

Exhibit A

Scope of Work – June 9th, 2009

WATER ACTIVITY NAME – 2009 Lower Blanco River Restoration Project

GRANT RECIPIENT – Lower Blanco Property Owners Association

**FUNDING SOURCE – WSRA: Southwest Basin Account \$100,000.00
Fish and Wildlife Resources Fund \$132,000.00**

INTRODUCTION AND BACKGROUND

The Lower Blanco Property Owners Association (LBPOA) is a 501(c)(3) non-profit organization. The LBPOA was first formed in the 1980's, and has been actively promoting restoration of the Lower Blanco River since the early 1990's. A trans-basin water diversion was constructed in the 1960's by the Bureau of Reclamation as part of the Upper Colorado River Water Compact. This water diversion dramatically reduced water flow to the 9.0 miles of the Lower Blanco River. As a result, in-stream aquatic functions and habitat have been severely impacted. There is limited habitat for fish, elevated water temperature in the Summer and Fall, and infrequent large flows capable of re-working the gravel & cobble in the streambed. The LBPOA has sponsored 4 restoration projects on the river over the past 18 years. Together these projects total about 4 miles in length. All of this project work has been funded in part by grants from the CWCB, the NRCS, and several local conservation districts. An additional 1.0 mile of river was restored by a private landowner at his own expense. With the 2009 project, the LBPOA intends to complete another 1.4 miles of river restoration.

OBJECTIVES

The project seeks to improve aquatic and terrestrial habitat in the river, to reduce water temperatures, and to enhance riparian functions. The in-stream work proposed consists of channel shaping (to deepen pools and build side bars) rock structures (to create scour pools and grade control, large woody debris (for improved diversity of in-stream habitat and to enhance recruitment of riparian vegetation. The project understands that FEMA has performed a detailed study of this section of the Blanco River, and the LBPOA understands that State standards for flood damage reduction will apply to this project. The Lower Blanco River is home to two species of concern (the Flannelmouth Sucker Fish, and the Spotted Leopard Frog), both of which will benefit from improved habitat conditions.

TASKS

Task 1A: Site Planning and Preliminary Design:

The LBPOA will retain an engineering company to develop preliminary designs for the project. Designs will be based on the project's objects as well as site specific nuances of the river. The LBPOA will obtain high quality aerial photography of the river corridor to assist in the planning effort. A public meeting will be held with the general public as well as property owners along the Blanco River invited to come and learn about the preliminary plans, and to solicit landowner input on the design. The LBPOA will identify and contact each landowner that owns property along the 2009 project reach length, to discuss the proposed work and to obtain written permission for the project from each landowner.

Deliverables: Preliminary design plans and aerial imagery

Total Cost: \$20,500

Cost Share: LBPOA - \$20,500

CWCB Basin Acct - \$0

CWCB FWLRF Acct - \$0

Other grant sources - \$0

Task 1B: Final Design and Permits for Construction:

The LBPOA will retain an engineering company to develop final designs for the project. Final designs will be based on the preliminary designs and upon the specific input from various landowners and stakeholders. The final design will be submitted to the US Army Corps of Engineers and a Section 404 Permit will be requested. A Section 401 water quality certification will be obtained from the Colorado CDPHE if required. Local approvals from Archuleta County will be obtained as needed.

Deliverables: Final design plans, 404 permit approval and other approvals as required.

Total Cost: \$8,000

Cost Share: LBPOA - \$0

CWCB Basin Acct - \$8,000

CWCB FWLRF Acct - \$0

Other grant sources - \$0

Task 2A: In-Stream Construction Work

The LBPOA will hire an experienced heavy equipment operator(s) to furnish and utilize appropriate heavy equipment for the channel shaping work, the rock structure work, the installation of woody debris structures and other related heavy equipment work. The LBPOA will retain an engineering company to provide oversight of the construction activities, including layout staking, inspection of rock structures, and permit compliance verification. Based on the preliminary project estimates, the budget for 2009 will allow for completion of approximately 1.4 miles of river restoration work. At the completion of construction the LBPOA will develop as-built construction drawings base on the approved planset, and will collect baseline data for long-term monitoring.

Deliverables: Completed in-stream restoration work, in conformance with the approved final construction plans and 404 permit. A final report for the project.

Total Cost: \$314,500

Cost Share: LBPOA - \$2,500

CWCB Basin Acct - \$84,000

CWCB FWLRF Acct - \$121,000

Other grant sources - \$107,000

Task 2B: Long Term Monitoring

The LBPOA will monitor the project for a period of 3 years (or longer if required by permit conditions) and will submit annual monitoring reports that document changes to the project after construction. The proposed monitoring plan will include the establishment of photo reference points and repeated photographs each year for comparison purposes, measurement of pool depths created by excavation or by scour inducing structures, a qualitative assessment of fish and macro-invertebrate populations, observations of new scour or deposition features and a visual assessment of riparian vegetation health and density. Data on specific flood events will be included, as well as an informal survey of landowner observations and feedback on the success of the project.

Deliverables: Annual monitoring reports for three years.

Total Cost: \$3,000

Cost Share: LBPOA - \$2,000

CWCB Basin Acct - \$0

CWCB FWLRF Acct - \$1,000

Other grant sources - \$0

Task 2C: Project Maintenance

Based on periodic site visits, landowner feedback and annual monitoring data, the LBPOA will perform maintenance work with heavy equipment to maintain the project. Maintenance work will be prioritized based on potential adverse impacts of a particular damaged area. Maintenance work will be performed in the Fall or early Spring of each year as required, in one equipment mobilization event.

Deliverables: Repairs & adjustments to in-stream project features as required.

