Montana Fish, Wildlife & Parks

Clint Smith
Montana FWP Fisheries Biologist
215 W. Aztec Dr.
PO Box 938
Lewistown, MT 59457
(406) 538-4658 *227

SUBJECT: Future Fisheries Application

DATE: November 19, 2015

This memo is intended to document the strong support of myself, Clint Smith – Lewistown Area Fisheries Biologist, for the restoration of Big Spring Creek. This project has been a struggle to get off the ground, with delays and disappointments seemingly around every corner, however the potential benefits to the creek, the fishery, and the public are well-worth our due diligence to see this project implemented.

Enclosed is the completed Future Fisheries application, budget, plan drawings, evidence of public support, photographs of the project area, landowner agreements, and our sampling and analysis plan and conservation easement which summarize the land management and maintenance plans for the project area.

Thank you for your time and consideration of our project.

Sincerely,

Clint Smith
Lewistown Area Fisheries Biologist

FUTURE FISHERIES IMPROVEMENT PROGRAM
GRANT APPLICATION
(please fill in the highlighted areas)

I. APPLICANT INFORMATION

A. Applicant Name: Montana Fish, Wildlife, & Parks

B. Mailing Address: 215 W. Aztec Drive, PO Box 938

C. City: Lewistown State: MT Zip: 59457

Telephone: (406) 538-4568 *227 E-mail: clsmith@mt.gov

D. Contact Person: Clint Smith

Address if different from Applicant:

City: State: Zip:

Telephone: E-mail:

E. Landowner and/or Lessee Name (if other than Applicant): Primary - Mark Machler (FWP Easement) Others - Steve & Susan Adams; Mountain Acres Mobile Home Park; Montana FWP

Mailing Address: PO Box 767

City: Lewistown State: MT Zip: 59457

Telephone: (406) 366-0219 E-mail:

II. PROJECT INFORMATION*

A. Project Name: Big Spring Creek – Machler Restoration

River, stream, or lake: Big Spring Creek

Location: Township: 15N Range: 18E Section: 10
Latitude: 47.07501 Longitude: -109.4339 *within project (decimal degrees)*

County: Fergus

B. Purpose of Project:

The objective of the project is to restore a straightened reach of Big Spring Creek to a natural meandering channel with a connected floodplain. The channel straightening has had devastating effects on the riparian and aquatic habitat and continues to be a chronic source of degradation. The proposed project will eliminate/reduce the degradation and benefit the riparian and aquatic habitat and restore ecosystem functions.

C. Brief Project Description:

This reach of stream was straightened in 1961, catastrophically destabilizing the channel, the impacts of which continue today. The project plans to restore the reach by building approximately 3,200-feet of meandering channel which matches the natural plan and profile of nearby reference reaches of Big Spring Creek. In addition to building a new channel, a 200-foot wide floodplain will be excavated around the new channel as significant down-cutting had made floodplain access at existing elevations impossible. The final step in the restoration will be to seed and plant the new channel and floodplain with native riparian vegetation. Upon project completion, the area is planned as a Fishing Access Site and the City of Lewistown would like to place a recreational trail along the new channel.
This project has been in the works for more than a decade. Numerous delays including funding shortfalls, property agreements/acquisitions, employee turnover, and permitting issues have prevented the project from being implemented. Approximately $1.2 million ($155,000 from Future Fisheries) were raised for implementation and cost estimates have ranged from $1 - 1.2 million. This project is ready to be implemented. We have a finished NRCS design, all necessary permits have been acquired, and landowner agreements are in place. Unfortunately, recent modifications to project plans in order to satisfy FEMA permitting conditions have resulted in a cost estimate of $1.5 million. Additionally, due to permitting delays and the current funding shortfall, we have lost $185,000 in grant money due to the expiration of grant contracts. Thus, we are again seeking funds for the restoration of Big Spring Creek which will end a chronic source of degradation and benefit a very popular wild trout fishery in a highly accessible area.

D. Length of stream or size of lake that will be treated: Approximately 2,000-feet of existing straightened channel will be increased to 3,200-feet of restored, meandering channel

E. Project Budget:

Grant Request (Dollars): $ 150,000

Contribution by Applicant (Dollars): $ 596,000 ($155,000 from Future Fisheries) In-kind $

(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): $ 507,000 In-kind $ 167,250

(attach verification - See page 2 budget template)

Total Project Cost: $ 1,500,000

F. Attach itemized (line item) budget – see template

G. Attach specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support and fish biologist support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete supplemental questionnaire (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).

H. Attach land management and maintenance plans that will ensure protection of the reclaimed area.

III. PROJECT BENEFITS*

A. What species of fish will benefit from this project?:

Brown trout, rainbow trout, and mountain whitefish

B. How will the project protect or enhance wild fish habitat?:

This reach of Big Spring Creek was straightened more than 50-years ago and continues to be a chronic source of degradation. An NRCS Riparian Assessment scored this stream reach as “Not Sustainable” due to channelization, concrete rip-rap, incised channel and the impacted/degraded riparian area. The assessment indicated that the current conditions would not allow the stream/riparian area to improve and achieve potential without a major restoration project (Ted Hawn, NRCS retired). By rebuilding a more natural channel and connected floodplain, the project will reduce stream bank erosion both at and downstream of the project, improve sediment transport, improve water quality via landscape filtering, and supply nutrients to the aquatic food web, all of which will restore and enhance riparian and aquatic habitat. The amount of aquatic habitat will be increased since stream length will increase by approximately 60%. These anticipated results are expected to drastically improve the available aquatic habitat. This section of Big Spring Creek is listed as impaired on Montana DEQ 303(d) list due to sedimentation and a TMDL has been completed. The project is expected to reduce sedimentation impacts on Big Spring Creek.

C. Will the project improve fish populations and/or fishing? To what extent?:

The project is anticipated to increase the local fish populations and the habitat they depend on proportionately to the increase in stream length. A similar project on Big Spring Creek at Brewery Flats nearly doubled trout numbers.

D. Will the project increase public fishing opportunity for wild fish and, if so, how?:

Big Spring Creek is the most productive, popular trout fishery in the Lewistown area, consistently ranking in the top 15 most popular angling waters in FWP Region 4 and in the top 100 statewide. In 2013, there were about 10,300 angler days on Big Spring Creek. Population surveys conducted during the past several years indicate Big Spring Creek has very high trout numbers just downstream of the Machler section, with a 20-year average of 1,490 catchable trout per mile.

The existing channel provides challenging access due to entrenchment, flow velocity, and thick overhanging vegetation. The restored channel will provide easier access and opportunity due to its more natural riffle-pool meander pattern, and lack of entrenchment. Additionally, the area is planned to be a Fishing Access Site. In addition to improving riparian habitat and ending a chronic source of degradation, the project will increase the public's opportunity to utilize the highly sought after fishery present in Big Spring Creek.

E. The project agreement includes a 20-year maintenance commitment. If you are unable to meet this commitment, please explain why:

FWP will perform all necessary monitoring and maintenance as needed.

F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?:

This section of Big Spring Creek was straightened in 1961 in order to build a trailer court for Boeing employees who were installing components for the US Air Force as part of the nation's nuclear defense during the Cold War. Approximately 4,000-feet of meandering channel was trenched into 2,000-feet of straight chute. This action drastically destabilized the channel, ultimately requiring significant rip-rap to repair and stabilize the channel. Concrete rip-rap is widespread throughout the straightened section as various attempts have been made to slow the erosion process as the channel attempts to regain equilibrium. The severe consequences of straightening include channel instability, down-cutting, lateral bank erosion, and flooding downstream. The problems that resulted from this action were motivating factors for the Montana Legislature to enact the Natural Streambed and Land Preservation Act of Montana (310 Law) in 1975.
Today, the channel is approximately 13-feet lower than its elevation prior to 1961 and is completely disconnected from its floodplain. The straightened reach lacks channel complexity and habitat diversity. The proposed restoration project will restore the channel to a stable plan and profile by mimicking nearby reference reaches and excavating a 200-foot wide floodplain in order to develop natural form and function and adequately dissipate energy during flood events. The restored channel is expected to reduce/eliminate channel instability, down-cutting, bank erosion, and downstream flooding.

G. What public benefits will be realized from this project?:

The restored channel will have legal access, providing recreational opportunities such as angling, walking, biking, floating, birding, among many others, all of which will improve public health and quality of life. The restoration project will improve the channel's ability to handle flood flows and dissipate energy via a connected floodplain, which will improve flood resiliency downstream. Riparian ecosystem functions will be restored, improving water quality, sediment filtering, natural water storage, and food-web dynamics to the public's benefit.

H. Will the project interfere with water or property rights of adjacent landowners? (explain):

Water rights and property rights will not be impacted by this project. The project will occur primarily on FWP fee-title or easement. Portions of the project will impact neighboring landowners, Adams and Mountain Acres. All landowners have been involved in the development of this project and signed agreements (attached items) are in place detailing potential impacts to neighboring lands.

I. Will the project result in the development of commercial recreational use on the site?: (explain):

No, the area will be open to the public and the current plan is to manage it as an FWP Fishing Access Site upon completion of the project.

