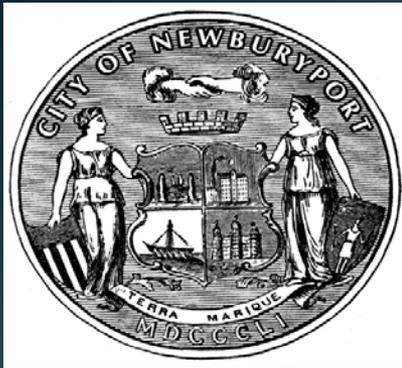


City of Newburyport



Fats, Oils and Grease



Fats Oil and Grease (FOG)

program that works.

Prepared by:

Anthony Furnari, DPS Director.

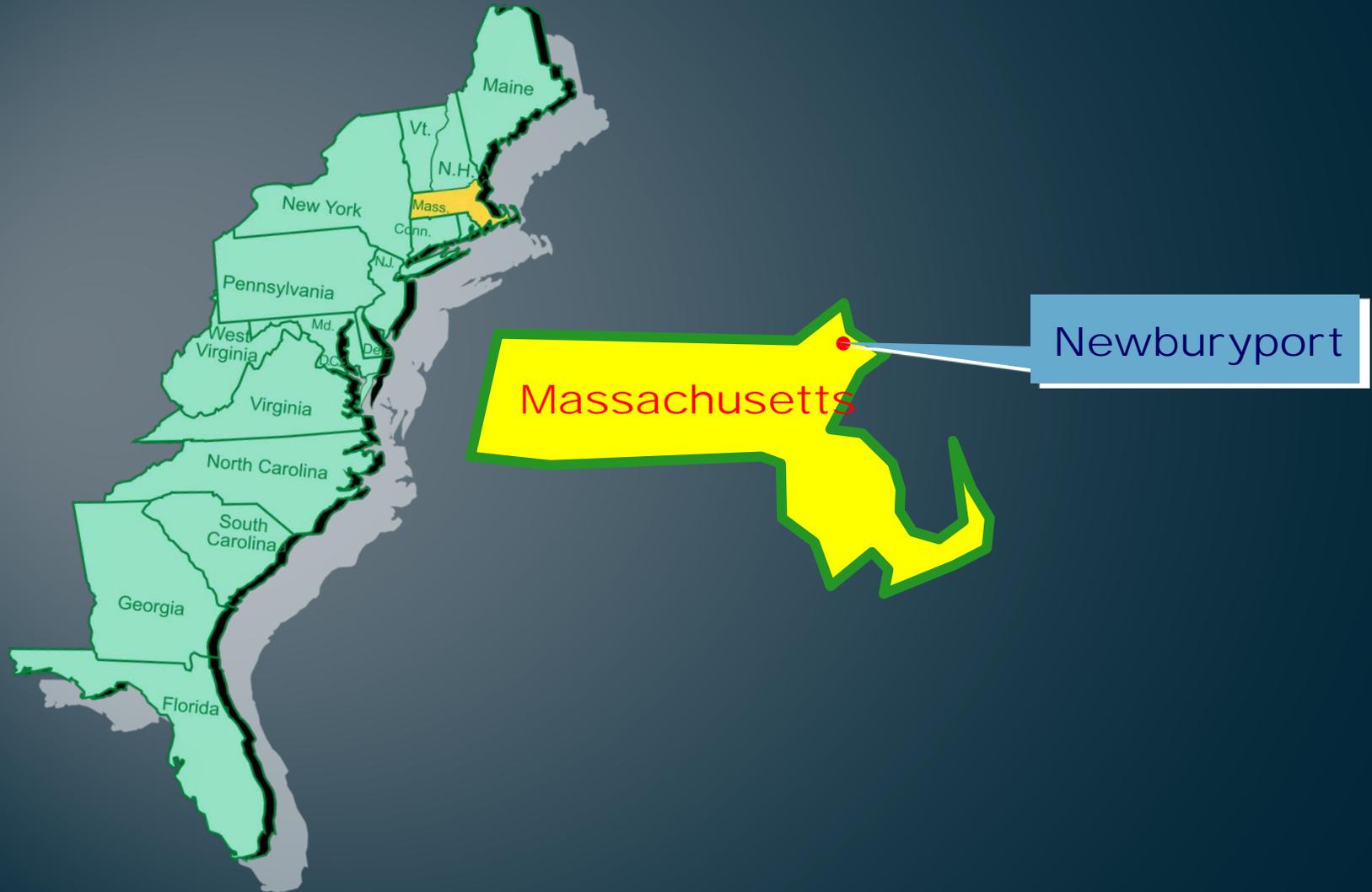
Jamie Tuccolo, Collection System Superintendent.

