Flood of August 2016

LADOTD - DISTRICT 61
Baton Rouge, LA
I. Welcome – Chad Vosburg, P.E.

II. District 61 Staff:

- Terri Hammack: ADA of Operations (Districtwide)
- Todd Donmyer: ADA of Engineering (Districtwide)
- Greg Coco, P.E.: Area (A) Engineer (East Baton Rouge Parish)
- Keith Palermo, P.E.: Area (B) Engineer (East Feliciana, West Feliciana, Pointe Coupee, & West Baton Rouge Parishes)
- Aaron Elisar, P.E.: Area (C) Engineer (Iberville, Ascension, Assumption, St. James Parishes)
III. Presentation Overview
IV. Weather
V. Impact to travel
VI. Battling the water
VII. Damages
VIII. Vehicle Staging Areas, Shelters, and Debris Removal
PARISHES AFFECTED

- East Baton Rouge
- Ascension
- East Feliciana
- West Feliciana
- Pointe Coupee
- Iberville
Anticipated Weather Forecast

- 8.2 inches Expected
- Significant Rainfall
- Nothing special
Rainfall Final Totals August 9th – 13th

- Baton Rouge - 19 inches, 11.24 inches received on August 12th alone
- Watson - 31.3 inches
- Livingston - 25.5 inches
COMITE RIVER STAGES DUE TO RAIN EVENT

COMITE RIVER NEAR OLIVE BRANCH

COMITE RIVER NEAR COMITE JOOR RD.
AMITE RIVER STAGES DUE TO RAIN EVENT

**AMITE RIVER AT DENHAM SPRINGS**

![Graph of Amite River stages at Denham Springs showing data from Aug 9 to Aug 19, with stages ranging from 11 to 58 ft.](image)

- Latest observed value: 46.2 ft at 5:00 AM CDT on Aug 14, 2016. Flood Stage is 29 ft.
- Current Stage: 46.3 ft
- Graph created: 5:15 AM Aug 14, 2016
- Forecast issued: 3:50 AM Aug 14
- Observations courtesy of US Geological Survey

**AMITE RIVER AT PORT VINCENT**

![Graph of Amite River stages at Port Vincent showing data from Aug 11 to Aug 21, with stages ranging from 10 to 25 ft.](image)

- Latest observed value: 17.42 ft at 1:45 AM CDT on Aug 15, 2016. Flood Stage is 8 ft.
- Current Stage: 17 ft
- Graph created: 7:53 PM Aug 15, 2016
- Forecast issued: 8:33 AM Aug 15
- Observations courtesy of US Geological Survey
IMPACTS TO TRAVEL TIMELINE

- **Friday 8/12/16**
  - 12:00 noon
    - I-10 ONE LANE EB and WB CLOSED near SIEGEN
    - LA 37 - GREENWELL SPRINGS ROAD at MAGNOLIA BRIDGE ROAD
    - LA 67 Plank Road at Lavey Lane
    - LA 408 Hooper Road at GS
  - 4:00 pm
    - US 61 Closed in West Feliciana At Thompson Creek Relief Bridges in West Feliciana
  - 5:00 pm
    - LA 37 closed at Comite River
  - 8:30 pm
    - I-10 EB Closed near Siegen
    - I-10 WB Closed at Highland
IMPACTS TO TRAVEL TIMELINE

Saturday 8/13/16

9:45 am

- US 61/190 (Airline) closed between Evangeline and GS road — Reopened 8/16/16 at 8:30 am
- US 190 (Florida) - closed between Central Thwy and Amite River
- I-12 EB and WB closed at Amite River
- LA 408 Hooper Road at GS
Not Good: I-10 at Manchac August 14 around noon
IMPACTS TO TRAVEL TIMELINE

- **Sunday 8/14/16**
  - **8:45 pm**
    - I-10 East and West at Bayou Manchac
    - I-10 West Diverted at LA 73
    - I-10 East Diverted to Siegen Lane

- **Monday 8/15/16**
  - **4:00 am**
    - US 61 closed between Highland and Antioch both Directions
Tuesday 8/16/16

1:30 am
- I-12 Reopens between I-55 and I-10

6:45 am
- Opened US 61 at Highland Rd. – Using aquadams
- Started Flooding at Ascension Maintenance Unit

8:45 am
- Reopened Airline Highway from Prescott to Evangeline St. in Baton Rouge

