

MISSISSIPPI RIVER HIGH WATER EVENT: STATUS AND IMPACTS

1 AUGUST 2019

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US Army Corps of Engineers
New Orleans District



US Army Corps
of Engineers®

National Climate Report NOAA- June 2019

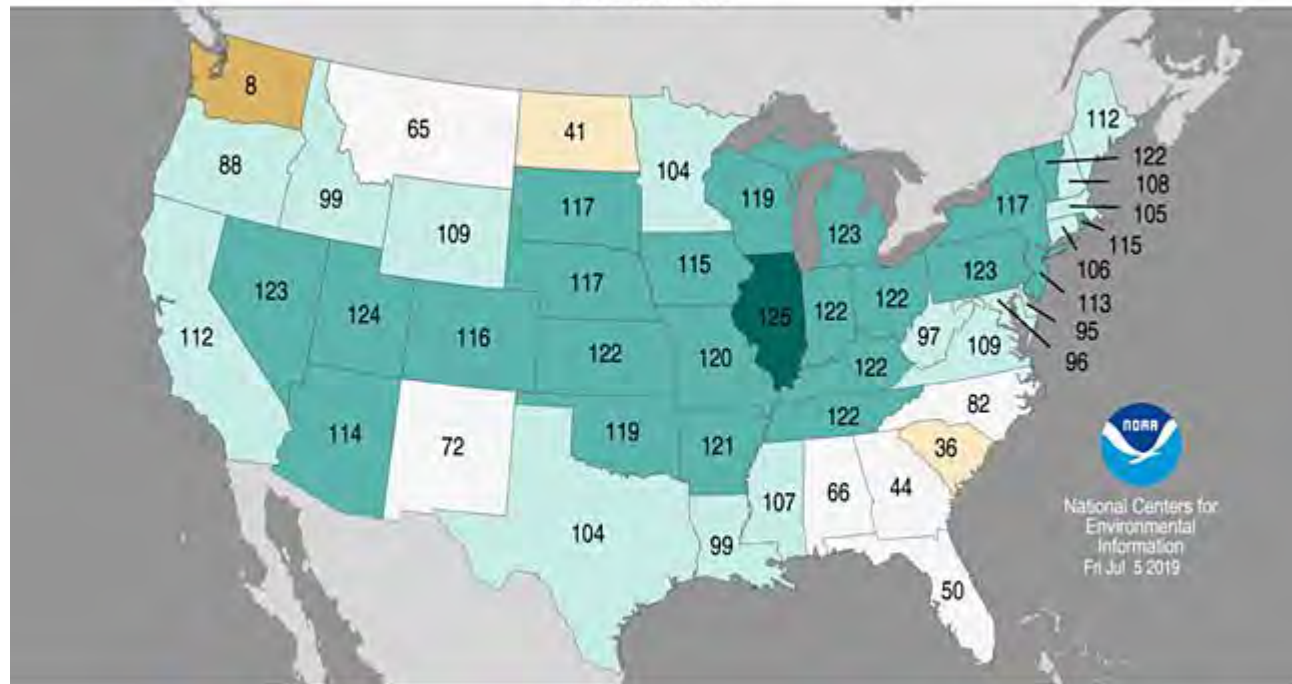
National Centers for Environmental Information

For the year-to-date, the precipitation total was 19.05 inches, 3.74 inches above average, and the wettest such period in the 125-year record.

Statewide Precipitation Ranks

January–June 2019

Period: 1895–2019



- Average precipitation across the contiguous U.S. for [July 2018–June 2019](#) was 37.86 inches, 7.90 inches above average, and broke a record, exceeding the July–June record of 35.11 inches, which occurred from July 1982–June 1983.

- This new record also exceeded the previous all-time 12-month period record set at the end of May 2019.

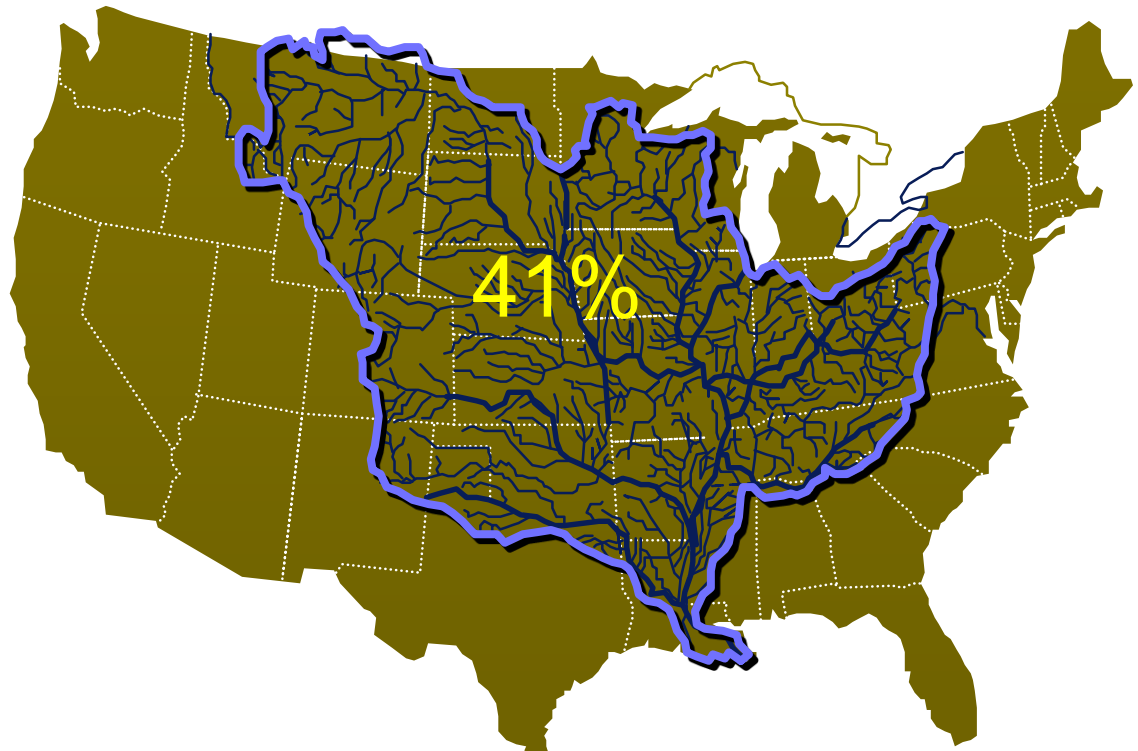
- The all-time 12-month record prior to this was 36.31 during May 2018–April 2019.