Frank Giacalone, Board of Health Director.

Patricia McAlarney, Board of Health.

Jerry Cronin, Pretreatment Coordinator/
Environmental Inspector.

Location



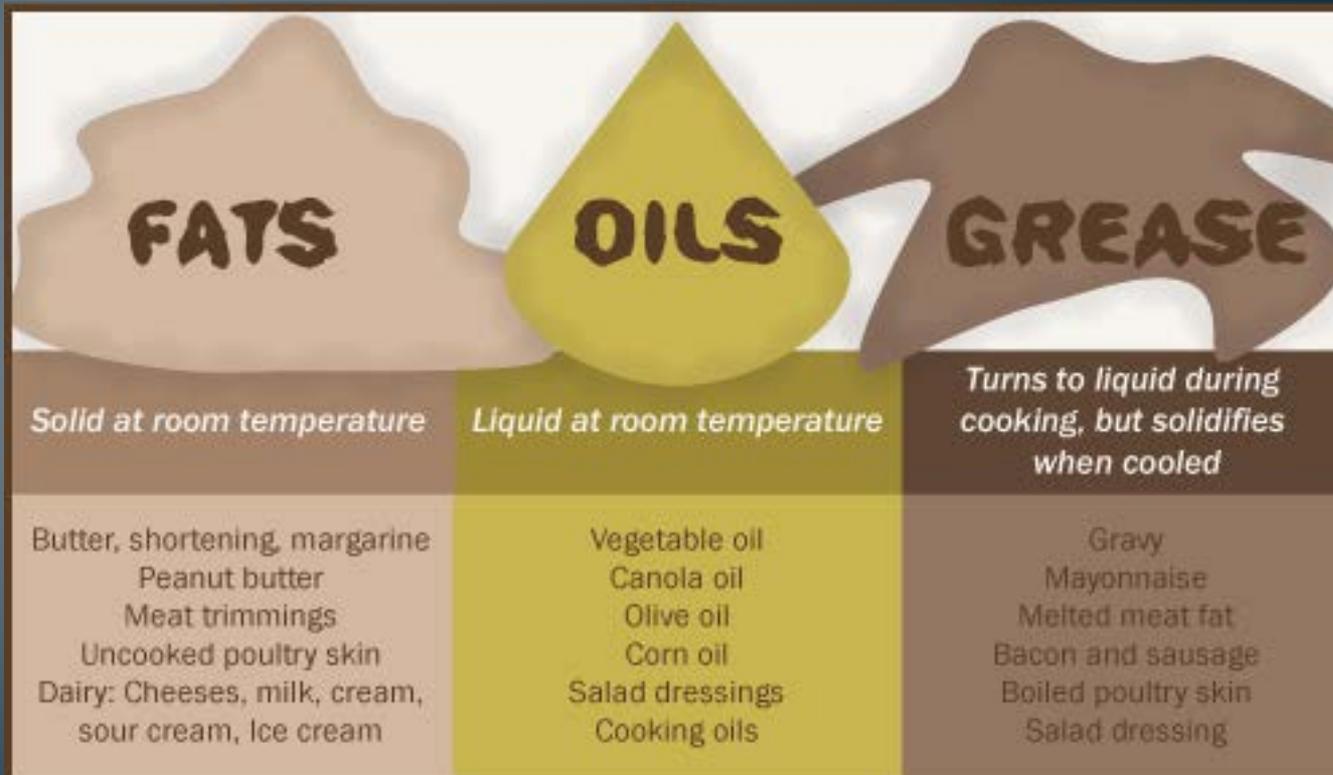
Sewer System Components.

