Colorado River District
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COLORADO WATER 2012

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Colorado River District praises the Colorado River Water Supply and Demand Study as a call to action

GLENWOOD SPRINGS, Colo. – The Colorado River District commends the Colorado River Basin Water Supply and Demand Study released today to the public as a thorough and detailed call to action for Colorado River stakeholders to address a gap between human and environmental demands on the river system and the amount of water it produces annually.

"The study confirms what we already understand: The Colorado River is already fully used," said Colorado River District General Manager Eric Kuhn. "In the very near future, the demand for the river's resources will far exceed the available supply. In order to meet the needs of people and aquatic-dependent species and habitats, new ways of thinking and doing business will be essential."

The study demonstrates that demands in the seven basin states and the Republic of Mexico frequently exceed the system's estimated annual supply, a gap that is projected to widen to 3.2 million acre-feet by 2060 when the population that depends on the river system is estimated to double. (An acre-foot is a measurement standard for water volume. It is equal to 325,851 gallons, enough water to submerge an acre of land with one foot of water and supply the needs of two average families of four for a year.)

This prospect targets agricultural communities because large metropolitan areas often view irrigated agriculture as a source of water to meet future municipal demands. The study also demonstrates the need to find new sources of water from outside of the Colorado River Basin – a difficult, expensive and potentially contentious task.

The study analyzes various combinations of possible future river supply and demand scenarios.
Under the 1922 Colorado River Compact and the 1944 Water Treaty with Mexico, 17.5 million acre-feet of water was allocated for annual consumption. The Lower Basin (California, Arizona and Nevada) is apportioned 8.5 million acre-feet, the Upper Basin (Colorado, Utah, Wyoming and New Mexico) 7.5 million acre-feet and Mexico 1.5 million acre-feet.

When the 1922 Compact was negotiated, it was assumed that the natural flow (unused by man) of the river at the mouth of the Colorado River near Yuma, AZ, exceeded 20 million acre feet a year. Unfortunately, as the study shows, the natural flow of the Colorado River averages about 16.4 million acre-feet per year at this location.

"We are surviving the imbalance by drawing down storage in Lake Powell and Lake Mead. The situation is complicated by the reality that the Lower Basin is using more than its share of the river, relying on surpluses and water that flows from the Upper Basin's undeveloped share of the river," Kuhn said.

The problems are exacerbated when one considers the impacts of climate-change. Under the study's robust analysis of climate-change, the average natural flow of the Colorado River at Lee Ferry, AZ, (about 85-90

percent of the river's flow originates above Lee Ferry) is projected to decrease to an average of 13.7 million acre-feet per year. This is a decrease of approximately 9 percent from the long-term average flow at Lee Ferry of nearly 15 million acre-feet.

Kuhn said that based on almost three decades of observations and measurement, 13.7 million acre-feet may be optimistic.

"In the last 25 years, the average natural flow at Lee Ferry has only been 13.4 million acre-feet a year," Kuhn said. "In other words, the last 25 years have actually been worse than the average flow projected under the study's climate-change scenario."

The study points to the fact the Upper Basin is not fully using its compact entitlement and predicts that more water development will occur in the Upper Basin. However, Kuhn cautioned that the study also points to serious problems for the Upper Basin. Under the climate-change scenario depicted in the study, without additional action the Upper Basin may experience a future deficit of its compact obligation as often as one in five years by 2040.

"The Upper Basin is currently unprepared for this possibility," Kuhn said. "To address an uncertain future, Upper Basin users will need to develop new risk-management strategies including improved aggressive conservation, optimal use of storage and water-banking options."

Although the study is based on a solid technical platform, it is subject to significant limitations. It incorporates substantial assumptions and reflects a compromise of many legal and policy interpretations. Depending on how numerous issues might be decided in the future, the risks to the Upper Basin presented by overdevelopment and a reduced supply could be significantly increased.

"Planners should be cautious in using the study as a risk-analysis tool without further examination," Kuhn said. "While many in the Upper Basin may believe that water remains to be developed, the reality may be that new development simply threatens existing supplies or that new development may only be available during increasingly rare wet cycles."

For more information, contact Jim Pokrandt at the Colorado River District: 970-945-8522 or jpokrandt@crwcd.org.

What is the study? The Bureau of Reclamation's Upper Colorado and Lower Colorado Regions, in collaboration with representatives of the seven Colorado River Basin States – Colorado, Wyoming, Utah, New Mexico, Nevada, California and Arizona – commenced the Colorado River Basin Water Supply and Demand Study in January 2010. It seeks to define current and future imbalances in water supply and demand in the Colorado River Basin and the adjacent areas of the Basin States that receive Colorado River water for approximately the next 50 years, and to analyze adaptation and mitigation strategies to resolve those imbalances. More on the study at http://www.usbr.gov/lc/region/programs/crbstudy.html.

The Colorado River District was created in 1937 to lead in the protection, conservation, use and development of the water resources of the Colorado River basin for the welfare of the District, and to safeguard for Colorado all waters of the Colorado River to which the state is entitled. The District provides legal, technical and political representation to its constituents related to Colorado River issues in all or parts of 15 counties in northwest and west-central Colorado, an area that encompasses approximately one third of the state. The Colorado River is celebrating its 75th anniversary and commissioned a book on its history. "Water Wranglers, the 75-Year History of the Colorado River District: A Story About the Embattled Colorado River and the Growth of the West" is available at Wolverine Publishing and Amazon. To learn more about the Colorado River District, visit www.ColoradoRiverDistrict.org.