



Draft Environmental Assessment

Cornell Park Fishing Access Site Proposed Land Acquisition and Development



March 25, 2022

Draft Environmental Assessment
MEPA, NEPA, MCA 23-1-110 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed state action:

Montana Department of Fish, Wildlife and Parks (FWP) proposes a fee title acquisition of approximately 3.5 acres of private land along the Beaverhead River west of Dillon and adjacent to Park Street to be known as Cornell Park Fishing Access Site (FAS). FWP is undertaking the process of acquiring this parcel of land as a fee simple donation from the Beaverhead Trails Coalition (BTC), a non-profit corporation located in Dillon, MT. A neighboring landowner generously donated the property to BTC in 2021. The parcel is being carved out of an existing larger parcel owned by BTC.

Following the acquisition of the land, FWP proposes to develop it as an FAS. Proposed development at the site includes installing a gravel put-in boat ramp, creating walk-in access points along the river, restoring 325 feet of streambank for improved habitat and shoreline stability, adding new picnic sites with tables and fire rings, replacing the latrine with a modern concrete vault latrine, and moving the parking area and approach to Park Street, a county road. The existing parking area and approach to Park Street would be reclaimed.

2. Agency authority for the proposed action:

- § (Section) 87-1-209 of the Montana Code Annotated (MCA) allows FWP to “acquire . . . lands or waters for . . . public hunting, fishing, or trapping areas.”
- § 87-1-605, MCA, directs FWP to use certain portions of fishing license fees “for the purchase, operation, development, and maintenance of fishing accesses; . . .”
- § 23-1-110, MCA, requires FWP to consider the wishes of the public; the capacity of the site for development; environmental impacts; long-range maintenance; protection of natural, cultural, and historical FAS features; and impacts on tourism. See Appendix A for HB 495 qualification.
- Administrative Rules of Montana (ARM) 12.8.601 through 12.8.606 establish the rules for implementing § 23-1-110, MCA.
- ARM 12.2.428 through 12.2.433 establish procedures for implementing the Montana Environmental Policy Act (MEPA) in conjunction with EAs and public involvement for proposed FWP actions.
- § 87-1-303, MCA, authorizes the Fish & Wildlife Commission to “adopt and enforce rules governing uses of lands that are acquired . . . by the commission”
- § 23-1-105, MCA, authorizes FWP to “levy and collect reasonable fees . . . for the use of privileges and conveniences [e.g., overnight camping] that may be provided [at FASs].”

3. Name, address, and phone number of project sponsor, if other than the agency: None

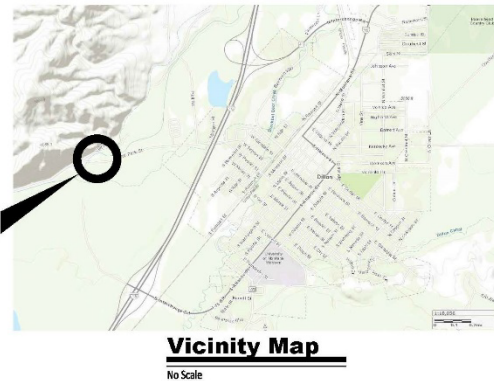
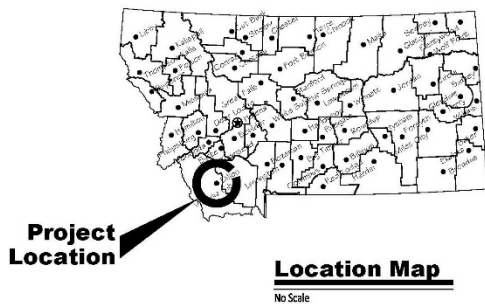
4. Anticipated Schedule:

- Public Comment Period: March 25 – April 25, 2022
- Decision Notice Published: May 2022
- Reviewed by Fish & Wildlife Commission for project approval: August 25, 2022
 - Closing: September 2022

5. Location affected by proposed action:

The parcel of land is located along the Beaverhead River and across I-15 from the city of Dillon on Park Street, in NW¼NW¼ Section 24, Township 7 North, Range 9 West, Beaverhead County, Montana.

PROPOSED DEVELOPMENT OF THE
**CORNELL PARK
FISHING ACCESS SITE**
DILLON , MONTANA



6. Description of the current conditions.

The site of the proposed FAS currently is maintained as a public day-use picnic area. Kiwanis Club of Dillon (KCD) generously provides general maintenance duties such as garbage and litter removal and latrine clean out. Mature and dying cottonwood trees exist sparsely around the site as does streamside vegetation such as willows. Dying cottonwood limbs can pose a danger to day users. Erosion of the property from park visitors and river movement is occurring at approximately 0.5 feet per year laterally downstream of the canal used by the town of Dillon for irrigation. Due to high traffic and disturbance from visitors, much of the streambank is denuded and bare. In addition, noxious weeds such as spotted knapweed are prevalent.



Photo1: Recent cottonwood tree pruning results. Where possible, remnants of trees were left with 20' high stumps to provide sites for hole nesting birds. This work was sponsored through an \$8000 donation by John and Phyllis Erb. BTC also applied for a \$20,000 grant through T-Mobile to further refine arborist work and acquire funds for willows for future streambank restoration.
Photo by Daniel Downey.

In August 2020, FWP, BTC, KCD, Beaverhead Watershed Committee (BWC), and Montana Trout Unlimited entered into a Memorandum of Understanding under which BTC agreed to take temporary ownership of the site which it accomplished in 2021. The parties have fully complied with the MOU, and they meet regularly to update each other on the project's progress. Under various grants, BTC has ordered and will install two interpretive signs and recently pruned the cottonwood trees. KCD continues to keep the public areas clean. The Montana Department of Natural Resources awarded BWC a Watershed Management Grant to support the proposed acquisition and public outreach efforts, provide fundraising support, and to assist with streambank restoration planning and design.

Long term soil compaction, introduced plant species and noxious weeds, and excessive foot traffic have exacerbated erosion and soil runoff in the areas of the existing picnic tables, latrine, and shoreline resulting in accelerated lateral erosion along the riverbank.



Photo 2: Current condition of streambank with latrine in background.

The existing approach from the county road is at an unsafe angle with poor visibility. The existing approach creates traffic hazards for accessing the pioneered boat ramp and the undefined parking results in user conflicts.



Photo 3: Current signage.

The current signage will be replaced with standard FAS signage stating site specific regulations and general information. Additional interpretive signage will inform the public of the collaborative efforts involved with the acquisition and site improvements.



Photo 4: Existing picnic area.

The current picnic area consists of several picnic tables and fire rings, extensive social trails, and undefined paths. The site contains extensive compaction and erosion.

7. Project size -- estimate the number of acres that would be directly affected that are currently:

<u>Acres</u>	<u>Acres</u>
(a) Developed:	(d) Floodplain <u>0</u>
Residential <u>0</u>	
Industrial <u>0</u>	(e) Productive:
(Existing shop area)	Irrigated cropland <u>0</u>
(b) Open Space/ <u>3.5</u>	Dry cropland <u>0</u>
Woodlands/Recreation	Forestry <u>0</u>
(c) Wetlands/Riparian <u>0.01</u>	Rangeland <u>0</u>
	Other <u>0</u>

8. Permits, Funding & Overlapping Jurisdiction.

(a) Permits:

<u>Agency Name</u>	<u>Permits</u>	<u>Date</u>
Beaverhead County	Septic Permit	July 2021

(b) Funding:

<u>Agency Name</u>	<u>Funding Amount</u>	<u>Source</u>
FWP Land Acquisition (Includes closing costs, title insurance, survey, hazmat, and minerals remoteness report)	\$6,000	FWP FAS Acquisition
FWP Site Development	\$65,000	FAS Capital Improv. Funds

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
State Historic Preservation Office	Cultural Clearance
Fish & Wildlife Commission	Project Approval
Beaverhead Trails Coalition, Inc.	Project Approval
Kiwanis Club of Dillon, MT	Management & Maintenance of the Park

9. Narrative summary of the proposed action:

The above description is a summary of existing conditions, not the proposed action. A description of the proposed action is as follows:

KCD would continue managing and maintaining the park in its current condition. The other nonprofit organizations would assist in raising funds for projects such as interpretive signage, cottonwood tree care, and erosion control. FWP would undertake the process of acquiring the site and creating a new FAS as well as providing a landscape design and streambank restoration along the FAS shoreline.

The addition of the Cornell Park FAS would provide an educational opportunity by showcasing healthy riparian habitat and modern stream restoration techniques. Specifically, by restoring upstream streambank sections through resloping the streambank and planting native vegetation, the public could enjoy a greater understanding of how healthy terrestrial systems provide a more meaningful and natural experience. The proposed FAS would facilitate easy access to the Beaverhead River for fishing, floating, boating, swimming, picnicking, and wildlife watching.

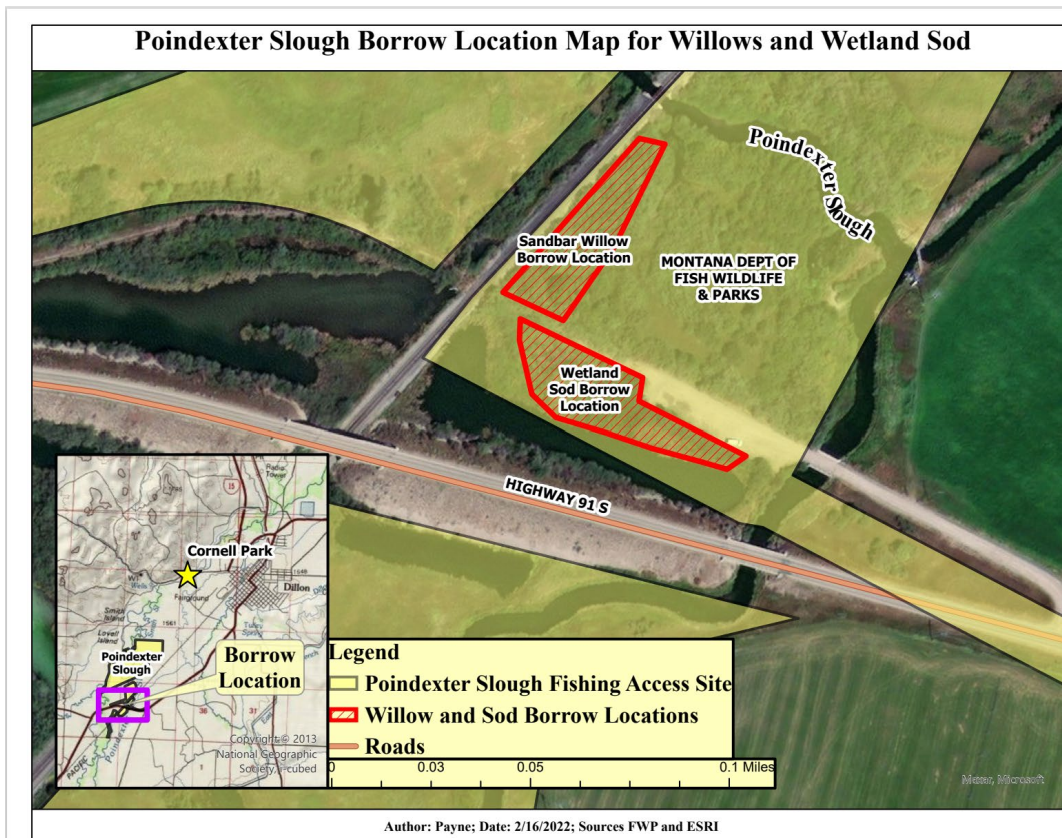
These improvements include developing a new county road approach, parking area, and reclaiming the existing approach and parking area. A ramp for launching watercraft and walk-in river access points would also be installed. FWP would implement streambank restoration measures to halt erosion to the extent possible.