FLOOD FIGHT – MISSISSIPPI RIVER AND TRIBUTARIES



- 2,200 Miles of MR&T levees and floodwalls – 973 miles in New Orleans District
- Event started 26 Oct 2018
- Work closely with non-federal sponsors
- Phase I:
 - 11.0' at Carrollton gage
 - 5.0 ' at Morgan City gage
- Phase II:
 - 15.0' at Carrollton gage
 - 7.0' at Morgan City gage





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

Armoring Needed: 3
Cracking: 38
Debris: 6
Depression: 9
Encroachment: 13
Erosion: 41
Excavation: 1
Leaking: 5
No Issue: 1
Obstructions: 2
Other (Specify in Remarks): 28
Relief Wells: 9
Rutting: 5
Sand Boils: 6
Seepage: 106
Sliding: 30

MVN Advisory Gages

Flood Fight Advisory Phases

-  No Advisory
-  Phase 1 Advisory
-  Phase 2 Advisory
-  others

Active Inspection Points

- Seepage
- Sliding
- Encroachment
- Excavation
- Erosion
- Sand Boils
- Other

Atchafalaya River at Simmesport

Current Stage: 33.6
Crested

Lower Atchafalaya River at Morgan City

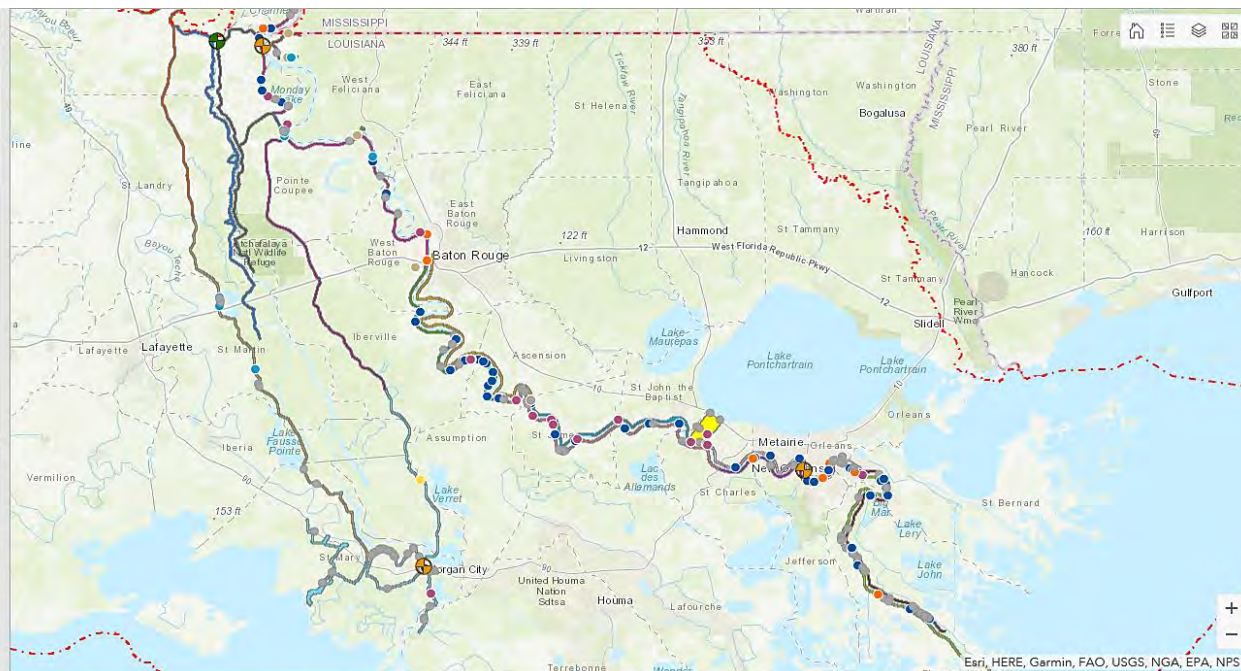
Current Stage: 6.97
Crested

Mississippi River at Red River Landing

Current Stage: 54.47
Crested

Mississippi River at Carrollton (MVN HQ)

