PROJECT PROPOSAL and SCOPE

PROJECT – Bull Creek 2012 Wetlands Monitoring

GRANT RECIPIENT – Bull Creek Reservoir, Canal, and Power Company

FUNDING SOURCE – Severance Tax Trust fund Operational Account

TOTAL PROJECT COST - $33,500

CWCB APPROVED FUNDING - $16,700 (approved by CWCB on March 21, 2012)

INTRODUCTION

This project will be a joint effort of Bull Creek Reservoir Company (BCRC) and NatureTech Consultant Services Corp (NTCS).

BACKGROUND

The Grand Mesa in western Colorado supports over 350 natural lakes and reservoirs. These water resources are protected under the Clean Water Act administered by the U.S. Army Corps of Engineers and many are located on U. S. Forest Service lands. Permits from both agencies (as well as other Federal, state, and local agencies) are usually required for work on or around these lakes and reservoirs. During the summer of 2010, BCRC completed construction on Bull Creek Reservoir #4 and was authorized to fill the reservoir under their original 404 permit. The final permit conditions stipulated that for the first 3 years of reservoir filling monitoring was to be done to assess the potential effects of periodic inundation on wetlands and fens associated within and adjacent to the reservoir basin. Working with NTCS and Westwater Engineering, BCRC began the monitoring work in 2010 by laying out the study area (transects) and gathering baseline data for the wetland values in the reservoir basin. In 2011 the first year of monitoring and reporting was done. Study protocols were established, followed by multiple site visits by the Project Manager and a team of technicians who gathered data pertaining to wetlands and fens values. When the field work was done the data was analyzed and compiled in a collection of reports submitted to the USACE and the CWCB. It is expected that the information collected at the Bull Creek Reservoir #4 site will be used to develop future monitoring requirements and management recommendations for other water development projects on the Grand Mesa.

OBJECTIVES

The overall project objective is to assess what if any effects are associated with the periodic inundation of the wetlands and fens that exist within the Bull Creek Reservoir #4 reservoir basin. The first purpose will be to meet the monitoring requirements identified in the BCRC's special permit conditions, but the larger purpose is to implement developed monitoring protocols that may become the standard requirements for other water development projects on the Grand Mesa. A Grand Mesa irrigation company with a pending reservoir project is already using Bull Creek study results in its planning.

TASK DESCRIPTION – Field Observation and Data Collection

This task will consist of site visits by the Project Manager and a staff of technicians who will observe and document changes in vegetation composition, foliar cover and frequency as outlined in the monitoring requirements on file with U. S. Army Corps of Engineers in Grand Junction, Colorado.

Based on past field monitoring efforts at Bull Creek 4, the project will be conducted in two separate monitoring efforts spaced approximately 3 weeks apart. This is done to comply with the August 8th date mandated by the USACE but also ensure that the vegetation is observed at or near its peak.

TASK DESCRIPTION – Analysis of Data and Reporting

The data collected at the Bull Creek Reservoir #4 study area will be analyzed according to the established protocol and prevailing scientific standards, and then the data and analysis will be presented in a report that will be submitted to the USACE and the CWCB.

Method/Procedure:

In prior efforts a protocol has been developed for sampling to determine the effects of periodic wetland inundation, specifically addressing the many parameters identified in the 404 permit. The protocol is specific to the vegetation baseline inventory and monitoring that will be used to document changes within the wetland communities associated with SPK-2008-00722. Fundamental to the protocol are monitoring techniques sufficient to monitor the following vegetation parameters: cover/frequency (CF), species composition, and species richness. In addition, the protocol also considers the resources required to support and validate the use of the Grand Mesa Method (GMM) for functions, values and attributes of the site. The Grand Mesa Method will be utililized to objectively assess the relative changes within the in situ wetlands communities established on the site.

DELIVERABLES

The applicant shall provide the CWCB with a report detailing the data gathered and the results from this year's monitoring, including:

- Meeting notes, action items, and attendee lists
- Geo-referenced mapping of the reservoir basin with transects located.
- A Monitoring Report for data collected in the field, including photographs of field collections, and an analysis of that data.
- A proposed monitoring plan document that will include proposed plans for remediation if necessary. This plan may be carried forward through agency and public scoping in the form of a standalone document.

All products, data and information developed as a result of this grant will be provided to the CWCB in hard copy and electronic format. This information will in turn be made widely available to any person or entity interested in the issues surrounding the development and maintenance of reservoirs in areas where wetlands or fens may be present.

SCHEDULE

Site visits are planned for August and September of 2012. The project will be completed with deliverables prepared and delivered by April 30th, 2012.

PROJECT BUDGET

Description	Project Scientist	Senior Scientist	Assistant Proj Scientist	Staff Scientist	GIS Analyst	Clerical	Vehicle Mileage	Total Cost
Rates	$110.00	$95.00	$85.00	$70.00	$70.00	$40.00	$0.65	
Task 1	50	60	110	110	45	20	2000	
	$5,500.00	$5,700.00	$9,350.00	$7,700.00	$3,150.00	$800.00	$1,300.00	$33,500.00

The Bull Creek Power Canal and Reservoir Company will be responsible for all cost of the project in excess of the approved grant amount.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. 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 the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to the general public and help promote the development of a common technical platform.