Specifically, the following actions are proposed:

- a. Improve day-use infrastructure through strategic development of infrastructure including a new parking area and approach to increase accessibility from the county road, purchasing additional fire rings and picnic tables, installation of new interpretive and safety-oriented signs, and adding a new gravel ramp for launching of non-motorized boats. Restored areas are planned to be fenced from visitors.
- b. Increase public safety by providing a modernized and environmentally friendly latrine. Dedicate resources to monitoring, pruning, removing, and replacing, as is feasible, cottonwood trees.
- c. Stabilize the riverbank and prevent further erosion by encouraging river access points and managing streamside vegetation to promote a healthy riparian corridor to withstand river recreation user activities. Restore streambanks to maintain access for angling and swimming while reducing the overall disturbance footprint where native riparian vegetation can reinhabit sections of the site to provide a more natural setting in balance with the native habitats. The restored streambank would be re-sloped and planted with native willows and cottonwoods with an understory of native wetland sod. Wetland sod and willows will be sourced as possible from county borrow ditches, where approved by the county road department. If sufficient willow and wetland sod harvesting is not available along nearby borrow ditches, willows and sod mats will be harvested from the Poindexter Slough FAS. Harvesting will be done such that the integrity of soil stability or subsequent vegetation recolonization is not impaired (e.g., willow clumps and wetland sod will be harvested in a checkerboard pattern affecting no greater than 25% of the total borrow area). This restoration work will be fenced from the public to reduce the risk of poor vegetation re-establishment following the restoration work. Educational signs would be erected to explain the process and importance of providing a healthier riparian habitat along the streambanks. Please see Appendix F for the stream restoration proposal, wetland delineation, and site ecology.



Photo 5: Movement of the river within its floodplain is a critical process for maintaining healthy terrestrial and riparian habitats, and provides a wide swath of the river bottom for anglers to enjoy.



10. Description and analysis of reasonable alternatives:

Alternative A: No Action

Under the No Action Alternative, FWP would not acquire and develop Cornell Park FAS. Neither BTC nor KCD have the resources necessary to maintain the property for long-term public fishing access. The proposed improvements of a permanent latrine, new parking area, and erosion control measures, would not be installed. Existing cottonwoods would continue declining and pose ongoing safety risks. The shoreline is likely to continue eroding, minimizing access for public use. Further improvements to park infrastructure, safety, environment, or riverbank stability are unlikely.

Alternative B: Proposed Action

Transferring ownership of the proposed FAS to FWP would increase public access to the Beaverhead River. Development of the property as an FAS would facilitate floating between it and Selway Park FAS which would otherwise be an inaccessible reach of the Beaverhead River. FWP has a long-standing relationship with the Beaverhead Trails Coalition which includes the development of Selway Park FAS, also on the Beaverhead River. The proposed FAS would facilitate easy access to the Beaverhead River for fishing, floating, boating, swimming, picnicking, and wildlife watching.

Improving the site includes developing a new county road approach and parking area and reclaiming the existing approach and parking area. A put-in ramp and river access points would also be installed. The existing picnic area would be improved with updated picnic sites and fire rings. FWP would implement streambank restoration measures to halt erosion to the extent possible.

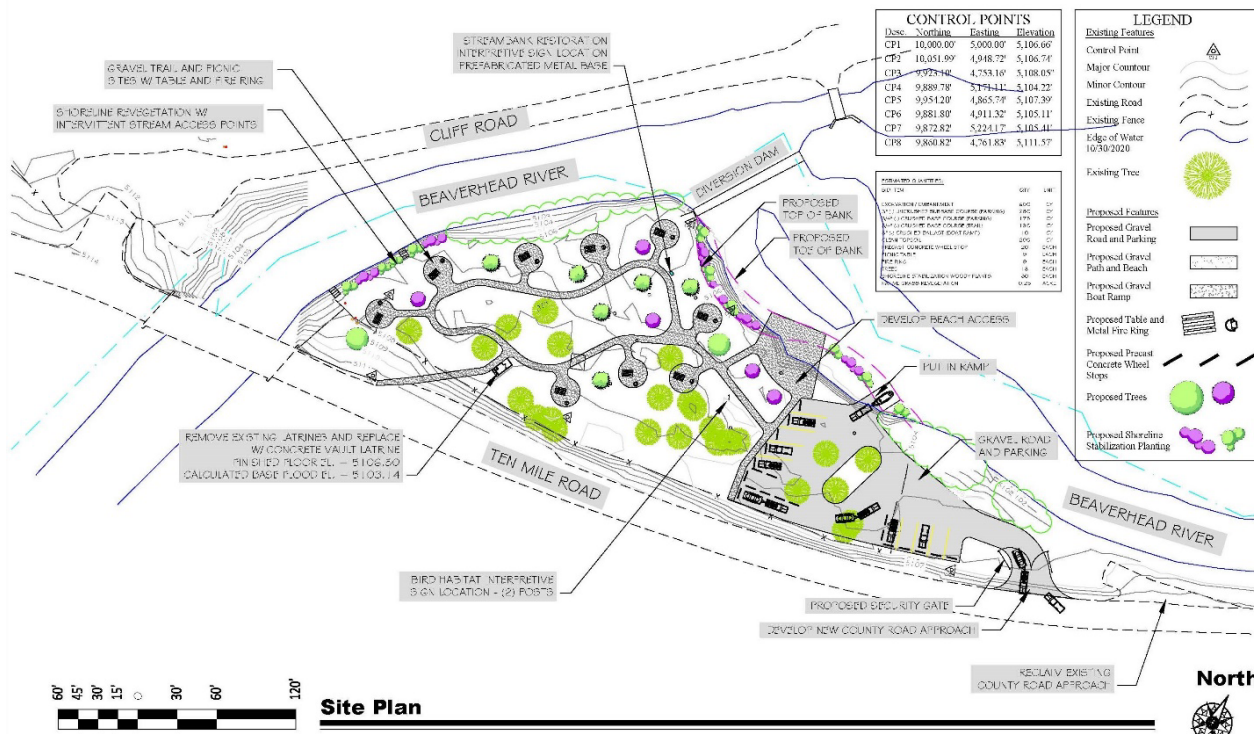


Illustration 1: The above illustration is a general depiction of the proposed action, subject to final survey approval by Beaverhead County, BTC and FWP.

11. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

- MOU dated August 27, 2020
- Beaverhead County Septic Permit No. 21-046
- New Certificate of Survey approved by and recorded in Beaverhead County

PART II. ENVIRONMENTAL REVIEW CHECKLIST

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Soil instability or changes in geologic substructure?			X		YES	
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?				X	YES	1b
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?				X	YES	1d
e. Exposure of people or property to earthquakes, landslides, ground failure, or another natural hazard?		X				

1b. During construction, some minor modifications to the existing soil features would be required for construction and improvement of the parking area, the approach to the county road, the boat ramp, shoreline stabilization, river access points, and latrine. Disturbed areas would be seeded with a native seed mix to minimize erosion and sediment delivery to the Beaverhead River and to reduce the spread of noxious weeds. The Proposed Action would not affect soil productivity or fertility over large areas. Over the long term, streambank stabilization efforts would have a positive impact on soil stability.

1d. Areas around the parking lot, approach, and around picnic sites would necessarily have reduced vegetation cover due to human impacts. Because no stabilization efforts have occurred at the current parking area, approach, latrine, picnic areas, and shoreline, the impact areas likely will result in decreased erosion and sediment delivery to the Beaverhead River except during actual construction. Any reductions in riparian vegetation and possible spread of noxious weeds will be offset in the long term by reclamation of the current parking area and approach, use of pervious materials in the new parking area and approach, picnic areas and latrine, encouragement of finite access points along the shoreline and other streamside erosion control measures. FWP would work to minimize any impacts and adjust FAS regulations to offset major issues when identified. The impacts of these activities are not expected to exceed those of other FASs under FWP management.

2. <u>AIR</u> Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)			X			2a
b. Creation of objectionable odors?		X				2b
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				

2a. Increased levels of dust may be generated during construction activities at the proposed FAS, however FWP would follow BMPs during all phases of construction to minimize dust creation (Appendix E). Diesel equipment may be used to implement the Proposed Action,

potentially resulting in temporary increased diesel exhaust fumes in the area. However, these impacts would be temporary and only present in the immediate area around construction equipment during construction activities.

2b. FWP would regularly maintain latrines and pick up trash and litter to minimize objectionable odors.

3. <u>WATER</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen, or turbidity?			X		YES	3a
b. Changes in drainage patterns or the rate and amount of surface runoff?			X		YES	3b
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?			X		YES	3e
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?			X		YES	3h
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users because of any alteration in surface or groundwater quality?		X				
k. Effects on other users because of any alteration in surface or groundwater quantity?		X				

3a. The proposed developments may cause a temporary localized increase in turbidity in the Beaverhead River. FWP would obtain a Montana Department of Environmental Quality (DEQ) 318 Authorization Permit for Short-Term Water Quality Standard for Turbidity. FWP BMPs would be followed during all construction (Appendix E).

3b. Construction of parking areas and trails, boat launch area improvements, and picnic areas may result in altered surface runoff patterns. However, these alterations would occur over a relatively small area and are not expected to be excessive. The Proposed Action would be designed to minimize any effect on surface water, surface runoff, and drainage patterns.

3e. The boat launch, beach and picnic areas, and associated parking lot would be in a designated floodplain (see 3l,m below). Therefore, there is the potential for people to use the FAS during runoff periods when fast-moving water may be close to FAS infrastructure. However, the design of the FAS would not cause these types of hazards to be excessive for users and would not be expected to exceed hazards that exist at other FASs in west-central Montana.

3h. The use of heavy equipment during construction may result in a slight risk of contamination from petroleum products and a temporary increase in sediment delivery to the Beaverhead River. FWP BMPs would be followed during all phases of construction to minimize these risks.

4. <u>VEGETATION</u> Will the proposed action result in?	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Changes in the diversity, productivity, or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			X		YES	4a
b. Alteration of a plant community?			X		YES	4b
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X		YES	4e
f. For P_R/D-J, will the project affect wetlands, or prime and unique farmland?		X				

4a. Construction/enhancement of parking areas, access roads, picnic sites, trails, signs, and latrines would have a minor impact on the vegetation at the FAS. Picnic sites, parking areas, and access routes would be designed so that a minimal number of trees and shrubs would be removed during construction. Any disturbed area would be reseeded with a native-seed mix. FWP would coordinate with the Beaverhead County Weed District to implement weed management at the site, consistent with other FAS maintenance activities. After acquisition, the FWP forester would evaluate the site and determine what, if anything, may be done to enhance forest health and minimize hazards to users. This could include removal of some trees, though this would likely be minimal.

4b. While localized construction activities could change the plant community in small areas, the Proposed Action is not expected to alter the composition of the plant community over the larger area. It can be expected that increased human use may cause ground disturbance in some areas that could promote the establishment of noxious weed species. FWP FAS maintenance staff would implement routine weed control actions at the FAS to monitor and control noxious weed infestations. A noxious weed inspection has been conducted, see Appendix G.

4c. Following a wetland delineation of Cornell Park, no unique, rare, threatened, or endangered species were observed. The site is highly disturbed and is mostly dominated by introduced or species adapted to high disturbance.

