Reducing SSOs & O&M Costs: Fats, Oils & Grease (FOG) Program Development
What is FOG?

• Fats, Oils, & Grease

• Byproduct of (not limited to) cooking, food & drink preparation & meat cutting

• Enters sewer pipes through restaurant, commercial & residential sink drains
FOG – A Nation-Wide Problem

• Sanitary Sewer Overflows remain a problem in the State & Nation, with sewer blockages being a major cause

• FOG generated from commercial kitchens = 800 – 17,000 lb/year per restaurant

• More & more communities in Michigan are implementing a FOG Program
FOG Impacts

- Sanitary sewer overflows (SSOs)
- Sewage backups to downstream customers
- Sewer line degradation
- Sewer collapses
- Poor utilization of Public Works staff forces & budget
FOG Maintenance Cost Analysis

• Sewer failures can cost approximately $300,000 per project

• Sewer Maintenance Program can cost $35,000+ annually
  - Sewer jetting & chemical injections to prevent sewer backups
  - Labor/Equipment/Materials/Disposal
Benefits of Implementing a FOG Program

- Businesses become incentivized to maintain their grease control devices & outdoor grease bins
- Better utilization of community staff time
- Cost savings / cost avoidance
- Interception of 26,000-30,000 gallons of FOG from sewer annually
- Can prevent costly sewer failures & SSOs
- Reduced liability from sewer overflows on property
- Educates residents & businesses on FOG impacts
- Reduced impacts to our waterways
- Compliance with regional sewage requirements
Statewide FOG Program Comparisons

- Reviewed the following statewide programs:
  - City of Birmingham
  - Waterford Township
  - City of Farmington Hills
  - City of Sterling Heights
  - City of Auburn Hills
  - City of Muskegon
  - Delhi Township
  - City of Rochester
  - City of Ferndale
  - City of Flint
  - City of Royal Oak
  - City of Ann Arbor
  - City of Madison Heights
  - Independence Township
  - City of Grand Rapids
  - City of Wyoming
  - City of Jackson
  - White Lake Township
  - Port Huron Township
  - Clinton Township

- Reviewed existing Sewer/Utilities ordinances and standards
- Reviewed existing inspection programs
- Gathered cost analysis data
- Gathered useful input from communities
Statewide Program Findings – Ordinance Reviews

• Ordinances apply primarily to **Permitted Industrial Users** (food processing, manufacturing properties), **NOT** commercial kitchen owners

• Indoor or outdoor grease control devices are **NOT** required to be installed, maintained, or labeled

• Outdoor spent oil bins are **NOT** required to be maintained

• Community DPW staff **DO NOT** have authority to perform inspections

• Cost recovery language is **vague**
**Ordinance Recommendations**

- Provide ‘25% Rule’ definition
- Allow community public works departments authorization to perform inspections & allow council/board to establish cost recovery system
- Provide language for issuance of warrant for refusal of entry
- Provide more robust cost recovery language
- Require grease control devices for new development, redevelopment & after change of ownership for restaurants, schools & churches (to be analyzed during site plan review process)
- Provide specific design & maintenance requirements for grease control devices
- Require owners to submit clean out records to community as requested
- Require business owners to properly label & maintain outdoor spent grease storage bins
- Impose fines/civil infractions for owners violating the Code
Program Development & Implementation

• Ordinance Review & Revisions (if necessary)
• Meetings with community staff & council/board
• Develop FOG Property List
• FOG Inspection Documents Development
• Integration into GIS & Cityworks
• FOG Property Baseline Inventory
• Staff Training (if necessary)
• FOG Education with Residents & Businesses
• FOG Routine & Follow-Up Inspections
• Program Assessment
Cityworks Implementation

FOG Inspection Template - The parcels in pink identify a commercial kitchen/FOG property
Public Education Materials

Food Service Best Management Practices

FOG: Fats, Oils & Grease

- Pour cooled grease into a garage can or container. Once the grease has solidified, dispose of it with regular garbage. Commercial establishments must use a licensed hauler to dispose of yellow grease.
- Don't discharge FOG down drains, toilets, or storm drains.
- Scrape food scraps into the garbage can. Do not pour grease down the garbage can.
- Clean grease spills with absorbent material and then dispose of it in the garbage.
- Ensure the grease control devices are accessible for maintenance and inspection.
- Maintain the grease control devices in accordance with manufacturer's specifications, industry standards and Township requirements.