- Newburyport Sewer System Dates Back to the Late 1800's.
Components of the system are:
- 1,580 Sewer Manholes
- 396,000 linear feet of sewer pipe
- 72,544 linear feet of vacuum sewer pipe
- 16 Lift Stations
- 18,407 Residential and Business Customers

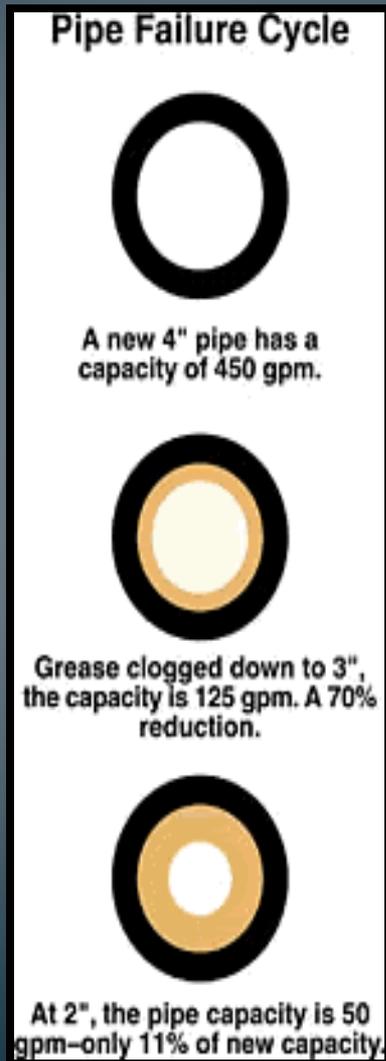
Recurring Problems:

- Odor complaints
- Floating material causing costly sewer back ups to the city and property owners
- Clogged pumps and City mains
- Sanitary Sewer Overflows (SSO)

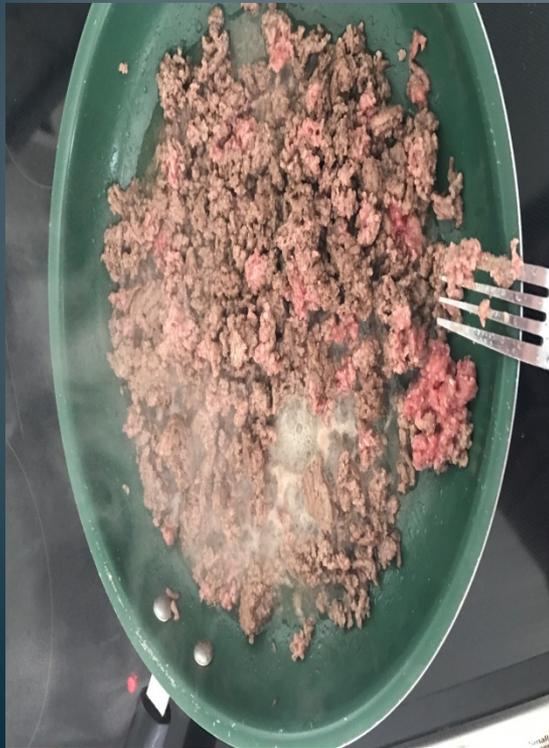
Where does FOG come from?



Sewer pipe before and after grease build up causing sewer back ups.



Proper disposal of grease generated while cooking and cleaning will greatly reduce FOG related issues i.e. sewer back up's, note the following steps:
1: Cook. 2: Drain liquid grease into can. 3: dry wipe with paper towel before washing.



Following the steps demonstrated in the previous slide will reduce FOG build up in pipes.

When the steps are not followed below is an example of what can happen.



Impacts of FOG to City Services

- Yearly operational cost as well as rate increases will continue to rise due to FOG impacts
- Service, operators handle one call at a time, grease is getting to the point of causing multiple calls at the same time at different locations
- FOG impacts operations at the WWTF, causing biological issues within the treatment process
- This is a City wide issue
- Moving (FOG) downstream instead of eliminating only creates multiple problems at different locations

Oleo Woods lift station wetwell left slide before cleaning , right slide after cleaning
(all residential flow)



Impact to Businesses & Residents

- Health Issues
- Repair Costs
- Clean up cost
- Loss of revenue to businesses
- Reputation (business owners)

Statistics

In the United States, sewers back up annually “an estimated 400,000 times, and municipal sewer overflows on 40,000 occasions” (Whitman, 2000). The EPA has determined that sewer pipe blockages are the leading cause of sewer overflows, and grease is the primary cause of sewer blockages, see Figure #1 and Figure #2 (EPA 2004, p. 4-28).

