

SNY ISLAND LEVEE DRAINAGE DISTRICT

110,000 Acres in Adams, Pike and Calhoun Counties

Phone: (217) 426-2521

490 North Main

Fax: (217) 426-4281

P.O. Box 169

New Canton, IL 62356-0169

COMMISSIONERS

RUSSELL E. KOELLER

DAN LUNDBERG

BRADY BORROWMAN

STAFF

MIKE REED

Superintendent

TRUDI BRUMMELL

Administrative Assistant

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 Sny Island Levee and Drainage District

Dear Ms. Kiefel:

The Sny Island Levee 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 1971 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, critical infrastructure, and multiple towns and residents. Our District has witnessed significant high water events, even overtopping Reach 1 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 \$1.3 billion 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,
Sny Island Levee Drainage District



Mike Reed
Superintendent/Treasurer

C: Senator Richard Durbin
 Senator Mark Kirk
 Representative Aaron Schock
 Representative Rodney Davis

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

Non-Federal Interest: Sny Island Levee 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 Sny Island Levee Drainage District's levee. The levee was federally improved as a part of the 1954 Flood Control Act (House Document 247/83/2). 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 Sny Island Levee Drainage District (District) is located in Adams, Pike, and Calhoun Counties, along the east bank of the Mississippi River from River Mile 316 to 265. The Sny Island Drainage District was established in 1880. The District was established to protect 112,000+ acres, and aid in the reduction of waterborne disease. The original 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 1947, the odds of a flood event occurring that exceeds major flood stage are approximately 1 in 5 (13 events). If this dataset is condensed to the past 20 years the odds jump to 1 in 3 (10 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 caused damage or 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 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 \$960,905 (2001 costs), the 2002 levee repairs were approximately \$1,054,632 (2002 costs), the 2008 levee repairs were approximately \$4,489,400 (2008 costs), and the 2013 levee repairs were approximately \$1,603,400 (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 Sny Island Levee Drainage District provides a significant economic benefit to its surrounding region. It has been estimated by USACE MVR that the District has prevented approximately \$1,305,645,900 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.

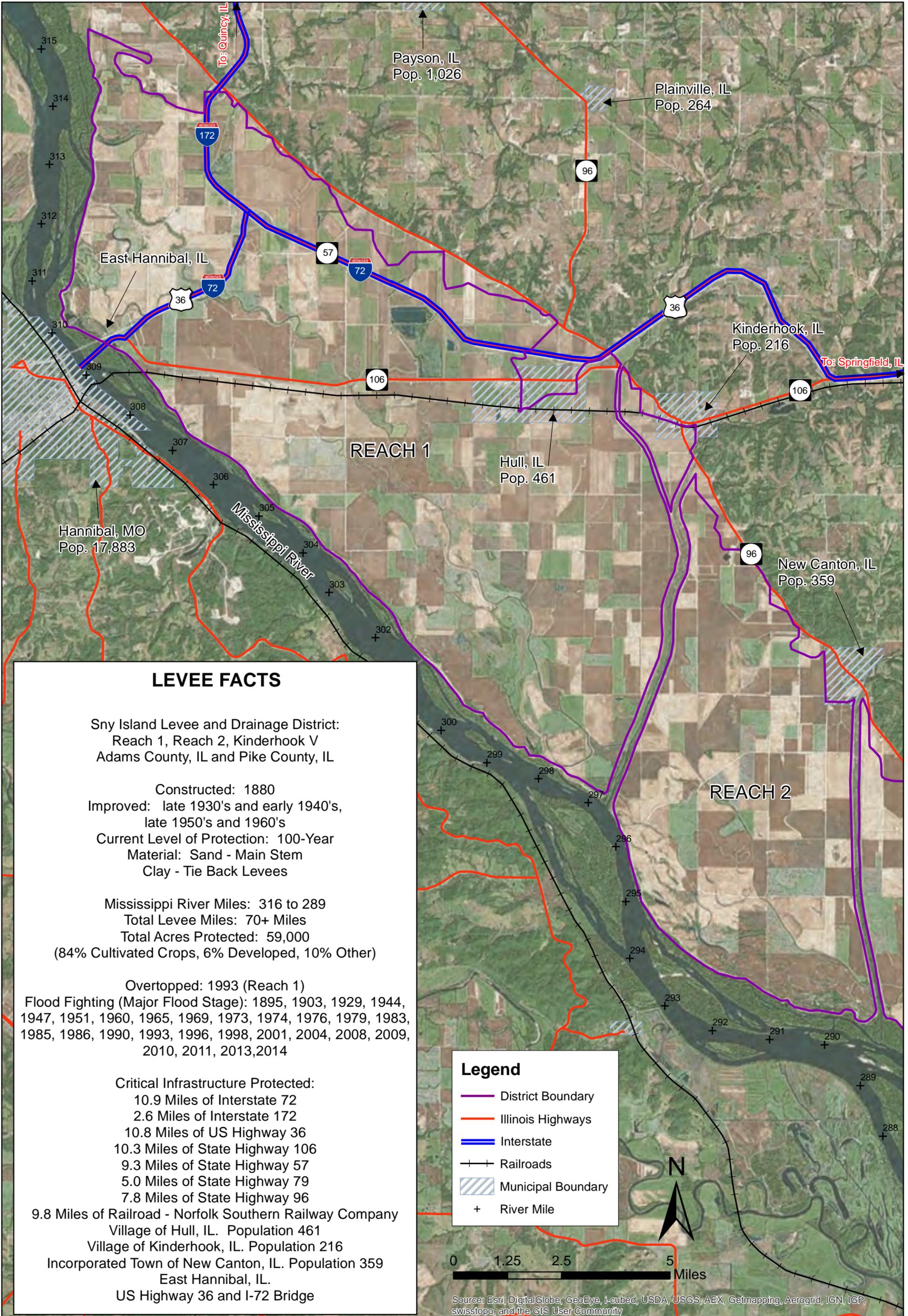
Project Estimate: Approximately \$100,000,000, which includes necessary permitting, engineering, and construction.

