

Evaluation of LA's Serious Chemical Releases (2020-2023)
Performed in Support of
Proposed 2025 Real-time Fenceline Monitoring Legislation

Together Louisiana Rapid Response Meeting
April 10, 2025

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Greater New Orleans Climate Reality Project

Acknowledgement: Fenceline Monitoring Legislation Technical Team
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LA Serious Chemical Releases Evaluation

(Aug '20 – Aug '23)

□ LA: Highest US Rate of “Serious” Chemical Release Accidents

■ Chemical Releases Resulting in:

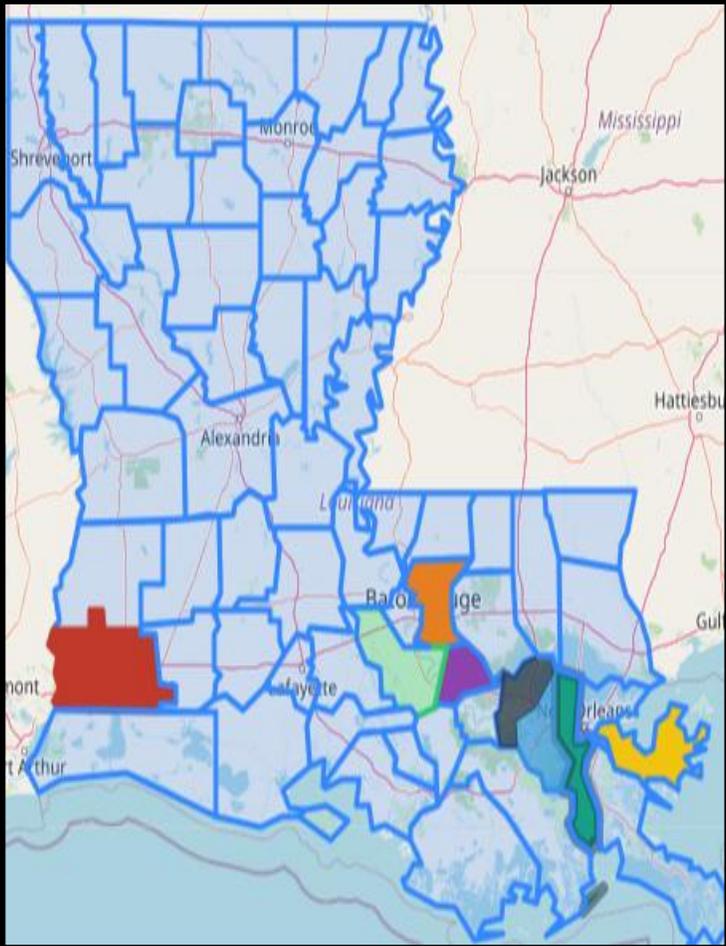
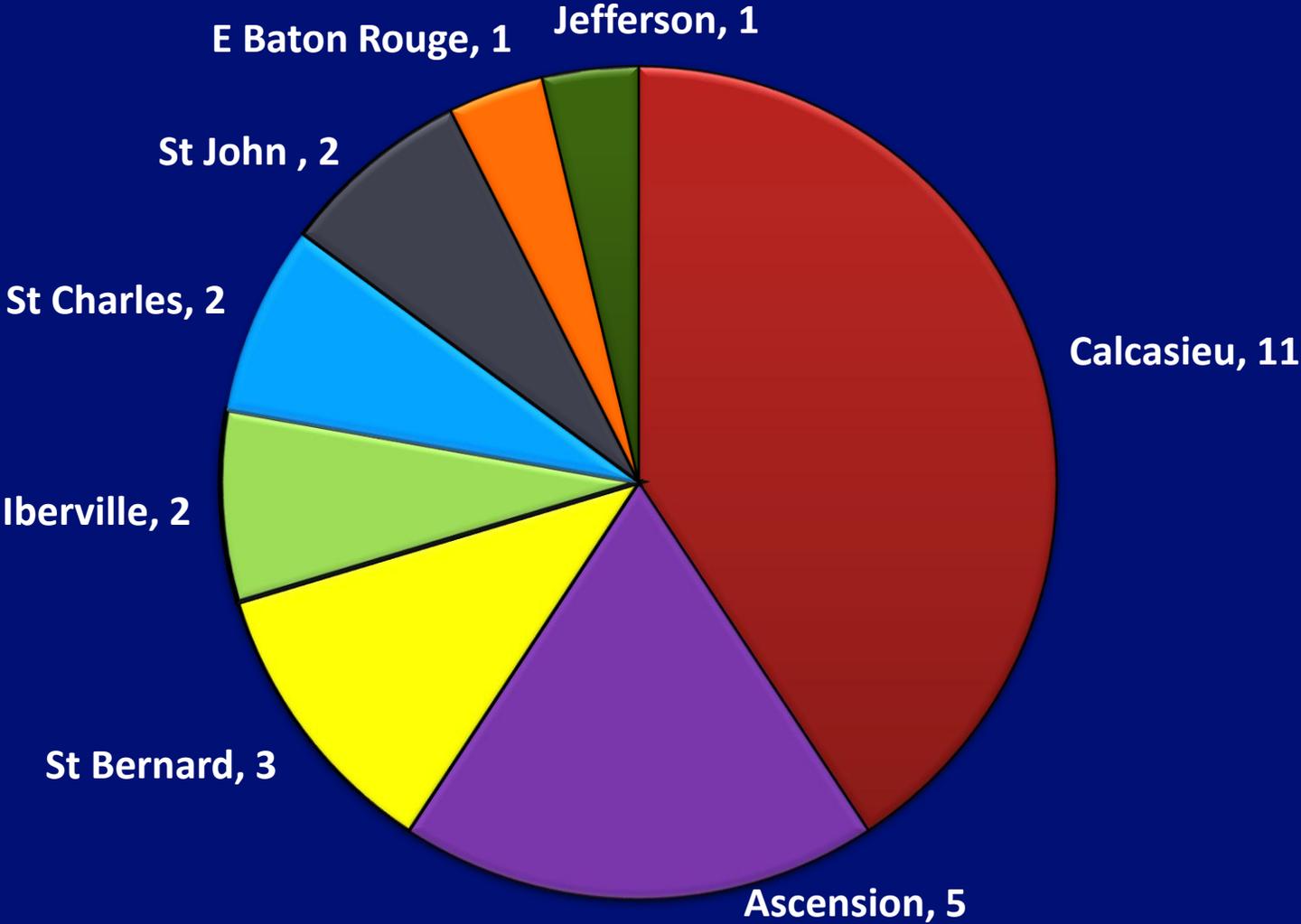
- Deaths
- Injuries
- Evacuation Orders
- Shelter-In-Place Orders

