



USACE/MRC MEETING  
AUGUST 23 2019

**VERMILION RIVER**  
**STATE OF EMERGENCY!**

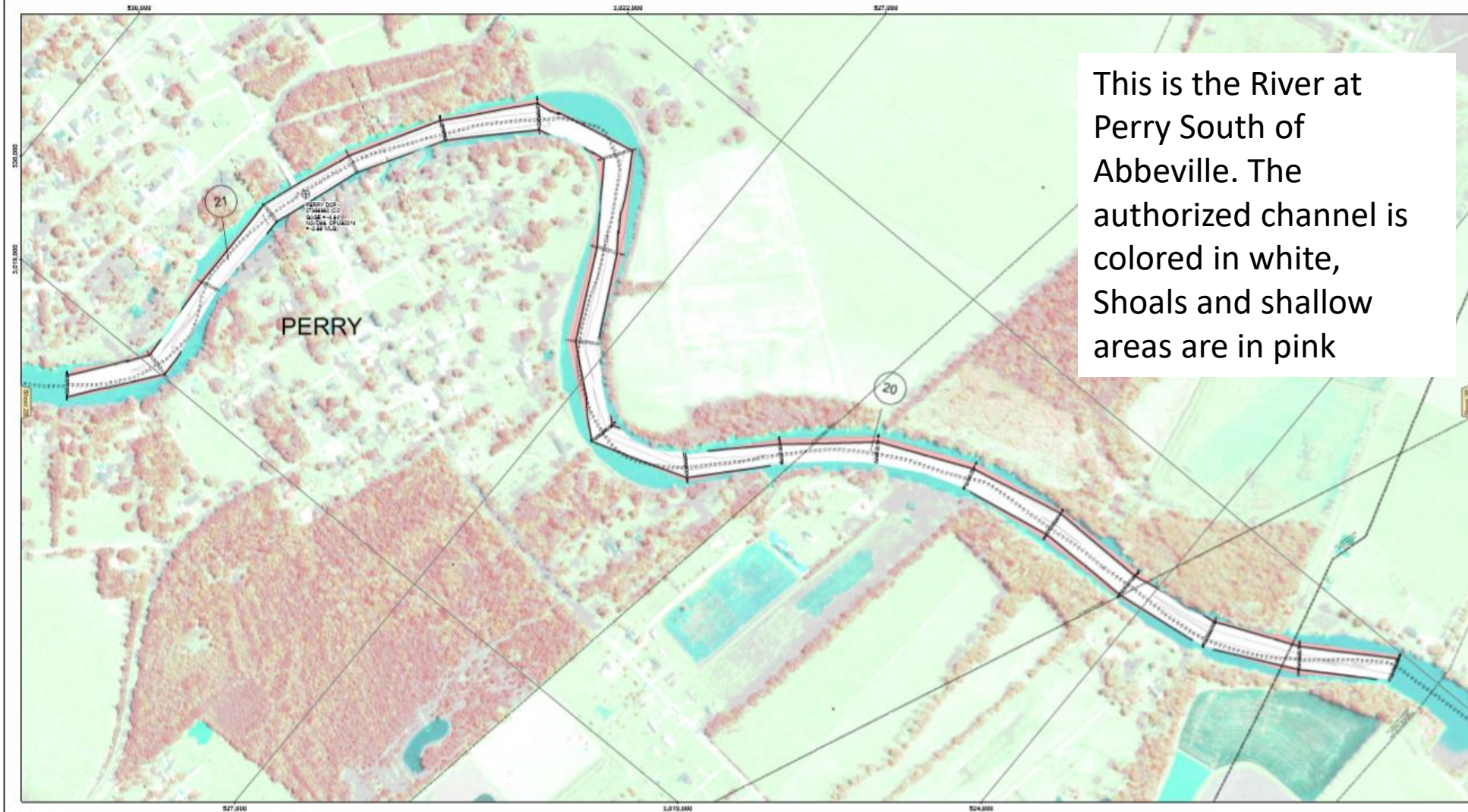
**HISTORICAL ANALYSIS OF FLOOD EVENTS**

# Recap of the Flood of August 2016

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Acadiana + Regional Impacts

- Watershed had approximately 10,375+ Homes Flooded
- Louisiana had 84,900+ Homes Flooded
- Numerous Businesses either Flooded or Adversely Impacted
- Louisiana FEMA Flood Insurance, Grants, and Loans Payouts = \$4.259 Billion
- Has lead to revised Flood Maps that will increase Flood Insurance Rates



