# TESTIMONY OF ROBERT G. RASH, PE, PLS

### CEO AND CHIEF ENGINEER, ST. FRANCIS LEVEE DISTRICT OF ARKANSAS

### **WEST MEMPHIS, ARKANSAS**

### **SUBMITTED TO**

# UNITED STATES HOUSE COMMITTEE ON FINANCIAL SERVICES SUBCOMMITTEE ON HOUSING, COMMUNITY DEVELOPMENT AND INSURANCE "REAUTHORIZATION AND REFORM OF THE NATIONAL FLOOD INSURANCE PROGRAM" MAY 25, 2022

The following joint statement is presented on behalf of the St. Francis Levee District of Arkansas, the Mississippi Valley Flood Control Association, the Fort Bend County Economic Development Council Flood Management Committee, the Missouri Levee and Drainage District Association, and the Association of Levee Boards of Louisiana.

The St. Francis Levee District of Arkansas, established in 1893 by the Arkansas Legislature as the first improvement district in the state, is responsible for operating and maintaining 411 miles of levees and appurtenant infrastructure in northeast Arkansas. Our system has passed federal levee inspections for more than 60 consecutive years while reliably protecting residential areas, manufacturing, agriculture, and other infrastructure on more than two million acres of land across seven counties. The St. Francis Levee District, with levees, pumping

stations, backwater areas, and floodways is a critical component of the Mississippi River and Tributaries Project that has prevented \$2.021 trillion in flood damages, including \$194.9 billion in 2020, to generate an extraordinary 116.8 to 1 return on investment.

The Mississippi Valley Flood Control Association was created in 1922 to promote the consensus homeowner, flood protection, and inland navigation interests of the seven-state region participating in Mississippi River Valley Flood Control and Navigation projects, including the States of Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. Since 1980 MVFCA has expanded to include the watershed states from St. Paul, MN to the Gulf of Mexico. The Association involves over 150 entities including levee boards, drainage districts, municipalities, port and harbor commissions, state agencies, nonprofits, and businesses from the Mississippi River Watershed, a contiguous region that occupies 41% of the land area of the United States.

The Fort Bend County Economic Development Council Flood Management Committee of Sugar Land, Texas, was established in 2021 because of concerns about the long-term systemic effects of the new National Flood Insurance (NFIP) pricing methodology, Risk Rating 2.0. Our organization includes public and private sector leaders who advocate for our regional flood protection network of 19 major levee and drainage systems. Over \$20 billion in property investment and approximately 150,000 residents are protected by nearly 100 miles of levees and drainage infrastructure, nearly 27 percent of the total taxable value of Fort Bend County. Our accredited flood protection systems have been funded using only local dollars and more than \$750 million has been invested for systems planning, design, construction, and upkeep. Exemplary floodplain management practices by the two largest cities in Fort Bend County, Sugar Land and Missouri City, have been recognized by the Federal Emergency Management Agency (FEMA) with class 6 and class 7 Community Rating Service ratings, respectively.

<u>The Missouri Levee and Drainage District Association</u> was established in the immediate aftermath of the Great Flood of 1993, the worst such U.S. disaster since the Great Mississippi

Flood of 1927. Our membership, representing both rural and urban leveed areas, includes levee and drainage districts from areas throughout the Midwest, farming operations, industrial and commercial businesses, and individuals. We support these and other entities by working closely with federal, state, and local agencies, as well as quasi-public and private organizations, toward improvement of conditions along the Missouri River and its tributaries.

The Association of Levee Boards of Louisiana is made up of the state's 23 individual levee boards and we work closely with Federal and state agencies to contain and manage floodwaters along our major waterways, from the northernmost reaches of Louisiana to the waters of the Gulf of Mexico. More than half of our precious land is in a flood plain, and 41 percent of the continental U.S. drains into the Mississippi River Basin. This creates a unique situation in our state, where flooding is a part of the history we share, and a part of the future we are working hard to control. Thanks to the constant diligence and monitoring by the state's 23 individual levee boards, rains very rarely have the disastrous results they once had for our state's citizens. "Without Flood Control, Nothing Else Matters."

