



Upper Jefferson River Watershed Alert

January 21, 2010

Volume 1, Number 1

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JRWC ATTRACTS FUNDING FOR HABITAT WORK

The Montana Department of Fish, Wildlife & Parks Future Fisheries Improvement Program (FFIP) has been an important tool for implementing habitat improvement projects in the Jefferson Valley in recent years. Since 2002, twelve projects received \$360,000 of FFIP cost match for fisheries habitat work in the valley. These projects primarily focused on improving the health of tributaries entering the Jefferson River.

The primary role of the Jefferson River Watershed Council in these habitat restoration projects was to assist with attracting matching funds for projects and to keep diverse interests focused on projects with mutual benefits. Each of the twelve projects implemented from 2002 through 2009, totaling over \$600,000, resulted in benefits for the health of the stream, the fishery, and the landowner. In contrast, a potential project that might improve the fishery, but would damage the landowner's interests would never pass the test as a viable project and would not be supported by the JRWC.

Evaluation of the benefits of these projects indicates that habitat enhancement of tributaries can make a real difference. Two projects near Waterloo have resulted in significant increases in rainbow trout abundance in the Jefferson River. In addition, the cooperative landowners involved with the projects have found that a healthier stream on their private properties does nothing to decrease the value and enjoyment of their property.

JRWC provides the glue to hold folks together in this process. Trout Unlimited was critical for bringing people to the table. Landowners and water users allowed agency folks to provide technical assistance. Anglers supported projects by buying fishing licenses (\$1.00 to the FFIP for every license), and equally importantly, anglers and other supporters of the river provide a constant reminder that a healthier river is good for all of us in the valley.

The Chairman's Report

Welcome to the first edition of the new Jefferson River Watershed Council newsletter! The year 2009 saw the JRWC complete some ongoing projects while beginning some new efforts. The JRWC's Board of Directors and I hope you will find this and following newsletters helpful in staying up-to-date on the JRWC's continuing conservation efforts on the watershed.

(Continuation of Chairman's Report)

JRWC Mission:

Jefferson River Watershed Council is to coordinate efforts, through a spirit of community cooperation and sharing that will enhance, conserve, and protect the natural resources, quality of life, and economic vitality of the Jefferson River watershed.

The Jefferson River Rally was held in Whitehall in April, and was strongly supported by participants and attendees. The rally serves as a fundraiser for the Jefferson River Watershed Council (JRWC) and various projects throughout the community and in the Jefferson River watershed. As an example, this year, a portion of the proceeds went towards helping the Whitehall community in addressing the devastating fire.

On a lighter note, a good snowpack and wet spring provided water to maintain flows above 50 cfs in the river as measured at Parson's Bridge. The 50 cfs is the target flow during the irrigation season for the JRWC's Drought Management plan.

This was the third and final year of the Fish Creek Weed project the project was funded by the Natural Resources Conservation Service (NRCS) through the Grazing Lands Conservation Initiative (GLCI). As part of the effort, the JRWC purchased an ATV weed sprayer and grass seeder. The equipment will be available for rent by individuals and organizations through an agreement between the JRWC and the Jefferson County Weed District.

In addition, the Total Maximum Daily Load (TMDL) sediment project in the tributaries of the Jefferson River was completed the spring of 2009. Since then, the council has begun work on a watershed restoration plan to address issues in the TMDL, and other concerns of council members. Interested parties have been meeting to comment on the "draft" watershed restoration plan compiled by JRWC Coordinator, Ted Dodge. Ted has drawn from a number of studies as well as utilized the previous versions of TMDLs to begin the development of the draft document.

Teaming Up Against Weeds

As part of an ongoing effort to develop a watershed restoration plan that encompasses all of the resource issues in the watershed, the Jefferson River Watershed Council (JRWC), and the Jefferson County Weed District are launching a program to rent weed control equipment to landowners in the watershed area. Through grant funds provided by the Natural Resources Conservation Service, the JRWC recently purchased an ATV mounted weed sprayer and seeder. The equipment is available to rent to organizations and private landowners who are located within the Jefferson River Watershed River area.

"Noxious weeds are one of the major issues in the watershed," said JRWC Chairman Gary Nelson. While the JRWC is now developing a comprehensive watershed restoration plan for the watershed, noxious weeds are one area we can immediately begin to engage sportsman's clubs, and others to making a positive change in the watershed.

For more information on how to rent the equipment, contact Sam Little at 225-4165 or Stephanie Blasenak at 287-9330.

JRWC Undergoes Transition in 2009

The Jefferson River Watershed Council (JRWC) underwent a transition in 2009. Although in existence for a number of years, the JRWC has always operated from an annual plan of work that outlined separate projects designed to address key resource issue. In mid 2009, the JRWC began the development of a Coordinated Watershed Restoration Plan. The plan combines the efforts of stakeholders in the watershed by focusing on priority issues, and identifying and implementing projects.

The JRWC addressed the necessary needed changes, and better organized its existing resource assessments in the watershed area. To facilitate this effort, the board began updating its web site to allow for its use in coordinating planning activities and facilitating the cooperative activities amongst council members.

Since mid 2009, a series of meetings have been held with agencies and other council members in order to gain their acceptance for the development of a cooperative watershed plan. In addition, the identification of available resource assessments began. Those assessments are now being incorporated into the draft watershed plan. The information obtained through the assessment phase is now available on the JRWC web site www.jeffersonriverwc.org.

Planning meetings are listed on the web site. Individuals interested in making comments on the draft documents are encouraged to do so by email to Ted Dodge via ted.dodge516@gmail.com or by attending the scheduled planning meetings.

