

# Getting the Most Out of Your Industrial User Surveys

Industrial User Surveys and Partner Collaboration

Julie Dufresne

LOTT Clean Water Alliance

# About Me

- \* Moved to WA from AZ in 2000
- \* Bachelors of Science in Marine Microbiology
- \* Hired at LOTT December 2005 as Lab Technician
- \* Transferred into Pretreatment January 2009

# About LOTT

- \* LOTT Clean Water Alliance

# LOTT - BITP



# LOTT – MWRWP



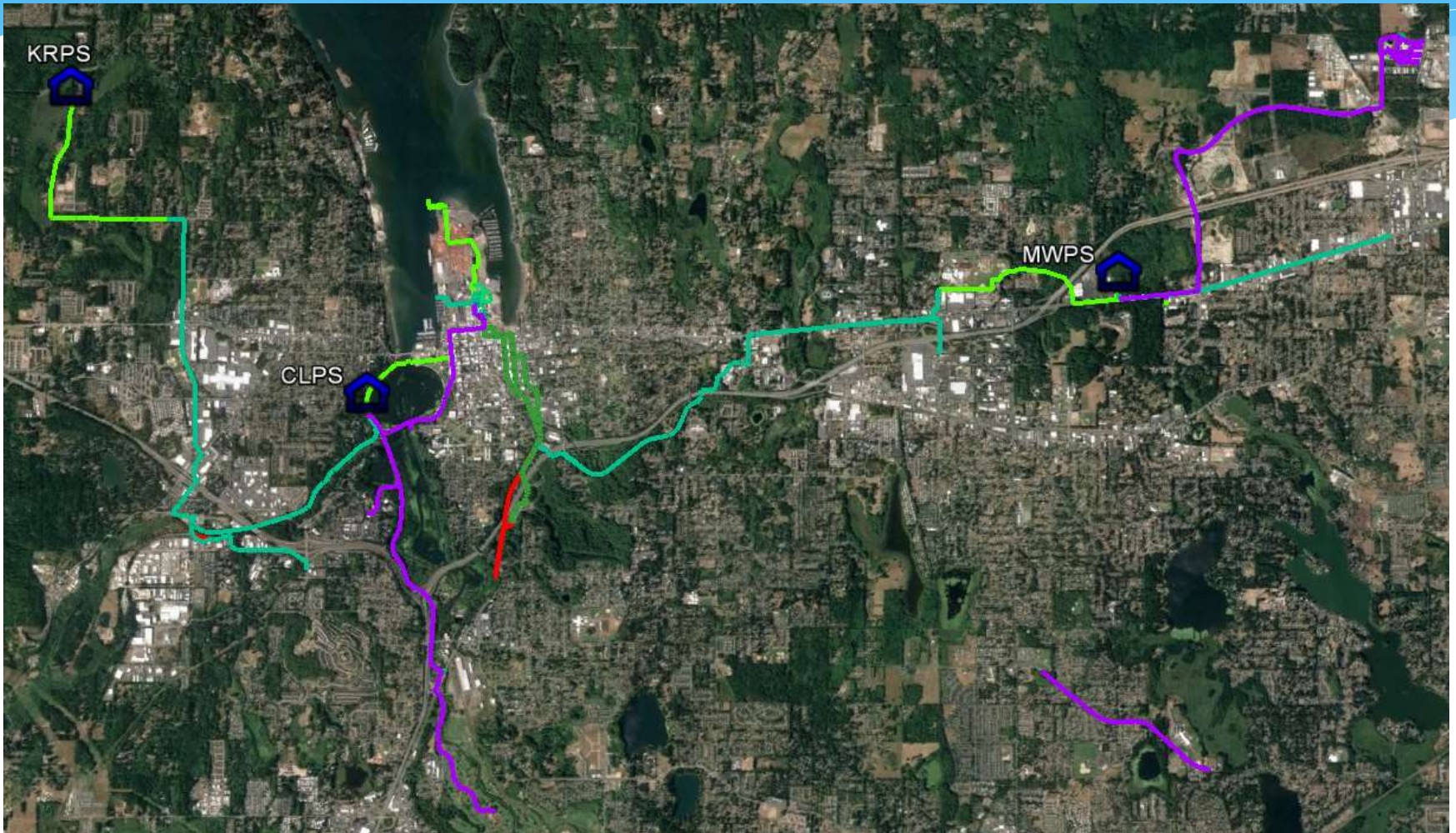


# LOTT – Pump Stations





# Pipelines



# About LOTT

- \* LOTT Clean Water Alliance
  - \* Average 12 MGD
    - \* (min 7.26 MGD July 2014, max 48.48 MGD December 2007)



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  - \* Average 12 MGD
    - \* (min 7.26 MGD July 2014, max 48.48 MGD December 2007)
  - \* Downtown Olympia is a Combined Sewer/Stormwater

# About LOTT

- \* LOTT Clean Water Alliance
  - \* Average 12 MGD
    - \* (min 7.26 MGD July 2014, max 48.48 MGD December 2007)
  - \* Downtown Olympia is a Combined Sewer/Stormwater
  - \* Serve Lacey, Olympia, Tumwater, and Thurston County

# About LOTT

- \* LOTT Clean Water Alliance
  - \* Average 12 MGD
    - \* (min 7.26 MGD July 2014, max 48.48 MGD December 2007)
  - \* Downtown Olympia is a Combined Sewer/Stormwater
  - \* Serve Lacey, Olympia, Tumwater, Thurston County
  - \* Hauled Waste Receiving site for commercial septic discharges & RV discharges

# About LOTT

- \* Board of Directors
  - \* City of Lacey appointed Council Member
  - \* City of Olympia appointed Council Member
  - \* City of Tumwater Council Member
  - \* Thurston County Commissioner



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- \* Interlocal agreement
  - \* Adopted into each City's Municipal Code

# Pretreatment Program

- \* 11 Permitted Industrial Users