Figure #1 - Causes of Sewer Overflows

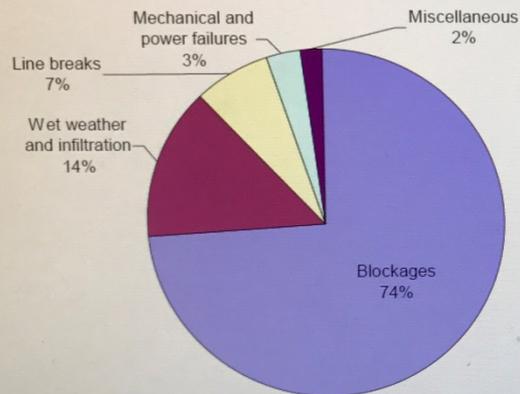
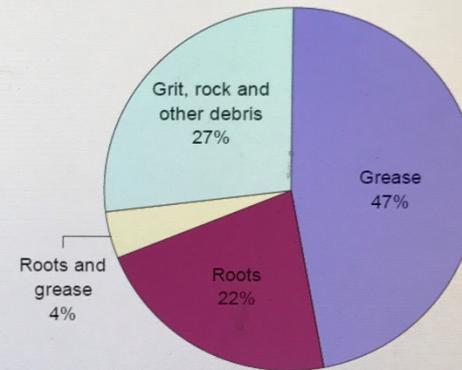


Figure #2 – Causes of Sewer Blockages



Source: EPA, 2004, p. 4-28

FOG ORDINANCE

- The City's FOG ordinance allows 200 mg/l of discharge, even with that small amount the city constantly has grease related issues/backups.
- The following slides are a few examples of grease issues the City is currently facing:

Bottom of State at Water Street 2016



Bottom of State at Water 2017



A photograph of a tunnel interior. The walls are made of rough, layered rock. The floor is a smooth, light-colored surface. There are dark, irregular deposits on the floor, particularly near the base of the rock walls. The lighting is somewhat dim, with a bright spot on the right wall.

USMH: 65

DSMH: 66

Deposits Attached Grease

12.0 ft.

