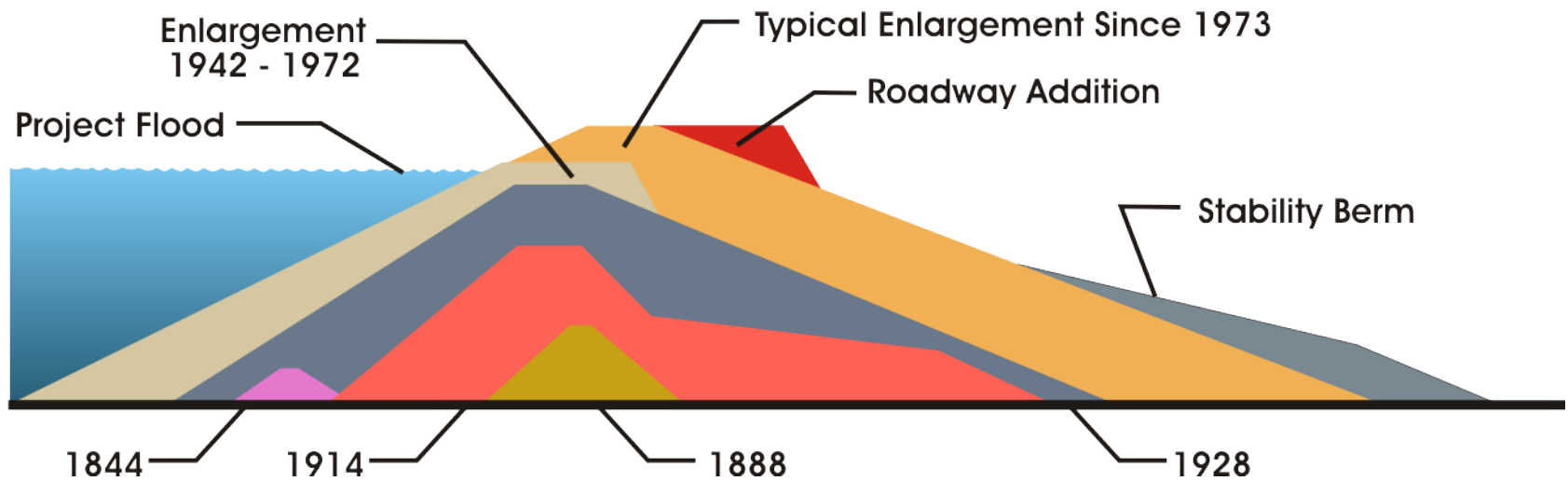


MISSISSIPPI VALLEY FLOOD CONTROL ASSOCIATION

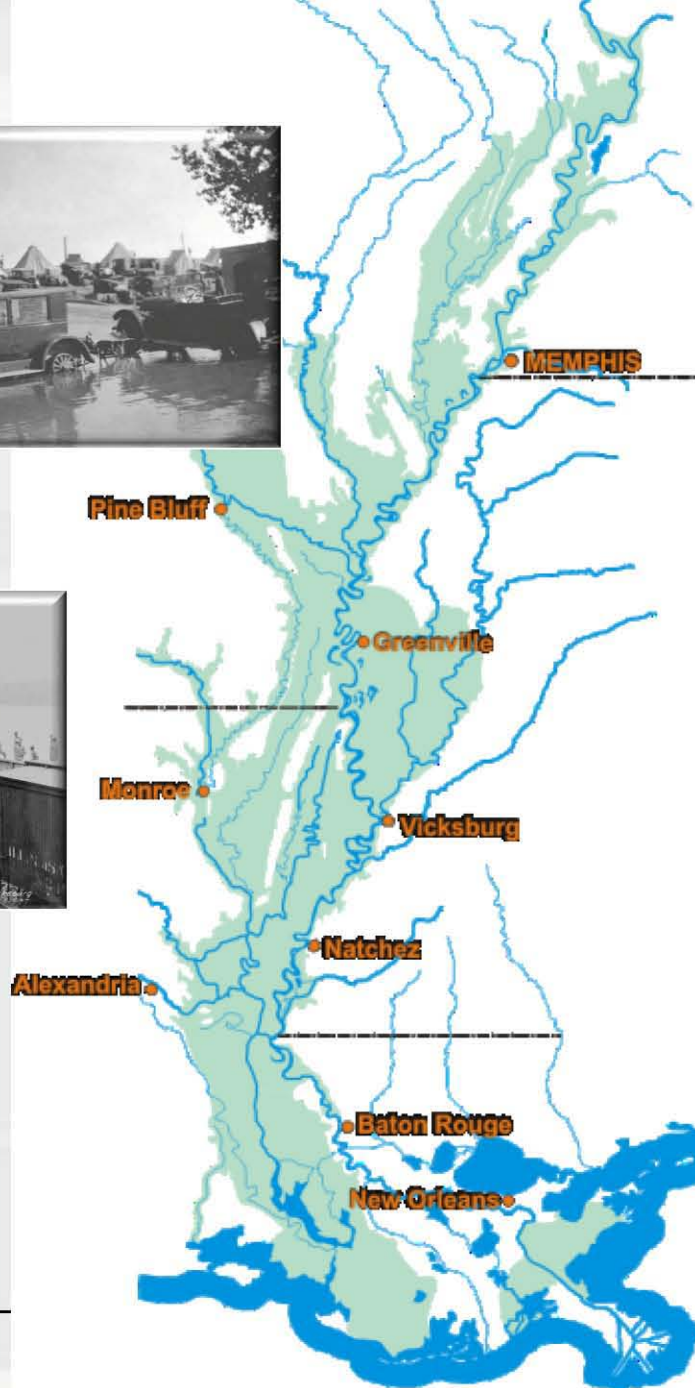
Rob Rash PE, PLS
Executive Vice President