□ LA Dept. of Environmental Quality (LDEQ) Alert Notifications

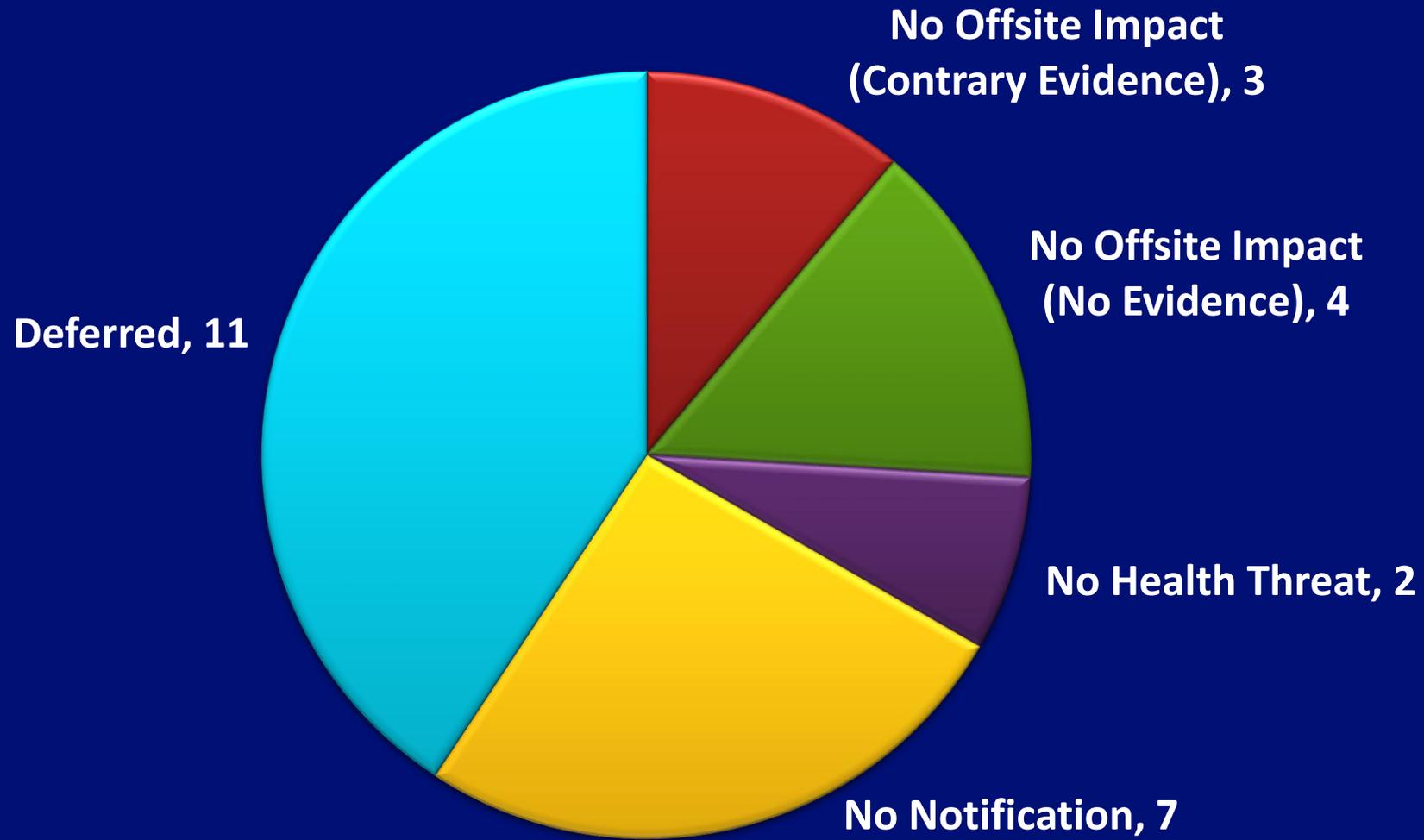
- “No Offsite Impact”
- “No Health Threat”
- No Notification
- Deferred to facility or parish officials