Liberty St
2016

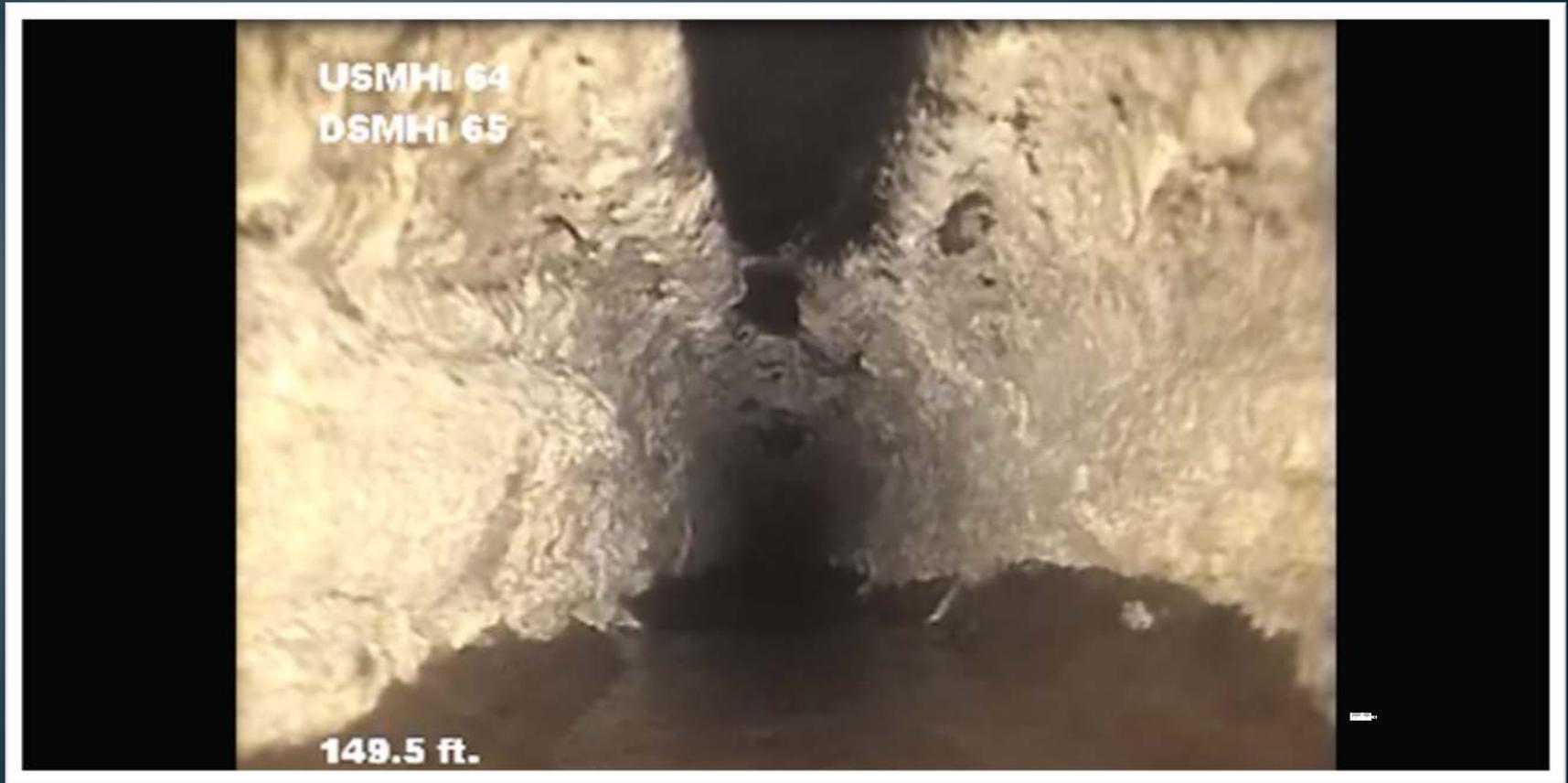


Liberty at State 2017

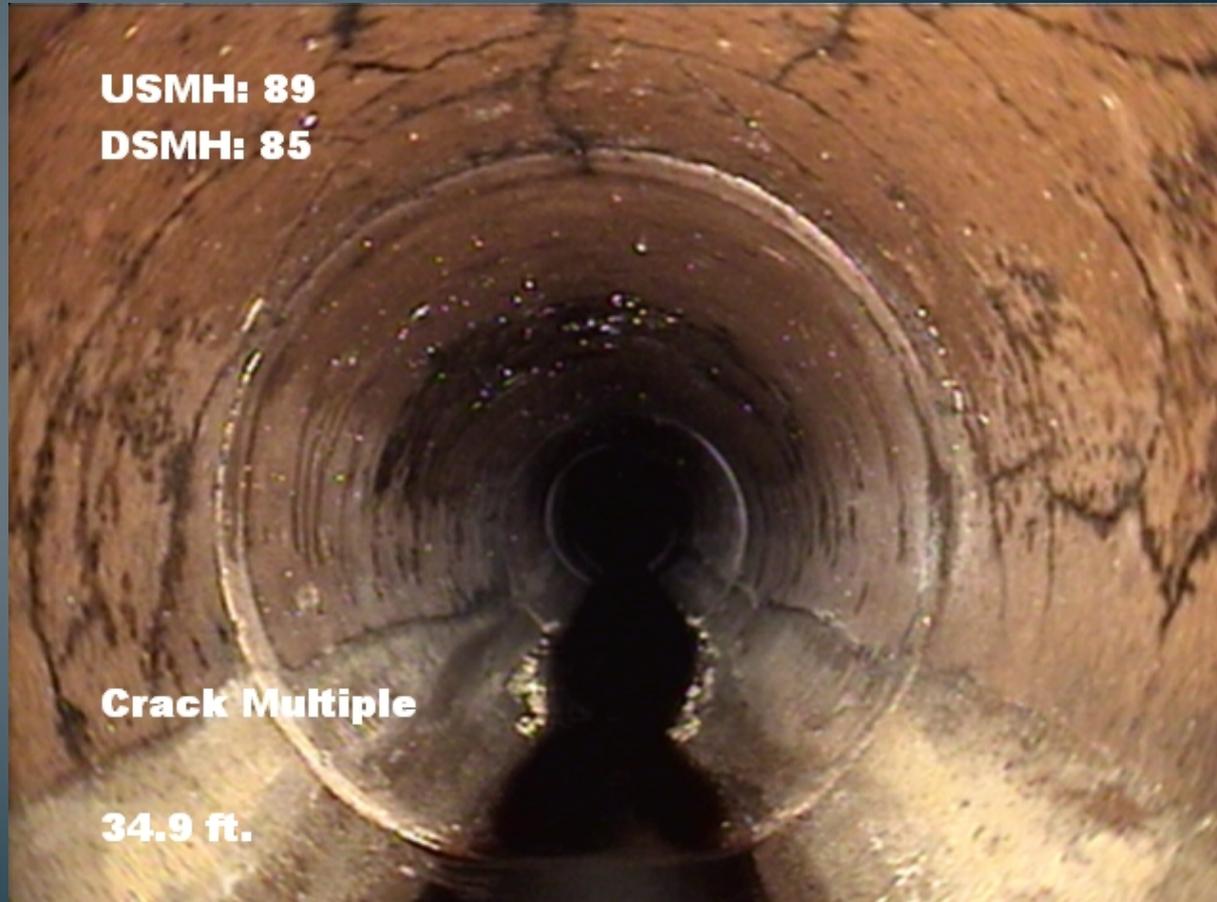


State St between Middle and Liberty

2017



Sewer pipe without grease build up.
Although the pipe looks large, the average pipe size
including the below picture in Newburyport is only
6"- 8".



Invert without grease



Grease Issue at Scotland Rd lift station



Grease Issue at Graf Road Lift Station



The Program:

The FOG Program:

- Clean grease trap once per month.
- Approved/Permitted grease hauler through the BOH ONLY!
- Pumping Records on site for two years.