J. Is this project associated with the reclamation of past mining activity?:

No

Each approved project sponsor must enter into a written agreement with the Department specifying terms and duration of the project.

IV. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature:  Date: 11/19/2015

Sponsor (if applicable):

***Highlighted boxes will automatically expand.**

Mail To: **Montana Fish, Wildlife & Parks**
Habitat Protection Bureau
PO Box 200701
Helena, MT 59620-0701

E-mail To: **Michelle McGree**
mmcgree@mt.gov
(electronic submissions MUST be signed)

Incomplete or late applications will be returned to applicant.
Applications may be rejected if this form is modified.

*****Applications may be submitted at anytime, but must be received by the Future Fisheries Program office in Helena before December 1 and June 1 of each year to be considered for the subsequent funding period.*****

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

Big Spring Creek Machler restoration

(addl info available)

Both tables must be completed or the application will be returned

WORK ITEMS (ITEMIZE BY CATEGORY)	NUMBER OF UNITS	UNIT DESCRIPTION *	COST/UNIT	TOTAL COST	CONTRIBUTIONS			
					FUTURE FISHERIES REQUEST	IN-KIND SERVICES**	IN-KIND CASH	TOTAL
Personnel								
Survey	800	hr	$17.00	$ 13,600.00			13,600.00	$ 13,600.00
Design	1	job	$160,000.00	$ 160,000.00		160,000.00		$ 160,000.00
Engineering				$ -				$ -
Permitting	1	job	$10,000.00	$ 10,000.00			10,000.00	$ 10,000.00
Oversight				$ -				$ -
Labor	INCLUDED IN MATERIAL & EQUIPMENT ESTIMATES							$ -
			Sub-Total	$ 183,600.00	$ -	$ 160,000.00	$ 23,600.00	$ 183,600.00
Travel								
Mileage				$ -				$ -
Per diem				$ -				$ -
			Sub-Total	$ -	$ -	$ -	$ -	$ -
Construction Materials* **								
Type 1 stabilization (rootwad revetments)	1136	linear foot	$133.00	$ 151,088.00	10,000.00		141,088.00	$ 151,088.00
Type 2 stabilization (brushy toe)	930	linear foot	$96.00	$ 89,280.00	10,000.00		79,280.00	$ 89,280.00
Type 3 stabilization (willow lift)	924	linear foot	$164.00	$ 151,536.00	10,000.00		141,536.00	$ 151,536.00
Type 4 stabilization (rock & fabric)	126	linear foot	$89.00	$ 11,214.00	10,000.00		1,214.00	$ 11,214.00
Riffle protection	1618	linear foot	$10.00	$ 16,180.00			16,180.00	$ 16,180.00
Breed Creek Channel Protection/modification (includes labor, rocks, willows, materials, & excavation)	1	ea	$15,727.00	$ 15,727.00			15,727.00	$ 15,727.00
Channel Plugs	393	cy	$95.00	$ 37,335.00	10,000.00		27,335.00	$ 37,335.00
Channel Chutes	453	cy	$95.00	$ 43,035.00	10,000.00		33,035.00	$ 43,035.00
Geotextile for chutes	824	sy	$3.25	$ 2,678.00			2,678.00	$ 2,678.00
Cobble Patches	491	cy	$75.00	$ 36,825.00	10,000.00		26,825.00	$ 36,825.00
Cross Vane Materials	222	tons	$110.00	$ 24,420.00			24,420.00	$ 24,420.00
Cross Vane Installation	2	ea	$3,600.00	$ 7,200.00			7,200.00	$ 7,200.00
Rebar	1	ea	$800.00	$ 800.00			800.00	$ 800.00
			Sub-Total	$ 587,318.00	$ 70,000.00	$ -	$ 517,318.00	$ 587,318.00
Equipment								
Scraper (salvage & spread topsoil	16134	cy	$6.25	$ 100,837.50	20,000.00		80,837.50	$ 100,837.50
Scraper (excavation)	60587	cy	$2.50	$ 151,467.50	20,000.00		131,467.50	$ 151,467.50
Excavator (new channel)	7874	cy	$3.00	$ 23,622.00			23,622.00	$ 23,622.00
Excavator (new channel below water table)	7874	cy	$4.50	$ 35,433.00	20,000.00		15,433.00	$ 35,433.00
Excavator (fill old channel)	9075	cy	$3.60	$ 32,670.00			32,670.00	$ 32,670.00
Sidedumps (haul excess material offsite)	57736	cy	$7.03	$ 405,884.08	20,000.00		177,891.76	$ 197,891.76
			Sub-Total	$ 749,914.08	$ 80,000.00	$ -	$ 461,921.76	$ 541,921.76

Big Spring Creek Machler restoration

Mobilization									
Mobilization/Overhead	3	%	$1,367,608.00	$ 41,028.24			41,028.24	$	41,028.24
Relocate Fiber-optic line	1	job	$59,350.00	$ 59,350.00			59,350.00	$	59,350.00
Re-vegetation	1	job	$50,000.00	$ 50,000.00		7,250.00		$	7,250.00
				$ -				$	-
			Sub-Total	$ 150,378.24	$ -	$ 7,250.00	$ 100,378.24	$	107,628.24
			TOTALS	$ 1,671,210.32	$ 150,000.00	$ 167,250.00	$ 1,103,218.00	$	1,420,468.00

*Units = feet, hours, inches, lump sum, etc.

**Can include in-kind materials. Justification for in-kind labor (e.g. hourly rates used for calculations). Describe here or in text.

***The Future Fisheries Review Panel recommends a maximum fencing cost of $1.50 per foot

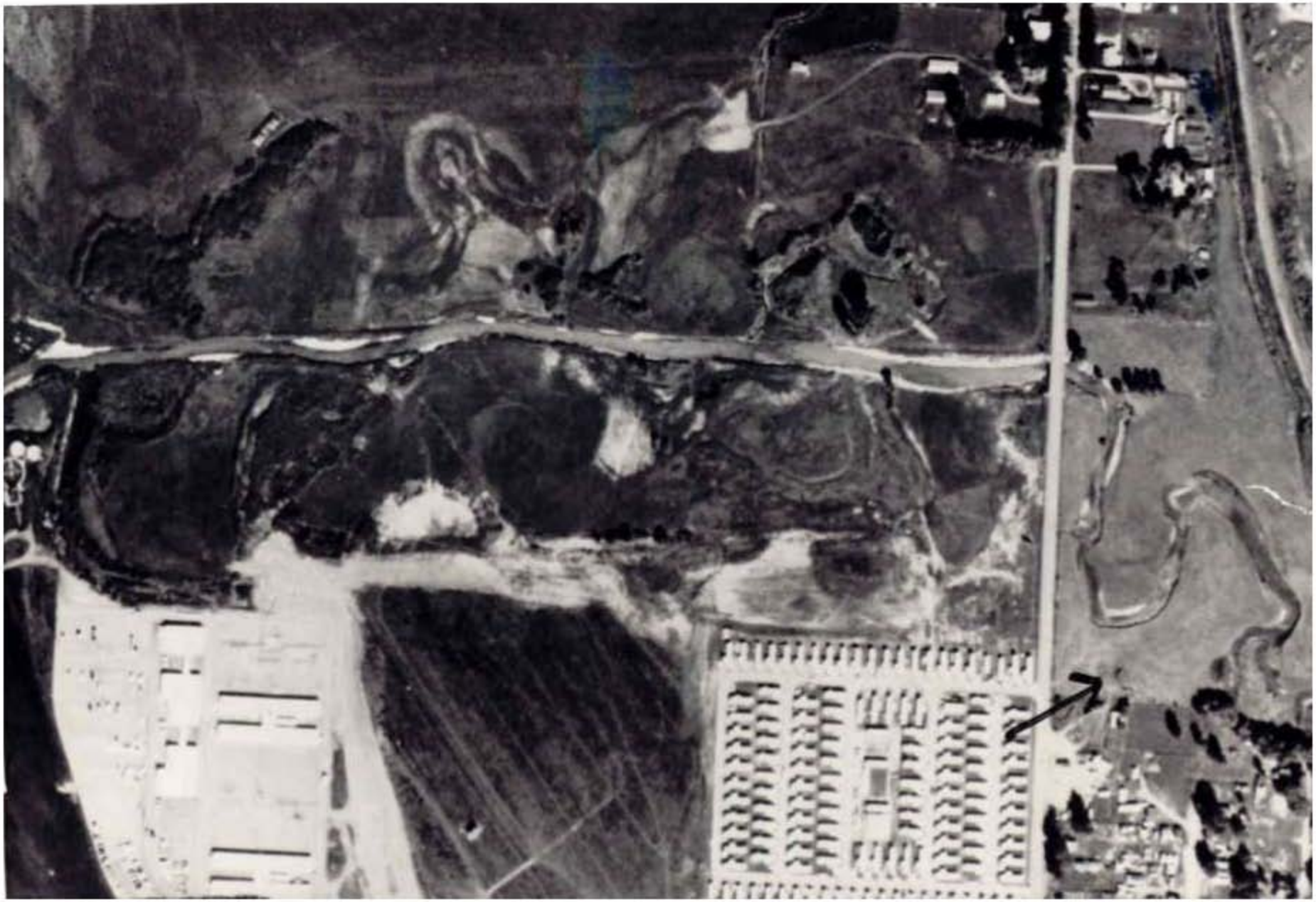
MATCHING CONTRIBUTIONS (do not include requested funds)