Evolution of Mississippi River Levees



1927 Flood



Legend

 1927 Flooded Area

- 500 deaths
- 600,000 homeless
- 16 million acres (26,000 sq. miles)
- 80 miles wide at Vicksburg

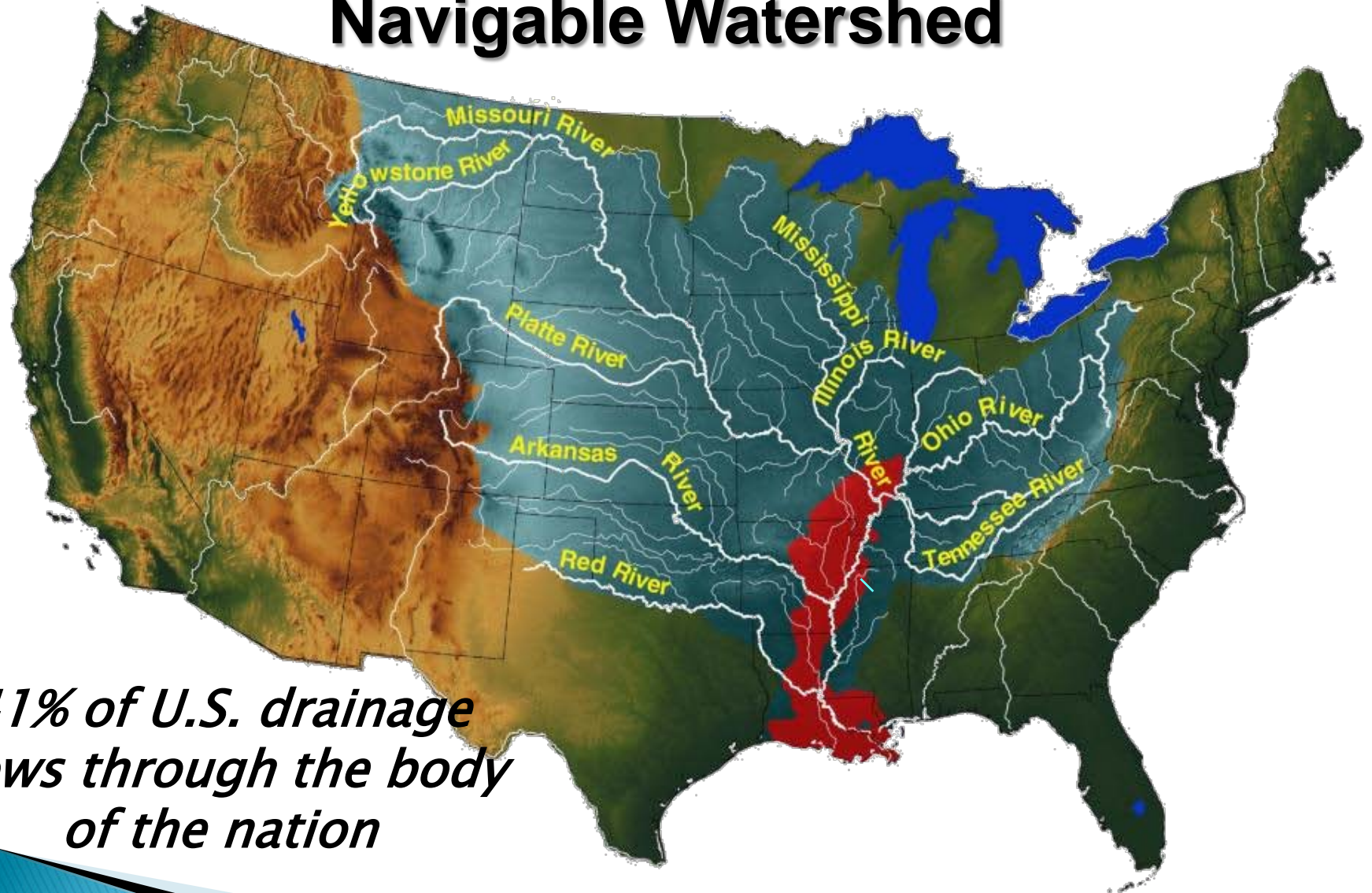


