COLORADO RIVER INVENTORY AND ASSESSMENT

Exhibit A Statement of Work

WATER ACTIVITY NAME - Colorado River Inventory and Assessment

GRANT RECIPIENT - Eagle River Watershed Council, Inc.

FUNDING SOURCE - Colorado River Basin Roundtable Water Supply reserve Account

INTRODUCTION AND BACKGROUND

In 1996 a group of stakeholders interested in monitoring the clean up of the Eagle Mine Superfund Site produced the Eagle River Watershed Plan which recommended the formal creation of an Eagle River Watershed Council (ERWC). That same document also outlined a collaborative, local philosophy for protecting and improving water quality, quantity, wildlife habitat and recreational opportunities and promoting compatible land use practices. The Plan focused exclusively on the Eagle River watershed.

As one of its projects ERWC worked with Colorado State University (CSU) to create a study entitled "Eagle River Inventory and Assessment (ERIA)" which was produced by Dr. Brian Bledsoe in 2005. That study also focused exclusively on assessment of the Eagle River watershed from a basinwide ecological perspective with the objective of defining and prioritizing potential restoration activities to improve the integrity of the river system. Bledsoe's science-based study has since been ERWC's guiding document with regard to restoration projects and strategy development.

Today ERWC is in the process of updating the 16 year old Eagle River Watershed Plan – and adding the Colorado River watershed in Eagle County. This process has led to the realization that there is little data about a river which flows nearly 60 miles through Eagle County. There is no inventory of the ecology of the river corridor outlining what needs to be preserved or restored that directs community or state investment. We are proposing funding a science-based Inventory and Asessement of the ecological setting of the Colorado River corridor that will have lasting value for future land use decision making, conservation funding, enhancement and other agriculture, recreation or wildlife-based projects that benefit Eagle County and its tourism-based economy

OBJECTIVES

- To create a science-based, overall study of the Colorado River corridor, its inhabitants and ecosystems, that will delineate a prioritized list of needed restoration and conservation projects.
- To understand the ecological setting of the Colorado River corridor in order to preserve those values with future land use decision making, conservation funding, enhancement and other agriculture, recreation or wildlife-based projects that benefit Eagle County and its tourism-based economy.
- To utilize the report to educate our community and state, and to help us obtain public support and funding for these projects

COLORADO RIVER INVENTORY AND ASSESSMENT

Exhibit A Statement of Work

WATER ACTIVITY NAME - Colorado River Inventory and Assessment

GRANT RECIPIENT – Eagle River Watershed Council, Inc.

FUNDING SOURCE - Colorado River Basin Roundtable Account and State Account

INTRODUCTION AND BACKGROUND

In 1996 a group of stakeholders interested in monitoring the clean up of the Eagle Mine Superfund Site produced the Eagle River Watershed Plan which recommended the formal creation of an Eagle River Watershed Council (ERWC). That same document also outlined a collaborative, local philosophy for protecting and improving water quality, quantity, wildlife habitat and recreational opportunities and promoting compatible land use practices. The Plan focused exclusively on the Eagle River watershed.

As one of its projects ERWC worked with Colorado State University (CSU) to create a study entitled "Eagle River Inventory and Assessment (ERIA)" which was produced by Dr. Brian Bledsoe in 2005. That study also focused exclusively on assessment of the Eagle River watershed from a basinwide ecological perspective with the objective of defining and prioritizing potential restoration activities to improve the integrity of the river system. Bledsoe's science-based study has since been ERWC's guiding document with regard to restoration projects and strategy development.

Today ERWC is in the process of updating the 16 year old Eagle River Watershed Plan – and adding the Colorado River watershed in Eagle County. This process has led to the realization that there is little data about a river which flows nearly 60 miles through Eagle County. There is no inventory of the ecology of the river corridor outlining what needs to be preserved or restored that directs community or state investment. We are proposing funding a science-based Inventory and Asessement of the ecological setting of the Colorado River corridor that will have lasting value for future land use decision making, conservation funding, enhancement and other agriculture, recreation or wildlife-based projects that benefit Eagle County and its tourism-based economy

OBJECTIVES

- To create a science-based, overall study of the Colorado River corridor, its inhabitants and ecosystems, that will delineate a prioritized list of needed restoration and conservation projects.
- To understand the ecological setting of the Colorado River corridor in order to preserve those values with future land use decision making, conservation funding, enhancement and other agriculture, recreation or wildlife-based projects that benefit Eagle County and its tourism-based economy.
- To utilize the report to educate our community and state, and to help us obtain public support and funding for these projects

TASK 1 – Stakeholder Coordination and Input

Method/Procedure

The Eagle River Watershed Council, in coordination with Colorado State University (CSU), shall convene the stakeholder group as part of the project outreach to identify and better define the most pressing issues and potential restoration activities throughout the basin prior to CSU field work.

At a minimum this work will be important to identify critical questions about the watershed as well as a set of candidate restoration projects. The stakeholder input will be augmented through field reconnaissance, statistical analysis and a multi-criterion decision analysis approach to rank the ecological effectiveness of potential projects.

Stakeholders will be collaboratively identified by the Eagle River Watershed Council staff, and interviews will be conducted in group or individual settings ahead of field inventory and literature review. Preliminarily identified stakeholders in the project include, but are not limited to: Eagle County, NRCS, Eagle County Soil Conservation District, Colorado Division of Parks and Wildlife, Colorado River Water Conservation District, BLM, USFS, USGS, USACE, Trout Unlimited, Colorado River Outfitters Association, The Nature Conservancy, Sonoran Institute, CSU and significant landowners as well as major water rights owners.

