

Gregory Drainage District
RR-3 Box 56B
Kahoka, MO 63445

November 18, 2014

U.S. Army Corps of Engineers
Attn: CECW-CE (Lisa Kiefel)
441 G Street NW.
Washington, D.C. 20314-1000

RE: Section 7001 of the Water Resources Reform and Development Act of 2014
Levee Improvement for the Gregory Drainage District

Dear Ms. Kiefel:

The Gregory Drainage District appreciates the opportunity to provide a Section 7001 Proposal in accordance with the Water Resources Reform and Development Act of 2014. The attached proposal describes our proposed levee modification project.

In short, our levee system was last improved in the 1970 in accordance with the 1954 Flood Control Act. We wish to improve our levee to the 100-year level of protection, adequate for Federal Emergency Management Agency (FEMA) Certification and to provide additional protection for our landowners. Our District has witnessed multiple high water events, overtopping in 2008. The cost of flood fighting and levee rehabilitation has led to our need to permanently improve our levee system. The proposed improvement would potentially reduce these costs that are typically compensated by FEMA or through the PL84-99 USACE program.

An improvement to our levee system and surrounding levee systems (as recommended by the Mississippi River Commission in the Upper Mississippi Comprehensive Plan) would increase protection to human health, and strengthen the local, regional, and national economies. Our District alone has prevented approximately \$25 million in damages to infrastructure and agriculture since 1973. If combined with the other Districts studied in the Comp Plan, the importance to our national economy becomes apparent.

Our District is willing to take on the expense for this project, but wish to have federal approval before proceeding. Again, we appreciate being able to submit this proposal and look forward to working with you in the future.

As always, if you have any questions please do not hesitate to contact us.

Sincerely,

GREGORY DRAINAGE DISTRICT



Howard Higbee, President

C: Senator Claire McCaskill
Senator Roy Blunt
Representative Sam Graves

Enclosure: Section 7001 Proposal for Levee Improvement, Location/Fact Map, Letters of Support

Non-Federal Interest: Gregory Drainage District is the project sponsor and sole project contributor. However, other local, non-federal interests have contributed to this project previously.

Proposed Project: The proposed project is a modification to an existing United States Army Corps of Engineers project, the Gregory Drainage District's levee. The levee was federally improved as a part of the 1954 Flood Control Act (House Documents 135/84/1 and 564/87/2). The proposed project would improve the existing levee from an approximately 50-year design to a 100-year design. The 100-year design would include the adequate freeboard to attain FEMA certification, plus additional consideration due to uncertainties in climate change. This improvement would require additional sand and earthen material to raise the levee footprint. The levee would be improved on the landside, retaining its current riverside configuration. The project will include permitting work, assessment of environmental impacts, and right-of-way. This proposed improvement would be a frequency based design, meaning that if/when the flow, frequency profiles were to change the levee could be modified to retain its 100-year level of protection.

Project Purpose: The Gregory Drainage District (District) is located in Clark and Lewis Counties, along the west bank of the Mississippi River from River Mile 347.7 to 354.5. The Gregory Drainage District was established in the early 1900s. The District was established to protect approximately 8,093 acres, and aid in the reduction of waterborne disease. The original levees were improved a part of the 1954 Flood Control Act and the subsequent improvements of the 1950s, 1960s, and 1970s.

The District's original levee improvement was based upon pre-1950s methodologies and datasets. Since that time, new data has become available and the new flood trends that have been experienced. The current data indicates that at the nearest gauge, since 1993, the odds of a flood event occurring that exceeds major flood stage are approximately 1 in 10 (~2 events).

The District flood fights during significant flood events by pushing up their sand levee and sandbagging where necessary. When the flooding subsides, Federal Emergency Management Agency (FEMA) funding is applied for to cover flood fighting expenses. If the flood fighting was unsuccessful and the levee overtopped, then the District would apply for funding from USACE under Public Law 84-99 for repairs. This cycle of flood fighting or overtopping followed by the application for funding has occurred many times since the improvements of the 1950s, 1960s, and 1970s and at great federal and local expense. According to USACE MVR, the PL84-99 expenses for 2001 levee repairs were approximately \$854,805 (2001 costs), the 2008 levee repairs were approximately \$10,486,500 (2008 costs), and the 2013 levee repairs were approximately \$1,645,200 (2013 costs). These damages do not include any FEMA or local expenses incurred for flood fighting, nor do they include damages to other infrastructure or farmland.

The Gregory Drainage District provides a significant economic benefit to its surrounding region. It has been estimated by USACE MVR that the District has prevented approximately \$25,104,200 in damages since 1973. The levee protects critical aspects of the local economy, and if lumped together with the other Districts that need improvements in this region, can sum to significant regional or even national economic impact.

