

I. Project Title: Colorado River Decision Support System (CRDSS)

II. Principal Investigator: Ray Alvarado
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203
Phone: (303) 866-3441
Fax: (303) 866-4474
e-mail: ray.alvarado@state.co.us

III. Project Summary:

The CRDSS supports better decision making with respect to the utilization of Colorado River water resources. It provides computer databases and tools to make informed and timely decisions regarding the use and operation of Colorado's water resources in the Upper Colorado River Basin. The CRDSS operates in accordance with existing compacts and state laws governing the administration of water and water rights, and will allow planning for the optimal use and development of Colorado's water resources to occur.

In relation to the Recovery Program, CRDSS is being used to evaluate the physical and legal water availability at different locations along a stream and to determine the amount of water available for instream flow appropriations. It can also provide information to help determine the impacts of endangered fish flows on Colorado's ability to develop its full compact apportionment.

A large part of these efforts have contributed to decision making on the 15-Mile Reach PBO and the accounting system. This accounting system requires significant work every 5 years.

IV. Study Schedule:

The project started in 1993. Phase IIIb (extension of basin models) was completed in July 2000. A funded maintenance program has been established to provide Colorado state employees for ongoing maintenance and data updates.

V. Relationship to RIPRAP:

Assess legal and physical availability of water and compact considerations for protection of instream flow water rights:

Yampa River above (I.B.3.b.) and below (I.D.2.b,c) Little Snake River (I.C.3.b.), White River (I.C.2.), Colorado River (mainstem) (I.A.3.; I.A.4.a.[1,2]; I.A.4.b.[1,2]; I.B.3.b,c), Gunnison River (I.B.2.; I.B.3) and the San Juan River (San Juan River Recovery Implementation

Program).

Provide hydrology support to develop and evaluate flow augmentation needs on the Yampa River (I.A.1.d.).

VI. Accomplishment of FY 2000 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

The extended CRDSS Project River Basin Models were completed July 2000. The database to run these models is online and has been fully populated with data including structure diversion records, climate data, water rights information and streamflow data through water year 1998. This can be viewed on the Internet at cdss.state.co.us.

The maintenance program provided the following improvements to the CRDSS model that will directly benefit the Recovery Program:

1. Instream flow demands allowed to vary monthly to better model FWS flow recommendations.
2. Division 5 Workbook to improve Colorado mainstem river administration.

VII. Recommendations: No recommendations are being made.

VIII. Project Status:

The initial CRDSS project is complete. All other changes, improvements, and updates are part of the ongoing maintenance program.

IX. FY 2000 Budget Status:

A. Funds Provided:	\$207,771	State of Colorado funding + in-kind services
B. Funds Expended:	\$207,771	
C. Difference:	\$ 0	

D. % of FY 2000 work completed, projected costs to complete: 100% of the FY2000 work was completed.

E. Recovery Program funds spent for publication charges: \$0

X. Status of Data Submission:

Not applicable, however, the CRDSS model can be viewed online at cdss.state.co.us.

XI. Signed: *Ray Alvarado*

Date: December 3, 2000