### **Summary Statement**

In the United States, where coastal and inland floodplain areas are home to more than 50 percent of the nation's population and gross domestic product, our groups join with others who support long-term reauthorization of the NFIP to ensure the availability of affordable flood insurance. While there are no easy fixes in the pursuit of flood insurance premium affordability and fairness, risk communication, NFIP solvency, and economic flood damage reduction, our organizations recognize the important role that Congress has laid on flood insurance to protect the financial system, Federal financial guarantees, and the efficiency of real estate markets. In reauthorizing and adjusting the NFIP, we also believe it is important to integrate the role that flood insurance plays in the choices people make about the use of the floodplain and the decisions that governments make about providing infrastructure to protect against floods as there are important interrelationships.

As the Federal sector moves toward risk-based premiums, it is essential that we have transparency in the computation of premiums and that we use equivalent, reproducible methods to compute flood losses for setting both NFIP premiums and for making mitigation and infrastructure investment decisions. We must do this so that we can move our flood responses closer to optimal choices among the "multiple means" as recommended by the late Gilbert F. White, who many call the "father of floodplain management."

It is regrettable that FEMA has chosen a completely opaque method to set flood insurance premiums that is not easily correlated with the way organizations like the Corps of Engineers compute average annual flood damage – a method that is transparent and peer reviewed. The method used to compute flood insurance premiums should be widely accessible so we can also easily see the relationship between computed flood insurance premiums and flood mitigation.

The geography and history of the Mississippi River Valley, the Brazos River Valley and Texas Gulf Coast, the entirety of Louisiana, and the Missouri River and its tributaries make clear that our future is tied to successful flood damage reduction and access to affordable flood hazard insurance. These interdependent aims have guided our decisionmaking since before inception of the NFIP. Our significant local investment in federally recognized flood projects and local adoption and enforcement of floodplain management standards have given rise to trillions of dollars in land value and improvements. We are concerned that the value of these investments and the future of our communities are being threatened by poorly supported policy proposals, including Section 209 of the House Financial Services Committee (HFSC) NFIP Reauthorization Discussion Draft and the new FEMA Risk Rating 2.0 (RR2.0) pricing methodology for NFIP premiums. The balance of this testimony will focus on specific concerns related to HFSC Sec. 209 and RR2.0.

## (I) Section 209 "New Zone for Levee-Impacted Areas" from NFIP Reauthorization



Levee Locations Across the U.S., Source: U.S. Army Corps of Engineers at <a href="https://levees.sec.usace.army.mil/#/map-viewer">https://levees.sec.usace.army.mil/#/map-viewer</a>

### Levees Everywhere

The National Levee Database (NLD) managed by the Corps and FEMA indicates that 16.8 million people live or work behind a levee. Levees help protect more than \$2 trillion of property, 4,500 schools that enroll over 2 million students, and 5.3 million buildings. As depicted in the above NLD graphic and explained by the Corps in a March 2018 report, "these [levee] systems are integral with society, with about a mile of Corps levees for every McDonald's restaurant in the United States." Communities in all 50 states, the District of Columbia, Puerto Rico, and Guam rely on levees and flood walls to help lessen catastrophic flooding, increase land availability for habitation, agriculture, and industry, and protect the U.S. financial system from instability that might result from large-scale flood events.

### Accredited Versus Non-accredited Levees

Importantly, while levees are everywhere, not all levees are the same in terms of their size, the amount of people and treasure they help protect, or performance. Of the 6,972 levee systems registered in the NLD, the Corps and FEMA report that 1,474 systems are either accredited by FEMA on NFIP flood maps as substantially reducing the flood hazards posed by a 1-percent-annual-chance-flood or provisionally accredited with as yet incomplete documentation demonstrating compliance with 44 CFR 65.10. By contrast, 5,498 levee systems are not accredited by FEMA. In approximate terms, this means that only one in five of the red levee location markings shown in the above NLD graphic represents an accredited or provisionally accredited levee system.

The areas landward of accredited levee systems, in general, are not subject to mandatory flood insurance purchase. Non-accredited levee areas are identified on flood maps as high-risk or SFHAs where NFIP floodplain management regulations must be enforced and where the flood insurance purchase mandate applies for residential and commercial properties with mortgages from federally regulated or insured lenders.

The important responsibility of managing floodplain development, frequently involving local land use regulation, flood insurance, building standards, and other nonstructural hazard mitigation approaches, is guided by FEMA in partnership with land use regulation and zoning agencies at the local level. In most cases, those local regulatory agencies are not the same as the owner-operators of flood control projects. Nonetheless, floodplain management requirements impact the ability of infrastructure owner-operators to perform their urgent duties to provide reliable flood protection, and their concerns with changes to the floodplain management requirements, including expansion of SFHAs, are valid.

