

Colorado Healthy Rivers Fund

2010 Annual Report

March 23, 2011

The Colorado Healthy Rivers Fund (CHRF) received \$88,585 in donations in 2010 for the 2009 tax year. This represents 91% of the 2009 donations, and it is nearly \$1,500 below the average annual donations. Two new grants were approved for funding in September of 2010. Total 2010 grant funding is \$20,000. The reduction in grant funding is due a snafu on the part of the Department of Natural Resources Accounting. DNR Accounting has overbooked the CHRF account for several years based on their speculation of how much money would be donated. These speculations are greater than the actual amount donated, and the account has not been rectified to reflect actual donations until fall 2010. The Colorado Water Conservation Board was able to fund over \$146,000 of the 2010 CHRF request through other sources.

Nine projects and planning efforts were completed in calendar year 2010 and early 2011. Project descriptions and links to the final reports are listed below. Currently, there are 11 active grants funded through CHRF. As stated above, two of these were awarded in September 2010. The other nine grants are at various levels of completion. One previously active grant was de-authorized in 2010. A project description and brief progress report for each completed, active, and de-authorized grant is included below.

COMPLETED COLORADO HEALTHY RIVERS FUND GRANTS – CALENDAR YEAR 2010 & 1ST QUARTER 2011

Boulder Creek Watershed Initiative (BCWI) – Water Quality Monitoring

This grant funded several volunteer water quality monitoring teams in the Boulder Creek Watershed. This involved volunteer recruitment, training, certification, and the purchase of water quality monitoring equipment. Volunteers measured flow, conductivity, dissolved oxygen, nitrogen, pH, phosphate, and temperature. The data was used to meet BCWI's mission to "protect and enhance the health of the Boulder Creek watershed by community based stewardship through education, information and action".

\$12,750 grant awarded September 2008. Project Completion March 2010.

Final report - Boulder Creek Watershed 2009 Stream Team Report available at:

<http://cwcbweblink.state.co.us/WebLink/0/doc/139974/Electronic.aspx?searchid=8d9c20ed-887e-443b-9276-e8a756d0166c>

Park County & Colorado Open Lands – Channel Stability & Sediment Supply Assessment

Sediment pollution and the need for action were recognized in Park County; however, the extent of the problem and locations of primary concern were not well documented. This assessment identified locations where restoration activities can produce improvements. The objective of the study was a

systematic assessment of all reaches in the watershed. This resulted in prioritization for stream improvements using a Watershed Assessment of River Stability and Sediment Supply (WARSSS).

\$12,000 grant awarded September 2008. Project Completion February 2010. Final Report - Priorities for Improving Sediment Pollution in the South Platte Headwaters Watershed, Results of a Watershed Assessment of River Stability and Sediment Supply (WARSSS) Study & Watershed Assessment of River Stability and Sediment Supply (WARSSS) Rapid Resource Inventory for Sediment and Stability Consequences (RRISSC) available at:

<http://cwcbweblink.state.co.us/weblink/0/doc/139056/Electronic.aspx?searchid=0c5ffac0-6c19-43ed-8fbc-2ad1fed191f8>

<http://cwcbweblink.state.co.us/weblink/0/doc/139057/Electronic.aspx?searchid=0c5ffac0-6c19-43ed-8fbc-2ad1fed191f8>

Roaring Fork Conservancy – Roaring Fork River Watershed Plan (Phase II)

Building on the work completed in Phase I-fostering stakeholder involvement and the State of the Watershed Report, Phase II cultivated discussion among Roaring Fork citizens and stakeholders, and technical advisors to develop a comprehensive and prioritized set of goals, objectives, strategies and recommendations, which will be used to protect and sustain the economic and ecological resources provided by the watershed.

Phase II began in early 2009 in cooperation with the Ruedi Water and Power Authority. The Authority received a \$40,000 grant through the Colorado River Basin Roundtable, in cooperation with the CWCB Water Supply Reserve Account. The Roaring Fork Conservancy and the Authority completed public outreach and involvement in Phase II. Recommended actions are outlined in the Phase II document.

