

Indian Grave Drainage District
P.O. Box 176
Ursa, IL 62376

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 Indian Grave Drainage District

Dear Ms. Kiefel:

The Indian Grave 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 1971 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 1973, 1993, and 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.

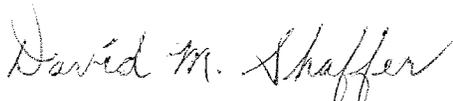
An improvement to our levee system and surrounding levee systems (as recommended by the Mississippi River Commission in the Upper Mississippi Comprehensive Plan) would increase protection to human health, and strengthen the local, regional, and national economies. Our District alone has prevented approximately \$125 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,

INDIAN GRAVE DRAINAGE DISTRICT



Indian Grave Drainage District Commissioner

C: Senator Richard Durbin
Senator Mark Kirk
Representative Aaron Schock

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

Non-Federal Interest: Indian Grave 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 Indian Grave Drainage District's levee. The levee was federally improved as a part of the 1954 Flood Control Act (House Document 281/83/2). 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 Indian Grave Drainage District (District) is located in Adams County, along the east bank of the Mississippi River from River Mile 341.7 to 330.0. The Indian Grave Drainage District was established in 1880. The District was established to protect approximately 17,777 acres, and aid in the reduction of waterborne disease. The original levees were improved as part of the 1954 Flood Control Act.

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 1973, the odds of a flood event occurring that exceeds major flood stage are approximately 1 in 7 (~6 events). If this dataset is condensed to the past 10 years the odds jump to 1 in 3.3 (~3 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 and 1960s and at great federal and local expense. According to USACE MVR, the PL84-99 expenses for 2008 levee repairs were approximately \$8,269,400 (2008 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 Indian Grave Drainage District provides a significant economic benefit to its surrounding region. It has been estimated by USACE MVR that the District has prevented approximately \$125,486,200 in damages since 1973. The levee protects critical aspects of the local economy, and if lumped together with the other Districts needing 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 \$23,047,200, which includes necessary permitting, engineering, and construction activities.

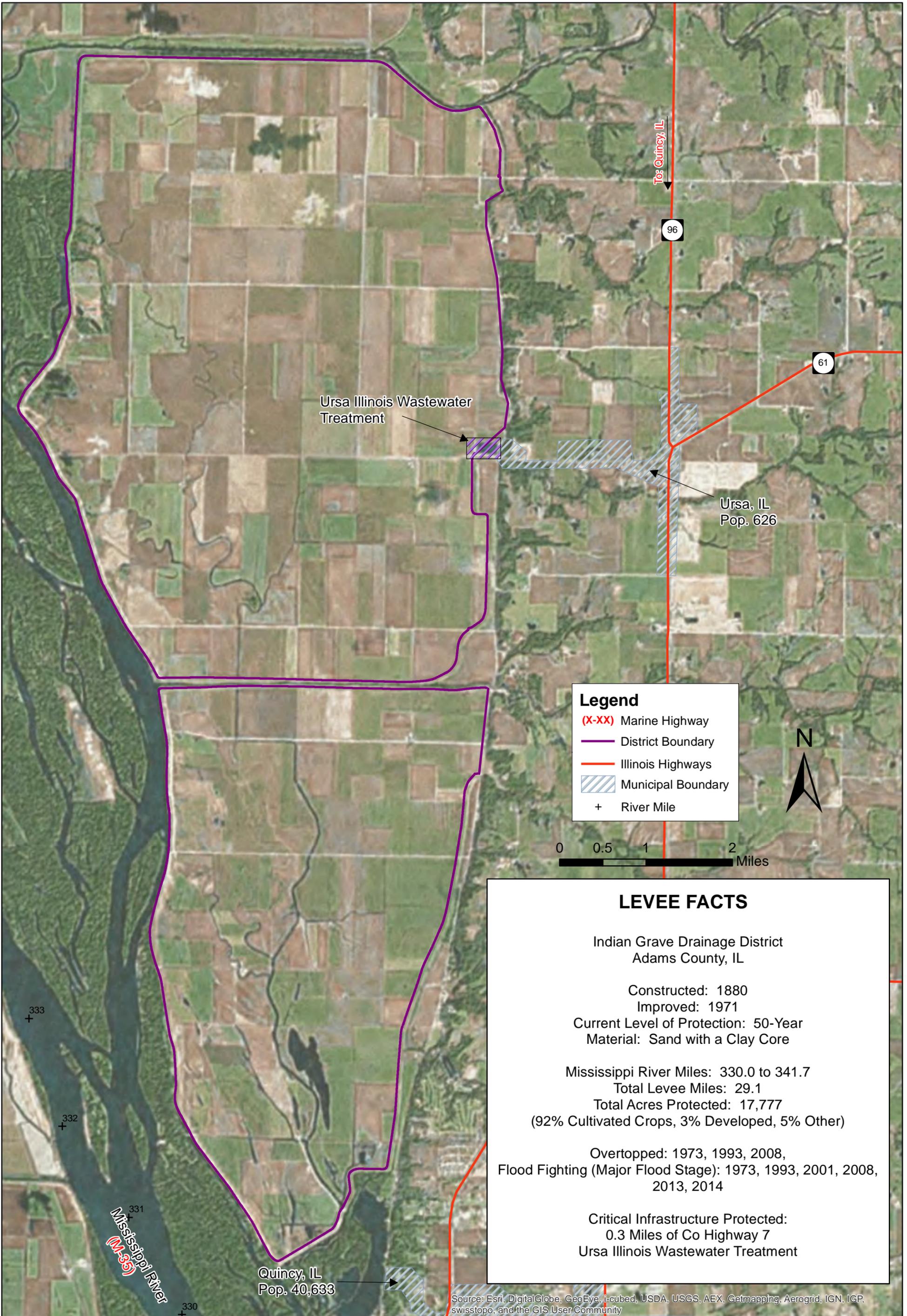
Project Benefits: The population located behind this levee is approximately 30 inhabitants. The proposed project would not only protect this population, but also protect approximately 17,777 acres of prime farmland. The proposed project would provide additional protection for both human health and the local, regional, and national economies beyond the existing estimated annual damages prevented of approximately \$3.1 million (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.



