



HOUSTON HEALTH DEPARTMENT

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Public Health Protection Programs in the City of Houston - Water Quality

PRESENTED TO CWI Workshop

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City of Houston, Houston Health Department
Environmental Health Division
June 20, 2018



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About Us

Who we are, what we do, how we improving quality of life for Houston residents



We provide unique services to protect public health within the City

- Enforcement of local ordinances
- Inspections (permitted facilities)
- Surface Water Monitoring
- Complaint Response
- Education / Outreach
- Partnering with other agencies



Programs Critical to Water Quality

Environmental Health Division



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FOG

More than 10,000 restaurants in Houston, over 6,100 miles of sewer lines, and 2.3 million people



SURFACE WATER MONITORING

More than 1,500 Channels totaling about 2,500 miles in Length, over 200 permitted WWTP outfalls, and over 6,000 storm water outfalls



COMPLAINT INVESTIGATIONS

Respond to 3-1-1 service requests regarding SSOs, water and air quality, fish kills, illegal dumping, and other environmental concerns



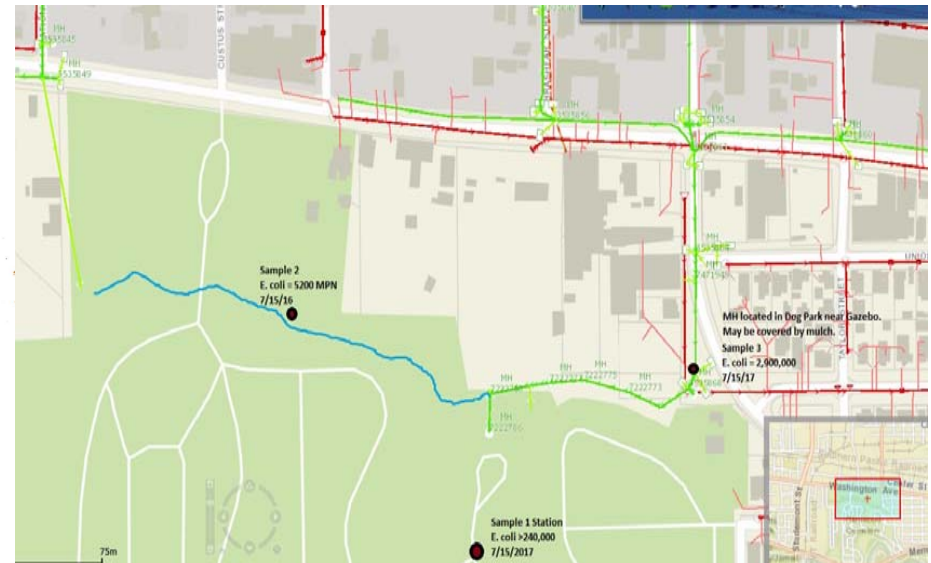
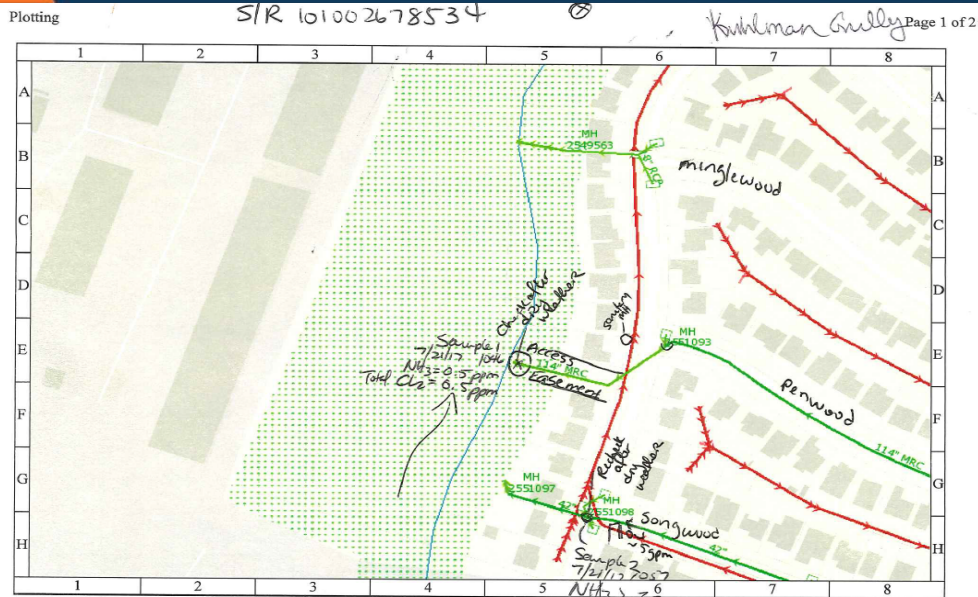
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Surface Water Monitoring and Investigations



Special Studies Process and Some of Our Findings



Severe cases...