BUILDING STRONG®

Mississippi River Levee 1927 Flood



World's Largest Naturally Navigable Watershed



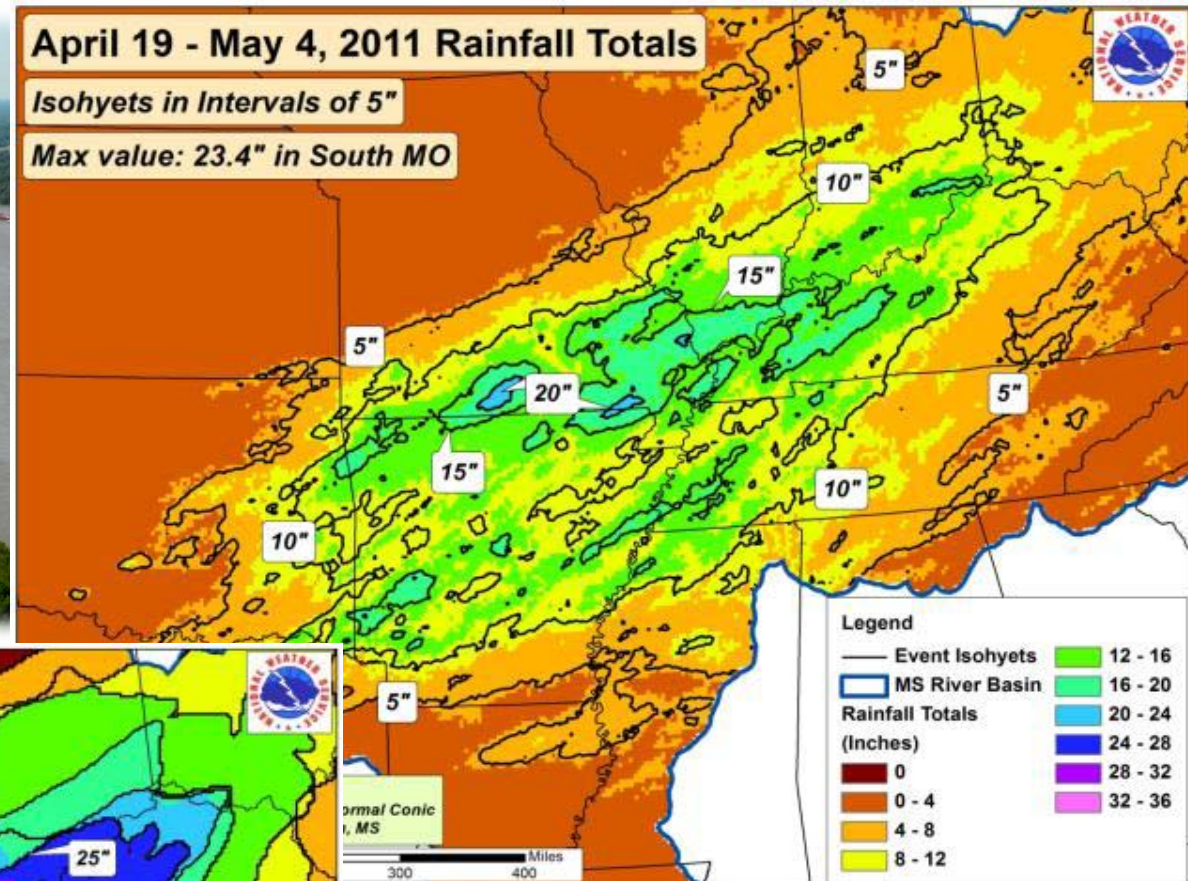
*41% of U.S. drainage
flows through the body
of the nation*



