

Odor Response Update

Wet Weather
Stakeholder Team

November 29, 2023



Agenda

- 💧 How did we get here?
- 💧 How is MSD responding?

How Did We Get Here?

November 29, 2023



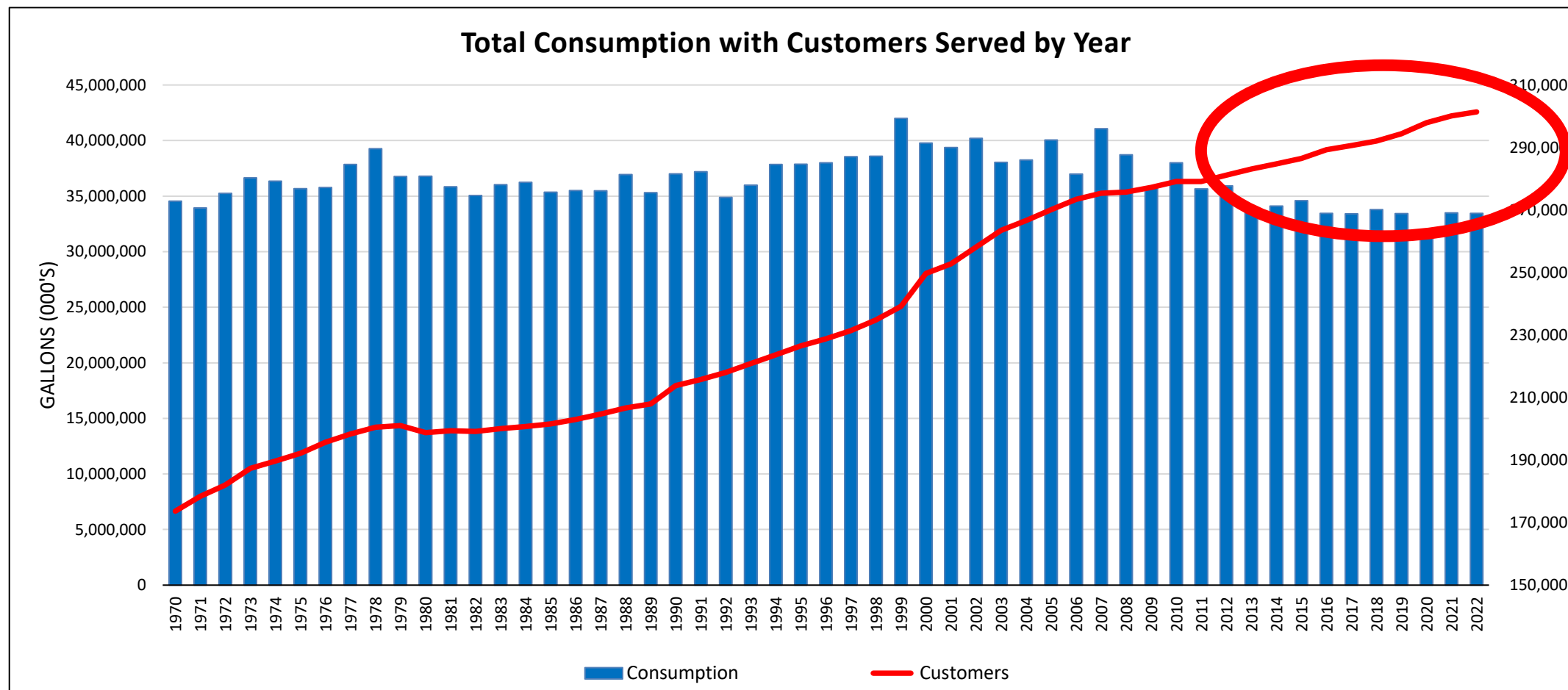
How Did We Get Here?