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL	Verified? (Y/N)
DNRC RRGL	$ -	$ 100,000.00	$ 100,000.00	Yes
NRCS EQIP 1	$ -	$ 96,768.00	$ 96,768.00	Yes
NRCS EQIP 2	$ -	$ 284,841.00	$ 284,841.00	Yes
Trout Unlimited Local Fundraising	$ 7,250.00	$ 21,536.00	$ 28,786.00	Yes
Trout Unlimited - Embrace a Stream	$ -	$ 4,000.00	$ 4,000.00	Yes
Montana FWP - Future Fisheries (2010)	$ -	$ 50,000.00	$ 50,000.00	Yes
Montana FWP - Future Fisheries (2011)	$ -	$ 105,000.00	$ 105,000.00	Yes
Montana FWP - Additional Commitments	$ -	$ 441,073.00	$ 441,073.00	Yes
NRCS - In-kind	$ 160,000.00	$ -	$ 160,000.00	Yes
	$ -	$ -	$ -	
TOTALS	$ 167,250.00	$ 1,103,218.00	$ 1,270,468.00	

a)

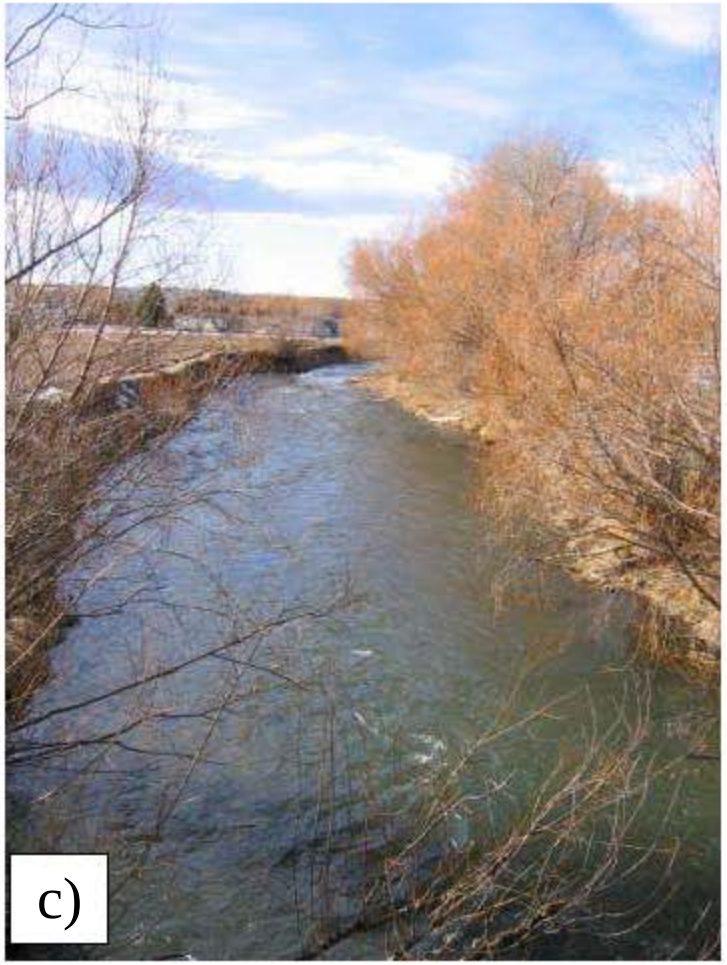
b)

c)



d)

Images of Big Spring Creek reach of interest pre-straightening a)1938 and b) 1953; post-straightening c)1961; and today d)2014.



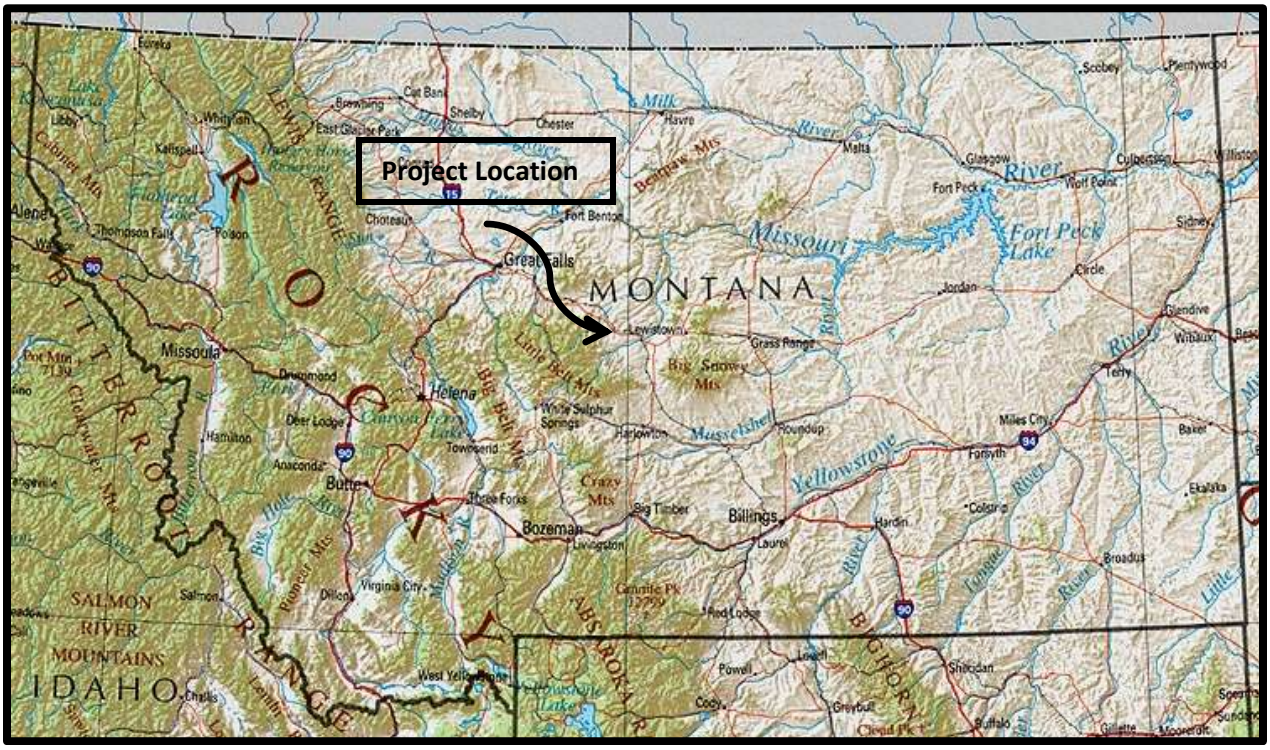
Images from highway bridge looking downstream in a) 1961, b) 1970, and c) 2011.

Aerial image of Big Spring Creek shortly after the straightening occurred.

Current images of the creek throughout the straightened section. Note the use of concrete rip-rap, lack of floodplain access, and minimal channel complexity.

BIG SPRING CREEK - MACHLER RESTORATION PROJECT

SAMPLING AND ANALYSIS PLAN



Prepared by:
Ted Hawn

Prepared for:
Montana Department of Environmental Quality
P O Box 200901
Helena, Montana 59602
DEQ Contract No. 211069
and
Fergus Conservation District
211 Mckinley St.
Lewistown, Montana 59457
Lewistown, Montana 59457

_____ _____
Fergus Conservation District Date

_____ _____
Montana Department of Fish, Wildlife and Parks Date

_____ _____
Montana Department of Environmental Quality – QA/QC Officer Date

_____ _____
Montana Department of Environmental Quality – 319 Project Manager Date

1.0 INTRODUCTION AND BACKGROUND

Big Spring Creek is located in Central Montana and originates from one of the largest springs in Montana (120 CFS). Big Spring Creek meanders for 31 miles thru a valley, flowing thru Lewistown and eventually to the confluence with the Judith River (HUC 10040103050). In 1961, part of Big Spring Creek was straightened to make room for a trailer court (see Figure 1). The channelization lead to catastrophic changes to Big Spring Creek, reducing the channel length by 3800 ft. Downcutting formed a deeply entrenched channel, causing stream instability and a loss of aquatic and riparian habitat upstream and downstream. Lewistown residents were outraged, and worked with legislators to enact the Montana Streambed and Land Preservation Act, known as the 310 Law, which prevents these types of activities today. Over 50 years later, streambank erosion and sediment deposition continue to be a problem. Recent flood events on Big Spring Creek have led to several channel changes downstream of the channelized stream reach, on the Montana Department of Fish, Wildlife and Parks (FWP) Carroll Trail fishing access site.

