

Citywide Drainage Response to Recent Flash Flooding

June 17, 2025



Lafayette
CONSOLIDATED GOVERNMENT

Flash floods **ARE**

- **Sudden and intense**, triggered by heavy rainfall in minutes or hours
- **Fast-moving and dangerous**—can sweep away vehicles
- Not limited to rivers or bayous—can **occur almost anywhere**
- Capable of damaging homes and endangering lives
- A reminder why staying informed and prepared matters

Flash floods **ARE NOT**

- Predictable days in advance like hurricanes
- Limited to flood zones—they can happen in urban areas
- Slow or gradual—reaction time is limited
- Something to underestimate—*just 6" of moving water can knock over an adult*



A Look at Recent Storm Events

Event Date	Total Rainfall	Total Duration
Thursday, April 24, 2025	7"	3 hours
Wednesday, May 7, 2025	4-5"	24 hours
Friday, May 9, 2025	3.5"	6 hours
Friday, June 13, 2025	5"	3 hours

43.12"
2025 Rainfall Totals

vs.

27.10"
Normal Average

**Sourced by KATC*

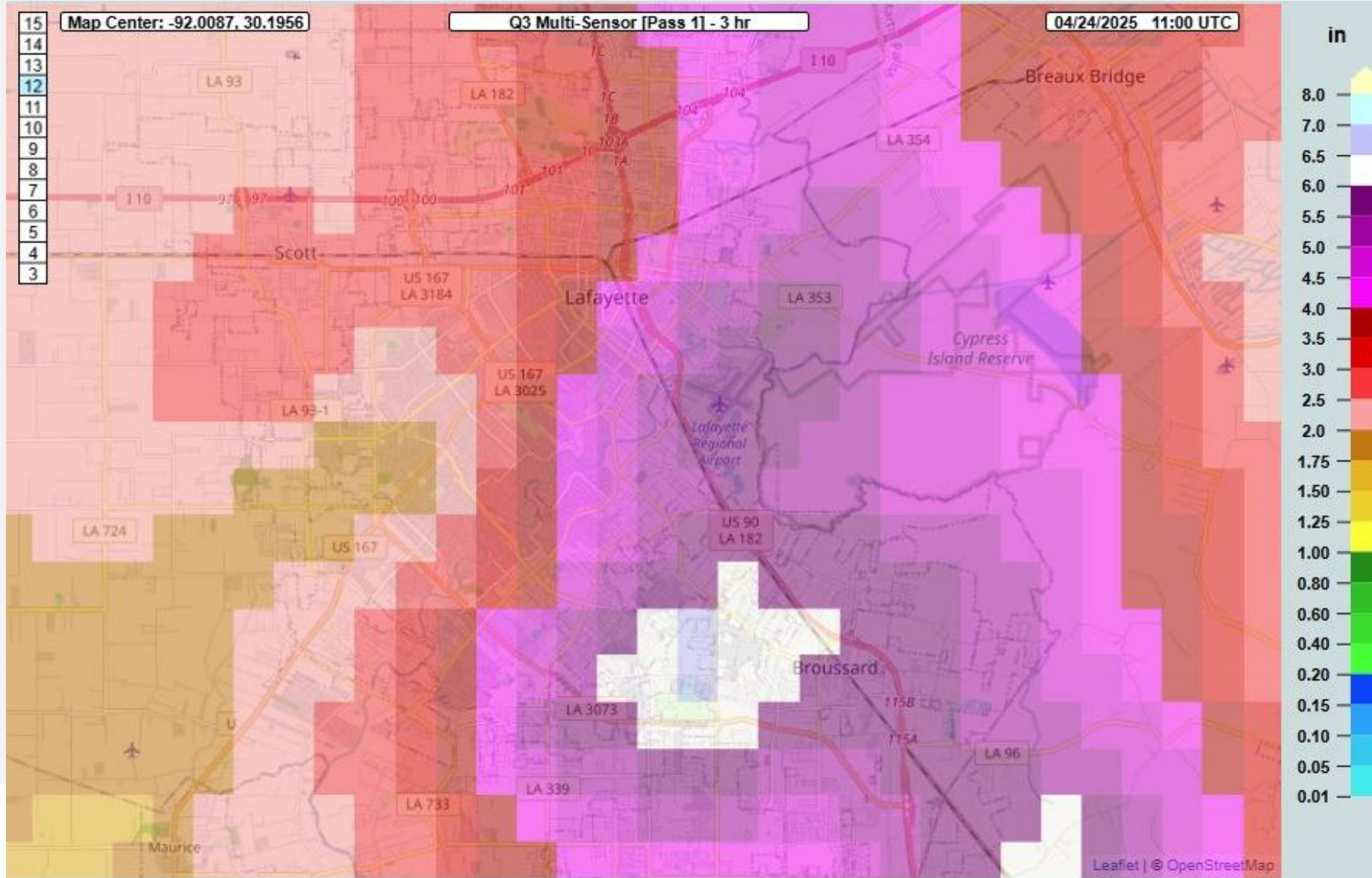
How LCG Teams Mobilize Ahead of Major Weather Events

- ✓ **Check** pump station locations
- ✓ **Stage** crews at strategic locations around the city and parish
- ✓ **Monitor** known areas with drainage issues for blockages
- ✓ Place crews on **standby** afterhours as needed
- ✓ **Pre-stage** barricades in flood prone areas
- ✓ **Monitor** sand bagging locations (2 Open 24/7)
 - ✓ Add additional locations as needed
- ✓ **Maintain contact** with NWS for forecast predictions
- ✓ Issue **Situational Updates** to Elected Officials and LCG Team

