



Making Connections:

How the City of Lawrence, MA is Implementing an Effective and Comprehensive FOG Program

Teri Demers, P.E.
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What is “FOG”?

- Refers collectively to fats, oils, and grease
- By-product of cooking that is derived from plant and animal sources
- Per EPA, most common cause (47%) of reported blockages that lead to CSOs and SSOs



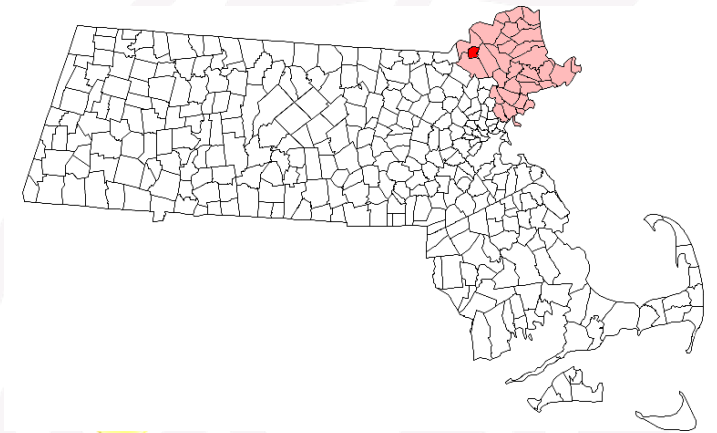
Agenda

- Background on City of Lawrence, MA
- Developing FOG Program & Manual
- Engaging Community Partners
- Implementing FOG Program
- Next Steps & Takeaways



City of Lawrence, Massachusetts

- Historic mill city developed in 1800's
- Land area ~7 square miles
- Current population ~78,000 residents
 - 74% Hispanic
 - 34% below poverty line
- 131 miles of sewer (70% combined)
 - Discharges to GLSD



Why Develop a FOG Program?

- **The Clean Water Act requires it!**
- **\$3,000+ per day to clean excessive FOG** from sewer pipes and manholes
- **Best management of FOG before it enters sewers** reduces likelihood of failure, sewage overflows or backups and reactive maintenance



Sanitary Sewer Overflows (SSOs)

Hampshire Street, Lawrence



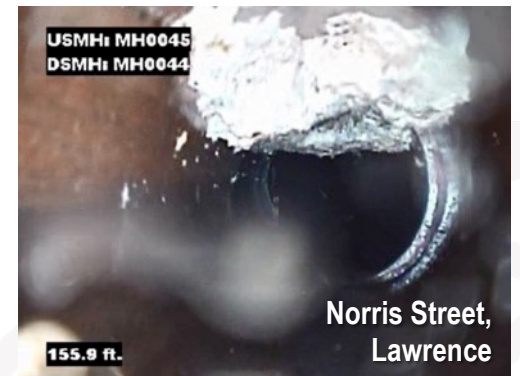
12/18/14
81.6 FT.
MH START: 0835
MH STOP: 0834



USMH: MH2658
DSMH: MH2285

Beaconsfield Street,
Lawrence

16.3 ft.



USMH: MH0045
DSMH: MH0044

Norris Street,
Lawrence

155.9 ft.