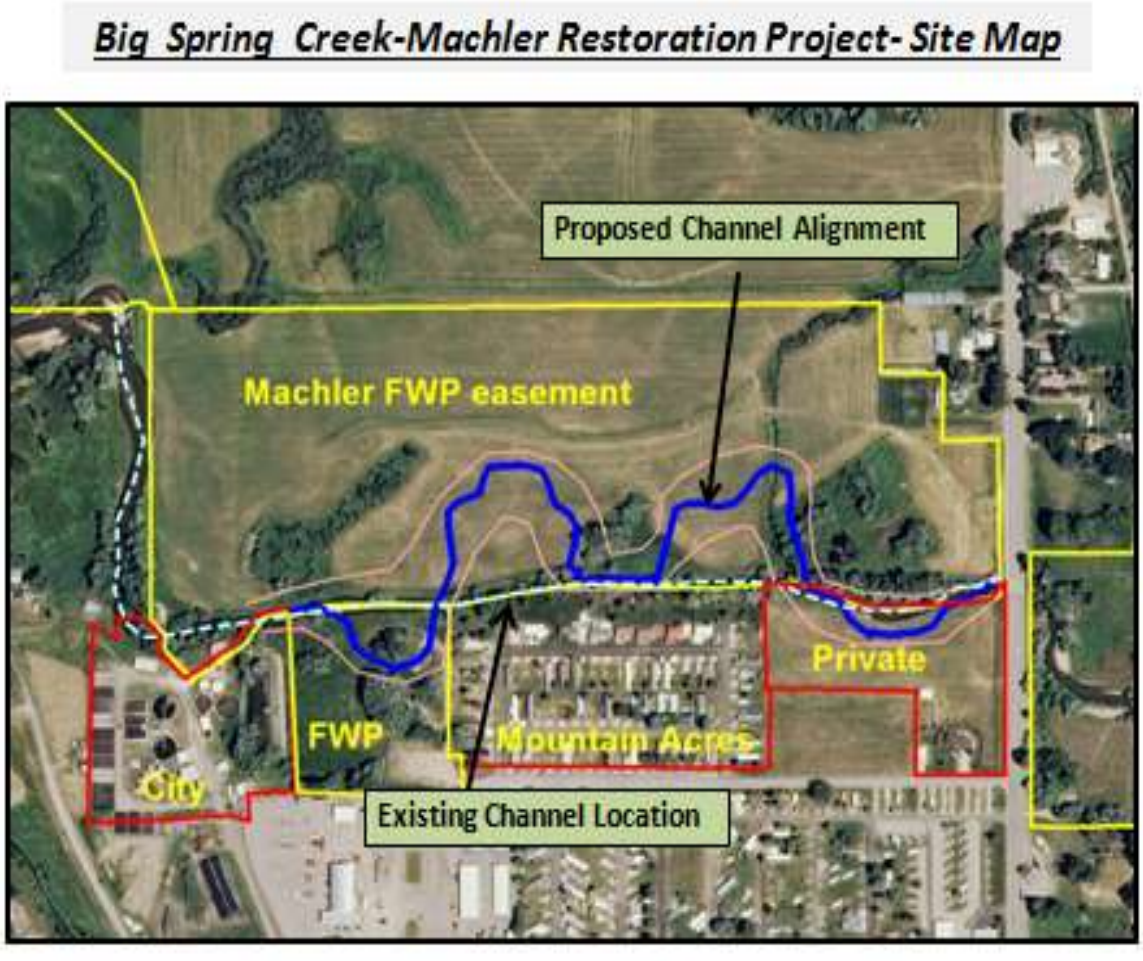


Figure 1 – Machler Project Area (just north of Lewistown, T15N, R18E SW ¼ Section 10)

Recently, a coalition of private citizens, landowners, nonprofit organizations, and government agencies have come together with a plan to restore the straightened stream reach to a rough approximation of its original grandeur (see Figure 2). The "Machler Restoration Project" is being designed by the Natural Resources Conservation Service. The landowners involved include Mark Machler and Steve Adams. FWP has a conservation easement on the Machler property which restricts future development and allows for public recreational access. Funding for the Machler Project will come from numerous private and public entities. The Machler Project will be designed to accomplish the following objectives:

- Increase channel length and reduce stream bank erosion
- Reduce sedimentation and improve water quality
- Restore channel to a natural riffle-pool pattern with functional floodplain
- Enhance stream channel form, function and in-stream habitat
- Improve and restore riparian vegetation
- Improve aquatic habitat and fisheries

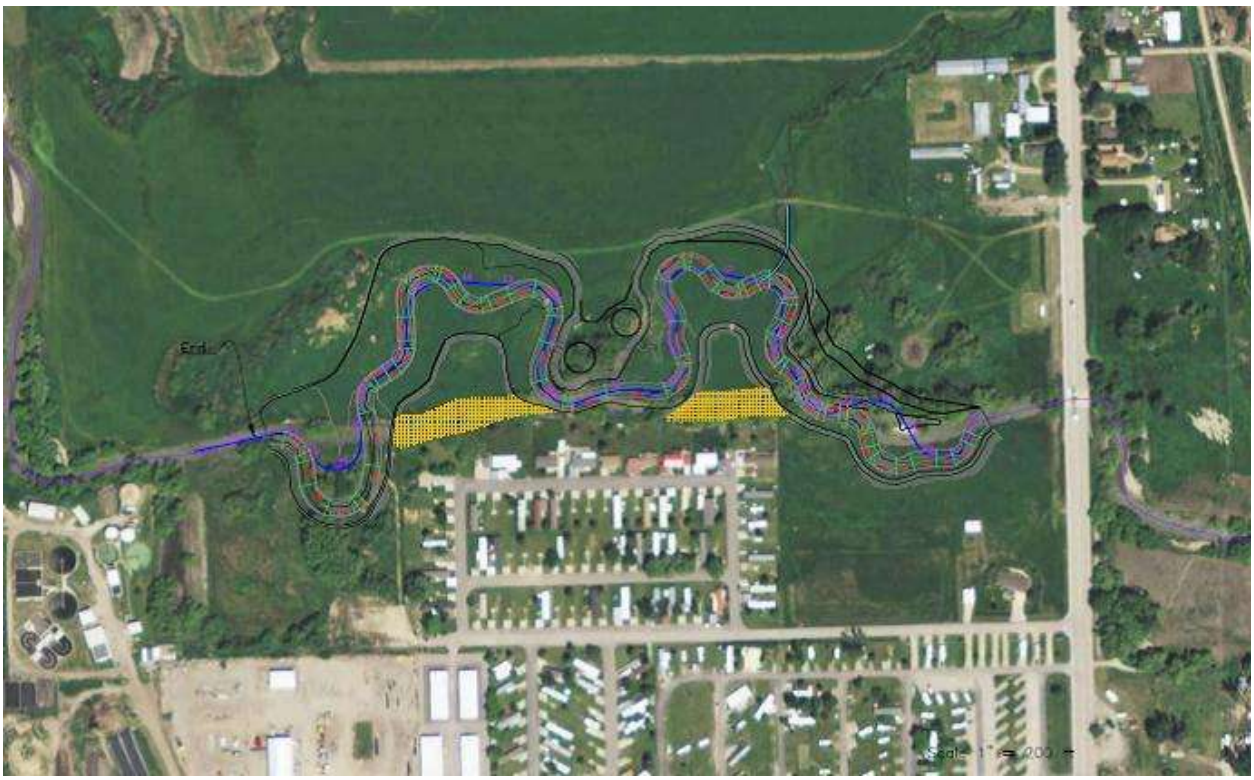


Figure 2 – Draft Conceptual Design (NRCS)

2.0 SAMPLING OBJECTIVES AND DESIGN

The objective of this Sampling and Analysis Plan (SAP) is to guide the collection of pre- and post-restoration data to document the effects of the Machler Project on:

- Fisheries
- Sediment input from a selected eroding streambank (Adams parcel – site 1)
- The stream channel, floodplain, and associated riparian vegetation

2.1 PARAMETERS

Monitoring on the Big Spring Creek-Machler Restoration Project will consist of collection of the following data:

- Photos
- Fisheries data (species, weight, length, population density)
- Measurements necessary to estimate the annual rate of sediment loss from the eroding streambank on the Adams parcel.

2.2 STUDY DESIGN - PHOTOS

Photos will be taken to document pre-construction and post-construction site conditions. Exact photo locations will be chosen in the field and documented using GPS. Upstream and downstream photos will be collected from the same location both pre- and post-construction in order to provide direct comparability. The Machler Project will make profound changes to the landscape, making most direct comparisons impossible. Additional photo locations will be chosen in the field, using best professional judgment to adjust for representativeness and the photo subjects below to ensure completeness of coverage. To illustrate the overall project area Panoramic or wide scale view photos will also be taken.

2.2.1 Pre-Construction

At least 15 photos will be taken throughout the project area to document pre-construction site conditions. Exact photo locations will be chosen in the field and documented using GPS. Photo subjects must include the following:

- Down-stream view from the upstream end of the project area
- Upstream view from the down-stream end of the project area
- The eroding bank on the Adams parcel
- Existing riparian vegetation
- The entire, old, abandoned floodplain
- Streambank conditions and any evidence of past attempts to prevent streambank erosion
- The confluence of Breed Creek and Big Spring Creek

2.2.2 Post-Construction

At least 40 photos will be taken throughout the project area to document post-construction site conditions. Exact photo locations will be chosen in the field and documented using GPS. Photo subjects must include the following:

- Down-stream view from the upstream end of the project area (same location as the pre-construction photo)
- Upstream view from the down-stream end of the project area (same location as the pre-construction photo)
- Riparian vegetation
- The entire, new floodplain (this will be broken up into multiple photographs)
- The new confluence of Breed Creek and Big Spring Creek
- All streambank structures, drop structures, grade-control structures, channel plugs, and other engineered or bio-engineered structures.
- All pools and riffles, inside bends, and outside bends

2.3 Study Design – Fisheries Surveys

Electro-fishing is a standard fish sampling method that has been used on Big Spring Creek for decades. Pre-construction trout population estimates were completed from 2009-2012 on the straightened reach of Big Spring Creek immediately downstream of Highway 191. This reach includes the entire area where the stream restoration project is proposed plus an additional 1560 ft. downstream. The additional length was included so the section would be of sufficient length for adequate trout population estimates and because a second phase of this project may be considered in the future. A long term monitoring section is immediately downstream with over three decades of trout population data. Two additional long-term monitoring sections are located upstream of Lewistown.

