

Land and water board funds three projects

Lynda James, Correspondent | Posted: Friday, May 16, 2014 4:34 pm

The Park County Land and Water Trust Fund and the South Park National Heritage Area have joined forces to provide funding for two stream related projects by Fairplay-based EcoMetrics.

Both the Trust Fund and the National Heritage Area are part of Park County government.

Park County's Board of County Commissioners approved both Ecometrics projects and a water quality project by the Coalition for the Upper South Platte on May 8.

Wetlands/streams restoration and protection strategic plan

This project will create a science-based watershed strategic plan for the protection and restoration of streams and wetlands in Park County.

The project will assess the functional integrity and restoration potential of streams and wetlands using a two-tiered approach.

The first step will be to map the watershed according to land ownership, geologic type, valley type, stream and wetland type and stressors on functionality, and then verify the mapping information on the ground.

Most of the work will involve combining several maps on items listed above into one map.

The second step will involve further in-field evaluation of impaired wetlands and streams to determine their functionality and degree of impairment. Then, a list of potential preservation and restoration sites will be developed.

“The best opportunities for restoration are where the causes of degradation and impairment can be resolved and where protection of future impacts is possible,” Mark Beardsley, EcoMetrics principal, said.

Once the field work is completed by Dr. Brad Johnson of Colorado State University and EcoMetrics, a study team will prioritize the initial list of potential sites.

The team will consist of federal, state and local entities plus individuals who have knowledge of the local history, economics, and values in Park County. Fourteen members have been identified.



The Spring Creek fen wetland

The Spring Creek fen wetland, located west of U.S. Highway 285 near AnteroReservoir, is mostly on State Land Board property.

The ditched and drained section, shown in the insert, impairs just a portion of the whole wetland complex shown in the larger picture. South Park contains hundreds of acres of ditched/draind fens and other wetland types. Restoration completed on the Four mile fen further north of here succeeded in restoring about 60 acres of fen that had been drained. (Photo by Mark Beardsley, EcoMetrics)

Before a draft report is written, a public meeting will be held to gain input and to re-prioritize sites, if needed, based on the public input.

The Middle and South Fork watersheds of the South Platte River and the Tarryall Creek watershed assessments will be completed this year and the North Fork watershed east of Kenosha Pass will be completed in 2015.

The project also recommends that the Arkansas River watershed in southern Park County and the South Platte River watershed not covered by this project, such as below Elevenmile Reservoir, be assessed in a similar future project.

The Trust Fund is providing \$30,000 of the total project cost of \$90,000. The National Heritage Area is providing \$25,000.

The Coalition of the Upper South Platte is providing about \$10,000 of in-kind support by administering the project and grants.

The strategic plan project is also receiving funding from the Colorado Water Conservation Board's Healthy Rivers Fund and the Colorado Department of Parks and Wildlife's Wetlands Program grants.

The entire project is also an in-kind match for an online wetlands planning toolbox being developed concurrently by CSU-based Colorado Natural Heritage Project.

The CNHP project is funded by an Environmental Protection Agency grant and other funding sources such as the Colorado Department of Transportation.

The online toolbox will be free to use by any entity, particularly land use, transportation and conservation planners, as well as the general public.

Trout habitat and migration study

The second project approved for funding by the commissioners is the fourth year of a study to document the habitat use and migration patterns of trout in the South Platte River.

The aim of the project is to help not only Park County, but also the Colorado Department of Parks and Wildlife, Trout Unlimited and other entities, determine what type of trout habitat protection and enhancement projects to pursue.

The entities' goal is to maintain and improve the county's Gold Medal streams and fisheries as well as to maintain and improve fishing as a key economic driver for businesses in the county.

"This study will be the most expansive trout tracking effort in Colorado and place Park County in the unique position as leaders in the field," Beardsley said.

Both Park County and Parks and Wildlife have funded projects that were based on assumptions of what trout needed as a healthy habitat, such as deep pools for wintering in the streams.

"Build it and they will come," was the basic philosophy used in habitat improvement project, Beardsley said.

During first two years of the fish monitoring project, trout were counted by electro-fishing, which uses small electrical charges in the stream to stun the fish. The fish were also measured and weighed before releasing them back into the stream.