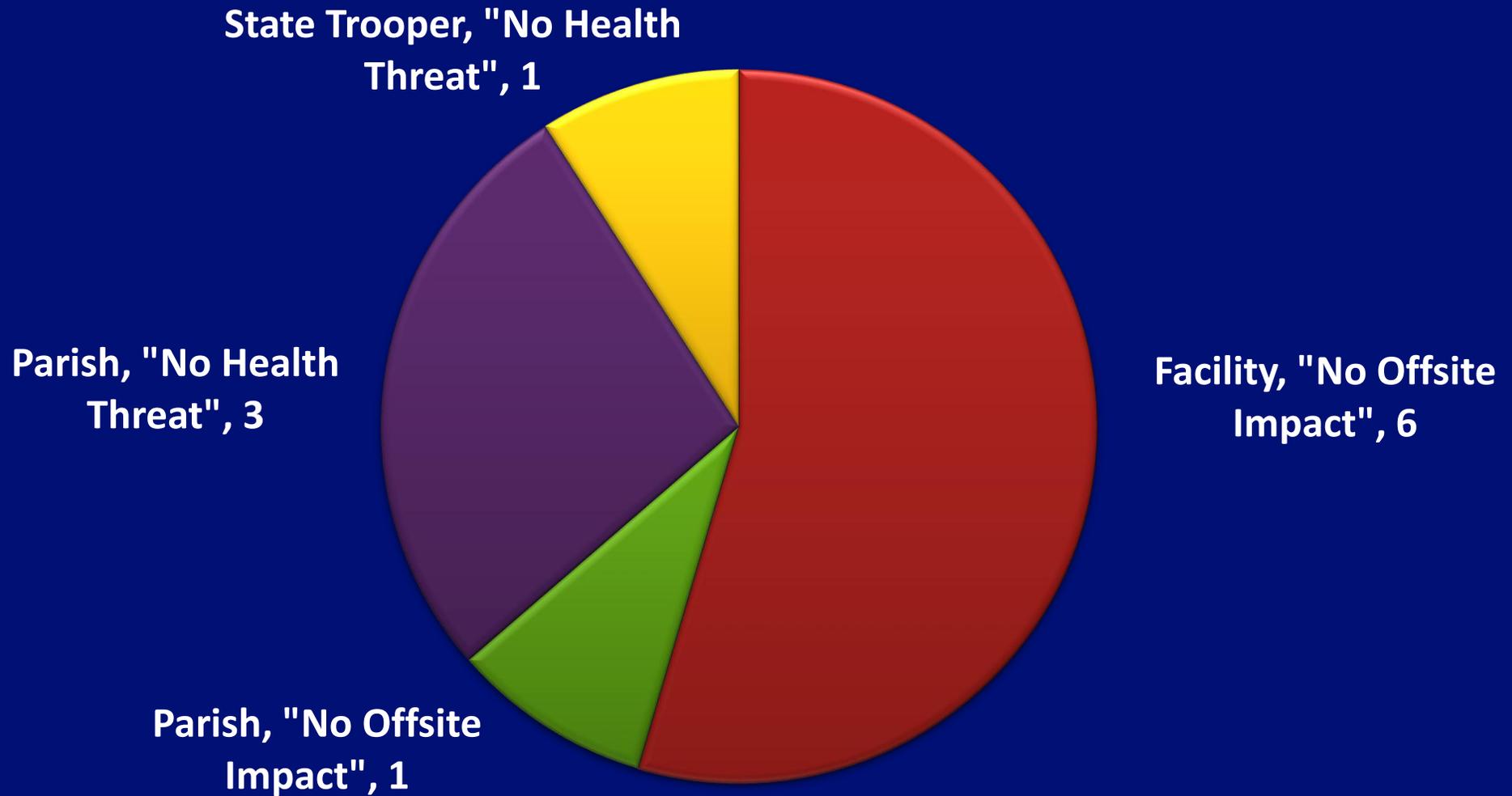
Results: 27 Serious Incidents at 18 Facilities, 8 Parishes