4e. Populations of noxious weeds, as designated by the Montana Department of Agriculture, are likely found within the current FAS, and likely occur throughout the property. In conjunction with Beaverhead County Weed District, FWP would implement the Statewide Integrated Noxious Weed Management Plan using chemical, biological, and mechanical methods to control weeds on the property. Weed management would also include the establishment of native vegetation on disturbed and treated sites to prevent the spread of weeds. Motorized use would be restricted to designated parking areas and access roads, which would be maintained as weed-free.

4f. If streambank restoration occurs, there should be a net gain of wetlands created ca. ~ 0.090 acres worth, otherwise the present wetlands should remain intact and not be impacted.

5. <u>FISH/WILDLIFE</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Deterioration of critical fish or wildlife habitat?		x				
b. Changes in the diversity or abundance of game animals or bird species?		x				
c. Changes in the diversity or abundance of nongame species?		x				
d. Introduction of new species into an area?		x				
e. Creation of a barrier to the migration or movement of animals?		x				
f. Adverse effects on any unique, rare, threatened, or endangered species?		x				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		x				

B. HUMAN ENVIRONMENT

6. <u>NOISE/ELECTRICAL EFFECTS</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Increases in existing noise levels?			X		YES	6a
b. Exposure of people to serve or nuisance noise levels?			X		YES	6b
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		x				
d. Interference with radio or television reception and operation?		x				

6a, b. Construction equipment would cause a temporary minor increase in noise levels at the project site, and this increase may be heard by nearby neighbors and visitors. Operating hours would be designed to minimize loud noises during time periods that may disturb neighboring landowners, river users, or nesting birds.

7. <u>LAND USE</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflict with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				

8. <u>RISK/HEALTH HAZARDS</u>	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
Will the proposed action result in:						
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?			X		YES	8a
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?			X		YES	8c
d. For P-R/D-J, will any chemical toxicants be used? (Also see 8a)			X		YES	8d

8a. During construction and subsequent public use, disturbed areas within the FAS may lead to establishment of noxious weeds. FWP works with the Beaverhead County Weed District to address noxious weed issues on the property using biological, mechanical, and herbicidal treatments. Property will be included in FWP's county agreement. Management will include an integrated approach with methods such as herbicide/chemical control, hand pulling, and biological control. Any application of herbicides on the site would be conducted by trained FWP staff following strict application guidelines to minimize risk of spills or abnormal levels of contamination. Heavy equipment used in construction may release petroleum products inadvertently into the floodplain. However, contractors would inspect equipment daily and have absorbent materials on site to minimize any hydrocarbon releases. FWP would follow BMPs during all phases of construction to minimize risks (Appendix E).

8c. The proposed FAS could increase traffic on Park Street in the vicinity of the FAS, especially vehicles slowing down or stopping to enter or leave the site. The FAS would be well marked on Park Street to direct users to the site. Overall, the proposed project would likely enhance public safety by improving the flow of ingress and egress between the road and parking area.

8d. Any application of herbicides on the site to control noxious weeds would be conducted by trained FWP staff following strict application guidelines to minimize risk of spills or abnormal levels of contamination. However, the use of herbicides comes with inherent risk of accidental spills that could result in temporary water contamination. The use of herbicides would follow guidelines outlined in the FWP Statewide Integrated Noxious Weed Management Plan to minimize this risk.

9. <u>COMMUNITY IMPACT</u>	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
Will the proposed action result in:						
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				9c
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				9e

9c. The Proposed Action would provide increased recreational opportunities in the area, potentially drawing more visitors to local retail and service businesses (Appendix C, Tourism Report).

9e. The proposed FAS could increase traffic on Park Street in the vicinity of the FAS, especially vehicles slowing down or stopping to enter or leave the site. The FAS would be well marked on Park Street to direct users to the site.

10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Will the proposed action influence or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				10a
b. Will the proposed action influence the local or state tax base and revenues?		X				10b
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased use of any energy source?		X				
e. Define projected revenue sources			X			10e
f. Define projected maintenance costs.			X			11e

10a. The Proposed Action would have no impact on public services or utilities. The proposed developments would require periodic maintenance by FWP, and the site would be patrolled by FWP's POR and enforcement divisions.

10b. This purchase is not expected to reduce the tax revenues that Beaverhead County collects on this property. FWP is required by § 87-1-603, MCA, to pay "to the county in a sum equal to the amount of taxes that would be payable on county assessment of the property if it was taxable to a private citizen."

10e. The development of the Cornell Park FAS could generate increased revenue from increased day use fees as visitors begin using the improved picnic areas, beach access, increased fishing access, and the put-in ramp. Revenue generated from day use fees is estimated to be \$2,000-\$3,500 annually.

10f. Projected annual operating, maintenance, weed control, and personnel expense for the proposed FAS is estimated to total \$3,000 annually.

11. <u>AESTHETICS/RECREATION</u> Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				11a
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)			X			11c
d. For P-R/D-J , will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)		X				11d

11a. The upland parking area as well as additional signage throughout the site would slightly degrade the aesthetic values along this portion of Park Street. However, improvements to the FAS would increase the aesthetics of the developed portions of the site. Overall, the proposed FAS would facilitate more diverse public use of the site and would encourage people to enjoy the aesthetics of the Beaverhead River.

11c. The Proposed Action would increase recreational opportunities in the area by improving existing infrastructure (e.g., boat launch, beach, and parking areas) and facilitating increased outdoor uses in the area. These improvements would likely benefit local retail and service businesses and would promote dispersed use of the site by various user types (Appendix C, Tourism Report).

11d. No designated wild or scenic rivers, trails, or wilderness areas would be impacted by the proposed developments.

12. CULTURAL/HISTORICAL RESOURCES	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
Will the proposed action result in						
a. Destruction or alteration of any site, structure, or object of prehistoric historic, or paleontological importance?		X				2a
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. For P-R/D-J, will the project affect historic or cultural resources? (Also see 12.a.)		X				2d

12a, d. The Montana State Historic Preservation Office (SHPO) conducted a cultural resource file search, and a cultural resource inventory was completed in the project area. No significant cultural properties were identified on the property. If cultural materials are discovered during construction, work would cease and SHPO would be contacted for a more in-depth investigation.

SIGNIFICANCE CRITERIA

13. SUMMARY EVALUATION OF SIGNIFICANCE	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
Will the proposed action, considered as a whole						
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		X				13a
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created.		X				
f. For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)		X				13f

13a. During construction of the proposed project, there may be minor and temporary impacts to the physical environment, but the impacts would be short term, and the developments would benefit the community and recreational opportunities over the long term. The Proposed Action would have no negative cumulative effects on the biological, physical, and human environments. When considered over the long term, the Proposed Action positively impacts the public's recreational use of the Beaverhead River.

13f. The proposed project is designed to improve recreational facilities on the site and is not expected to generate organized opposition or substantial public controversy. Local civic groups (KCD, BWC, BTC, and Montana Trout Unlimited) have been actively supportive of the project.

PART III. NARRATIVE EVALUATION AND COMMENT

The proposed acquisition and development of Cornell Park FAS would protect important aquatic and terrestrial habitats while providing diverse outdoor recreational opportunities on the Beaverhead River. While some negative physical impacts may occur during infrastructure improvements, the overall impact would be short term and relatively minor. Long term, the site would increase public access to the outdoors while protecting fish and wildlife habitats from possible deterioration or fragmentation, due both to human impacts and natural causes.

PART IV. PUBLIC PARTICIPATION

1. Public involvement:

- Legal notice will be published twice in the Dillon Tribune and Butte Montana Standard.
- Public notice will be posted on FWP's webpage: <http://fwp.mt.gov> ("News," then "Public Notices"). The Draft EA would also be available on this webpage, along with the opportunity to submit comments online.
- Copies would be available at the FWP Region 3 Headquarters in Bozeman and the FWP State Headquarters in Helena.
- A news release would be prepared and distributed to a standard list of media outlets interested in FWP Region 3 issues; this news release would also be posted on FWP's website <http://fwp.mt.gov> ("News," then "News Releases"). This news release would also be posted on FWP Region 3's website <http://fwp.mt.gov/regions/r3/>.
- Direct mailing or email notification would be made to adjacent landowners and other interested parties (individuals, groups, agencies) to ensure their knowledge of the proposed project.

This level of public notice and participation is appropriate for a project of this scope having limited impacts, many of which can be mitigated.

2. Duration of comment period:

The public comment period will extend for (30) thirty days. Written comments will be accepted until 5:00 p.m., April 25, 2022 and can be mailed or emailed to the addresses below:

PART V. EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)? NO

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.

Based on an evaluation of the primary, secondary, and cumulative impacts to the physical and human environment, no significant impacts from the proposed acquisition were identified. In determining the significance of the impacts of the proposed project, FWP assessed the severity, duration, geographic extent, and frequency of the impact, the probability that the impact would occur, or reasonable assurance that the impact would not occur. FWP assessed the importance to the state and to society of the environmental resource or value affected; any precedent that would be set because of an impact of the proposed action that would commit FWP to future actions; and potential conflicts with local, federal, or state laws. As this EA revealed no significant impacts from the proposed actions, an EA is the appropriate level of review and an EIS is not required.

2. Person(s) responsible for preparing the EA:

Betsey LaBroad, FWP Planner II
Mimi Wolok, FWP Land Agent
Dustin Ramoie, FWP FAS Coordinator
Jay Pape, FWP Region 3 Maintenance Manager
Bardell Magnum, FWP Design & Construction Supervisor
Matt Jaeger, FWP Fisheries Biologist
Kevin McDonnell, FWP Civil Engineer Specialist
Jarrett Payne, FWP Fish Habitat Restoration Specialist for Region 3

3. List of agencies or offices consulted during preparation of the EA:

FWP Land & Water Unit
FWP Fisheries Division, Region 3
FWP Wildlife Division, Region 3
FWP Parks & Outdoor Recreation, Region 3
Beaverhead Trails Coalition
Beaverhead Watershed Committee
Kiwanis Club of Dillion
Montana Trout Unlimited

APPENDIX A
23-1-110 MCA
PROJECT QUALIFICATION CHECKLIST

Date: March 3, 2022.

Person Reviewing: Jay Pape, Region Maintenance Manager

Project Location: The parcel of land is located along the Beaverhead River and across I-15 from the city of Dillon on Park Street, in NW¹/₄NW¹/₄ Section 24, Township 7 North, Range 9 West, Beaverhead County, Montana.

Description of Proposed Work: Montana Department of Fish, Wildlife and Parks (FWP) proposes a fee title acquisition of approximately 3.5 acres of private land along the Beaverhead River west of Dillon and adjacent to Park Street to be known as Cornell Park Fishing Access Site (FAS). Following the acquisition of the land, FWP proposes to develop it as an FAS.

The following checklist is intended to be a guide for determining whether a proposed development or improvement is of enough significance to fall under 23-1-110 rules. (Please **check** all that apply and comment as necessary.)

- A. New roadway or trail built over undisturbed land?
Comments: The trails leading from the parking area and into the picnic area will serve to prevent splinter trails and prevent further soil compaction of this heavily impacted site. Trail surface will be constructed to a consistent grade of compacted gravel and road mix material.
- B. New building construction (buildings <100 sf and vault latrines exempt)?
Comments:
- C. Any excavation of 20 c.y. or greater?
Comments: Parking expansion and improvements will require extensive re-grading of the pot-holed area and installing a compacted gravel and road mix. Additional excavation will include the construction of a compacted gravel boat ramp.
- D. New parking lots built over undisturbed land or expansion of existing lot that increases parking capacity by 25% or more?
Comments: The parking expansion will serve to eliminate traffic congestion at the boat ramp and prevent blockage of the county road.
- E. Any new shoreline alteration that exceeds a doublewide boat ramp or handicapped fishing station?
Comments:
- F. Any new construction into lakes, reservoirs, or streams?
Comments:
- G. Any new construction in an area with National Registry quality cultural artifacts (as determined by State Historical Preservation Office)?
Comments:
- H. Any new above ground utility lines?
Comments:
- I. Any increase or decrease in campsites of 25% or more of an existing number of campsites?

