

Bayou
Courtableau Site
Visit
8/14/2024

Dave Dixon
President

The logo for Dredge The Vermilion is centered within a large white circle. The word "DREDGE" is written in a bold, red, sans-serif font. Below it, the words "THE VERMILION" are written in a smaller, red, sans-serif font.

DREDGE
THE VERMILION

Hurricane
Barry
July 13 2019
Flood Types
we were
dealing with
for Barry

- **FLOOD TYPE- A MAJOR RIVER FLOOD**

Lake Pelba was at 17.2 ft preventing any drainage of Courtableau

- **FLOOD TYPE- A STORM SURGE FLOOD**

12.8 ft surge at Cypremort Point

12.1 ft surge at Leeman Bowman Locks

5-6 ft surge at Berwick

- **FLOOD TYPE- A MAJOR RAIN EVENT FLOOD**

Barry forecast up to 20" of rain.

Vermilion River was forecast to crest at 15'+ in Lafayette.

Whiteville LA in St. Landry Parish did in fact measure over 20" of rain

Our Actions Prior to Hurricane Barry

- July 8th- Harold Schoeffler sent out a request to Teche-Vermilion Freshwater District to stop pumping water from the river to Bayou Courtableau
- A request also went out to both the USACE and St. Martin Parish to open the Henderson Gate and the Keystone Locks as a emergency flood gate to drain Bayou Teche north of St. Martinville

What Happened Concerning the Requests

- July 8th- Initially both request were denied. Harold contacted St Landry Parish President Bill Fontenot and he directed TVFD to shut down pumps.
- Teche-Vermilion Freshwater stopped pumping
- The request to both the USACE and St. Martin Parish to open the Keystone Locks as a emergency flood gate to drain Bayou Teche north of St. Martinville was also denied. This decision was appealed and issue was escalated up to the governor to no avail.

What then Happened

- July 13th- The Vermillion river dropped to 3.6' at the Surrey gauge
- This was a result of
 - ✓ **Stopping the pumps for TVFD**
 - ✓ **Strong north winds as Barry stayed east of us in the GOM**
 - ✓ **Timing of the storm surge**
 - ✓ **Timing of the rain event**
- This allowed the river to drain to the lowest level in 37 years.
- Additionally this drained Cypress Island swamp, Bayou Courtableau and its low land swamps north of us establishing retention for the upcoming rain event

Vermilion River during Hurricane Barry after lowering Courtableau to approx. 15.9