Activating “Storm Mode”

- **Triggered** at 10 calls per 1/2 hour, or as needed
- **Calls logged** into an online system to dispatch and track
- Crews **respond** to all storm related calls immediately
- Foreman receives request thru the online system and **assigns** crews
- Request **tracked** to be used for future evaluation
- Management **monitors** the status of event response
- Streets and drainage **operate together**

April 24, 2025 – 7 inches in 3 hours



April 24, 2025 – 7 inches in 3 hours

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches)¹

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.558 (0.472-0.668)	0.631 (0.534-0.756)	0.749 (0.631-0.899)	0.845 (0.708-1.02)	0.975 (0.788-1.20)	1.07 (0.848-1.33)	1.17 (0.893-1.48)	1.27 (0.926-1.63)	1.39 (0.978-1.83)	1.49 (1.02-1.98)
10-min	0.817 (0.692-0.979)	0.924 (0.781-1.11)	1.10 (0.924-1.32)	1.24 (1.04-1.49)	1.43 (1.15-1.75)	1.57 (1.24-1.95)	1.72 (1.31-2.16)	1.86 (1.36-2.38)	2.04 (1.43-2.67)	2.18 (1.49-2.89)
15-min	0.996 (0.843-1.19)	1.13 (0.953-1.35)	1.34 (1.13-1.61)	1.51 (1.26-1.82)	1.74 (1.41-2.14)	1.92 (1.51-2.38)	2.09 (1.59-2.64)	2.26 (1.65-2.91)	2.49 (1.75-3.26)	2.66 (1.82-3.53)
30-min	1.54 (1.30-1.84)	1.74 (1.48-2.09)	2.08 (1.75-2.49)	2.34 (1.96-2.82)	2.71 (2.19-3.32)	2.98 (2.35-3.69)	3.25 (2.48-4.09)	3.52 (2.57-4.51)	3.86 (2.71-5.05)	4.11 (2.81-5.46)
60-min	2.06 (1.75-2.47)	2.34 (1.98-2.81)	2.80 (2.36-3.36)	3.18 (2.66-3.83)	3.69 (2.98-4.53)	4.08 (3.23-5.06)	4.48 (3.41-5.64)	4.87 (3.56-6.26)	5.39 (3.78-7.06)	5.77 (3.95-7.66)
2-hr	2.59 (2.21-3.07)	2.94 (2.51-3.50)	3.52 (2.99-4.20)	4.01 (3.38-4.79)	4.68 (3.81-5.70)	5.19 (4.13-6.39)	5.70 (4.38-7.14)	6.22 (4.58-7.95)	6.91 (4.88-9.00)	7.43 (5.12-9.80)
3-hr	2.88 (2.47-3.40)	3.28 (2.81-3.88)	3.95 (3.37-4.69)	4.52 (3.83-5.38)	5.32 (4.36-6.48)	5.95 (4.76-7.32)	6.60 (5.09-8.25)	7.26 (5.37-9.26)	8.16 (5.80-10.6)	8.85 (6.12-11.6)
6-hr	3.38 (2.92-3.96)	3.87 (3.34-4.55)	4.73 (4.06-5.56)	5.49 (4.69-6.48)	6.61 (5.48-8.04)	7.52 (6.08-9.22)	8.48 (6.61-10.6)	9.51 (7.10-12.1)	10.9 (7.84-14.2)	12.1 (8.40-15.8)
12-hr	3.90 (3.39-4.53)	4.50 (3.91-5.24)	5.59 (4.84-6.52)	6.60 (5.68-7.72)	8.15 (6.84-9.92)	9.46 (7.72-11.6)	10.9 (8.56-13.5)	12.4 (9.35-15.7)	14.6 (10.6-18.9)	16.4 (11.5-21.3)
24-hr	4.45 (3.90-5.13)	5.18 (4.53-5.98)	6.54 (5.70-7.56)	7.82 (6.78-9.08)	9.83 (8.34-11.9)	11.6 (9.52-14.1)	13.4 (10.7-16.7)	15.5 (11.8-19.6)	18.5 (13.5-23.9)	21.0 (14.8-27.1)
2-day	5.07 (4.48-5.80)	5.93 (5.22-6.78)	7.53 (6.61-8.63)	9.05 (7.90-10.4)	11.4 (9.78-13.8)	13.5 (11.2-16.3)	15.7 (12.6-19.4)	18.2 (14.0-22.9)	21.8 (16.0-27.9)	24.8 (17.6-31.7)

April 24, 2025 – Storm Mode Request

- 120 Calls for service
 - Blockages – 43
 - Yard Flooding - 23
 - Street Flooding – 22
 - Home Flooding – 18
 - Barricades – 7
 - Other - 1