2.4 Study Design – Sediment Load Reduction Estimate

After decades of channel down-cutting (incisement), a few attempts at bank armoring, and some most willow growth, the streambanks in the downstream half of the project area relatively stable. In the upstream half, Big Spring Creek has begun to move laterally to try and carve out a new floodplain. This movement has led to significant streambank erosion on the Adams property, just downstream of the Highway 191 bridge. Erosion on the Adams property (see Figure 3) represents the vast majority of sediment pollution occurring within the project area. The lateral erosion rate is severe enough to be easily recognized on aerial photos taken every 2 years by the USDA's National Agricultural Imagery Program. Aerial photos and GIS software will be used to estimate the annual, lateral erosion rate on the Adams property, and the length of the eroding streambank. An on-site, ocular estimate will be made of the height of the eroding bank. Post-construction sediment loss from the Adams parcel will be negligible.

Figure 3 – Eroding Bank on Adams Property

3.0 FIELD SAMPLING METHODS

During each site visit, a Montana Department of Environmental Quality (DEQ) Site Visit Form will be completed to document the field activities. The form can be found on page 47 of the DEQ Quality Assurance Project Plan for sampling and water quality assessment.

3.1 PHOTO DOCUMENTATION METHOD

Monitoring will be conducted once prior to construction in May/June 2014 and again in 2015, after construction is completed during the fall of 2014 or 2015. Panoramic or wide scale view photos will be taken to illustrate the overall project area. For each photo, the following information will be recorded on a field form:

- A unique location name and photo number
- Latitude and longitude – obtained from a handheld GPS unit; recorded using NAD83 datum; reported in decimal degrees to four places after the decimal point
- Direction of view
- Date and time of photograph
- Weather
- Photographer's name and comments

3.2 FISHERIES SURVEY METHODS

Electro-fishing is a standard fish sampling method that has been used on Big Spring Creek for decades. Pre-construction trout population estimates were completed from 2009-2012 on the straightened reach of Big Spring Creek immediately downstream of Highway 191. This reach includes the entire area where the stream restoration project is proposed plus an additional 1560 ft. downstream. The additional length was included so the section would be of sufficient length for adequate trout population estimates and because a second phase of this project may be considered in the future. A long term monitoring section is immediately downstream with over three decades of trout population data. Two additional long-term monitoring sections are located upstream of Lewistown. After the new stream is established, trout population estimates will be conducted in August/September. Post-construction estimates will start within 2 years of project completion. Montana FWP anticipates annual or biennial estimates will be conducted for several years after project completion. Methods and analysis will be similar to that undertaken for the restoration project of the Brewery Flats area of Big Spring Creek. Mark-recapture estimates will follow protocol for stream electro-fishing. Trout will be marked with mobile electro-fishing during 1-2 sampling days. Recapture runs with similar effort will be completed 1-2 weeks after marking runs. Captured rainbow and brown trout at least 6.0 inches long will be measured. Data will be analyzed with the Peterson Method or partial log-likelihood statistics. Pre and post construction estimates will be compared on the study reach and compared with estimates on at least one long-term monitoring section.

3.3 SEDIMENT LOAD REDUCTION ESTIMATION METHOD

Pre-construction, annual sediment/soil loss will be estimated for the eroding streambank on the Adams parcel (see Figure 3 for location). The height of the eroding bank will be visually estimated. Aerial photos from prior years (2005 and 2013) will be acquired from Google Earth, and measurements will be made using AutoCad to estimate the total volume (cubic feet) of sediment/soil lost from the eroding

streambank during the 8 years between capture dates for the two aerial photos. The annual sediment/soil loss rate, in tons/year will be estimated using the following calculation:

{[(total cu.ft of soil lost) x (140 lbs per cu ft)] / (8 years)} / (2000 lbs per ton) = Sediment Load tons/yr

4.0 LABORATORY SAMPLE HANDLING PROCEDURES

No samples will be taken for laboratory analysis.

5.0 ANALYTICAL METHODS

There will be no laboratory or field analysis of water chemistry. Digital photos will be saved in JPEG format. Field forms will be scanned and saved in PDF format. Fisheries survey data will be analyzed with the Peterson Method or partial log-likelihood statistics.

6.0 PROJECT QUALITY CONTROL REQUIREMENTS

Quality assurance and quality control (QA/QC) considerations for the Machler Project SAP include representativeness, completeness, and comparability.

6.1 REPRESENTATIVENESS

The following measures will be taken to ensure that the data collected is representative of the overall site conditions:

- There will be no "sampling" of representative photo subjects, as the entire new floodplain and all constructed channel features will be photographed
- Fisheries surveys will be completed by electrofishing the entire stream length within the project area

6.2 COMPLETENESS

The following measures will be taken to ensure that the data collected is complete:

- Required photo subjects and the minimum number(s) of photos necessary for completeness are specified in Section 2.2; if the required subjects and number of photos are not acquired during one site visit, a second site visit will be conducted and more photos will be taken
- The use of field forms will help ensure consistent collection of all necessary field data
- Fisheries surveys will be completed by electrofishing the entire stream length within the project area, using a consistent level of effort for fish capture-recapture; post-construction trout population data may be considered complete if it is obtained in either the first or the second year after project construction

6.3 COMPARABILITY

The following measures will be taken to ensure comparability between pre- and post-construction data:

- Latitude and longitude of all photopoints will be determined in the field, using a hand-held GPS device. Direction of view will also be recorded in the field.
- Pre- and post-construction fisheries surveys will both be completed using the same field methods.

6.4 DATA REVIEW

Photo documentation and sediment load reduction calculations will be submitted to the DEQ Project Manager for review and concurrence. Fisheries survey data will be reviewed by the FWP Project Manager.

7.0 DATA ANALYSIS, RECORD KEEPING, AND REPORTING REQUIREMENTS

7.1 DATA VERIFICATION AND VALIDATION

Photo Documentation

Pre-construction photos and field data will be submitted to the DEQ Project Manager prior to construction, with enough lead time to allow for additional photography if necessary. The DEQ Project Manager will review the photos and field data within 30 days of receipt, and contact the Fergus Conservation District (Fergus CD) Administrator, via email, with either an approval of the submitted data or a description of deficiencies that must be corrected. The Fergus CD Administrator will be responsible for ensuring that all deficiencies are corrected prior to the start of construction.

Post-construction photos and field data will be submitted to the DEQ Project Manager at least 45 days prior to the close of the Machler Project 319 contract (211069). The DEQ Project Manager will review the photos and field data within 30 days of receipt, and contact the Fergus CD Administrator, via email, with either an approval of the submitted data or a description of the deficiencies that must be corrected. The Fergus CD Administrator will be responsible for ensuring that all deficiencies are corrected prior to the close of the Machler Project 319 contract.

Fisheries Surveys

Pre-construction fisheries survey data will be submitted to Clint Smith, FWP Project Manager for review and approval prior to the start of construction. Deficiencies will be corrected (if possible) prior to the start of construction. If deficiencies cannot be corrected in time for construction, FWP may elect to rely on fisheries data collected within the previous 5 years, provided that the same methods are used to collect post-construction data.

Sediment Load Reduction Estimation

The DEQ Project Manager will compare the reported bank height estimate against pre-construction, downstream-facing photo documentation.

7.2 Record Keeping, Data Management and Reporting

Original field forms from the photo documentation activities will be maintained by Fergus CD. Original field forms from fisheries surveys will be maintained by the FWP Project Manager. Copies of all field forms from the photo documentation activities and the fisheries surveys will be submitted to the DEQ Project Manager and the FWP Project Manager in electronic format (PDF).

Electronic copies of all photos will be maintained by Fergus CD, and given file names that will allow them to be easily correlated with the meta-data collected on the field forms. Electronic copies of all photos (JPEG file format) will be submitted to the FWP and DEQ Project Managers.

Fisheries survey data will be stored in the FWP – Fisheries Information System database. Fisheries survey data will also be entered into United States Environmental Protection Agency's STORET database, through the MTeWQX data portal. Instructions for adding data to MTeWQX may be obtained at the following DEQ website http://deq.mt.gov/wqinfo/datamgmt/MTEWQX.mcpx, or by contacting DEQ's Water Quality Database Manager, Jolene McQuillan, at 406-444-5304 or jmcquillan@mt.gov

Sediment load reduction estimation data will be maintained by Fergus CD, and reported to the DEQ Project Manager.

