

BIG RIVER COALITION

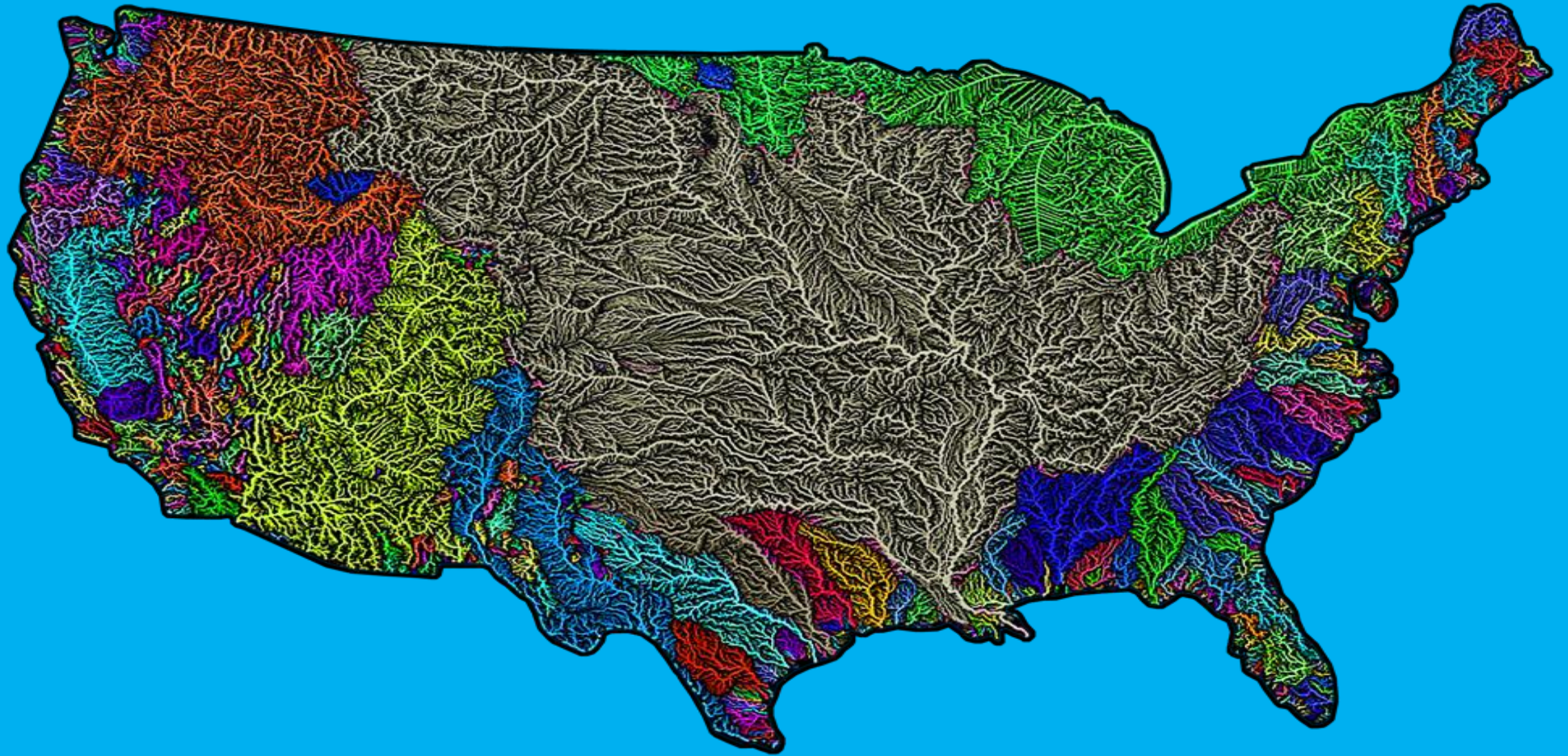
“Advocating for a Mightier Mississippi River”



HIGH WATER CHALLENGES FOR NAVIGATION AND COMMERCE ON THE MISSISSIPPI RIVER

WATERWAYS COMMISSION 73119

MARITIME NATION



“The basin of the Mississippi is the body of the nation.” Mark Twain, *Life of the Mississippi*

1883



Note: Figure shows dock-to-dock annual shipment volumes (tonnages) by 4-digit Performance Monitoring System Commodity Class and annual shipment volumes (tonnages, dollar-valued trades) to and from U.S. seaports and foreign countries, broken down by 4-digit Harmonized Schedule Commodity Codes.

MISSISSIPPI RIVER ECONOMICS

THE BIG RIVER COALITION IS COMMITTED TO ENSURING THE FUTURE OF NAVIGATION ON THE MISSISSIPPI RIVER SHIP CHANNEL AS A FUNDAMENTAL NATURAL RESOURCE AND TRUE ECONOMIC POWERHOUSE. THE MISSISSIPPI RIVER AND TRIBUTARIES PROJECT HAS AN ESTIMATED \$735.7 BILLION ANNUAL IMPACT ON THE NATION'S ECONOMY AND IS RESPONSIBLE FOR APPROXIMATELY 2.4 MILLION JOBS (585,000 JOBS ON THE LOWER RIVER – CAIRO, IL TO THE GULF OF MEXICO AND 1.86 MILLION PLUS JOBS ON THE UPPER RIVER-LAKE ITASCA, MN TO CAIRO, IL AND INCLUDING THE IL RIVER).

