

January 12, 2010

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**HEARING SUBMITTAL TO  
DIVISION OF WATER RIGHTS**  
Right No.: a35402 & a35874  
Date: 1/12/2010  
Submittee: Protestant  
Living Rivers

Utah Division of Water Rights  
Mr. Kent L. Jones, State Engineer  
1594 West North Temple Suite 220  
P.O. Box 146300  
Salt Lake City, Utah 84114-6300  
801-538-7240  
<http://www.waterrights.utah.gov/>

Regarding the matter of water right transfer to Emery County from Kane County and San Juan County

Thank you for this opportunity to provide testimony. My name is John Weisheit. I am the conservation director of Living Rivers and the Colorado Riverkeeper. I am also a licensed river guide in the state of Utah and have been for three decades.

My first request is to ask that the administrative record please remain open for 90 days hence, to allow all in attendance the opportunity to respond appropriately to the testimony provided at today's hearing.

Incidentally, at the end of my testimony I will give you this paper I am reading from, which includes hyperlinks to the documents I make reference to.

I also present this CD, which has these documents in pdf format. I respectfully request that these items be included in the administrative record of this hearing and that they be made available to the public via the web pages of the Utah Division of Water Rights.

#### WATER SCARCITY IN THE COLORADO RIVER BASIN

The staff and volunteers of Living Rivers would like to provide wisdom and knowledge about water supply and demand in the Colorado River basin. There is sufficient information available to make a determination that surplus water in the Colorado River basin does not exist.

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We insist it is in the interest of the state of Utah to deny this transfer and allow the water right to expire, since the state of Utah presently has more water on paper than actual wet water, and that this condition of over-allocation has been tolerated for over fifty years.

One of the first hydrology studies that analyzed long-term data to determine the annual water yield of the Colorado River at the Compact Point, Lee's Ferry, Arizona, was written by Raymond A. Hill in 1953 for the state of Colorado. The study's result, which has prevailed 50-years hence, revealed that the average annual stream flow for the 20th Century is 15 million acre-feet (maf), and not 17.4 maf as assumed by the commissioners of the Colorado River Compact of 1922.

The subsequent studies after Hill, that arrive at the same basic conclusion, include the report in 1965 by R. J. Tipton for the Upper Colorado River Commission, and the hydrologic determinations of 1988 and 2007 by the Bureau of Reclamation. This would also include the spreadsheet of Colorado River natural flow compiled by James Prairie of the Bureau of Reclamation, as revised in 2009.

A significant peer-reviewed document was issued in June of 2009 by scientists from the University of Colorado at Boulder, National Atmospheric and Oceanic Administration, and AMEC. Inc. Balaji (ba-la-jee) Rajagopalan (rah-jah-go-pah-luhn ) was the lead author. This paper was a component of a project by the Western Water Assessment called: Reconciling Projections of Future Colorado River Streamflow.

The document indicates that under the current interim guidelines, the management of the Colorado River's system of reservoirs will remain robust and flexible until 2026. However, for the subsequent decades to 2057, water managers will need to find solutions to mitigate an annual system loss of 3 million acre-feet, or 20%, and as a consequence of climate change caused by greenhouse gas emissions.

The authors of this report have also looked at the present conditions of supply and demand. For example, Kenneth Nowak presented a water budget of the basin based on this 15 maf annual yield for the Colorado River. The budget indicates what remains in the system right now for depletion is a mere 400,000 acre-feet.

If Nowak had created this water budget based on the annual yield according to the tree-ring record of the last 1,200 years, there would be only 100,000 acre-feet remaining in the system for depletion. This yield is derived from the most conservative of tree-ring studies, namely 14.7 maf (Lee's Ferry A subset).

Furthermore, if Nowak had created this water budget based on the estimate that climate change has already depleted the Colorado River by 6%, or 900,000 acre-feet, then water managers need to find ways to put 1/2 million acre-feet back into the system right

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now to balance the water budget. This amount may be conservative as well, since the annual average yield of the Colorado River for the last decade has only been 11.7 maf. Not to mention that the elevation at Lake Mead is only 18 feet from reaching the first tier of water curtailments for the states of Nevada and Arizona.

I am aware that the political leadership in Utah is not convinced that we need to respond to the impacts of climate change immediately. However, I think it is important to state for the record that 16 professors from Brigham Young University were recently motivated last November to write an open letter to the state and congressional delegations stating that anthropomorphic climate change is real and, "these changes pose risks to humanity and many other forms of life."

The priorities of the state of Utah is to solve the pending water supply crisis and to eliminate jeopardy to the critical habitat of endangered fish. Living Rivers would be happy to serve as a partner with the state of Utah to assist in creating solutions to these problems. Otherwise, we will develop strategies to take this matter before the courts.

I urge you again to deny this transfer and recommend that the governor and legislature work with the people toward the goal of securing our ever-diminishing water supplies without imposing harm to others and wildlife.

Thank you.

References:

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Colorado River Net Flow Balance. 2009. Kenneth Nowak. <http://www.riversimulator.org/Resources/ClimateDocs/NowakPowerpointPresentation2009.pdf>

Kenneth Nowak's Water Budget Graphic <http://www.riversimulator.org/Resources/Graphs/ColoradoBasinNetFlowBalanceCADWES.jpg>

Updated Streamflow Reconstructions for the Upper Colorado River Basin. 2006. Connie Woodhouse, Stephen T. Gray, and David M. Meko. Water Resource Research. <http://www.riversimulator.org/Resources/ClimateDocs/WoodhouseGrayMeko2006.pdf>

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Letter by BYU professors to the Utah Public Utilities and Technology Interim Committee, Governor, U.S. Senators and Congressmen. <http://www.livingrivers.org/pdfs/BYUscientistLetterClimateChange.pdf>

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