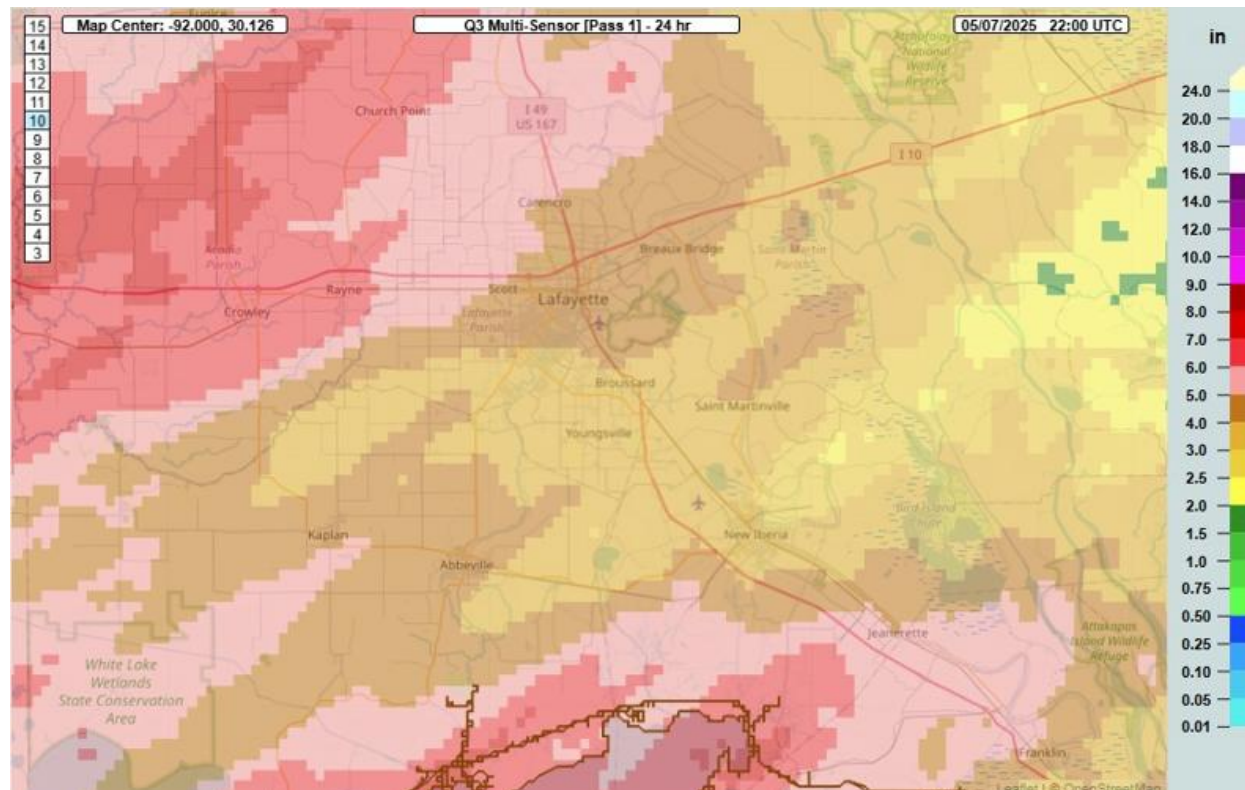
Home Flooding Reports



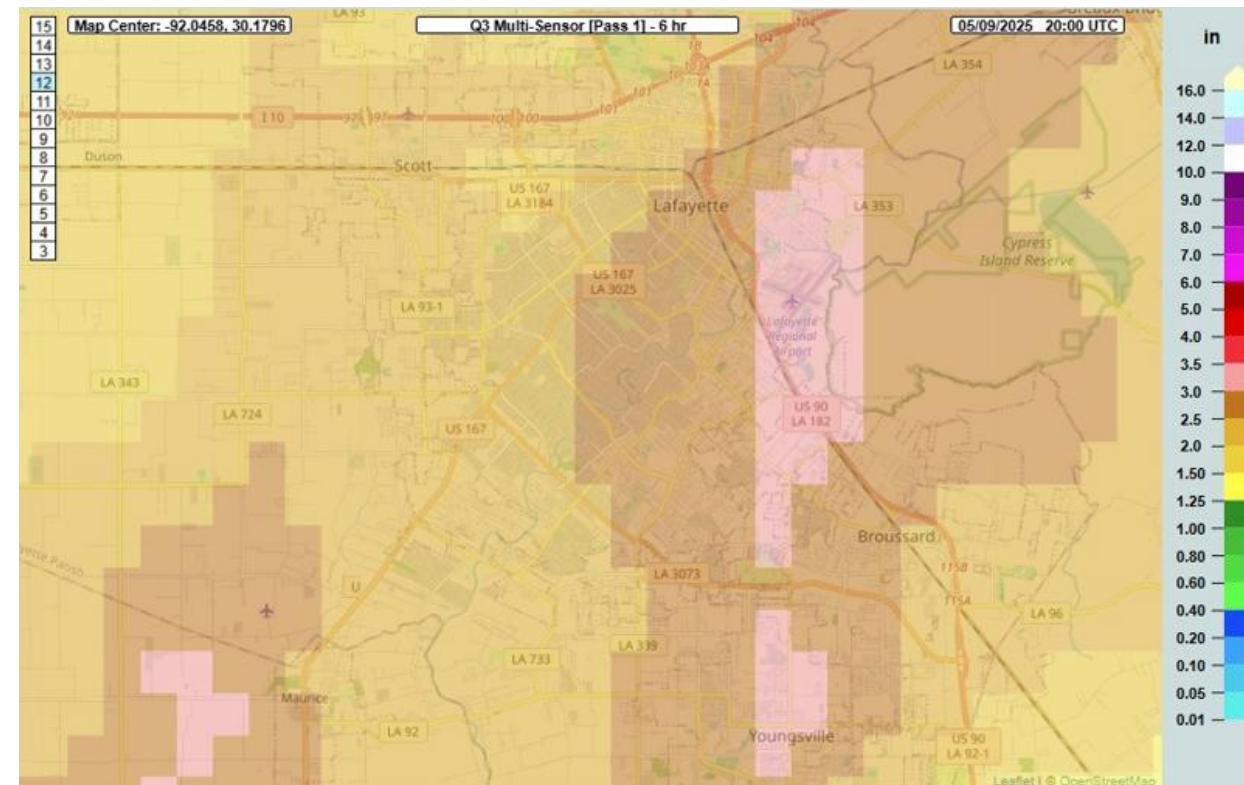
April 24, 2025



May 7, 2025
4-5 inches in 24 hours

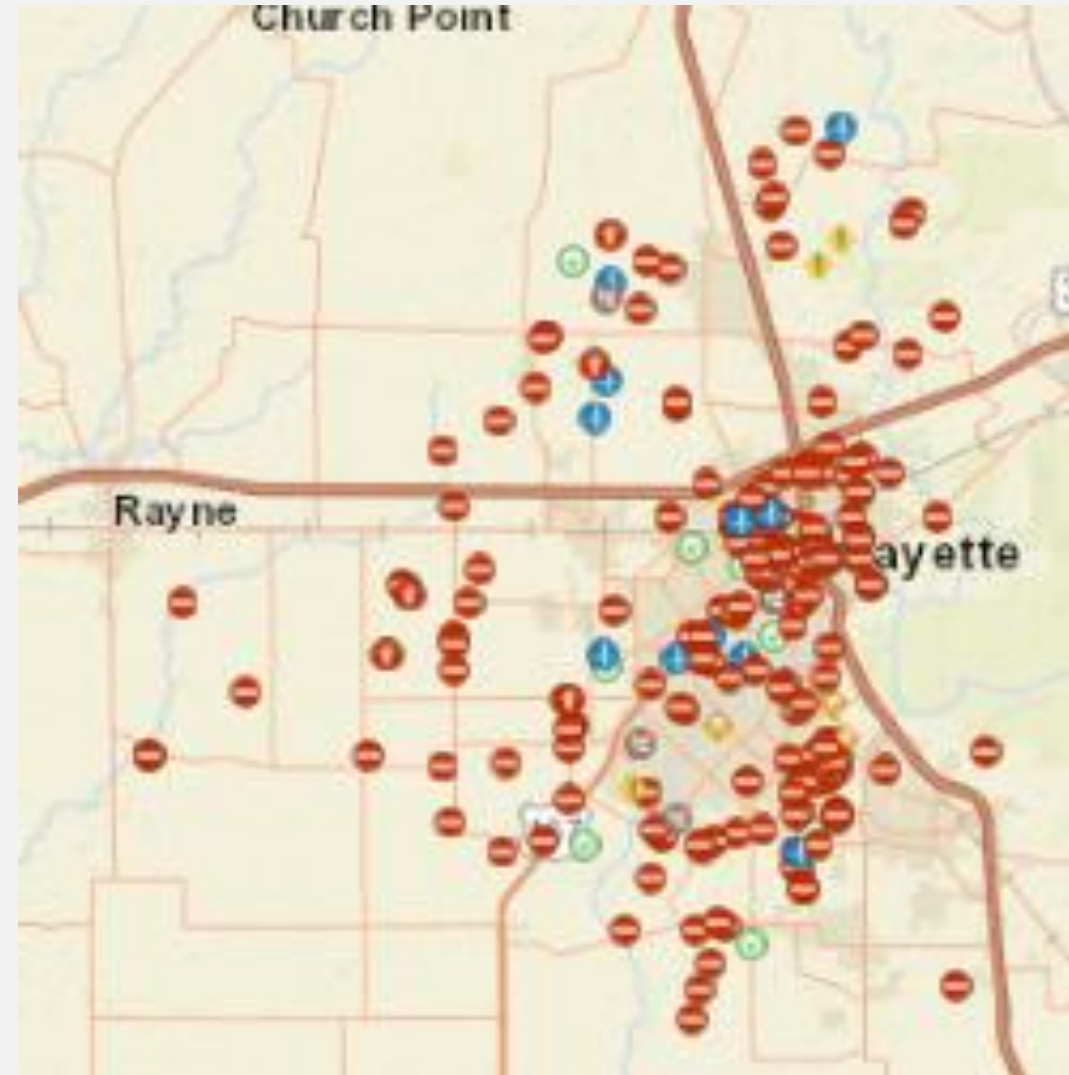


May 9, 2025
3.5 inches in 6 hours



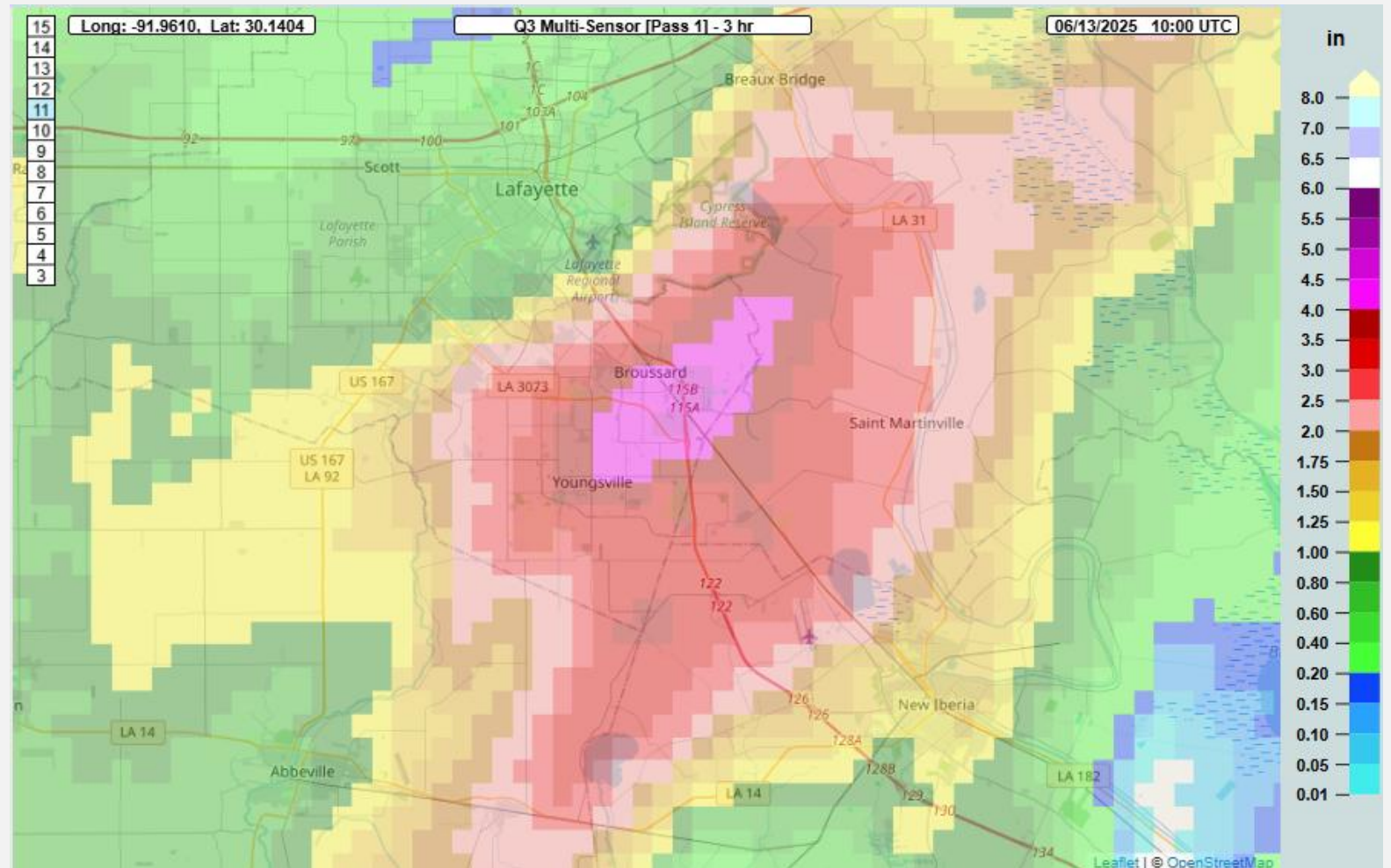
Week of May 5th to 9th, 2025 – Storm Mode Request

- 208 Calls for service
 - Blockages – 164
 - Yard Flooding - 10
 - Street Flooding – 13
 - Home Flooding – 5
 - Barricades – 9
 - Other - 7



June 13, 2025 – Storm Mode Request

- 43 Calls for service
 - Blockages – 14
 - Yard Flooding - 3
 - Street Flooding – 6
 - Home Flooding – 1
 - Barricades – 17
 - Other - 2



- Once an emergency event occurs, we **capture** the information from damage.la.gov and LCG's Storm Mode into a **GIS Heat Map** to show **areas of concern**.
- LCG departments analyze the data to assist in **prioritizing** available **funding sources** and **related projects**.