7,500 DEEP-DRAFT VESSEL ARRIVALS ON THE MISSISSIPPI RIVER SHIP CHANNEL

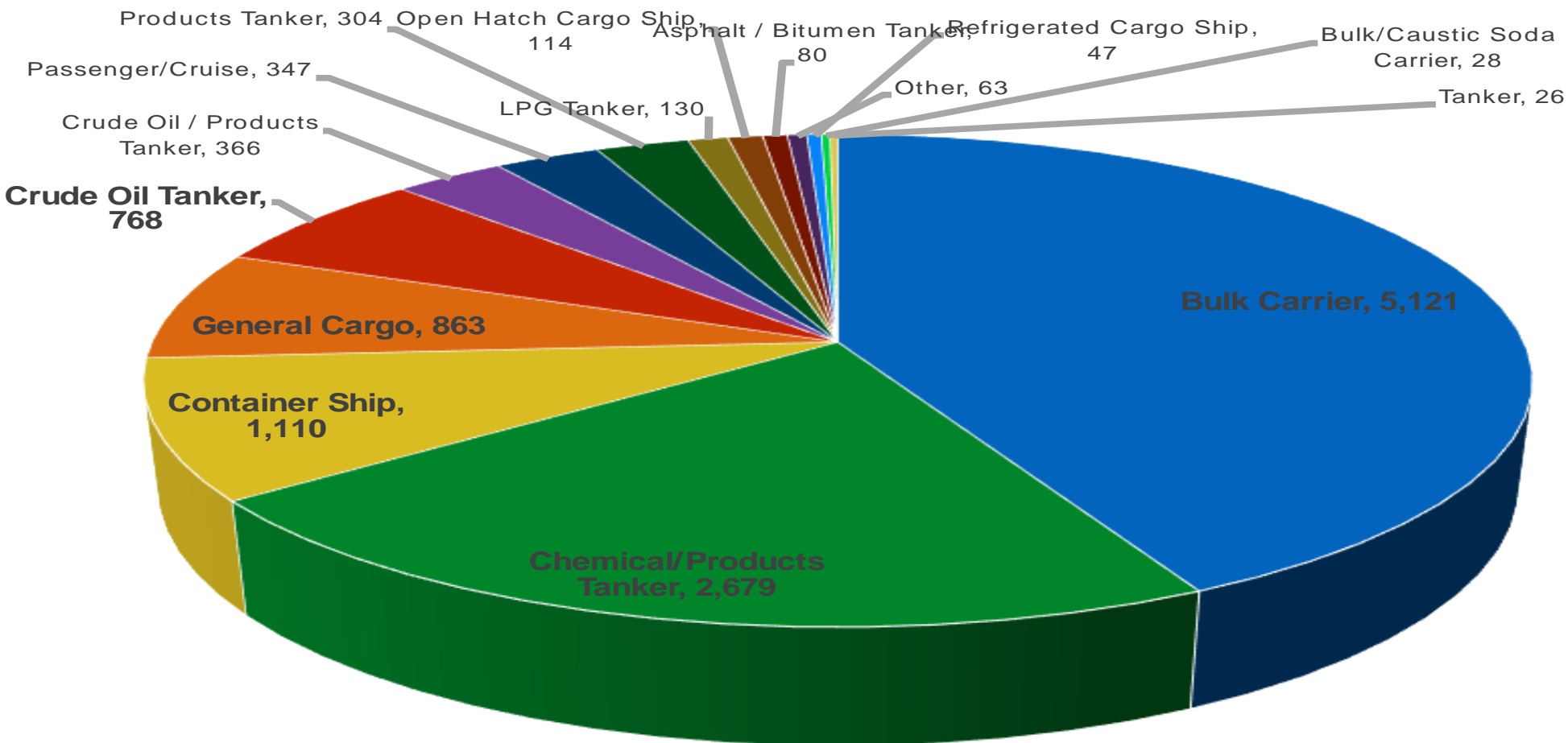


Patrick M. Quigley
www.gulfcoastairphoto.com
Slidell, LA 985.788.3458
A SDAV owned small business.