This is the River at Perry South of Abbeville. The authorized channel is colored in white, Shoals and shallow areas are in pink



**NOTICE:** This map is a technical drawing and is not to be used for navigation. It is a representation of the river and its channels. The map is not a guarantee of accuracy. The map is a representation of the river and its channels. The map is not a guarantee of accuracy. The map is a representation of the river and its channels. The map is not a guarantee of accuracy.

|  |                            |                            |
|--|----------------------------|----------------------------|
| U.S. ARMY CORPS OF ENGINEERS<br>MISSISSIPPI DISTRICT | PROJECT<br>VERMILION RIVER | DATE<br>10 May 2017        |
| DESIGNED BY<br>C. J. HARRIS                          | DRAWN BY<br>M. J. HARRIS   | CHECKED BY<br>M. J. HARRIS |
| APPROVED BY<br>M. J. HARRIS                          | DATE<br>10 May 2017        |                            |

VERMILION RIVER  
PERRY  
WM\_27\_PRY\_20170510\_CS  
10 May 2017

Sheet Reference Number  
27 of 49



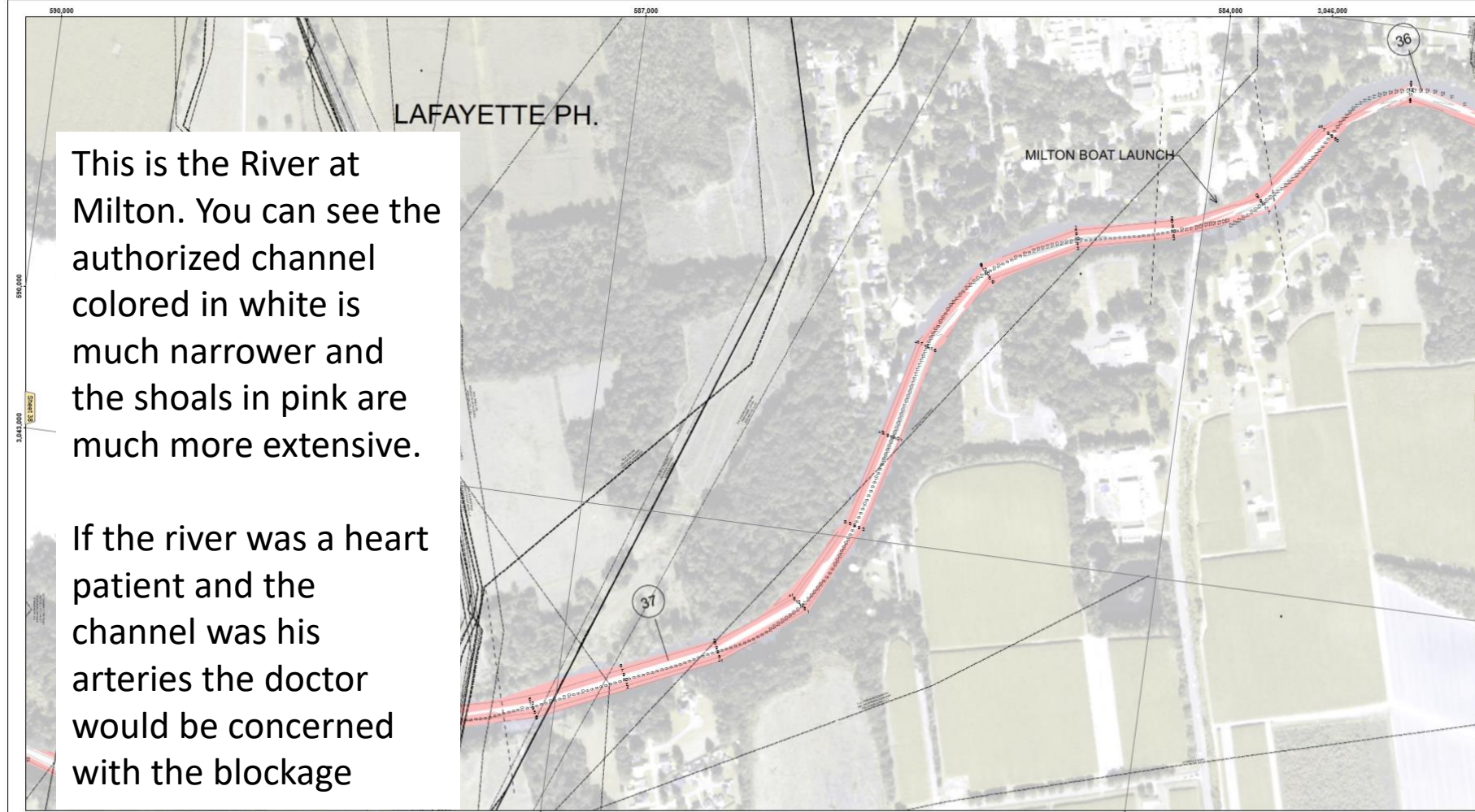
| LEGEND                           |                     |                         |                 |
|----------------------------------|---------------------|-------------------------|-----------------|
| --- Federal Navigation Channel   | .. Cable Area       | □ Borrow Area           | ■ -5' and above |
| — Federal Navigation Center Line | ▭ Placement Area    | ○ Shoalest Sounding**   | □ -5' and below |
| — As-built Pipeline/Cable        | ⊠ Anchorage Area    | ★ Beacon, General       |                 |
| ⋯ Unconfirmed Pipeline/Cable     | ⊗ Obstruction Point | ★ Red Navigation Buoy   |                 |
| — Project Depth Contour          | ⊖ Wrecks-Submerged  | ● Green Navigation Buoy |                 |