April 19 - May 4, 2011 Rainfall Totals

Isohyets in Intervals of 5"

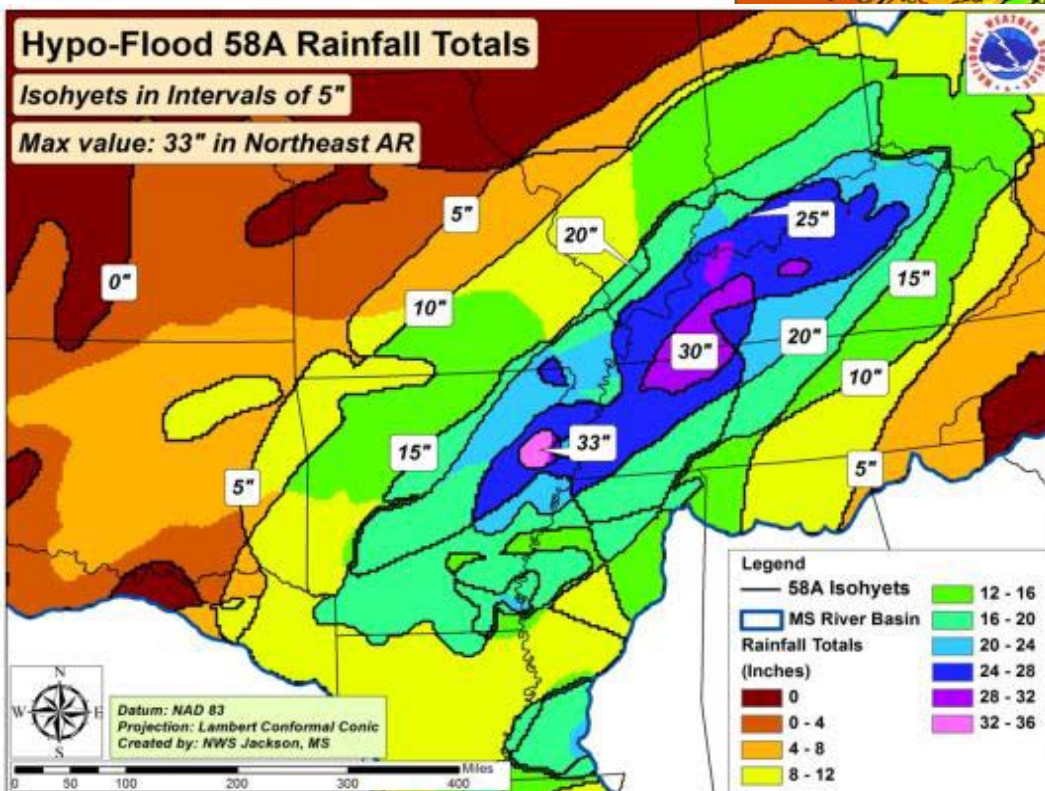
Max value: 23.4" in South MO



Hypo-Flood 58A Rainfall Totals

Isohyets in Intervals of 5"

Max value: 33" in Northeast AR



Station	2011	1927^{5/} Actual	1927 Confined	1937^{5/}	1973	PDF^{3/}
Cairo, IL ^{1/}	1,936,000 ^{6/ 2/}	1,626,000	1,765,000	2,010,000 ^{4/}	1,536,000	2,360,000
Memphis, TN	2,213,000 ^C	N/A	1,744,000	2,020,000	1,633,000	2,410,000
Helena, AR	2,130,000 ^C	1,756,000	N/A	1,968,000	1,627,000	2,490,000
Arkansas City, AR	2,293,000 ^C	1,712,000	2,472,000	2,159,000	1,879,000	2,890,000
Vicksburg, MS	2,272,000 ^C	1,806,000	2,278,000	2,060,000	1,962,000	2,710,000
Natchez, MS	2,227,000 ^C	N/A	N/A	2,046,000	2,024,000	2,720,000
Red River Landing, LA	1,641,000 ^C	1,461,000	1,779,000	1,467,000	1,498,000	2,100,000

C - Peak Discharge, Provisional

1/ Discharge Range at Hickman, KY

2/ Approximate mile 950.8 at 1400 CDT 5/02/2011 near Wickliffe, KY, prior to operation of Birds Point-New Madrid Floodway

3/ Project Design Flood (PDF) provides design flows for MR&T project - Currently estimated to be complete in 2032 at the average rate of funding over the last 10 years