Total Cost: \$18,000

Cost Share: LBPOA - \$0

CWCB Basin Acct - \$8,000

CWCB FWLRF Acct - \$10,000

Other grant sources - \$0

REPORTING

The LBPOA will provide the CWCB a final report following completion of construction as described in Task 2A. With each request for reimbursement, the LBPOA will include a brief description of the work completed, along with invoices and other documentation of expenditures. The LBPOA will provide the flood study report described in Task 1C. The LBPOA will submit a copy of the annual monitoring report to the CWCB. Other deliverables will be as described under each Task above.

PROJECT SCHEDULE

The LBPOA intends to complete the design and construction of this project in calendar year 2009 based on the schedule presented below. Maintenance and monitoring work will continue for an additional 3 years.

Lower Blanco River Restoration - 2009 Final Design and Construction Schedule

Task	Begin Date	Duration	Complete
Contract Award NTP	7.20.09		
Complete Final Design	7.20.09	2 weeks	8.03.09
Prepare Permit Documents	8.03.09	2 weeks	8.17.09
Agency Review/ Rock Delivery	8.17.09	6 weeks	9.28.09
Begin Construction	10.05.09	6 weeks	11.16.09
Construction Complete	11.16.09		

PAYMENT

Payment from CWCB to the LBPOA will be made based on actual expenditures and invoicing by the LBPOA. The request for payment will include a description of the work accomplished by major task, and an estimate of the percent completion for individual tasks. If major issues arise, the LBPOA will identify and describe those issues, and will propose corrective actions. It is understood that the last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed.

All products, data and information developed as a result of this grant must be provided to CWCB in hard copy and electronic format as part of the project documentation.

BUDGET BY FUNDING SOURCES

Funding Source	Funding Amount
LBPOA	\$25,000
CWCB Basin Account	\$100,000
CWCB FWLRF Account	\$132,000
NRCS Grant Funding	\$97,000
Archuleta County Grant	\$10,000
Project Total:	\$364,000

BREAKDOWN OF ESTIMATED CONSTRUCTION COSTS

LBPOA River Restoration Project - 2009 Construction Quantity & Cost Estimate

	Estimated Installation Quantity	Units	Estimated Installation Cost	Estimated Quantity Of Material	Estimated Cost Of Material	Estimated Construction Cost
Large Rock Work						
Build Rock J-Hook structure	2	EA	\$ 3,000.00	30	\$ 4,500.00	\$ 7,500.00
Build Modified Rock Cross Vane structure	8	EA	\$ 24,000.00	240	\$ 36,000.00	\$ 60,000.00
Build Rock pile bank deflector	32	EA	\$ 14,400.00	160	\$ 24,000.00	\$ 38,400.00
Build Rock "short vane"	1	EA	\$ 1,200.00	12	\$ 1,800.00	\$ 3,000.00
Rock sill across floodplain (1 rock per 3 LF)	492	LF	\$ 5,904.00	164	\$ 24,600.00	\$ 30,504.00
Install habitat & bank stabilization rock	75	EA	\$ 3,000.00	75	\$ 11,250.00	\$ 14,250.00
Diversion channel structures	3	EA	\$ 13,500.00	120	\$ 18,000.00	\$ 31,500.00
Rock sill in channel for grade control	1	EA	\$ 2,400.00	20	\$ 3,000.00	\$ 5,400.00

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Medium Rock Work						
Riffle hardening	1	EA	\$ 2,600.00	40	\$ 3,000.00	\$ 5,600.00
Side channel structures	7	EA	\$ 9,450.00	84	\$ 6,300.00	\$ 15,750.00
Rocks for log jamb structure, for bank stabilization or habit	7	EA	\$ 1,050.00	70	\$ 5,250.00	\$ 6,300.00

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Channel Shaping						
Channel & bank shaping	6,500	LF	\$ 52,000.00			\$ 52,000.00
Floodplain fill with loader	568	CY	\$ 5,682.59			\$ 5,682.59
Revegetation & Log Work						
Seed and Mulch	0.67	AC	\$ 1,675.00			\$ 1,675.00
Transplant woody riparian vegetation	145	EA	\$ 7,250.00			\$ 7,250.00
Log jamb structure, for bank stabilization or habitat	7	EA	\$ 7,000.00	49	\$ 7,350.00	\$ 14,350.00
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Total Estimated Construction Cost:						\$ 299,161.59

BREAKDOWN OF ESTIMATED UNIT PRICES FOR CONSTRUCTION

Estimated Unit Prices	Unit price	
Large rock, 1.5 CY min. size	\$ 150.00	EA
Medium rock, 0.8 to 1.5 CY size	\$ 75.00	EA
Build Rock J-Hook structure	\$ 1,500.00	EA
Build Modified Rock Cross Vane structure	\$ 3,000.00	EA
Build Rock pile bank deflector	\$ 450.00	EA
Build Rock "short vane"	\$ 1,200.00	EA
Build rock sill across floodplain (1 rock per 3 LF)	\$ 12.00	LF
Install habitat & bank stabilization rock	\$ 40.00	EA
Diversion channel structures	\$ 4,500.00	EA
Rock sill in channel for grade control	\$ 2,400.00	EA
Build riffle hardening	\$ 2,600.00	EA
Build side channel rock structures	\$ 1,350.00	EA
Install logs for bank stabilization & habitat	\$ 150.00	EA
Channel & bank shaping	\$ 8.00	LF
Floodplain fill with loader	\$ 10.00	CY
Seed and Mulch	\$ 2,500.00	AC
Transplant woody riparian vegetation	\$ 50.00	EA
Logs for bank stabilization & habitat	\$ 150.00	EA
Install log jamb structures	\$ 1,000.00	EA