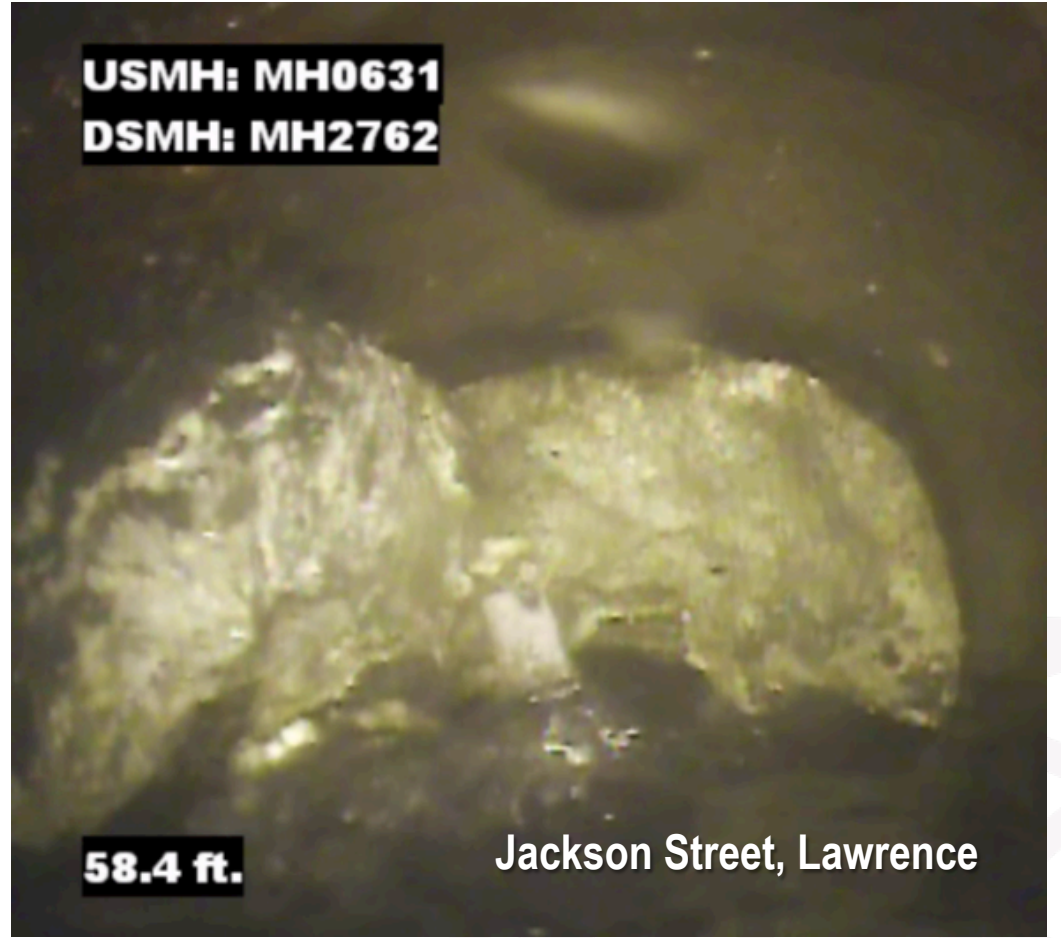
USMH: MH1281
DSMH: MH1282



20.9 ft.

Newbury Street Alley, Lawrence

USMH: MH0631
DSMH: MH2762



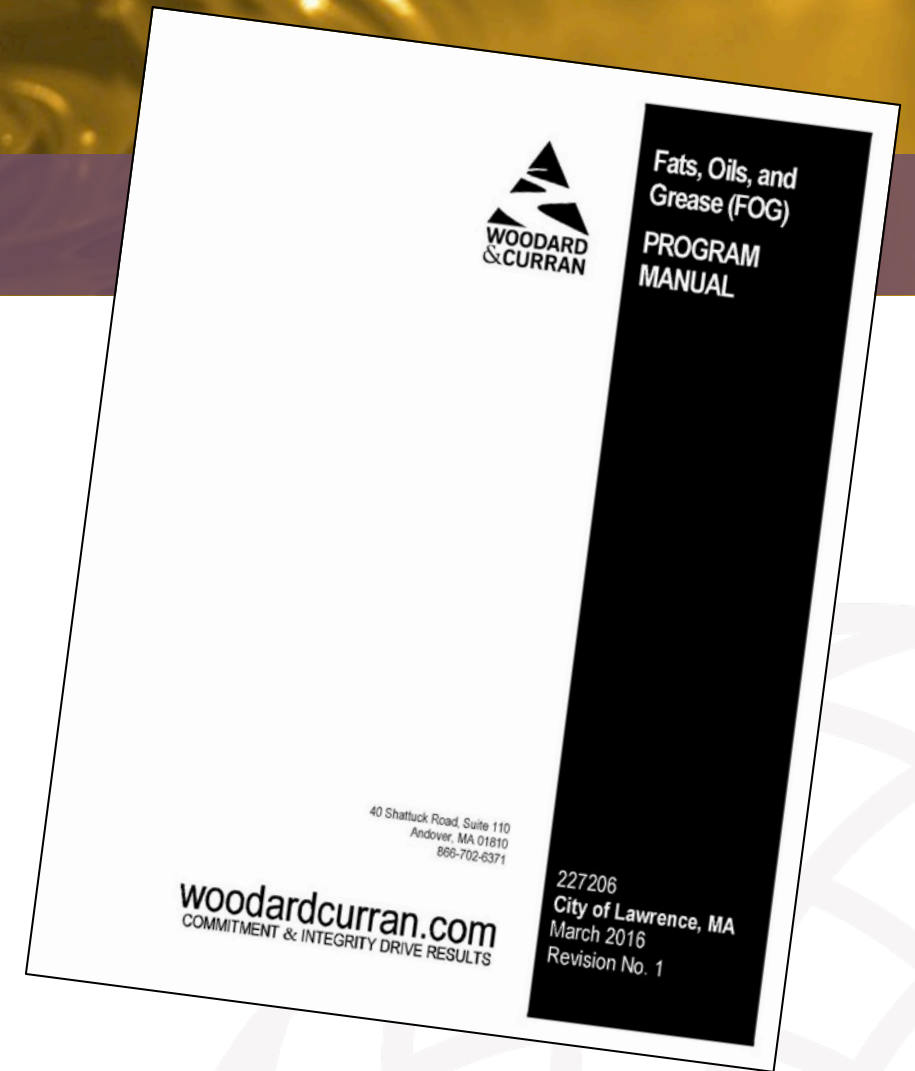
58.4 ft.