LA Dept of Environmental Quality Public Alert Notifications



11 LDEQ Deferred Public Alert Notifications



Impacts of 27 Serious Incidents (8/'20 – 8/'23)

□ 3-Year Population Impacts

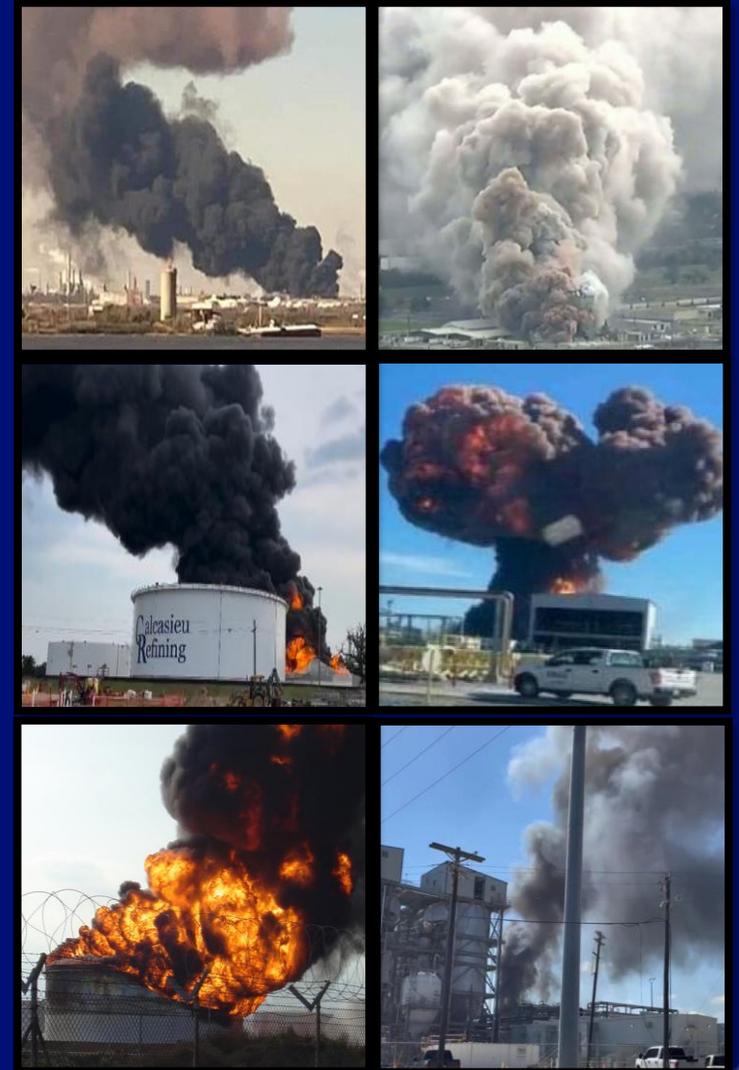
- >1,166,000lbs Pollutants Released
- 2 Deaths
- 123 Hospital Visits
- >16,700 Evacuated*
- >106,200 Sheltered in Place*

□ 3-Year Facility Costs

- >\$130 million in fines/penalties
- 36 Wrongful Death & Worker Injury Lawsuits
- >10,000 Residents represented in Class Action Lawsuits

□ # Timely, Accurate Public Notifications = 0

**Majority orders lifted prematurely*



2025 Proposed Real-time Fenceline Monitoring Legislation

❑ Evidence-based, Protective, Cost-Effective

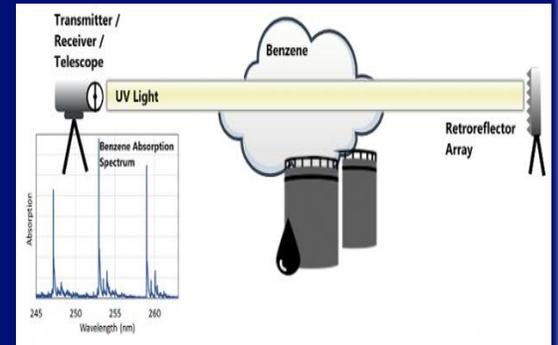
- 17 highest risk pollutants
- 115 highest risk facilities
 - 96 chemical manufacturing facilities
 - 19 petroleum refineries

