



Montana Fish, Wildlife & Parks

1400 South 19th Avenue
Bozeman, MT 59718

October 22, 2012

To: Governor's Office, Mike Volesky, State Capitol, Room 204, P.O. Box 200801, Helena, MT 59620-0801
Environmental Quality Council, State Capitol, Room 106, P.O. Box 201704, Helena, MT 59620-1704
Dept. of Environmental Quality, Metcalf Building, P.O. Box 200901, Helena, MT 59620-0901
Dept. of Natural Resources & Conservation, P.O. Box 201601, Helena, MT 59620-1601
Montana Fish, Wildlife & Parks:

Director's Office

Parks Division

Lands Section

FWP Commissioners

Fisheries Division

Legal Unit

Wildlife Division

Design & Construction

MT Historical Society, State Historic Preservation Office, P.O. Box 201202, Helena, MT 59620-1202

MT State Parks Association, P.O. Box 699, Billings, MT 59103

MT State Library, 1515 E. Sixth Ave., P.O. Box 201800, Helena, MT 59620

James Jensen, Montana Environmental Information Center, P.O. Box 1184, Helena, MT 59624

Janet Ellis, Montana Audubon Council, P.O. Box 595, Helena, MT 59624

George Ochenski, P.O. Box 689, Helena, MT 59624

Jerry DiMarco, P.O. Box 1571, Bozeman, MT 59771

Montana Wildlife Federation, P.O. Box 1175, Helena, MT 59624

Wayne Hurst, P.O. Box 728, Libby, MT 59923

Jack Jones, 3014 Irene St., Butte, MT 59701

Ladies and Gentlemen:

The enclosed Environmental Assessment (EA) has been prepared as a preliminary comprehensive fisheries enhancement plan for Darlington Creek (aka Darlington Ditch) at Montana Fish, Wildlife and Parks' Cobblestone Fishing Access site, south of Three Forks, MT. Improvements to Darlington Ditch would include the augmentation of the ditch to an appropriate channel dimension and slope based upon an analysis and assessment of the ditch's existing characteristics. Riffles, pools, and runs throughout the reach will be constructed to provide spawning, rearing, and adult trout habitat and maintain efficient sediment transport capabilities.

Montana Fish, Wildlife & Parks invites you to comment on the attached proposal. The public comment period will be accepted until 5:00 p.m. November 22, 2012. Comments should be sent to the following:

Michael W. Vaughn

Madison/Gallatin Fisheries Biologist

Fisheries Bureau

Montana Department of Fish, Wildlife and Parks

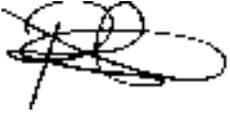
1400 S 19th Ave

Bozeman, MT 59718

Telephone: (406) 994-6938

E-mail: mvaughn@mt.gov

Sincerely,

A handwritten signature in black ink, appearing to be 'P. J. Flowers', with a large, stylized flourish at the end.

Patrick J. Flowers
Region Three Supervisor

Attachment

Draft Environmental Assessment



***Montana Fish,
Wildlife & Parks***

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

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed state action:

A group of parties have developed a preliminary comprehensive fisheries enhancement plan for Darlington Creek (aka Darlington Ditch) at Montana Fish, Wildlife and Parks' Cobblestone Fishing Access site, south of Three Forks, MT. These include:

- Gallatin County Conservation District
- Madison-Gallatin Chapter of Trout Unlimited
- Madison River Foundation
- Montana Fish, Wildlife & Parks (FWP)
- Greater Gallatin Watershed Council

Improvements to Darlington Ditch would include the augmentation of the ditch to an appropriate channel dimension and slope based upon an analysis and assessment of the ditch's existing characteristics. Riffles, pools, and runs throughout the reach will be constructed to provide spawning, rearing, and adult trout habitat and maintain efficient sediment transport capabilities.