\$10,000 grant awarded September 2007. Project Completion March 2010. Final Report – Roaring Fork Watershed Plan, Phase II Guidance Document, Illuminating the Way Ahead available at:

<http://cwcbweblink.state.co.us/WebLink/0/doc/139978/Electronic.aspx?searchid=0084c46e-4ebc-45bf-89f9-bef033b7c8e4>

Roaring Fork Conservancy – Outreach Efforts to Ensure the Education, Involvement, and Support of the Local Community for the Roaring Fork Watershed Plan

The goal of this project was to provide opportunities and resources to better inform and educate public citizens and officials about present water resource conditions, the value of the resource, and the factors that contributed to present conditions. The grant was used to increase awareness and enhance public involvement in the Roaring Fork Watershed Plan process. Public involvement was solicited through radio, newspaper and Roaring Fork Conservancy Newsletter articles and emails. The Watershed Report was incorporated in to high school student programs. Copies of the Watershed Report were provided to four local libraries, five local high school libraries, the Colorado Watershed Assembly, and the NW Council of Governments.

Public interaction was enhanced by producing large format posters and maps used in public meetings, window displays, and public buildings. Public field trips that included water table dialogues were organized, and the Conservancy provided several opportunities for the public to interact with technical experts. The Conservancy also created the “2010 Voters’ Guide to Water Issues in the Roaring Fork Basin”. This allowed all potential candidates an opportunity to express their qualifications and platforms on water issues. All but one candidate responded.

\$18,000 grant awarded September 2009. Project Completion December 2010. Final Report – Documentation of Accomplishments for CHRF Grant entitled: Outreach Efforts to Ensure the Education, Involvement, and Support of the Local Community for the Roaring Fork Watershed Plan available at: <http://cwcwebblink.state.co.us/WebLink/0/doc/148560/Electronic.aspx?searchid=2a3303ca-7d29-43e7-a4d6-d5e0cf491d46>

Coal Creek Watershed Coalition (CCWC) – Pollutant Source Area Identification, Macro-invertebrate Assessments, and Education and Outreach

CHRF funding was awarded for several tasks which included individual sewer distribution system (ISDS) evaluations, macro-invertebrate assessments, educational signage, and AmeriCorps Office of Surface Mining VISTA support. ISDS funding was used in cooperation with the Gunnison County Environmental Health Office to collaborate on monitoring water quality in the town site of Irwin (located above Crested Butte in the Coal Creek Watershed), in order to determine if any issues related to nutrients or microbial activity exist. CCWC did not detect nitrates/nitrites and total phosphorous was detected just above detection limits. E coli standards were not exceeded. CCWC will continue to work with Gunnison County to map and monitor ISDSs in the watershed.

Macro-invertebrate assessments or biomonitoring data within Coal Creek are used to complement physical and water chemistry data. Macro-invertebrate assessments developed baseline data on Coal Creek and several of its tributaries. The data has led CCWC to look for sources of contaminants near the Forest Queen Mine, Irwin Town Site and the Town of Crested Butte. All but one sample passed the State’s proposed biocriteria. The Forest Queen Mine site scored poorly but slightly above biocriteria standards.

CCWC used grant funding to install six educational signs throughout the watershed in major parking areas, trailheads, bridge crossings, and other high traffic areas. The signs discuss watershed issues and history of the area. All signs display the Colorado Healthy Rivers Fund logo.

CCWC also used the grant to fund a VISTA volunteer. This provided for a year of full-time service by an OSM/VISTA member through the Western Hardrock Watershed Team. CCWC hired a VISTA to build capacity of the watershed group and to assist with the implementation of many tasks funded through several grants. The position also produces quarterly newsletters, coordinates and recruits volunteers, and drafts grant applications.