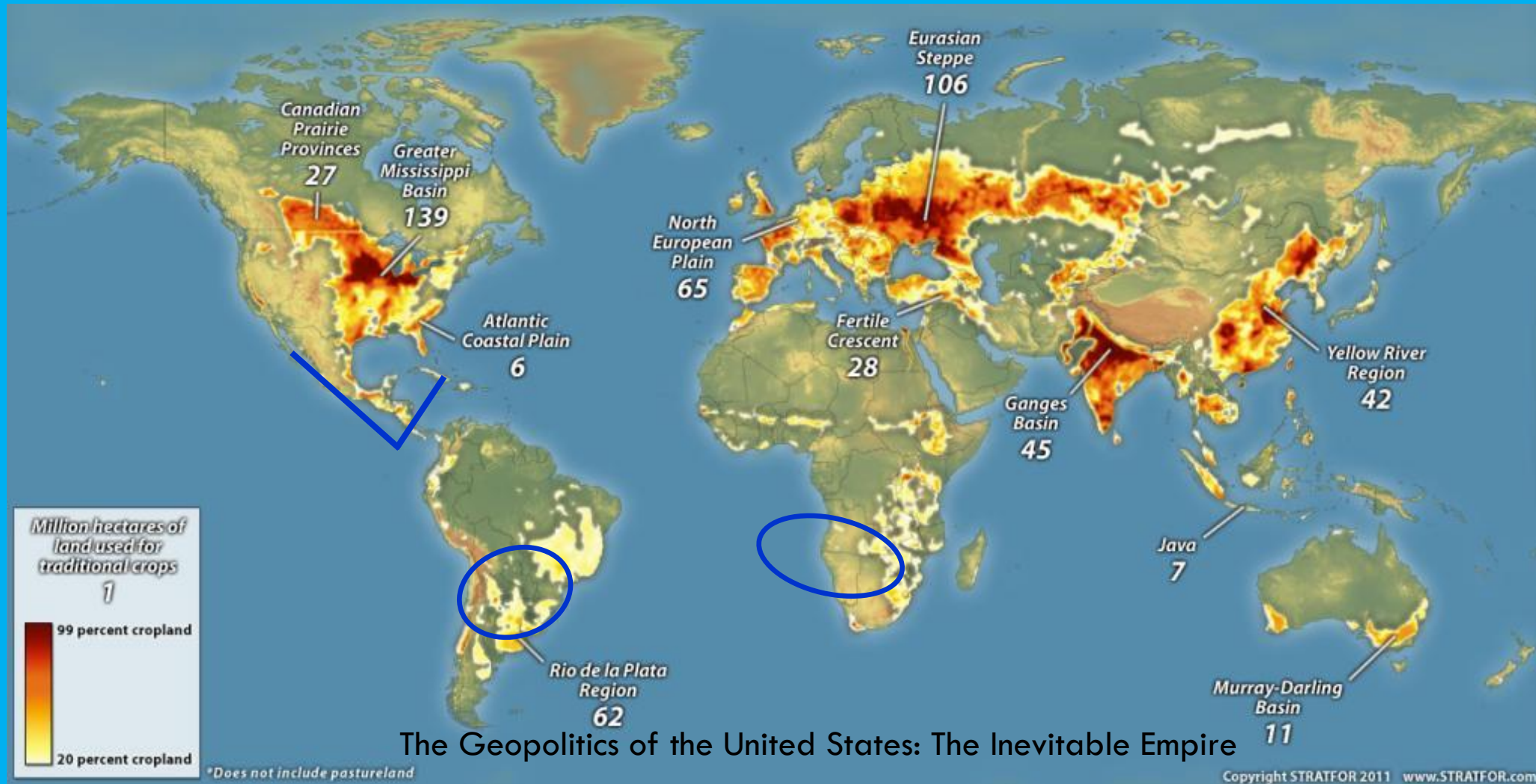
500 MILLION TONS OF CARGO



Ship Types

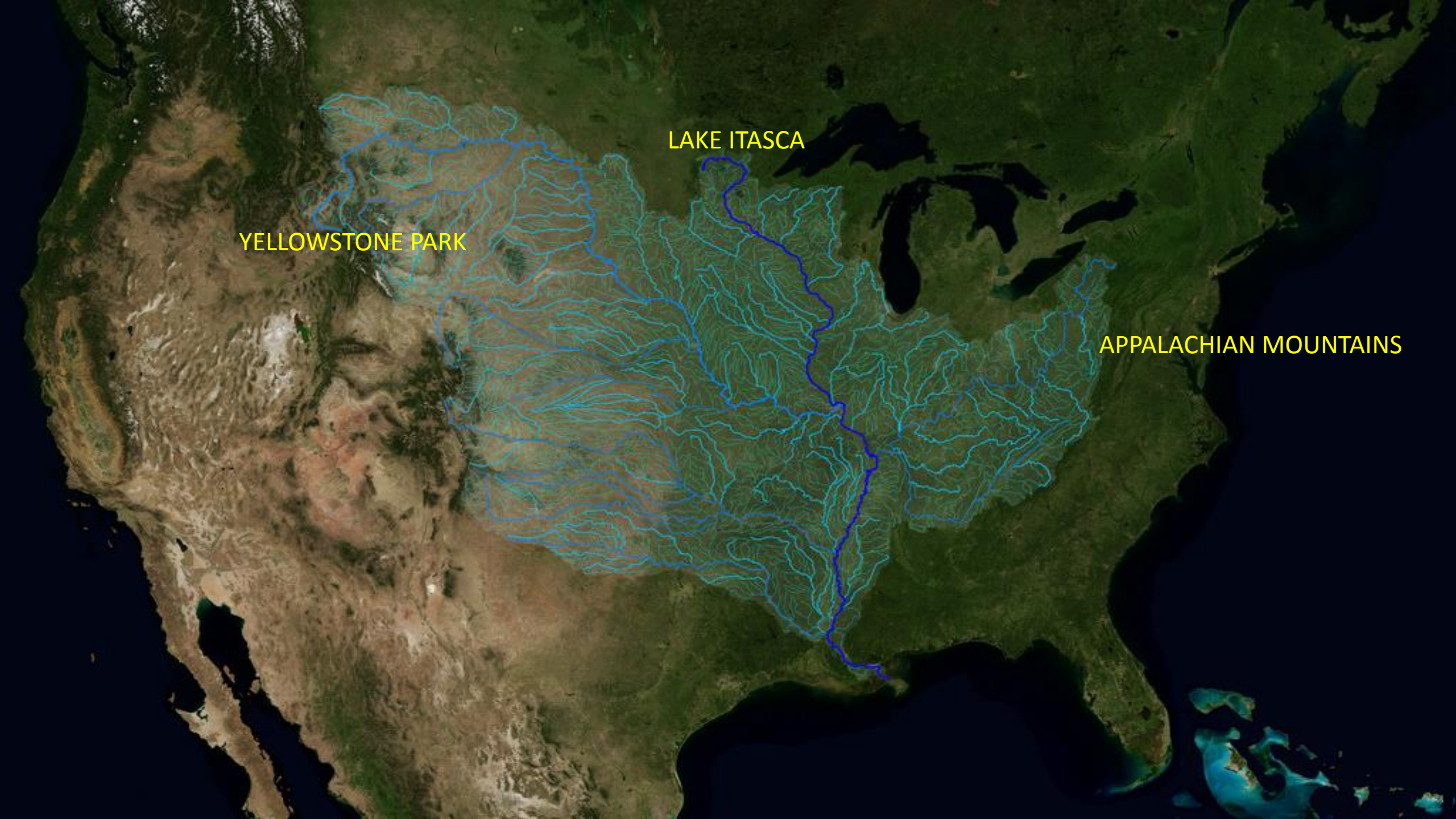


GLOBAL AGRICULTURAL ZONES



UNITED STATES STRATEGIC IMPERATIVES: Stratfor's 5 Imperatives

- 1) Dominate the Greater Mississippi River Basin
- 2) Eliminate All Land-Based Threats to the Greater Mississippi Basin



LAKE ITASCA

YELLOWSTONE PARK

APPALACHIAN MOUNTAINS

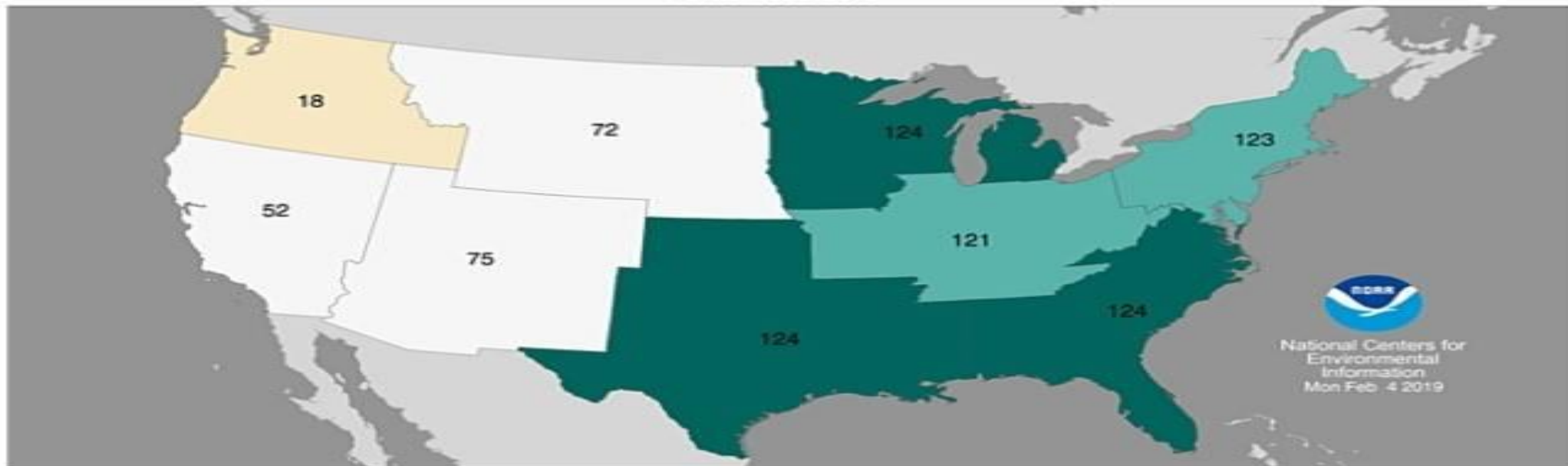
MISSISSIPPI RIVER PRECIPITATION TRENDS

Flooding along the Mississippi River has increased both in frequency and magnitude during the past three to five decades. During the 49-year period of 1970 to 2018, stages at Cairo, Illinois - the confluence of the Mississippi and Ohio rivers - have exceeded major flood stage of 52.0 feet 16 times, as opposed to 13 times during the 72- year period of 1898 to 1969. The 2002 U.S. Department of State Climate Action Report stated that total annual precipitation has been increasing, not only across the United States but worldwide, over the past 100 years.

