

Des Moines & Mississippi Levee District No.1  
P.O. Box 335  
Wayland, MO 63472

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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 Des Moines & Mississippi Levee District No. 1

Dear Ms. Kiefel:

The Des Moines & Mississippi Levee District No. 1 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 1968 in accordance with the 1954 Flood Control Act. We wish to improve our levee to the 200-year level of protection, to provide additional protection for our landowners, infrastructure, commercial businesses, and the City of Alexandria. Our District has witnessed multiple high water events, even overtopping in 1993. 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 \$102 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,

DES MOINES & MISSISSIPPI LEVEE DISTRICT NO.1



John Winkelman, 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:** Des Moines and Mississippi Levee District No. 1 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 Des Moines and Mississippi Levee 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 100-year design to a 200-year design. The 200-year design would be sufficient to meet all requirements and retain 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 200-year level of protection.

**Project Purpose:** The Des Moines and Mississippi Levee District No.1 (District) is located in Clark County, along the west bank of the Mississippi River from River Mile 357.1 to 359.8. The Des Moines and Mississippi Levee District No. 1 was established in 1903. The Des Moines and Mississippi Levee District No.1 was established to protect approximately 11,000 acres and aid in the reduction of waterborne disease. The originally constructed levees were improved as part of the 1954 Flood Control Act and the subsequent improvements of the 1950s and 1960s.

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 1965, the odds of a flood event exceeding major flood stage are approximately 1 in 7 (~7 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.

The Des Moines and Mississippi Levee District No.1 provides a significant economic benefit to its surrounding region. It has been estimated by USACE MVR that the District has prevented approximately \$101,939,300 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 \$12,600,000, which includes necessary permitting, engineering, and construction activities.

**Project Benefits:** The population located behind this levee is approximately 156 inhabitants. The proposed project would not only protect this population, but also protect approximately 12.5 miles of U.S. Highway, 1 mile of railroad, and the City of Alexandria, MO (includes residences and businesses). There are both significant human health and economic benefits associated with this project that would improve upon the existing estimated annual damages prevented of approximately \$2.6 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.