\$8,395 grant awarded September 2008. Project Completion June 2010. Final Report available at: <http://cwcbweblink.state.co.us/WebLink/0/doc/142641/Electronic.aspx?searchid=270cf6c8-4eb6-48f8-b792-6d0ec84a7b8f>

Coal Creek Watershed Coalition (CCWC) – Groundwater Metal Loading, Stormwater Management, and VISTA Volunteer Support

CHRF funding was awarded for several tasks which included groundwater quality monitoring, stormwater and magnesium chloride assessment, and VISTA volunteer support. CCWC used funding to confirm historic sampling results for metal loading via tributary and groundwater sources. In 2006 and 2007 CCWC worked with University of Colorado to conduct a groundwater tracer study in the watershed. The goal was to characterize the metal loading from tributary and groundwater sources. Spatially detailed concentration and metal loading profiles were developed for aluminum, arsenic, barium, cadmium, chromium, copper, iron, lead, manganese, nickel, and zinc along a 5.4 km reach of Coal Creek. The data was assembled in loading summary tables and described in a final report.

CCWC devised BMPs to reduce chemical and sediment runoff after conducting stormwater and magnesium chloride assessments in the watershed. Series of rock check dams with sections of stilling basins and reinforced vegetative swales were installed in road ditches along the Kebler Pass road (Co. Road 12). Nearly 5 tons of sediment was removed between the fall of 2009 and summer of 2010. The project continues through other funding sources.

CCWC also used the grant to fund a VISTA volunteer. This provided for a year of full-time service by an OSM/VISTA member through the Western Hardrock Watershed Team. CCWC hired a VISTA to build capacity of the watershed group and to assist with the implementation of many tasks funded through several grants. The position also produces quarterly newsletters, coordinates and recruits volunteers, and drafts grant applications.

\$10,756 grant awarded September 2009. Project Completion August 2010. Final Report available at: <http://cwcbweblink.state.co.us/WebLink/0/doc/147423/Electronic.aspx?searchid=8feeb650-d22c-41db-b857-272a767c363e>

Final Report – Sources of Metal Contamination in the Coal Creek Watershed available at: <http://cwcbweblink.state.co.us/WebLink/0/doc/148576/Electronic.aspx?searchid=87e7606f-5386-40e0-be00-3fd52a597f29>

Coalition for the Upper South Platte – Mine Assessment Project

The primary objectives of the mine assessment project were to: (1) develop partnerships and an advisory committee; (2) collect all relevant background reports associated with mining and water quality within the Upper South Platte Watershed; (3) carry out site visits and inventories of abandoned mines and prominent tributaries that had experienced mining within the watershed; (4) collect water-quality field parameters, samples of lab analysis, and GPS coordinates of mine features; (5) determine property ownership and mine site boundaries; (6) prioritize mine sites and develop a monitoring strategy to further

characterize problem sites, to facilitate management and remedial decisions; (7) compile a comprehensive document of the abandoned mine lands within the watershed including relevant historical information, past abandoned mine inventories, and recent inventory data collected during the 2010 field season.

All objectives were completed. 50 mine sites were visited. 50 water quality samples were sent to Denver Water Labs for analysis. 73 sites were tested for field parameters throughout 8 prominent tributaries. Basic property ownership and boundaries were determined for the 50 sites while making positive connections with mine owners.

The project confirmed three sources of natural water quality degradation associated with historic mines. Data collected confirmed that not all mines discharge acid mine drainage, and that neutral to basic mine drainage dominated the Upper South Platte inventory. However, heavy metals were detected that exceeded state aquatic life standards and in some cases surpassed drinking water standards.