Current Stage: 14.63
Crested



Days in Flood Fight

278

Days in Phase 2

169

Priority Sites

3 High

80 Medium

Active Inspection Sites

333

Sites Closed Yesterday

0

Sites Opened Yesterday

6

Point of Contact

Sarah Stone
Phone: (504) 862-1102
Email: Sarah.T.Stone@usace.army.mil

Date: 30 Jul 2019



**US Army Corps
of Engineers**



Relief Well



Sand Boil



Seepage



Encroachments



**What are we
looking for?**

Excavations



Levee Slides



Erosion





Ohio/Mississippi River Crest Watch

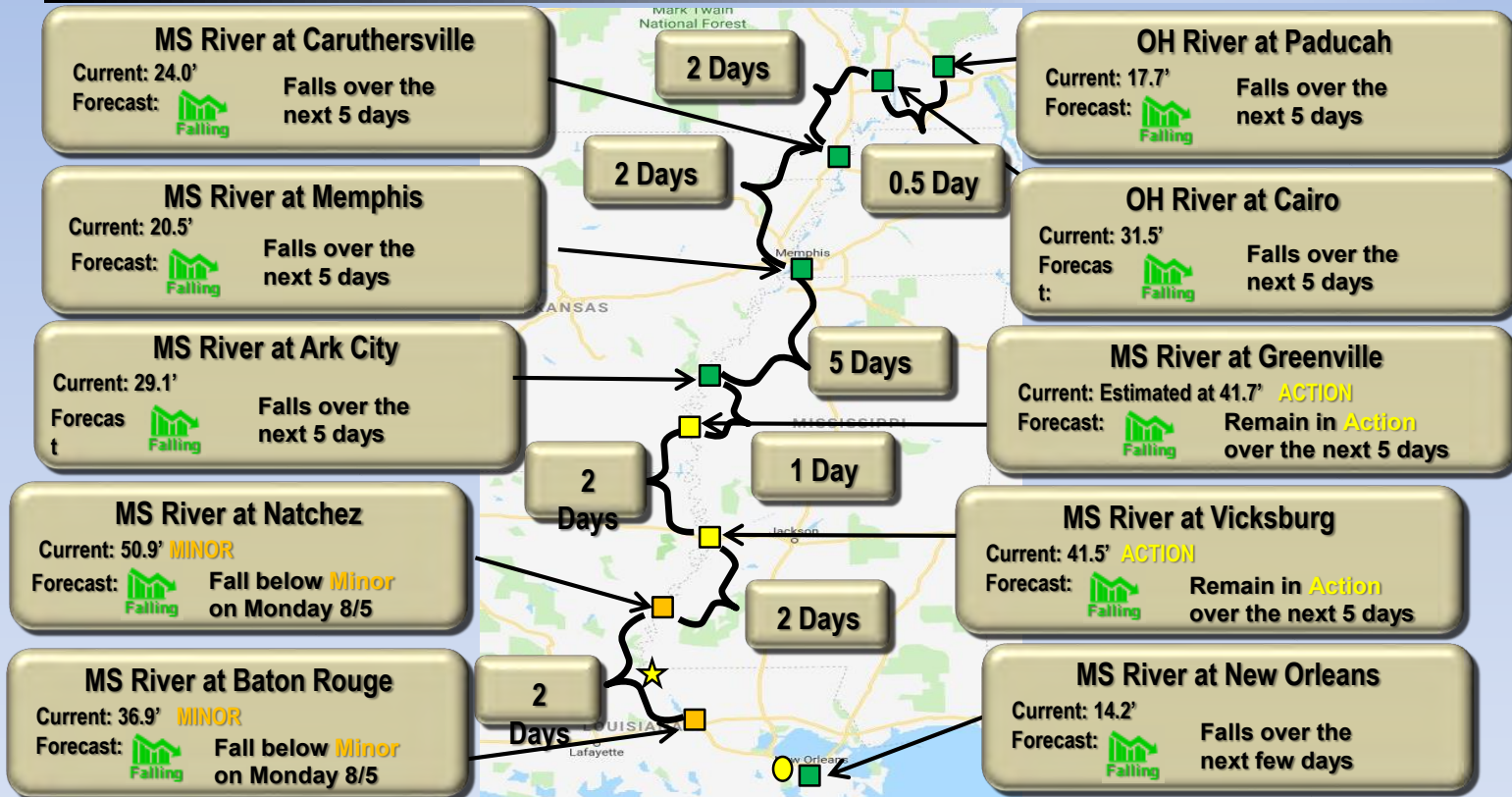
Created July 31 2019 @ 10:00 am CDT

Lower Mississippi River Forecast Center

weather.gov/lmrfc

[f](#) NWSLMRFC

[@NWSLMRFC](#)



● Bonnet Carré Location

★ Morganza Location

21 DAY FORECAST

DATE	Cairo	AR City	KNOX	RR LDG	MORGNZA	B.R.	D'VILLE	RSRVE	N.O.	RRL Q	SIMM Q	SIMM	MEL	KROTZ	BLR	MC
28-Jul	36.4	30.5	58.1	55.6	51.7	38.4	27.3	20.8	15.0	933	465	34.2	26.9	24.2	18.2	7.1
29-Jul	35.7	29.7	57.6	55.1	51.1	37.9	27.0	20.7	14.9	916	461	34.0	26.7	24.1	18.1	7.0
30-Jul	33.7	29.1	57.0	54.5	50.4	37.5	26.7	20.5	14.8	897	452	33.4	26.1	23.6	17.8	6.9
31-Jul	32.1	28.5	56.4	53.9	49.8	36.9	26.3	20.3	14.7	878	442	33.0	25.8	23.3	17.7	6.8
1-Aug	31.0	28.0	55.7	53.2	48.9	36.3	25.9	20.1	14.5	859	433	32.5	25.3	22.9	17.4	6.7
2-Aug	30.0	27.4	55.0	52.5	48.1	35.6	25.4	19.9	14.4	838	422	31.9	24.7	22.5	17.2	6.7
3-Aug	29.2	26.8	54.4	51.9	47.4	35.0	25.0	19.6	14.2	823	415	31.5	24.3	22.2	17.0	6.5
4-Aug	28.5	26.3	53.8	51.3	46.7	34.4	24.6	19.4	14.0	810	408	31.2	24.1	22.0	16.9	6.4
5-Aug	27.9	25.7	53.3	50.8	46.2	33.8	24.2	19.2	13.9	799	403	30.9	23.8	21.7	16.7	6.3
6-Aug	27.2	25.2	52.8	50.3	45.6	33.4	23.9	19.0	13.7	788	397	30.6	23.5	21.5	16.6	6.1
7-Aug	26.6	24.6	52.3	49.8	45.0	32.9	23.5	18.8	13.6	778	392	30.3	23.2	21.3	16.4	6.0
8-Aug	25.9	24.0	51.8	49.3	44.4	32.4	23.2	18.6	13.5	769	387	30.1	23.0	21.1	16.4	6.0
9-Aug	25.2	23.5	51.3	48.8	43.8	31.9	22.9	18.5	13.3	759	382	29.8	22.7	20.9	16.2	5.9
10-Aug	24.5	22.9	50.8	48.3	43.3	31.5	22.6	18.3	13.2	749	377	29.5	22.4	20.7	16.1	5.8
11-Aug	23.9	22.4	50.4	47.9	42.8	31.0	22.2	18.1	13.1	741	373	29.3	22.2	20.5	16.0	5.7
12-Aug	23.3	22.0	50.0	47.5	42.3	30.6	22.0	17.9	13.0	733	369	29.1	22.1	20.4	15.9	5.7
13-Aug	22.8	21.5	49.6	47.1	41.9	30.2	21.7	17.8	12.9	725	365	28.9	21.9	20.2	15.8	5.6
14-Aug	22.4	21.1	49.2	46.7	41.4	29.9	21.5	17.7	12.8	717	361	28.7	21.7	20.1	15.7	5.5
15-Aug	22.0	20.6	48.8	46.3	40.9	29.5	21.2	17.5	12.7	709	357	28.4	21.4	19.9	15.6	5.5
16-Aug	21.7	20.2	48.4	45.9	40.5	29.1	20.9	17.4	12.6	701	353	28.2	21.2	19.7	15.5	5.4
17-Aug	21.4	19.7	48.0	45.5	40.0	28.7	20.7	17.2	12.5	693	349	28.0	21.0	19.6	15.4	5.4
18-Aug	21.2	19.2	47.6	45.1	39.5	28.3	20.4	17.1	12.4	685	345	27.8	20.8	19.4	15.3	5.3
DATE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CREST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Phase I	Phase II		Crest												

