

~~Strikethrough print~~ represents text which has been deleted.

***Bold and italicized print represents text which has been added or modified.***

## **Resolution Mississippi River Alluvial Aquifer Water Resources, Research, and Education Center**

For 70 years, Delta Council has been a strong proponent of science-driven research related to the groundwater irrigation resources of the Mississippi Delta. It was at that time that the US Geological Survey, at the request and with the necessary local cost sharing generated by Delta Council, that groundwater studies commenced in the region in order to learn more about the recharge capabilities and interactions among the various groundwater aquifers including, but not limited to the Mississippi River Alluvial Aquifer (MRVA).

In more recent decades, with the rapid expansion of irrigated crop acreage over 2 million acres, Delta Council, along with federal and State resource agencies including the Mississippi Department of Environmental Quality, the Mississippi Soil and Water Conservation Commission, the U.S. Geological Survey, the Mississippi Farm Bureau Federation, the YMD Joint Water Management District, NRCS-USDA, the Corps of Engineers, and Delta F.A.R.M., have jointly embarked on aggressive efforts to analyze groundwater challenges facing the Mississippi Delta. These resource agencies have focused on the study of non-regulatory approaches and alternatives aimed at meeting water demand without sacrificing profitable crop yields, while achieving groundwater recharge/withdrawal balance.

Delta Council has viewed that one of the next major steps which should be taken in order to advance non-regulatory approaches to groundwater balance in the Mississippi Delta, was to establish a joint initiative between USDA-ARS and Mississippi State University at Stoneville. The focus of this initiative is on the development of new technologies and technology transfer to advance and refine existing and new technology for meeting the challenge of water balance. Specifically, state and federal research and extension specialists from MSU-Division of Agriculture and USDA-ARS have identified the fields of agronomy, soil physics, economics, engineering, hydrology, which would provide a critical mass of research and extension support for meeting the challenges ahead. The focus of this research should emphasize efforts to minimize and avoid regulatory burdens that could foreseeably add substantial costs and yield losses in productivity that affect the profit potential of Delta agriculture.

Delta Council will continue to coordinate with representatives of the member organizations associated with the Mississippi Department of Environmental Quality's Delta Sustainable Water Resources Task Force (U.S. Geological Survey, Agricultural Research Service-USDA, Corps of Engineers, Natural Resources Conservation Service-USDA, Mississippi Department of Environmental Quality, Yazoo-Mississippi Delta Joint Water Management District, Mississippi Soil and Water Conservation Commission, Mississippi Farm Bureau Federation, Delta F.A.R.M, and Delta Council) in order to maintain and improve the deliverables that should be achieved through this Alluvial Aquifer Research and Education Center.

**Proposed Position Areas: Research and Education  
(As Proposed Jointly by ARS-USDA and DREC-MSU)**

Mississippi State University

<u>New Positions Established at Water Center:</u>	<u>Status</u>
Agronomist	Vacant
Agronomist/Soil Scientist	Vacant
Natural Resource Economist	Dr. Nico Quintana – Start Date (January 1, 2019)
Irrigation Engineer	Dr. Himmy Lo (Start date: December 1, 2019)

Existing Positions Merged with Water Center:

Extension Irrigation Specialist and MSU Coordinator	Dr. Drew Gholson – Start Date (April 1, 2019)
Associate Agricultural Engineer	Lyle Pringle – rehired retiree

Support personnel includes 8 research support staff, an administrative assistant, field research coordinator, and a building maintenance technician.

Non-salary expenses will include field expenses, repair/maintenance of equipment, capital purchases, facility upgrades, and operational support.

Annual Funding \$2.2 million

USDA

<sup>1/</sup>New Positions Established at Water Center:

Agricultural Engineer	Dr. James Kim
Hydrologist	Dr. Amanda Nelson
Soil Scientist	Received Approval to Begin Recruitment
Plant Physiologist	Daryl Chastain
Hydrologist/Engineer	Position Created with FY'21 Funding Increase
Physical Scientist	Position Created with FY'22 Funding Increase

<sup>1/</sup> The Research Leader will have the qualifications for one of these disciplines. The Research Leader position will be re-announced. Positions will be advertised and filled.

Existing Positions Merged with Water Center:

Ag Technology Engineer	Vacant
Efficiency Engineer	Vacant
Plant Physiologist (Anapalli)	Has Been Re-assigned from Crop Production Research Unit

Annual Funding \$4.3 million

Total Funding \$6.5 million

Adopted by: Delta Council Board of Directors  
June 2, 2023