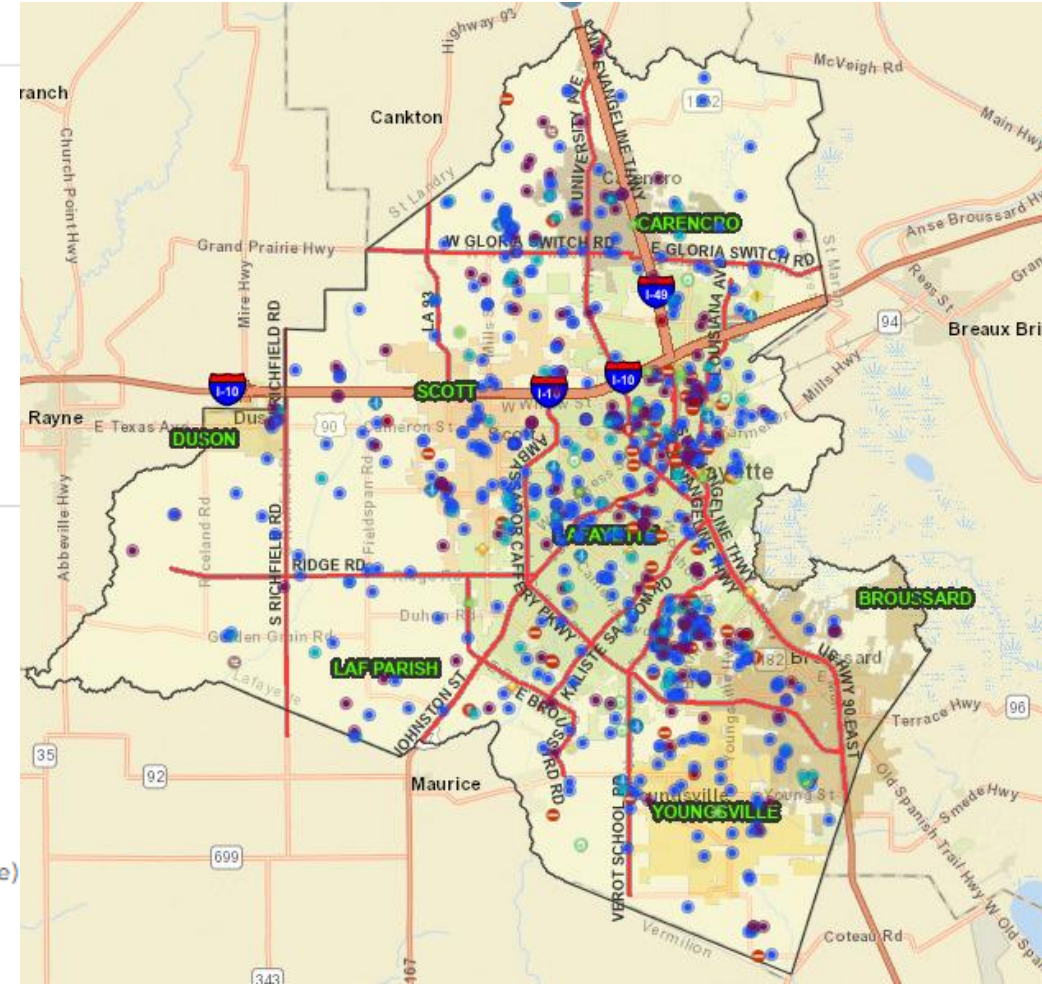
Legend

GOHSEP_PDA_IA_0

- destroyed
- major
- minor
- affected
- unaffected
- inaccessible

StormMode_Callouts

- Blockages
- Street Flooding
- Yard Flooding
- Home Flooding
- Barricades
- Trees/Limbs (Drainage)
- Trees/Limbs (Streets)
- Sinkhole/Cave-in



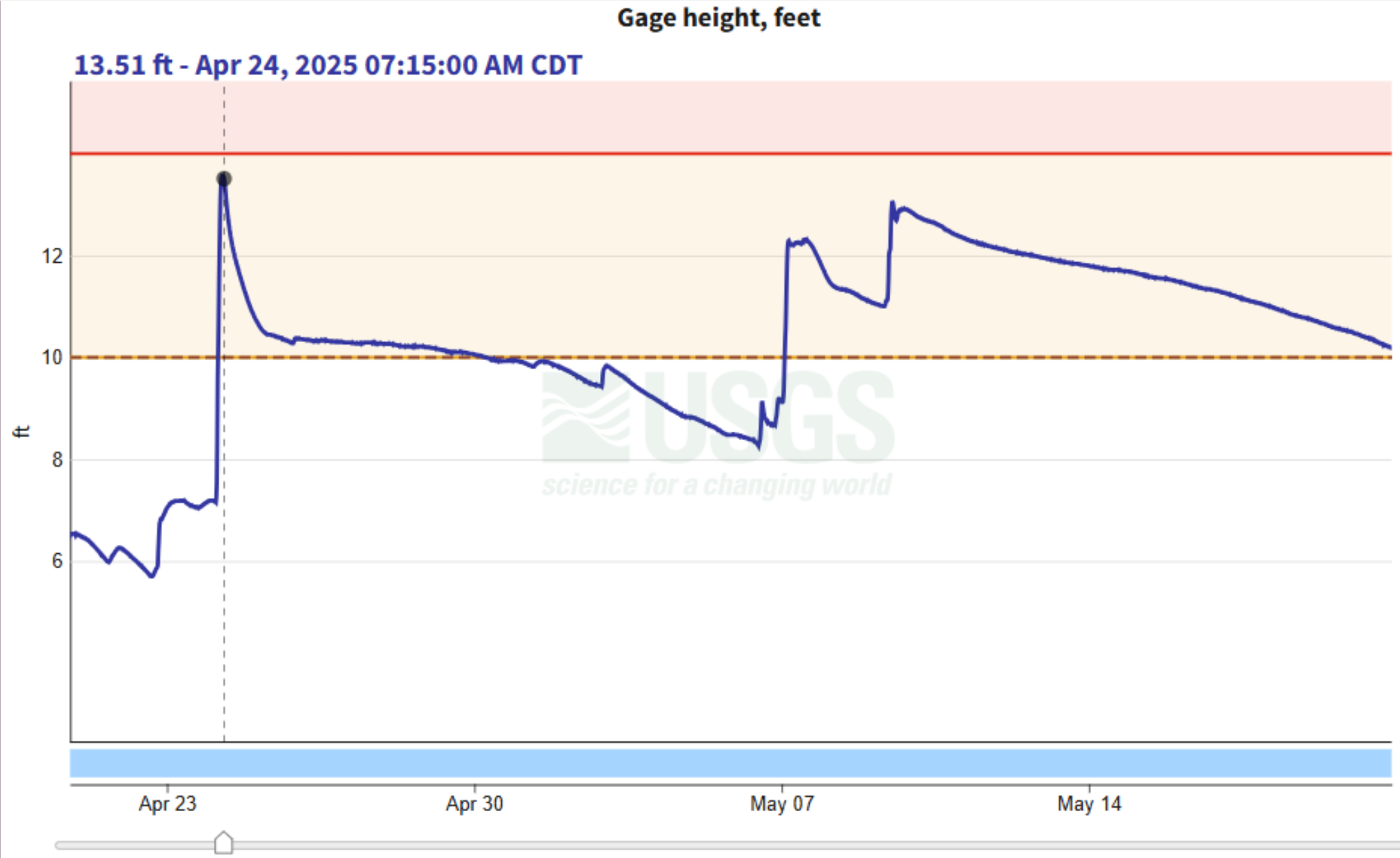
From Gutters to Groundwater—Your Role Matters