- Official variances from BOH only, the official variance letter must be available at all times in the FOG binder verbal will be accepted.
- Staff members on every shift including prep crew must have access and knowledge of location of the FOG binder. This is considered a violation if staff cannot produce records upon inspection/request.
- Train staff to ensure proper disposal of FOG.
- Accessibility for sampling inside and outside at all times.

The FOG program:

- Grease haulers need to properly fill out paper work, sending yellow copy to BOH, leaving white copy in binder this is the haulers responsibility.
- The grease hauler will be in violation not business owner if proper paper work procedure is not followed.

Enforcement:

- Health Department inspections two times per year, along with unannounced inspections.
- Sewer Department unannounced inspections.

Violation process and fines for establishments:

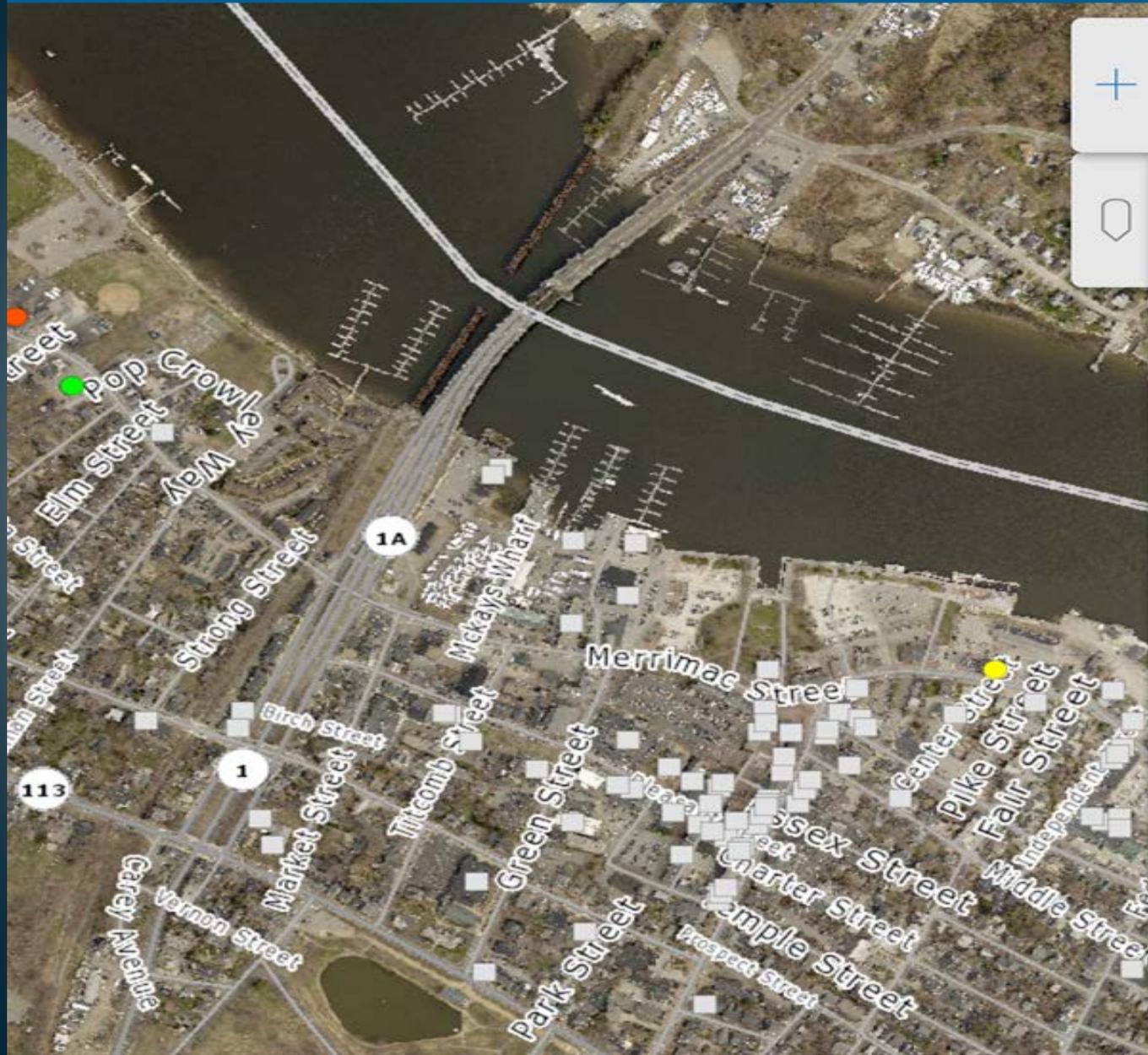
- 1. FIRST OFFENSE -WARNING & EDUCATION
- 2. SECOND OFFENSE \$1000.00 & EDUCATION
- 3. THIRD OFFENSE \$5,000.00 & EDUCATION
- 4. FOURTH OFFENSE \$10,000 AND SUSPENSION OF PERMIT (Food Establishment)