2. Agency authority for the proposed action:

87-1-702. Powers of department relating to fish restoration and management. The department is hereby authorized to perform such acts as may be necessary to the establishment and conduct of fish restoration and management projects as defined and authorized by the act of congress, provided every project initiated under the provisions of the act shall be under the supervision of the department, and no laws or rules or regulations shall be passed, made, or established relating to said fish restoration and management projects except they be in conformity with the laws of the state of Montana or rules promulgated by the department, and the title to all lands acquired or projects created from lands purchased or acquired by deed or gift shall vest in, be, there remain in the state of Montana and shall be operated and maintained by it in accordance with the laws of the state of Montana. The department shall have no power to accept benefits unless the fish restoration and management projects created or established shall wholly and permanently belong to the state of Montana, except as hereinafter provided.

3. Name of project:

Darlington Creek Enhancement Project at Cobblestone Fishing Access Site

4. Name, address and phone number of project sponsor:

Madison/Gallatin Chapter of Trout Unlimited
PO Box 52, Bozeman, MT 59771

PPL Montana Madison Technical Advisory Committee

5. Anticipated Schedule:

Estimated Construction Commencement Date: Fall 2012

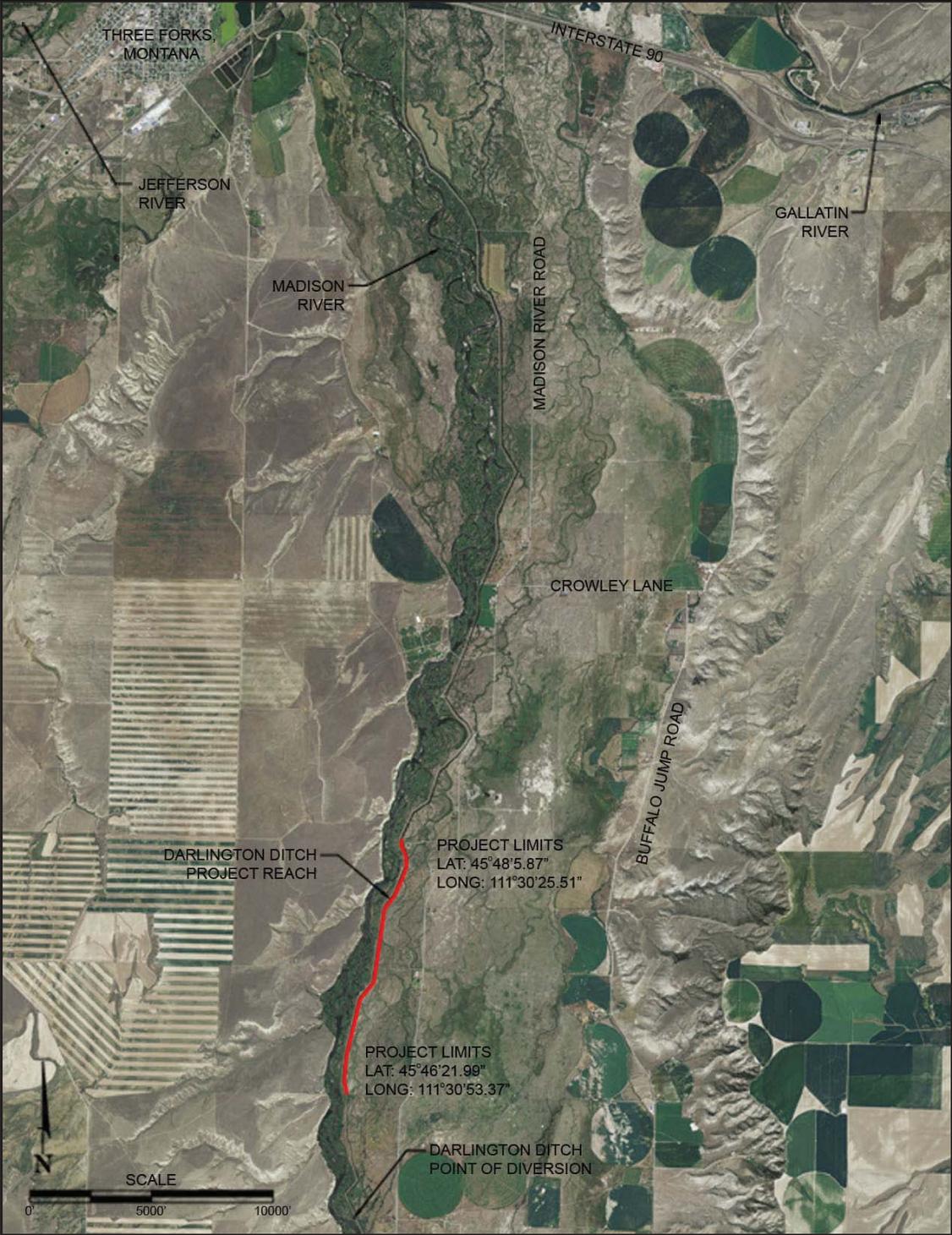
Estimated Completion Date: Winter 2014

Current Status of Project Design (% complete): 0%

6. Location affected by proposed action (county, range and township):

The center of the project is:

Latitude 45.787129, Longitude -111.510822
Township 1N 2E, SW1/4SW1/4, Section 32
Gallatin County, Montana



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>0</u>	Dry cropland	<u>0</u>
Woodlands/Recreation		Forestry	<u>0</u>
(c) Wetlands/Riparian	<u>9</u>	Rangeland	<u>0</u>
Areas		Other	<u>0</u>

8. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction:

(a) **Permits:** permits will be filed at least 2 weeks prior to project start.

<u>Agency Name</u>	<u>Permits</u>
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U.S. Army Corps of Engineers – Section 404 Permit

A section 404 permit will be required for project execution. A Corps representative has already toured the project site as well as permitted similar downstream projects and is currently supportive of the project. A State of Montana Stream Alteration 310 permit will not be required as the Gallatin Conservation District does not exert permitting authority over Darlington Creek.

Montana Department of Environmental Quality – 318 Authorization

A 318 authorization will be filed for in conjunction with the Section 404 permit utilizing the Montana Joint Application form.

Montana Department of Environmental Quality – General Storm Water Discharge Permit

A MDEQ General Storm Water Discharge permit will be acquired (Storm Water Protection Plan and Notice of Intent).

Notification to the Madison Drain and Dike Commission