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  - \* 1 Categorical Discharger – Aluminum can manufacturer

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  - \* 4 Significant Industrial Users
  - \* 2 Minor Industrial User
  - \* 4 Zero discharger Categorical Industries

# Pretreatment Program

- \* Know your Industrial Users (IUs)

## INDUSTRIAL SURVEY COMMERCIAL USERS

Commercial User Category	Number
1. Printers	32
2. Photo Processors	23
3. Automotive Maint. & Repair	156
4. Dry Cleaners	15
5. Commercial Laundries	1
6. Food Service Establishments	493
7. Aviation Services	11
9. Medical Services	444
10. Dental Services	110
11. Veterinary Services	26
12. Hotels & Motels	24
13. Elementary & Secondary Schools, Colleges, & Universities	93
14. Marine Repair Services	14
15. Car Washes & Detailers	48
16. Mortuary & Funeral Services	7



# IU Survey

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- \* Develop appropriate local limits for industries
- \* Develop strategies for overseeing businesses
  - \* Treatment Requirements
  - \* BMP
  - \* Monitoring
  - \* Reporting Requirements

# IU Survey



**RESPONSE REQUIRED**

**Dated Document with Deadline**

**Olympia Municipal Code 13.20.010:4.1**

**Lacey Municipal Code 13.10.010:4.1**

**Tumwater Municipal Code 13.08.065:4.1**

**Business**

**Address**

**City, State, Zip|**

Industrial Pretreatment Program  
Sanitary Sewer User Survey  
Automotive & Marine Facility

### Industrial Pretreatment Program Brewery Survey

#### I. GENERAL INFORMATION

Company Name \_\_\_\_\_  
Mailing Address \_\_\_\_\_

### Industrial Pretreatment Program Sanitary Sewer User Survey Dental

**CONTACT INFORMATION**  
Business Name: \_\_\_\_\_  
Site Address: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Hours of operation: \_\_\_\_\_  
**SERVICES PROVIDED** (check all that apply)