7.3 Project Summary Report

The Fergus CD will prepare a project summary report. Draft, electronic copies of the report will be sent to the FWP and DEQ Project Managers for review and comment. Final, electronic copies of the report will be submitted to FWP, DEQ, NRCS, and participating landowners. Electronic copies of the report will be made available to other project participants, stakeholders and interested individuals upon request. The report will include the following:

- A summary of project history and activities
- A description of problems encountered, and a description of how they were resolved
- An evaluation of the overall success or failure of the Machler Restoration Project in restoring natural stream and riparian functions
- Recommendations for future monitoring activities that could be conducted to further evaluate the success of the Machler Restoration Project.
- Copies of all field forms, photos, fisheries survey data, and sediment load reduction calculations
- Acknowledgement of all of the participants in the Machler Restoration Project (landowners, agencies, contractors, financial contributors, consultants, local government officials, etc.)

8.0 Schedule

Task	**Completion Date**
Pre-restoration monitoring	Spring/Summer 2014
Project Construction	2014-2015
Post-restoration monitoring	Summer/Fall 2015
Final monitoring report	December 2015

9.0 PROJECT TEAM AND RESPONSIBILITIES

Name	Title	Role
Ted Hawn	Natural Resource Consultant	Field Data Collection, Data Analysis, Monitoring Report
Clint Smith	Fisheries Biologist, FWP Project Manager	Aquatic-Fisheries Population Surveys, Fisheries Survey EDD
Shonny Nordlund	Fergus CD Administrator	Contract Administration, Sub-Contract Oversight
Mark Ockey	DEQ, 319 Project Manager	Data Review, Contract Oversight

10.0 REFERENCES

Harrelson, C.C., C.L. Rawlins and J.P. Potyondy, 1994 Stream Channel Reference Sites: An Illustrated Guide to Field Technique, USDA Forest Service Rocky Mountain Research Station General Technical Report RM-245. April, 1994.

MDEQ, 2005, Big Spring Creek Watershed Water Quality Restoration Plan and Total Maximum Daily Loads, March, 2005.

Montana Department of Environmental Quality, 2012 *Web site for Water quality Monitoring Standard Operating Procedures http://www.deq.mt.gov/wqinfo/qaprogram/sops/mcl*

MDEQ, 2005a Water Quality Planning Bureau Field Procedures Manual for Water Quality Assessment Monitoring Version 3.2. WQPBWQM-020, February 2012.

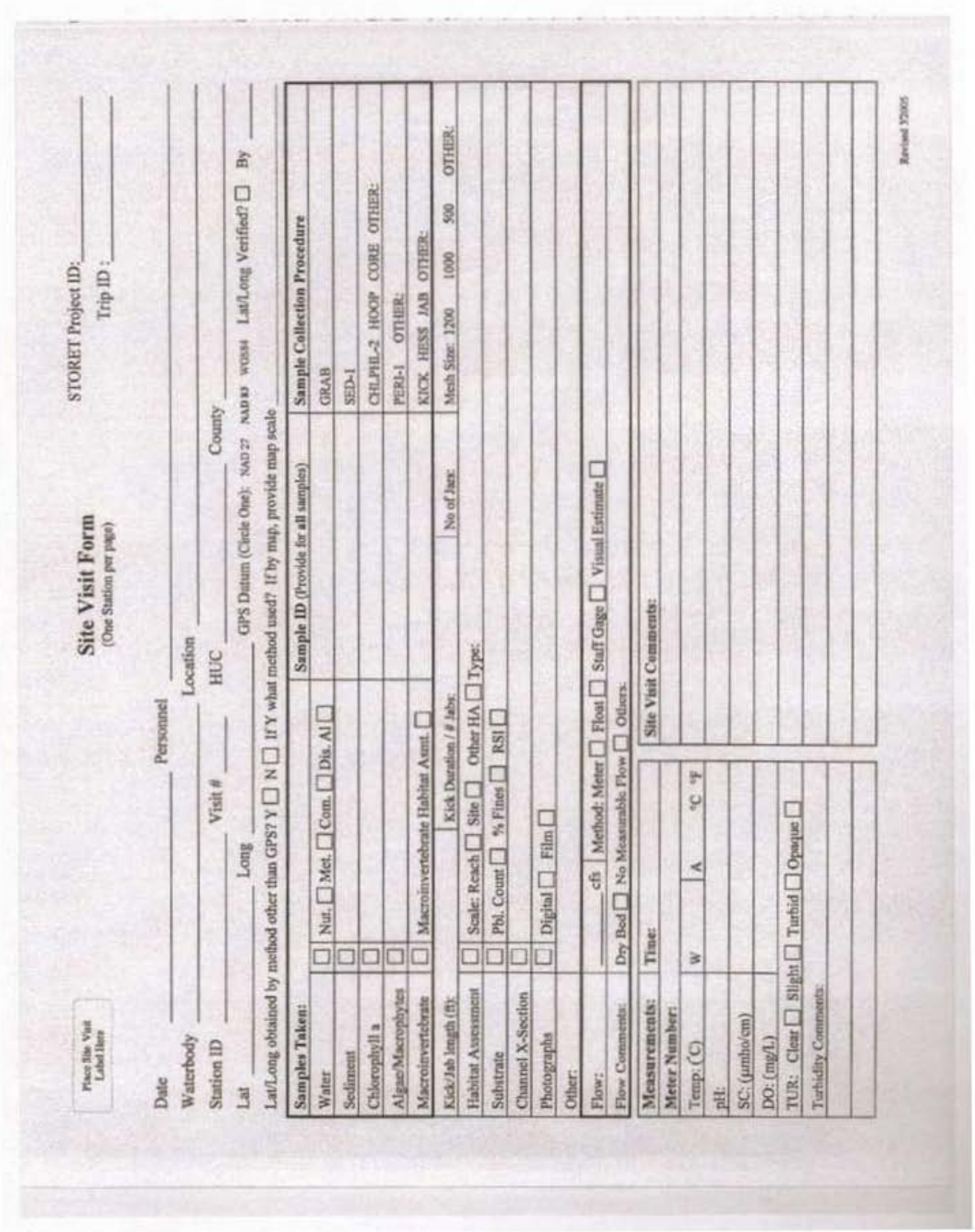
MDEQ 2005b. Quality Assurance Project Plan (QAPP): Sampling and Water Quality Assessment of Streams and Rivers in Montana, 2005 (Revision 03) WQPBQAP-02, May 31, 2005.

Rosgen, David L, A Practical Method of Computing Streambank Erosion Rate, Wildland Hydrology Inc. Pagosa Springs, Colorado. 2002.

Tews, A. E. 2007. Changes in wild rainbow trout and brown trout populations after a stream restoration project on Big Spring Creek, MT. Pages 103 – 109 in Carline and LaSapio. Sustaining wild trout in a changing world; proceedings of Wild Trout IX Symposia; 2007 October 9 -12; West Yellowstone, MT.

ATTACHMENTS

Attachment A - Site Visit Form



Site Visit Form
(One Station per page)

STORET Project ID: _____
Trip ID : _____

Place Site Visit Label Here

Date _____ Personnel _____
Waterbody _____ Location _____
Station ID _____ Visit # _____ HUC _____ County _____
Lat _____ Long _____ GPS Datum (Circle One): NAD 27 NAD 83 WGS84 Lat/Long Verified? ☐ By _____
Lat/Long obtained by method other than GPS? Y ☐ N ☐ If Y what method used? If by map, provide map scale _____

Samples Taken:			Sample ID (Provide for all samples)	Sample Collection Procedure
Water	☐	Nut. ☐ Met. ☐ Com. ☐ Dis. Al ☐		GRAB
Sediment	☐			SED-1
Chlorophyll a	☐			CHLPHL-2 HOOP CORE OTHER:
Algae/Macrophytes	☐			PERI-1 OTHER:
Macroinvertebrate	☐	Macroinvertebrate Habitat Asmt. ☐		KICK HESS JAB OTHER:
Kick/Jab length (ft):		Kick Duration / # Jabs:	No of Jars:	Mesh Size: 1200 1000 500 OTHER:
Habitat Assessment	☐	Scale: Reach ☐ Site ☐ Other HA ☐ Type:		
Substrate	☐	Pbl. Count ☐ % Fines ☐ RSI ☐		
Channel X-Section	☐			
Photographs	☐	Digital ☐ Film ☐		
Other:				
Flow:		_____ cfs Method: Meter ☐ Float ☐ Staff Gage ☐ Visual Estimate ☐		
Flow Comments:		Dry Bed ☐ No Measurable Flow ☐ Others:		

Measurements:	Time:	Site Visit Comments:
Meter Number:		
Temp: (C)	W A °C °F	
pH:		
SC: (µmho/cm)		
DO: (mg/L)		
TUR: Clear ☐ Slight ☐ Turbid ☐ Opaque ☐		
Turbidity Comments:		

Revised 3/2005

Big Spring Creek Channel Restoration project at Machler

Date 14 Sept 2014

Commenter Tom Wojtowicz

Phone or email jtwojt48@gmail.com

Comment:

Lazy Line Canary - Thanks
please do this.
Thomas Wojtowicz

Big Spring Creek Channel Restoration project at Machler

Date 9/24/14

Commenter Richl Johnson

Phone or email Johnson.Richl50@yahoo.com

Comment:

Great Presentation & Project

and

Big Spring Creek Watershed Council

October 10, 2014

Montana Fish, Wildlife & Parks
Attn: Big Spring Creek Restoration Project
215 W. Aztec Drive
P.O. Box 938
Lewistown, MT 59457

Dear Sir/Madam:

The Snowy Mountain Chapter of Trout Unlimited (Snowy Mountain TU) and Big Spring Creek Watershed Council appreciate the opportunity to review and provide comments on the Draft Environmental Assessment for the Big Spring Creek Channel Restoration Project. We are familiar with this property and project and support the proposed action.