❑ EPA-Recommended Open Path Monitors

- Uses light beams to detect up to 100 pollutants (up to 500 m)
- Costs: \$250,000 - \$600,000 Capital, \$25,000 Annual
 - 4 monitors, 4 equipment shelters, meteorologic station

❑ Data Dissemination Website & Real-time Alert System

- Costs: \$2,000 - \$3,500/facility Capital, \$40,000 Annual



Two Notification Examples

Westlake Chem & Vinyls (Calcasieu), 105-Min Vinyl Chloride Leak, 12/14/21

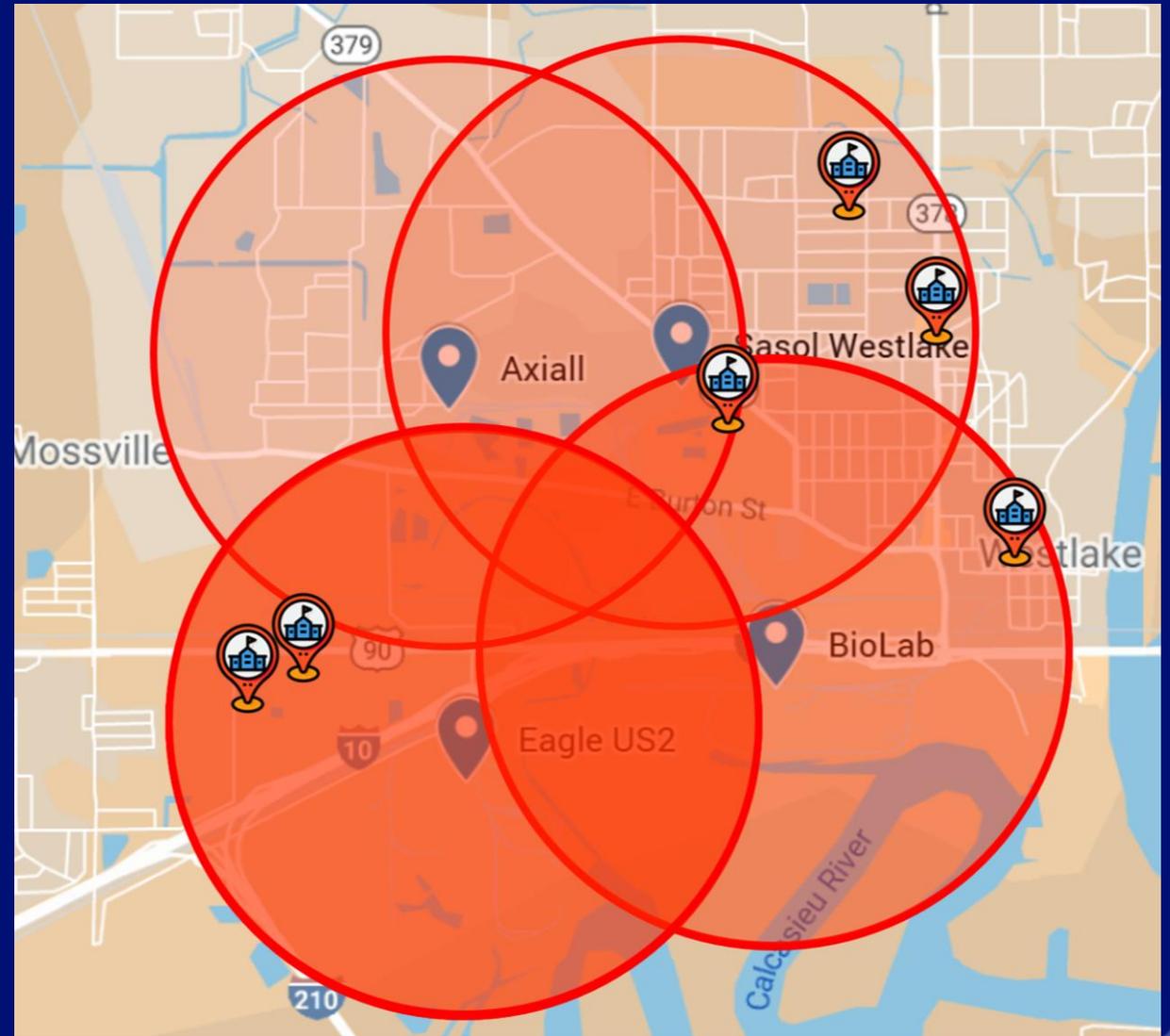


“No Notification”