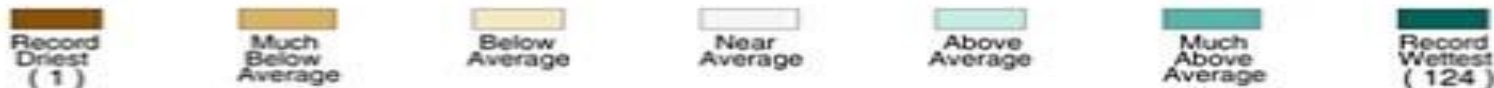
Source: Precipitation Trends in the Mississippi River Watershed by Bill Frederick – Senior National Weather Service (NWS) Meteorologist & NWS Liaison at the USACE Mississippi Valley Division (MVD) March 2019 prior to the record flooding of 2019

#STAYRIVERSTAGEAWARE

Regional Precipitation Ranks
August 2018–January 2019
Period: 1895–2019



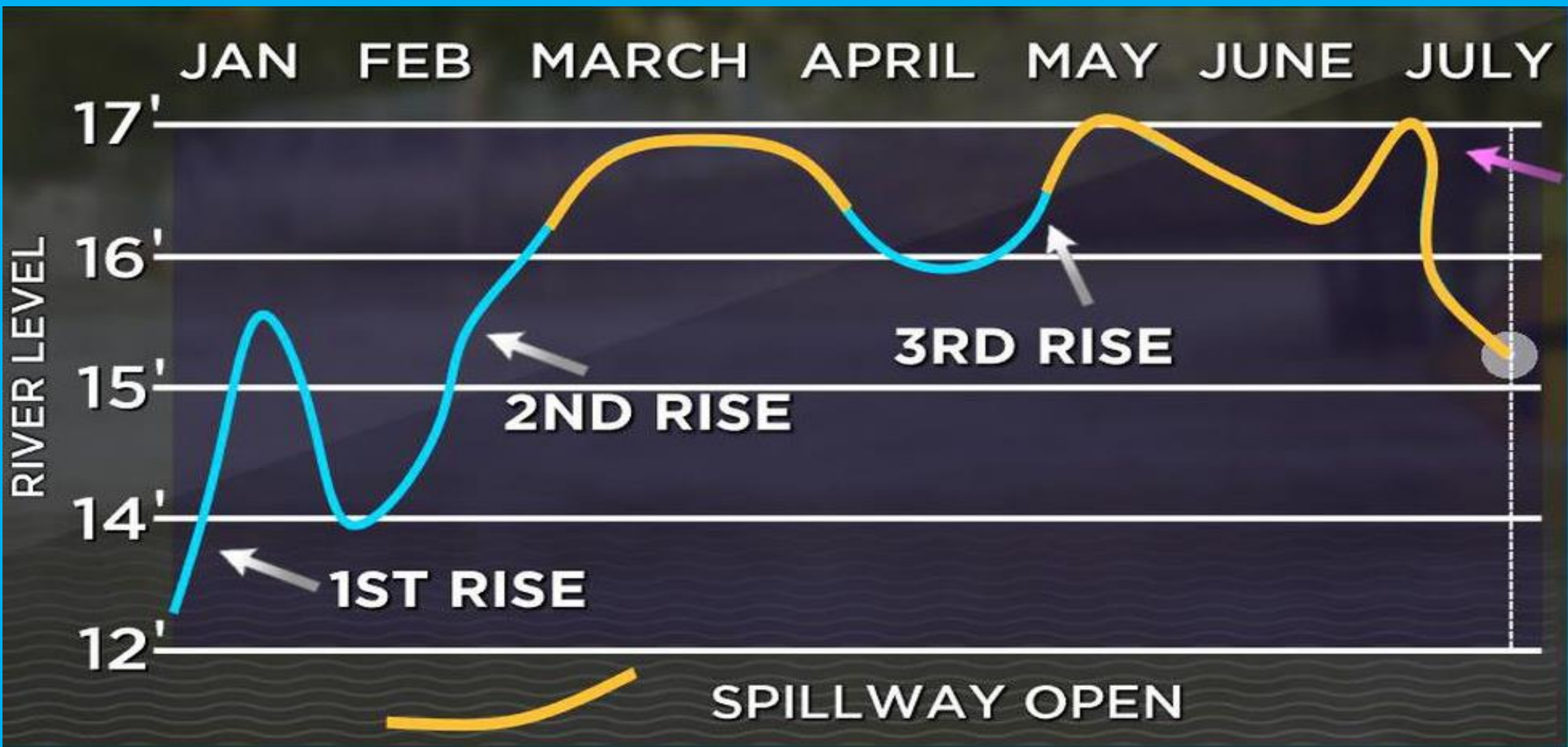
NCEI
National Centers for
Environmental
Information
Mon Feb 4 2019



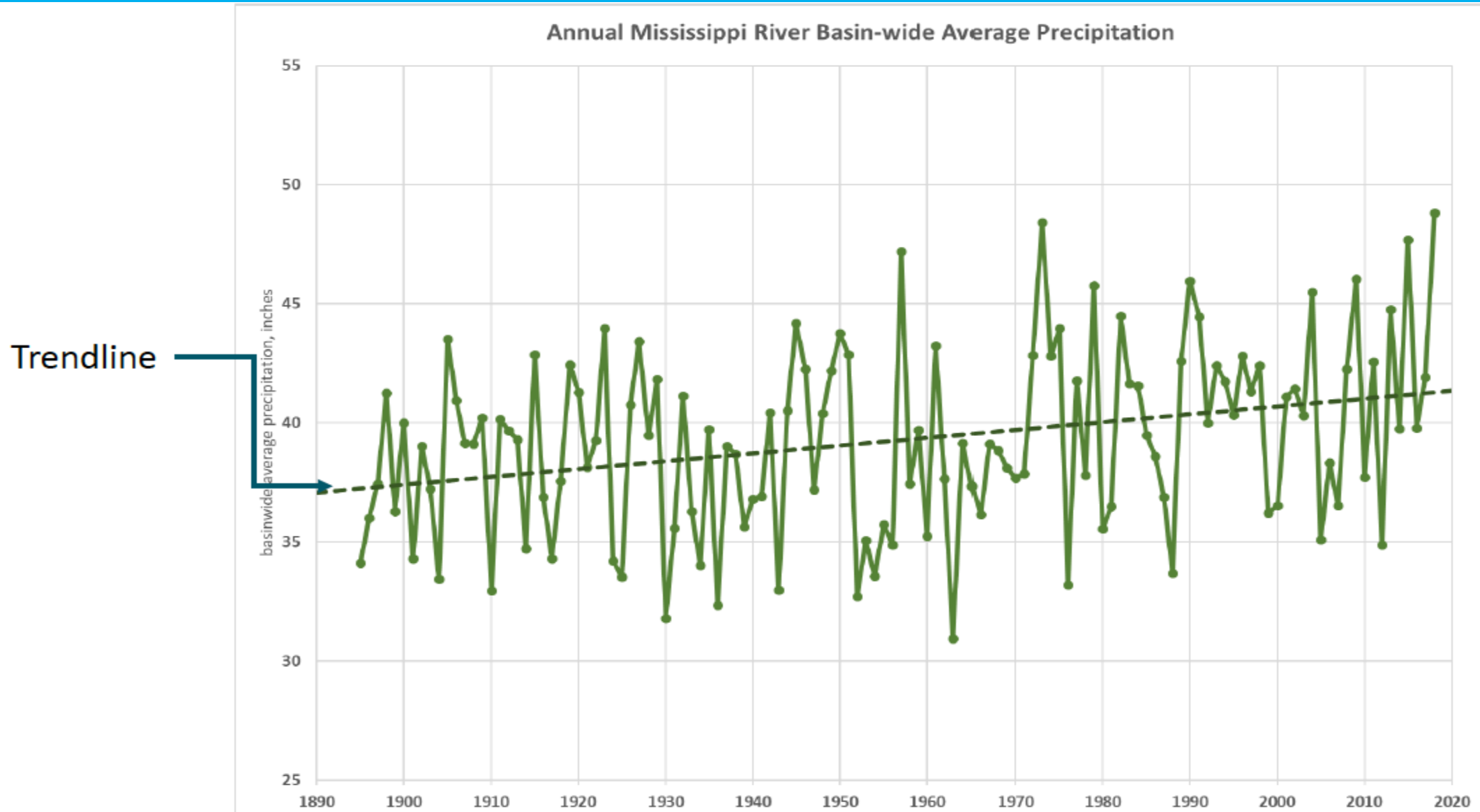
The majority of the Mississippi Valley is wetter now,
than it has been in the past 124 years.
Be prepared. Stay river stage aware.