Jefferson River Temperature Monitoring and Modeling Project

The Jefferson Watershed Council commissioned a temperature monitoring and modeling study of the upper Jefferson River in the summer of 2009. Work was conducted from the headwaters down to the confluence with the Boulder River. The project was funded through the Montana Department of Environmental Quality and will lead to the development of a temperature Total Maximum Daily Load (TMDL) being developed for the mainstem of the Jefferson River. The Jefferson River has been impacted by elevated water temperatures for many years due to drought, irrigation, riparian clearing, and other impacts.

The field component of the project included the deployment of 48 temperature loggers throughout the Jefferson River, its major tributaries, and irrigation return flows. In addition, a major effort was conducted to collect streamflows, river cross-section data, and riparian vegetation information during the summer low flow season. Results from the field effort are currently being compiled in to a surface water model that will allow simulations of various river restoration scenarios, such as increased water flows, more riparian shade, removal of warm water inflows, and potential channel improvements. The model will determine which of these efforts will have the greatest impact on river temperatures.

(continuation of Jefferson River Temperature Monitoring/Modeling)

A second project conducted in conjunction with the monitoring project was a Forward Looking Infrared (FLIR) flight of the river. Results from this project will identify warm and cold water inflows to the Jefferson River, and will assist with determining instream temperature changes along the upper reach of the river.

Both project reports will be completed by Spring 2010 and will be presented to the council.

Jefferson River Suspended-Sediment and Turbidity Monitoring Project

A Total Maximum Daily Load (TMDL) plan for suspended-sediment has been suggested for the Jefferson River watershed. Previous monitoring efforts related to suspended sediment in the watershed were inconclusive about the need for a TMDL. To help determine if a TMDL plan is needed for suspended sediment, in May 2009, the Jefferson River Watershed Council entered into an agreement with the U.S. Geological Survey to monitor suspended sediment and turbidity in the three tributaries that join to form the Jefferson River and the Jefferson River mainstem.

Streamflows will be determined and samples will be collected at the following streamgauge sites:

- 06018500 – Beaverhead River near Twin Bridges,
- 06023000 – Ruby River near Twin Bridges,
- 06026420 – Big Hole River below Hamilton Ditch, near Twin Bridges,
- 06026500 – Jefferson River near Twin Bridges,
- 06027600 – Jefferson River at Parsons Bridge, near Silver Star, and
- 06036650 – Jefferson River near Three Forks.

Streamflow data from these sites can be viewed via the USGS real-time webpage at <http://waterdata.usgs.gov/mt/nwis/current/?type=flow>. All of the sites were active streamgauge sites before this study began, but the period of operation was extended at a few of the sites. At a minimum, the streamgages will operate from April through October.

Each month between May and October in 2009, suspended-sediment samples were collected from each site. Each of these samples was analyzed for suspended-sediment concentration and percent of material less than 0.062 millimeters in diameter (the break point between sand and silt). Next year (2010), sampling will begin in April and continue through October. Additional samples will be collected during the winter from Beaverhead River near Twin Bridges, Big Hole River near Twin Bridges, and Jefferson River near Three Forks. The data will be available in USGS "Annual Water Data Reports" for Montana (<http://wdr.water.usgs.gov/>).

A turbidity monitor was installed at the Jefferson River near Twin Bridges gage (0606500) in June, and operated through October. Next year (2010), the turbidity monitor will begin operating in April and continue through October. The data can be viewed on the USGS real-time webpage and will be in the USGS "Annual Water Data Reports" for Montana (<http://wdr.water.usgs.gov/>).

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(JWRC) is a 501(c)3.**

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Financial Assistance and Easement Programs Available from NRCS

Natural Resources Conservation Service, NRCS, has financial assistance for conservation of resources on your land. The deadline to receive financial assistance for 2011 funding is June 1st, 2010 after that you have missed your opportunity this year. Funding for this year is looking great. To be eligible for Environmental Quality Incentives Program, EQIP, and Wildlife Habitat Incentives Program, WHIP, the land must be agricultural land and/or forestland. Some of the possible conservation practices that could qualify for cost share incentives include irrigation system, irrigation water management, stream bank protection, stream restoration and vegetation establishment, cross fencing for improved grazing management, livestock watering facility, pre-commercial forest thinning, fuel breaks, wildlife habitat improvement, pasture land renovation, weed management, conversion to no till on cropland, and field borders.

Farmland and Ranch Protection Program, FRPP, Wetland Reserve Program, WRP, Wetland Reserve Enhancement Program are the easement programs that are available. These easements programs to preserve agricultural land and to protect and enhance wetlands that have been impaired. The U.S. Government purchases development rights to the land that is enrolled so that it can't be subdivided. The restrictions put on the land vary with each program.

If interested in any of the programs above please contact the NRCS Whitehall Field Office at (406) 287-3215. The office is also available to provide free technical assistance on conservation concerns or issues as time allows.

Upper Jefferson River TMDL Update

TMDLs have been completed this year for sediment in the tributaries to the Jefferson River. These include Big Pipestone, Cherry, Fish, Hells Canyon, Little Pipestone, and Whitetail creeks. A temperature, shade, and stream flow monitoring effort was completed this past summer and a thermal conditions report will be developed this spring in support of a temperature TMDL for the Jefferson River. Nutrient monitoring will continue in Big Pipestone and Whitetail Creeks during the spring and summer of 2010 to support TMDL development the following year. Metals conditions in Fitz, Cherry, and Whitetail Creeks are also being monitored during the spring and summer of 2010 to support metals TMDL development the following year. Suspended sediment conditions continue to be monitored in the Jefferson River and its three main tributaries, the Ruby, Big Hole and Beaverhead Rivers by the USGS in support for a sediment TMDL for the Jefferson River.