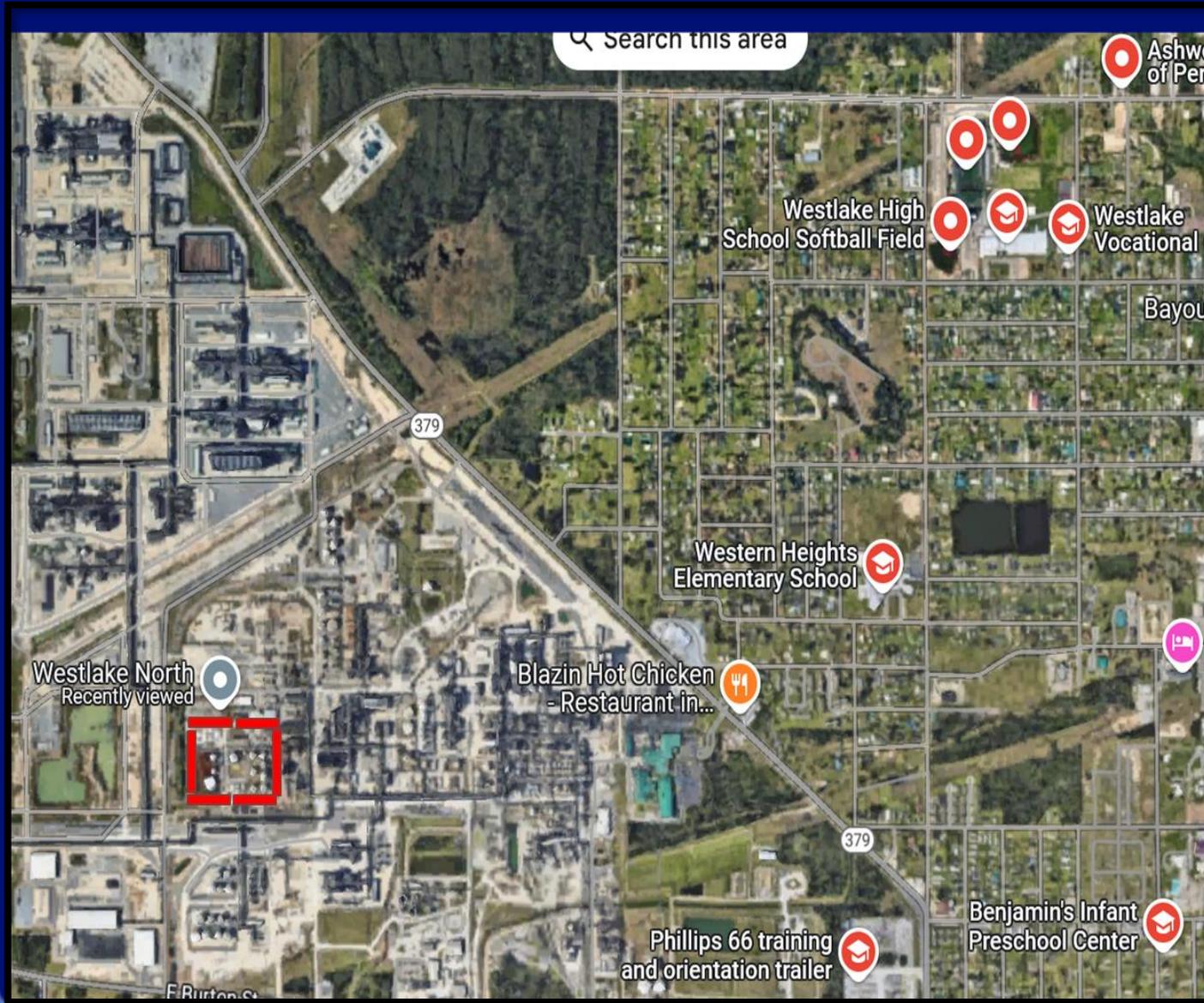
- ❑ **12/14 3pm:** Westlake detects quench tower leak
 - **3:10pm:** Westlake, Sasol workers shelter-in-place
 - **4:30pm:** LDEQ responder arrives
 - **4:45pm:** Leak secured
- ❑ **Impact**
 - *14,800lbs Vinyl Chloride (3 x annual emissions)*
 - *Population 3-mi radius*
 - *17,500 residents*
 - *6 schools, 2,045 students (aged 18 mos – 18 yrs)*
 - ***Residents, schools, public never informed***
- **Vinyl Chloride**
 - Liver, Brain & Lung Cancer, Lymphoma, Leukemia
 - CNS Damage, Miscarriages, Birth Defects

7 of 11 Calcasieu Releases Cumulative Exposures (1-mi radius)

- **Most Exposed Populations**
 - 4 Elementary, 1 Middle, 1 High School
 - >20,000 Residents
- ❑ **768,440lbs Pollutants Released**
 - Vinyl Chloride
 - Benzene
 - Chlorine Gas
 - Anhydrous Ammonia
- ❑ **LDEQ Notifications**
 - 3 No Notifications
 - 2 “No Offsite Impact” (Contrary Evidence)
 - 1 “No Health Threat”
 - 1 Facility, “No Offsite Impact”