### LOTT Industrial Pretreatment Program Sanitary Sewer User Survey Food Services

**Contact Information**  
Business Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_



### Industrial Pretreatment Program Sanitary Sewer User Survey Laundry & Dry Cleaner

### Industrial Pretreatment Program Sanitary Sewer User Survey PHOTO PROCESSORS & PRINTERS SURVEY



#### CONTACT INFORMATION

Business Name: \_\_\_\_\_ Email Address: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_ Site Address: \_\_\_\_\_

#### CONTACT INFORMATION

Business Mailing Address Contact F

#### GENERAL INFORMATION

**TYPE OF**  
 Comr  
 Comr  
 Dry C  
 Dry C

#### DOES YOUR FACILITY HAVE THE FOLLOWING?

Filtr  
 Flow  
 Oil / C  
 Oil / V  
 pH Ni  
 Sedim  
Does your facility have a \_\_\_\_\_?  
 No

List the following \_\_\_\_\_

#### Soaps

Detergen

#### Solvents

Do you use \_\_\_\_\_?

Do you use \_\_\_\_\_?

Is there a \_\_\_\_\_?

No

#### DRYCLEAN

Which solvent \_\_\_\_\_?

Perchloroethylene

DF20

Stodd

Other

#### Certification

I certify under penalty of perjury that the information provided herein is true and correct to the best of my knowledge.

Signature \_\_\_\_\_

Printed name \_\_\_\_\_

### Industrial Pretreatment Program Sanitary Sewer User Survey Schools, Colleges, Universities



Facility Name: \_\_\_\_\_  
Site Address: \_\_\_\_\_ Mailing Address: \_\_\_\_\_  
Contact Person (s): \_\_\_\_\_ Title (s): \_\_\_\_\_  
Grades taught: \_\_\_\_\_ Average number of staff & students: \_\_\_\_\_

#### AUTOMOTIVE

Are vehicles or heavy equipment maintained on site?  No  Yes  
If yes, how are solvents managed? \_\_\_\_\_  
How is oil waste managed? \_\_\_\_\_  
How is antifreeze waste managed? \_\_\_\_\_  
Do you wash vehicles on site?  No  Yes  
If yes, do you recycle/reuse the wash water?  No  Yes  
Do you have an oil-water separator?  No  Yes  
If yes, when was it last cleaned? \_\_\_\_\_

#### CAFETERIA

Do you have any of the following equipment (mark next to all that apply):  
 Automatic Dishwasher  Power Washer Basin  Deep Fryer  Broiler  Rollers  Hot Grill  
 Garbage Grinder or sink Food Disposal  Other \_\_\_\_\_

Does your establishment have a  indoor grease device  outdoor grease device  N/A  
Location of grease trap or interceptor: \_\_\_\_\_ Size of device: \_\_\_\_\_  
How often is the grease trap or interceptor cleaned? \_\_\_\_\_  
Who cleans the grease trap or interceptor? \_\_\_\_\_

Do you have any of the following, and does it discharge to a grease removal device or straight to the sewer:

Equipment Type	How Many?	Device	Sewer	Comment
Dishwasher	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
In-sink Grinder	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Pre-rinse Sink	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Three Compartment Sink	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Two Compartment Sink	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Map Sink	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Woks	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Misc. Fixtures	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Misc. Fixtures	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____

Number of floor drains and their locations: \_\_\_\_\_

Do you have an Exhaust Filter?  No  Yes If Yes, how often is it cleaned? \_\_\_\_\_  
Who cleans the filter? \_\_\_\_\_ Where are they cleaned? \_\_\_\_\_

Do you have Floor Mats?  No  Yes If Yes, how often are they cleaned? \_\_\_\_\_  
Who cleans the mats? \_\_\_\_\_ Where are they cleaned? \_\_\_\_\_