Issued on 28Jul2019

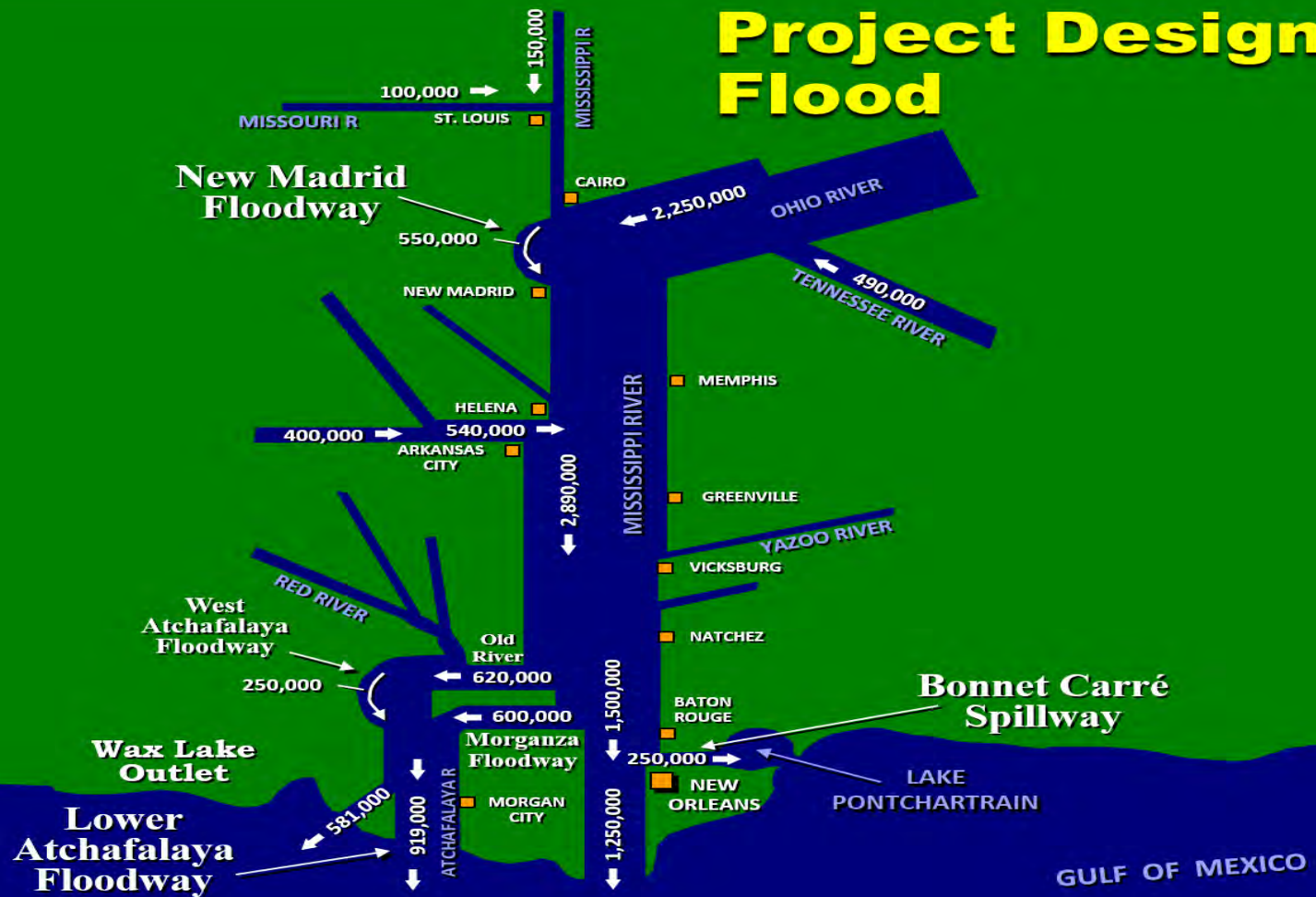
Product of MVN-Water Management



Flood Control Projects



Project Design Flood



Old River Control Structure



OLD RIVER CONTROL COMPLEX

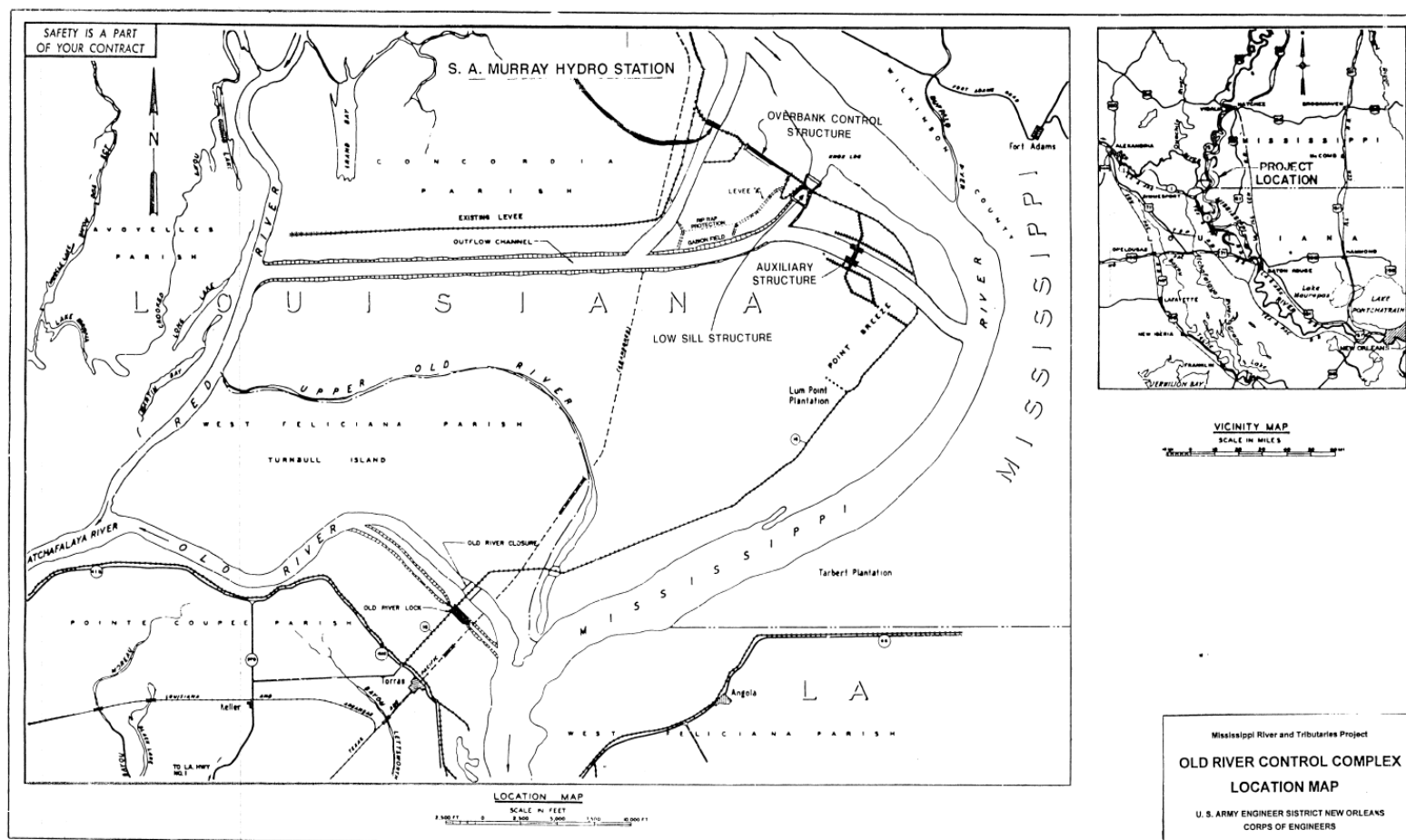


PLATE 2-1



**US Army Corps
of Engineers**



Morganza Floodway

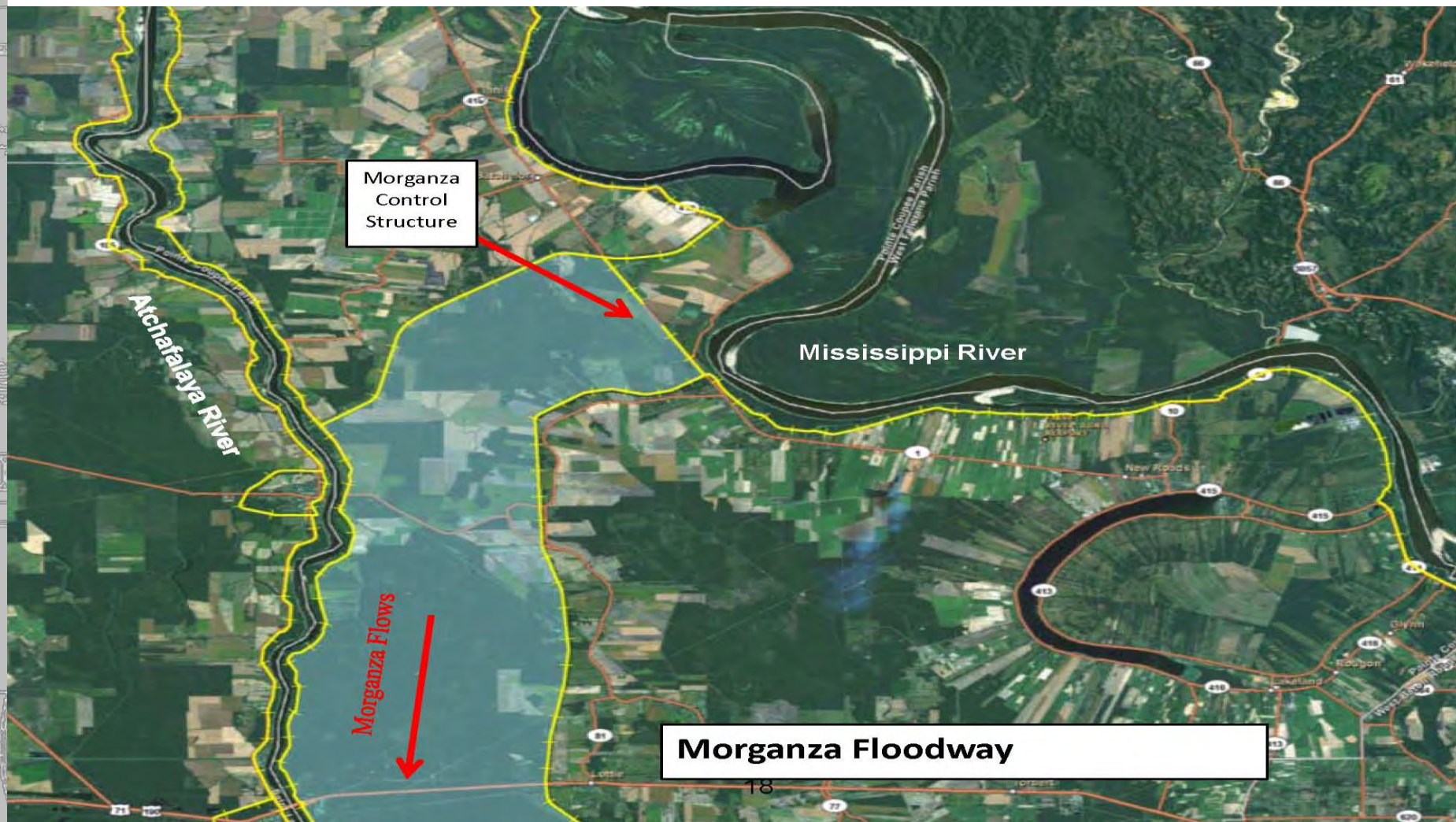


- **Purpose:** maintain design flows of 1.5 million cfs or less through Baton Rouge
- **Opening trigger:** 57.0 ft stage at Morganza AND flow forecast of 1.5 million cfs and rising. OR to minimize flood damages in the downstream reaches and to prevent stages from exceeding approved flowline
- **Historical:**
 - Constructed 1954
 - 71,500 acre floodway
 - Operated Twice:
 - 1973 Peak Flow = 194,000 cfs
 - 2011 Peak Flow = 186,000 cfs

2019 Status:

- Forebay is flooded
- Slides on guide levees – mitigated with riprap
- Sluice gates are closed
- River crested at 57.8 on 18 June 2019
- Completed opening communication sequence and interagency coordination in preparation of potential opening





Bayou Chene Barge Closure



Bayou Chene Barge Closure

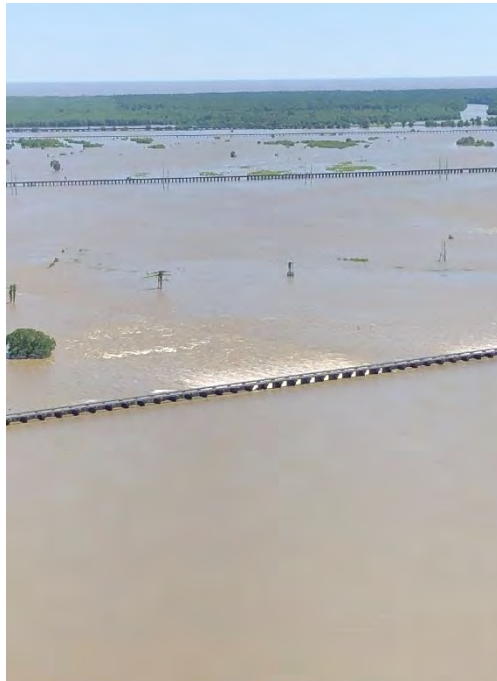


**Installation Completed
3 June 2019**

Bonnet Carré Spillway Operations



- **Purpose:** Maintain design flow of 1.25 million cfs or less through New Orleans