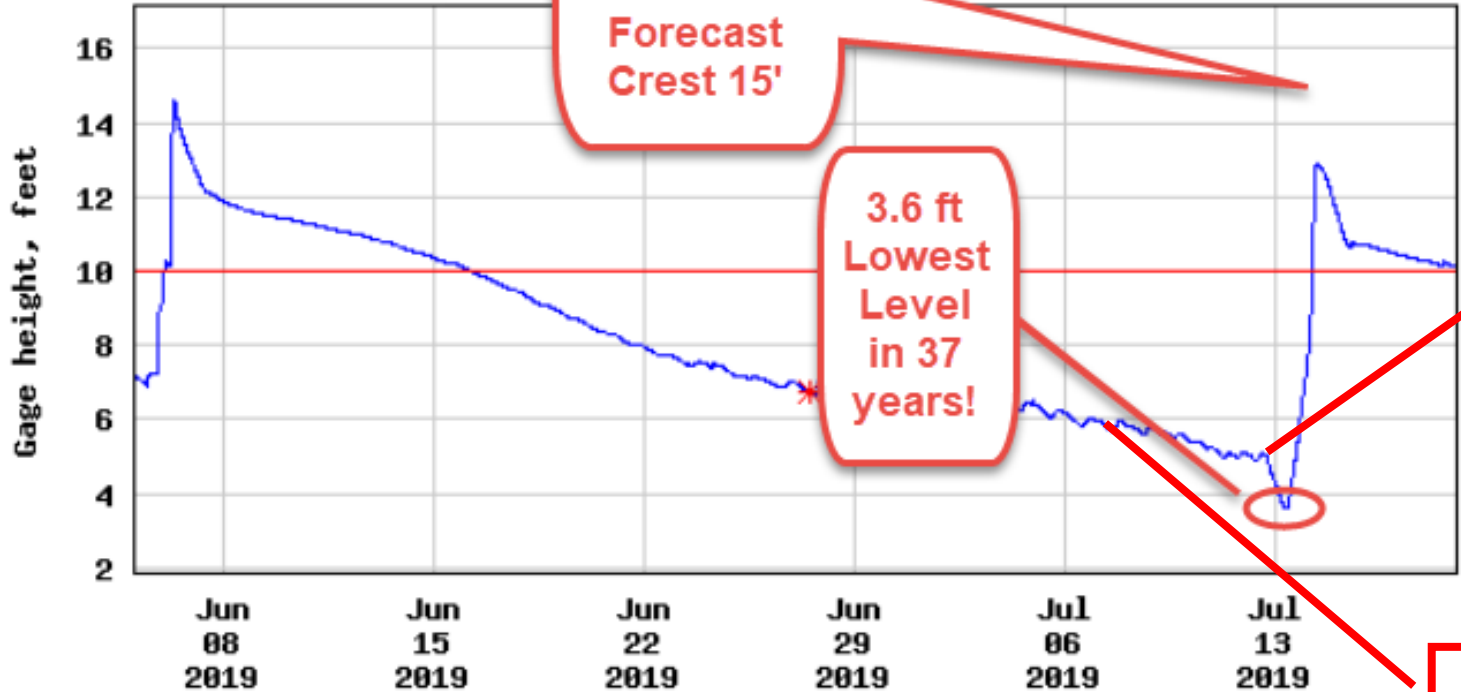
Gage height, feet

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!