We support the proposed action to restore this property because:

- This project would restore natural form and function to a degraded portion of Big Spring Creek and expand an important wild trout fishery by improving this habitat.

- It would create a connected floodplain, improve channel stability, and provide a functioning riparian area.

- Riparian vegetation and wildlife would also benefit from an improved floodplain.

- Improving riparian conditions would reduce stream bank erosion and increase the floodplain sediment filtering capabilities, thereby improving water quality.

- This proposal would reduce erosion, land loss, and channel down-cutting both upstream and downstream from this project.

-It will also benefit the Lewistown community as a whole by adding another attractive fishing access site and by beautifying an area visible from one of the primary accesses to Lewistown and seen by thousands of visitors to the Fairgrounds each year.

Completion of this project has long been a primary focus of Snowy Mountain TU and we have committed to make a financial contribution to it. To date, we have raised in excess of $25,000 for that purpose.

In conclusion, both Snowy Mountain TU and the Big spring Creek Watershed Council hope you will approve the proposed action described in this Environmental Assessment and carry the project to completion.

Sincerely,

Mike Chapman

Mike Chapman, President
Snowy Mountain Chapter of Trout Unlimited

Don Pfau

Don Pfau, President
Big Spring Creek Watershed Council

Dear Clint,

I appreciate the opportunity to review and provide comments on the Draft Environmental Assessment Big Spring Creek Channel Restoration Project and for your recent and excellent public meeting on this issue. I am familiar with this property and project and very much support the proposed action.

Below are the reasons I support the proposed action to acquire this property ?

- This project would restore natural form and function to a degraded portion of Big Spring Creek and expand an important wild trout fishery by improving this habitat.

- It would create a connected floodplain, improve channel stability, and provide a functioning riparian area.

- Riparian vegetation and wildlife would also benefit from an improved floodplain.

- Improving riparian conditions would reduce stream bank erosion and increase the floodplain sediment filtering capabilities, thereby improving water quality.

- This project would reduce erosion, land loss, and channel down cutting both upstream and downstream from this project.

In conclusion, I sincerely hope that FWP will approve the proposed action of this EA to conduct this project.

Sincerely,

Mike Getman

This partial remediation of man caused stream damage is cause for celebration locally and will become more appreciated in the future. The stream channel for at least six miles downstream is deeper with much greater velocity than when I moved here 29 years ago, and is remembered by older residents as being much slower than I have seen. I am convinced that over time a "domino" effect of bedload and velocity has created damage gradually extending further and further downstream. A great deal of damage is now permanent and the character of a once slow meandering spring creek has been forever changed. However, this restoration, along with Brewery Flats, should stop the deterioration of the stream, begin healing, and demonstrate an absolutely admirable effort by FWP to care for a great natural and recreational resourse

---

Bravo Snowy Mountain chapter of T. U., FWP, citizens of Lewistown and Fergus Co., Mark Mackler, fund raisers, etc. It looks as though it will finally happen .... re-meandering of a 50+ year boondoggle. Less flooding, less stream velocity & erosion more wildlife, MORE FISH!
I am definitely in favor of this project.

Finally a reasonable solution to a fifty year issue. The importance in stream hydrology of re-introducing the meanders in the flood plain and improving the stream length in same 2000 foot area to over 3000 feet will decrease downstream flooding, improve aquatic habitats, and help to normalize riparian areas, and also help to normalize the immediate ecosystem and beyond. It will improve fishing. It will decrease stream velocity, especially with annual flooding.
I am very much in favor of this plan. There is no ecological downside (other than during construction time which will be mitigated by returning the stream to a normally functioning ecosystem.)

Dear Fish Wildlife & Parks,
Wow, what a great plan to turn back the clock, and restore such a great stream. Good job.
Bert Otis
PO Box 60
Emigrant, MT 59027

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
Federal Building, Room 443
10 East Babcock
Bozeman, MT 59715

Office: (406) 587-6811
Fax: (406) 587-6761

April 9, 2010

Mrs. Anne Tews
Fisheries Biologist
215 W Aztec Drive
PO Box 938
Lewistown, MT 59457

Mrs. Tews:

Thank you for your restoration efforts on Big Spring Creek, north of Lewistown, on the Machler Fish, Wildlife & Parks Conservation and Access Easement. I would like to express the support of the Natural Resources Conservation Service (NRCS) for this project. Re-meandering this stream to near original conditions will improve in-stream habitat, riparian habitat, and associated wet and habitats.

It has recently come to my attention that Mr. Machler has applied for technical and financial assistance through the NRCS Wetland Reserve Program (WRP), and this interest may expand to both upstream and downstream neighboring properties. A site visit will be completed on May 21, 2010, to determine program eligibility and begin developing planning alternatives to complete this restoration. I look forward to potentially partnering on this unique and valuable opportunity.

Again, thank you for all that you do. We certainly applaud your efforts and hope that several technical and financial sources are able to contribute to this project.

Sincerely,

JOYCE SWARTZENDRUBER
State Conservationist

cc:
Carrie Mosley, Assistant State Conservationist for Programs, NRCS, Bozeman, MT
Phyllis Philipps, Assistant State Conservationist for Field Operations, NRCS, Great Falls, MT
Lorna Philp, District Conservationist, NRCS, Lewistown, MT

April 14, 2010

Ms. Anne Tews, Fisheries Biologist
Mt. Fish Wildlife and Parks
PO Box 938
Lewistown, Mt. 59457

Dear Ms. Tews:

As you know the local Snowy Mountain Chapter of Trout Unlimited, the nations leading coldwater conservation organization, has been working with your office for the past year and a half in support of the Big Spring Creek Machler Restoration project. Members of the chapter have met with you one-on-one, have attended community-scooping meetings, and have provided inputs and suggestions for this major project both in writing and in person. In addition the chapter has voted to assign this project as our highest work priority for the next two to three years.

The Snowy Mountain Chapter has agreed to raise up to $100,000 in private funds, which will be used "on the ground" and as leverage for grant funds from both state and federal sources. We have also agreed that any "general" income for the chapter will be placed into the Machler Restoration Fund on a 50-50 basis. This fund currently has a balance of $2760 and outlays to date of $160. In addition chapter members have donated 127 hours in kind toward the project with an estimated value of $2032. During the actual stream restoration we expect to make major in kind donations for vegetative planting and other hand labor which will up our commitment toward the successful completion of this work.

The Chapter plans to begin our fundraising campaign in May of this year with an emphasis on obtaining donations from local citizens who are the primary users of this outstanding resource. In addition to local funds we are pursing three sources of grant funding to round out the $100,000 funding target.

I think it goes without saying that we are in full support of the Machler Restoration Project on the Big Spring Creek.

Sincerely,

R D Dunnagan

Robert D. Dunnagan, President

Mark Machler
P.O. Box 767
Lewistown, MT 59457

Shonny Nordlund
Administrator
Fergus Conservation District
211 McKinley, Suite 3
Lewistown, MT 59457

April 22, 2010

Dear Shonny:

I am 100% in favor of the proposed Big Spring Creek stream restoration project located on my property. I have worked hard on this project for 15 years. In 2007, I sold an easement for this project to Montana, Fish, Wildlife and Parks. This easement includes permission for construction of the new channel as well as public access along the new stream. The DNRC grant you are applying for is one more step toward completion of this project. I hope to see work begin soon.

Sincerely:

Mark Machler

Mark Machler

BIG SPRING CREEK WATERSHED COUNCIL Lewistown Montana

Big Spring Creek Watershed Council
102 Hillcrest Drive
Lewistown, Montana 59457

April 15, 2010

Fergus Conservation District
211 Mckinley St.
Lewistown, Montana 59457

re: RRGLP application-Machler/Spring Creek Restoration Project

The Big Spring Creek Watershed Council is sending this letter of support for the grant application for the Machler/Big Spring Creek Stream Restoration project. Our watershed council has been involved in many projects over the years to improve and restore land and water along Big Spring Creek. We realize the importance of the stream and riparian areas to the health and vitality of our natural resources. We were actively involved in the very successful Brewery Flats restoration project of Big Spring Creek and we realize the many benefits it has contributed to the citizens and visitors to the area. Recreational opportunities of fishing, floating, birdwatching, hiking, open space/green belt and healthy living all been enhanced by projects like these.