### HFSC Draft Section 209 Penalizes Communities with Accredited Levees

Section 209 of the House Financial Services Committee (HFSC) draft NFIP Reauthorization Act of 2022 authorizes the FEMA Administrator to determine risk in leveed areas absent rulemaking.

It similarly allows the Administrator to bypass the flood mapping and attendant public notice and congressional notification procedures specified at 42 U.S.C. 4101 while allowing for imminent application of mandatory insurance landward of accredited levees. Section 209 sets a transitional premium level in those areas (which is expected to increase premiums from low to moderate risk for some leveed areas), directs that FEMA proceed to implement new internally developed (and under Risk Rating 2.0, unchallengeable) "risk-based" premiums in such areas, while also applying SFHA land use regulations.

The Section 209 approach fails to recognize the important distinctions between accredited and non-accredited levee systems and the enduring, overwhelmingly effective accreditation process altogether. For communities that have made the sacrifice to plan, build, operate and maintain world class infrastructure, no good deed shall go unpunished under Section 209. Indiscriminate designation of areas behind all levees as SFHA with attendant land use regulations and flood insurance purchase mandates would summarily overturn the decades-long Federal commitment to accommodate diverse local needs and circumstances, incentivize local project funding sufficiency, and foster exemplary local operation and maintenance of projects that contribute optimal, economic flood protection through reliable, high-performance levees. The unsupported Section 209 approach risks flouting the teachings of Professor Gilbert White to make use of multiple means, including the full array of sound structural and nonstructural approaches, to reduce the incidence of catastrophic flooding.

### Section 209 Should Either Be Stricken or Clarified

Some may try to argue that Section 209 maintains the status quo on application of the SFHA mandatory insurance purchase and land use requirements behind accredited levees. If true, it is unclear what purpose the provision serves. The lack of clarity and purpose underlying Section 209 mandates that it be stricken from this or any legislation. In lieu of removal of Section 209 altogether, Congress must clarify its intent such that nothing in the provision shall affect the exemption of properties from mandatory insurance in levee-impacted areas protected by levees accredited under 44 CFR 65.10. Further, in implementing the proposed

Section 209 approach, it should be specified that the Administrator shall not include any levee-protected area in an SFHA requiring mandatory flood insurance coverage and land use requirements unless the Administrator first carries out fully all requirements related to identification and mapping of flood-prone areas under the National Flood Insurance Act of 1968 [42 U.S.C. 4001 et seq.].

### The Benefits of Accredited Levee Systems

Objective analysis of accredited levee system performance reveals that diligent levee owner-operators, in partnership with local zoning agencies and the Corps and FEMA, have indeed reduced the incidence of flood loss in their communities. The accredited 11-state Mississippi River and Tributaries Project authorized by the 1928 Flood Control Act has prevented \$2.021 trillion in cumulative damages to generate a remarkable 116.8 to 1 return on investment. During epochal May 2015 rainfall across Texas, accredited Corps flood control projects maintained by local sponsors prevented more than \$13 billion in flood damages. And during the unprecedented 279 days of Midwest flooding in 2019, flood control operations prevented \$2.4 billion in damages in Missouri and Kansas. In January of this year, the German-based global reinsurance company, Munich Re, published a report indicating that Hurricane Ida caused \$65 billion in damage but that the rebuilt levee system in New Orleans "withstood the storm surges, thereby preventing much higher losses... ...and that the investments there were absolutely worth it." The reality in hundreds of communities is that federally accredited levees continue to serve the communities they protect and the Nation and, with a single notable exception, have not failed.

The horrific losses and suffering experienced by victims of the 2005 Hurricane Katrina-related failure of a levee system in New Orleans are anomalous for certified and federally accredited levees in the United States over the last several decades. Even considering the New Orleans tragedy, we have not experienced systemic financial crises or bank failures as the consequence of accredited levee failure. The inspections, surveillance, and use of technological advancements that underlie Federal levee accreditation have worked to both increase life

safety and secure the same financial protection outcome as that intended by Congress for application of mandatory insurance under the National Flood Insurance Act. With New Orleans as an undeniably tragic exception, the Nation has thankfully not experienced a history of accredited levee failures that threaten the financial system or justify the Section 209 approach which, incidentally, was rejected by Congress 10 years ago during debate on the Biggert-Waters Act of 2012. Our good fortune in areas protected by accredited levees is what the Federal government expected when communities that sacrificed to construct levees and sustain Federal accreditation were given the promise that their sound projects would protect them not only from floods, but also imposition of mandatory insurance and expansive Federal land use regulation.