The proposed project is within the recommendations of the Mississippi River Commission's (MRC) for the Upper Mississippi River Comprehensive Plan (UMRCP), dated August 14, 2008.

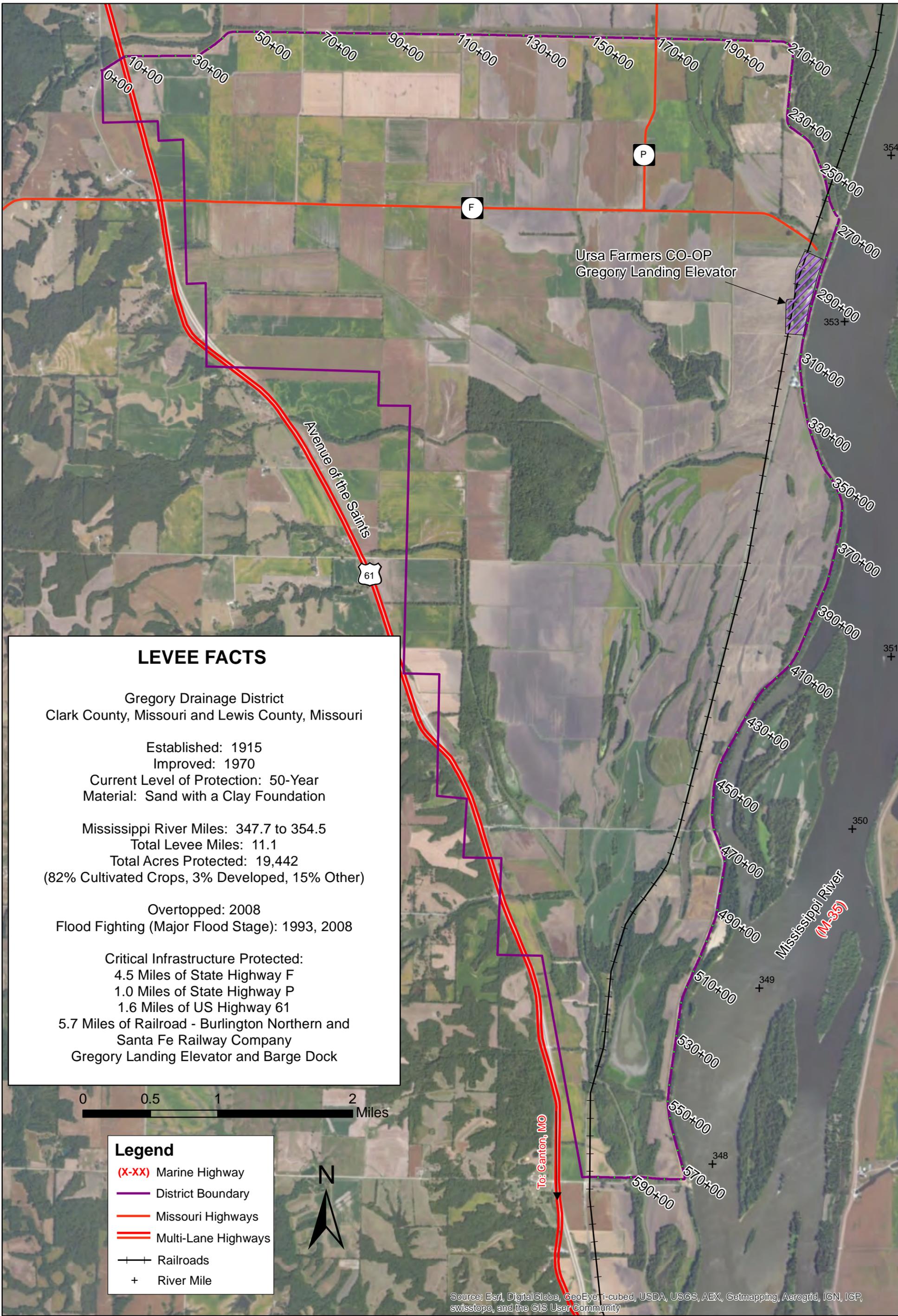
Project Estimate: Approximately \$8,800,000, which includes necessary permitting, engineering, and construction activities.

Project Benefits: The proposed project would protect approximately 7.1 miles of U.S. and State Highways, 5.7 miles of railroads, the Gregory Landing Grain Elevator with rail and dock facilities, and residences. The proposed project would provide additional protection for human health and these roadways, railways, and businesses beyond the existing estimated annual damages prevented of approximately \$630,000 (value estimated from USACE MVR calculations). This District is a portion of the Upper Mississippi River Basin Levee System, which was found to provide direct or indirect protection to major roadway and railway bridges that cross the Mississippi or Illinois Rivers. A study entitled *Detour and Transportation Infrastructure Costs Due to a Major Flood Event on the Upper Mississippi and Illinois Rivers* by the Center for Transportation Research at the University of Tennessee found that the total costs of detour, road damage, and highway damage due to a major flood event was \$1.027 billion. This District provides a portion of this transportation benefit.