\$15,000 grant awarded September 2009. Project Completion February 2011. Final Report – Mine Assessment Project: Report on Surface and Mine Water Sampling and Monitoring in the Upper South Platte Watershed, Park County, Colorado available at:
<http://cwcwblink.state.co.us/WebLink/0/doc/148387/Electronic.aspx?searchid=3c55149b-6e6d-490c-9de9-ca764b18fb4a>

Institute for Environmental Solutions – Emerging Contaminants Education and Outreach

The pilot phase of the Clear Creek Emerging Contaminants (EC) project had two major goals: to reduce the amount of ECs that people contribute to local waterways and to increase their awareness about ECs. IES used education and community based social marketing to reduce and prevent the introduction of household and personal care EC byproducts to Golden's wastewater. The campaign was designed to teach citizens about the source, fate, and impacts of toxic chemicals in household and personal care products. Citizens were provided with information about reasonable non-toxic alternatives to facilitate behavioral change. The pilot program developed numerous educational materials. Raw water samples were taken upstream of the treatment plant and sent to the U.S. EPA to be analyzed for ECs. The sampling occurred both before and after the educational campaign.

\$15,205 grant awarded September 2008. Project Completion November 2010. Final Report – Emerging Contaminants: Linking Science to Effective Action available at:
<http://cwcwblink.state.co.us/WebLink/0/doc/148562/Electronic.aspx?searchid=1a1cd66d-8c55-47c9-8779-72b9ff7bd2c2>

Rio Grande Headwaters Land Trust (RiGHT) – Rio Grande Initiative

The objective of this planning grant was to increase knowledge of conservation easements in the Rio Grande Watershed. RiGHT achieved this objective by sponsoring workshops that detailed conservation easements, including the process of completing an easement and the benefits for landowners. RiGHT also hosted numerous presentations designed to reach a broad audience which directly resulted in a contact presently leading towards a conservation easement. The presentations highlighted RiGHT's work

and accomplishments, and they were designed to increase partnerships with local & state government, community organizations, the public, and potential funders. Staff designed presentation materials as well as purchased a power point projector to more effectively communicate during workshops and presentations. RiGHT created two newsletters and four e-newsletters to help increase visibility of their projects.

\$15,000 grant awarded September 2008. Project Completion October 2010. Final Report available at: <http://cwcbweblink.state.co.us/WebLink/0/doc/148567/Electronic.aspx?searchid=000d0f5a-69c8-4aef-ab8f-ef3dff2ece84>

ACTIVE COLORADO HEALTHY RIVERS FUND GRANTS

San Juan Resource Conservation & Development Council – Animas River Watershed Plan

The San Juan Resource Conservation & Development Council includes the Animas River Nutrient Work Group. The Work Group has identified nutrients enrichment in the Animas Basin by sampling low water from 2003 – 2005. The grant focus is to expand the base of stakeholders and develop a geographic database. Both of these objectives are complete. The grant was also awarded to develop a draft watershed plan under EPA guidelines. The grantee has an extension because of project management staffing issues. Ecosphere Environmental Services is effectively managing the project as of spring 2008.

Ecosphere Environmental Services currently has the contract to coordinate stakeholder meetings and maintains a subcontract agreement with BUGS Consulting to complete the watershed management plan. To date, BUGS has completed a draft watershed management plan. A water quality data and land use GIS database is complete. The Sampling and Analysis Plan (SAP) for the Animas River is also complete. The final Watershed Plan was expected in July 2010. It is now expected by July 2011. Delays are the result of extensive stakeholder comments to the draft.

\$15,000 grant awarded September 2005; extensions approved August 2006 & April 2008. \$11,372 invoiced.

Uncompahgre River Stewardship Alliance – Uncompahgre River Watershed Plan

The primary goal of this planning effort is to address the need for greater understanding of water-quality and riparian habitat issues within the Uncompahgre basin through continued community involvement and the development of a comprehensive watershed plan.

The watershed plan is designed to be a model planning process that will develop and strengthen collaborative ties between citizen groups and more traditional water user groups such as the water conservancy district, the water users association, the conservation districts, local governments and several state and federal agencies. The plan will be used to identify new partnerships to improve water quality, conservation, and environmental health. The plan was scheduled for completion in December 2010, and it is now expected by summer 2011.