- **Opening trigger:** 1.25 million cfs and rising
- **14 Total Openings:** 1937, 1945, 1950, 1973, 1975, 1979, 1983, 1997, 2008, 2011, 2016, 2018, 2019, 2019



Current Conditions

- **Closed**
- **2019 breaking records**
 - 1st back to back openings
 - 1st time open twice in same calendar year
 - Most days open in a calendar year (44 days 79 days)
 - Opened 27 Feb - Closed 11 April
 - Opened 10 May – Closed 27 July
 - Peak flow of 213,000 cfs on 19 March

BONNET CARRE SPILLWAY OPERATION

Reported Flow: KCFS
Delta: KCFS

Reported Flow Date: 7/30/2019, 8:24 AM

350 Total Bays

Open Bays



(0 High Bays, 0 Low Bays)

Closed Bays

 **350**

(176 High Bays, 174 Low Bays)

24 Hour Bay Change
0 Opened, 26 Closed

Recreation Areas	Status	Status Date
St. Charles Parish Highway 12 (SC 12)	Closed	1/4/2019
ATV riding area in the Spillway	Closed	1/2/2019
Radio-Controlled Airfield in the Spillway	Closed	1/3/2019
Viewing Area (downstream end of structure)	Open	5/10/2019
Project Boat Launch	Closed	4/15/2019
St. Charles Parish Recreation Area	Closed	1/3/2019
All Other Recreation Areas	Closed	1/3/2019

Tagged Fish	Count
Asian Carp	0
Sturgeon	2
Paddlefish	41
Other	4

Last Updated: 6/7/2019, 12:08 PM

Notes: To date there have been 2 separate recaptures from the spillway operation in March 2018. Other tagged fish are Silver Carp

