

**COLORADO RIVER RECOVERY PROGRAM
FY-99 ANNUAL PROJECT REPORT**

**RECOVERY PROGRAM
PROJECT # 17 BC/WAC**

I. Project Title: Green River Channel Monitoring Field Data Collection
Echo Park Reach of the Yampa Green Rivers

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III. Project Summary:

During the past eight years, a cooperative channel monitoring effort has proven to be successful in shedding new insight on top habitat-dependant processes and issues. This approach has resulted in a considerable amount of information being collected and analyzed at a relatively low cost to the Recovery Program. The approach has taken advantage of previous efforts and has capitalized on cooperative efforts, available data, and expertise within the Recovery Program to provide information that can be used to monitor physical habitat and design habitat improvement projects. The Channel Monitoring Program for FY-1999 was designed to pull all of the Green River channel monitoring work accomplished since 1991 into a comprehensive report. The report will identify and describe the previous work and all cross sections surveyed by the Channel Monitoring and Bottom Lands Programs and others will be mapped, survey data will be reduced to table form, and geomorphology data will be summarized. The report also will summarize important findings and develop recommendations for establishing a standard Channel Monitoring Program.

IV. Study Schedule: Initial Year - 1999, Final - Year 2000

V. Relationship to RIPRAP:

Task # Task Description

Colorado River Action Plan: Mainstem

I.A.3.c(3)(c)ii)

Implement, evaluate, process & hydrology, and provide an annual report (on Coordinated Reservoir Operations)

Green River Action Plan: Yampa/Little Snake Rivers

Green River Activity Item: I.A.I

Identify Year-round flows

Yampa River Activity Item: I.B.3.a, I.B.4.b(1,2,3), & I.C.2

Identify Year-round Flow Needs for Recovery and Refine Yampa River

Flow Recommendations.

VI. Accomplishments:

A. A Channel Monitoring literature review was completed for the Yampa and Green Rivers.

B. Contact was made with Utah State University to secure final reports developed by Jack Schmidt, Paul Grams, and others. Reports were added to the Recovery Program Library.

C. Contact was made with Mussetter Engineering to obtain a computer data file on cross sections collected at spawning bars on the Yampa and Green Rivers.

D. Contact was made with Charles Prewitt (Mike Prewitt) to secure cross section data collected from 1976 to 1983. Mike informed us that he did have some data stored in his garage years ago but did not know if he still had the data. He is going to check when he is feeling up to the task.

E. The Green River System was evaluated by Jim O'Brien of Tetra Tech (formerly Flow Engineering) to identify holes or missing reaches in the Channel Monitoring Program cross section coverage. A review of the FLO 2D model for the Green River was conducted and as a result, the model N values were adjusted by river reach to better simulate over bank conditions at Ouray. The Yampa River was added to the FLO 2D model using funds from the National Park Service. The holes have been identified in the Flaming Gorge to Ladore Reach and in the White to Green River Reach. As technology improves, it is feasible to fill in these holes using GPS and acoustic Doppler equipment.

F. Summarize cross section locations and prepare a digital map displaying the location of each cross section. This task was not completed because the personnel planned for this task were fully committed to U. S. Fish and Wildlife Service (Service) priorities relating to Y2K and Service ADP support. The funding for this task, \$9,000, was transferred to Tetra Tech and the task will be accomplished by December 31, 2000.

G. A report is being prepared to document previous work. Data will be archived and made available for future reference. The Report will also contain a summary of new technology for locating, stationing, and measuring cross sections and the creation of bathymetric maps of river channels (from recent investigations of Brian Cluer of the National Park Service).

H. A web-based repository data was developed for river temperature data, channel monitoring data, and river sediment data collected by the Recovery Program. Currently channel monitoring, sediment, and temperature data is being added as