4 Primary Sources of Sewer Odors

- ◊ Combined Sewer System – oversized system of pipes, manholes and catch basins built to accommodate both rain water and daily sewer flow, designed to be flushed by rain into the rivers/creeks
- ◊ Separate Sanitary Sewer System – inadequate flushing flows from lower daily water use and other water sources
- ◊ Pump Stations and Force Mains – extended flow travel times and warmer temperatures (ground, air and flow increases sewage decay)
- ◊ Treatment Plants – solids handling and process components that are open to the air (not covered systems)

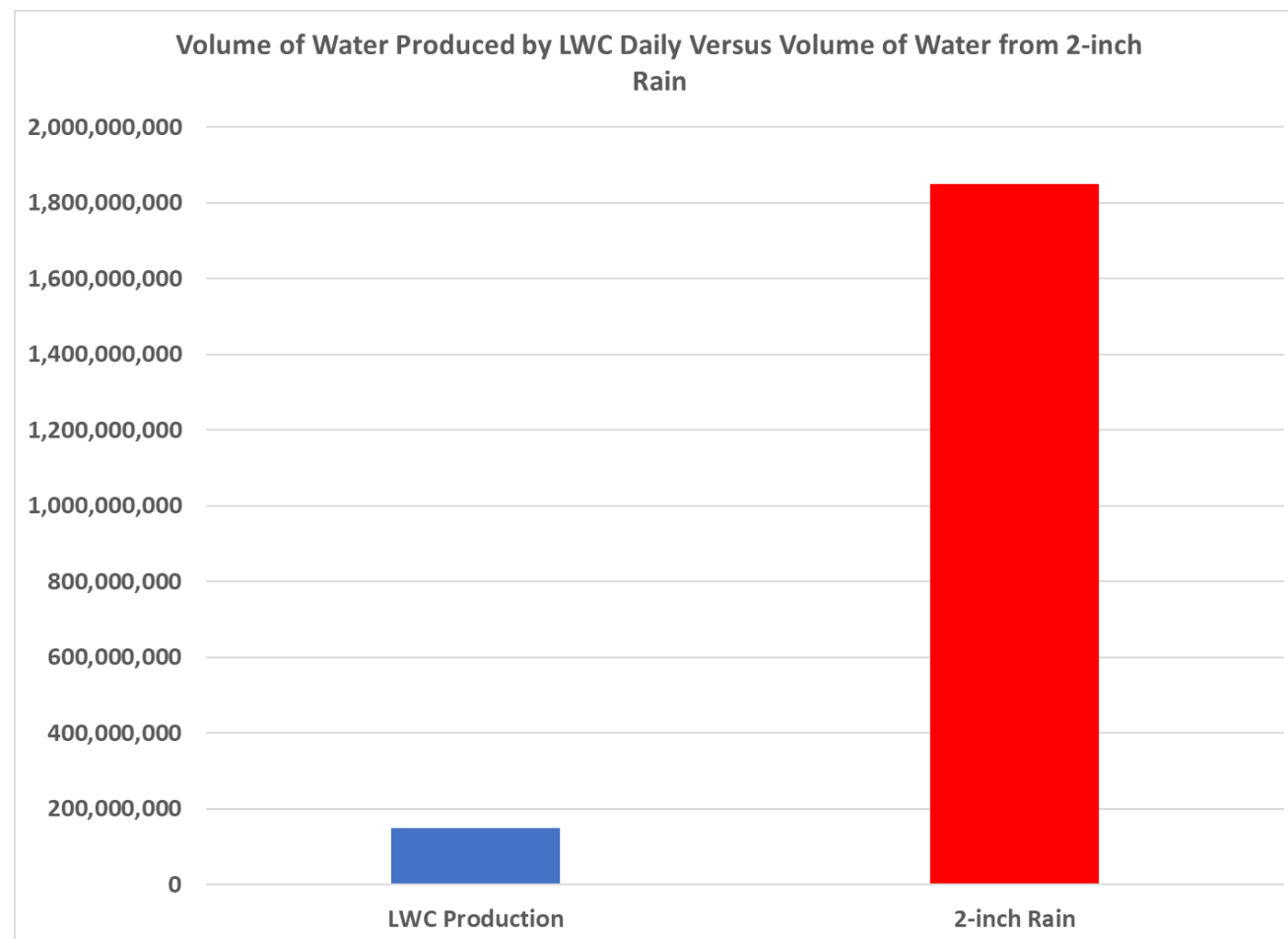
How Did We Get Here?

Population Growth vs Water Use Decline



Perspective on Flushing via Fire Hydrants vs. Rainfall

- Louisville Water produces 150 Million Gallons per day of tap water for 5 counties.
- Period of 135 consecutive days in calendar year 2023 without an inch or more of rain
- The two inches of rain over the weekend of October 28th produced 1.85 **Billion** Gallons of water over Louisville Metro



How is MSD Responding?

November 29, 2023



CLAIRity

PROGRAM

Launched in
November 2021

Comprehensive, responsive, and proactive odor mitigation

Far reaching: all MSD assets where odor can be generated

Customer focused: our commitment to being a good neighbor



[Home](#) → [Odor Control](#)

Odor Control

Smell Something. Say Something.