We are excited about the opportunity to participate in the Machler/Spring Creek Restoration Project. This area of Big Spring Creek was channelized years ago and had major detrimental impacts on Big Spring Creek some of which is still causing stream instability. Severe erosion occurred as a result of this channelization which affected the creek for many miles downstream. This channelization caused many citizens to react and as a result the 310 law-Streambed Preservation Act was passed to prevent these types of activities from occurring. Restoring this area of Big Spring Creek is a chance to correct past damages and provide improved fishing and other recreational opportunities for area citizens and visitors. We cannot over-emphasize the importance of the recreational opportunities that Big Spring Creek brings to the area. Fishing, floating, canoeing, swimming and other outdoor pursuits are an important contribution to the local economy. We are supportive of this project and look forward to working together to see it completed.

Sincerely,

Don Pfau, Chairman

Anne Tews
Fish Wildlife and Parks
PO Box 938
Lewistown MT 59457

April 22, 2010

Dear Anne,

We are writing in support of the grant application for the Machler / Big Spring Creek Stream Restoration project. To see this portion of the creek restored to resemble a stream again would truly be exciting for the whole community. What an opportunity this would be, the Brewery Flats area is used by people from all over Central Montana for walking, bird watching, fishing, and picnicking. To have the ability to do something like this that will be used now and by many generations to come would be a welcome addition to the Big Spring Creek.

Thank you for your efforts on behalf of the people of Central Montana.

Sincerely yours,

Charlie Pfau, Manager Don's Inc.

David Snyder, Asst. Manager Don's Inc.

Dale Pfau, President Don's Inc.

April 22, 2010

Anne Tews
Montana Fish, Wildlife and Parks
P O Box 938
Lewistown, MT 59457

Dear Anne,

On behalf of the Big Spring Creek Watershed Council I am sending this letter to support the grant application for the Machler-Big Spring Creek Stream Restoration Project. As you know a portion of the stream was deteriorated in the 1960's to accommodate a trailer park, and its restoration would enhance both the aquatic viability and aesthetic appeal of the affected area. As an avid stream fisherman, I strongly endorse this type of project that seeks to undo the negative impact of projects in the past that were often simply a result of ignorance. Thanks to the proactive efforts of your agency and others, stream rehabilitation has come a long way in recent decades.

Thanks for your leadership and advocacy.

Sincerely,

Paul J. Seastrand
(Pastor, Zion Lutheran Church)

FERGUS COUNTY PORT AUTHORITY

Generating Economic Development Opportunities in Central Montana

April 23, 2010

Fergus Conservation District
211 McKinley St.
Lewistown, MT 59457

RE: RRGLS Application – Machler/Spring Creek Restoration Project

The Fergus County Port Authority is offering this letter as support for the grant application for the Machler/Big Spring Creek Stream Restoration project.

This project offers an opportunity to correct the damage created fifty years ago, when the Big Spring Creek stream bed was re-routed to accommodate a land development effort in the area. The area in question is subject to stream instability, stream bank erosion and decreased viability for the native fish population. The Lewistown/Big Spring Creek area has long provided access to a blue ribbon recreational area.

This project would be a great tie-in with the restoration activities that took place on the upper section of Big Spring Creek, immediately south of Lewistown a few years ago. This would expand the recreational opportunities Lewistown and Central Montana offer. Many out door pursuits, including fishing, floating, canoeing, swimming and a walking trail add a positive economical contribution.

The Board is supportive of this project and look forward to seeing it completed.

Sincerely,

Bret Carpenter

Bret Carpenter, Chair
Fergus County Port Authority

500 1st Ave. N.
#203
Lewistown, MT 59457

PHONE (406) 535-7488
FAX (406) 535-2843
E-MAIL chrartin@mt.gov

LEWISTOWN ROTARY CLUB

District Number 5390 ▯ Post Office Box 433, Lewistown, MT 59457

April 26, 2010

To Whom It May Concern

The Lewistown Rotary Club fully supports the Machler Project which will restore the original stream bed to most of this channelized area.

Several Rotarians recall when this area of Big Spring Creek was channelized and the ensuing damage to the stream. Before the channelization this was one of the best fishing areas on the creek.

The damage from the increased stream velocity still occurs today almost fifty years later.

Quality of life is one of our main attractions and Big Spring Creek is a key factor. Many people have moved here because of this superb stream and the high quality of life.

The Machler project is of high importance to Big Spring Creek and the quality of life this area affords. The July 2009 issue of one the leading fly fishing magazines, *Fly Fisherman*, featured an article about Big Spring Creek written by Vern Fiole a former resident.

Thank you for your consideration of grant money for this project.

Sincerely

Karen Seyfert

Karen Seyfert
President, Lewistown Rotary Club

Lewistown Trails Coordinating Committee
City of Lewistown
Lewistown, MT

April 24, 2010

Fergus Conservation District
211 McKinley St.
Lewistown, MT 59457

Re: RRGLP application-Machler/Spring Creek Restoration Project

The Lewistown Trails Coordinating Committee (LTCC) is sending this letter of support for the grant application for the Machler/Big Spring Creek Stream Restoration Project. As I think you know, the Brewery Flats restoration provided the intial impetus for the development of what is now over 17 miles of trails in Lewistown and the County. Early on, the significance of the trail system wasn't widely appreciated, but it is increasingly seen as one of Central Montana's greatest assets.

One of the gaps in the present trail system is a link from the trail that goes to the Fairgrounds and the proposed trail that goes to the Carroll Trail fishing access and Berg lumber site. The proposed Machler Stream restoration project will provide the link to close that gap and I'm sure will turn out to be one of the most popular loops in the trail system. We are looking forward with great enthusiasm to the final design phase of the project and will work closely with the various involved agencies to bring this new addition to the trail system to fruition.

Sincerely,

Jim Chalmers, Chairman

April 26, 2016

Anne Tews
Montana Fish, Wildlife and Parks
PO Box 938
Lewistown, MT 59457

Dear Anne,

I am writing this letter in support of the Grant Application for the Machler-Big Spring Creek Restoration Project.

I cannot think of a better use of available conservation-related funding than to restore this section of creek.

On behalf of the many serious fishermen and hunters who use the Creek, I would make one request, and that is that the restoration focuses on re-channeling the creek and maintaining and improving the adjacent riparian areas and other nearby habitat. This cannot be done if the construction of walking trails and parking areas is excessive. It makes little sense to first create new miles of streambed and adjacent wildlife habitat, and at the same time remove acres and acres of habitat for trails and parking areas. Multi-use is acceptable, for certain, but unnecessarily destroying habitat is not.

Thank you for your consideration.

Sincerely,

Dave Selvi
144-15th Ave. South
Lewistown, MT 59457

Tews, Anne

From: tedhawn@midrivers.com
Sent: Thursday, April 22, 2010 2:15 PM
To: Tews, Anne
Subject: Re: stream characterization at Machler

Anne,

Our fieldwork- the NRCS Riparian Assessment on this scores this stream reach at a 47-Not Sustainable, due to the channelization, concrete ripap incised channel and impacted/degraded riparian area. 74% of the reach has degraded riparian, mostly due to the limited or narrow belt of vegetation and the species composition. Streambank erosion occurs primarily on the upper reach-on the south streambank (kay brooks old place).
We did note that the current conditions do not allow the stream/riparian area to improve and achieve potential without a major restoration project.

Let me know if you need anything else.

Ted

Hi Ted
> When you and Warren evaluated erosion on Big Spring Creek recently,
> how did the Machler section come out? It would be helpful for the
> grant applications to show that there is an erosion problem there.
>
> Anne
>
> **********
> Anne Tews
> Fisheries Biologist
> Montana Fish, Wildlife and Parks
> P.O. Box 938
> Lewistown, MT 59457
> 406 538 4658 ext. 227
> **********
>
>

Mr. Joe Wilson
P.O. Box 2926
Norris, MT 59745
March 14, 2011

Mr. Gary Bertellotti
Montana Fish Wildlife and Parks
4600 Giant Springs Road
Great Falls, Montana 59405

Dear Gary Bertellotti:

I am writing in support of the proposed stream restoration project on Big Spring Creek immediately west of Highway 191, commonly called the "Machler Project." I represent the Mountain Acres Mobile Home Park, which is located on the south side of Big Spring Creek and the Machler property. Under the current design the Machler project will impact our mobile home park by moving approximately 400 ft of Big Spring Creek away from our property.

However, the owners and management of Mountain Acres Mobile Home Park supports this project. It is our understanding that tenants renting lots on our north property boundary and the public will have access to the new creek channel on the Machler property. We also understand that FWP will work with both permitting agencies and Mountain Acres representatives to ensure the mobile home park will NOT be exposed to any increased potential of flooding or infrastructure damage resulting from construction of the project construction. As you are aware, Mountain Acres LLC has been working with FWP to sell approximately 6 acres on the west end of our property. The FWP preferred alternative is to meander about 500 feet of the new Big Spring Creek channel through this parcel. This design is strongly supported by Mountain Acres management. FWP and Mountain Acres continue work to finalize an agreement for the purchase of the parcel. In the event this purchase takes years to occur, Mountain Acres will consider an agreement that allows construction of the restoration project prior to closing of the sale. In addition, Mountain Acres plans to support the project as it is currently designed, even if the sale of the proposed parcel does not occur because of circumstances beyond our control.

Sincerely,

Joe Wilson
Manager
Mountain Acres Mobile Home Park