The Seven Colorado River Basin States

# Study of Long-Term Augmentation Options for the Water Supply of the Colorado River System

More than 35 million people currently depend upon the Colorado River's waters for their lives and livelihoods. Western migration in the United States occurred throughout the last century. The West remains a popular destination and was identified as the fastest-growing region in the country based upon the 2000 census. The area is projected to grow by another 29 million people by 2030. In spite of aggressive conservation activities, additional water supplies will be needed to meet demands in the future. In addition, this primary source of supply for these people continues to be mired in a drought of historic severity. In 2002 alone, flows were approximately 2.9 trillion gallons (8.8 million acre-feet) below average. As a result, reservoirs that were brimming with water as recently as 2000 have lost half of their stored water.

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The results of this study will assist the Colorado River Basin States in making decisions about any future augmentation efforts. The study provides a comparison of options but makes no recommendations for next steps, nor does it include implementation time frames for any option.

The Seven Colorado River Basin States recognize the challenges associated with maintaining a reliable water supply for this region's residents for the long term, particularly given uncertainties related to climate change. Additionally, the exploration of augmentation options is embedded in the Agreement Concerning Colorado River Management and Operations, submitted by the Basin States in April 2007 to the Secretary of the Interior. Accordingly, the Basin States undertook a comprehensive analysis based upon current technology to identify potential options that could augment the Colorado River's flows. Colorado River Water Consultants, a project-specific partnership of engineering firms Black & Veatch and CH2MHill, examined augmentation options based on several evaluation parameters to gauge their feasibility, environmental viability and potential benefit to the citizens of the Southwest. The study, which was highly technical in nature, recognized but did not attempt to address legal, political or policy factors. It was administered in conjunction with a steering committee comprised of representatives from the Seven Colorado River Basin States and reviewed by a panel of technical experts.

The augmentation options and evaluation parameters are listed below:

## Augmentation Options

- Brackish Water Desalination
- Coalbed Methane Produced Water
- Conjunctive Use (banked water)
- Ocean Water Desalination
- Power Plant Consumptive Use Reduction
- Reservoir Evaporation Control
- River Basin Imports
- Stormwater Storage
- Vegetation Management
- Water Imports Using Ocean Routes
- Water Reuse
- Weather Modification

## Evaluation Parameters

- Location of Water Supply
- Quantity of Water Potentially Available
- Water Quality
- Technical Issues
- General Reliability of Supply
- Environmental Issues
- Permitting
- Cost per Acre-Foot

For more information or additional copies, please contact the Southern Nevada Water Authority
www.snwa.com/augmentation/