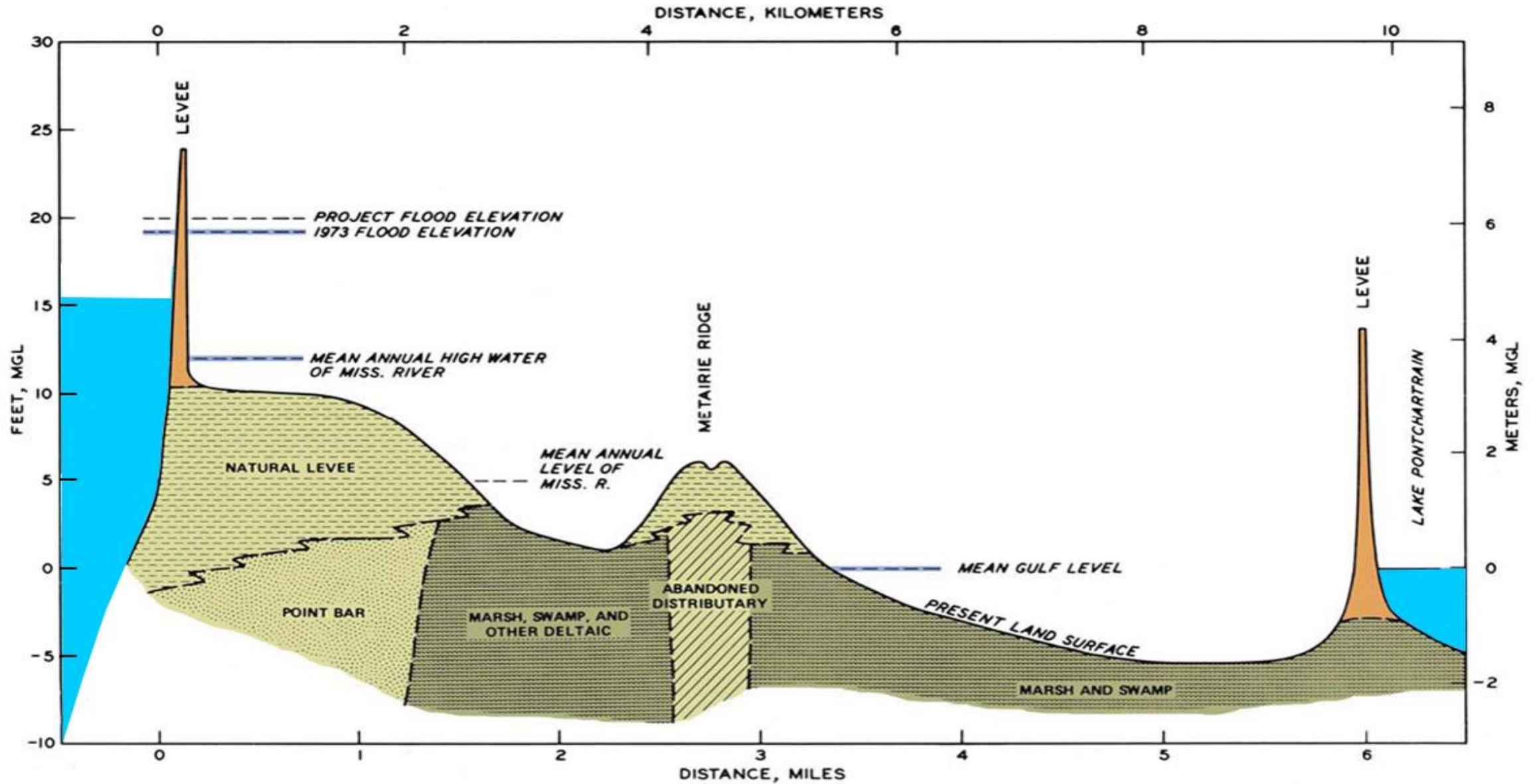
THE GREAT FLOOD OF 2019



ANNUAL MISSISSIPPI RIVER BASIN WIDE WATERSHED PRECIPITATION



HIGH WATER CHALLENGES

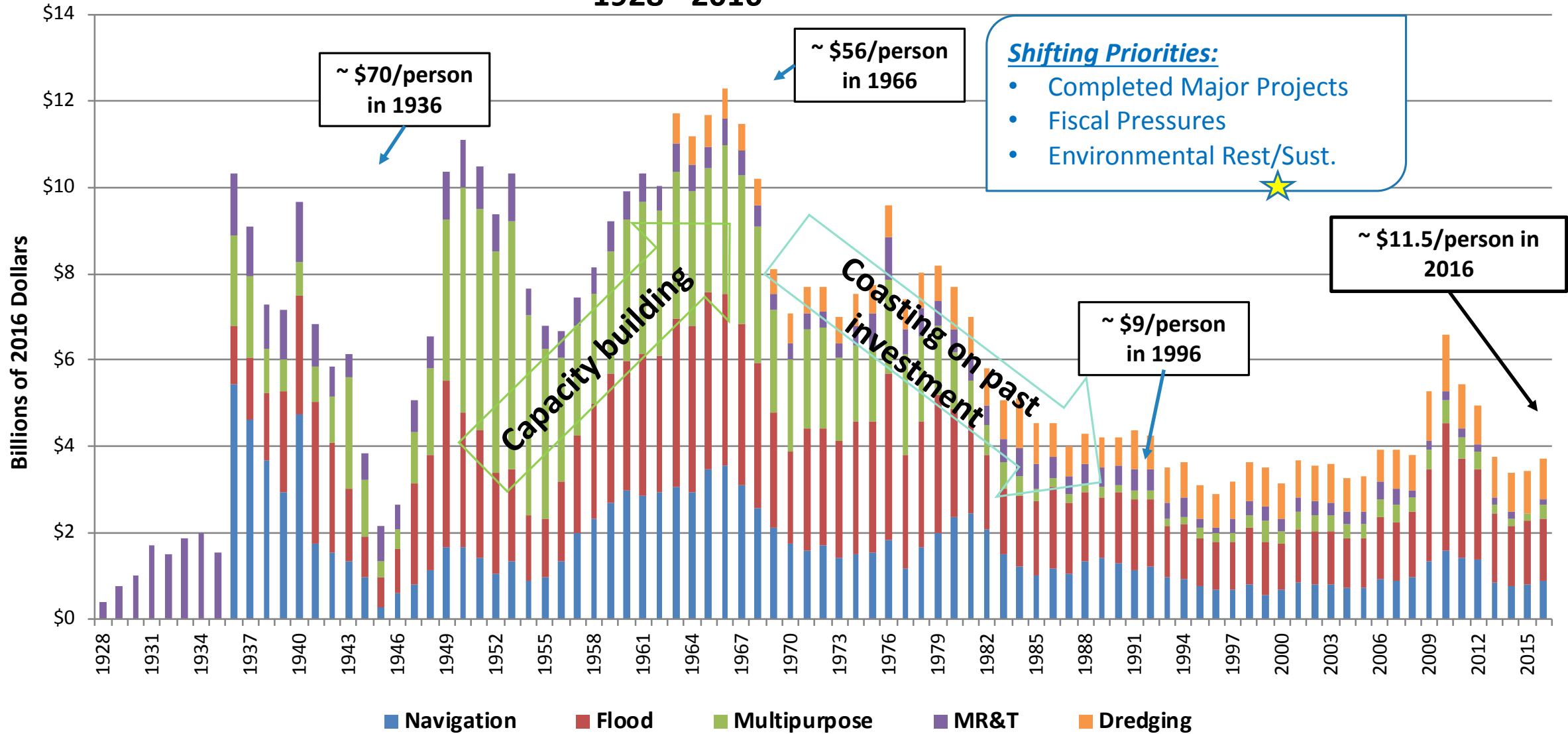


2019 VISIBILITY CHALLENGES





Historical Investments by USACE Functional Category 1928 - 2016



Shifting Priorities:

- Completed Major Projects
- Fiscal Pressures
- Environmental Rest/Sust.

Capacity building

Coasting on past investment

~ \$9/person in 1996

~ \$11.5/person in 2016

Navigation Flood Multipurpose MR&T Dredging



2006-2010 Spending includes post Katrina & ARRA Supplemental

MISSISSIPPI RIVER AND TRIBUTARIES PROJECT: IL, KY, MO, TN, MS, AR, LA