The extremely low current risk to the financial system and its stability posed by accredited levees can also be put into a much larger context. On May 10, 2022, the Senate Banking Committee received testimony from Secretary of Treasury Janet Yellen on the annual report of the Financial Stability Oversight Council. During the hearing Senator Toomey, the Ranking Member of the Committee, asked the Secretary, "Can you name a single financial institution in America that has failed as a result of a severe weather event in the last 50 years?" The Secretary could not name such an event. Senator Toomey went on, "Every single year we have blizzards, we have hurricanes, we have wildfires and sometimes they are horrendous, and some of them have been recent. But we've never had a single financial institution fail much less the entire financial system. So, I think it's pretty clear and actually I think Chairman Powell acknowledged there's no physical risk that's even remotely imminent." Any risks posed to the Federal interest in our financial system from accredited levees could unfold over time, but at present they are certainly not imminent, nor even apparent.

### Section 209 Unintended Consequences

Section 209 represents a sudden hard turn on decades-long policy for leveed areas that essentially mandates a new form of taxation in the guise of arbitrary insurance premiums, seemingly levied for revenue rather than actuarial purposes. It could easily incentivize

residents to demand that levee districts, after satisfying debt service obligations, cease levying taxes for operation and maintenance and instead rely solely on the "protection" provided by the NFIP to avoid paying a tax for levee maintenance and another for flood hazard coverage. Critically, Section 209 would result in a precipitous decline in residential and commercial property values, depressed realtor commissions, a reduction in overall taxable market value and necessitate reduction in governmental services or increased tax rates, while frustrating local performance of sound community floodplain management practices.

Levee owner-operators of accredited systems have spent considerable time, effort, and resources over the decades to achieve reliable, economic flood protection for their residents and business owners. Earning and keeping FEMA accreditation of levees on flood maps to avoid SFHA designation and associated mandates and regulations have further incentivized levee owner-operator commitments to levee system operation and investment. There is no known Federal analysis demonstrating that accredited levees pose a substantial risk for protected communities nor is there any known Federal analysis to justify termination of the longstanding exemption from mandatory flood insurance or land use requirements for areas protected by accredited levees.

### Sampling of Affected Areas Around the United States

According to data from the Corps-FEMA managed National Levee Database, Sec. 209 will impose new mandatory flood insurance purchase requirements on families, businesses, and local communities in the following areas with accredited levee systems. Please see the attached Exhibit beginning on page 16 for a sampling of affected areas represented by HFSC Members.

### (II) FEMA Risk Rating 2.0 Methodology

The NFIP pricing overhaul by FEMA, called "Risk Rating 2.0" (RR2.0), went into effect for existing policyholders on April 1, 2022, despite broad bipartisan concerns over how RR2.0 has been developed, tested, and presented to the public. There are also concerns about the long-term

impacts that RR2.0-calculated premiums will eventually have on premium affordability, property values, property resale, and local revenues. For many, the ultimate full-risk actuarial cost calculated by FEMA under RR 2.0 is being hidden by an 18 percent annual price increase limit installed by Congress after explosive FEMA premium hikes in 2013.

### FEMA's Data Disclosure Gap

The drastic changes by FEMA under RR2.0, ostensibly being used to better reflect flood risk using a blend of public and proprietary information and tools, are alarmingly devoid of requisite underlying data and assumptions. We are reminded of the regrettable outcomes that arose from implementation of rate reforms authorized in the Flood Insurance Reform and Modernization Act of 2012. The immediate, exorbitant premium rate increases of the 2012 Act prompted Congress to mitigate the harmful effects less than two full years later, in 2014. Clearly the unprecedented overhaul now being executed by FEMA through RR2.0, which risks precipitous declines in residential and commercial property values with derivative impacts, warrants closer scrutiny.

The internally developed RR2.0 plan plainly lacks the transparency that policyholders and government decisionmakers require to test FEMA methodologies and verify the accuracy and fairness of their methods, data, and future premiums.