Electro-fishing was done twice each year, once in the spring and again in the fall.

The results surprised everyone involved in the study. Trout populations often did not correspond to the habitat factors researchers assumed were important.

For example, human-constructed deep pools didn't correspond with bigger and more fish using that stream reach as expected; nor did the constructed deep pools keep fish in the stream over winter.

Trout still migrated in winter to lakes unless the deep pool was a beaver-constructed pond.

The deep pools can be valuable for other times of stress, such as low flow in the streams.

Last year, the team started using a new state of the art technology where 500 trout were netted and small radio frequency transmitters were implanted to identify each fish and its movements up and down the stream.

Computers with antennas were installed in locations along the stream banks that record the fish's identification and the time and location as the fish swims by.

The computer stations operate from May through November to determine fish migrations and the amount of time they spend in various habitats. Once the streams ice over, the stations are taken down for the winter.

Electro-fishing will also be conducted in the spring and fall.

Monitoring stream temperatures is also part of the study because water temperature is a limiting factor on most fish, including trout.

The \$50,000 project will receive \$7,500 each from the Trust Fund and the National Heritage Area.

Colorado Trout Unlimited is providing \$3,000 and possibly volunteer support. The remaining \$32,000 will come from Parks and Wildlife as in-kind support with personnel, supplies and equipment for both the radio frequency monitoring and electro-fishing data collection.

EcoMetrics is providing the temperature sensors and hardware as in-kind support.

The final report, due in January 2015, will help all entities understand what kinds of habitat fish need at different times of the year, develop better methods of improving that habitat and more effective management of South Park's fisheries.

The information can be applied to other areas where improving trout habitat is important.

The project will also set a baseline monitoring standard and methodology to measure future success of habitat improvement projects as well as giving the county a science-based competitive edge when applying for grants to improve fisheries and habitat.

CUSP groundwater quality monitoring

Park County commissioners also approved an expanded groundwater quality monitoring project by the Coalition of the Upper South Platte on May 8.

The Trust Fund has funded CUSP projects to gather a baseline of water quality for both groundwater and surface water for three years.

Last year the United States Geological Survey and the Colorado Geologic Survey finished a scoping study that identified a network of 105 wells covering aquifers in four types of geologic formations across South Park.

This year's project will test groundwater quality and determine groundwater flow direction.

The goal is to develop a future groundwater flow computer model that can identify directional flow of groundwater polluted by accidental spills or possible contamination from energy resource development, such as oil and gas exploration or uranium mining.

The information will help responders to quickly determine which direction any impacted groundwater will be flowing and enhance clean-up efforts.

This year's project covers the water testing, not the groundwater flow computer model.

The Land and Water Trust Fund will provide \$10,000 for the field staff time and travel to collect water well samples.

The Colorado Geological Survey will fund the \$100,000 water analysis lab fees, which are about \$950 per well.

CUSP will provide another \$5,900 of in-kind support with office and GIS personnel.

Other May 8 business

The commissioners approved the distribution of \$504,403 in Federal Forest Reserve Funds that are derived from various leases on federal land.

By law, distribution is based on a percentage of the total to schools and road and bridge departments in a county, a forest regional advisory committee (RAC) and a special forest use account.

The money is distributed based on the percentage of United States Forest Service Land in each county.

This year, Park County Road and Bridge Department will receive approximately \$84,960.

Platte Canyon Re-1 School District will receive \$262,158 and Park County Re-2 schools will receive \$134,324.

RAC, which distributes grants for forest projects, will receive \$63,304.

The commissioners choose who receives the special use funds. Park County traditionally gives it to Park County Search and Rescue for rescue operations on forest land. This year's amount is \$22,656.

Tax rebate

Robin Robl received a tax rebate for property owned in Saddle Mountain subdivision in southern Park County. Value of the land was reduced by the Assessor's Office because the property does not have a legal water source.

The total amount refunded was approximately \$440 for 2011 and 2012 taxes that were paid.

An executive session was also held to discuss contract negotiations. No other information was disclosed.

Note: The author is a member of the Park County Land and Water Trust Fund board.