

# Colorado River Water Availability Study

## Phase I



Newsletter | January 2009 | Vol. 1

For more information on the study, the IBCC, and BRT meetings please see <http://ibcc.state.co.us/>.

## Introduction

The Colorado River Water Availability Study (CRWAS or Study) is a multiphase study authorized by the Colorado State Legislature and managed by the Colorado Water Conservation Board (CWCB or Board). Its primary purpose is to estimate the amount of water still available for consumptive and non-consumptive (in-stream) uses in the Colorado River basin in the State of Colorado. The Study's results will provide important information for the State of Colorado, Colorado River water users, and other stakeholders throughout the State regarding water supply variability and uncertainty.

Colorado's Interbasin Compact Committee (IBCC) recommended that CRWAS be conducted in two phases. Phase I focuses on existing levels of water use (based on absolute water rights and operating agreements now in place). In addition to analyses based on historical streamflows, alternate hydrologic scenarios (including paleo-hydrology developed with tree-ring studies and newly developed estimates of the effects of global climate and Colorado forest conditions) will also be assessed. Phase II will address projected future water use levels including beneficial uses recognized under Colorado water law and other potential "non-water right" consumptive and non-consumptive uses.

The Study will analyze water supply and use in accordance with the State's major Colorado River tributaries represented by the four Basin Roundtables (BRTs) shown on the following map, including 1) Yampa/White/Green; 2) Colorado; 3) Gunnison and 4) Dolores/San Juan/San Miguel.

## CRWAS Subbasins



**BOYLE | AECOM**

In Association with

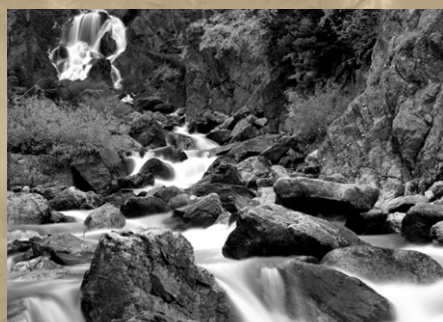
**amec**



**Canyon Water  
Resources, LLC**

**STRATUS  
CONSULTING**





Fish Creek Falls near Steamboat Springs



Dillon Reservoir



Dillon Pinnacles at Blue Mesa Reservoir



Animas River near Durango

## Phase I Authorization and Goals

Phase I of the CRWAS was authorized by Senate Bill 07-122 and House Bill 08-1346. Phase I will help the State address the following primary questions:

- ◆ What is a reasonable estimate of existing water uses (location and amount) to use in assessing water availability for additional consumptive and non-consumptive (in-stream) uses?
- ◆ How does historical hydrology compare to a longer hydrologic trace developed through tree ring analysis?
- ◆ What is a reasonable projection for hydrology as affected by potential climate change and forest change?
- ◆ How much water would the State of Colorado be entitled to under current Compacts based on previous investigations of Colorado River Compact entitlements and CRWAS Phase I modeling?

## Phase I Schedule and Progress

Launched on September 29, 2008, Phase I of the CRWAS is expected to be completed near the end of 2009. Work completed or currently in progress includes the following primary activities:

- ◆ Preparing summaries of existing hydrologic simulation tools (the Colorado Decision Support System or “CDSS”) for each of the main Colorado River tributary basins shown on the map above and identifying potential enhancements for this study for review with the Basin Roundtables (see <http://ibcc.state.co.us> for upcoming meetings and agendas)
- ◆ Assessing alternative methods and approaches to:
  - ▶ Using tree-ring data and paleo-hydrologic analyses to develop hydrologic information extending back nearly 500 years and encompassing more severe and more sustained drought periods than shown in historic data covering only the last 50 to 100 years.
  - ▶ Utilizing existing Global Climate models and “downscaling” these models to the entire Colorado River basin the western U.S. and in the Colorado River tributary basins in the State of Colorado (for excellent introductions to the world of Climate Change, please see, “Climate Change in Colorado” at <http://ibcc.state.co.us> and “Citizen’s Guide to Colorado Climate Change” at [www.cfwe.org](http://www.cfwe.org).)
  - ▶ Estimating the impact of recent and potential future changes in Colorado’s forest

Additional newsletters, progress reports and Study work products will be posted at <http://ibcc.state.co.us> – please stay tuned, attend upcoming basin roundtable and IBCC meetings and help us make this study the best it can be for the citizens of the State of Colorado.

	2008	2009
1. Project Management	Continuous	
2. Literature Review	Completed	
3. Glossary and Basin Maps	Completed	
4. CDSS Model Review	Underway	
5. CDSS Model Refinement	Scoping	
6. Alternate Historical Hydrology	Scoping	
7. Alternate Hydrology – Climate & Forest Change	Scoping	
8. Colorado River Compact Overview / Analysis	Scoping	
9. Preliminary Assessments of Phase I Water Availability		
10. Phase I Reporting		