The minimum data needed for communities to assess Risk Rating 2.0 include—

- 1. The flood elevations and flood frequency curves at the locations in each community used (or assumed) to generate the full array of premiums from rating factors;
- 2. The estimated average annual losses (with confidence intervals or error bands) at the locations in each community used to develop the premiums;
- 3. The results of the "generalized linear models" used to develop the rating factors based on such parameters as "distance from the water," "elevation above the water," "foundation type," etc., including the confidence intervals, error bands and p-values

(i.e., measure of the probability that an observed difference could have occurred just by random chance) for the estimates;

- 4. Documentation of how the flood and storm models use Monte Carlo methods to draw artificial years from an imaginary set of probability relationships together with the assumed events, consequences, and probabilities (Casino Premiums) to forecast possible outcomes; and
- 5. The extent to which estimates of premiums reflect modeled events, consequences and probabilities that have rarely, perhaps never, occurred in the flood history, e.g., levee failures and over-topping, unobserved flood flows, unobserved flood stages, etc.

### H.R. 7364, the "Stop Flood Insurance Rate Hikes Act"

Until such time that requisite information is made publicly available and adequately tested, NFIP policyholders should be provided the option to select either the legacy approach or the new RR2.0 approach, depending on their individual circumstances. FEMA must be compelled to provide the necessary information that is fundamental to assessing and communicating flood risk, and to pricing it appropriately.

Bipartisan legislation to achieve this policyholder protection outcome was introduced and referred to the HFSC on April 1, 2022. H.R. 7364 by Representatives Garret Graves, Bill Pascrell and others would require FEMA to—

- Make the new RR2.0 chargeable premium rates optional vs. mandated, giving
  policyholders the option to request the legacy (or lower) premium calculation approach
  until FEMA justifies its program overhaul by satisfying all requirements;
- Inform policyholders of their legally available premium options;
- Make available to the public and demonstrate all data, methods, and assumptions used to establish chargeable premium rates under RR2.0;
- Fully disclose the actual, unhidden RR2.0 costs to individual NFIP policyholders by providing two expressions of the new FEMA approach for their home or other property:

- (a) their total full-risk actuarial premium as unconstrained by the annual (temporary) premium increase cap set by federal law (not currently available from FEMA); and (b) the upcoming 12-month chargeable premium rates that are lowered (temporarily) by federal law;
- Complete and publish a comprehensive assessment of the broad economic and social impacts of implementing RR2.0 over a 20-year period, accounting for affordability and availability of NFIP flood insurance, property values, and non-federal government revenues otherwise used to support local services (e.g., public education, first responders, public works, and parks and recreation);
- Supplement and revise, as appropriate, the 2018 (pre-RR2.0) Record of Decision for the final Nationwide Programmatic Environmental Impact Statement associated with impacts from RR2.0-related modifications to the NFIP;
- Demonstrate that the chargeable premiums under RR2.0 are based on data and methods of sufficient quality, objectivity, utility, and integrity to be reliable under government-wide Office of Management and Budget (OMB) guidance used to implement the Federal Information Quality Act;
- Conduct a public notice and comment rulemaking consistent with the Federal
   Administrative Procedure Act, which would also include a fair, transparent, and
   streamlined process to manage policyholder disputes over chargeable premium rates
   and other factors under the new overhauled RR2.0 approach;
- Publish the distribution of chargeable premium rates by county with and without the premium rate caps to permit short and long-term assessment of the economic and social justice impacts of RR2.0; and
- Submit a report to Congress detailing the findings and outcomes of having completed the preceding disclosure, economic and environmental analysis, data quality assurance, public notice and comment, and cost distribution requirements.

FEMA is acting with astonishing disregard for the rights of individual citizens to understand and, if necessary, challenge their government – moreover, without regard to the Information Quality

Act implementation requirements. Policyholders from coast-to-coast have the right to understand the data and processes used by FEMA to calculate the estimated flood risk and government-issued insurance costs for their homes or commercial properties. It is unconscionable that the technical underpinnings and real-world costs and benefits of RR2.0 are being concealed by the government. Allowing for full transparency, data reliability, policyholder appeals, and public participation on the government-run NFIP is not only in keeping with federal law, but also increases the chance for successful outcomes. RR2.0 is not exempt from these realities. Doing otherwise risks public mistrust, swift declines in residential and commercial property values, failure to accurately communicate flood risk, and further harm at the expense of the policyholder.

NFIP policyholders should be provided the option to select the legacy approach or the new RR2.0 approach, depending on their individual circumstances, until FEMA provides the necessary information that is fundamental to assessing and communicating flood risk, and to pricing it appropriately. Policyholders and policymakers should be confident in FEMA assessments before the implementation of this new, unfamiliar, and untested flood insurance rating system that threatens financial and regulatory devastation in coastal and riverine America — areas that host more than half of the nation's population and GDP. Nearly identical legislation, the "Homeowner Flood Insurance Transparency and Protection Act" (S. 3934) was introduced in the Senate on March 28, 2022, by Senator Cindy Hyde-Smith.

