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**TIMELY**

**OFFICE OF THE STATE ENGINEER  
DIVISION OF WATER RIGHTS  
STATE OF UTAH**

In the Matter of:  
Change Application No. A35402  
(Water Right Nos. 89-74, 89-1285, and 89-1315)  
And:  
Change Application No. a35874  
(Water Right No. 09-462)

SUPPLEMENTARY  
TESTIMONY

March 10, 2010

Dear Mr. Jones,

Living Rivers is a protestant in the matter of a water transfer from Kane and San Juan Counties to Emery County for consumptive use at a proposed nuclear power plant at Green River, Utah. The power plant is a proposal of Blue Castle Holdings, Inc., which is a new start corporation.

Thank you for keeping the record open until March 1, 2010, to submit these additional comments and information.

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## **WATER SCARCITY**

I attended a conference in Las Vegas February 23 & 24, 2010, hosted by Anne Castle, Assistant Secretary for Water and Science for the Department of the Interior. The purpose of the conference was to initiate the WaterSMART program for the Colorado River Basin, which includes the implementation of a two-year Basin Study. This study proposes to model the imbalance of supply in the basin to 2060 under conditions of prolonged drought and climate change. The study will also analyze demands for water use that includes the environment, endangered fish recovery, recreation, and Native American water rights settlements.

*Website of WaterSMART initiative:*

[http://www.doi.gov/news/pressreleases/2010\\_02\\_22\\_release.cfm](http://www.doi.gov/news/pressreleases/2010_02_22_release.cfm)

*Reclamation's Colorado River Basin study proposal:*

<http://www.usbr.gov/lc/region/programs/crbstudy/CRBasinStudy.pdf>

*A graphic (from the Reclamation document above) is presented to demonstrate that surplus water does not exist anymore.*

<http://www.riversimulator.org/Resources/Graphs/>

[CoRiverBasinSupplyAndUseUSBR.jpg](#)

It is reasonable to assume the study results in two years will demonstrate that the current declining trend in streamflow at the Compact Point (Lee's Ferry) will continue through the 21st Century. It also is important to note that this study is late in arriving, and the threat of imbalance and the need for a study was

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recognized by the Government Accountability Office (GAO) as far back as 1979. Interestingly, this document does not even mention the additional impairment of streamflow at Lee's Ferry from the effects of climate change.

<http://www.riversimulator.org/Resources/GAO/CRBwaterProblems1979.pdf>

The parameters of this proposed Basin Study collaborates my testimony of January 12<sup>th</sup> at the hearings in Green River. For example, the study team will use the 1,250-year tree ring record (Lee's Ferry subset D) for the base flow of the modeling effort, which is 14.7 million acre-feet (maf). As you know, the current flow at Lee's Ferry is assumed to be 15 maf. Using the tree-ring record in this study implies that the Upper Basin needs to deal with an administrative loss of water of 300,000 acre-feet right now.

The team will also use 16 Global Circulation Models (GCM) that are spatially downsized and calibrated to make a reasonable projection of water supply for the rest of the century. This too implies an annual flow loss of supply of at least 6% (900,000 acre-feet) now and up to 20% (3 maf) by mid-century, unless greenhouse gases can be reduced significantly and quickly.

Unfortunately, adjusting to climate change seems unlikely to occur considering the poor political performance of the state and federal legislatures to arrive at a consensus on this important action item.

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## **BLUE CASTLE HOLDINGS AND THE CLIMATE CHANGE DEBATE**

According to various regional news features (listed below), Mike Noel and Aaron Tilton, who testified at the hearing of January 12th in support of the water transfer, are hostile toward legislation for climate change action. In fact Noel, in the State Legislature, has applied political pressure toward the Environmental Protection Agency to abandon proposed regulations to lower carbon emissions. This includes political pressure toward 16 scientists from Brigham Young University to withdraw their statement asking the State Legislature to be proactive about climate change.