Project Support: The District's Board supports this project and other levee and drainage districts in the surrounding area are supportive and seeking their own improvements, in accordance with the UMRCP.

Project Cost Share: No federal cost share required. Project planned at 100% local sponsor cost. However, if funding is made available under the National Levee Safety Act (Title IX of WRDA 2007), the Comprehensive Plan (Section 459 of WRDA 1999), or other USACE funding, it would be of great assistance to improve public health and safety for the Upper Mississippi River.

Project Letter of Support: See attached letter from the District Commissioners and other letters of support.



LEVEE FACTS

Gregory Drainage District
 Clark County, Missouri and Lewis County, Missouri

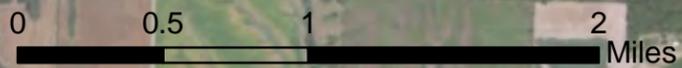
Established: 1915
 Improved: 1970

Current Level of Protection: 50-Year
 Material: Sand with a Clay Foundation

Mississippi River Miles: 347.7 to 354.5
 Total Levee Miles: 11.1
 Total Acres Protected: 19,442
 (82% Cultivated Crops, 3% Developed, 15% Other)

Overtopped: 2008
 Flood Fighting (Major Flood Stage): 1993, 2008

Critical Infrastructure Protected:
 4.5 Miles of State Highway F
 1.0 Miles of State Highway P
 1.6 Miles of US Highway 61
 5.7 Miles of Railroad - Burlington Northern and
 Santa Fe Railway Company
 Gregory Landing Elevator and Barge Dock



Legend

- (X-XX) Marine Highway
- District Boundary
- Missouri Highways
- Multi-Lane Highways
- Railroads
- + River Mile

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

SHEET 1	GENERAL LOCATION	GREGORY DRAINAGE DISTRICT		SCALE: 1 INCH = 1 MILE	DESIGNED WEEK	DRAWN WEEK	FIELD FIELD BOOK	CHECKED	CHECK DATE	NO.	APPR.	REVISION DESCRIPTION	DATE	KLINGNER & ASSOCIATES, P.C. Engineers • Architects • Surveyors 616 North 24th Street, Quincy, IL 4510 Paris Gravel Road, Hannibal, MO 810 N. 4th Street, Suite 100, Burlington, IA 49 North Prairie Street, Galesburg, IL Internet Address: www.klingner.com
		RR 3, BOX 56B KAHOKA, MO 63445												
PROJECT NO. 14-0913		DRAWING DATE 11/17/2014		FULL SCALE DRAWING SIZE: 22" x 34"										

Meagan Kaiser
Executive Director
Michael Klingner
Chairman, Illinois
Vicki Stoller
Vice Chairman, Iowa
Dianne Barnett
Treasurer, Illinois
David McMurray
Executive Committee, Iowa
John Winkelman
Executive Committee, Missouri
Jason Hutcheson
Director, Iowa



*P.O. Box 418, Bowling Green, MO 63334
573.489.9173*

Joseph B. Gibbs, PE
Director, Missouri
Philip Held
Director, Missouri
Al Muhlenbruck
Director, Iowa
Brent Hoerr
Director, Missouri
Jim Koeller
Director, Illinois
Roger Sutter
Director, Missouri
Kevin Rund
Director, Illinois

December 1, 2014

U.S. Army Corps of Engineers
Attn: CECW-CE (Lisa Keifel)
441 G Street NW
Washington, DC 20314-1000

RE: Section 7001 of the Water Resources Reform and Development Act of 2014

Dear Ms. Keifel,

Established in 1954, UMIMRA is a grassroots stakeholder organization advocating for a stronger Upper Mississippi Valley through flood control. Reliable flood control leads to a more reliable navigation channel, economic development, and a better way of life for the communities along the river. UMIMRA works closely with local, state, and federal legislators, the U.S. Army Corps of Engineers, and other agencies to ensure our members concerns are heard.

UMIMRA sends this letter of support for the Gregory Drainage District application. The Gregory Drainage District was established to protect approximately 8,093 acres and aid in the reduction of waterborne disease.

The proposed project would protect approximately 7.1 miles of U.S. and State Highways, 5.7 miles of railroads, the Gregory Landing Grain Elevator with rail and dock facilities, and residences. The proposed project would provide additional protection for human health and these roadways, railways, and businesses beyond the existing estimated annual damages prevented of approximately \$630,000.

Thank you for your consideration,

A handwritten signature in cursive script that reads 'Meagan Kaiser'.

Meagan Kaiser, Executive Director
Upper Mississippi, Illinois, & Missouri
Rivers Association