Comments:

- J. Proposed project significantly changes the existing features or use pattern, including effects of a series of individual projects?

Comments:

If any of the above are checked, 23-1-110 MCA rules apply to this proposed work and should be documented on the MEPA/HB495 CHECKLIST. Refer to MEPA/HB495 Cross Reference Summary for further assistance.

APPENDIX B
Cornell Park 2021 SHPO Concurrence

Big Sky. Big Land. Big History.
Montana
Historical Society

*Historic Preservation
Museum
Outreach & Interpretation
Publications
Research Center*

June 1, 2021

Bardell Mangum
1522 9th Avenue
P.O. Box 200701
Helena, MT 59620-0701

Re: Proposed Cornell Park Fishing Access Site

Dear Mr. Mangum:

Thank you for your letter (received May 26, 2021) regarding the Cornell Park Fishing Access Site. We concur on your determination of No Historic Properties Affected and that the enclosed report is adequate.

However, once the features at the park site reach 50 years old, they should be documented on a site form and submitted to our office. It is estimated that they were built circa 1974. Please consider the need to document this site in your future planning efforts.

If you have any questions or concerns, do not hesitate to contact me at (406) 444-7719 or Laura.Evilsizer@MT.gov. Thank you for consulting with us.

Sincerely,



Laura Evilsizer, M.A.
Review and Compliance Officer
Montana State Historic Preservation Office

RECEIVED
JUN 01 2021
DESIGN & CONSTRUCTION
DEPT. OF FISH, WILDLIFE & PARKS

FILE: FWP/Fish - 2021 - 2021052608

225 North Roberts Street
P.O. Box 201201
Helena, MT 59620-1201
(406) 444-2694
(406) 444-2696 fax
montanahistoricalociety.org

APPENDIX C

Tourism Report (Montana Department of Commerce)

MONTANA ENVIRONMENTAL POLICY ACT (MEPA) & MCA 23-1-110

APPENDIX D
Fish and Wildlife Commission Endorsement



**A FISH AND WILDLIFE COMMISSION
AGENDA ITEM COVER SHEET**

THE **OUTSIDE** IS IN US ALL.

Meeting Date: August 20th, 2020

Agenda Item: Cornell Park Property Acquisition, Beaverhead River, Region 3

Action Needed: Endorsement

Time Needed on Agenda for this Presentation: 5 minutes

Background

Fish, Wildlife & Parks has been approached by the Beaverhead Trails Coalition (BTC) with a possible donation of 3.5 acres on the Beaverhead River, just outside of Dillon, MT. For many years the property has been privately owned but open to the public and managed by the Dillon Kiwanis Club as a park and river access point. Because of an upstream pin-and-plank irrigation diversion, it is the only public access that allows floating to FWP's downstream Selway Park FAS." The BTC is in the process of receiving this property with the mutual understanding that ownership will be transferred to FWP for the purpose of developing a Fishing Access Site. In turn, FWP through Capital monies, would develop the parking and picnic areas, gravel boat ramp and pursue the possibility of adding concrete vault latrine. Basic maintenance and streambank restoration of the site will be performed by the Kiwanis club, Beaverhead Watershed Committee, and Montana Trout Unlimited under written agreement. Major maintenance will be undertaken by the Region 3 FAS program and would include latrine pumping, installing new picnic tables and fire rings, hazard tree mitigation and road grading.

Public Involvement Process & Results

If endorsed by the Commission, the Department will begin their due diligence process which will include conducting an environmental assessment and public scoping.

Alternatives & Analysis

The Commission could choose to endorse this proposal and the Department would pursue the process of receiving the property from the donor for use as a Fishing Access Site. Conversely, the Commission could choose to not endorse the proposal and the Department would not pursue a Fishing Access Site at this location.

Agency Recommendation & Rationale

FWP believes the proposed action is of great benefit to public access on the Beaverhead River. Development of this property as a FAS would allow floating between it and Selway Park FAS, which would otherwise be an inaccessible reach of the Beaverhead River. FWP has a long-standing relationship with the Beaverhead Trails Coalition which includes the development of the Selway Park FAS, also on the Beaverhead River.

Proposed Motion

I move the Fish & Wildlife commission authorize the department to pursue acquiring this donation on the Beaverhead River, outside of Dillon, MT on the property currently being acquired by the Beaverhead Trails Commission.

APPENDIX E

Best Management Practices for Fishing Access Sites (FWP)

MONTANA FISH, WILDLIFE AND PARKS
BEST MANAGEMENT PRACTICES
10-02-02 (Updated May 1, 2008)

I. ROADS

A. Road Planning and location

1. Minimize the number of roads constructed at the FAS through comprehensive road planning, recognizing foreseeable future uses.
 - a. Use existing roads unless use of such roads would cause or aggravate an erosion problem.
2. Fit the road to the topography by locating roads on natural benches and following natural contours. Avoid long, steep road grades and narrow canyons.
3. Locate roads on stable geology, including well-drained soils and rock formations that tend to dip into the slope. Avoid slumps and slide-prone areas characterized by steep slopes, highly weathered bedrock, clay beds, concave slopes, hummocky topography, and rock layers that dip parallel to the slope. Avoid wet areas, including seeps, wetlands, wet meadows, and natural drainage channels.
4. Minimize the number of stream crossings.
 - a. Choose stable stream crossing sites. "Stable" refers to streambanks with erosion-resistant materials and in hydrologically safe spots.

B. Road Design

1. Design roads to the minimum standard necessary to accommodate anticipated use and equipment. The need for higher engineering standards can be alleviated through proper road-use management. "Standard" refers to road width.
2. Design roads to minimize disruption of natural drainage patterns. Vary road grades to reduce concentrated flow in road drainage ditches, culverts, and on fill slopes and road surfaces.

C. Drainage from Road Surface

1. Provide adequate drainage from the surface of all permanent and temporary roads. Use out-sloped, in-sloped, or crowned roads, installing proper drainage features. Space road drainage features so peak flow on road surface or in ditches will not exceed their capacity.
 - a. Out-sloped roads provide means of dispersing water in a low-energy flow from the road surface. Out-sloped roads are appropriate when fill slopes are stable, drainage will not flow directly into stream channels, and transportation safety can be met.
 - b. For in-sloped roads, plan ditch gradients steep enough, generally greater than 2%, but less than 8%, to prevent sediment deposition and ditch erosion. The steeper gradients may be suitable for more stable soils; use the lower gradients for less stable soils.
 - c. Design and install road surface drainage features at adequate spacing to control erosion; steeper gradients require more frequent drainage features. Properly constructed drain dips can be an economical method of road surface drainage. Construct drain dips deep enough into the sub-grade so that traffic will not obliterate them.
2. For ditch relief/culverts, construct stable catch basins at stable angles. Protect the inflow end of cross-drain culverts from plugging and armor if in erodible soil. Skewing ditch relief culverts 20 to 30 degrees toward the inflow from the ditch will improve inlet efficiency.
3. Provide energy dissipators (rock piles, slash, log chunks, etc.) where necessary to reduce erosion at outlet of drainage features. Cross-drains, culverts, water bars, dips, and other drainage structures should not discharge onto erodible soils or fill slopes without outfall protection.

4. Route road drainage through adequate filtration zones, or other sediment-settling structures. Install road drainage features above stream crossings to route discharge into filtration zones before entering a stream.

D. Construction/Reconstruction

1. Stabilize erodible, exposed soils by seeding, compacting, riprapping, benching, mulching, or other suitable means.
2. At the toe of potentially erodible fill slopes, particularly near stream channels, pile slash in a row parallel to the road to trap sediment. When done concurrently with road construction, this is one method to effectively control sediment movement and it also provides an economical way of disposing of roadway slash. Limit the height, width and length of these “slash filter windrows” so not to impede wildlife movement. Sediment fabric fences or other methods may be used if effective.
3. Construct cut and fill slopes at stable angles to prevent sloughing and subsequent erosion.
4. Avoid incorporating potentially unstable woody debris in the fill portion of the road prism. Where possible, leave existing rooted trees or shrubs at the toe of the fill slope to stabilize the fill.
5. Place debris, overburden, and other waste materials associated with construction and maintenance activities in a location to avoid entry into streams. Include these waste areas in soil stabilization planning for the road.
6. When using existing roads, reconstruct only to the extent necessary to provide adequate drainage and safety; avoid disturbing stable road surfaces. Consider abandoning existing roads when their use would aggravate erosion.

E. Road Maintenance

1. Grade road surfaces only as often as necessary to maintain a stable running surface and to retain the original surface drainage.
2. Maintain erosion control features through periodic inspection and maintenance, including cleaning dips and cross-drains, repairing ditches, marking culvert inlets to aid in location, and clearing debris from culverts.
3. Avoid cutting the toe of cut slopes when grading roads, pulling ditches, or plowing snow.
4. Avoid using roads during wet periods if such use would likely damage the road drainage features. Consider gates, barricades, or signs to limit use of roads during wet periods.

II. RECREATIONAL FACILITIES (parking areas, campsites, trails, ramps, restrooms)

A. Site Design

1. Design a site that best fits the topography, soil type, and stream character, while minimizing soil disturbance and economically accomplishing recreational objectives. Keep roads and parking lots at least 50 feet from water; if closer, mitigate with vegetative buffers as necessary.
2. Locate foot trails to avoid concentrating runoff and provide breaks in grade as needed. Locate trails and parking areas away from natural drainage systems and divert runoff to stable areas. Limit the grade of trails on unstable, saturated, highly erosive, or easily compacted soils
3. Scale the number of boat ramps, campsites, parking areas, bathroom facilities, etc. to be commensurate with existing and anticipated needs. Facilities should not invite such use that natural features will be degraded.
4. Provide adequate barriers to minimize off-road vehicle use

B. Maintenance: Soil Disturbance and Drainage

1. Maintenance operations minimize soil disturbance around parking lots, swimming areas and campsites, through proper placement and dispersal of such facilities or by reseeding disturbed ground. Drainage from such facilities should be promoted through proper grading.

2. Maintain adequate drainage for ramps by keeping side drains functional or by maintaining drainage of road surface above ramps or by crowning (on natural surfaces).
3. Maintain adequate drainage for trails. Use mitigating measures, such as water bars, wood chips, and grass seeding, to reduce erosion on trails.
4. When roads are abandoned during reconstruction or to implement site-control, they must be reseeded and provided with adequate drainage so that periodic maintenance is not required.

II. RAMPS AND STREAM CROSSINGS

A. Legal Requirements

1. Relevant permits must be obtained prior to building bridges across streams or boat ramps. Such permits include the SPA 124 permit, the COE 404 permit, and the DNRC Floodplain Development Permit.

B. Design Considerations

1. Placement of boat ramp should be such that boats can load and unload without difficulty and the notch in the bank where the ramp was placed does not encourage bank erosion. Extensions of boat ramps beyond the natural bank can also encourage erosion.
2. Adjust the road grade or provide drainage features (e.g. rubber flaps) to reduce the concentration of road drainage to stream crossings and boat ramps. Direct drainage flow through an adequate filtration zone and away from the ramp or crossing using gravel side-drains, crowning (on natural surfaces) or 30-degree angled grooves on concrete ramps.
3. Avoid unimproved stream crossings on permanent streams. On ephemeral streams, when a culvert or bridge is not feasible, locate drive-throughs on a stable, rocky portion of the stream channel.
4. Unimproved (non-concrete) ramps should only be used when the native soils are sufficiently gravelly or rocky to withstand the use at the site and to resist erosion.

