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**TO:** Colorado Water Conservation Board Members

**FROM:** Carlee Brown, Interstate, Federal & Water Information Section
Megan Holcomb, Water Supply and Planning Section

**DATE:** March 21-22, 2018 Board Meeting

**AGENDA ITEM:** 18. West Slope Basin Roundtables' Risk Study: Phase II Results

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**Introduction**

In March 2017, the Colorado Water Conservation Board approved Water Supply Reserve Funding for the project titled: Basin Roundtable Technical Study on Colorado River Risk Response Options - Phase II (herein, "Risk Study"). Since that time, the Risk Study has been underway with regular meetings of a Technical Advisory Committee (11 people) and an Outreach Committee (approximately 50 people), including regular engagement between CWCB Staff, the four West Slope Roundtables, the modeling team, and the larger Colorado Water Community.

CWCB Staff will provide an introduction to Phase II of the Risk Study and the larger context regarding demand management concepts for the Colorado River. An overview of the results of Phase II will be provided by Eric Kuhn, former Colorado River District General Manager, and John Carron of Hydros Consulting, the contractor for the project.

**Staff Recommendation**

No action is required. This item is informational only.

**Background**

Phase I of the Risk Study was completed in the fall of 2016 in response to a discussion that emerged at a joint meeting of the four west slope Basin Roundtables (BRTs) in December 2014. Attendees expressed a desire for more technical data and modeling so that the four roundtables could better understand and discuss issues surrounding future Colorado River development, the risk to existing water users and implementation of the framework principles included in Colorado's Water Plan. In Phase I of the Study, the West Slope BRTs explored a variety of scenarios for future hydrology, demands, drought contingency actions, and demand management. These analyses were performed using the Colorado River Simulation System (CRSS), which is the Bureau of Reclamation's "Big River" model that encompasses Colorado River operations across all seven Colorado River Basin States, as well as deliveries to Mexico.

The intent of Phase II was to explore potential voluntary preemptive actions—and associated risks—that Colorado water users could take as short term measures (1-5 years in duration) to protect critical reservoir elevations. The study evaluated a number of scenarios with a variety of assumptions regarding voluntary demand management and reservoir operation scenarios that were developed based on feedback from the BRTs and other stakeholders.

To accomplish this larger intent, Phase II had two specific objectives: (1) to expand upon certain aspects of the CRSS modeling from Phase I, and (2) to pair CRSS with Colorado's StateMod tool to address questions related to demand management and water banking that cannot be answered by Reclamation's model. The StateMod work in Phase II provides a summary of potential water yields at the state line under different levels of reduced consumptive use, and looks at the impact of hydrology and shepherding on those yields. Phase II also developed a modeling framework that combines StateMod and CRSS to simulate in-state demand management, shepherding, and water banking activities together with Reclamat18ion's basin-wide operations of CRSP reservoirs, Lake Mead, and Mexico deliveries.

CWCB Staff has worked closely with the West Slope Basin Roundtables and Hydros consulting in addressing these questions during Phase II of the Risk Study. As Phase II nears completion, discussions continue regarding possible model enhancements and approaches to developing refined modeling scenarios.