Scale: 0 400 800 1,200 Feet

North Arrow

Gage Reading: PERRY 3.0 MLG  
Sea Conditions: CALM  
Vessel Name: CE-188  
Bunty Type: CONDITION  
Sounding Frequency: HIGH

**NOTES:**  
Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), Louisiana South Zone. Distance units: U.S. Survey Feet.  
Vertical Datum: Soundings are shown in feet and in some depths below Mean Low Gulf Coast (MLG). Datum: Mean Sea Level (MSL) as of August 2014. 0.0' MLG (2014) = 1.0' MLLW.  
Distances on the Vermilion River are shown at 1 mile intervals.  
The location of navigation aids are based on and provided by the U.S. Coast Guard and USACE survey data.  
2010 Bathymetry data source: NGS. Transverse green imagery from 1994 DOQQ. Reference to NAD 83, Navigation Chart No. 13200.  
\*\* Shoalest Sounding per Quarter per Reach.  
--- High Frequency (200 kHz) echy data represents the first signal beam at a sounding location and is not included suspended solids, shown as "MUT". If green, Low Frequency (20 kHz) echy data normally penetrates through the "MUT" layer to depict the bottom of channel and bottom materials. Low Frequency soundings may vary depending on channel conditions and bottom materials.



**U.S. Army Corps of Engineers**  
District: CEMVN

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Authorization: This map represents the results of a data collection project conducted by the U.S. Army Corps of Engineers, Vermillion River District, in support of the Federal Navigation Channel Survey. The data was collected on 07 August 2019. The map is for informational purposes only and does not constitute a contract. The user assumes all responsibility for the use of the map. The map is not to be used for navigation purposes. The map is not to be used for legal purposes. The map is not to be used for insurance purposes. The map is not to be used for any other purpose.

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|                                |              |             |
|--------------------------------|--------------|-------------|
| Surveyed By:<br>PTL ANDREW HAN | Project No.: | Checked By: |
| Approved:                      | NO           | NO          |
| Drawn/Checked:                 | NO           | NO          |
| Approved:                      | NO           | NO          |

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**VERMILION RIVER**  
**MILTON**  
**VM\_37\_MIL\_20190807\_CS**  
**07 August 2019**

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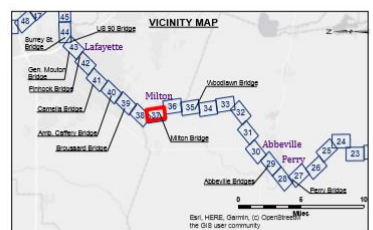
Sheet Reference Number  
**37 of 49**

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Revision Number: 43-2019/1221

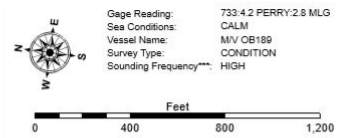
This is the River at Milton. You can see the authorized channel colored in white is much narrower and the shoals in pink are much more extensive.