Do you use a grease removing enzyme?  No  Yes  N/A

#### LABORATORY

Do you have a satellite (off-site) accumulation area for your dangerous wastes?  No  Yes  
Does your facility have a centralized storage area for dangerous waste?  No  Yes  
If YES, does the area have a secondary containment system?  No  Yes  
Does the dangerous waste storage area have a floor drain?  No  Yes  
If yes, How Many? \_\_\_\_\_ Location(s): \_\_\_\_\_  
Where does the drain discharge to? \_\_\_\_\_

Do you have any concerns about the proper storage and/or handling of your facility's hazardous waste?  No  Yes If yes, explain: \_\_\_\_\_

Does your department keep a log of the amounts of dangerous waste generated per month?  No  Yes

Do you generate any of the following hazardous substances or dangerous wastes? (Check all that apply and state how you dispose of them.)

- |   |   |
|---|---|
| <input type="checkbox"/> Acetone                  | <input type="checkbox"/> Oxidizing Liquid           |
| <input type="checkbox"/> Acids                    | <input type="checkbox"/> Heavy Metals               |
| <input type="checkbox"/> Alcohols                 | <input type="checkbox"/> Isocyanates                |
| <input type="checkbox"/> Amalgam                  | <input type="checkbox"/> Mercury-containing devices |
| <input type="checkbox"/> Caustics                 | <input type="checkbox"/> Methylene chloride         |
| <input type="checkbox"/> Developer (Hydroquinone) | <input type="checkbox"/> Medications                |
| <input type="checkbox"/> Disinfectants            | <input type="checkbox"/> Silver/Fluor               |
| <input type="checkbox"/> Dyes                     | <input type="checkbox"/> Solvents                   |
| <input type="checkbox"/> Ethanol                  | <input type="checkbox"/> Stains                     |
| <input type="checkbox"/> Ethers                   | <input type="checkbox"/> Toluene                    |
| <input type="checkbox"/> Formaldehyde/Formalin    | <input type="checkbox"/> Trichloroethylene          |
| <input type="checkbox"/> Freon                    | <input type="checkbox"/> Trichloroethane            |
| <input type="checkbox"/> Germicides/Sanitizers    | <input type="checkbox"/> Xylene                     |

#### NURSING OFFICE / SPORTS MEDICINE

How are unused, expired, and/or discontinued medications disposed? (check all that apply)  
 Garbage (solid waste)  Toilet or Drain  Incinerated Onsite  Incinerated Offsite

#### SECURITY / RESOURCE OFFICER

How are confiscated medications and/or drugs disposed? (check all that apply)  
 Garbage (solid waste)  Toilet or Drain  Incinerated Onsite  Incinerated Offsite

#### UNIVERSAL WASTE

Does your facility handle universal wastes (batteries, lamps, mercury thermostats, etc.) separately from the wastes from the laboratory?  No  Yes  
If yes, explain: \_\_\_\_\_

What universal waste is generated? (Check all that apply.)  
 Fluorescent lamps  Batteries  Mercury-containing equipment, such as thermostats...

Signature of contact or owner \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Printed name of contact or owner \_\_\_\_\_



\_\_\_\_\_ (re survey)  
\_\_\_\_\_ (necessary)  
\_\_\_\_\_ (month)  
\_\_\_\_\_ (accordance)  
\_\_\_\_\_ (my)  
\_\_\_\_\_ (the)  
\_\_\_\_\_ (significant)  
Date \_\_\_\_\_



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4 wet photo labs

55 oil/water separators

7 DF2000 machines

8 PERC machines

81 film x-rays

88 Digital x-rays

31 silver recovery units

76 amalgam separators

105 Interceptors

157 Grease Traps

5 Antifreeze Spin-on Filters

46 Facilities that wash vehicles  
(average 25,461 washed/month)



# The Food Services Survey

**Industrial Pretreatment Program  
Sanitary Sewer User Survey  
Food Services**



**Contact Information**

Business Name: \_\_\_\_\_ Email Address: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_ Site Address: \_\_\_\_\_  
 Contact Person: \_\_\_\_\_ Telephone #: \_\_\_\_\_