Violation process for grease haulers:

- 1. FIRST OFFENCE- WARNING & EDUCATION
- 2. SECOND OFFENSE- , within the 24 month period of receiving a written warning, the hauler (company not the driver) will be brought for a administrative hearing before the Director of Public Health and or Board of Health and may be subject to fines, suspension or revoked permit

FOG app:

- The FOG app was created to insure proper/accurate tracking and record keeping of all FOG related items per establishment.
- The app allows the sewer department and BOH the ability to monitor/submit inspection logs, report issues, etc. React and respond when needed.
- The next two slides are pictures of the new FOG app.



Collect a new feat



Filter



Business In Compliance

In Compliance



Business Not In Compliance

30 Day Notice Issued



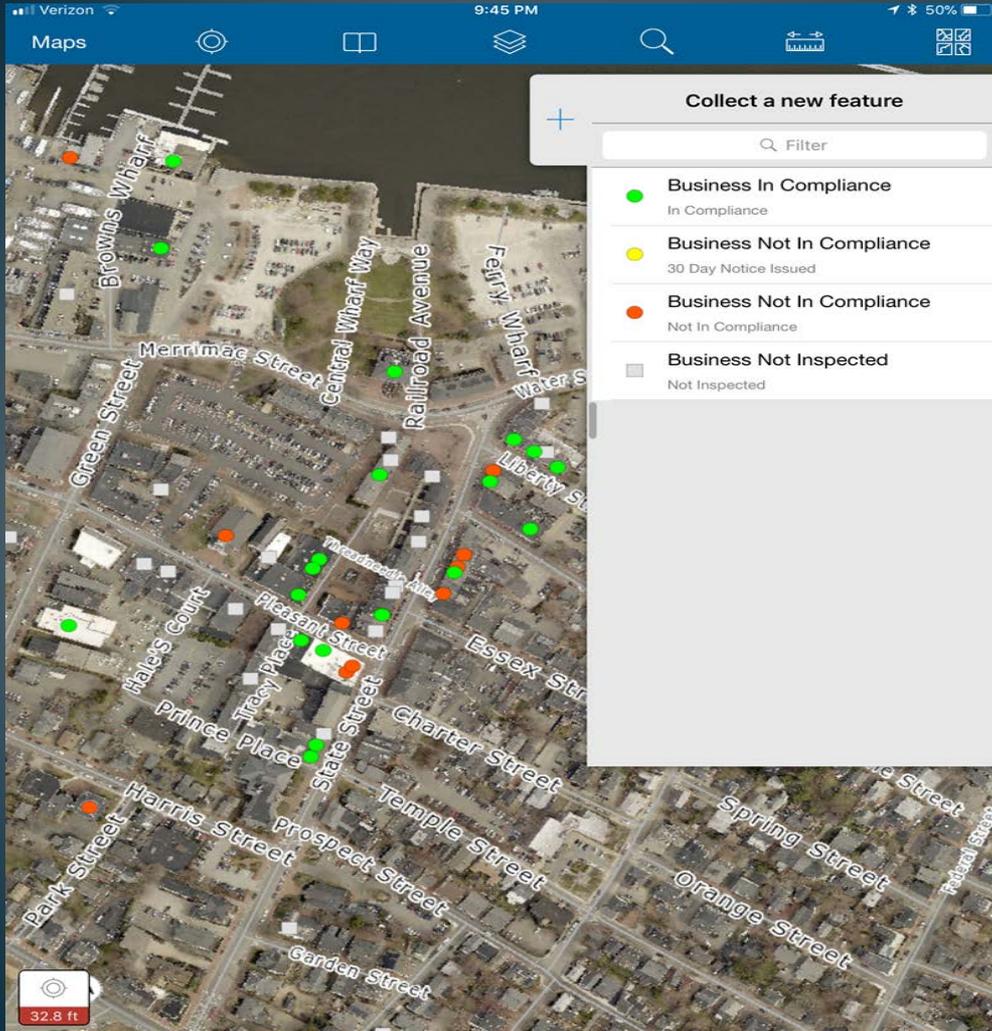
Business Not In Compliance

Not In Compliance



Business Not Inspected

Not Inspected



Cancel  Submit

Inspected:

Variance >

Is grease trap present? >

Number of grease traps >

Location of grease traps >

Service provider >

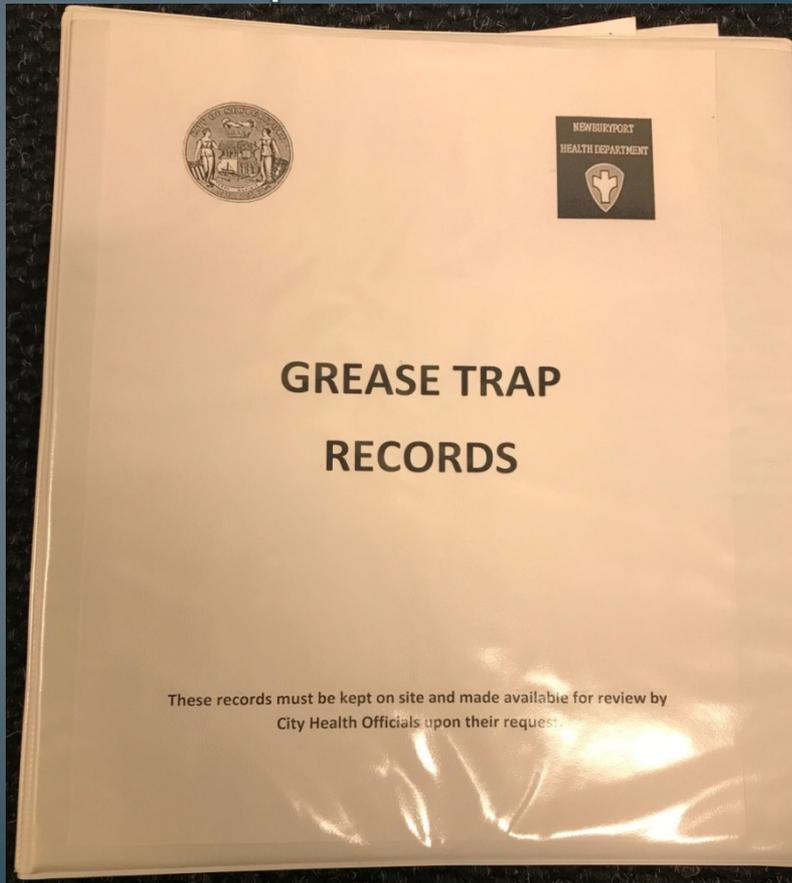
Are pumping records on site? >

Pumping frequency >

Is sample port on existing line? >

Inspection notes >

All establishments in Newburyport have or should have received the required FOG binder, the binder must be available for inspection upon request. If you do not have a binder please let us know at the end of this presentation.



Conclusion:

- Understanding and following the FOG program will make it succeed
- Education is key
- If you have questions please do not hesitate to contact the BOH or Sewer Department
- The City is working with you not against you

- Questions