DESCRIPTION: THE CURRENT COMPREHENSIVE AUTHORIZED FEDERAL FLOOD CONTROL AND NAVIGATION PROJECT BEGAN IN WITH THE FLOOD CONTROL ACT OF 1928. THAT IS NOT COMPLETE TO THE AUTHORIZED PROJECT DESIGN LEVEL (IN 2011 FLOOD THE SYSTEM WAS AT MAXIMUM FLOOD CAPACITY AND PROJECT WAS 85% COMPLETE). THE PLANNED COMPLETION OF THE SYSTEM WILL PROTECT THE NATION FROM DEVASTATING FLOODS AND ENSURE RELIABLE NAVIGATION. THE BENEFIT COST RATIO EXCEEDS 80 TO 1.

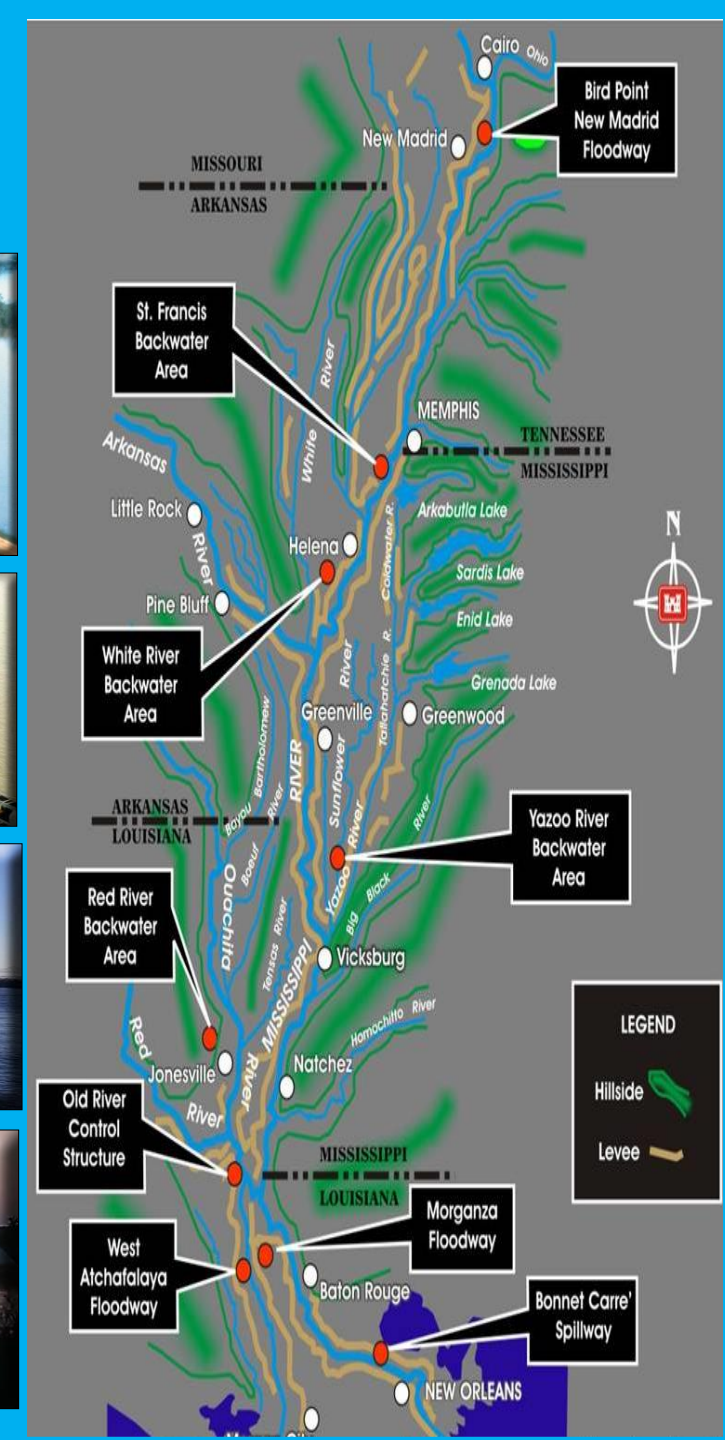
AUTHORITY: USACE WITH STATE SPONSORS

COST: \$5 BILLION

JOBS: 7,000 DIRECT JOBS, 25,000 INDIRECT

STATUS: ENGINEERING: SUBSTANTIVE COMPLETE AND IN PROGRESS;
PERMITTING: SUBSTANTIVE COMPLETE AND IN PROGRESS

FUNDING: \$5B REMAINING TO BUILD TO AUTHORIZED PROJECT DESIGN, \$15B COMPLETED; (NOTE: THE LOCAL PEOPLE HAVE INVESTED MORE THAN \$20B ON THE SYSTEM)