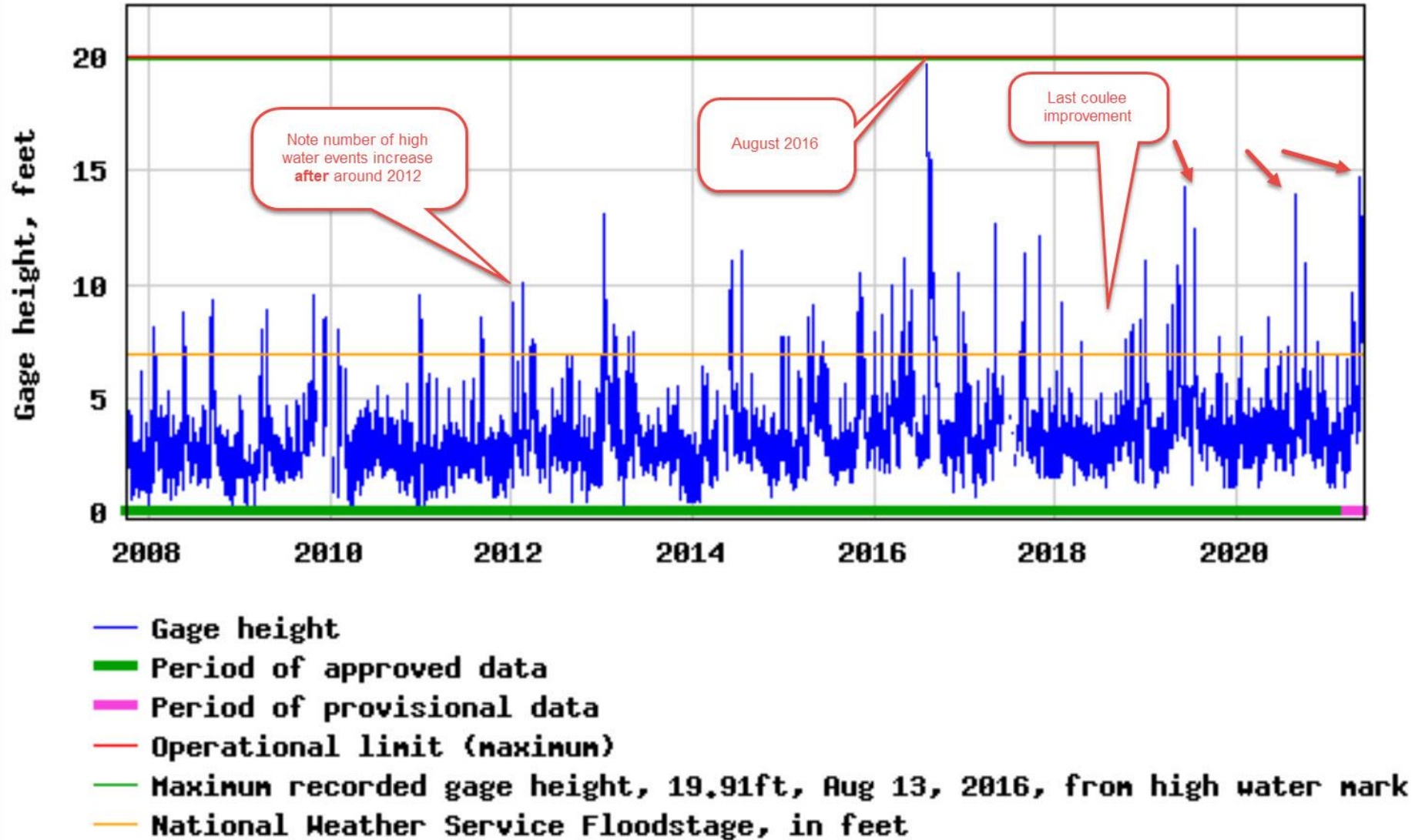
North Wind from Storm Started

Stopped Pumping USACE could NOT open Courtableau Gates

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

- Gage height
- * Measured gage height
- National Weather Service Floodstage, in feet