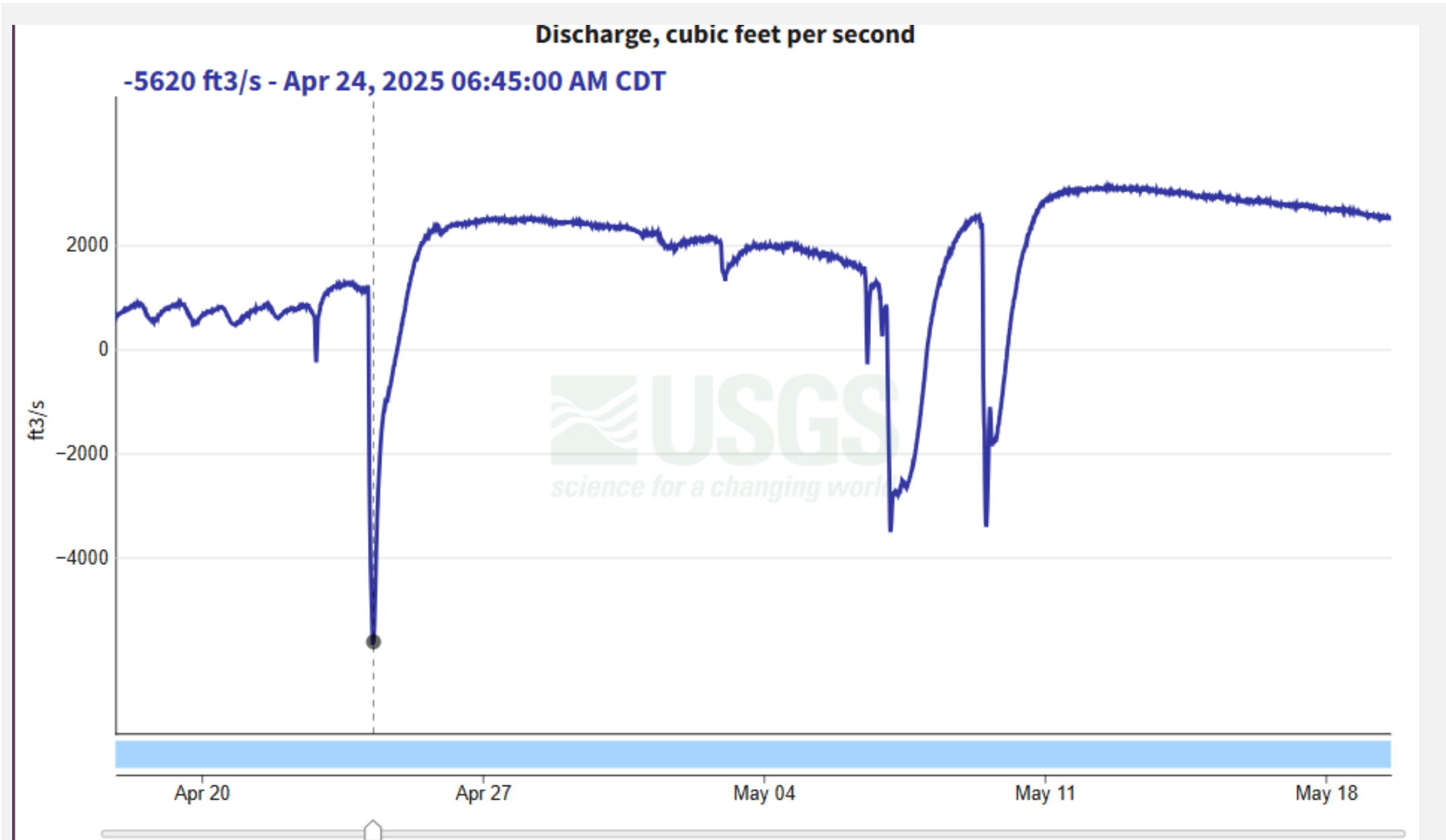
- **Keep it Clear**—Clean leaves and debris from storm drains, gutters, downspouts, inlets, and roadside ditches. Avoid blowing yard waste into the street.
- **Mind What You Dump**—Never pour oil, paint, chemicals, or grease down storm drains. Dispose of trash and bulky items properly.
- **Know Your Risk**—Stay tuned to official weather reports and prepare accordingly for heavy rain. Use sandbags or temporary barriers if your property is prone to flooding.
- **See something? Say Something.**—*Report clogged drains, illegal dumping, or drainage problems through 311.*
- **Document** flood impacts to your property.



What Influences the Vermilion River?

- The tides in **Vermilion Bay**. When the Vermilion Bay is high the Vermilion River will also stay high and drain slow.
- **Northern Waters** –Waters from Rapides, St. Landry, Avoyelles, and Evangeline Parish all flow through the Vermilion River
- Roughly 23 Smaller channels or **Tributaries** drain through the Vermilion River
- **Minimal elevations** a difference of 3 feet of elevation over 30 miles from Lafayette to Vermilion Bay





What does Lafayette's drainage network look like?