If proponents of nuclear power, such as Noel and Tilton, willingly antagonize agencies of public health and safety, including concerned professors in the science community of Utah, then it is safe to assume Blue Castle Holdings does not take their technical and scientific responsibilities seriously. By demonstrating such chide in the public arena of debate, they have overtly disqualified themselves as rational experts in the controversial field of nuclear energy development.

When I mentioned the letter by the professors at Brigham Young University in my testimony January 12th, the Blue Castle team was visibly agitated and snickered. This is a very disturbing situation about a very serious matter and should not be discarded from the review of this record. I imagine in the future their tone may change. Therefore, it is important to state for the record that the tactics of Blue Castle Holdings at the present time includes molding the

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political landscape in their favor at the expense of scientific integrity and reasonable public debate.

*Five news clippings:*

<http://www.farcountry.org/Resources/News/LawmakerSaysClimateChangeRuse05Feb2010SLtrib.pdf>

<http://www.farcountry.org/Resources/News/UtahLegislativePanelOKsResolutionOnClimateChange.pdf>

<http://www.farcountry.org/Resources/News/ClimateSkepticsCallOnBYUscientistsToApologize.pdf>

<http://www.livingrivers.org/pdfs/BYUscientistLetterClimateChange.pdf>

<http://www.farcountry.org/Resources/News/WaterFalloutHighCountryNews.pdf>

### **SANDBAR HABITAT AND ENDANGERED FISH**

Experts representing Blue Castle Holdings stated that a daily average withdrawal of 70 cfs from the Green River would not impact sandbar habitat for endangered fish. This is not an accurate statement, and it is reasonable to question the field trip experience of the experts representing Blue Castle Holdings.

I am a licensed river guide in the State of Utah. In my resume I have hundreds of overnight river trips and thousands of daily trips. I have moored, slept, cooked, and navigated around river sediment for over three decades. The Green and Colorado Rivers are dynamic systems, even though dams and diversions exist upstream. The distribution of sediment in the river corridor is a constantly changing phenomenon. Sediment fines can restrict or augment a river

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channel as effectively as bedrock under low water conditions. Channel migrations caused by mobilized sediment can occur whenever the river fluctuates. It is not uncommon for backwater habitats to close in the heat of summer when depletions are high. Even a one-inch drop in the level of the river can make a difference, especially if the river channel is choked with sediment. When this entrapment occurs, the water quality is compromised and the predation of juvenile fish is greatly enhanced.

*Geomorphology and endangered fish of the upper Colorado River*

<http://www.riversimulator.org/Resources/AquaticResearch/GeomorphEndFishVansteeter1998.pdf>

## **FLAMING GORGE DAM OPERATIONS AND ENDANGERED FISH**

The literature on operations of Flaming Gorge Dam demonstrates that the management of endangered fish and flow recommendations are yet to be properly determined under conditions of cumulative withdrawals from the Green River over time. Mechanisms to ensure appropriate water quality and habitat for endangered fish have yet to be perfected by the cooperating agencies. Yet the experts representing Blue Castle Holdings never mentioned this administrative fact. Since their presentation was incomplete, it would be appropriate for the State Engineer to interview the Bureau of Reclamation, US Fish and Wildlife Service, Utah State Department of Natural Resources, and others, to fill in these gaps of knowledge.

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*Green River Study Plan*

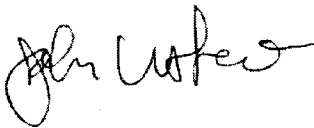
[http://www.riversimulator.org/Resources/USFWS/  
GreenRiverStudyPlan2007USFWS.pdf](http://www.riversimulator.org/Resources/USFWS/GreenRiverStudyPlan2007USFWS.pdf)

*Temperature and flow recommendations of the recovery program*

[http://www.coloradoriverrecovery.org/documents-publications/technical-reports/  
isf/flaminggorgeflowrecs.pdf](http://www.coloradoriverrecovery.org/documents-publications/technical-reports/isf/flaminggorgeflowrecs.pdf)

Thank you for this opportunity to respond and provide additional information at this time. Please do not hesitate to notify me should the record be reopened, or should you have any questions.

Sincerely Yours,



John Weisheit  
Conservation Director  
Living Rivers

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