Consecutive Days Above Flood Stage

Lower Mississippi River Forecast Center

Current data as of July 31st 2019

Forecast Location	Record (Days/Year)	2019 (Days/Period)	2011 (Days)	1973 (Days)	1927 (Days)
Cairo, IL	156 2019	156 Feb 8 th – Jul 13 th	59	97	76
Memphis, TN	65 1927	39 Feb 19 th – Mar 29 th	35	64	65
Arkansas City, AR	197 1927	94 Apr 16 th – Jul 19 th	44	72	197
Greenville, MS	155 2019	155 Feb 17 th – Jul 21 st	46	71	115
Vicksburg, MS	185 1927	162 Feb 17 th – July 28	48	83	185
Natchez, MS	209 2019	209 Jan 4 th – Today	53	90	77
Red River Landing, LA	217 2019	217 Dec 27 th – Today	59	95	152
Baton Rouge, LA	207 2019	207 Jan 6 th – Today	79	99	135

Numbers in Red are records for this year

Data provided by U.S. Army Corps of Engineers

RECORD FLOODING RECORD FUNDING

FISCAL YEAR	PRESIDENT'S BUDGET REQUEST	WORK PLAN	SUPPLEMENTAL PL 115-123	TOTAL ALLOCATION
2019	\$89,169,000	\$58,660,000	\$96,574,976	\$244,403,976

RECORD SHOALING

RECORD FUNDING:

The FY 2019 Corps budget is now \$244,403,976 the highest level of funding ever received for channel maintenance on the Mississippi River Ship Channel. Surpassing the previous record of \$179,080,500 in 2009 as part of the American Recovery and Reinvestment Act (ARRA) and the total allocations in FY 2018 of \$173,846,000 is the third highest level of funding.

1) \$244,403,976 FY 2019

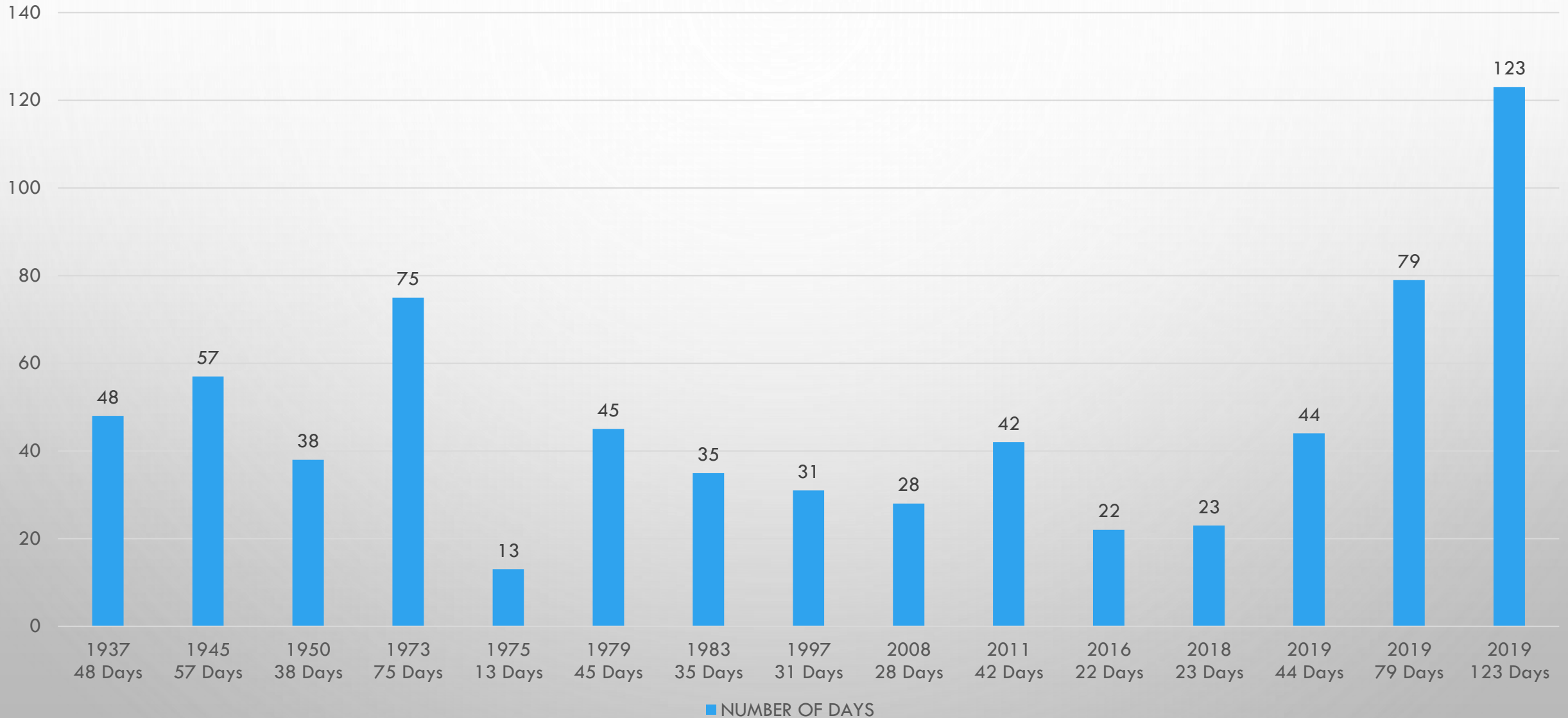
2) \$179,080,500 FY 2009

3) \$173,846,000 FY 2018

RECORD SHOALING:

In the average fiscal year the MVN removes 19 million cubic yards (mcy) of sediment from Venice to the Gulf of Mexico, so far this year it has removed 38 mcy from this reach about 30 miles of the Mississippi River Ship Channel. There are five dredges working this area now, 50 mcy could be removed from this reach in FY 19. The average for the total amount removed from the Ship Channel including the Crossings (Between New Orleans and Baton Rouge) is 42 mcy, total to date is already 56.3 mcy.

