

# STATE OF COLORADO

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## Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Ted Kowalski, Ray Alvarado  
Interstate, Federal and Water Information Section

DATE: September 13, 2013

SUBJECT: **Agenda Item 19, Colorado River Water Availability  
Study (CRWAS) Phase 2**

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John W. Hickenlooper  
Governor

Mike King  
DNR Executive Director

James Eklund  
CWCB Director

At the May, 2013 CWCB Board meeting, the Board directed CWCB staff:

- Review and document the multiple technical studies and the underlying assumptions regarding the Colorado River Basin water supplies and demands. Provide comparisons to identify how the studies technical objectives, analytical methods and results can be applied to local-level and State-level technical analyses associated with SWSI and the State's Water Plan
- Extending the CRWAS modeling data sets to 2012, or the most current year that data is available. Including making any modeling changes that more appropriately reflects current water resource operation within the basins.
- Update the alternative hydrologies developed under CRWAS Phase 1, using the Coupled Model Intercomparison Project Phase 5 (CMIP5) climate modeling results. Using the standard establish under CRWAS Phase 1 work, CMIP5 climate modeling results will be used to adjust the calculated natural flows generated under CRWAS Phase 1 work.

The Staff is very close to resolving the procurement issues associated with contracting for the CMIP climate modeling results. This work will be conducted by AMEC. This work is likely to have draft results by the summer of 2014. To the extent that this information is relevant and capable of being considered by the basin roundtables as they develop their Basin Implementation Plans (BIPs), the Staff will make this information available to the Basin Roundtables. In addition, the Staff is still working on contracting issues associated with the first two tasks; however, since the May Board meeting, a basin implementation plan guidance document was made available to the Basin Roundtables (BRT's), which gives the option to the roundtables to use hydrologic models to develop their BIPs. Several Colorado River basin roundtables are contemplating using the existing hydrologic models (CRDSS) in the development of their BIPs. The Staff believes that the use of CRWAS Phase 2 monies can be used to support the West Slope BRT's BIP efforts by providing technical and modeling support. CRWAS funding could be used to provide technical support to the roundtables by coordinating efforts and by assuring consistency across the different sub-basins of the Colorado River basin. CRWAS funding could also be used as a backstop for modeling efforts of the basin roundtables should there be any

limitations or deficiencies associate with these modeling efforts. This work may be used in conjunction with the other efforts that the Board has already authorized, which are described above.

It is important to note that the work conducted by the Basin Roundtables and the Colorado Water Plan (CWP) are on a different time line than the completion of a final product that would be associated with CRWAS Phase 2. Thus, while the Basin Roundtables and the CWCB may use products from this effort in the development of the BIPs and the CWP, the final product associated with CRWAS Phase 2 modeling is expected to take 18 months from the signing of a contract with a consultant. It is also important to acknowledge that the risk management aspects of CRWAS Phase 2 would be sequenced later. The risk management work logically may follow the development of the BIPs and the CWP, but that is an important part of CRWAS that is not yet scoped.

### **Staff Recommendation**

Staff recommends that the Board take the following actions based on the use of CRWAS work to help provide technical and modeling support with the West Slope BRT's basin implementation plans. Specifically, the Staff recommends that the Board:

1. Authorize the Staff to develop a scope of work to provide technical support associated with the efforts by the Colorado River Basin Roundtables to develop modeling associated with their development of their BIPs.
2. Authorize the Staff to contract for up to \$500,000 of additional funds that may be used for work associated the tasks described above.
3. Recognize that the CRWAS Phase 2 work, and in particular the work associated with risk management, will not be finalized in time to incorporate into the Colorado Water Plan. Nevertheless, to the extent that any work conducted pursuant to CRWAS Phase 2 (and completed in advance of the finalization of the BIPs and the Colorado Water Plan) may be used in the development of those documents.