Legend

- (X-XX) Marine Highway
- District Boundary
- Illinois Highways
- ▨ Municipal Boundary
- + River Mile

LEVEE FACTS

Indian Grave Drainage District
Adams County, IL

Constructed: 1880
Improved: 1971

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

Mississippi River Miles: 330.0 to 341.7
Total Levee Miles: 29.1
Total Acres Protected: 17,777
(92% Cultivated Crops, 3% Developed, 5% Other)

Overtopped: 1973, 1993, 2008,
Flood Fighting (Major Flood Stage): 1973, 1993, 2001, 2008,
2013, 2014

Critical Infrastructure Protected:
0.3 Miles of Co Highway 7
Ursa Illinois Wastewater Treatment

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

GENERAL LOCATION	INDIAN GRAVE DRAINAGE DISTRICT
SHEET	1
DRAWING DATE	11/17/2014
PROJECT NO.	14-0913

P.O. BOX 176
URSA, IL 62376

SCALE: 1 INCH = 1 MILE	NO.	APPR.	REVISION DESCRIPTION	DATE
DESIGNED WEK	△			
DRAWN WEK	△			
FIELD WEK	△			
CHECKED	△			
CHECK DATE				
FILE NAME	FULL SCALE DRAWING SIZE: 22" x 34"			
XXX	© COPYRIGHT 2014. These documents shall not be used for any purpose or project for which it is not intended. Klingner & Associates P.C. and their Divisions shall be indemnified by the client and held harmless from all claims, damages, liabilities, losses and expenses, including attorney's fees and costs arising out of such misuse or abuse of the documents. In addition, unauthorized reproduction of these documents, in part or as a whole, is prohibited.			

INDIAN GRAVE DRAINAGE DISTRICT	INDIAN GRAVE DRAINAGE DISTRICT
P.O. BOX 176	P.O. BOX 176
URSA, IL 62376	URSA, IL 62376

KLINGNER & ASSOCIATES, P.C.

Engineers • Architects • Surveyors

616 North 24th Street, Quincy, IL
4510 Paris Gravel Road, Hannibal, MO
610 N. 4th Street, Suite 100, Burlington, IA
49 North Prairie Street, Galesburg, IL

Ph 217.223.3670 • Fax 217.223.3603
Ph 573.221.0020 • Fax 573.221.0012
Ph 319.752.3603 • Fax 319.752.3605
Ph 309.342.4042 • Fax 309.341.3781

Internet Address: www.klingner.com

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 Indian Grave Drainage District application. The District was established to protect 17,777 acres and aid in the reduction of waterborne illness. It has been estimated that the District has prevented approximately \$125,486,200 in damages since 1973.

The population located behind this levee is approximately 30 inhabitants. The proposed project would not only protect this population, but also protect approximately 17,777 acres of prime farmland. 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 \$3.1 million.

Thank you for your consideration,

A handwritten signature in cursive script that reads 'Meagan Kaiser'. The signature is written in dark ink and is positioned below the typed name.

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