Jackson Street, Lawrence



Lawrence's FOG Program

- FOG Ordinance Amendments
 - Effective March 17, 2015
- Installation and Maintenance of Grease Traps or Interceptors at Food Service Establishments (FSEs)
- Annual FOG Permit
- Inspection & Enforcement
- Public Education



Who is Affected?

- All Food Service Establishments
 - Defined as “any facility preparing and/or serving food for commercial use or sale”
 - Includes restaurants, cafes, lunch counters, cafeterias, hotels, hospitals, factory or school kitchens, catering kitchens, bakeries, grocery stores with food preparation and packaging, meat cutting and preparation, and other food handling facilities where FOG may be introduced into the community sewer system
 - Thresholds of sanitary sewer volume dictates larger or smaller system

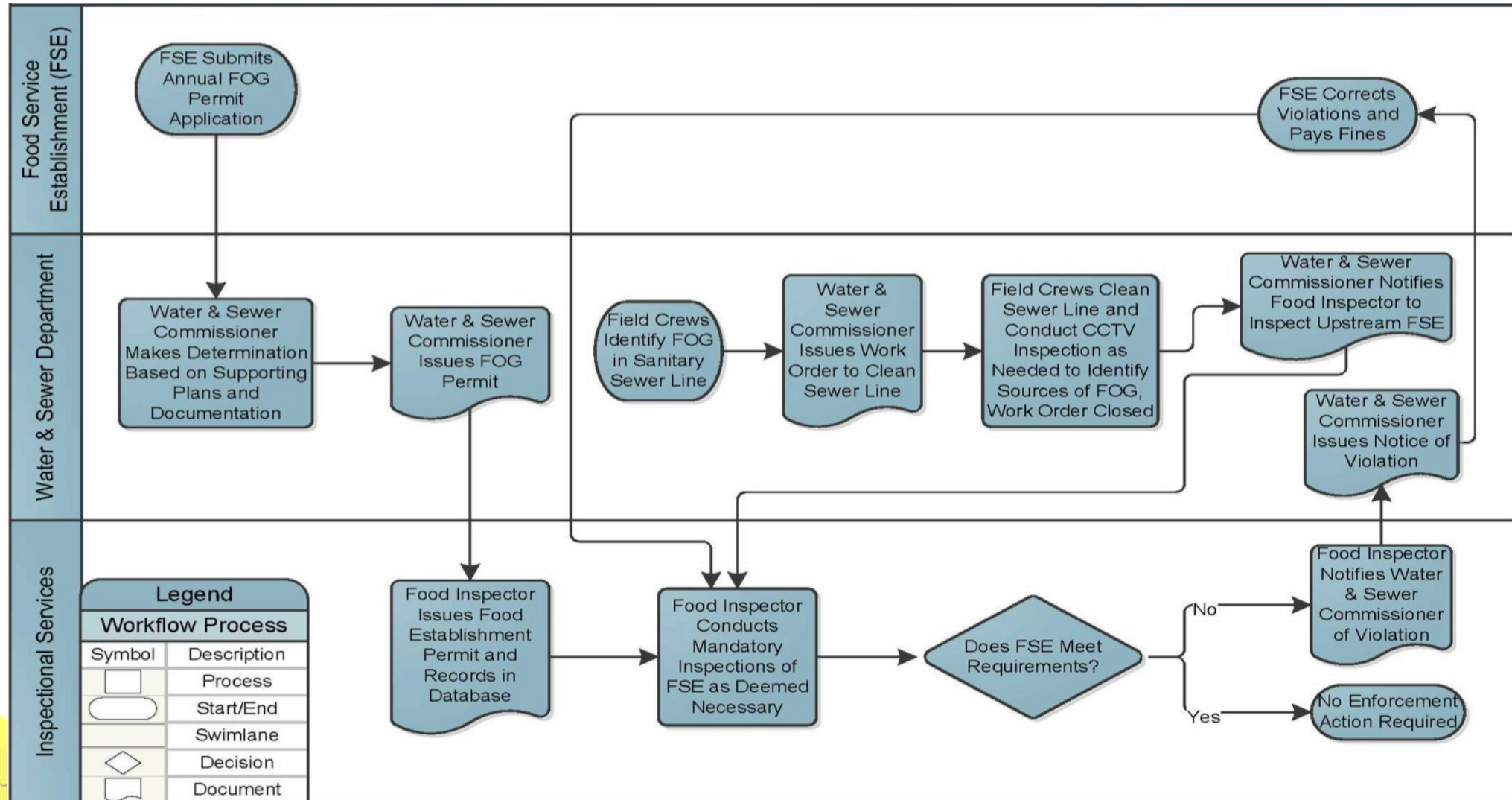


FOG Program Responsible Parties

Primary Responsible Party	Responsibilities
Board of Health	<ul style="list-style-type: none"> - Administers FOG Ordinance
Inspectional Services Director	<ul style="list-style-type: none"> - Coordinates with the Board of Health and Department of Public Works - Manages building inspections and code enforcement - Manages enforcement actions
Water & Sewer Commissioner	<ul style="list-style-type: none"> - Manages FOG Program, conducts technical review of FOG Permit applications, and issues FOG Permits to FSEs - Schedules and conducts training - Manages maintenance of sewer infrastructure - Conducts abatement activities