If the river was a heart patient and the channel was his arteries the doctor would be concerned with the blockage



**LEGEND**

|                                  |                     |                         |                 |
|----------------------------------|---------------------|-------------------------|-----------------|
| --- Federal Navigation Channel   | --- Cable Area      | □ Borrow Area           | ■ -9' and above |
| — Federal Navigation Center Line | ■ Placement Area    | ● Shoalest Sounding**   | □ -9' and below |
| — As-built Pipeline/Cable        | □ Anchorage Area    | ★ Beacon, General       |                 |
| ..... Unconfirmed Pipeline/Cable | ⊗ Obstruction Point | ● Red Navigation Buoy   |                 |
| — Project Depth Contour          | ⚓ Wrecks-Submerged  | ● Green Navigation Buoy |                 |



**NOTE:**  
 Horizontal Coordinate System:  
 North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), Louisiana South Zone. Distance units in U.S. Survey Feet.  
 Vertical Datum:  
 Soundings are shown in feet and indicate depths below Mean Low Gulf Datum (MLG). Datum Relationships for gage 07356940 as of August 2014:  
 0.0' NAVD83 (GPOB 2014) = 1.94' MLG  
 Distances on the Vermillion River are shown at 1 mile intervals.  
 The location of navigation aids are based on and provided by the U.S. Coast Guard and USACE survey crews.  
 2017 Aerial Photography data source: NAIP. Transparent green imagery from 1998 DOQQ.  
 Reference is N.O.A.A. Navigation Chart No. 11350.  
 \*\* Shoalest Sounding per Quarter per Reach.  
 \*\*\* High frequency (200 kHz) survey data represents the first signal return of a sounding location and will include subsurface objects, known as Turbidity Fronts. Low frequency (20 kHz) survey data normally penetrates through the "TUR" layer to depict elevations of consolidated bottom material. Low frequency accuracies may vary depending on channel conditions and transmitter settings.

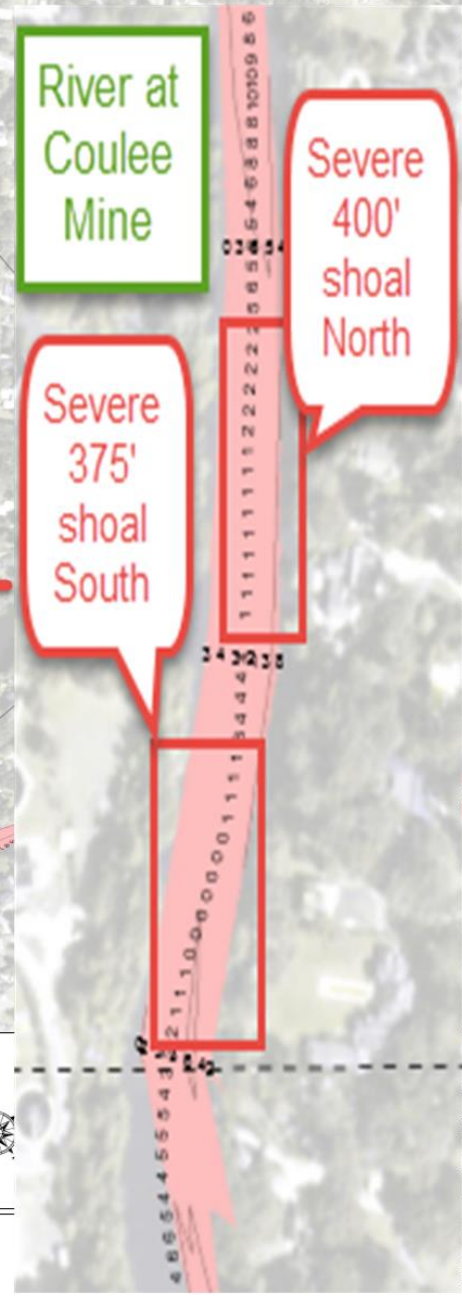


This is the River at Lafayette. You can see the authorized channel colored in white is non-existent. The shoals in pink are completely blocking the river acting like a dam.

Again, if the river was a heart patient and the channel was his arteries the doctor would be surprised the patient was still alive with 100% blockage in his widow maker!