2021 Westlake Chem & Vinyls Release (2nd Largest US PVC Mfg)



Monitoring/Alert System Costs

- ❑ 6 Open Path Monitors
 - \$375,000 Capital
 - \$25,000 Annual Maintenance
- ❑ Data Dissemination/Alerts
 - \$3,500 Capital
 - \$40,000 Annual Maintenance

Westlake Chem & Vinyls Revenue

- ❑ 2021 Earnings: \$11.8 billion
- ❑ ITEXP '98-'24: \$4.5 billion
 - Annual Avg: \$194 million

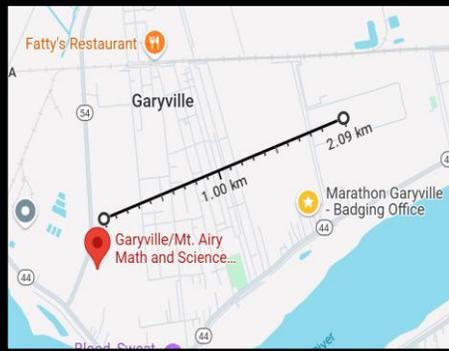
Marathon Refinery (St. John), 8-Hr Naphtha Leak & 96-Hr Fire 08/24/23



"No Offsite Impact" (Contrary Evidence)

- ❑ **8/24 9:10pm:** Benzene leak detected at fenceline
- ❑ **8/25 6:30am:** Naphtha tank ignites
 - **7:20am:** LDEQ detects 250ppm VOCs offsite
 - **9:00am:** 2nd tank ignites
- ❑ **10:15am: Press Conference**
 - Parish Pres., 2-mi evacuation of residents, all schools west of Marathon
 - Marathon, *"any impacts have been contained to the Marathon site"*
- ❑ **2:30pm:** Evacuation lifted, flare-ups fires continue
- ❑ **8/26 1:30am:** 3rd tank ignites
- ❑ **8/28 7am:** All fires extinguished
 - **4pm:** LDEQ, *"it was non-detects the whole time."*

Marathon Fire School Evacuation 08/25/23



□ 10:15am: Press Conference

- 2 Tanks Engulfed
- 1-mi high, 60-mi PM2.5, Benzene plume over Garyville
- Garyville/Mt. Airy Magnet School Evacuation
 - 300 K-8th grade students
- Parent pick-up wait times >30 min
- Remaining bused to E. St. John Elementary

□ PM2.5 Health Effects

- Heart Disease & Attacks, Stroke, Premature Death

□ Benzene Health Effects

- Leukemia, Nervous System Damage

Marathon Fire Resident Evacuations 08/25-26/23



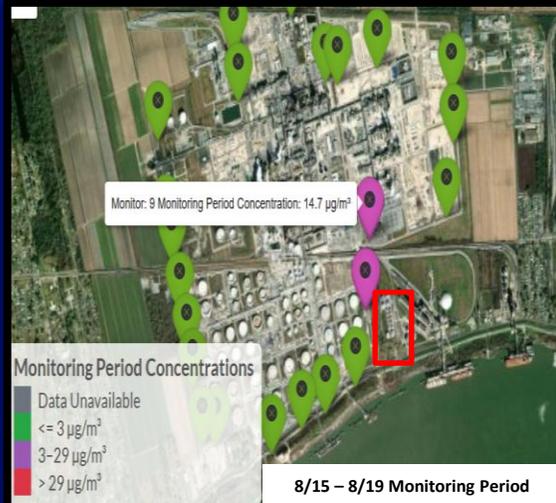
I didn't feel safe.
We took a chance
coming back.



- ❑ **8/25 1:00pm:** Plume rotated 180° east
- ❑ **8/25 2:30pm:** All Clear Order
 - Martinez family, 4-month-old return
 - Lions 1,000 ft east of Marathon
 - Photographed plume which remained for 24hrs
- ❑ **8/26 9:00am:** (3rd tank engulfed) Marathon 2nd statement, *“air monitoring continues to indicate non-detectable impacts”*
- ❑ **8/26 9:30am:** Marathon asked sheriff to quietly re-evacuate Lions
 - Deputy 911, *“tell them to get the hell out”*
 - Martinez family never notified
 - Benzene >3 times acute exposure standard



Martinez Photo 8/25 6:44pm



Marathon Garyville (3rd Largest US Refinery)



Impact

- >48,000lbs pollutants released
- >8,000 residents exposed
- >2,800 residents evacuated
- 29 residents treated at hospitals
- 5 Class Action Suits