Food Inspector	<ul style="list-style-type: none"> - Conducts periodic and random inspections of FSEs - Notifies FSEs of local and federal pretreatment requirements



FOG Program Workflow



Engaging Community Partners

- Mayor's Health Task Force
 - Healthy on the Block / Bodegas Saludables
 - Fiesta de Salud
- EPA Smart Growth Program
 - Making a Visible Difference
- Rumbo News
- Lawrence Community Access TV



FOG Program Outreach to FSEs

- Informational Training Sessions
- Bilingual Press Release
- Social Media (Facebook, Twitter)
- Dedicated FOG Program Website
- Bilingual Handouts
 - Signs, Posters, Stickers, Logs



The screenshot shows the City of Lawrence website's navigation menu on the left, with "Fats, Oils, and Grease (FOG)" highlighted in a red circle. The main content area is titled "WATER & SEWER DEPARTMENT" and includes contact information for the City Hall. Below this, there are buttons for "WATER TREATMENT", "WATER DISTRIBUTION", "BACKFLOW PREVENTION", "WASTEWATER COLLECTION", "WATER BILLING", and "CONTACT INFORMATION". A section titled "FATS, OILS, AND GREASE (FOG)" features a photograph of a pipe clogged with FOG and a text block explaining the program's goals and the health risks of FOG. At the bottom, a paragraph states that the City of Lawrence has adopted a FOG Ordinance in Title 8, Chapter 8.32 of the Revised Ordinances to control the discharge of FOG into the public sewer system, starting in 2016.