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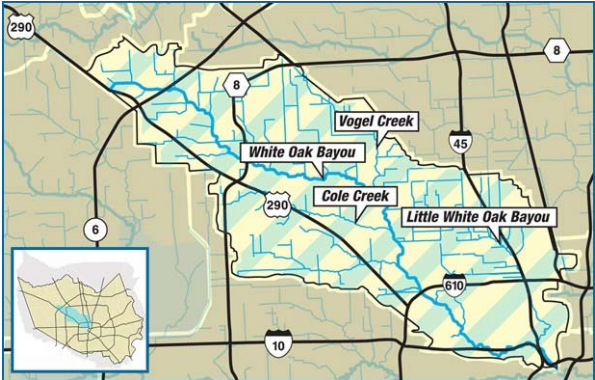
Fish Kill Caused
by Sewage
Overflow



Symptoms
reported by
citizens:

Dizziness
Headaches
Nausea

SSO from City Main



SSO – City Main

White Oak Tributary June 2018



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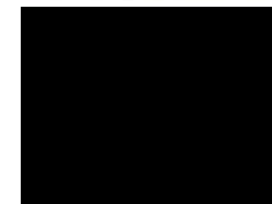
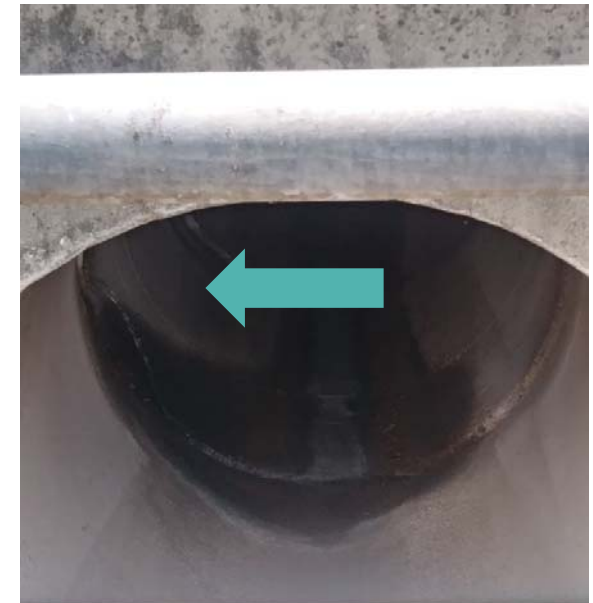


Illicit Discharge

Direct connection into MS4



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Toxic Algal Blooms



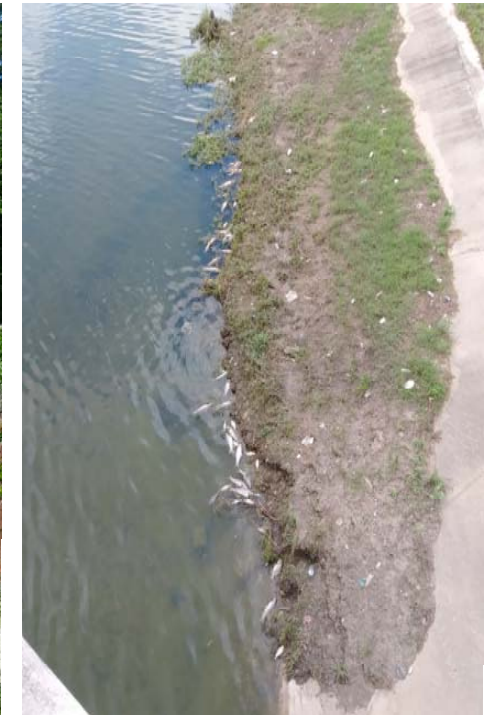
Public Health Hazard Resulting From Spills



Country Club Bayou Near Hughes Street
Warehouse Fire Runoff



Spring Branch Creek
Warehouse Fire Runoff
May 2016



Sims Bayou
Warehouse Fire Runoff
May 2018

Goals / Objectives of Investigations



What are our main objectives in responding to a surface water pollution report?