Project Benefits: The population located behind this levee is approximately 819. The proposed project would not only protect this population, but also protect approximately 86.5 miles of U.S., State, and County Highways, 18.6 miles of railroads, significant industrial/commercial development, 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 \$32.6 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

Sny Island Levee and Drainage District:
Reach 1, Reach 2, Kinderhook V
Adams County, IL and Pike County, IL

Constructed: 1880
Improved: late 1930's and early 1940's,
late 1950's and 1960's
Current Level of Protection: 100-Year
Material: Sand - Main Stem
Clay - Tie Back Levees

Mississippi River Miles: 316 to 289
Total Levee Miles: 70+ Miles
Total Acres Protected: 59,000
(84% Cultivated Crops, 6% Developed, 10% Other)

Overtopped: 1993 (Reach 1)
Flood Fighting (Major Flood Stage): 1895, 1903, 1929, 1944,
1947, 1951, 1960, 1965, 1969, 1973, 1974, 1976, 1979, 1983,
1985, 1986, 1990, 1993, 1996, 1998, 2001, 2004, 2008, 2009,
2010, 2011, 2013, 2014

Critical Infrastructure Protected:
10.9 Miles of Interstate 72
2.6 Miles of Interstate 172
10.8 Miles of US Highway 36
10.3 Miles of State Highway 106
9.3 Miles of State Highway 57
5.0 Miles of State Highway 79
7.8 Miles of State Highway 96
9.8 Miles of Railroad - Norfolk Southern Railway Company
Village of Hull, IL. Population 461
Village of Kinderhook, IL. Population 216
Incorporated Town of New Canton, IL. Population 359
East Hannibal, IL.
US Highway 36 and I-72 Bridge

Legend

- District Boundary
- Illinois Highways
- Interstate
- +— Railroads
- Municipal Boundary
- + River Mile



0 1.25 2.5 5 Miles

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

SNY ISLAND LEVEE DRAINAGE DISTRICT	
P.O. BOX 169, 490 N. MAIN NEW CANTON, IL 62356	
GENERAL LOCATION	SHEET 1
DRAWING DATE 11/17/2014	PROJECT NO. 14-0913