City Of
LAWRENCE
Massachusetts

HOME OPEN FOR BUSINESS ABOUT THE CITY OFFICE OF MAYOR RIVERA CITY COUNCIL DEPARTMENTS BOARDS EMPLOYMENT CONTACT US FORMS

Animal Control
Assessor
Bellevue Cemetery
Budget and Finance
City Clerk
Comptroller
Council on Aging
Election Division
Emergency Management
Fire Department
Health Department
Information Technology
Lawrence Airport
Lawrence Public Schools
Lawrence Veterans Memorial Stadium
Legal
Licensing Board
Office of Planning and Development
Payroll
Personnel
Police Department
Public Library
Public Works
Purchasing
Recreation
Tax Collector
Treasurer
Veterans' Services
Water & Sewer Department
Water Treatment
Water Distribution
Backflow Prevention
Wastewater Collection
Water Billing
Fats, Oils, and Grease (FOG)

WATER & SEWER DEPARTMENT

City Hall
200 Common Street, Suite 204
Lawrence, MA 01840
Tel. (978) 620-3110
Fax. (978) 722-9170

WATER TREATMENT WATER DISTRIBUTION BACKFLOW PREVENTION WASTEWATER COLLECTION WATER BILLING CONTACT INFORMATION

FATS, OILS, AND GREASE (FOG)

The City of Lawrence Water & Sewer Department, in partnership with the Mayor's Health Task Force, has implemented a new Fats, Oils, and Grease (FOG) Control Program. The aim is to reduce sewer backups, sanitary sewer overflows, and other public health hazards caused by FOG accumulation in the public sewer system.

FOG refers collectively to the fats, oils, and grease found in most residential kitchens and commercial food service establishments. Some foods containing FOG include cooking oil, meat fats, butter, other dairy products, and baked goods. While some of these may seem harmless as they enter the sewer system in liquid form through sinks, dishwashers, and garbage disposals, these substances solidify as they cool and stick to the insides of sewer pipes.

Over time, FOG builds up and completely blocks these pipes, causing raw sewage to overflow into streets and streams, or to back up inside a restaurant. This can have a hugely detrimental effect on communities, as the public relies on strong sewer infrastructure for overall health. Not only does FOG cost public works departments in infrastructure repairs, but also raw sewage flowing into the water supply significantly increases the possibility of drinking water contamination, yielding to other potential public health concerns.

As part of the FOG Control Program, the City of Lawrence has adopted a FOG Ordinance in Title 8, Chapter 8.32 of the Revised Ordinances to control the discharge of FOG into the public sewer system. Beginning in 2016, food service establishment owners must take the following actions to comply with the FOG

Example Outreach Materials



IMPORTANTE

Esta trampa/interceptor de grasa debe ser inspeccionada y limpiada con regularidad y frecuencia.

El no hacerlo puede resultar en daños en el sistema de tuberías y el sistema de drenaje municipal o privada(s).



FOOD SERVICE BEST MANAGEMENT PRACTICES

	
 DRY wipe pots, pans and work areas prior to washing	 DO NOT dump cooking residue directly into any drain
 DISPOSE of food waste directly into the trash	 DO NOT dispose of greasy food waste in the garbage disposal
 COLLECT waste oil to be recycled or picked up for disposal by an approved grease hauler	 DO NOT pour waste oil or grease directly into any drain
 CLEAN mats inside over a utility sink	 DO NOT wash floor mats where water will run off into the storm drain
 KEEP grease traps and interceptors clean	 DO NOT use chemicals that claim to dissolve grease in drains

ADDITIONAL QUESTIONS?
For more information, contact:
Lawrence Water & Sewer Department - (978) 620-3110
<http://www.cityoflawrence.com/water>

 on Facebook at <http://facebook.com/LawrenceH2O>
 on Twitter @Lawrence_H2O



FOG Program Implementation Costs

Description	Approximate Cost
FOG Program Development (2 Years) <ul style="list-style-type: none"><i>Program Manual</i><i>Sewer Use Ordinance Revisions</i><i>Coordination Meetings</i><i>EPA Compliance Support</i><i>Public Outreach Materials & Training</i>	\$40,000
FOG Program Implementation Assistance (1 Year)	\$10,000
Total 3 Year Program Implementation Cost:	\$50,000



Next Steps

- Achieve 100% compliance with FOG Permit applications
- Implement FOG control inspections at FSEs
- Enforce penalties for noncompliance (\$50 – \$1,500 per day)
- Continue public outreach campaign
- Document FOG issues within the collection system



Takeaways & Lessons Learned

- Clearly define program objectives
- Engage community partners
 - Coalesce around one message
- Invest in public education & outreach
- Take small steps to achieve program goals



Acknowledgements

- Brian Peña, P.E., Water & Sewer Commissioner (former), City of Lawrence
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- Mike Gustafson, Graphic Artist, Woodard & Curran





Questions?

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