### Conclusion

We have laws and administrative guidelines promulgated by OMB to protect the quality, objectivity, utility, and integrity of information disseminated and used by Federal agencies. Longstanding, bipartisan administrative requirements are in place under the Administrative Procedure Act to ensure good government and open and transparent consideration of regulatory actions. These requirements are being bypassed as the agencies seek to overhaul their treatment of levees in Federal programs. Both FEMA and the U.S. Army Corps of Engineers, who are working together on key NFIP elements, continue to restrict public

information disclosure, formal peer review, and solicitation and consideration of public input.

Too many of these important public protections are being set aside.

Some proponents find that the FEMA RR2.0 approach represents change that is "long overdue" and that it should "increase public confidence in the program" while "putting NFIP on stronger financial footing." Others, including FEMA, are making similar claims about the need to charge rates that more accurately reflect risk. All those statements might be true, but no one can know because the core underlying data and assumptions used to produce RR2.0 have not been made available and there can be no confidence that new premiums are reproducible for an individual property or that leveed areas are fairly treated.

We request that Congress step in before it is too late. Pass the legislation introduced by Graves-Pascrell and Hyde-Smith to compel FEMA to fill the RR2.0 data gaps, abide by the terms of peer review and reproducibility under the Information Quality Act, reinstate effective rights of appeal for policyholder premium-setting, and guarantee meaningful public participation opportunities through rulemaking.

Thank you for the opportunity to submit these views.

**ENCLOSURE** 

### **EXHIBIT**

# **Sampling of Affected Areas Around the United States**

According to data from the Corps-FEMA managed National Levee Database, families, businesses, and local communities with *accredited levee systems* in the following areas will face new mandatory flood insurance purchase requirements and Federal land use regulation under Sec. 209 of the HFSC draft NFIP Reauthorization.

Reauthoriza	ition.					
County,					Property	
State	Location	<u>System</u>	<u>Length (mi)</u>	<u>Population</u>	Value (\$M)	<u>Buildings</u>
Clay County, MO	North Kansas City	North Kansas City Levee	8.96	26,703	\$4,400	1,658
IVIO	•	· · · · · · · · · · · · · · · · · · ·		•	\$489	•
	Birmingham	Birmingham	11.03	1,113	·	209
Jackson	Kansas City	East Bottoms	9.49	16,539	\$5,600	751
County, MO	Kansas City	CID, Central Industrial District	4.9	15,858	\$2,320	341
	Railsas City	GSA Bannister/Dodson	4.5	13,636	<b>32,320</b>	341
	Kansas City	Complex	3.66	925	\$2,800	91
	Sugar Creek	MRLS 351-R	16	245	\$80	140
	Jugur Creek	WINES SSI N	54	61,383	\$15,68 <b>9</b>	3,190
Ren Emanuel	Cleaver (MO-5) w	/ 54 accredited levee miles, p			. ,	
	es (homes and bus	The second se	roteeting 01,303	people, una propei	ty valued at \$15	.7 Billion With
0,2000000000000000000000000000000000000						
Pulaski		North Little Rock to				
County, AR	England	Gillette	53.27	7,842	\$921	3,799
		Head of Fourche Island				
	Wrightsville	to Pennington Bayou	21.39	2,828	\$266	176
	Little Rock	Riverdale Private Levee	2.89	2,046	\$223	249
	North Little	North Little Rock Levee				
	Rock	and Floodwall	2.97	368	\$44	116
	Little Rock	Rock Creek Levee	0.59	115	\$11	49
	Roland	Roland Drainage District	4.09	101	\$12	45
		Little Rock Flood				
	Little Rock	Protection	7.51	26	\$5,680	14
Faulkner		Faulkner County Levee	6.70	25.4	470	20
County, AR	Conway	District No. 1	6.73	254	\$78	30
5 5 14	:// (4.5. 2) / (0.0	10. 11. 11. 11. 11.	99	13,580	\$7,235	4,478
	iii (AK-2) W/ 99 acc mes and businesse	credited levee miles, protections	ng 13,580 peopie,	ana property valu	ea at \$7.2 Billion	witn 4,478
structures (no	illes ullu busillesse	<i>:3)</i>				
Fort Bend	Missouri City	Sienna Levee Systems	0.61	8,791	\$1,990	3,346
County, TX	Missouri City	Palmer MUD Levee	4.12	97	\$12	33
334			5	8,888	\$2,002	3,379
Ren Al Green	(TX-9) w/ 5 accred	dited levee miles, protecting 8				
	mes and businesse		noos peopie, ana	property varacular	. \$2.0 0	3,373
		Lower Rio Grande Levee				
	Bluetown	System	129.67	272,073	\$32	77,654
Cameron		Lower Rio Grande Right				
County, TX	Lasana	Floodway System	57.41	112,770	\$15	40,314
		Lower Rio Grande Left				_
Hidalgo	Indian Hills	Floodway System	44.76	107,181	\$10	31,083
County, TX	Mission	Mission Levee System	22.79	66,766	\$8	17,970
			255	558,790	\$66	167,021
Ren Vicente (	Conzáles (TX-15) w	2/ 255 accredited levee miles.	protecting 558 7	90 neanle and pro	nerty valued at 9	66 Million

