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23 October 2014

Arkansas Water Plan  
c/o CDM Smith  
6000 Uptown Blvd., NE  
Suite 200  
Albuquerque, NM 87110

Dear Arkansas Water Plan Leadership:

Ducks Unlimited, Inc., (DU) is a non-profit conservation organization that conserves and restores North American waterfowl and wetland habitat. With over 1 million supporters, DU works in all 50 states, Canada, and Mexico to conserve, restore, and manage wetlands and associated habitats for waterfowl, other wildlife, and people. These habitats also replenish groundwater supplies, filter pollutants from water, and increase flood storage. Furthermore, wetlands are one of nature's most productive ecosystems providing for the life cycle needs of 900+ species of wildlife, including many that are at risk. DU is committed to science-based, collaborative, and solution-oriented conservation, and is uniquely qualified to participate in this Arkansas Water Plan effort.

Ducks Unlimited conservation professionals (Craig Hilburn, Nick Biasini, and Scott Manley) participated in the Issues and Recommendations Workgroups, eastern Arkansas geography, under the water demand sectors for Crop Irrigation and Fish/Wildlife. As a significant part of the Mississippi Alluvial Valley, eastern Arkansas is of the highest priority to DU and for wintering waterfowl. In fact, more mallard ducks winter here than any other region in North America. It is the integration of irrigated agriculture (particularly rice) and river systems with bottomland hardwood forests that make this region so special. Over the past 30 years DU has protected, restored, and enhanced over 358,000 acres of native wetlands and waterfowl-friendly agriculture lands in Arkansas and contributed \$48.7M to these efforts.

Arguably one of the most unique aspects of waterfowl habitat in Arkansas is the vast presence of rice agriculture. According to the USA Rice Federation, the national trade organization for the industry, Arkansas grows rice on approximately 1.3 million acres per year. Rice is the state's second highest value commodity and the top agricultural export. Arkansas rice producers and millers contribute more than \$6 billion to the state's economy annually and account for over 25,000 jobs, which are crucial to rural communities. And importantly, much of this acreage provides feeding and resting areas for waterfowl throughout the winter non-production season. In short – what's good for rice – is good for waterfowl.

Our comments focus upon 2 main themes existing throughout the Executive Summary of the Arkansas State Water Plan (heretofore Summary), and in particular the eastern region: (a) increase the efficiency of groundwater use for crop irrigation (rice notwithstanding); and (b) development of surface water use for crop irrigation and other water demands. As the Summary spells out, agricultural irrigation withdrawals represent about 80% of the total water withdrawals in the State, and these irrigation withdrawals are almost all groundwater from the Mississippi River Valley alluvial aquifer. An integrated approach on both themes offers solutions to water gaps and economic resiliency for Arkansas' future.

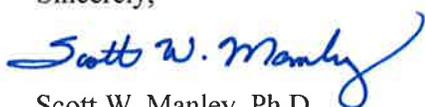
Efficiency of Groundwater Use for Crop Irrigation – As part of the crop irrigation working group we agree a greater emphasis is needed on the implementation and management of integrated irrigation water conservation practices. Incentives to drive the adoption and management of such practices should include a wide array of financial upsides such as extension education on how soon a practice will pay for itself through input savings, practice implementation cost-share such as those through USDA Natural Resources Conservation Service, conservation practice state tax incentives and credits, and more. These integrated practices, just to name a few, should include flow meters, surge valves, PHAUCET/Pipe Planner software applications, multi-inlet irrigation systems, on-farm storage and tailwater recovery systems, pump remote controls, soil moisture monitors, irrigation scheduling, satellite monitoring of soils and crops, and cellular links to weather stations. Water conservation practices are really an integral part of irrigation water management, regardless of whether the source is groundwater or surface water. But with 80% of the state’s water withdrawals being for irrigation, and almost all coming from the Alluvial aquifer, opportunity for progress here is great.

One hurdle to aggressive implementation and management of integrated irrigation water conservation practices is the on-farm planning and technical assistance needed to do the job best. Ducks Unlimited, the USA Rice Federation, and over 40 other rice industry and conservation partners recently submitted a proposal to the USDA’s Regional Conservation Partnership Program. If successful this proposal will bring both technical and financial assistance to eastern Arkansas to address the very subjects discussed above. This is but one additional example of how partnerships can work within the Arkansas Water Plan to accomplish the needs of the State.

Development of surface water use for crop irrigation and other water demands – The vast abundance of surface water in the state of Arkansas has drawn great attention as the substitute for groundwater demands. As the Summary demonstrates, there is an abundance of excess water available in all of the river basins in eastern Arkansas, but it is important to remember that this abundance is on an annual average basis. Demands on surface water vary seasonally and are usually the highest when stream flow is lowest. Nonetheless, much opportunity exists to augment groundwater withdrawals with surface water to meet crop irrigation needs. Ducks Unlimited supports the agricultural communities (including the rice industry) desires to complete the existing/ongoing surface development projects in eastern Arkansas. However we caution that the development costs, although grand (Summary estimate \$500M for Grand Prairie Project), are but a portion of long-term operation and maintenance costs. Budgeting plans must include both development and long-term O&M for true benefits of these projects to be realized.

In summary, we applaud the leadership of the Arkansas Natural Resources Commission in this Water Plan process. The best available science has been used to draft this Summary. Furthermore, recognition of better science being needed is present throughout, and reflects the intention to constantly improve, and adaptive nature required to finally produce a Plan for the citizens of Arkansas. We thank the Commission for opportunity to serve on the various working groups and look forward to more interactions as the process moves forward.

Sincerely,



Scott W. Manley, Ph.D.

Director – Conservation Programs



## ARKANSAS WATER PLAN EXECUTIVE SUMMARY PUBLIC REVIEW DRAFT COMMENTS

*Thank you for taking the time to give us your comments. Please use as many sheets as necessary.*

Date: 23 October 2014

Page Number

Location on Page (e.g., column and paragraph, section number, figure number, or table number):

Comment:

See attached.

**Note: Suggestions of specific wording changes are most helpful for making this a better plan**

Do you wish to be contacted about your comments? Yes  No

The following information is optional unless you would like to be contacted about your comments:

Name:

Address:

Phone Number (optional):

Email:

**Return Comments To:**

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