- Borrow Area
- Shoalest Sounding\*\*
- ★ Beacon, General
- Red Navigation Buoy
- Green Navigation Buoy
- -9' and above
- -9' and below
- Project Depth Contour
- ✚ Wrecks-Submerged



US Army Corps of Engineers  
District: CEMVN

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U.S. ARMY CORPS OF ENGINEERS  
NEW ORLEANS DISTRICT

|              |                |
|--------------|----------------|
| Reviewed By: | RYLAND COCHRAN |
| Prepared By: | ZAC            |
| Checked By:  | ZAC            |

VERMILION RIVER  
LAFAYETTE  
VM\_42\_LAF\_20190808\_CS  
08 August 2019

Sheet Reference Number  
42 of 49

(NAD83), projected to the State Plane Louisiana South Zone. Distance units in U.S. Survey Feet.  
Indicate depths below Mean Low Out of Tide (MLOT).  
7328500 as of August 2014.  
92' MLG  
are shown at 1 mile intervals.  
are based on and provided by the U.S. Coast Guard.  
Source: NAIP. Transparent green imagery from 1998 DOQQ.  
on Chart No. 11350.  
or per Reason.  
ivity data represents the first signal return at a sounding  
red solid, known as "fluff". If present, Low Frequency (20 kHz)  
s through the "fluff" layer to detect elevations or consolidated bottom  
ices may vary depending on channel conditions and bottom

Revision Number:  
6-001807022

# The Risk

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The Vermilion River is one of the main drains for the Teche-Vermilion Watershed

## **Historical Flood Events**

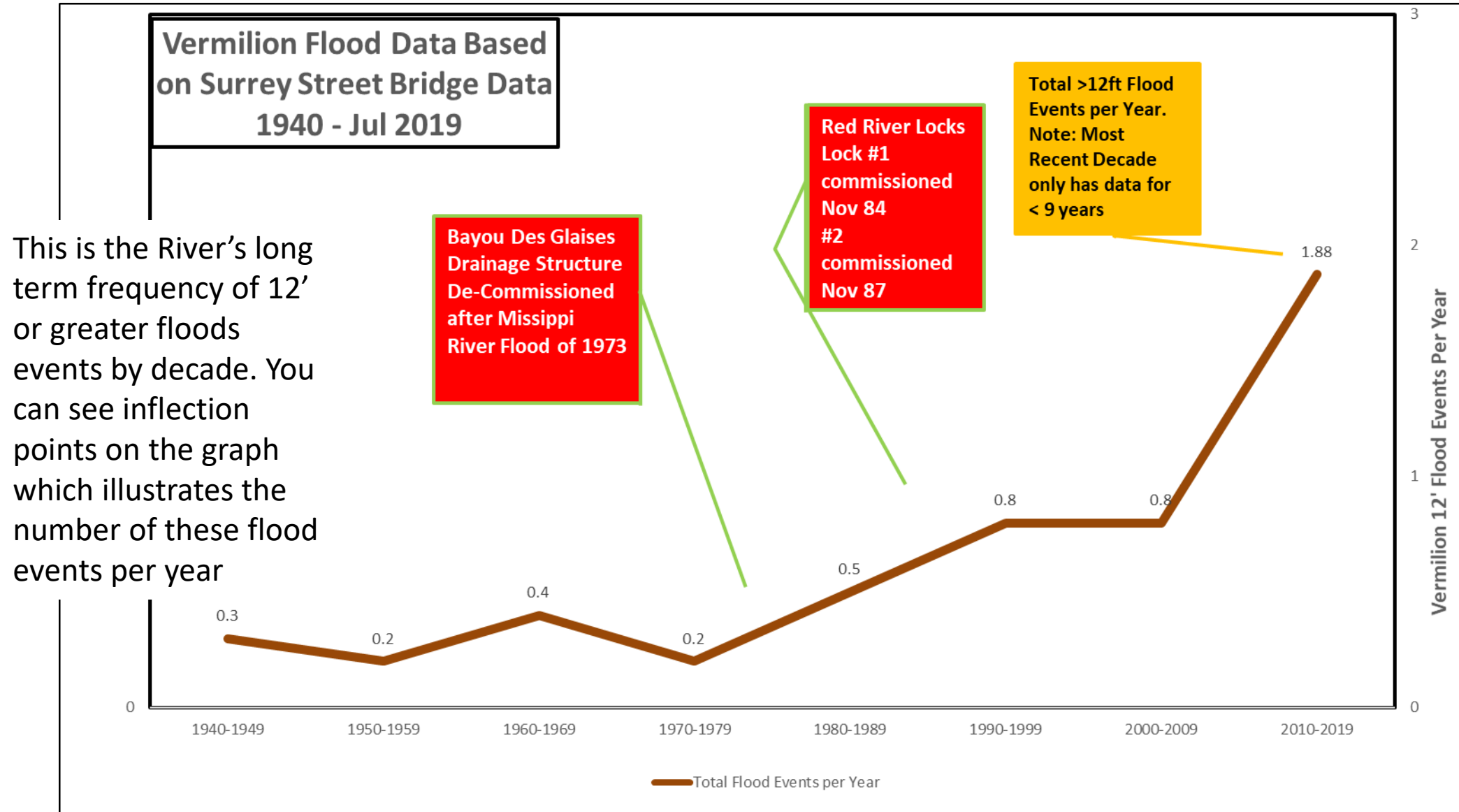
11-12' Flood Events from 1940-1980

7-12' Flood Events in the last 24 Months

5-12' Flood Events since Jan 1 2019!!