Rep. Vicente Gonzáles (TX-15) w/ 255 accredited levee miles, protecting 558,790 people, and property valued at \$66 Million with 167,021 structures (homes and businesses)

County, State	<u>Location</u>	<u>System</u>	<u>Length</u> (mi)	<u>Population</u>	<u>Property</u> <u>Value (\$M)</u>	<u>Buildings</u>
San Diego	San Diego	Tijuana River 2	1.96	6,690	\$1,250.0	905
County, CA	Chula Vista	Sweetwater River 2	2.32	3,261	\$325.0	190
	Chula Vista	Sweetwater River 1	2.28	1,796	\$136.0	558
	San Diego	Tijuana River 1 Reservation Levee (Ft.	1.77	3	\$8.5	3
Imperial	Winterhaven	Yuma Indian Res.)	17.05	2,806	\$486.0	1,050
County, CA			25	14,556	\$2,206	2,706
Rep. Juan Vargas (CA-51) w/ 25 accredited/provisional levee miles, protecting 14,556 people, and property valued at \$2.2 Billion with 2,706 structures (homes and businesses)						

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		DES MOINES, IA - DM II -				
		RDB DES MOINES RIVER /				
Polk County, IA	Des Moines	LDB RACCOON RIVER	3.14	44,753	\$2,680	323
		DES MOINES, IA & SE DM -				
		SW PLEASANT HILL RED				
	Des Moines	ROCK REMEDIAL WORKS	10.56	7,938	\$1,870	859
	West Des	WEST DES MOINES & DES				
	Moines	MOINES, IA	4.27	3,053	\$550	1,360
		Des Moines, IA - LDB Des				
	Des Moines	Moines River (Birdland)	1.47	2,283	\$175	183
		DES MOINES, IA - DM III -				
	D M - i	RDB DES MOINES RIVER /	2.4	4 002	6402	060
	Des Moines	RACCOON RIVER	2.1	1,993	\$183	860
	D M - i	DES MOINES, IA - RR I - RDB	4.65	4.606	¢160	C.F.
	Des Moines	RACCOON RIVER	1.65	1,686	\$160	65
	Dos Mainos	Des Moines, IA - RDB Des	1 11	1 160	¢227	140
	Des Moines	Moines River (Central Place) AVON STATION, IA - RED	1.11	1,168	\$227	149
	Carlisle	ROCKS REMEDIAL WORKS	2.06	309	\$31	129
	Carriste	DES MOINES WATER WORKS	2.00	309	221	129
	Des Moines	LEVEE	0.75	0	\$0	0
	Des Montes	L-627 MO River LB & Indian	0.75	O	ÇÜ	O
	Council Bluffs	Creek RB	15.35	29,357	\$3,080	10,580
Pottawattamie	Council Blans	C. CCK N.D	13.33	23,037	ψ3,000	10,500
County, IA	Council Bluffs	Omaha - Missouri River RB	13.26	8,375	\$1,600	3,320
,		L-624 MoRiv LB & Indian LB &		2,010	+ =/ = = =	3,3_3
	Council Bluffs	Mosquito Creek RB	8.86	6,305	\$769	2,142
		•		,	•	•
	Council Bluffs	MOSQUITO CREEK TIEBACK	0.51	1,265	\$617	9
		L-624-627-611-614 -		,		
	Council Bluffs	Mosquito Cr & Upper Pony Cr	8	102	\$47	94
		L-611-614 - Upper Pony				
	Council Bluffs	Creek LB & Lat 1B RB	2.57	30	\$2	5
	Council Bluffs	COUNCIL BLUFFS LEVEES	0.68	0	\$173	1
Montgomony		Red Oak - East Nishnabotna		_	•	
Montgomery County, IA	Red Oak	LB	2.89	2,382	\$323	1,180
Mills County,	Neu Oak	L-601 - Watkins Ditch RB -	2.09	2,362	<b>3323</b>	1,160
IA	Pacific Junction	Watkins DD	7.68	557	\$41	302
i/A	r define Junetion	L-611-614-MoRiv LB & Upr	7.00	337	γ <del>τ</del> ±	302
	Mills County	Pony Creek LB & L1B LB	25.65	398	\$153	409
	Emerson	Emerson - Indian Creek RB	0.03	55	\$155 \$9	403
	Bartlett	L-594-601	14.62	155	\$37	119
	201000	_ 55 . 661	127			
		aditad lawa sasilas assatastis sa 112		112,164	\$12,727	22,136

