

**STATEMENT OF WORK
EXHIBIT A**

WATER ACTIVITY NAME: Lower Willow Creek Restoration Project

GRANT RECIPIENT: Lower Willow Creek Restoration Company

FUNDING SOURCE:

Water Supply Reserve Account Funds (WSRA):

\$200,000 - Statewide WSRA Account

\$50,000 – Rio Grande Basin Account

Total Project Funds:

Phase I	\$250,000.00	CWCB WSRA Funds
Stream Channel/	\$408,770.00	CDPHE NPS 319 Funds
Floodplain Structural	\$35,000.00	Colorado Division of Reclamation, Mining and
Restoration		
	\$200,000.00	Colorado Brownfields Revolving Loan Fund
Total Cash	\$893,770.00	
In-Kind	\$3,750.00	City of Creede
	\$21,000.00	WCRC
Donations	\$745,000.00	Creede Resources, Inc. (land donation)
Total Phase I		
Project Value	\$1,663,520.00	

Project Expenses:

Engineering Services:	\$157,348.00
Soils Test Pilot Project:	\$ 27,042.00
WCRC Participation:	\$ 30,000.00
Legal:	\$ 10,000.00
Total Soft Costs:	\$224,390.00
Stream Channel Construction:	\$674,821.00
Total Phase I Project Cost:	\$1,473,292.00

INTRODUCTION AND BACKGROUND:

Lower Willow Creek and its floodplain below Creede have been significantly impacted from upstream mining operations, milling operations, conveyance and storage of mill waste, and physical disturbance. Prior to mining, the now highly braided and unsightly Lower Willow Creek was a stable, meandering stream with dense willow vegetation.

The local Creede community has had a vision to restore the floodplain area to a community resource with a natural functioning stream and floodplain system. The Willow Creek Reclamation Committee (WCRC) has been working to restore the Willow Creek watershed since 1997 with one of its primary missions to reclaim Lower Willow Creek and its floodplain. The WCRC will be aiding the City of Creede to design, manage and implement the Lower Willow Creek Restoration Project.

The majority of the floodplain area is currently owned by Creede Resources, Inc. and negotiations have concluded to donate this land to the City of Creede via the Lower Willow Creek Restoration Company (LWCR Co). The LWCRCo has been formed to oversee the project, take title, and administer funds. This entity consists of (2) City of Creede Town Trustees, and (2) Creede Resources, Inc. representatives, and is expected to take title to the floodplain lots in April 2012. This will clear the way for fieldwork to begin in the spring of 2012. Upon completion of the clean up project the future plan is to donate this property as open space to the City of Creede. In addition, the WSRA grant will fund the cost to restore the channel between the flume and the downstream limit of the MCFA property.

OBJECTIVES:

The overall objective of the Lower Willow Creek Restoration Project is to restore the lower Willow Creek from its current braided form within its disturbed floodplain to a state more similar to pre-mining conditions. Additional objectives include:

- Restore stream functions to improve long-term management of stream energy and sediment transport within a single or double-thread meandering channel.
- Improve water quality of Lower Willow Creek and Rio Grande Segment 4 by reducing stream erosion and interaction with contaminated soils and relocation of contaminated soils above the water table
- Reduce evaporative water loss affecting Rio Grande water users by reducing areas of braided stream channel and wetted soils
- Reduce public health risk associated with direct contact with contaminated soils and improve soil conditions for re-vegetation
- Improve riparian habitat, long-term stream stability, and aesthetic conditions with appropriate vegetation for riparian and upland areas
- Improve aesthetic conditions, recreational values, and educational opportunities with landscaping and trails
- Improve downstream fisheries and support for threatened and endangered species through improvements to water quality and riparian habitat

Stream channel restoration will be limited to the Creede Resources and the Mineral County Fairgrounds Association properties, while floodplain restoration will be limited to the Creede Resources property.