[Report an Odor to MSD →](#)

We Can Help



[Report a Problem >](#)



[Contact Us >](#)



[Pay My Bill >](#)

Call us 24/7: (502) 540-6000

On-Going Communications

YouTube Program Videos

cLAIRity Program Louisville MSD 111 views • 10 months ago	MSD cLAIRity Video 1 Louisville MSD 408K views • 2 months ago	MSD cLAIRity Video 2 Louisville MSD 196K views • 2 months ago	MSD cLAIRity Video 3 Louisville MSD 600K views • 2 months ago

Live Stream Public Meetings

Southwest Louisville MSD Odor Mitigation Public... 31:43	Cedar Creek MSD Odor Mitigation Public Meeting 1:00:22	Morris Forman MSD Odor Mitigation Public Meeting 1:01:17	Downtown MSD Odor Mitigation Public Meeting 1:12:35

Odor Focused Social Media Posts

Targeted Messaging with El Toro

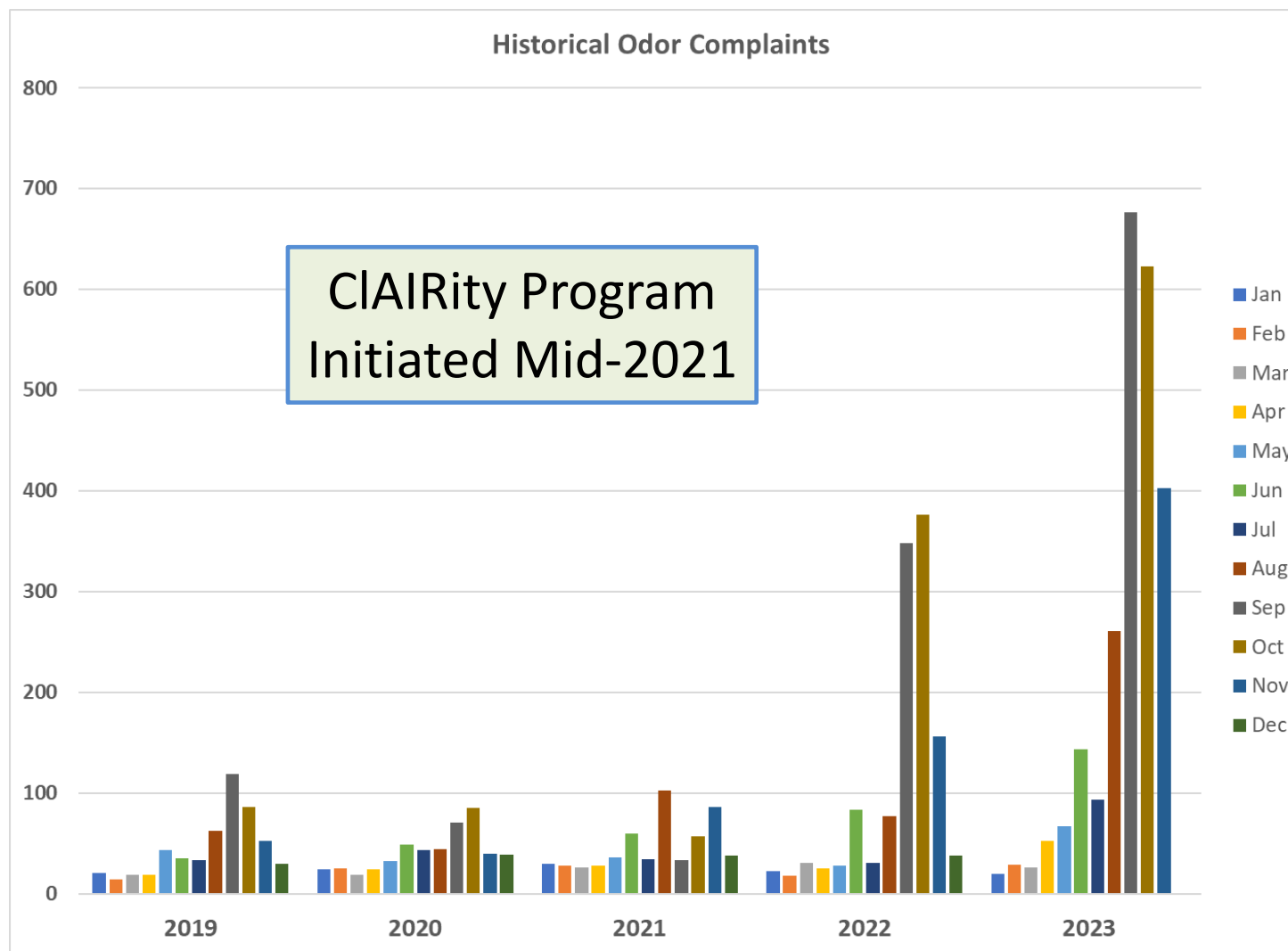
Managed by El Toro Communications

Order Lines	Device Distribution				Domain Distribution
Park DuValle Odors	Device Type	Impressions	Clicks	CTR	
	mobile phones	52,774	45	0.09%	foxnews.com
	desktops & laptops	10,371	9	0.09%	huffpost.com
	tablets	2,951	2	0.07%	newsweek.com

Impressions	Clicks	CTR
66,096	56	0.08%

people.com
wave3.com
on3.com
courier-journal.com
cnn.com
cbssports.com
usatoday.com

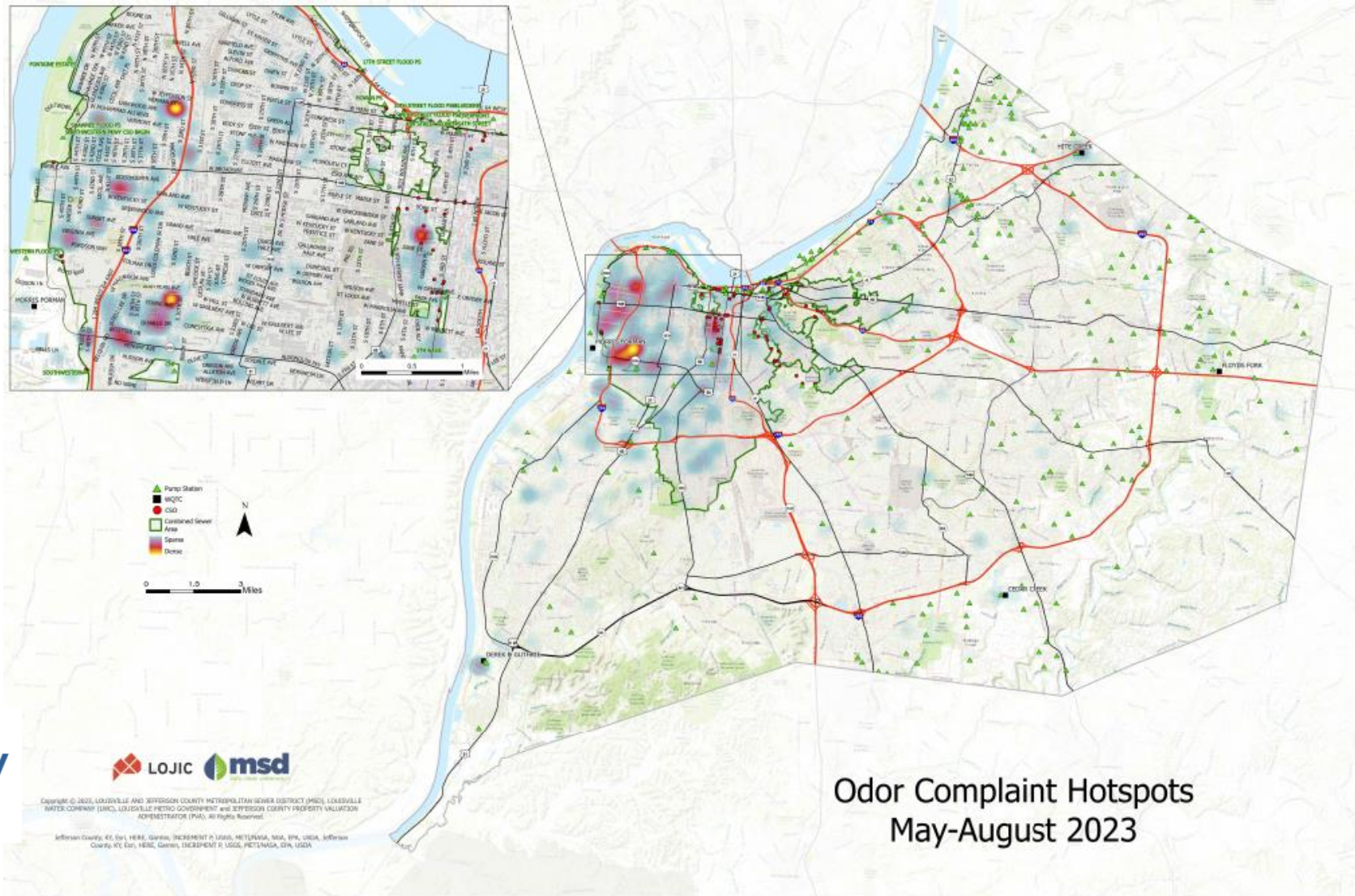
MSD Outreach Efforts Result in Increased Odor Notices