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# Vermilion River Flooding Frequency Data



# Vermilion River 12' Floods YTD 2019

This is the River's frequency of 12' or greater floods events since Jan 1 2019.

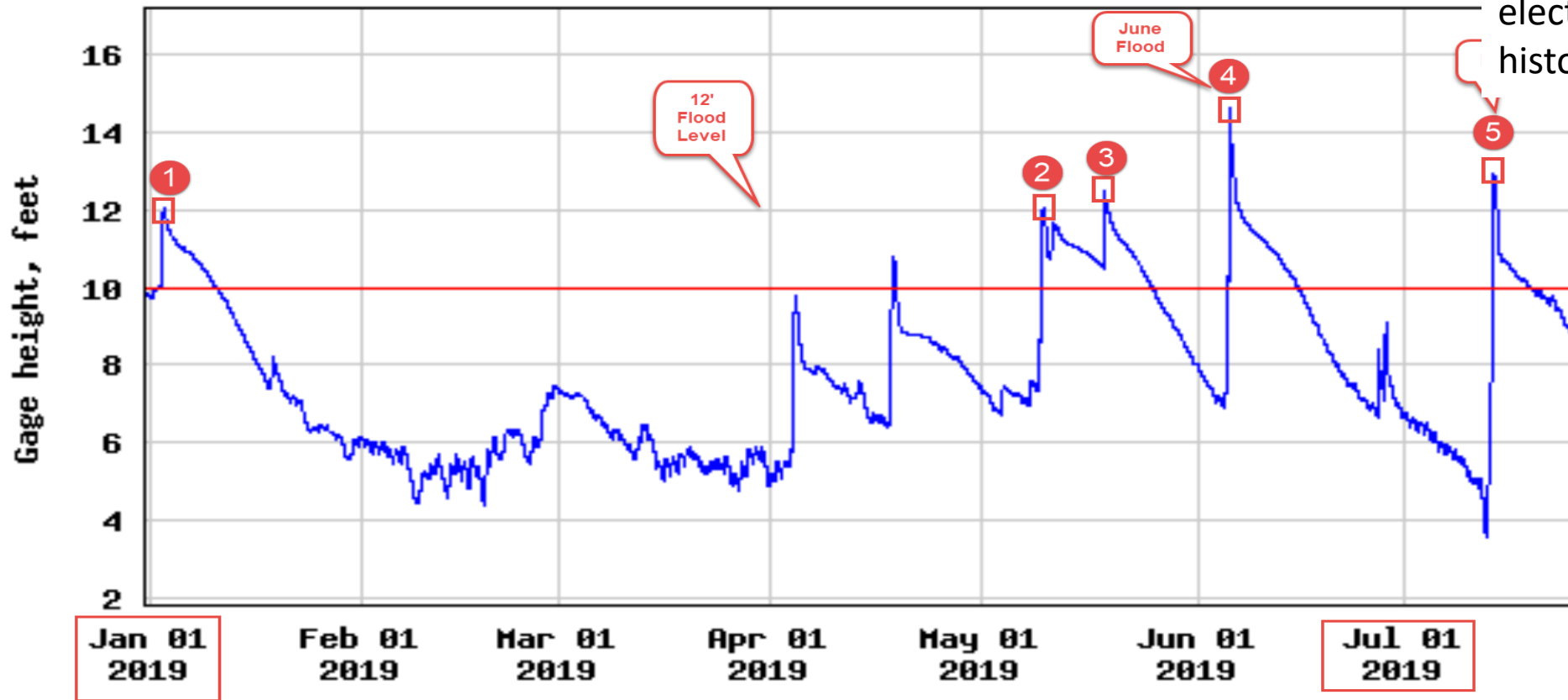
Note we only had 11 of these floods between 1940 and 1980