For more information, call the Charter Township of White Lake Department of Public Services at (248) 466-3300 Ext. 8

City of Rochester Fats, Oils, and Grease (FOG) Program Information for Food Service Establishments

Frequently Asked Questions (FAQs)

- What is FOG?
  - Fats, Oils and Grease (FOG) is produced by the food industry, but may also include cooking, food and dish preparation, and monitoring FOG can be found in meats, baking fats, Margarine, cheeses and ice cream.
- Why is FOG an issue for my business?
  - 1990 commission on water pollution. Michigan's FOG ordinance came from regulations and business decisions. Restaurants and other food-handling businesses are not subject to the Michigan ordinance. Enforcement and their food-handling establishments can also be handled voluntarily for those who have a public perception of riding FOG regulations.
- The City of Rochester may not be able to continue with Federal Environmental Protection Agency, EPA, in the future of the discharge of FOG policy.
- The regulation of FOG is required to be reported and monitored through your local food-handling establishments. For food handling establishments who report event reports.
- Why are all discharge standards related to the FOG program?
  - All food-handling establishments must report event reports with the Department of Environmental Protection.
  - The emission of FOG can be minimized for those who have a public perception of riding FOG regulations.
- What is the City of Rochester doing to reduce the FOG?
  - The City of Rochester may not be able to continue with Federal Environmental Protection Agency, EPA, in the future of the discharge of FOG policy.
- The regulation of FOG is required to be reported and monitored through your local food-handling establishments. For food handling establishments who report event reports.

For more information, call 1-866-243-8366 or visit www.243-8366.org
Inspection Procedures

• Inspection of In-Kitchen Grease Trap
  - Is the FOG level over 25% of the total capacity of the device?
  - Is the device in need of repair/replacement?
  - Is the device easy to access?
• Are there any FOG educational materials on site?
• Is there evidence of FOG spills indoors or outdoors?
• Inspection of Outdoor Grease Control Device (if applicable)
  - Is the FOG level over 25% of the total capacity of the device?
• Inspection of Outdoor Grease Bin
  - Are the bin and surrounding area clean?
  - Is there evidence of FOG spills or discharge into storm drains?
• Can the property owner/manager provide documentation of maintenance?
Program Assessment / Evaluation

• Is the community’s Cityworks & GIS system up to date with current FOG property information?
• Is the communication between the community and property owner sufficient?
• Are there any known recurring issues with specific FOG properties and/or the owner or manager of these facilities?
• Are current FOG education and enforcement initiatives deterring poor housekeeping and improper FOG management?
• Are inspections frequent enough for proper compliance?
• Are facility cleaning schedules frequent enough to comply with the 25% rule?
• Does the community have the proper staff and monetary resources to effectively manage the program?
Program Assessment / Evaluation (City of Rochester, MI)

City of Rochester @ a Glance

- Located in SE Michigan
- 46 FOG properties (including 2 schools, 1 nursing home & 1 hospital)
- Highly dense downtown area (bars, coffee shops, cafés, bakeries)
- FOG Program initiated in 2017
  - Ordinance review & updates
  - Cityworks implementation
  - Inspections
  - Public education for residents & businesses
FOG Reactive Program (2010-2016)
• Monthly Cleaning of FOG-prone sewer lines
• Chemical Injections (as needed)
• Prior to FOG Program: $39,000+/yr on sewer maintenance
• 1 SSO event in 2014

FOG Proactive Inspection Program (2017-Present)
• Quarterly & Annual FOG Inspections
• Cleaning of FOG-prone sewer lines 3x/year
• 2017-2018 FOG Program: $17,000+ on sewer maintenance
• 1 SSO event in Winter 2018
Thank You!

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