The Madison Drain and Dike Commission has management authority over the maintenance and condition of the Madison Dike. Per previously completed downstream projects, the Commission will be contacted and engaged with respect to project activities that involve heavy equipment travel over the dike.

(b) Funding: \$100k of known funds or \$200k if the planning grant comes through

<u>Agency Name</u>	<u>Funding Amount</u>
Madison/Gallatin Chapter of Trout Unlimited	\$50,000
PPL Montana Madison Technical Advisory Committee	\$50,000
Montana Department of Natural Resources:	
Renewable Resources Planning Grant possible funding	(\$100,000)

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
State Historic Preservation Office	Historic/Cultural Resources

*also see Offices noted under the Permits section

9. Narrative summary of the proposed action or project including the benefits and purpose of the proposed action:

The principal project purpose is to significantly enhance Darlington Creek at the Cobblestone Fishing Access site for fisheries, wildlife, water quality, and recreation on FWP owned lands creating a spring creek-like fishery for Montana’s sportsmen and angling tourists. Additional purposes are to enhance the ecological condition of the Lower Madison River inclusive of the wild trout fishery, conservation of publically owned and managed lands, and improvement of water quality.

Darlington Creek was created in 1948 as a borrow ditch for the construction of an Army Corps of Engineers flood dike along 12 miles on the east side of the lower Madison River. The borrow channel began flowing with perennial flows that are a combination of perennial spring discharges and upwelling groundwater. Because the dike eliminated the ability of existing water rights holders to divert directly from the Madison River, a single point of diversion was established at the head of the dike to service downstream users. The borrow ditch was utilized to convey these flows. During the irrigation season, the creek’s perennial base flows are therefore significantly augmented by Madison River flows. The combination of base spring and river flows are of sufficient quality and quantity to support a wild trout population in addition to waterfowl and wildlife habitat.

Beginning in the 1980’s, Darlington Creek was recognized as capable of

supporting a recreational fishery leading to two enhancement projects to improve habitat conditions. Unfortunately, these early efforts were experimental, only affected part of the Cobblestone Access stream length, and did not reflect the substantial body of professional knowledge gained in the aquatic resource enhancement and restoration industry. Those efforts did not meet expectations and do not reflect what are achievable goals today for the creation of excellent habitat. The existing condition of Darlington Creek at Cobblestone does not provide a destination angling experience. It is also very degraded as a side-channel/tributary with respect to providing critical spawning and rearing habitat for the wild trout fishery in the lower Madison River.

