

# MEMO



DATE: August 24, 2020  
TO: Kansas Water Authority  
FROM: Katie Goff  
RE: Research Coordination

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As previously presented and discussed by the Kansas Water Authority (KWA), a research coordination workgroup has continued to meet to identify priorities for research needed to support implementation of the Vision. No action is being sought at this time.

The Research Coordination Group recently met on the afternoon of Friday, August 7. Each of the subgroup team leads updated the Group on current project updates. Those updates include:

#### Reservoir Surveys & Water Quality Research:

- Nate Westrup of KWO on the Reservoir Bathymetric Surveys: 2019 was the inaugural year for KWO's Bathymetry and Storage Evaluation Program. Surveys of lakes began in July of 2019, paused over the winter, and started back up in March of 2020. As of this month, lakes that have been surveyed include- Pony Creek Lake, Madison City Lake, Council Grove City Lake, Clinton Lake, the upper portion of Perry Lake, upper end of Milford Lake, and Tuttle Creek Lake.
- Tony Layzell of KGS on the Effectiveness of Streambank Stabilization: repeat drone flight surveys were completed at two proposed and 14 constructed SBS sites. Sediment samples were collected at two sites and will be analyzed this fall. And testing of sonar equipment to investigate changes in streambed topography were undertaken.
- Ted Harris of KBS on the Reservoir Water Quality, HABs: Kanopolis and Webster reservoirs were cored in 2019 to determine HAB trends over time. Cores were collected at two sites in each reservoir, and Ted presented preliminary analysis from those cores.
- Jude Kastens of KBS on the Real-Time Flood Mapping: Progress was made on updating the Northeast Kansas Inundation Library using the latest LiDAR. A preliminary dashboard tool was also developed. Included in the dashboard are: multiple standard static layers and basemap options, and several real-time updated layers, such as stream gage status, flood watches/warnings, recent radar, and precipitation estimates.

#### Crop & Livestock Research:

- Sarah Sexton-Bowser of the Center for Sorghum Improvement on the DropXL: simulations have suggested the DropXL trait can conserve soil moisture to increase grain yields by 4%. The Center is also developing newly initiated breeding populations to accelerate development of the trait donor technology.
- Dan Devlin of K-State on Industrial Hemp Research: in June 2019, 17 varieties of industrial hemp were planted and plots monitored for establishment and pest infestations until harvest. One goal of the project was to evaluate water usage and drought tolerance. However, record setting precipitation during the growing season prevented any water deficit stress. This issue will be addressed in 2020.
- Dan Devlin of K-State on Cotton: Research is focusing on the planting date, planting population, timing of irrigation, and delivery method of irrigation water.

The Group also discussed their research recommendation for FY 2022. Both the Reservoir Surveys & Water

Quality Research and Crop & Livestock Research groups requested to maintain their previously requested amounts for FY 2022. This includes a total of \$700,000, with the breakdown of \$350,000 each.

The Crop & Livestock Research submitted two additional potential future project recommendations for the next potential round of research. These included submissions titled: *Protecting public water supplies from nitrate contamination: best management and fertilizer use in cropland*, and *Protecting surface water with improved phosphorus management in no-till and cover crop systems*. Additional projects mentioned during the meeting included: the creation of a Kansas Flood Center and the possibility of a universal data database.

The Group did not discuss the timeframe of a next meeting, but would appreciate another meeting once more budget related information is released pertaining to their particular subgroup projects.

Finally, if you are interested in learning more about the research involved in the streambank stabilization effectiveness project, Tony Layzell with KGS and Kari Bigham with K-State will be presenting via webinar on Tuesday, August 25 at 11:30a. Webinar details on our own Calendar page of our website. Once finished, you can view it, and past webinars, of this informational series on our website as well.

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*No action is needed at this time. Information is provided for discussion purposes only.*

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