\$10,000 grant awarded September 2007. \$8,500 invoiced.

Friends of the River Uncompahgre – Uncompahgre River Watershed Plan

See Uncompahgre River Stewardship Alliance above.

\$15,000 grant awarded September 2009. \$7,906 invoiced.

Town of Vail – Gore Creek River Restoration and Riparian Zone Re-vegetation

The Town of Vail Stephens Park stream bank restoration project was developed to re-grade the stream bank, re-vegetate the stream banks, improve stream access, and develop in-stream habitat. Fortunately, the timing of the stream bank re-vegetation coincided with the Sustaining Colorado Watersheds Conference. Approximately two dozen conference attendees volunteered to assist the project proponents in re-planting the riparian area along Gore Creek. The volunteers showed up in the early morning chill ready for the experiential lesson. Gregg Barrie, Town of Vail Landscape Architect, spent some time describing the purpose of the project and its funding sources. Randy Mandel, Colorado Riparian Association, then described the planting strategy. After that, the volunteers went to work planting approximately 450 plants representing 20 different species. The project was a success, and CRA will be watching the growth as the season's progress. Many of the volunteers will be implementing their own volunteer re-vegetation projects with the watershed groups that they represent. The volunteer effort had an immediate benefit for Gore Creek in Stephens Park, and the lessons learned will be applied to riparian re-vegetation efforts throughout Colorado. The grant will be finalized when Vail installs signage at the park, which will include the Colorado Healthy Rivers Fund logo.

\$6,000 grant awarded September 2009. \$5,100 invoiced.

Colorado River Water Conservation District – Lower Gunnison Basin Salinity and Se Water Quality Monitoring

This project expands upon and optimizes the existing water-quality monitoring network in the Lower Gunnison River Basin by adding an additional real-time specific conductance monitor in one of five strategic locations at U.S. Geological Survey (USGS) real-time stream flow stations and by conducting selenium and salinity sample collection and analyses. The goal of the project is to gather selenium and salinity water-quality data so that remediation can be better targeted for the purposes of meeting State of Colorado water-quality standards and Endangered Species Act requirements for the protection of endangered river fishes. A real-time specific conductance monitor has been installed at the USGS gaging station at Colona, Colorado. It is gathering salinity and selenium data for water quality analyses. The final report will include discussion of data.

\$16,000 grant awarded September 2009. \$13,536 invoiced.

Wildlands Restoration Volunteers – Riparian Zone Re-vegetation on Tarryall, Rock, and Boulder Creeks

Grant funding was used to design and implement three riparian restoration projects and 15 leadership and skills trainings in 2010. The three tributaries to the South Platte River that received restoration work were Tarryall Creek, St. Vrain Creek, and Rock Creek. The work was planned and implemented by Wildlands Restoration Volunteers using a collaborative approach to watershed conservation by involving numerous regionally based diverse interests within watersheds located in Northern Colorado. The riparian areas were restored through effective practices devised by WRV staff and relevant agency partners, aimed at improvements to water quality and wildlife habitat. Project is complete. Final payment is pending completion of the final report.

\$19,220 grant awarded September 2009. \$11,220 invoiced.

Tamarisk Coalition (TC) – Ecotype Specific Riparian Plant Propagation

The goal of the project is to provide a mix of native tree and shrub plant materials for riparian restoration efforts in Western Colorado. Up to twelve riparian corridor and upland species will be identified for propagation. TC has coordinated seed collection training workshops and riparian planting workshops according to the scope of work. Remaining tasks include continued seed propagation and planting at west slope riparian restoration sites.

\$10,000 grant awarded September 2009. \$3,000 invoiced

Arkansas Headwaters Recreation Area (AHRA), Colorado State Parks – Hecla Wash Restoration and Sediment Reduction

The Hecla Wash project aims to work with a partnership to implement ecologically sustainable watershed restoration measures to reduce sediment loading and achieve improved water quality and habitat in an impaired reach of the upper Arkansas River. Sediment sources include a county road and vehicular traffic, extremely high recreational use, irrigation structures and spills, and some amount of ranching and grazing. Project success will be measured through robust monitoring and evaluation, and should set the stage for additional watershed planning in the future. BMPs, vegetative plantings, stabilization techniques and other engineered and soft features will be incorporated into the overall project to achieve desired goals.