This is equivalent to the patient's electrocardiogram history of heart attacks

## Gage height, feet

Most recent instantaneous value: 8.65 07-26-2019 12:15 CDT

USGS 07386880 Vermilion River at Surrey St., at Lafayette, LA



----- Provisional Data Subject to Revision -----



## **In Closing**

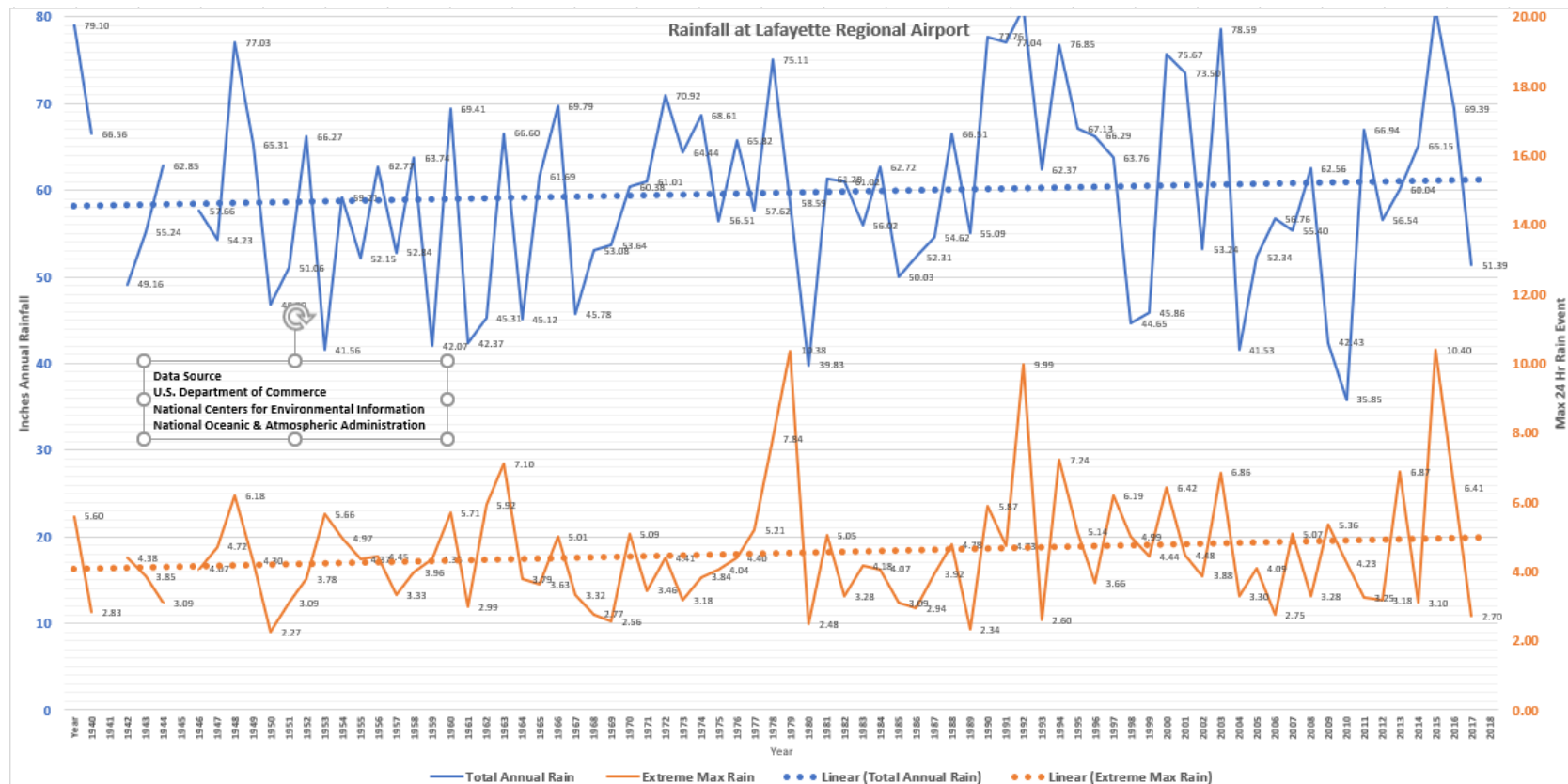
We must have Sense of Urgency to  
Resolve these Problems

Questions ? and Answers ?