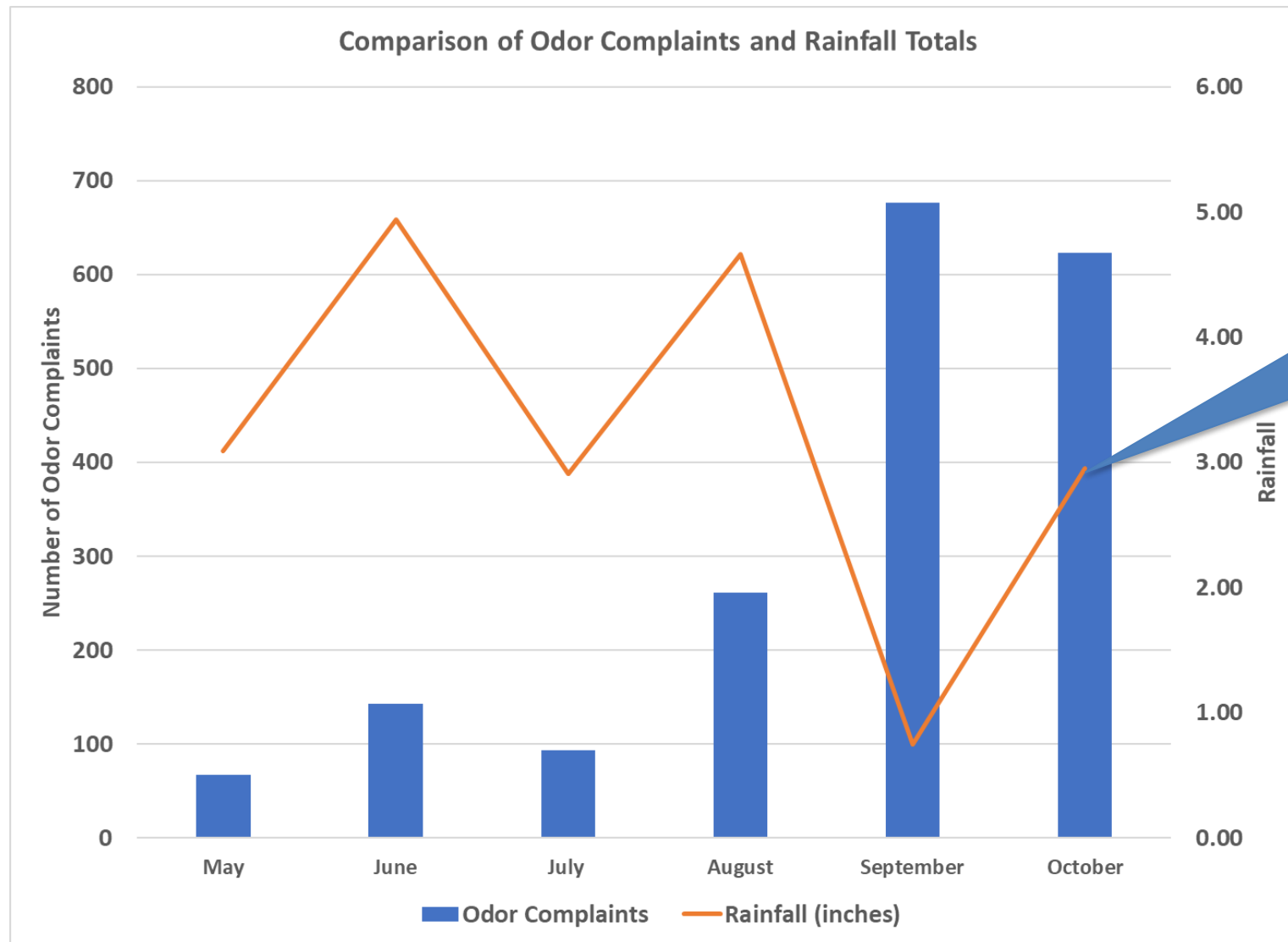
More Recent Odor Complaints Received

- 🔹 High Volume of Odor Issues
- 🔹 Primarily in the Combined Sewer System
- 🔹 Continued increase in number of Odor Issues in the Sanitary Sewer System
- 🔹 Each request or complaint is responded to that day
- 🔹 Range from less than 5 to more than 50 complaints a day