TASKS:

Task 1: Project Management and Administration

Description of Task

- Manage and administer project design, bidding, construction, and execution
- Develop bid documents and solicit and select construction contractor or contractor team
- Facilitate transfer of property to non-profit or governmental entity
- Submit reimbursement requests, pay invoices, and track project expenditures
- Provide CWCB a progress report every 6 months after contract date
Progress reports will describe the completion or partial completion of project tasks, description of any major issues, and any corrective actions
- Provide CWCB a final report upon completion of project
Final report will summarize activities and document project

Method/Procedure

The LWCR Co will be primarily responsible for project management, administration, accounting, and reporting while the LWCRCo will be responsible for the property transfer, submission of reimbursement requests, invoice payment, and overall oversight of the project. The City of Creede or WCRC may assume additional management responsibilities if needed. All funds will either be retained by the LWCR Co to either offset or directly reimburse Willow Creek Reclamation Committee staff for time spent directly on project tasks. Any portions of unused administrative expenses will be applied to direct construction expenses upon approval of the CWCB.

Deliverables

- Contractor bid documents
 - An accounting of project expenditures
 - Progress reports every 6 months after contract date
 - Final progress report upon completion of project
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Task 2: Final Design and Construction Supervision

Description of Task:

Although a conceptual plan and preliminary design parameters were developed by the NRCS, contour intervals were taken at two foot intervals instead of the necessary one foot intervals. In addition, floodplain delineation and other field analysis have been integrated a final design for the Lower Willow Creek Restoration Project has not yet been developed. The final design will define design layout, construction procedures, estimated costs, and construction schedules and will integrate preliminary design information, areas of contamination, and ease of construction, cleanup goals, and elevation profiles. Design tasks may include additional investigation of extent and depth

of soil contamination or rely on other recent investigations. The final design may indicate a layout, procedures, or costs that are different than the conceptual plan and cost estimates presented in the WSRA grant application. A portion of this final design may be performed as part of a voluntary clean up plan (VCUP) application. This task also encompasses construction supervision.

Method/Procedure:

As directed by CWCB, all engineering work shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado. An experienced consulting hydrologist working with an engineer could be responsible for some portions of design or construction supervision. The final design will be developed by Casey Resources, Inc., an engineering firm contracted by the City of Creede and LWCRCo. A construction supervisor or supervisors may be a Willow Creek Reclamation Committee staff reimbursed through the LWCRCo or a qualified supervisor employed by the construction contractor or contractor team. Any portions of unused design expenses will be applied to direct construction expenses upon approval of the CWCB.

Deliverable

- Final design
 - Construction supervisor
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Task 3: Re-construct Stable Stream Channel/s, Bank, and Wetland Areas

Description of Task:

Elements of project construction will be defined and driven by the final design (task 2). However, project construction will generally be limited to the following activities.

- Cut, fill, and grade floodplain area
- Relocate areas of highly contaminated soil above groundwater table according to Materials Management Plan as outlined in the VCUP
- Place adequate soil/fill on channel overbank areas
- Excavate meandering single or double stream channel based on final design
- Stabilize ditch diversion structures with designed control structures
- Excavate new ditch channels if required
- Stabilize new channel grades with rock cross-vanes
- Stabilize outside bends with J-hooks, log structures, and/or willow re-vegetation
- Apply adequate soil and/or amendments for establishment of vegetation in channel area
- Plant additional willow and other appropriate vegetation in channel area
- Construct wetland areas in soil borrow areas with willow and/or hydrophytes

Method/Procedure:

Bids will be solicited directly from contractors. In the case that bids do not meet available budget, individual contractors may be managed by the LWCRCo through the City of Creede or a contracted supervisor.

REPORTING AND FINAL DELIVERABLE:

Progress Reports: The LWCRCo will provide the CWCB a progress report every 6 months, beginning from the date of the executed contract, as mentioned in Task 1. The progress report shall describe the completion or partial completion of the tasks identified in the statement of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