Drainage System Component	Count
Earthen Channels	850 miles
Concrete Lined Channels	30.4 miles
Roadside Ditches	1,400 miles
Subsurface Culverts	300 miles
Bridges	440
Box Culverts	59
Inlets	27,019
Culverts	29,960
Pump Stations	5
Retention Pond Systems	6
Underground Stormwater Detention Basins	2

Drainage is a Year-Round Job

- Annual adoption of Lafayette Parish Official Drainage Map
- **13,678 linear feet** (2.5 miles) of earthen channels excavated
- **356,234 linear feet** (67 miles) of excavated ditches
- **146,296 linear feet** (28 miles) of culvert flushing and vacuuming
- Culvert flushing program resulted in roughly 700 cubic yard of debris
- Culvert replacement resulted in 2,171 linear feet replaced or installed
- Cleaning of 27 concrete lined coulees that covered 48,550 linear feet (**9 miles**) removing 3,000 cubic yards of debris



PROJECTS UNDER CONSTRUCTION ~\$82.3 M – 6 PROJECTS

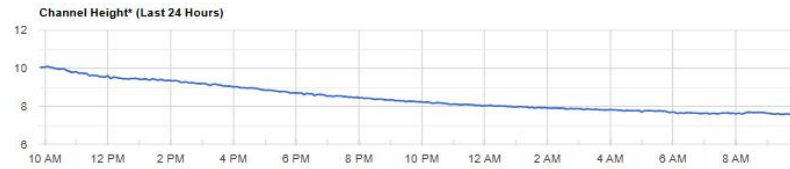
Bayou Vermilion Flood Control
Vermilion River Spot Dredging
Downtown Drainage Inlet Installation
Localized Flood Mitigation Contracts 21 & 22
River Oaks Subdivision Detention
Millcreek Drainage Improvement



PROJECTS UNDER DESIGN ~\$11M – 8 Projects

Localized Flood Mitigation Contracts 25 & 26
Tideland Road Outfall (Coulee Des Poches)
Pembroke Drive Drainage
UPA Concrete Coulee Repair
Coulee Mine East Flood Control
Isaac Verot Coulee Lateral IV
Concrete Lined Coulee Maintenance

10 Existing Water Level Sensors 10 Additional Sensors planned



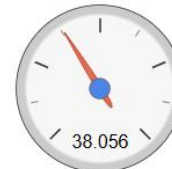
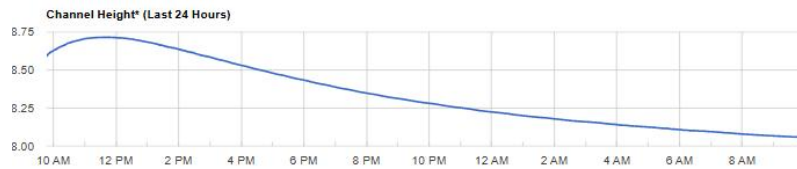
Current Channel Height*



Click Picture to Zoom

Height is measured in 'Feet above Sea Level'

Coulee Mine(East) / Malapart [See Voltages](#)



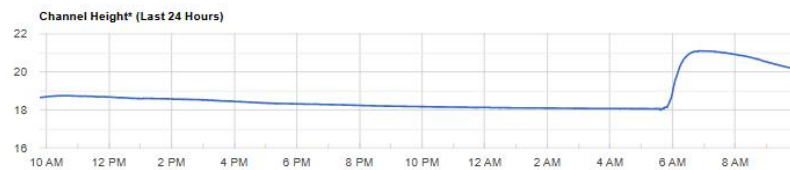
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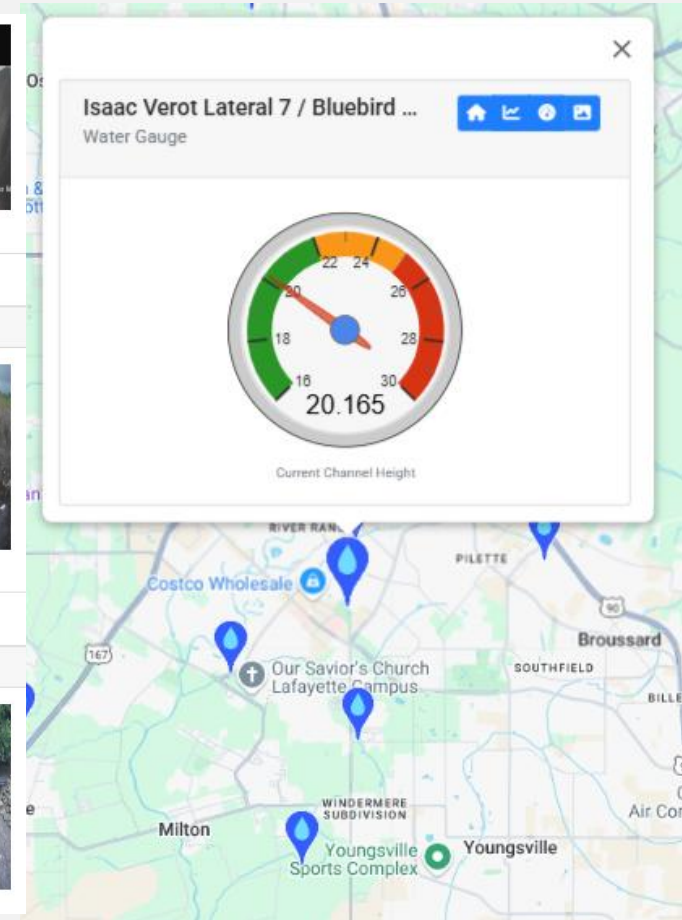
Isaac Verot Lateral 7 / Bluebird Dr [See Voltages](#)



Current Channel Height*



Click Picture to Zoom



Living Data and
Hydraulic Model
Management

Stormwater
System
Maintenance

Stormwater
System Capital
Improvements

Funding
Strategy / Grant
Applications

Regulatory
Improvements

Community
Engagement
and Education

Near-Time Flood
Warning System

FEMA Community
Rating System (CRS)

QUESTIONS



Lafayette
CONSOLIDATED GOVERNMENT