Darlington Creek in the project area currently has only poor to fair trout and wildlife habitat. Therefore, it is under populated by trout and underutilized as a public recreational resource. The project will result in a transformation of the under-potential resource into a higher quality recreational fishery. Co equal problems addressed include the desire of FWP fisheries biologists to provide critical trout spawning and rearing habitat for the lower Madison River fishery. The current Madison River fishery is considered under potential in part due to lack of recruitment. The project will create significant quantities of this habitat type, not only enhancing the fishery in Darlington Creek but also the lower Madison River.

The project conservation objective is to maximize and sustain the aquatic, wetland, and wildlife habitat quality on very under-utilized publically owned land specifically set aside for public use and recreation. Management objectives will specifically include maximizing trout carrying capacity on two miles of restored side-channel habitat for the benefit of anglers and health of the lower Madison River fishery. This will include the creation of high quality spawning and rearing habitat and a critically limiting habitat type on the lower Madison River. It will likely result in increased trout numbers in the mainstem Madison through recruitment and lifting the ecological and recreational quality of the approximately 40 miles of river between Ennis Dam and Three Forks, MT.

The purpose of the project is to significantly enhance the aquatic habitat on Darlington Creek at the currently lightly used walk-in Cobblestone Access to provide a quality public recreational angling resource and to enhance the lower Madison River fishery through provision of critical spawning and rearing habitat for wild trout. Modern and Montana-proven aquatic enhancement strategies will be utilized and modeled after similar recent and successful efforts on Darlington Creek. Additional benefits will include expansion and improvement of wetland habitat, enhanced ecologic diversity, and creation of high functioning Madison River side-channel habitat. This will mitigate impacts to the river where natural side-channels were truncated by the dike construction. When the fishery at Cobblestone matches the quality of that of downstream enhanced channel reaches, it could provide direct and indirect economic support for established

regional and local angling based businesses.

A public education element is proposed to describe the value of collaborative conservation and use of Montana's freshwater resources.

10. Alternatives:

Alternative A: No Action

Left in its current condition, Darlington Creek will be underutilized as a recreational fisheries resource and will not be a significant source of recruitment of trout to the lower Madison River.

If no action is taken, this creek and the fisheries potential for the stream will remain degraded. The riparian habitat also will remain below optimum. Recreational opportunities associated with fish and wildlife resources will remain reduced and aesthetics will continue to be impaired.

Alternative B: Proposed Action –

The proposed alternative is designed to restore approximately two miles of degraded channel on a tributary to the Madison River. The project would improve overall aquatic habitat for salmonids and improve the vegetative community within the riparian corridor. This alternative is expected to improve fish and wildlife habitat and aesthetics within the project area and would enhance recruitment of fish to downstream waters.

The preferred alternative is to enhance channel conditions using strategies and techniques that have proven sustainable on downstream projects. These methods start with an analysis of channel characteristics including, but not limited to, channel dimension, slope, peak and base flow rates, bed material, bank and riparian vegetation, and accessibility of usable native borrow materials to narrow the channel and create new banklines and floodplain surfaces. From this analysis, an appropriate channel dimension, slope, and plan form is developed for construction of riffles, pools, and runs throughout the reach that not only provide spawning, rearing, and adult trout habitat but maintain efficient sediment transport capabilities.

The preferred alternative will be designed such that high quality habitat is maintained during the variable hydrologic regime periods inclusive of high flow periods and winter base flows. Potentially erosive flow conditions at high flows will be routed in constructed high flow/seasonal overflow channels and in-channel storage in backwater wetlands. Lower and average flow rate water column depth will be maximized by concentration of these flows into a principal channel.

Materials used for this alternative will come from within the existing channel or the adjacent Madison River floodplain within lands owned by FWP and likely include cobble and gravel, donor live wetland sod, immature willow, and other native transplanted vegetation. The channel will be designed to provide high quality angling opportunities that include appropriate spacing of trout holding water, casting lanes, and lure drifts.