Comments and Suggestions

Thank You for Your Time and  
Consideration. We urgently need your  
help and guidance

# So is it Raining more now?



This is Lafayette's long term rain data recorded at the airport. The blue is annual total and the red is the max rain during any 24 hr period during that year. The dotted lines are the trend. The answer is yes –but not an extreme amount more.

# Vermilion River Hurricane Barry

People ask what happened during Barry. A combination of the pre-emptive action of stopping the pumping, a strong north wind and the timing of the rain event and storm surge helped. Barry proved that pre-emptive draining of our natural retention (Cypress Island and Courtableau area swamps) worked

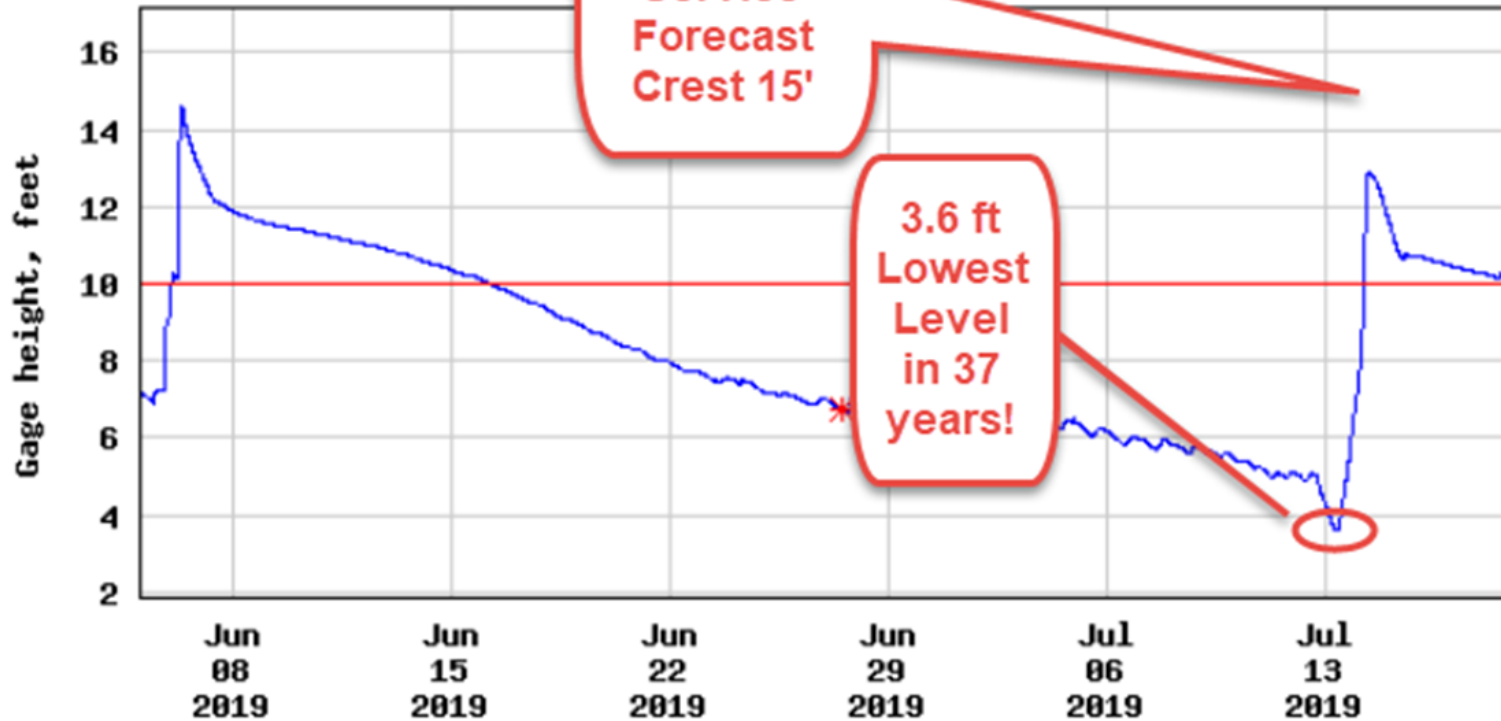
**Gage height, feet**

Most recent instantaneous

07-28-2019 15:15 CDT

USGS 07386880 Ver

Surrey St. at Lafayette, LA



**NOAA  
National  
Weather  
Service  
Forecast  
Crest 15'**

**3.6 ft  
Lowest  
Level  
in 37  
years!**

----- Provisional Data Subject to Revision -----

— Gage height

\* Measured gage height

— National Weather Service Floodstage, in feet