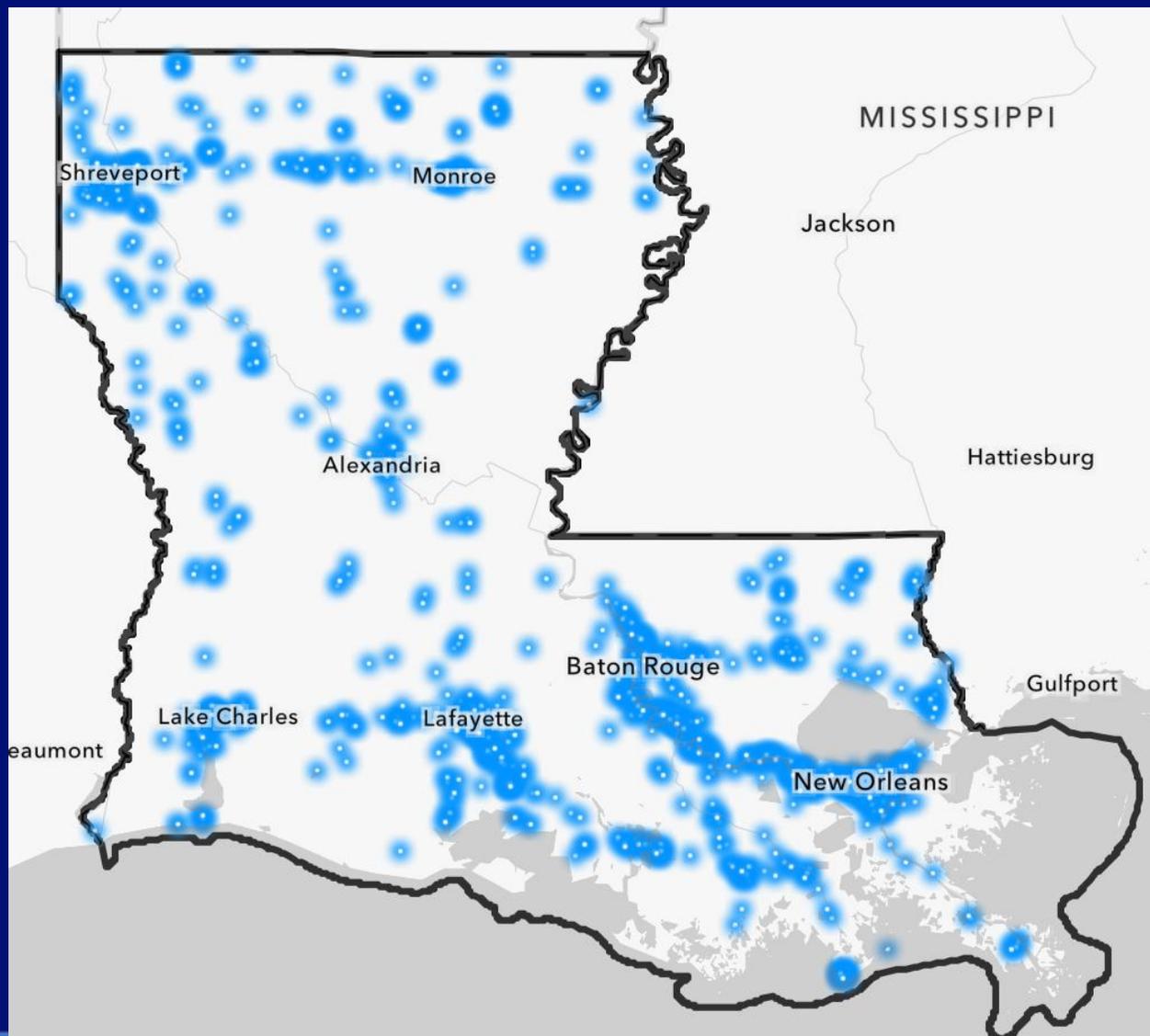
Monitoring/Alert System Costs

- 10 Open Path Monitors
 - \$628,500 Capital
 - \$65,000 Annual Maintenance

Marathon Revenue

- 2023 Earnings: \$9.7 billion
- ITEP '98-'23: \$9.1 billion
 - Annual Avg: \$364 million

LA's 115 Chemical Manufacturers & Refineries



Questions

References available upon request.

Email: boothevickiel@gmail.com

St. John High School Football Jamboree 8/26/2023



MARATHON REFINERY FIRE
ELISEANNE COCO
EDNA KARR PARENT

She trusts the schools. "I know they are not going to put the kids in harm."



MARATHON REFINERY FIRE
DARVIN RILEY
EDNA KARR PARENT

"As long as the kids are able to play a good game and get over it, we'll be alright."

9:00am E St John High School

- 6 LA High Schools
- Pre-game practice/celebration
- 3 football games

Fox 8 interviews parents

- Concerns about visible black smoke

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