# LEVEE FACTS

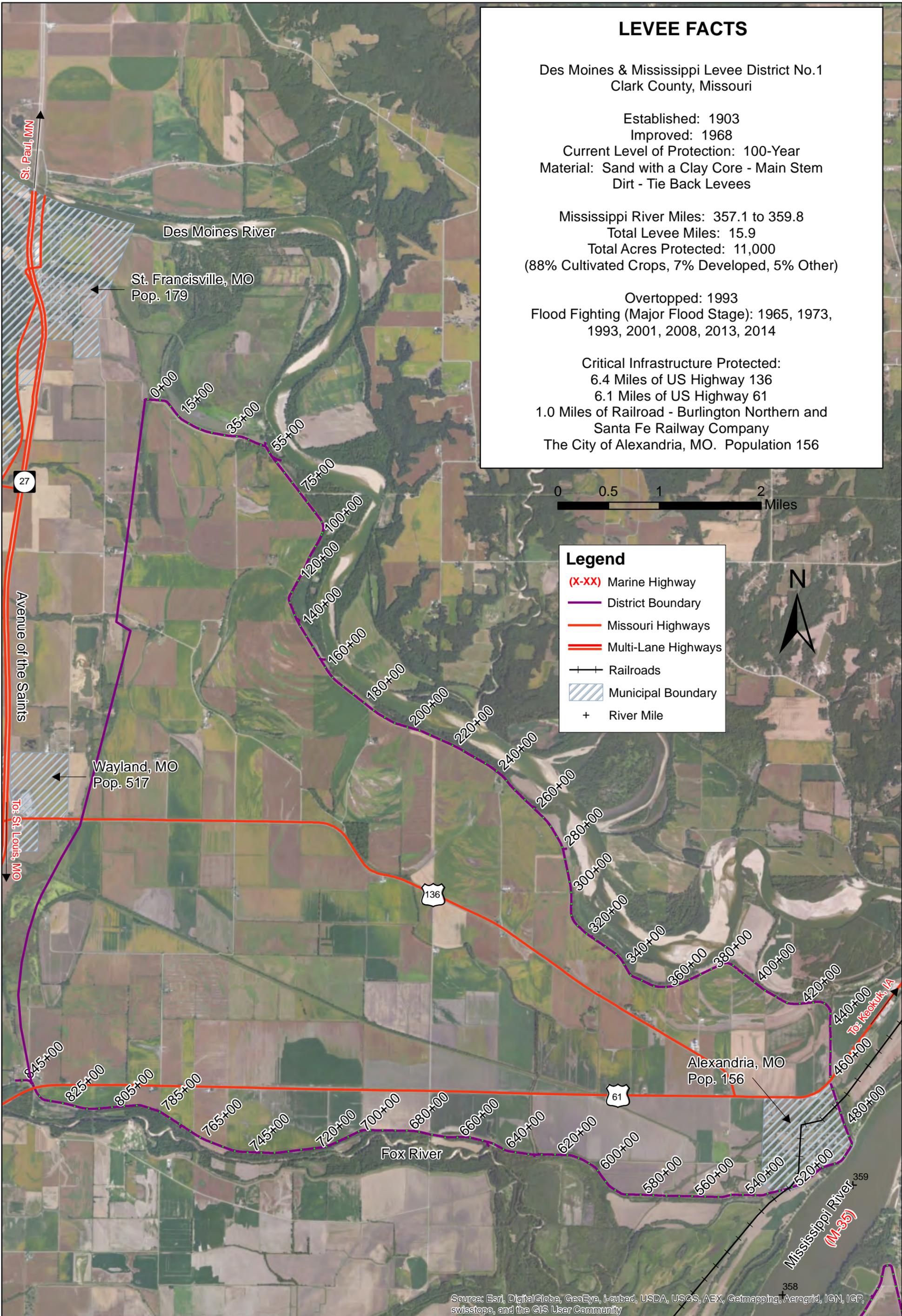
Des Moines & Mississippi Levee District No.1  
Clark County, Missouri

Established: 1903  
Improved: 1968  
Current Level of Protection: 100-Year  
Material: Sand with a Clay Core - Main Stem  
Dirt - Tie Back Levees

Mississippi River Miles: 357.1 to 359.8  
Total Levee Miles: 15.9  
Total Acres Protected: 11,000  
(88% Cultivated Crops, 7% Developed, 5% Other)

Overtopped: 1993  
Flood Fighting (Major Flood Stage): 1965, 1973,  
1993, 2001, 2008, 2013, 2014

Critical Infrastructure Protected:  
6.4 Miles of US Highway 136  
6.1 Miles of US Highway 61  
1.0 Miles of Railroad - Burlington Northern and  
Santa Fe Railway Company  
The City of Alexandria, MO. Population 156



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

GENERAL LOCATION	1
SHEET	1

DES MOINES & MISSISSIPPI LEVEE DISTRICT NO.1
P.O. BOX 350 WAYLAND, MO 63472

SCALE: 1 INCH = 1 MILE	△		
DESIGNED	△		
WEEK	△		
DRAWN	△		
WEEK	△		
FIELD	△		
BOOK	△		
CHECKED	△		
CHECK DATE	△		
FILE NAME	XXX		

NO.	APPR.	REVISION DESCRIPTION	DATE

FULL SCALE DRAWING SIZE: 22" x 34"

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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 Des Moines and Mississippi Levee District No. 1 application. The Des Moines and Mississippi Levee District No.1 was established to protect approximately 11,000 acres and aid in the reduction of waterborne disease.

The population located behind this levee is approximately 156 inhabitants. The proposed project would not only protect this population, but also protect approximately 12.5 miles of U.S. Highway, 1 mile of railroad and the City of Alexandria, MO (includes residences and businesses). There are both significant human health and economic benefits associated with this project that would improve upon the existing estimated annual damages prevented of approximately \$2.6 million

Thank you for your consideration,

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