Deliverable

A printed and electronic summary Stakeholder Input report for CSU and ERWC use as part of the project.

TASK 2 – Data Inventory & Literature Review

Method/Procedure

CSU, in coordination with ERWC, will identify and analyze existing monitoring data and information to assess the status of river, including the identification of any data gaps. This will include a literature review of all known data for the Colorado, including data which might overlap with upstream or downstream reaches, as well as any data provided through Task 1 (meetings with watershed stakeholders, and local, state and federal scientists).

Deliverable

A printed and electronic summary of Data Inventory & Literature Review for CSU and ERWC use as part of the project.

TASK 3 – Inventory and Synoptic Field Survey

Method/Procedure

CSU, in coordination with ERWC, will inventory channel, riparian, and upland characteristics within Eagle County that influence the ecological integrity, recreational amenities, and aesthetic values of the Colorado River and its major tributaries in the reach. This task will include conducting synoptic field surveys of riparian condition, of chemical, physical, and biological water quality, and of geomorphic attributes to supplement existing information. The step will also require GIS inventory and analysis of riparian conditions, land cover, geomorphic processes, etc., in coordination with Eagle County GIS Department and other applicable agencies.

Deliverable

Field survey data sheets, which may also include printed and electronic summaries, synoptic survey and mapping as applicable, to be utilized in the production of final CRIA report.

TASK 4 - Candidate Rehabilitation Projects List & Review

Method/Procedure

CSU, in coordination with the ERWC, will utilize findings of Tasks 1 through 3 to identify and describe candidate rehabilitation projects (structural and non-structural) and link to current issues and likely outcomes based upon field reconnaissance, stakeholder input, and scientific assessment.

Deliverable

Draft candidate rehabilitation projects list, to be coordinated and reviewed with ERWC staff and key project stakeholders, to be utilized in production of final CRIA assessment and report. Draft projects list will be prioritized based on likelihood of success, potential benefits, rough estimates of costs, and stakeholder input using a multi-criterion decision analysis (MCDA) approach to rank the ecological effectiveness of potential projects.

TASK 5 - Draft Colorado River Inventory & Assessment (CRIA) Report

Method/Procedure

CSU, in coordination with ERWC, will produce a report describing the results of the river corridor inventory and prioritized recommendations for rehabilitation projects following the updated approach and template of the 2005 Eagle River Inventory and Assessment.

Deliverable

The final CRIA report will include the following:

- Description of candidate rehabilitation and other projects (structural and nonstructural) identified during the inventory
- Prioritized list of rehabilitation strategies based upon likelihood of success, potential benefits and rough estimates of cost
- MCDA (multi-criteria decision analysis) spreadsheet tool used to rank candidate projects
- Detailed description of the methods in the inventory and analysis of candidate rehabilitation projects
- List of names, titles and affiliations of all persons who prepared the content of the report and participated in the monitoring activities
- Analysis of all quantitative monitoring data using graph and table formats when appropriate
- o Prints or colored photocopies of all photographs used
- o Maps identifying monitoring areas, cross-sections, transects, etc.
- o Results of qualitative monitoring of site characteristics, functions and values

						EXPI	EN	SES								
Tasks		Project Manager ERWC		Project Consultant CSU		CSU PhD candidate		CSU researcher		ERWC staff & supplies		CSU Materials & Supplies		CSU travel		Total xpenses
Task 1 - Stakeholder Coordination & Input Task 2 - Data	\$	12,000	\$	2,000	\$	10,000	\$	1,000	\$	577			\$	800	\$	26,377
Inventory & Literature Review Task 3 - Physical Inventory & Synoptic Field Survey	s s	12,000	\$ \$	3,000	\$ \$	10,000 26,000	\$ \$	2,000	\$ \$	100	\$	900	\$ \$	400	\$ \$	27,500 64,993
Task 4 - Candidate Rehabilitation Projects List & Review Task 5 - Co. River	\$	6,000	\$	9,000	\$	10,967	\$	7,700	\$	100	\$	936	\$	800	\$	35,503
Inventory & Assessment Report	\$	14,000	\$	8,828	\$	14,000	\$	2,700	\$	2,000	213		\$	600	\$	42,128
Total Expenses	\$	48,000	\$	32,828	\$	70,967	\$	33,393	\$	2,877	\$	1,836	\$	6,600	\$	196,501

	INCOME														
Tasks	CSU		Basin Roundtable		State WRSA fund		Eagle County		OSAC		1	Total ncome			
Task 1 - Stakeholder Coordination & Input	\$	585					\$	17,500	\$	8,292	\$	26,377			
Task 2 - Data Inventory & Literature Review	\$	715	\$	15,000	\$	2,577			\$	9,208	\$	27,500			
Task 3 - Physical Inventory & Synoptic Field Survev	\$	2,666	s	15,000	\$	47,327					\$	64,993			
Task 4 - Candidate Rehabilitation Projects List & Review	\$	1,300			\$	19,203	\$	7,500	\$	7,500	\$	35,503			
Task 5 - Co. River Inventory & Assessment Report	\$	1,235			\$	40,893					\$	42,128			
Total Income	\$	6,501	s	30,000	\$	110.000	\$	25,000	\$	25,000	s	196,501			

Tasks									2013											
Tuono	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Task 1 - Stakeholder Coordination & Input				J	100									A BANK		-	1 Section		1 1 1 E	-
Task 2 - Data Inventory & Literature Review																				
Task 3 - Physical Inventory & Synoptic Field Survey							No The					-			1					
Task 4 - Candidate Rehabilitation Projects List & Review																				
Task 5 - Co. River Inventory & Assessment Report																	126		1 Feb	