C. Installation of Stream Crossings and Ramps

1. Minimize stream channel disturbances and related sediment problems during construction of road and installation of stream crossing structures. Do not place erodible material into stream channels. Remove stockpiled material from high water zones. Locate temporary construction bypass roads in locations where the stream course will have a minimal disturbance. Time the construction activities to protect fisheries and water quality.
2. Where ramps enter the stream channel, they should follow the natural streambed in order to avoid changing stream hydraulics and to optimize use of boat trailers.
3. Use culverts with a minimum diameter of 15 inches for permanent stream crossings and cross drains. Proper sizing of culverts may dictate a larger pipe and should be based on a 50-year flow recurrence interval. Install culverts to conform to the natural streambed and slope on all perennial streams and on intermittent streams that support fish or that provide seasonal fish passage. Place culverts slightly below normal stream grade to avoid culvert outfall barriers. Do not alter stream channels upstream from culverts, unless necessary to protect fill or to prevent culvert blockage. Armor the inlet and/or outlet with rock or other suitable material where needed.
4. Prevent erosion of boat ramps and the affected streambank through proper placement (to not catch the stream current) and hardening (riprap or erosion resistant woody vegetation).
5. Maintain a 1-foot minimum cover for culverts 18-36 inches in diameter, and a cover of one-third diameter for larger culverts to prevent crushing by traffic.

APPENDIX F

Cornell Park Streambank Restoration Project and Wetland Delineation Report

Cornell Park Streambank Restoration Project and Wetland Delineation Report

Prepared by:

Montana Fish, Wildlife & Parks
730 N Montana St.
Dillon, MT 59725



Prepared for:

Montana Fish, Wildlife & Parks
Parks & Outdoor Recreation Region 3
1400 S 19th Ave
Bozeman, MT 59718

February 2022

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1.0 Introduction and Purpose of Project

The Cornell Park Streambank Restoration Project is ~ 0.75 miles west of I-15 on 10 Mile Rd near Dillon, Montana. The project is located on a new, future Fishing Access Site (FAS) managed by Montana Fish, Wildlife & Parks (FWP). The legal description for the site is T7S, R9W, section 24. Geographic coordinates for the project area are 45.217144°N, -112.659086°W.

The purpose of this project is to restore ~325' worth of streambank with excessive lateral streambank erosion and poor riparian vegetation establishment on the Beaverhead River to enhance riparian function and habitat for the fishery and user experience within the FAS (e.g., fishing, swimming, wildlife viewing, etc.). Historic high use from the public and poor maintenance has resulted in large expanses of the current streambank being bare and eroding excessively into the Beaverhead River. The impaired streambank is disconnected from the floodplain and/or water table of the Beaverhead River. Due to the continuation of excessive disturbance from park visitors, floodplain reconnection and bank stabilization is unable to occur on these banks. Much of the streambank are comprised only of upland or noxious species with weak rooting matrixes to prevent continual erosion banks. This project will restore the streambank by sloping and contouring the bank to the appropriate dimensions and planting young cottonwoods (*Populus trichocarpa*), mature willows (*Salix* spp.) and native sedge (*Carex* spp.) sod mats to improve bank stability and reduce sediment loss. In addition, the restored sections will be fenced off from visitors to improve establishment; however, a new hardened beach and boat ramp will be constructed for park visitors to access for fishing, swimming etc. This project is one of many restoration projects aimed at improving access for fishing and public opportunity to experience nature within FWP's Region 3.

1.0.1 Goals and Objectives

Goal 1: Restore and enhance 325' of impaired riverbank channel (~ 0.14 acres)

Objective: Grade and contour 325' riverbank for proper floodplain and water table connection and transplant/seed native riparian vegetation to facilitate greater bank stabilization and riparian function. Fence all restored streambank from public access to improve recruitment.

Goal 2: Dissipate human disturbance from restored riverbank by installing hardened beach and new put-in for boat launches.

Objective: Provide users with a hardened beach that is excavated with a minimum slope of 3:1 with gravel overlaid to reduce high traffic erosion from water users. In addition, install a new put-in with the same features that prevents excessive erosion from occurring on nearby wetlands and restored streambanks.

Goal 3: Enhance riparian function and provide the public an educational opportunity to further understand the importance of riparian vegetation to maintain riparian function and resiliency.

Objective: Install several educational signs along the newly restored streambank that explains the benefits and importance of healthy streambanks for riparian health, fishery, and wildlife.

1.1 Site Ecology and Existing Conditions

The riparian project area is dominated by many introduced grasses and forbs including *Elymus repens*, *Phalaris arundinacea*, *Poa pratensis*, *Medicago lupulina*, and *Medicago sativa* with a minor overstory component dominated by *Salix exigua* and *Populus trichocarpa* (see Photo 1). Native riparian graminoid species are mostly absent on the floodplain and are only constrained to the periphery of a few wetland sites remaining within the project area. These native graminoids include *Carex aquatilis* and *Carex utriculata*. The vegetation community best represents *Populus trichocarpa*/Herbaceous Community Type as described by Hansen et al. (1995). The riparian vegetation community represents the disclimax or early seral stage due to high incidence of disturbance limiting cottonwood stand viability and prevalence of introduced, tame grasses and noxious species. Wetland hydrology was not observed along the majority project area's streambanks. The absence of wetland hydrology is attributed to the disconnection of the water table due to legacy land uses. The surrounding upland terraces were classified as an *Artemisia tridentata*/*Agropyron spicatum* Habitat Type (Mueggler and Stewart, 1980).

1.2 Project Methods

This project will restore 325' of streambank Cornell Park FAS to enhance riparian habitat for the fishery and wildlife and visitor experience to the FAS. No fill will be generated for the streambank restoration component of this project. However, gravel for the new beach and put-in will be imported (~ 50 CY). Design plans are in Appendix 4 of this report.

1.2.1 Mobilization and De-mobilization

Mobilization will consist of one tracked excavator to the project area. The excavator shall be thoroughly cleaned prior to entering the project area to reduce the transport of invasive species. Once the work is completed the tracked excavator will be cleaned before entering other project areas outside of the project area.

1.2.2 Excavation and Embankment

Excavation and embankment shall be completed to the lines and grades provided in the attached plans. The back slope shall be no steeper than 3 feet horizontal to 1 foot vertical. The finished grade may be left rough with exposed cobbles and rocks when encountered. Prior to back sloping, the top eight to ten inches of native sod mats deemed acceptable with native, deep binding rooting mass will be stripped and translocated to the sod mat excavated bench (see design plans). All remaining topsoil shall remain on site and will be used to restore the upper portions of the newly excavated back slope to prevent colonization of introduced grasses on the lower portions of the excavated back slope (native sedge mat). Excavated streambanks will be reseeded with a native, riparian seed mix that matches the reference reaches species composition.

1.2.3 Harvest and Transplant of Sod Mats and Mature Willows and Cottonwood Plantings

Sod mats of *Carex aquatilis* and *Carex utriculata* and other wetland species and mature willows shall be harvested near the project area from highway burrow ditches deemed acceptable by the local county road department. Sod mat harvesting and mature willow harvesting shall be completed such that no more than 25% of each borrow area's sod mats or willows are harvested (e.g., 100 square foot borrow area, only 25 square feet is available for harvesting). In addition, harvesting shall be completed in a checkerboard pattern. These approaches will maintain wetland structural stability and promote greater recolonization in areas harvested. In addition, all willow and sod mat harvesting areas will take place behind inside streambanks to reduce risk of streambank failure.

The sod mats shall be placed, intact, along the newly excavated sod mat bench as described in the plans. The mats shall be placed along the bank with the bottom of mats approximately 4” below the indicated high runoff mark. Each harvested mat shall be no less than 8 square feet (2’ x 4’). Willows transplanted will be selected by species and maturity (~ 4’ tall). *Salix exigua* clumps will be transplanted on a lower excavated bench, whereas *Populus trichocarpa* saplings will be planted at higher bench level. An excavated depression (well) shall be provided around the base of the willow transplant and cottonwood planting. All transplanted willows and cottonwoods will be “watered in” with 10 to 20 gallons of water immediately following transplanting. Willows shall be excavated and transported with root systems and native soils intact. In addition, *Salix exigua* stem cuttings (~ 6’ long) will be laid parallel under the newly excavated streambank slope just below the sod mat excavated bench. The willow stem cuttings will be planted at a minimum of 12/foot to create a brush matrix to deflect high energy flows during spring.

All harvest areas will be reseeded with a riparian/wetland seed mix that matches the current species composition. Sod mat and willow harvest will be overseen by FWP and USFWS as to ensure harvested areas meet the afore mentioned criteria. Approximately 30 willow clumps, 30 cottonwoods, and 1000’ square feet of *Carex* sod mats will be transplanted for the project.



Photo 1: Typical conditions along the Cornell Park riverbanks.

1.3 Late Seral Vegetation Community, Channel Type and Reference Reach

Due to the high level of disturbance, it is difficult to determine an overall seral habitat type for the project area; However, it is likely the potential of the site is the *Salix lutea/Carex rostrata* Habitat Type if the disturbance regime of fresh alluvial deposits is lost as described by Hansen et al. (1995). In addition, the stream channel type is identified as C3 channel as described by Rosgen (1994). A reference reach was identified during the scoping of the project just downstream of the streambank restoration (45.217257, -112.657960). The riparian vegetation is comprised of *Carex aquatilis/Carex utriculata* understory with a robust *Populus trichocarpa* (black cottonwood) and *Salix exigua* (sandbar willow) overstory. Channel width was ~60' with a Bankfull depth of 3' (see Photo 2).



Photo 2: Reference Site 1

1.4 Monitoring Plans

The project area riparian area will be monitored pre- and post-construction through photos by FWP to assess riparian establishment. The photo-points will have coordinates and landmarks to provide the same

photo content. These photo-points will be established in the summer of 2022. In addition, the site will be monitored for weed establishment following restoration work.

1.5 Maintenance and Contingency Measures

Maintenance following the project may be necessary to facilitate greater riparian and bank stabilization along the restored riverbank. Streambank failure following the bank restoration component of this project will be identified annually following the first five years. Potential causes for bank failure may include high flow events or wildlife and human disturbances that prevent the establishment of the cottonwoods, transplanted mature willows, willow cuttings, and sod mats. Grazing by livestock is not anticipated to occur as livestock are not within the general vicinity. Additional fencing will be erected if human foot traffic is deemed too high or damaging to the restored banks. Willow cuttings will be transplanted to banks displaying poor stabilization where willow mortality exceeds 80%. After each growing season, bare areas on the newly excavated slope and borrow areas will be reseeded following each year to facilitate greater riparian vegetation establishment. The seed mix will be comprised of native riparian species that are currently present. Noxious weeds will be monitored for spraying to prevent establishment.

2.0 Project Understanding

A full wetland delineation was completed to evaluate the amount and approximate wetland affected by the proposed riverbank restoration project in jurisdictional wetlands within the project area (see location map in Appendix 1). This report is to be used as supporting documentation for the U.S. Army Corp of Engineers (USACE) review for the Nationwide 27 regulatory permit needed for the proposed project.

3.0 Methodology

The wetland delineation of the freshwater emergent wetlands within the proposed project area was completed using the on-site inspection method for areas equal to or less than 5 acres in size as described by the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987). *The Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Version 2.0) was used in conjunction for the on-site method (Environmental Laboratory, 2010).