11:02 am
- Closed US 61 between LA 30 and LA 22
- Closed LA 30 between US 61 and I-10
IMPACTS TO TRAVEL TIMELINE

- **Wednesday 8/17/16**
  - **10:00 am**
    - I-10 East and West re-opens through BR
CHALLENGES

- STAFFING-
  - APPROXIMATELY 50% OF WORKFORCE WAS ABSENT
- ROAD CLOSURES
  - REPORTING OPENINGS AND CLOSINGS
  - KEEPING PUBLIC AND LAW ENFORCEMENT INFORMED
- COMMUNICATION
  - CELL PHONE ISSUES
- OUTLYING WORK UNITS FLOODING
  - MOVING MATERIAL AND EQUIPMENT OUT OF RISING FLOOD WATER
- OVERALL MISSION
  - KEEPING AS MANY ROUTES AS POSSIBLE OPEN TO MAINTAIN MOBILITY FOR RECOVERY OPERATIONS
- DEBRIS REMOVAL
How did we work to keep as many lanes open as possible?

- Aquadams
- Tigerdams
- Temporary signal
- Biggest pump we could rent
The Battle Begins.....

Bains Maintenance Unit cleaning drain on US 61
TIGER DAM @ I-10 EB NEAR PRAIRIEVILLE SETUP

Backwater
TIGER DAM @ I-10 EB NEAR PRAIRIEVILLE

Backwater
TEMPORARY SIGNAL LA 928 - BLUFF RD.

Backwater
I-10 WB LOOKING WEST
AT LA 42 AND LA 427
I-10 WB OVER MANCHAC
US 61 at Thompson Creek West Feliciana
US 61 at Thompson La. 10 East Feliciana
LA 928 - Bluff Rd. in Ascension Parish
Ascension Parish Maintenance Unit
US 190 – FLORIDA BLVD LOOKING WEST BETWEEN FLANNERY AND ONEAL (NEAR BRIAN HARRIS)
LA 3245 ONEAL LANE AT LA 426 OLD HAMMOND LOOKING SOUTH
US 190 Florida Blvd looking South near LA 426 Old Hammond
US 190 Florida Blvd. Amite River Bridge looking Southwest
LA 3245 Oneal Lane facing North from I-12
Damages and Repairs
Washed out Pavement—LA 933 Bridge End Ascension
Washed out Pavement—LA 933 Bridge End Ascension
LA 432 near Amite-East Feliciana
SLOPE REPAIRED QUICKLY WITH RECYCLED ASPHALT
LA 432 BEFORE AND AFTER
LA 66 WEST FELICIANA
LA 66 WEST FELICIANA
BEFORE AND AFTER
US 61 SB IN EAST BATON ROUGE
REMOVING BUILT UP DRIFT AT BRIDGES
CHECKING SCOUR AT BRIDGES
Vehicle Staging Areas

Purpose - To manage vehicles used for evacuation and medical transport

- Memorial stadium site—65 buses and 10 para transits checked in during event
- Transported shelter residents to doctor’s appointments, to fill prescriptions, to visit pets at pet shelters (sheltered at DCI), FEMA appointments at their homes, to DSNAP sites, social security offices, to the DMV (to replace lost/destroyed documents), and finally back to their home/hotel/etc.
DOTD and LANG working to transport Evacuees
Shelters

- Purpose: To give residents a place to live during and immediately after flood event
- 4 shelter locations were managed throughout event:
  - Celtic Studios
  - River Center
  - FG Clark Activity Center
  - LSU Field House
- Other agencies at shelter included LDH/DCFS, VA, American Red Cross, FEMA, Louisiana State Police, and BRPD
- Shelter population varied daily
- All shelters were eventually combined at the River Center and the population ended up being maintained at over 1000 residents and continued for 30 days after flood event
Debris Removal

- Purpose: to remove Construction and Demolition debris from Flood Damaged Areas along State Routes
- Debris removed between end of August through December 2016
- 5 parishes were affected: East BR, Ascension, East and West Feliciana, and Pointe Coupee
- 240,506 cubic yards of Construction and Demolition
- 1744 cubic yards of White Goods
- Total Cost of $3.1 million
Lessons Learned

- Communication with the public and sister agencies is critical
- Mother Nature will always throw you a curveball—The best of plans will always need to be modified
- Be open to new unconventional ideas
- Be prepared for a long battle with whatever workforce you have available
- Take care of your workforce
Questions