

THE LITTLE RIVER DRAINAGE DISTRICT

FLOOD CONTROL & DRAINAGE
SINCE 1907

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STATEMENT OF THE LITTLE RIVER DRAINAGE DISTRICT MISSISSIPPI RIVER COMMISSION HIGH-WATER HEARING March 30, 2020

Major General R. Mark Toy, President
Mississippi River Commission

General Toy and Members of the Commission:

My name is W. Dustin Boatwright. I am the Chief Engineer of The Little River Drainage District (LRDD) headquartered in Cape Girardeau, Missouri and serve as Missouri's Regional Engineer for the Mississippi Valley Flood Control Association. LRDD is a major contributor to the St. Francis Basin watershed draining nearly 2 million acres of land in SE Missouri. The U.S. Army Corps of Engineers (USACE) is authorized to perform major maintenance and improvements within the watershed of the St. Francis Basin, which is an integral part of the Mississippi River and Tributaries Project (MR&T).

We would like to begin by welcoming the newest member of the Mississippi River Commission (MRC), Honorable A.C. Riley James from New Madrid, Missouri. Commissioner James was appointed to the MRC by President Donald J. Trump to fill the nine (9) year expired term of Honorable Sam E. Angel of Lake Village, Arkansas. We wish to commend Honorable Sam E. Angel for his life-long selfless service to the Mississippi River Valley serving more than 36 years with appointments from four (4) United States Presidents over his tenure making him the longest serving member in the history of the MRC. Thank you for your service, Sir.

The Little River Drainage District has identified several maintenance, operation, inspection, and communication issues we would like to bring to the Mississippi River Commissions (MRC) attention. We are fortunate many of the issues below are being diligently worked on by the Memphis District Team. For items previously brought before the MRC, please see the bold **UPDATE** towards the end of each paragraph.

1. Scouring and Erosion of the West Basin Levee caused by the historic winter flooding of 2015/2016 and further exacerbated by the spring floods of 2017 & 2019. The proposed solution is to armor the entire stretch with riprap on the right descending bank. Execution time on this particular project is paramount due to the scour damage increasing with each passing storm event. **UPDATE:** LRDD is excited to report Memphis District USACE has completed Phase 1, Phase 2, and Phase 4 of this project. Phase 3 is currently out to bid with a completion date during FY2020. Phase 5 has been fully funded and is currently being designed and will follow shortly behind the execution of Phase 3.

Sam M. Hunter, DVM
Honorary Supervisor

E. B. Gee Jr.
Honorary Supervisor

Glenn O. Petersen
Honorary Supervisor

Larry D. Dowdy
Chief Engineer Emeritus

2. Excavation maintenance on the following channels damaged by the historic winter flooding of 2015/2016 along with the spring floods of 2017 & 2019: Ditch No. 1 Upper Ditch No. 251 Upper and Lower, Ditch No. 66, and Ditch No. 39. All four (4) channels are main outlets for LRDD channels draining nearly 1.2 million acres in the LRDD watershed (See the attached Exhibit "A"). Approximately 1,500 miles of upstream channels (blue and purple channels) must be conveyed through the channels under the USACE Memphis District's major maintenance responsibility (red channels). **UPDATE:** Ditch No. 1 Upper, Ditch No. 251 Lower and Ditch No. 251 Upper have been fully funded. Currently, Ditch No. 251 Lower is out to bid with a project award date of May 13, 2020. Ditch No. 251 Upper designs are 95% complete with an anticipated advertise date of May 15, 2020 and project award on August 31, 2020. Ditch No. 1 Upper is scheduled to follow shortly behind Ditch No. 251 Upper.

3. Levee slide on the Headwater Diversion Channel Levee that occurred following the 2015/2016 flood and further exacerbated by spring floods of 2017, 2019, and now 2020. This slide is 3,500 ft. in length on the landside of the levee and has continued to move throughout the current flood event (spring 2020). The most straight forward fix is levee slope flattening at this location with the readily available material found on site. We respectfully request a solution to correct this large 3,500 ft. levee slide as soon as possible. **UPDATE:** To date, LRDD has not been updated on the status of this project.

4. Active erosion near Interstate 55 at the TOE of the Headwater Diversion Channel Levee. This location is at constriction point in the channel/floodway, directly downstream of the Interstate 55 bridge, along a section of levee located at its original location prior to the 300 ft. levee setback. During headwater events this area actively scours the TOE of the Headwater Diversion Channel Levee. **UPDATE:** This project has been fully funded. The Memphis District Team is working to begin work as soon as the Mississippi River conditions allow.

5. Relief well remediation along the Headwater Diversion Channel Levee in several locations. During pump tests several relief well locations along the Headwater Diversion Channel indicated remediation was needed. During the 2019 spring flood LRDD collected activity data and provided the data to the Memphis District Team. The data confirmed a section of relief wells were not functioning as designed. **UPDATE:** The Memphis District Team is currently assessing and putting together a plan to remediate the deficient relief wells.

6. Repair numerous active scours along the north bank of Headwater Diversion Channel near Allenville, Missouri. The major concern is during high-water events the channel is trying to create a cutoff across an old meandering of the Whitewater Channel. If a cutoff is created the outfall would be nearly perpendicular to the Headwater Diversion Channel Levee (Mainline Mississippi River Levee (MRL)). The potential for this uncontrolled perpendicular flow undoubtedly threatens the integrity of the Headwater Diversion Channel Levee. LRDD hereby request the Memphis District take appropriate action to ensure a cutoff is not created by high-water events in the Headwater Diversion Channel. **UPDATE:** To date, LRDD has not been updated on the status of this project.