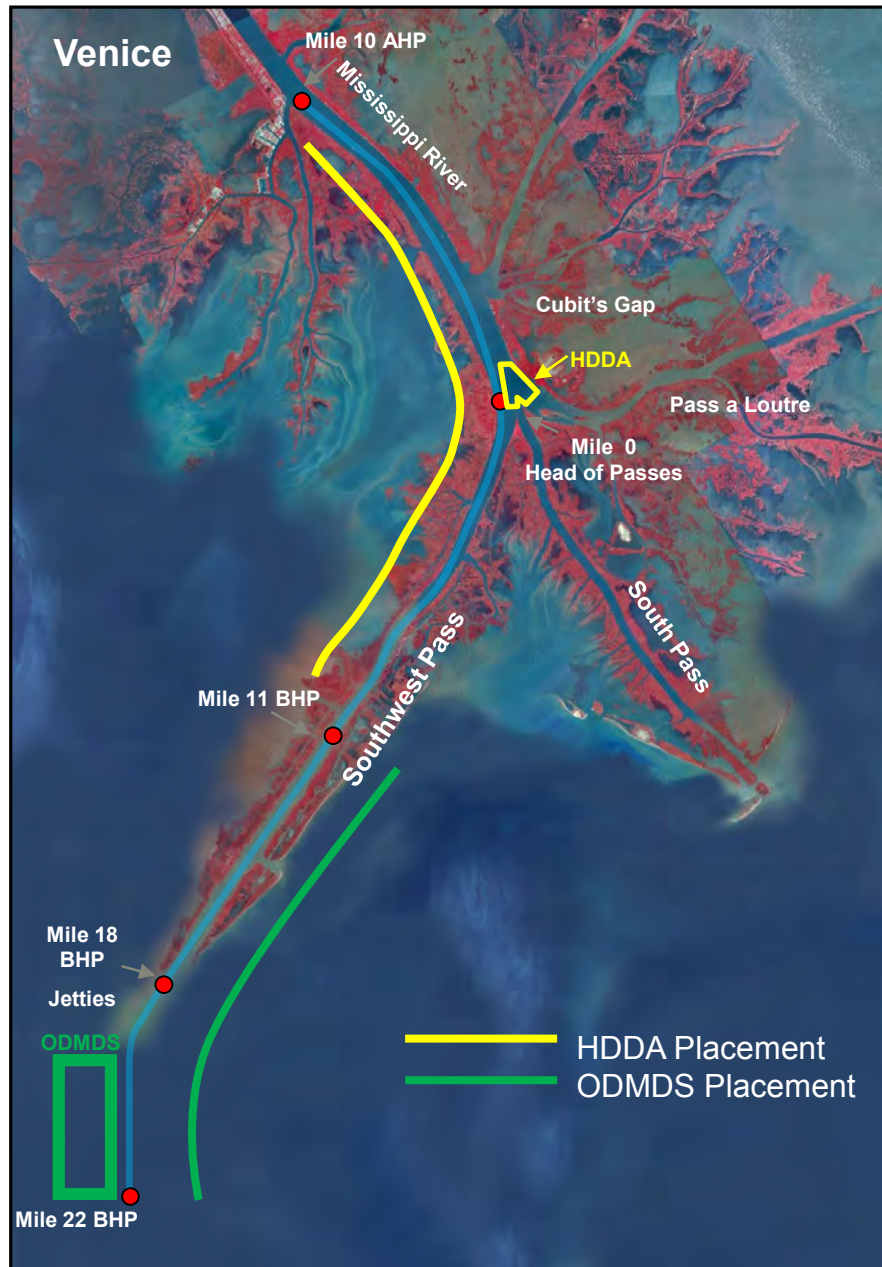


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Impacts to Federal Projects





HOPPER DREDGES IN SW PASS

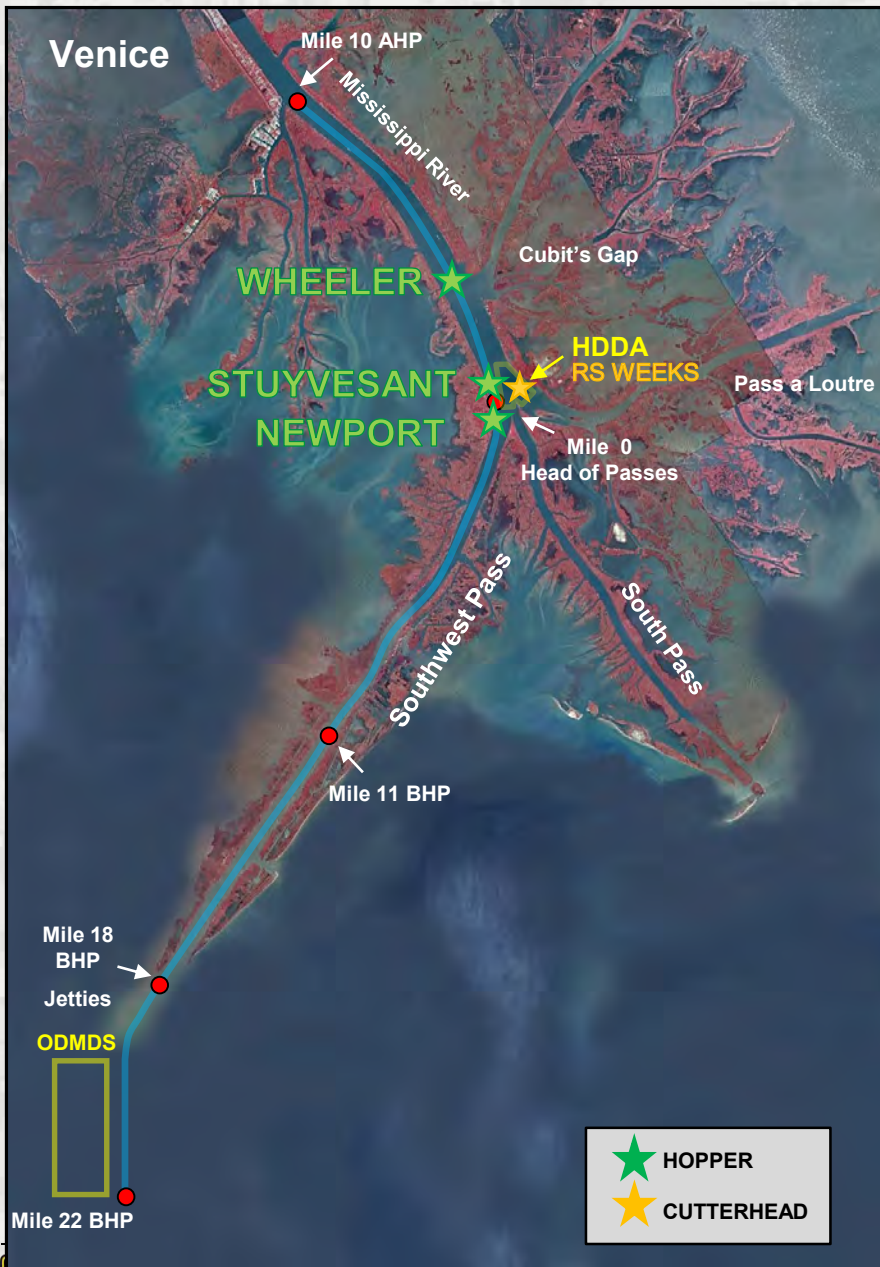
Material disposal:

- Head of Passes Hopper Dredge Disposal Area (HDDA)
 - Material dredged from river miles 10 Above Head of Passes to 11 Below Head of Passes
 - Available for future beneficial placement
- Ocean Dredged Material Disposal Site (ODMDS)
 - Material dredged from river miles 11 to 22 Below Head of Passes
 - Located on the right-descending side of the bar channel
- Agitation dredging
 - River Miles 18-22 Below Head of Passes (Jetties and Bar Channel)



US Army Corps
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Mississippi River Status Update 15 Jul 2019

CHANNEL CONDITIONS:

❖ AS OF 26 JUN 19, ALL VESSELS ARE RESTRICTED TO **42 FEET** MAXIMUM DRAFT TO ENTER OR EXIT THE MISSISSIPPI RIVER. NO ALTERNATE ROUTES EXIST.

❖ **ALL DREDGES HAVE RESUMED WORK FOLLOWING HURRICANE BARRY.**

Mississippi River Southwest Pass Dredge Status:

ONGOING:

- WHEELER (Red Flag Call Out #5-2019): 3 Jun 19 – 20 Jul 19
- NEWPORT: 28 Nov 18 – 15 Nov 19
- STUYVESANT: 14 Jun 19 – 30 Sep 19
- RS WEEKS: Hopper Dredge Disposal Area (HDDA) Dredging

SCHEDULED:

- WHEELER (Red Flag Call Out #6-2019): 21 Jul 19 – 31 Aug 19
- SWP Cutterhead Dredge #2-2019: 20 Jul 19 – 20 Sep 19
- Est start: CR McCaskill 20 Jul & Capt Frank 24 Jul
- SWP Hopper #12-19: Bid opening 18 Jul 19

Mississippi River Deep Draft Crossings Dredge Status:

- HURLEY – Redeye crossing (Mile 224), started 5 May 19. Down for repairs 8-17 Jul 19.
- WALLACE MCGEORGE – Baton Rouge Front crossing (Mile 231.5), started 9 May 19
- JADWIN –Belmont crossing (Mile 154), started 28 Jun 19



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High River and a Tropical Event



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Tropical Storm Barry

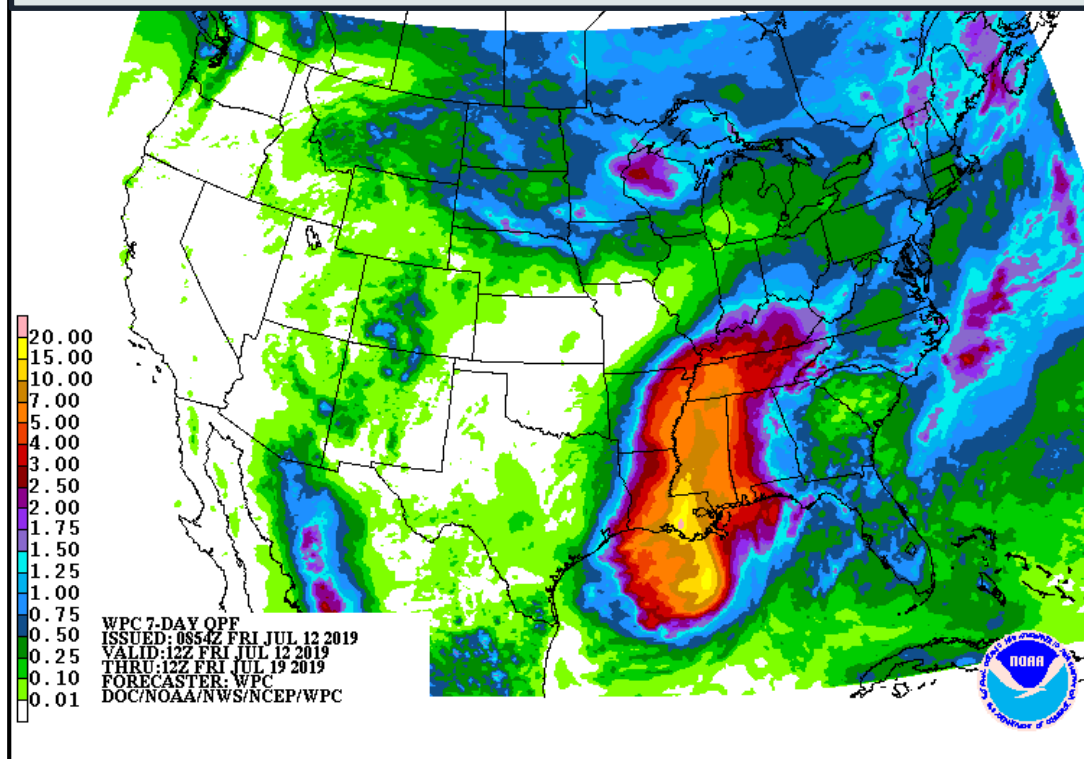




Expected Storm Total Rainfall

Tropical Storm Barry

Note: There will likely be locally higher amounts



- Storm Total rainfall forecast valid Today through next week
- Locally, most rain will occur Today and Saturday