It is preferred that these improvements be implemented on the entire reach of Darlington Creek on FWP land which is approximately 11,050 linear feet. While the upper 4,000 feet of project area may not support ideal or adequate winter base flows, if augmented this reach will still provide seasonal trout and angling habitat of significant value.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites					X	X

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Improving overall aquatic habitat conditions within this creek is expected to enhance the resident fisheries including rainbow trout and brown trout. Additionally, restoration of the stream is expected to enhance recruitment of fish to the Madison River. Habitat for riparian dependent wildlife also would be improved by enhancing the riparian vegetative community along the stream margin. Bald and golden eagles are known to reside and nest in the vicinity but the scope of work is not anticipated to result in adverse impacts to them. An invasive species, the New Zealand mudsnail, is found in Darlington Creek but is also found in the nearby Madison River. All equipment used in construction will be thoroughly inspected and cleaned before leaving the work site.

2. Water quantity, quality, and distribution.

This spring creek presently displays elevated water temperatures and excessive fine sediment accumulations due to the over-widened and shallow nature of the channel and the lack of woody riparian vegetation. The proposed restoration project is expected to reduce water temperatures and increase the sediment transport capability of the channel. Short-term increases in turbidity will occur during project construction. The work will occur when water levels are low in order to limit impacts (sediment mobilization, presence of fish, irrigation needs). To minimize turbidity the operation of equipment in the active stream channel will be minimized to the extent practicable. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota (318 authorization). The U.S. Army Corp of Engineers will be contacted to determine the need to meet 404 provisions of the Clean Water Act.

3. Geology and soil quality, stability and moisture.

Soils along the stream margin and in areas of new channel construction would be disturbed during restoration activities but would be stabilized following proposed sod transplanting and re-vegetation efforts. Re-vegetation efforts would involve placement of salvaged sod and seeding with native sedges and grasses as well as planting native riparian shrubs.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be disturbed during the period of construction. However, proposed re-vegetation efforts, in conjunction with a riparian vegetative buffer, would result in an overall increase of the riparian vegetative community.

5. Aesthetics.

In the short term, aesthetics would be adversely impacted due to ground disturbance and the presence of heavy construction equipment. In the long term, returning this degraded creek to a more natural configuration would enhance aesthetics. In addition, the riparian vegetative community would be enhanced by riparian plantings and by the establishment of a vegetative buffer within the streamside corridor.

6. Historic and archaeological sites

The proposed project may require an individual Army Corp of Engineers 404 permit. Therefore, the State Historic Preservation Office will be contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted				X		

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
environmental plans & goals						
14. Transportation networks & traffic flows				X		

VI. Explanation of Impacts on the Human Environment.

7. Access to and quality of recreational activities.

This spring creek presently contributes less than optimum recruitment of salmonids to the Madison River. The proposed project is expected to increase recruitment to downstream waters and enhance the recreational fisheries found within the FAS. A subsequent increase in angling use of the site can be expected. Improvements to the site to accommodate increased use are not anticipated. The work should be accomplished in two phases of a few weeks time each. Some minor inconvenience may be experienced by site users during construction.

VII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

FWP has concluded that the proposed activities will have a positive impact with only minor or negligible impacts to the physical and human environment, that most can be mitigated, and that an environmental assessment is the appropriate level of review.

2. Level of public involvement

The Environmental Assessment (EA) is being distributed to all individuals and groups (including all neighboring landowners) listed on the cover letter. The EA also will be published on Montana Fish, Wildlife and Parks webpage: fwp.mt.gov.

3. Duration of comment period

Public comment will be accepted through 5:00 PM on November 22, 2012.

Comments should be sent to:

Montana Department of Fish, Wildlife and Parks
1400 S 19th
Bozeman, MT 59718

or:

mvaughn@mt.gov

4. Other groups or agencies contacted:

US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office

Individuals contributing to this EA: Scott Gillilan, Gillilan Associates, Inc.

5. Person responsible for preparing the EA.

Michael W. Vaughn
Madison/Gallatin Fisheries Biologist
Fisheries Bureau
Montana Department of Fish, Wildlife and Parks
1400 S 19th
Bozeman, MT 59718
Telephone: (406) 994-6938
E-mail: mvaughn@mt.gov