BONNET CARRÉ SPILLWAY DAYS OF OPERATION



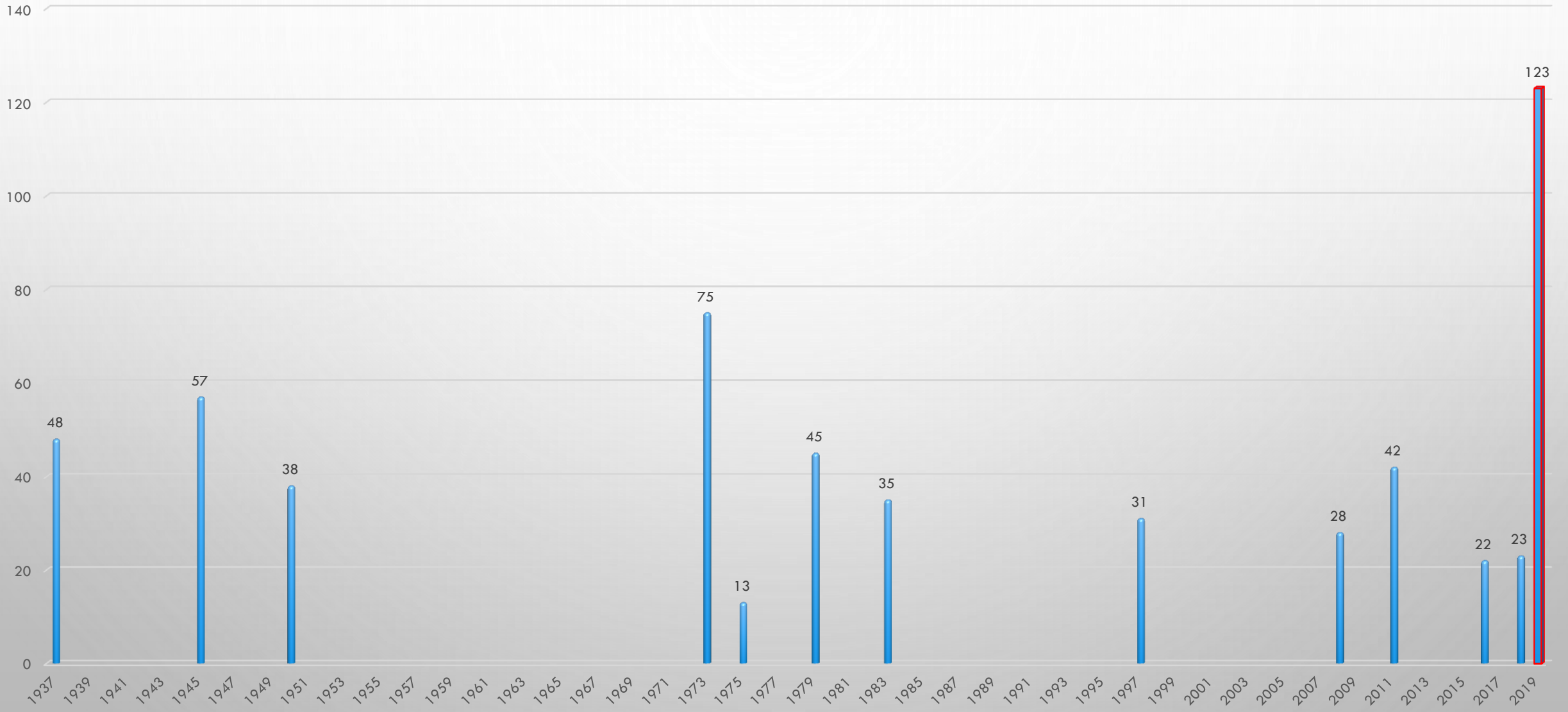
BONNET CARRÉ SPILLWAY

TRIGGER POINT FLOW: 1.25 million cubic feet per second

Every day reference, a typical 53 foot 18-wheeler trailer has a capacity of approximately 4,000 cubic feet, 1.25 million cubic feet per second represents 320 trailers (18-wheelers) across the entirety of the Mississippi River Highway per second.



BONNET CARRÉ SPILLWAY DAYS OF OPERATION



WINFIELD POLICE DEPT.



DEVELOPING STORY

FLOODING IMPACTS

5:32
79°









Patrick M. Quigley
www.gulfcoastairphoto.com
Slidell, LA 985.788.3458
A SDAV owned small business.





HIGHLIGHTED ACREAGE CREATED SINCE 2009

MILLION CUBIC YARDS (MCY)

FISCAL YEAR	SWP CUTTERHEAD MCY	SWP BU ACRES	HDDA MCY	HDDA BU ACRES	TOTAL SWP CUTTERHEAD + HDDA MCY	TOTAL ACREAGE SWP AND HDDA
2009	2.9	100	0	0	2.9	100
2010	3.2	67	6.8	466	10	533
2011	3.6	199	1.5	70	5.1	269
2012	5.7	615	0.8	0	6.4	615
2013	5.7	612	7.2	851	12.9	1,463
2014	8.0	572	0	0	8.0	572
2015	11.3	364	9.7	667	20.9	1,031
2016	8.5	768	0	4	8.5	772
2017	12.4	1072	8.4	404	20.7	1,476
2018	6.2	347	4.9	372	11.7	719
2019	10.3	900*	4.0	350*	14.3	1,250*
TOTAL:	77.80	5,616*	43.30	3,184	121.40	8,800*

MISSISSIPPI RIVER SHIP CHANNEL DEEPENING BATON ROUGE TO THE GULF OF MEXICO

DESCRIPTION: TO DEEPEN THE MISSISSIPPI RIVER SHIP CHANNEL TO 50 FEET. A TOTAL OF 254 MILES OF THE WATERWAY WILL BE CONNECTED AT A DEPTH OF 50 FEET OR MORE BY DREDGING A TOTAL OF 65 MILES TO CONNECT IT WITH AREAS THAT ARE NATURALLY DEEP.

COST: \$237,670,000 TOTAL WITH FEDERAL COST OF \$118,130,000 AND NON-FEDERAL COST AT \$119,540,000 (\$39,380,000).

BENEFIT COST RATIO: 7.2 TO 1, RATIO DOES NOT INCLUDE NEW JOBS OR THE \$40 BILLION IN NEW FACILITIES PRESENTLY BEING PLANNED (BIG RIVER COALITION). 500 MILLION TONS OF CARGO TRANSIT THE MRSC ANNUALLY.

FUNDING: CONGRESS MUST FUND THE CONSTRUCTION COSTS, TO DELIVER THE FEDERAL DEEPENING COST TO EXECUTE THIS PROJECT OF NATIONAL SIGNIFICANCE. THE COST-SHARE AGREEMENT FOR THE FIRST PHASE OF DREDGING – THE FIRST 33 MILES OF THE RIVER DELTA IS \$110 MILLION (FED \$82.5 M AND NON-FED \$27.5 M).



MISSISSIPPI RIVER SHIP CHANNEL DEEPENING COSTS

1) The estimated total for dredging from Venice to the Gulf of Mexico (Southwest Pass +) is approximately \$110 million. From approximately Mile 10 Above Head of Passes (AHP) to Mile 22 Below Head of Passes. **The Federal cost-share at 75% is \$82.5 million and the non-federal cost-share at 25% is \$ 27.5 million.** This phase must be completed first and would open up 176 miles of the Ship Channel to a controlling depth of 50 feet.

TOTAL: \$110 million

2) The next phase of dredging will be on the Crossings Above New Orleans, from approximately Mile 154 AHP to Mile 233.9 AHP is estimated to cost \$47.5 million. **The Federal cost-share at 75% is \$35.625 million and the non-federal cost-share at 25% is \$11.875 million.**

TOTAL: \$47.5 million

3) There are up to six utility pipelines that might need to be relocated or deepened sufficiently below the mudline after channel deepening. The price tag for all pipelines to be deepened is estimated to be \$80.2 million.

TOTAL: \$80.2 million

4) Dredging Costs:	Southwest Pass: \$110 million	Crossings: \$47.5 million	TOTAL: \$ 157.5 million
Pipeline Relocation:	Non-federal: \$40.1 million	Pipeline owners: \$40.1 million	TOTAL: \$ 80.2 million
			TOTAL PROJECT COSTS: \$237,700,000