Rep. Cindy Axne (IA-3) w/ 127 accredited levee miles, protecting 112,164 people, and property valued at \$12.7 Billion with 22,136 structures (homes and businesses)

Country	Location	System	<u>Length</u> (mi)	<u>Population</u>	Property Value (\$M)	Buildings
<u>County,</u> <u>State</u>	LOCATION	<u>System</u>	<u>(m)</u>	<u>Population</u>	value (Şivi)	<u>bullulligs</u>
	Flat Rock	Quality Mills	0.43	3	\$0	3
			1	36	\$24	27
		1 accredited levee mile, prote	ecting 36 people, and	property value	d at \$24 Million	with 27
structures (hom	es and businesses	7)				
Fairfield	Stamford	Stamford HSPP	2.02	8,381	\$1,140	1,300
County, CT	Norwalk	Norwalk Riv RB*	0.26	257	\$40	49
* Accredited	, overtopped 1955	5, breach possible	2	8,638	\$1,180	1,349
		dited levee miles, protecting a	8,638 people, and pro			
structures (hom	es and businesses	·)				
		Bower School				
DuPage	Warrenville	Berm Levee	0.23	0	\$0	4
County, IL						
•	en (IL-6) w/ 1/4 ac	ccredited levee mile, apparent	tly protecting a schoo	ol (property valu	ie not provided f	or public
facilities)						
		BOSCHERT				
	St. Charles	CREEK WEST	1.95	2150	\$377	336
St. Charles	St. Charles	Elm Point Levee	1.33	2130	Ψ377	330
County, MO	St. Charles	System	4.26	733	\$62	306
		St. Peters Old				
		Town Levee				
	St. Peters	System	3.34	538	\$54	134
	Ct Datars	Lakeside 370	4.12	25	¢11	0
	St. Peters	Levee System BOSCHERT	4.12	25	\$11	8
	St. Charles	CREEK EAST	1.66	0	\$0	0
			15	3,446	\$504	784
Rep. Blaine Luetk	emeyer (MO-3) w	/ 15 accredited levee miles, p				
	res (homes and bu		3 / / /	, , , , , , , , , , , , , , , , , , ,	·	
		Monarch				
		Chesterfield				
Ch. Lauda	Chesterfield,	Levee District	12.04	7,971	\$2,070	511
St. Louis County, MO	Maryland Heights	Riverport Levee District	2.58	5,350	\$256	25
County, MO	rieigiits	Valley Park	2.36	3,330	Ş230	23
	Valley Park	Levee	3.1	3,301	\$538	484
	, Maryland	Howard Bend		•	·	
	Heights	Levee District	8.16	1,483	\$337	132
		WASTEWATER				
	Maryland	TREATMENT	0.77	^	ćo	0
	Heights	PLANT LEVEE	0.77	0	\$0	0
_	10.0) /07	dited levee miles, protecting 1	27	18,105	\$3,201	1,152

More than 600 miles of accredited levees, protecting nearly 800,000 people, and property valued at over \$44 Billion with more than 200,000 structures!!!

Source: NLD at <a href="https://levees.sec.usace.army.mil/#/map-viewer">https://levees.sec.usace.army.mil/#/map-viewer</a> (accessed May 20-23, 2022)

structures (homes and businesses)