USGS 07386940 Vermilion River at Hwy 733 near Lafayette, LA

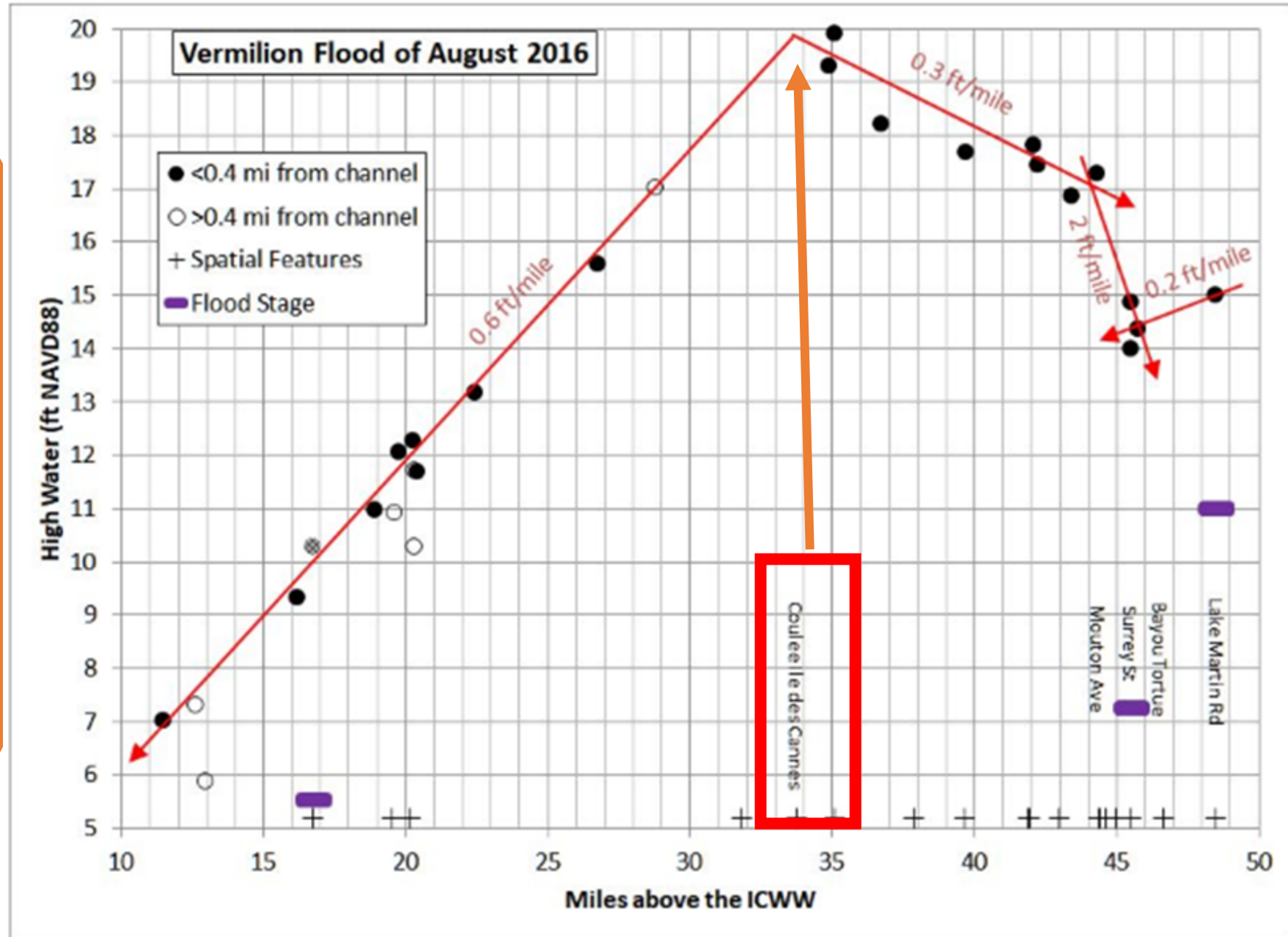


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THE VERMILION

2016 Flood Event USGS High Water Mark Survey and Gauge Data Graph

Dr. Mike Waldon PhD Hydrologist



Vermilion River 12' Floods YTD 2019

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



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

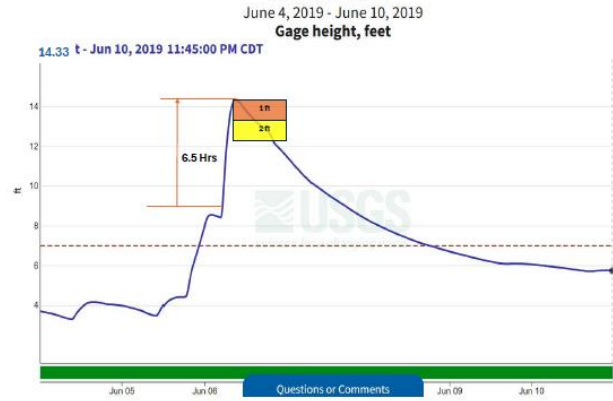
Note we only had 11 of these floods between 1940 and 1980

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

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

2019-2021 3 Historical Crests 100Y Events by Level Measured at LA733

June 2019 Rain Event
 Vermilion River at Hwy 733 near Lafayette, LA -
07386940



Estimated Volume in Crest in Acre Feet
1560 Crest minus 1 ft
3072 Crest minus 2 ft

Hurricane Laura
 Vermilion River at Hwy 733 near Lafayette, LA -
07386940



Estimated Volume in Crest in Acre Feet
3060 Crest minus 1 ft
4775 Crest minus 2 ft

May 2021 Rain Event
 Vermilion River at Hwy 733 near Lafayette, LA -
07386940



Estimated Volume in Crest in Acre Feet
3380 Crest minus 1 ft
5752 Crest minus 2 ft

MODELED – 100 YR BFE

BASE FLOOD ELEVATION COMPARISONS	100 year (1 Percent Storm) - ft				
	FEMA 1999 Maps	FEMA 2018 (Project 1 to Project VI Improvements & Model Updates)	Channel Improvements (Fenetre to OST)	Corrected Effective (Fenetre to OST with Additional Ponds)	Channel Improvements (Dulles to OST with Additional Ponds)
Robley	N/A	14.13	14.15	14.09	14.10
US HWY 167	N/A	18.22	18.28	18.18	18.20
Bourque Road	N/A	19.16	19.21	19.09	19.11
Ellias G	N/A	19.90	19.95	19.81	19.84
LA 342 - Duhon	N/A	22.32	22.46	22.14	22.19
W. Congress St.	27	24.63	24.73	24.60	24.72
Le Violon Rd	28	25.62	25.79	25.73	26.92
Dulles	30	26.82	26.97	26.94	27.01
Fenetre	31	30.29	30.22	30.22	28.22
Old Spanish Trail	32	31.43	30.88	30.88	29.6
I-10	N/A	34.26	34.26	34.26	34.23
Rue des Babineaux	N/A	35.19	34.63	34.63	34.62
Cocodril Road	N/A	39.39	37.03	37.03	37.03



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THE VERMILION

Revise and
Formalize an
Actionable Plan
to Lower Pool
Stages prior to a
Major Rain Event
like a Tropical
Storm or Stalled
Cold Front

- This plan was executed prior to Hurricane Barry
- It likely saved us from experiencing a second major flood
- Questions or Comments Welcome