3.1 Off-Site Evaluation

Off-site data were evaluated through the USFWS National Wetland Inventory (NWI) online mapper and NRCS Web Soil Survey. The following URLs are listed below:

- NWI: <https://www.fws.gov/wetlands/data/Mapper.html>
- NRCS web soil survey: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

3.1.1 National Wetlands Inventory Maps (NWI)

NWI maps are effective in scoping potential wetlands within project areas, however, they do not automatically represent federally regulated wetlands. The NWI map for the proposed project area is in Appendix 2. The project area within the NWI map displays no mapped wetlands. The project area's delineated wetland mostly coincided with the NWI's non-wetland rating.

3.1.2 Web Soil Survey (NRCS)

Web Soil Survey maps are effective in viewing potential, mapped hydric soils. However, they do not automatically represent hydric soils and should be evaluated in the field. The Web Soil Survey map for the proposed project area is in Appendix 2. The project area within the Web Soil Survey map displayed the project's area riparian corridor as having 83% hydric soil components. This rating is suggestive that hydric soil conditions exist at the proposed site. The soil classified for the delineation point was most similar to the Beavrock, Occasionally Flooded soil description, which has a hydric soil rating of 83% and hydrologic soil group rating of B/D (B = moderate infiltration when thoroughly wet; D = very slow infiltration when thoroughly wet).

4.0 Onsite Field Inspection and Delineation

Montana Fish, Wildlife & Parks performed the wetland delineation on September 8th, 2021. Field conditions were 65-70° F with mostly sunny skies. Four wetland delineation sampling points were collected. The proposed project area was mapped via a handheld GPS. The collected GPS data is displayed in the Cornell Park Project Area and Wetland Delineation Map in Appendix 3.

Rational for determining wetland boundaries was determined from the four wetland sample points (see Appendix 3 – Wetland Delineation Map). The streambank project area's vegetation community and site characteristics were mostly uniform throughout the entire project area. Wetlands were identified based on presence of hydrophytic vegetation, hydric soils, and hydrology. All data was recorded on Wetland Determination Data Form – Western Mountains, Valleys, and Coast Regions. Point data and respective photos are available in Appendix 3.

4.1 Project Area Wetlands and Non-wetlands

The wetland delineation identified 0.14 acres of wetlands along the project's riverbanks (See appendix 3). A total of 1.70 acres of upland was identified. The restoration project has the potential to increase the total wetlands by 0.10 acres within the project area. However, 0.01 acres of wetland is expected to be permanently impacted by the addition of a new put-in ramp on the most eastern riverbank's wetlands.

Total wetlands disturbed for the streambank restoration component of the project is estimated to affect no wetlands. Following the streambank restoration, the present wetlands will likely further benefit through greater floodplain reconnection and elevated water table. The newly restored streambanks are expected to exhibit all classification criteria to qualify as wetlands within five years. The potential for the restored streambank is to achieve a riparian habitat and wetland function as identified in the reference reach photos (Photo 2). Overstory species (Black Cottonwood and Sandbar Willow) are likely to increase due to the reconnection of the water table and necessary disturbance events following high flow events. Willows and cottonwoods require a high-water table and disturbance for their life history requirements for pioneering new banks and sandbars. Within 2 – 3 years following the restoration greater cottonwood and willow establishment should be observed along the reach.

The only wetlands expected to be disturbed by the proposed project are located at the new put-in ramp for boat launches. The amount of wetland to be permanently affected is 0.01 acres. The area will be graded and hardened with gravel to withstand high use from anglers and recreation users launching boats. Presently the proposed put-in ramp is located on a makeshift boat launch ramp that is high angled, rutted, and breaking down the remaining wetland vegetation from vehicle traffic. By installing a new, permanent put-in ramp, it is expected to take pressure off the surround wetland habitat and prevent further expansion of wetland degradation.

4.1.1 Wetland Point: 3

Only point 3 had all wetland criteria present. This point exhibited hydrophytic vegetation (primarily *Phalaris arundinacea*), Loamy Mucky Mineral (F1), and high saturation and water table within 7” or 9” (respectively). Point 3 was noted as inset floodplain, thus likely explaining the high level of saturation and water table for this point. Please see Appendix 3 for point data and photos.

4.1.2 Upland Points: 1, 2, & 4

Points 1, 2, and 4 lacked sufficient hydrophytic vegetation, hydric soil indicators, and hydrological indicators to qualify as wetland habitat. Only Point 1 had sufficient hydrophytic wetland vegetation, however, the soils and hydrological indicators were insufficient to qualify as a wetland point. Points 2 and 4 represent upland sites (no dominant hydrophytic vegetation) and thus soils were not classified. Point 2 and 4 represent perched floodplains that are dislocated from the current water table. Please see Appendix 3 for point data and photos.

5.0 Summary

During September 8th, 2021, Montana Fish, Wildlife & Parks completed a wetland delineation for the proposed Cornell Park Project. The delineation identified 0.14 acres of wetlands with the project permanently disturbing 0.01 acres for the new put-in for boat launching; However, the proposed streambank restoration component of this project is anticipated to create an additional 0.10 acres of new riverbank wetland, resulting in a net-gain of 0.09 acres of wetland within the project. Lasting effects following this streambank restoration project should reestablish a more resilient riparian/wetland vegetation community that is sufficient to prevent excessive lateral erosion and erosive degradation from human foot traffic and develop the characteristic wetlands that should be observed along the newly reconnected bank floodplain. Further, the fishery, wildlife, and recreational user’s experience is expected to be enhanced at this new FAS. This document is intended to aid in the U.S. Army Corps of Engineers decision of issuing the regulatory permit for this proposed project within jurisdictional wetlands.

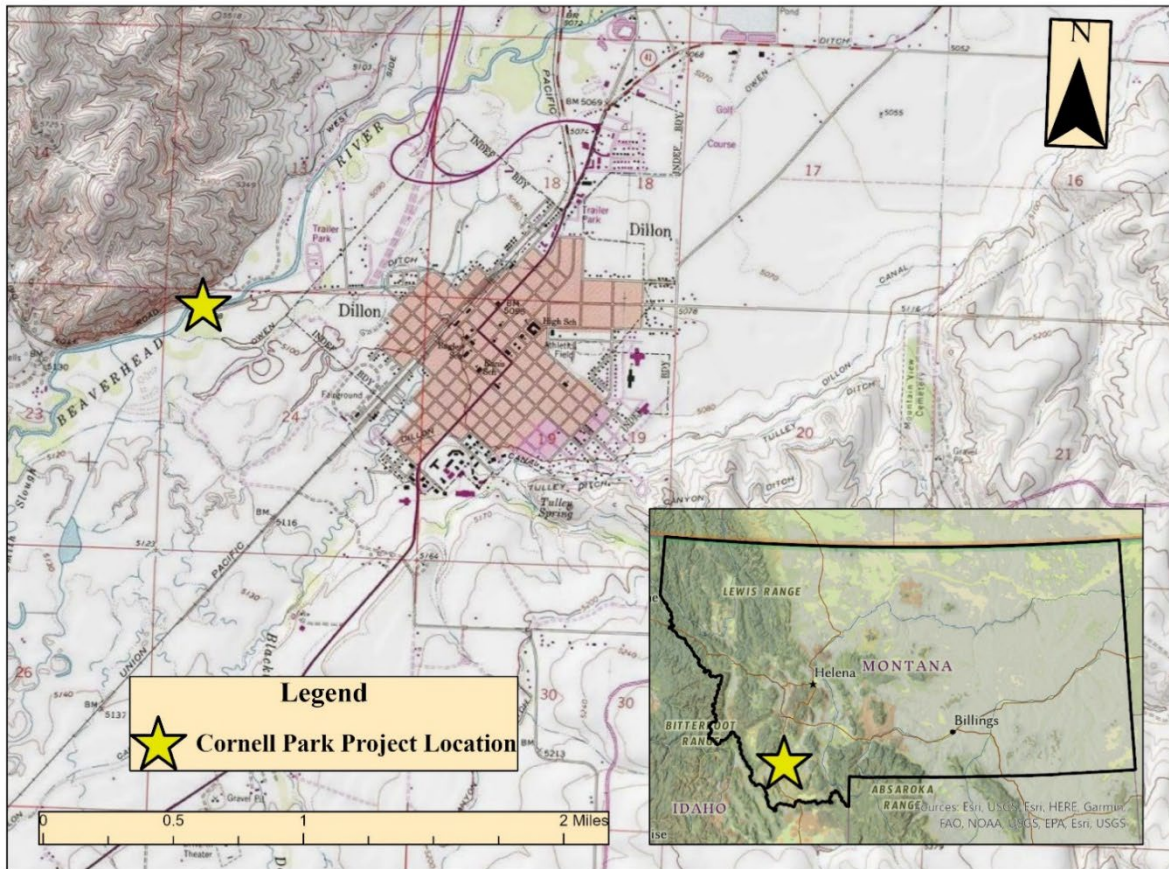
References

- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. Army Corps of Engineers: Waterways Experiment Station, ed, Vicksburg, MS.
- Environmental Laboratory. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). U.S. Army Corps of Engineers. Vicksburg, MS.
- Hansen, P. L., R. D. Pfister, K. Boggs, B. J. Cook, J. Joy, and D. K. Hinckley. 1995. Classification and Management of Montana's Riparian and Wetland Sites. No. 54. Montana Forest and Conservation Experiment Station, School of Forestry, The University of Montana Missoula, Montana.
- Mueggler, W. F. and W. L. Stewart. 1980. Grassland and Shrubland Habitat Types of Western Montana. Intermountain Forest and Range Experiment Station, Forest Service, US Department of Agriculture.
- Pick, T., P. Husby, W. Kellogg, B. Leinard, and R. Apfelbeck. 2004. Riparian Assessment: Using the NRCS Riparian Assessment Method. Environment Technical Note Number MT-2, USDA NRCS, Bozeman, MT.
- Rosgen, D. L. 1994. A Classification of Natural Rivers. *Catena* 22(3):169-199.
- Winward, A. H. 2000. Monitoring the Vegetation Resources in Riparian Areas. No. 47. US Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Appendix 1

Project Location Map:

Cornell Park Project Location



Appendix 2

NWI Map:



Cornell Park NWI Map



January 27, 2022

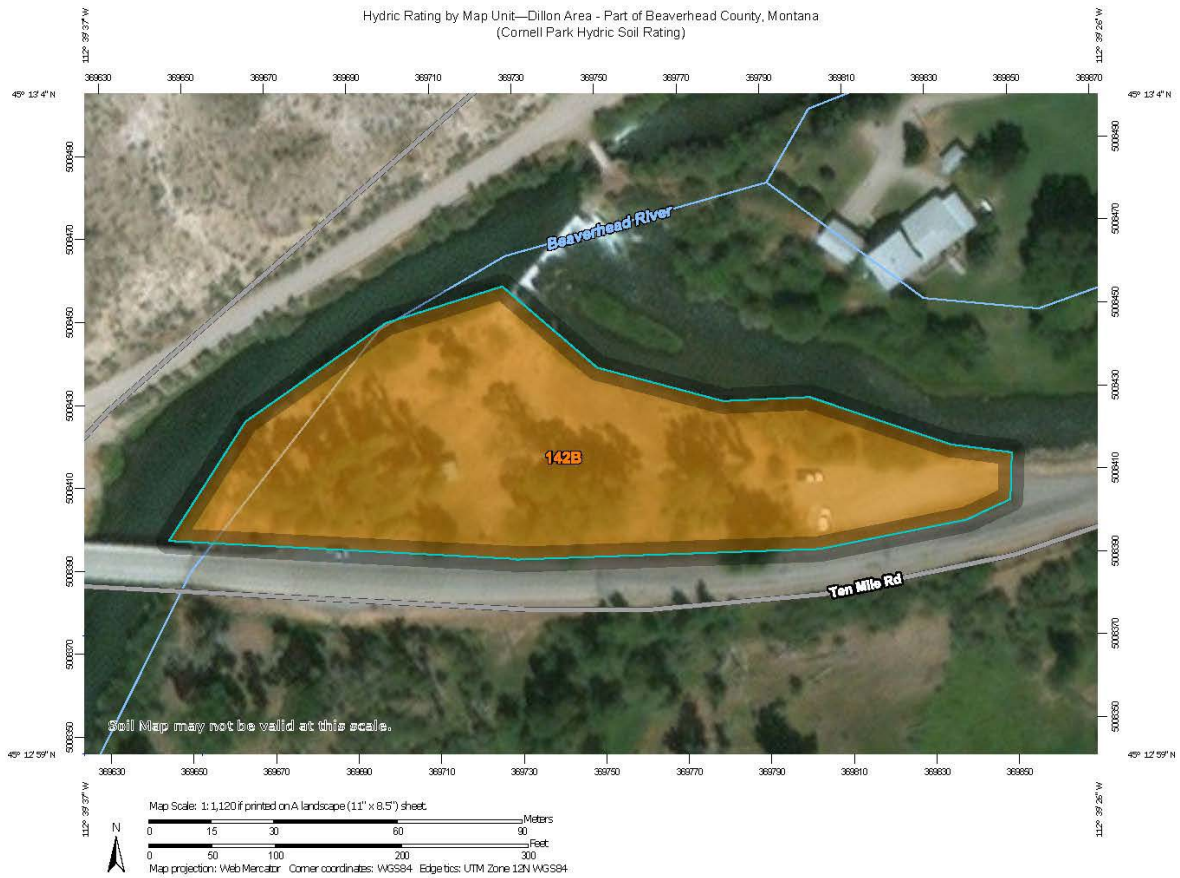
Wetlands

- | | | |
|--------------------------------|-----------------------------------|----------|
| Estuarine and Marine Deepwater | Freshwater Emergent Wetland | Lake |
| Estuarine and Marine Wetland | Freshwater Forested/Shrub Wetland | Other |
| | Freshwater Pond | Riverine |

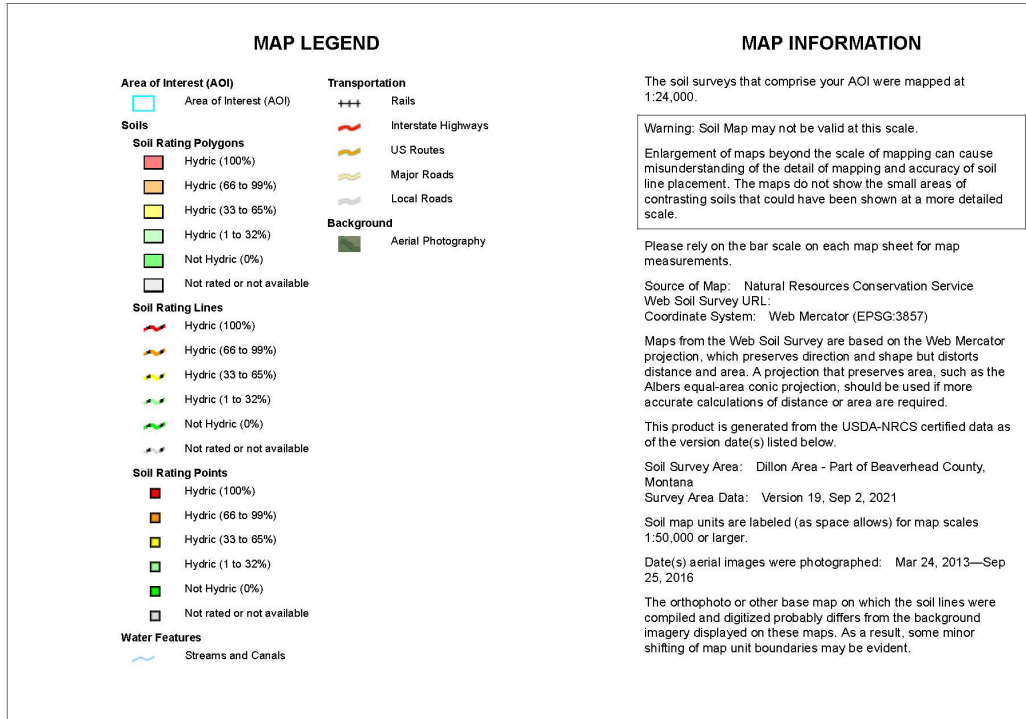
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Web Soil Survey:



Hydric Rating by Map Unit—Dillon Area - Part of Beaverhead County, Montana
(Cornell Park Hydric Soil Rating)



Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
142B	Beavrock, occasionally flooded-Threeriv, frequently flooded complex, 0 to 4 percent slopes	83	2.0	100.0%
Totals for Area of Interest			2.0	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

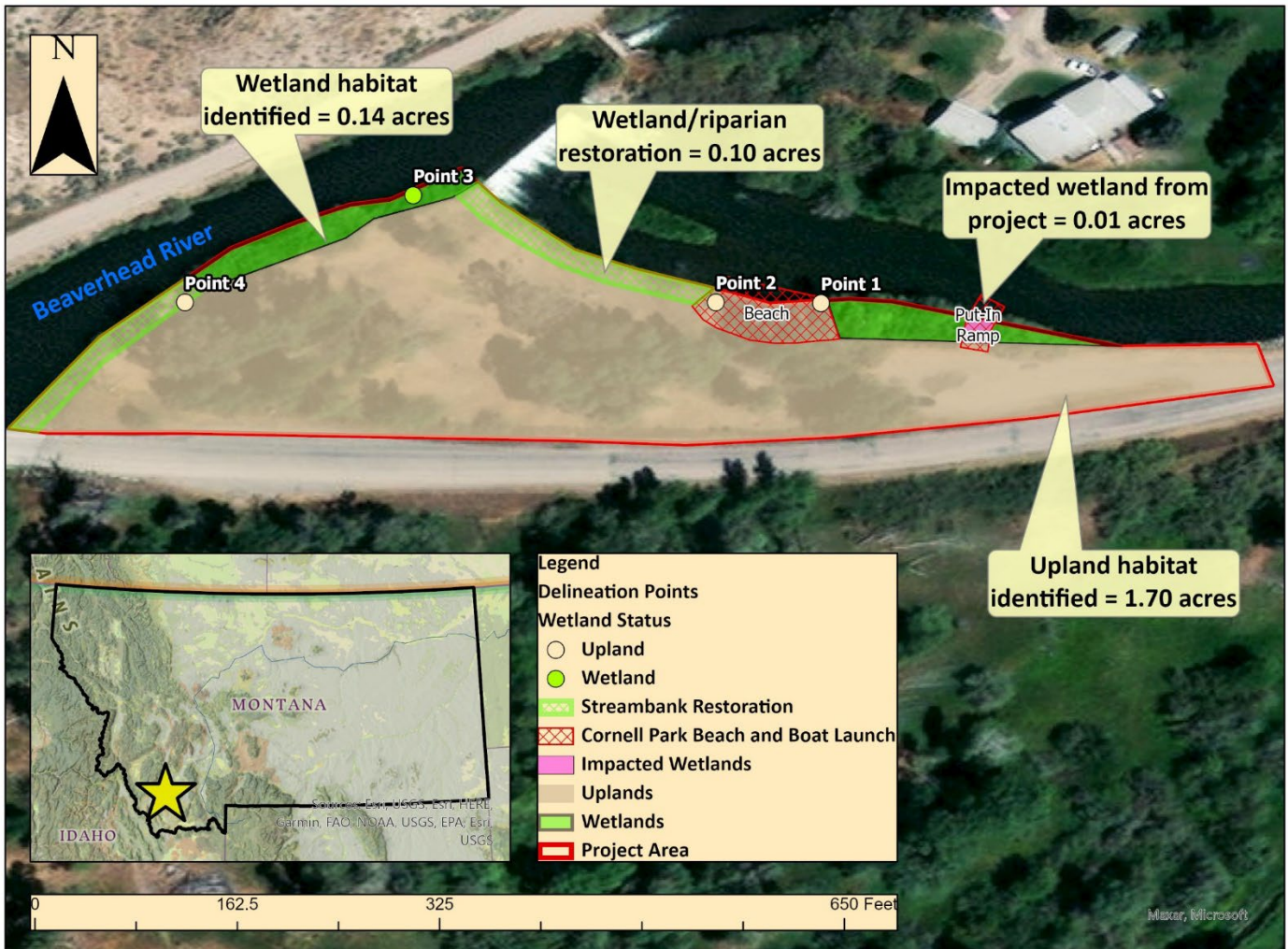
Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Appendix 3

Cornell Park Streambank Restoration & Wetland Delineation Map:

Cornell Park Streambank Restoration and Wetland Delineation



Author: Payne; Date: 1/31/22; Sources: FWP and ESRI

Wetland Delineation Point Data Sheets and Photos:

Point 1:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Cornell Park City/County: Bannerhead Sampling Date: 9-8-21
 Applicant/Owner: FWP State: MT Sampling Point: 1
 Investigator(s): Payne Section, Township, Range: 24, T7S, R9W
 Landform (hillslope, terrace, etc.): Valley Bottom Local relief (concave, convex, none): Concave Slope (%): 0.5%
 Subregion (LRR): E Lat: 45.21724 Long: -112.65841 Datum: NAD83
 Soil Map Unit Name: 142B - see soil Appendix NWI classification: Nb1c

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks: Site is transitioning to upland/disconnected floodplain

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				
= Total Cover				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>5' radius</u>)				Total % Cover of: _____ Multiply by: _____
1. <u>SAEX</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	OBL species _____ x 1 = _____
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
<u>35</u> = Total Cover				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>5' radius</u>)				Prevalence Index = B/A = _____
1. <u>PHAR</u>	<u>3</u>	<u>N</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>ALNR</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
3. <u>MEU</u> (Black medick)	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. <u>CIAR</u>	<u>3</u>	<u>N</u>	<u>FAC</u>	
5. <u>TADF</u>	<u>3</u>	<u>N</u>	<u>FACW</u>	
6. <u>EPCI</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
7. <u>POPR</u>	<u>7</u>	<u>N</u>	<u>FAC</u>	
8. <u>ELRE</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
9. _____				
10. _____				
11. _____				
<u>32%</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____				
<u>0%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>15%</u>				

Remarks: SAEX D.T. → highly disturbed → lots of introduced spp. in understory

US Army Corps of Engineers Western Mountains, Valleys, and Coast – Version 2.0

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3-2	100	-	-	-	-	S Loam	Weakly developed A w/ some organ
4-20	10YR 3-4	100	-	-	-	-	Sand	Alluvial, gravels/cobble Sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: -

Depth (inches): -

Hydric Soil Present? Yes No

Remarks: Likely matches River Run series. No hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): ≥ 14" nearby

Water Table Present? Yes No Depth (inches): 14"

Saturation Present? (includes capillary fringe) Yes No Depth (inches): 14"

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Water table and saturation present, but ≥ 14" from surface. Does not meet the 12" threshold.