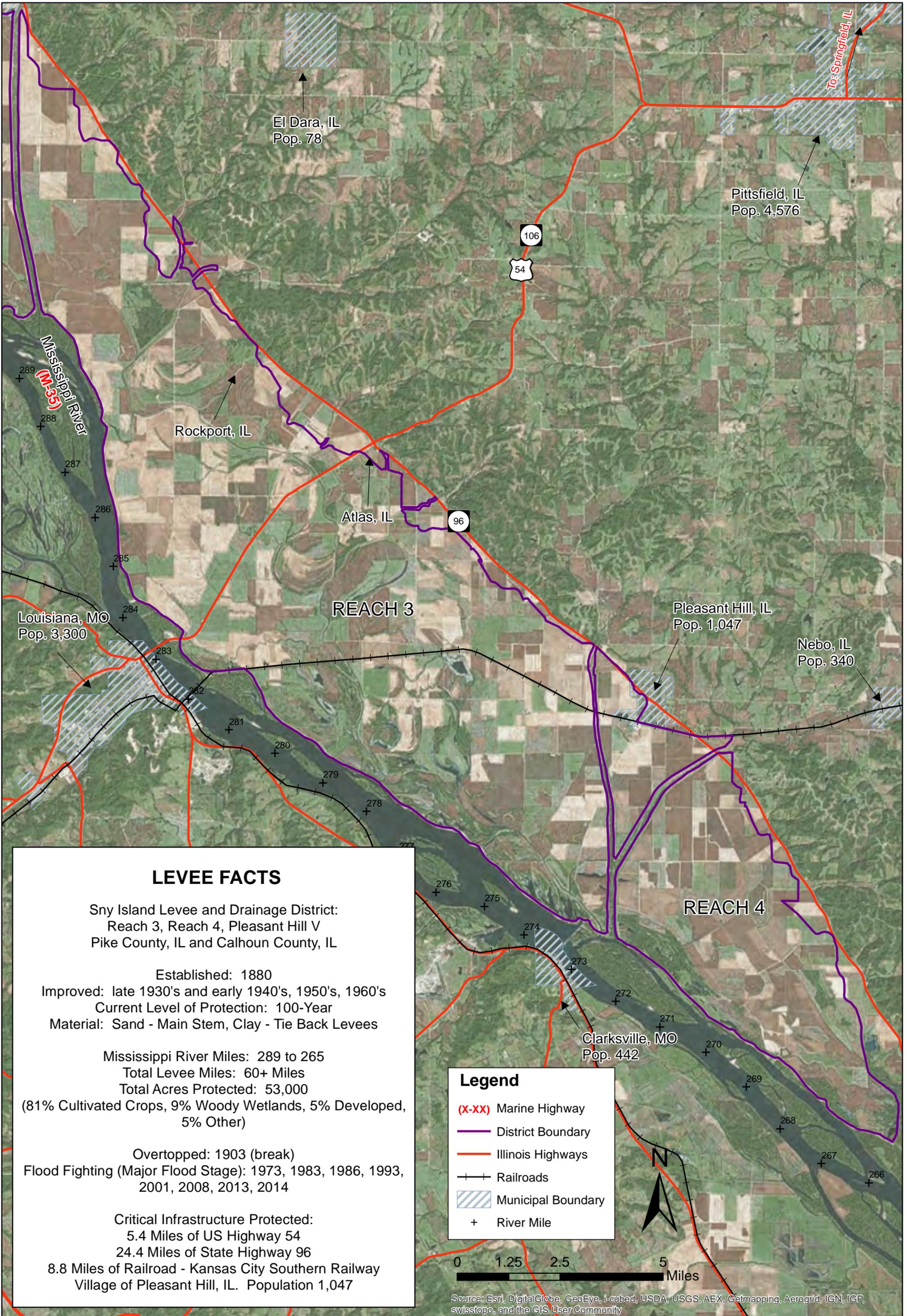
SCALE: 1 INCH = 1 MILE	DESIGNED	DRAWN	NO.	APPR.	REVISION DESCRIPTION	DATE
	WEK	WEK				
	FIELD	FIELD BOOK				
CHECKED	CHECK DATE					
FILE NAME XXX	FULL SCALE DRAWING SIZE: 22" x 34"					

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



LEVEE FACTS

Sny Island Levee and Drainage District:
Reach 3, Reach 4, Pleasant Hill V
Pike County, IL and Calhoun County, IL

Established: 1880

Improved: late 1930's and early 1940's, 1950's, 1960's

Current Level of Protection: 100-Year

Material: Sand - Main Stem, Clay - Tie Back Levees

Mississippi River Miles: 289 to 265

Total Levee Miles: 60+ Miles

Total Acres Protected: 53,000

(81% Cultivated Crops, 9% Woody Wetlands, 5% Developed, 5% Other)

Overtopped: 1903 (break)

Flood Fighting (Major Flood Stage): 1973, 1983, 1986, 1993, 2001, 2008, 2013, 2014

Critical Infrastructure Protected:

5.4 Miles of US Highway 54

24.4 Miles of State Highway 96

8.8 Miles of Railroad - Kansas City Southern Railway

Village of Pleasant Hill, IL. Population 1,047

Legend

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

0 1.25 2.5 5 Miles

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

SNY ISLAND LEVEE DRAINAGE DISTRICT	
P.O. BOX 169, 490 N. MAIN NEW CANTON, IL 62356	
PROJECT NO. 14-0913	DRAWING DATE 11/17/2014
SHEET TITLE GENERAL LOCATION	
SHEET 1	

SCALE: 1 INCH = 1 MILE			
DESIGNED WEK	DRAWN WEK		
FIELD FIELD BOOK			
CHECKED	CHECK DATE	NO.	APPR.
		REVISION DESCRIPTION	
		DATE	
FULL SCALE DRAWING SIZE: 22" x 34"			
<small>© 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.</small>			
FILE NAME XXX			

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
 Internet Address: www.klingner.com
 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

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 Sny Island Levee Drainage District application. The District was established to protect 112,000 acres and aid in the reduction of waterborne illness. It has been estimated that the District has prevented approximately \$1,305,645,900 in damages since 1973.

The population located behind this levee is approximately 819. The proposed project would not only protect this population, but also protect approximately 86.5 miles of U.S., State, and County Highways, 18.6 miles of railroads, significant industrial/commercial development, 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 \$32.6 million.

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