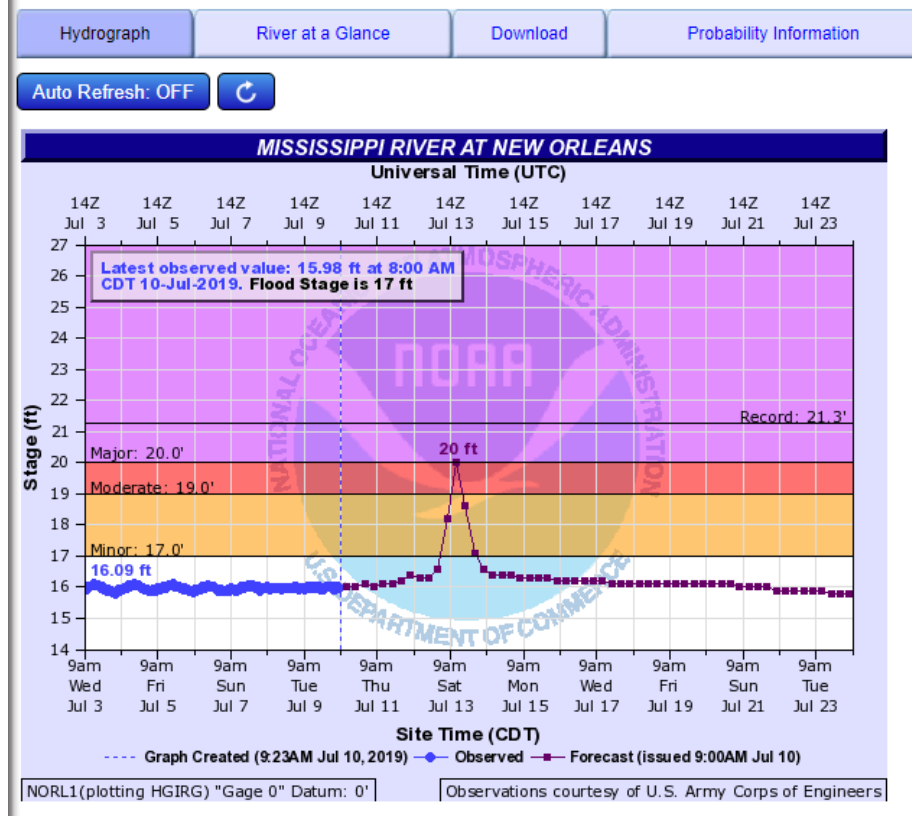
MS River Forecast

Potential Tropical Cyclone Two



New Orleans/Baton Rouge

WEATHER FORECAST OFFICE

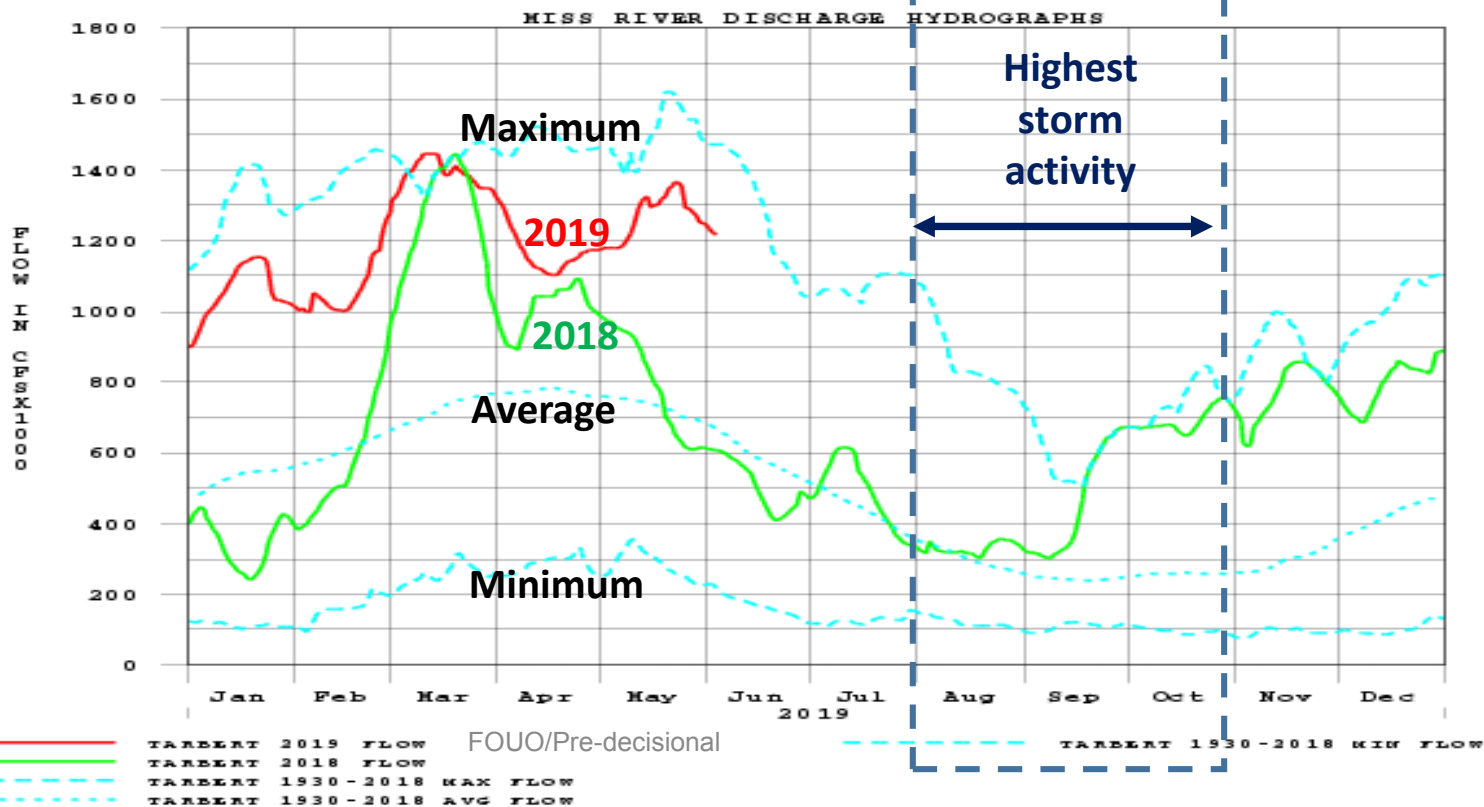
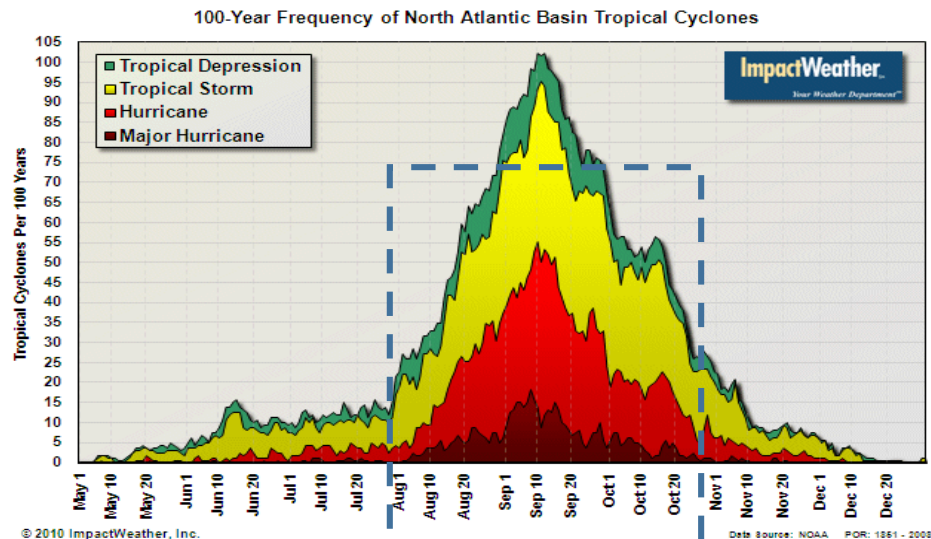


Mississippi River

- Storm surge near Mouth of Mississippi River of up to 3-5 ft late Friday or early Saturday.
- Potential storm surge of around 3-4 ft expected along the lower Mississippi River from New Orleans area southward
- New Orleans Carrollton Gage Forecast - Approximately 20 ft late Friday into Saturday.

www.weather.gov/NewOrleans

Hurricane Frequency vs. River Discharge



NEW ORLEANS DISTRICT



SCHOONER BAYOU