Point 2:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Cornell Park City/County: Bonaville Sampling Date: 9-8-21
 Applicant/Owner: FWP State: MT Sampling Point: 2
 Investigator(s): Payne Section, Township, Range: 24, T7S, R9W
 Landform (hillslope, terrace, etc.): Valley Bottom Local relief (concave, convex, none): none Slope (%): 0.5
 Subregion (LRR): E Lat: 45.21724 Long: -112.65864 Datum: WGS 84
 Soil Map Unit Name: 142B- See Soil Appendix NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: <u>Upland site; disconnected from water table</u>		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>N/A</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u>5' radius</u>)				Prevalence Index worksheet:
1. <u>POPA (Populus sp.)</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species <u>2</u> x 2 = <u>4</u>
4. _____				FAC species <u>7</u> x 3 = <u>21</u>
5. _____				FACU species <u>8</u> x 4 = <u>32</u>
= Total Cover				UPL species <u>10</u> x 5 = <u>50</u>
				Column Totals: <u>25</u> (A) <u>103</u> (B)
				Prevalence Index = B/A = <u>4.12</u>
Herb Stratum (Plot size: <u>5' radius</u>)				Hydrophytic Vegetation Indicators:
1. <u>SVAS</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	<u>No</u> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>MELV</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	<u>No</u> 2 - Dominance Test is >50%
3. <u>ELRE</u>	<u>4</u>	<u>N</u>	<u>FAC</u>	<u>No</u> 3 - Prevalence Index is ≤3.0 ¹
4. <u>MESA</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	<u>No</u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>POPR</u>	<u>1</u>	<u>N</u>	<u>FAC</u>	<u>No</u> 5 - Wetland Non-Vascular Plants ¹
= Total Cover				<u>No</u> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>N/A</u>)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum <u>55%</u>				
Remarks: <u>Upland site; characterized by many introduced spp mainly Alfalfa</u>				

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
--	---	---

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:
 Not completed; but likely most similar to River Run. Lacking all hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>> 20"</u>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>> 20"</u>	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>> 20"</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 No hydric indicators present.



Point 3:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Cornell Park City/County: Beaverhead Sampling Date: 9-8-21
 Applicant/Owner: FWP State: MT Sampling Point: 3
 Investigator(s): Payne Section, Township, Range: 24, T7S, R9W
 Landform (hillslope, terrace, etc.): Valley Bottom Local relief (concave, convex, none): Concave Slope (%): 0.5
 Subregion (LRR): E Lat: 45.21747 Long: -112.65931 Datum: NAD83
 Soil Map Unit Name: 142B- See Soil Survey Appendix NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: <u>Inset floodplain -> wetland</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>N/A</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>SAEX</u>	<u>4</u>	<u>N</u>	<u>FACW</u>	Total % Cover of: _____ Multiply by: _____
2. <u>ROWD</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
Herb Stratum (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals: _____ (A) _____ (B)
1. <u>PHAR</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	Prevalence Index = B/A = _____
2. <u>DRN</u>	<u>10</u>	<u>N</u>	<u>UPL</u>	
3. <u>RUR</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
4. <u>CZAR</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
5. <u>ALAR</u>	<u>13</u>	<u>N</u>	<u>FAC</u>	
6. <u>ELRE</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: <u>N/A</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>2</u> → <u>Rest litter</u>				
Remarks: <u>High content of PHAR, places site as hydric^{phytic} veg.</u>				

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2-1	100	—	—	—	—	Loam	Mucky Part 0
3-20	10YR 3-2	100	—	—	—	—	Sil Loam	High O, A/B

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input checked="" type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input checked="" type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
 Inundated → histic qualities developing. Lots of Organic
 Matches to Beaurock, occasionally flooded series

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): No → 3' away yes → (River)

Water Table Present? Yes No Depth (inches): 9"

Saturation Present? Yes No Depth (inches): 7"

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Wetland Hydrology present → very saturated.



Point 4:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Cornell Park City/County: Beaverhead Sampling Date: 9-8-21
 Applicant/Owner: FWP State: MT Sampling Point: 4
 Investigator(s): Payne Section, Township, Range: 24, T7S, R9W
 Landform (hillslope, terrace, etc.): Valley Bottom Local relief (concave, convex, none): None Slope (%): 0.5%
 Subregion (LRR): E Lat: 45.21724 Long: -112.65981 Datum: WGS84
 Soil Map Unit Name: 142B-See Soil Survey in Appendix NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (if needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: <u>Disconnect upland terrace; cut bank.</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>NA</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
4. _____				
= Total Cover				
Sapling/Shrub Stratum (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>POTE (Trichocarpus)</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
6. _____				UPL species _____ x 5 = _____
= Total Cover				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index = B/A = _____
1. <u>BRIN</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>TADE</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
3. <u>CEST</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	
4. <u>ELRE</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
5. <u>MESA</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
= Total Cover				
Woody Vine Stratum (Plot size: <u>NA</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____				
2. _____				
= Total Cover				
% Bare Ground in Herb Stratum <u>35</u> → Post litter				
Remarks: <u>upland veg dominates</u>				

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

- ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.
- Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**
- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) | ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) | |

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: *Not likely most similar to Riverbank. Not completed, but site is disconnected from water table. No indicators present for developing hydric soils.*

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>>20"</u>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>>20"</u>	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): <u>>20"</u>	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: *No wetland hydrology indicators present on site.*

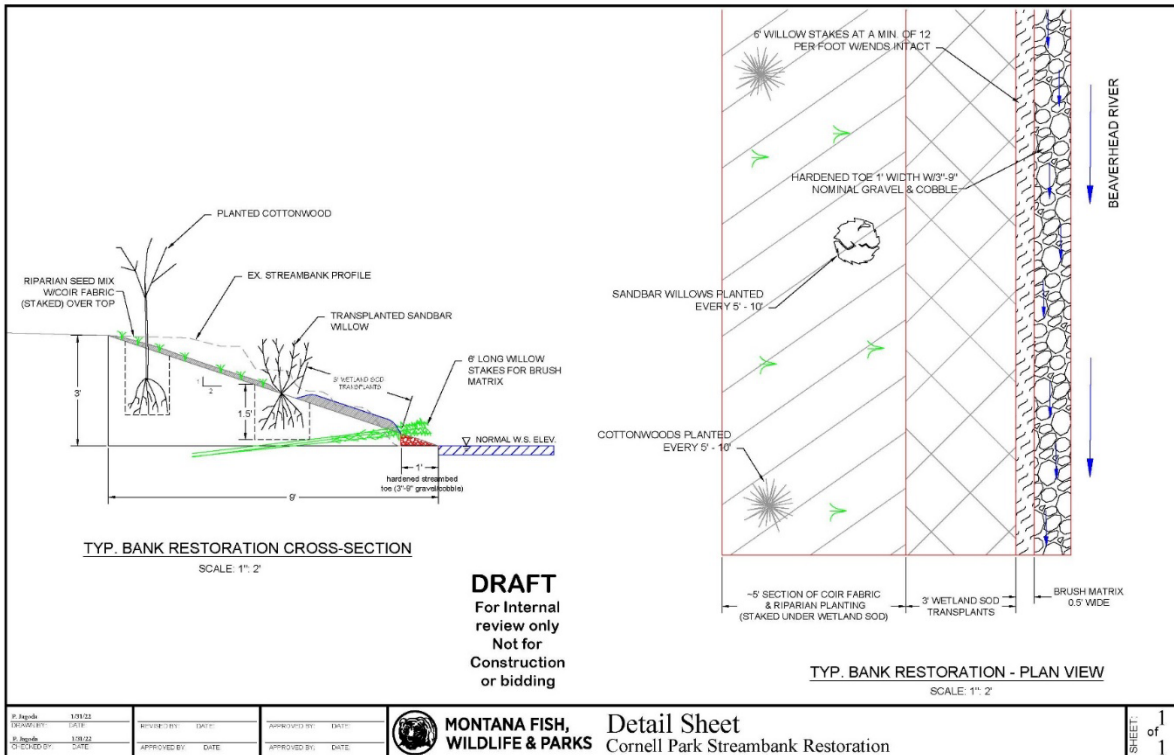


Vegetation List Observed from Delineation Survey:

Cornell Park Wetland Delineation Vegetation Species List			
<i>Grasses</i>			
Code Name on Form	Scientific Name	Common Name	Wetland Status (WVMC)
ALAR	<i>Alopecurus arundinaceus</i>	Creeping Meadow Foxtail	FAC
BRIN	<i>Bromus inermis</i>	Smooth Brome	UPL
ELRE	<i>Elymus repens</i>	Quack Grass	FAC
PHAR	<i>Phalaris arundinacea</i>	Reed Canary Grass	FACW
POPR	<i>Poa pratensis</i>	Kentucky Blue Grass	FAC
<i>Forbs</i>			
Code Name on Form	Scientific Name	Common Name	Wetland Status (WVMC)
CEST	<i>Centaurea steobe</i>	Spotted Knapweed	UPL
CIAR	<i>Cirsium arvense</i>	Canada Thistle	FAC
EPCI	<i>Epilobium ciliatum</i>	Fringed Willowherb	FACW
MELU	<i>Medicago lululina</i>	Black Medick	FACU
MESA	<i>Medicago sativa</i>	Alfalfa	UPL
RUCR	<i>Rumex crispus</i>	Curly Dock	FAC
SYAS	<i>Symphotrichum ascendens</i>	Western American-Aster	FACU
TAOF	<i>Taraxacum officinale</i>	Common Dandelion	FACU
<i>Shrub</i>			
Code Name on Form	Scientific Name	Common Name	Wetland Status (WVMC)
ROWO	<i>Rosa woodsii</i>	Woods' Rose	FACU
SAEX	<i>Salix exigua</i>	Sandbar Willow	FACW
<i>Tree</i>			
Code Name on Form	Scientific Name	Common Name	Wetland Status (WVMC)
POTR	<i>Populus trichocarpa</i>	Black Cottonwood	FAC

Appendix 4

FWP Cornell Park Streambank Restoration Plans:



DESIGNED BY: J. Repole	DATE: 1/31/22	APPROVED BY: DATE:	APPROVED BY: DATE:
DRAWN BY: J. Repole	DATE: 1/31/22	APPROVED BY: DATE:	APPROVED BY: DATE:

MONTANA FISH, WILDLIFE & PARKS Detail Sheet
 Cornell Park Streambank Restoration

Appendix G

FWP Land Acquisition – Weed Inspection and Report

FWP Land Acquisition – Weed Inspection and Report

COMPLIANCE CHECKLIST FOR SECTION 7-22-2154, MCA

FWP Regional Staff: Please return this form to
FWP Lands Bureau, P.O. Box 200701, Helena, MT 59620

Property Name: Cornell Park FWP Region:

County: Beaverhead

Date of Property Inspection with County Weed Management District: 3/24/2021

County Representative(s): Amber Burch

FWP Staff:

County Weed Management District - Inspection Report (Please attach weed inspection report or use the space below to describe noxious weeds present on the property, including observations of weed distribution and abundance):

Noxious weeds known at the property include spotted knapweed, russian knapweed, houndstongue, dalmatian toadflax, white top, and county listed noxious weed black henbane.

Noxious Weed Management Agreement (Please attach applicable weed management agreement or use the space below to indicate how noxious weeds on the property will be managed when the property is under FWP ownership. Indicate if property will be included in an FWP county or regional weed management plan):

Property will be included in FWP county agreement. Management will include an integrated approach with methods such as herbicide/chemical control, hand pulling, and biological control.

County Weed Management District Representative: I have inspected the property, and reviewed the weed situation with a representative of Montana Fish, Wildlife & Parks. I concur with FWP's weed management plan for the property, as presented above and/or described in the attached information.

Signed: Amber Burch

Date: 3/24/2021