Odor More Prevalent in West Louisville ... But Sewer Odor Exists Across Louisville Metro



Rainfall Reduces Odor Complaints



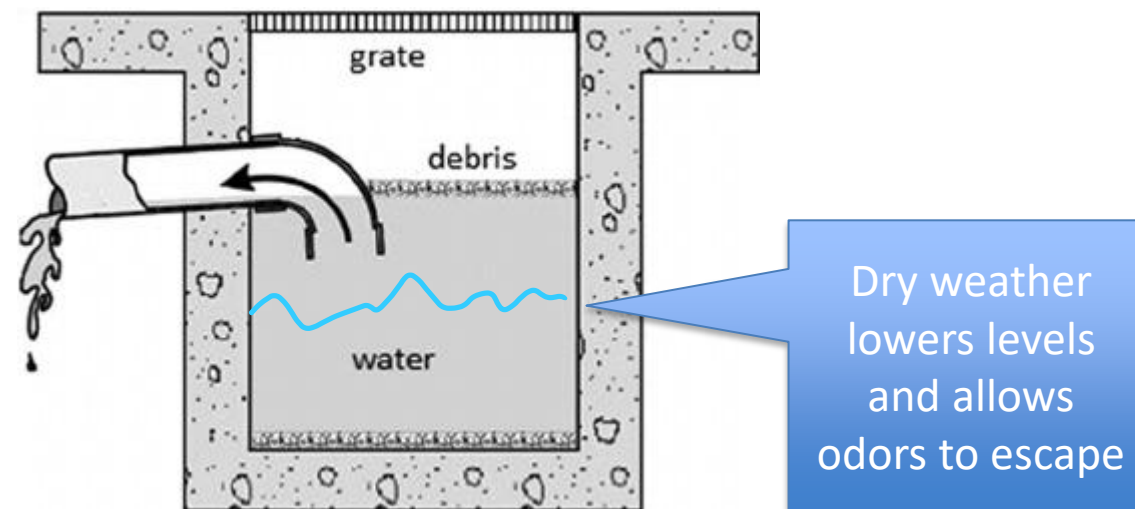
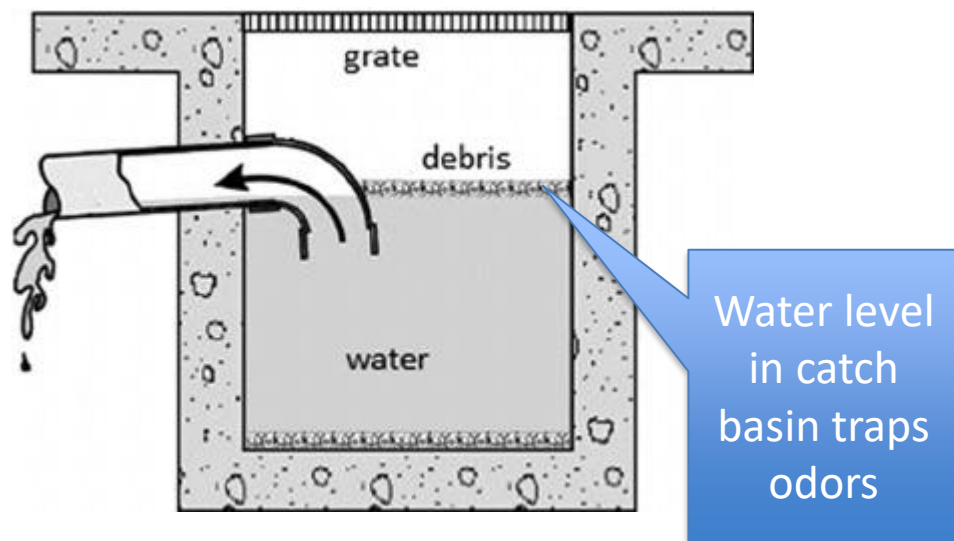
Over half of October's rainfall came in the last four days of the month

