) in Hamilton directly across from River Park on 9th St. I am an avid hiker and fly fisherman, so living near the river was an opportunity to visit it almost daily during all seasons.

Over the years in Hamilton I closely monitored the river’s flow and changes. The island that belongs to YC had a small creek like channel between the mainland (west side) and the “island” for many years. I would often fish there but the water was shallow and not very wide. There were two separate years of excessive run off and that island was almost if not completely covered in water. The first time was about 2010-11 when the river almost crested into River Park over the rip wrap at the main area on 9th St. At that level the hundreds/thousands of acres to the East up to the YC property and even below the Hamilton Cemetery at the “Fox property” was covered with water overflow. The unfinished sub level foundation for the house on the Fox property was flooded. The changes to the river were dramatic and very noticeable. The main channel went right next to River Park with my estimation of 90% of the water flow. Around 2017 another flood event reversed then previous and brought in gravel and blocked the main channel significantly and the former "small creek" bordering the YC property had the vast majority of the water flow. I fished it often but the aquatic environment had not developed enough to support a strong fish population. A few years ago the next event changed the river to its previous flow of mostly Eastward. The amount of gravel and downed woody debris that move with these events was almost unimaginable. Huge whole trees rammed into the channels and blocked flow, piling up massive amounts of gravel. I cannot imagine any bridge being constructed that could withstand that type natural redistribution of material. They are ignoring the true danger and potential harm a bridge could do if and when it is dislodged and floats down stream. The video of the recent bridge
flowing down the Yellowstone is on my mind. Secondly, what benefit is it to the public good? Is YC now allowing the public to access this area? I'll admit I trespassed the area as the "high water" mark was well into the island with erosion drainages all through out. To allow a private bridge for exclusive use on a public river seems out of character for the Bitterroot.

So, in conclusion, despite what engineers may design I believe a time will come when the possibility of failure is significant. I realize your agency only has certain powers to the high water line but I strongly recommend not approving this project.

Thanks for your time,

James Cline
Victor, MT

Thayer Jacques
Hamilton Unit Forester
DNRC PO Box 713
Hamilton, MT 59840

Dear Mr. Jacques,

It came to my attention through the Bitterroot Star that YC Properties LLC wishes to build a bridge over the Bitterroot River - NE 1/4 NE1/4 Section 35, T6N, R21W.

I would assume that the DNRC would take into consideration how many bridges have been built over the Bitterroot River with private money?

It seems the bridge would be built for agricultural purposes. I would assume the DNRC would look at the total construction costs of the bridge vs. income generated minus operating expenses. If the aforementioned calculation were considered, I think the DNRC would find the so called "agricultural purposes" is nothing but a sham for a rich and powerful person to build a bridge as nothing more than a trophy to build their ego.

The good people of Ravalli County and the state of Montana can not allow this and deserve all the guidance necessary to prevent this from happening. As it would set a legal precedent for all people of power and wealth to destroy the Bitterroot Valley.

I would appreciate the DNRC to keep the public notified as to the progress of YC Properties. I am sure I am not the only person that feels this way.

Sincerely,

Karl Kehmeier
106 State St. Unit 6
Hamilton MT 59840
720-634-9082