7. Provide levee armor at the junction of Sal's Creek Spur Levee and Ramsey Creek Levee (both MRL Levees with authority under St. Francis Basin as well). The simple, straightforward solution is to perform earthwork and provide riprap armor along the levee to protect against headwater scour. LRDD is hereby requesting USACE to riprap armor to prevent further damage from headwater scour to the Sals Creek Spur Levee.

8. Critical active erosion on Ditch No. 1, along the left descending bank, approximately one-half (1/2) mile and a critical active erosion location two and one-half (2.5) miles upstream from Highway 62 in New Madrid County, Missouri. The Ditch No. 1 channel continues to undercut the levee on the eastside bank at these two locations. The Ditch No. 1

levee has provided protection from flooding for nearly a century. There are a dozen homes and farming operations that would be devastated if the levee were to breach during a high-water event. LRDD has been informed this project is fully funded along with the Ditch No. 1 Cleanout Project. **UPDATE:** The active erosion located one-half (1/2) mile north of Highway 62 is going to be armored during the upcoming Ditch No. 1 Upper Channel Cleanout Project. We are hopeful the Ditch No. 1 Upper Channel Cleanout Project comes in under the engineering estimate so the leftover funds can be utilized to address the remaining scour two and one-half (2.5) miles upstream of Highway 62 along with multiple other locations between Highway 62 and Highway 60.

9. Active erosion along Ditch No. 1 from the Junction of Ditch No. 39 with Ditch No. 1 downstream to the intersection of Highway 60 in Stoddard County, Missouri (Approximately one (1) mile). The erosion is causing the channel to meander and is threatening the Ditch No. 1 levee on both sides of the channel. The major concern is damage to the levees, which allow runoff to be carried above the adjacent land elevation, along with loss project Right of Way (ROW) workspace. The simple solution is to straighten and place riprap armor along both sides of the channel along this entire one (1) mile stretch. **UPDATE:** To date, LRDD has not been updated on the status of this project.

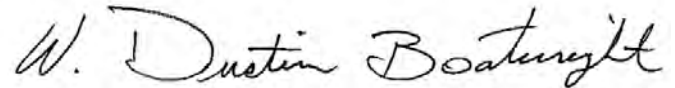
10. LRDD proposes to alter the Big Lake Gate Structures Operating Instructions to utilize the latest technology to improve the conveyance of runoff through the St. Francis Basin system. Keep in mind, runoff from nearly 1.2 million acres is drained through the structures at the MO/AR state line. The current system is utilizing gages mounted directly on the gate structures, which trigger automatic operation once the channels reach a set elevation at the structure. This is an old system and has worked well during its time. However, with today's technology this system can be improved to benefit both the upstream and downstream landowners along with wildlife management in the Big Lake and the Missouri Department of Conservation Hornersville Swamp. The current trend of high intensity, short duration rainfall events are causing rapid rises & falls accompanied by heavy sediment loads entering Big Lake Wildlife Refuge. This is not a good situation for the upstream and downstream landowners, or the fish and wildlife in Big Lake. LRDD is proposing to work with the USACE Memphis District, Big Lake National Wildlife Refuge (U.S. Fish and Wildlife Service) and the landowners involved to alter the operation plan to help convey runoff through the system more efficiently. The thought is to utilize upstream gages in conjunction with forward weather forecasting to alter the gate operation days before runoff reaches the structures to improve conveyance of runoff through the St. Francis Basin system. The proposed operation alteration will provide additional runoff storage, less extreme rise and falls in channel/lake elevation, and decreased downstream flood elevations by allowing conveyance of runoff to occur over a longer period of time. The result is undoubtedly a win-win for all involved. **UPDATE:** To date, LRDD has not been updated on the status of this project.

11. LRDD proposes the operation of the gate structures at Lake Wappapello be returned to the USACE Memphis District. Currently, Lake Wappapello is being controlled by the USACE St. Louis District, which lies outside of the MR&T footprint. Lake Wappapello is a flood control lake authorized in the Flood Control Act of 1936 (Overton Act) as an integral part of the St. Francis Basin portion of the Mississippi River and Tributaries (MR&T) Project. To my knowledge, USACE Memphis District controls the operation and maintenance of the entire St. Francis Basin portion of the MR&T except for the operation of Lake Wappapello. LRDD respectfully requests the operation of the gates structures at Lake Wappapello be returned to the MR&T footprint with USACE Memphis District controlling the operation for its primary function of Flood Control. LRDD further requests the recreational operation and maintenance of Wappapello Lake stay with USACE St. Louis District. **UPDATE:** To date, LRDD has not been updated on the status of this project.

12. Active erosion along Ditch No. 290 adjacent to New Madrid County Road 341. The structural integrity of the New Madrid County roadway infrastructure is being impacted by the scour/erosion along the right descending bank of Ditch No. 290. The simple solution is to place riprap armor along right descending bank of Ditch No. 290 for approximately 4,000 ft. LRDD hereby requests expedited attention to this location to prevent any further damage to New Madrid County roadway.

13. Active levee slides along the river side of the Headwater Diversion Channel Levee approximately 1,000 ft. west of Mile Marker 11 (10/42+00). The total length of the slide is approximately 200 ft. LRDD hereby requests this location be monitored and corrected as soon as possible after the 2020 flood season.

This concludes the request of The Little River Drainage District. Please give these items careful consideration. Thank you for your time, attention, and continued Partnership.

A handwritten signature in black ink that reads "W. Dustin Boatwright". The signature is written in a cursive, flowing style.

W. Dustin Boatwright, P.E., M ASCE
Chief Engineer/Executive Vice President

Exhibit "A"