The Project began March 2011 and is scheduled for completion in summer 2011. Pre and Post project monitoring is coordinated with CWCB, Water Quality Control Division, and Colorado Watershed Assembly as part of the Measurable Results Program (MRP). Sediment loading reductions to the Arkansas River will be measured by calculating volume of sediment removed from constructed sediment traps in Hecla Wash.

\$25,000 grant awarded September 2009. \$0 invoiced.

Eagle River Watershed Council – Edwards Eagle River Restoration, Riparian Zone Re-vegetation

The goals of this Eagle River restoration, Phase II, project are to stabilize the banks in the Edwards, Co reach eroded by decades of cattle grazing, to restore native plants eradicated by cattle and bank erosion,

and to diminish sedimentation from urbanization and poor land management practices. The expected results are a cleaner, healthier river with diminished sedimentation and creation of an overstory which will aid in cooling the river and improve the habitat for aquatic and terrestrial species. The biotechnical/bioengineered bank stabilization program coupled with the plantings will help create a cooler, deeper faster thalweg during low flow enabling sustainability of healthy trout populations.

\$10,000 grant awarded September 2009. \$0 invoiced

Colorado Rio Grande Restoration Foundation – Riparian Zone Re-vegetation

The award will be used to improve the quality of current and future re-vegetation efforts on riparian sites within the Rio Grande Headwaters Restoration Project's riparian stabilization and restoration projects. Funded activities will include registration for riparian restoration and re-vegetation trainings, organization of volunteer re-vegetation projects, and tools and plant materials needed for the re-vegetation efforts. It is anticipated that three major volunteer events will be planned annually. The events will take place on Project sites within the 2008 Rio Grande Riparian Stabilization Project – Phase 3, 2009 Rio Grande Riparian Stabilization Project – Phase 4, and the 2010 Colorado Partnership Program (CPP) Project. In the spring, shrubs will be planted in the riparian area. In the fall, dormant willow bundles will be planted near the water's edge. Phase 3 and Phase 4 projects are funded through the Water Supply Reserve Account in the amounts of \$285,000 and \$148,000, respectively.

\$5,000 grant awarded September 2010. \$0 invoiced.

Groundwork Denver – River Restoration, Riparian Zone Re-vegetation, Education and Outreach

The urbanized section of Bear Creek has been identified in the State's list of impaired water bodies with high priority for E. coli contamination. This eight-mile stretch of the river runs through the cities of Lakewood, Denver, and Sheridan and is not included in the purview of the existing Bear Creek Watershed Association. As such, there is no coordinated education or action to address the water pollution, invasive species, stream bank erosion, or general watershed and river stewardship. This project will focus on developing stewardship through restoration projects, and building stakeholder collaboration for the implementation of a watershed planning effort.

Groundwork Denver and its partners will implement a project as a first step towards Bear Creek restoration. Activities will include: 1. 720 hours of youth work teams conducting watershed improvements, conducting community outreach, and conducting water quality testing projects; 2. One community-wide volunteer restoration day for both youth and adults; 3. Stakeholder outreach for collaborative watershed planning effort.

\$15,000 grant awarded September 2010. Contracting in process.

DE-AUTHORIZED COLORADO HEALTHY RIVERS FUND GRANTS

Friends of Bear Creek – Bear Creek Watershed Plan

\$10,000 grant awarded September 2007, extension approved September 2008. \$1,000 invoiced.

The Bear Creek Watershed Plan was de-authorized by the Colorado Healthy Rivers Fund Designees on September 22, 2010. The Plan was de-authorized due to two unsuccessful attempts to secure match funding.



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