Odor Mitigation Activities

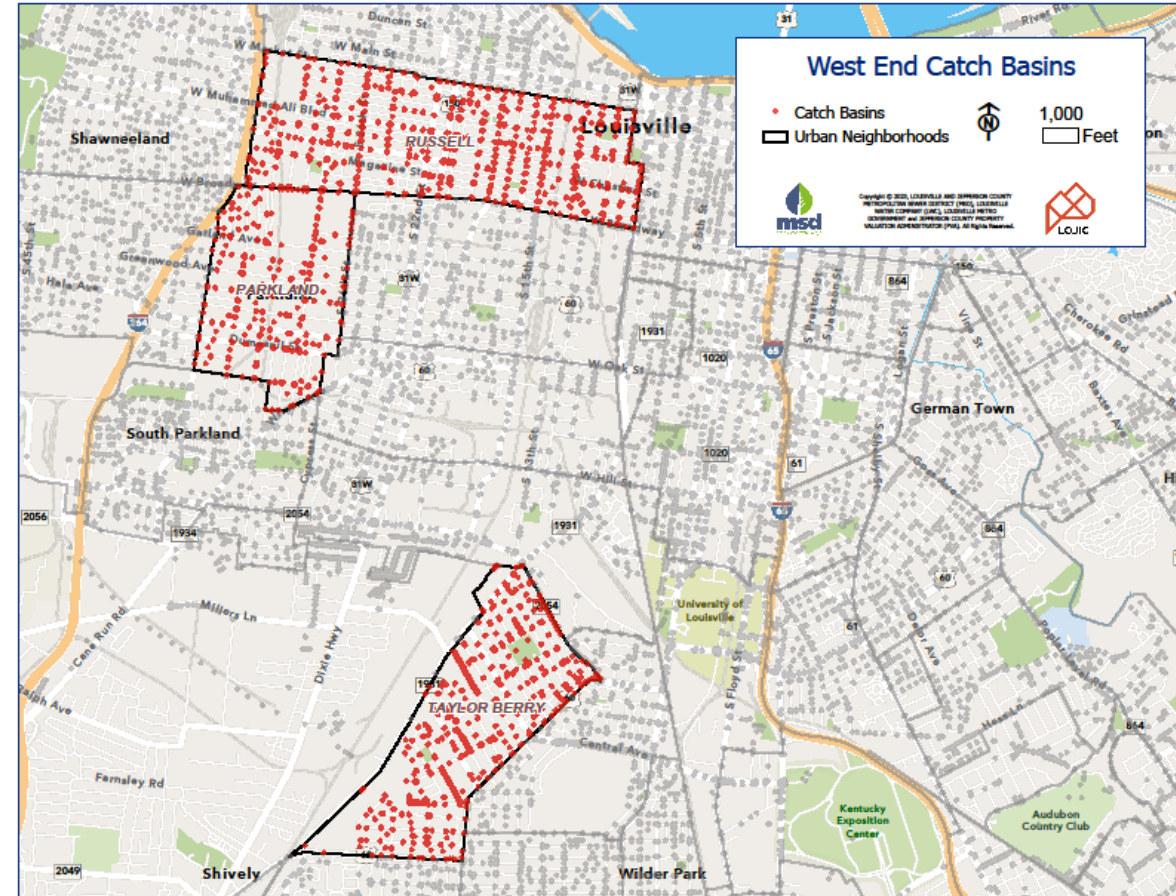
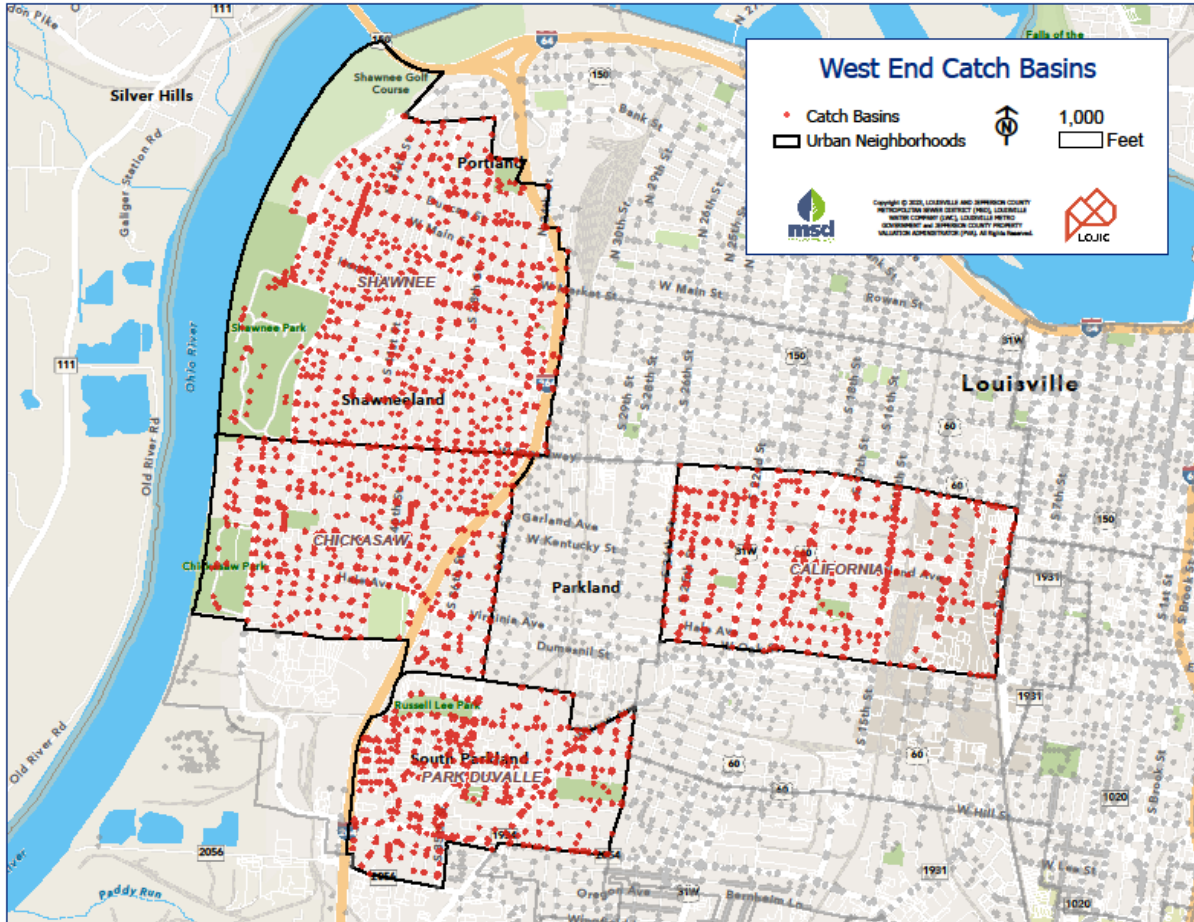
- 🔹 Flush and Deodorize Catch Basins
- 🔹 Flush Sewer Lines
- 🔹 Replace Missing or Damaged Catch Basin Plugs
- 🔹 Louisville Water Hydrant Flushing
- 🔹 Adjust Chemical Feeds at Pump Stations and Treatment Facilities
- 🔹 Adding Water to Trapped Catch Basins – contract with water trucks