- Minimize Damages
- Find and mitigate the source
- Record and document all findings
- Ensure proper remediation (using enforcement if necessary)
- Conduct follow-up monitoring
- Prevent Reoccurrence

What to Report



Information that will help us:

- Date / Time you first noticed the pollution
- What does it look like / How does it smell?
- Is it causing any noticeable health effects?
- Do you suspect any particular source?
- Did you notice any dead vegetation or wildlife?

Photos are very helpful.



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FOG Program

Fats, Oils and Grease

Sanitary Sewer Overflows- Education & Enforcement



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The FOG program is divided into three sections:
Field Operations, Transporter, Excursion Tracking/Complaints

Total # of Environmental Investigators: 16

- Inspection at establishments that generate city regulated waste (Restaurants-grease, Carwashes-grit, Washaterias-lint, Lube locations- oil/water separators
- Enforcement of local ordinances
- Complaint response to SSOs, illegal dumping, and citizen concerns
- Criminal investigations with HPD and other agencies
- Community Outreach

Sanitary Sewer Overflows- 2016 & 2017



Sanitary sewer overflows investigated for the two years

FY16 3,871

FY17 3,017

Number of	Violations	Citations
FY16	7,503	695
FY17	11,492	923

Public Outreach initiatives

FY16 4

FY17 37

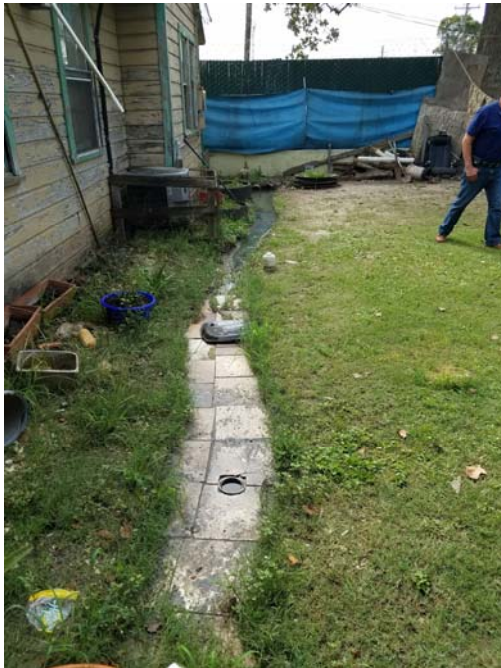
SSO Investigation #1-Apartments



Apartment complex- Tissue, human waste, food waste, and sanitary products covered a large area of the front of the complex in an area roughly 20 feet wide along the length of the apartment, including the entire area around the porch of the complainant. The resident was in a wheelchair, and literally had to roll through sewage to leave her apartment. Multiple citations were issued and HPD was involved. Problems occurred on multiple sections of the service line that required repair, in addition to a problem with the connection made by contractors during the pipe-bursting project to replace the main.



SSO Investigation #2- Home



Complainant was attempting to repave his parking lot, but was unable to due to a continuous discharge of sewage from an unknown source on the far side of the parking lot coming from two pipes protruding through the fence from the adjacent property. The resident of the home had experienced a sewer blockage and backup in his home over a year ago and decided the trench would be the best option to divert rainwater and sewage from the property. Multiple citations were issued and homeowner was required to correct the issue.

SSO Investigation #3-Restaurant



Multiple ongoing overflows, including three cleanouts, one of which had visible discharge grease. The overflows appeared to have been ongoing for some time and the manager was informed to clean the lines and repair the pipe.

FOG Program Goals



- Reduce the impact of pollutants that may interfere with the function of the sanitary and storm sewer system
- Increase awareness through education and continuous involvement in community based initiatives and outreach.
- Provide enforcement through investigations and ensure proper remediation.
- Collaborate with other agencies and departments during investigations.

Local Ordinances that Protect Water Quality and Public Health



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Nuisance Ordinance Sec. 10-451

Whatever is dangerous to human health or welfare, or whatever renders the ground, the water, the air, or food a hazard to human health is hereby declared to be a nuisance.

Storm Water Ordinance Sec. 47-741

A person commits an offense if the person threatens to introduce, introduces or causes to be introduced into the MS4 any discharge that is not composed entirely of storm water.

FOG Ordinance Chapter 47 Article XI

The purpose of this article is to protect the citizens and the environment from the potential hazard that may result from unauthorized waste releases and to deter illegal introduction of pollutants into the sanitary sewer system, storm sewers, street rights-of-way and other unauthorized places.



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QUESTIONS



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Thank You!