4/ Includes flow through Birds Point-New Madrid Floodway

5/ Reference - "Annual Maximum, Minimum, and Mean Discharges of the Mississippi River and Its Outlets and Tributaries to 19

Revised 22 June 11



Flood Control



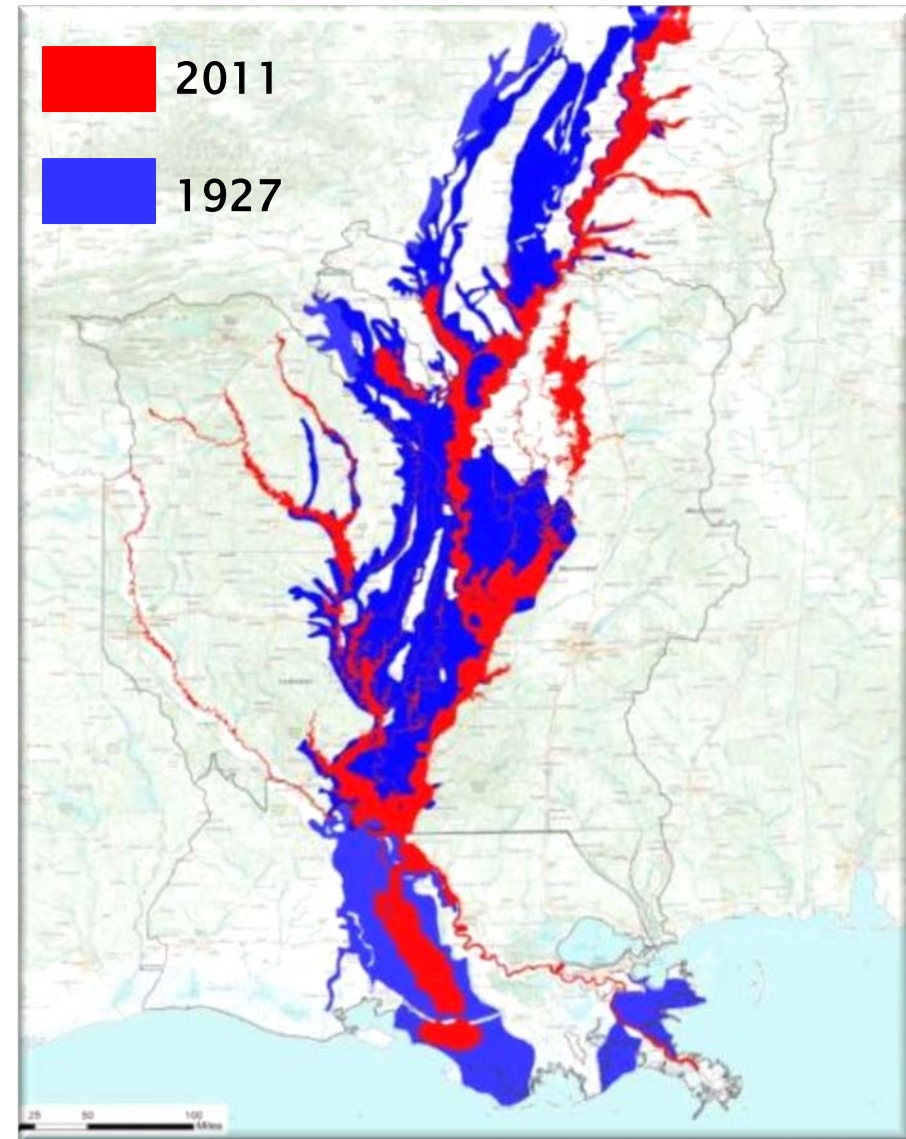
Flood Control



Flood Control

1927 vs. 2011 Mississippi River Record Flood: From “Levees Only” to “Room for the River”

- 1927 Flood = 16.8 million acres
- 2011 Flood = 6.4 million acres
- \$14 billion Investment since 1928
- **\$246 billion damages prevented (2011)**
 - ✓ **\$612 billion since 1928**
 - ✓ **46 to 1 return on investment**
- 4 million people protected
- \$3 billion annual transportation rate savings
- Untold economic productivity enabled
 - ✓ Farms, towns, factories



Mekong River Flood 2011







Items of Concern

- ▶ Requested \$500 Million for FY16 MR&T
- ▶ Federal Flood Risk Management Standard (FFRMS)
 - Sets unachievable standards.
- ▶ Waters of the United States “Rules Clarification”
 - Regulates water that has a “significant nexus to a watershed”
 -