Combined Sewer System Trapped Catch Basins

- Approximately 24,000 catch basins within combined sewer system
- Currently inventorying these catch basins, early indications are approximately 90% are trapped
- Current estimate for needed catch basin retrofit related work is \$50M



Combined Sewer System Trapped Catch Basins



Catch Basin Repair and Replacement Work

- 🔹 California Neighborhood – 72 catch basins **\$1,043,000**
- 🔹 Chickasaw Neighborhood – Inspected 745 catch basins to determine needs (cost to be determined)
- 🔹 Park DuValle Neighborhood – 20 catch basins plus 12 odor control devices **\$374,000**
- 🔹 Shawnee Neighborhood – 151 catch basins **~\$2,000,000**
- 🔹 Taylor-Berry Neighborhood – Inspections ongoing to determine needs
- 🔹 Park Hill Neighborhood – Inspections ongoing to determine needs

Ongoing Morris Forman Treatment Center Work

- 💧 THP - \$250 Million project for solids handling
- 💧 Dryer upgrades
- 💧 Sedimentation Tanks
- 💧 Odor control at Southwestern Pump Station

Ongoing Morris Forman Treatment Center Work Odor Control Master Plan

- 👉 Completed in 2022
- 👉 Focus on plant, collection system, and select pump stations
- 👉 Evaluation / recommendation of improvements for odor mitigation
- 👉 Phased implementation of recommendations



Discussion