BUDGET:**Overall Project Budget – All Grants**

	Phase 1 Task	WSRA funds	CDPHE NPS 319	CDRMS	CBRLF	Local In-Kind	Total
1	Land Transfer to LWCRCo	\$0	\$0	\$0	\$0	748,750	\$748,750
2	Project management and administration	\$5,400	\$40,750	\$0	\$0	\$10,000	\$56,150
3	Design and construction supervision	\$83,000	\$89,133	\$0	\$0	\$0	\$172,133
4	Re-construct stream channel/s, bank willow, and wetland areas	\$161,600	\$275,137	\$35,000	\$128,000	\$8,000	\$607,737
	Monitor channel stability, water quality, and re-vegetation	\$0	\$3,750	\$0	\$72,000	\$3,000	\$78,750
	PHASE 1 TOTAL	\$250,000	\$408,770	\$35,000	\$200,000	\$769,750	\$1,663,520

WSRA Costs – Project Phase 1

Phase 1 Task		Project Manager or Administrative Staff	Engineer or Hydrologist	Construction	Total WSRA
		WCRC*	Contracted	Contractor/s	Funds
Hourly Rate:		\$25	\$90	contract	
1	Project management and administration	\$5,400	\$0	\$0	\$5,400
2	Design and construction supervision	\$0	\$83,000	\$0	\$83,000
3	Re-construct stream channel/s, bank willow, and wetland areas	\$0	\$0	\$161,600	\$161,600
4	Monitor channel stability, water quality, and re-vegetation	\$0	\$0	\$0	\$0
5	Develop strategic plan for phase 2 and funding	\$0	\$0	\$0	\$0
Total Costs - Phase 1		\$5,400	\$83,000	\$161,600	\$250,000

Note: *WCRC staff will be reimbursed as contract labor employed by the Lower Willow Creek Restoration Company (LWCRCo)

SCHEDULE:

	Phase 1 Task	Start Date	Finish Date
1	Land transfer to non-profit and/or City of Creede	Upon NTP	12/31/14
2	Project management and administration	Upon NTP	12/31/14
3	Final design and construction supervision	Upon NTP	12/31/14
4	Re-construct stream channel/s, bank willow, and wetland areas	Upon NTP + 3 months	12/31/14
5	Monitor channel stability, water quality, and re-vegetation	Upon NTP	12/31/16

Notes: CWCB WSRA portion of project will be considered complete upon termination of task 3; NTP = notice to proceed

KEY PERSONNEL

Fiscal Agent/
Project Administration: Lower Willow Creek Restoration Company
P.O. Box 457 / 2223 N. Main St
Creede, CO 81130
719-658-2276

Project Management: Willow Creek Reclamation Committee
P.O. Box 518
Creede, CO 81130
719-658-0178

Technical Assistance: Willow Creek Reclamation Committee's Technical Advisory Committee (TAC) Includes professionals from United States NRCS, EPA, FWS, BLM, and FS; Colorado CDPHE and CDRMS; retired chemists, engineers, and geologists.

Bruce Van Haveren Restoration Consultant / Volunteer
With a Ph.D. in Natural Resources Policy, Mr. Haveren is a retired federal scientist and adjunct faculty member and consults on ecological monitoring and watershed hydrology.
Heads WCRC TAC Re-vegetation subcommittee.

Agro Engineering, Inc. 0210 Road 2 South, Alamosa, CO 81101
Agro Engineering completed the Willow Creek Flood Control and Stream Stability Study for the CWCB and the WCRC, served as contractor on the CWCB's Rio Grande Headwaters Restoration Project and Alamosa River Watershed Restoration Master Plan and Environmental Assessment, and has local experience in stream restoration design, soil reclamation, and hydraulic modeling.

Steve Belz, Black Creek Hydrology, LLC;
10998 Patterson Court, Northglenn, CO 80234
Hydrologist Steve Belz has worked on numerous stream restoration including the projects on the Rio Chama, Lake Fork of the Gunnison, Poudre River, and Alamosa River; and may provide consultation on final design and construction.

Zeke Ward
417 West Pine Drive
Creede, CO 81130
Zeke Ward is the chairman of the Willow Creek Reclamation Committee and was the project manager and construction supervisor for the Mineral County Fairgrounds Association voluntary clean-up plan project.

Paul Casey, Casey Resources Inc.
4890 Kipling Street, Wheat Ridge, CO 80033
Casey Resources provides environmental engineering, consulting, remediation, and management services; and has worked as consultant for Creede Resources to complete Voluntary Cleanup Plans of the mill site near Lower Willow Creek.