July 19, 2010

Via E-Mail (ray.alvarado@state.co.us)

Ray Alvarado
Section Chief
Colorado Water Conservation Board Water Information Section
1580 Logan St., Suite 200
Denver, CO 80203

Re: Phase I of the Colorado River Water Availability Study

Dear Mr. Alvarado,

The following is submitted by the Ruedi Water and Power Authority (RWAPA) in response to Phase I of the Colorado River Water Availability Study. The Authority is an intergovernmental consortium made up of the five municipalities and three counties that make up the Roaring Fork Watershed. RWAPA has been involved in water planning and projects centered around Ruedi Reservoir and the Roaring Fork watershed since 1981.

One flaw in the study is the absence of any discussion of the "plumbing" in place to move water from one location to another within the current system. The operation of the major reservoirs in the upper Colorado - Green Mountain, Windy Gap, Woolford, Granby, Ruedi - have a significant impact on the availability of water in a given place at a given time. The obligations, operating protocols and maintenance needs of those reservoirs (and other infrastructure elements such as the Shoshone Power Plant) affect the delivery of water and the availability of water on a regular basis. The weekly conference call which determines releases to the 15-mile reach of the Colorado near Grand Junction is one example of an informal infrastructure management tool that can have both short-term and long-term effects on water availability. It is important that both the infrastructure and the management procedures that affect water availability be incorporated into the overall analysis and that recommendations for modifying either infrastructure or management practices be included.

The study does not make significant mention of the "dust on snow" phenomenon that has had an apparent effect on runoff timing in the last several years. Is this an element of the climate change model or is it a separate phenomenon that can be expected to continue? The timing of runoff in itself deserves

more attention. In 2010, a below average snow year nevertheless gave rise to flood hazards in the Roaring Fork valley solely as a result of a sudden and drastic increase in temperature and a dramatic rise in river levels which took management agencies by surprise. This had implications for the flood control capacity and manageability of Ruedi Reservoir, local property safety and late season streamflows. The rate at which winter snow is converted to liquid water, and the various factors that contribute to that rate, should be incorporated into the discussion of climate change.

We agree with other comments made regarding the non-consumptive needs analysis. To the extent that this study is a "snapshot" of current supply and demand, the current needs of non-consumptive users, including the flora and fauna that depend on streamflow of a certain amount and timing, must be fully acknowledged and the evident inadequacy of current supplies for non-consumptive, environmental maintenance purposes must be displayed with the same emphasis as is attached to findings of sufficiency as they relate to agricultural or municipal needs.

As noted, the flow thresholds in the 15 mile reach are junior and cannot, in and of themselves, put a "call" on the river and they are therefore not seen as critical in determining current needs (at least in comparison to senior rights that can control the flow upstream by way of exercising those rights). However, it should be acknowledged that the Endangered Species Act has the authority to override state law in the interest of endangered species and that, despite the agreements currently in place, releases to the 15-mile reach could be changed in the future. This is a significant unknown that will not be resolved any time soon given the difficulty of determining the long-term viability of endangered species stocks. This unknown, and the potential for water decisions to be dictated by the needs of endangered species, should be given more emphasis in the final study.

Thank you for the opportunity to comment. We look forward to the final Phase I report and to follow-up studies.

Yours truly,

Mark Fuller, Director
Ruedi Water and Power Authority