**Type of Establishment**

What type of a food establishment is this? (mark next to all that apply)

Restaurant     Event Hall     Hotel     Hospital     Bar     Deli  
 Market/Grocery     Food Manufacturing Facility     Other (describe) \_\_\_\_\_

What type of food service permit does this facility hold? (mark next to the most appropriate choice)

Full Prep     Minimal Prep     No Prep     Other \_\_\_\_\_

Days and hours of operation: \_\_\_\_\_ Maximum seating capacity: \_\_\_\_\_

Estimated number of meals or people served per day: \_\_\_\_\_

**Equipment**

Does your establishment have any of the following equipment (mark next to all that apply):

Automatic Dishwasher     Power Washer Basin     Deep Fryer     Broiler     Rotisserie     Hot Grill  
 Garbage Grinder or sink Food Disposal     Other: \_\_\_\_\_

Do you have any of the following, and does it discharge to a grease removal device or straight to the sewer:

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Two Compartment Sink	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Mop Sink	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Prep Sink	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Wok	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
Misc. Fixtures	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____

Number of floor drains and their locations: \_\_\_\_\_

Do you have an Exhaust Filter?     Yes     No    If Yes, how often is it cleaned? \_\_\_\_\_

Who cleans the filter? \_\_\_\_\_ Where are they cleaned? \_\_\_\_\_

Do you have Floor Mats?     Yes     No    If Yes, how often are they cleaned? \_\_\_\_\_

Who cleans the mats? \_\_\_\_\_ Where are they cleaned? \_\_\_\_\_

Does your establishment have a:     Indoor grease device     Outdoor grease device     N/A

Location of grease trap or interceptor: \_\_\_\_\_ Size of device: \_\_\_\_\_

How often is the grease trap or interceptor cleaned? \_\_\_\_\_

Who cleans the grease trap or interceptor? \_\_\_\_\_

Do you use a grease removing enzyme?     Yes     No     N/A

Check the box which best describes what you will be returning with this survey:

A copy of your Maintenance Log    OR     A copy of your most recent service invoice

Do you use a service to remove spent grease?     Yes     No     N/A

If Yes, which service do you use? \_\_\_\_\_



**Industrial Pretreatment Program**  
**Sanitary Sewer User Survey**  
**Food Services**



**Contact Information**

Business Name: \_\_\_\_\_ Email Address: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_ Site Address: \_\_\_\_\_  
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 Location of grease trap or interceptor: \_\_\_\_\_ Size of device: \_\_\_\_\_  
 How often is the grease trap or interceptor cleaned? \_\_\_\_\_  
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### Food Preparation

Indicate type of foods prepared on-site:

Meats    Salads    Items w/ Dairy    Bread/Pastry    Soup    Desserts

Indicate type of methods used onsite:

Baked    Fried    Grilled    Raw

If meats, fish, or poultry are used, indicate whether it is:

Pre-cooked   or    Prepared and cooked on-site

Pounds of meat cut per day: \_\_\_\_\_

Method of disposal of meat cutting waste: \_\_\_\_\_

### Water Conservation (This section is voluntary)

LOTT offers rebates up to 75% of the cost to replace inefficient appliances and fixtures with water-saving models - your business could be eligible!

Does your establishment have any of the following fixtures that may be eligible for a rebate:

Condenser    Food steamer    Ice machine    Pre-rinse sprayer

Rebates are also available for replacement of toilets and clothes washers.

Are you interested in learning more about this program?    Yes    No

### We would like to hear from you (This section is voluntary)

Please include any comments or Suggestions you have for LOTT:

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### Certification of survey accuracy:

I certify under penalty of law, that this document, and any attachments, were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for willful violations. I also acknowledge receipt of LOTT Clean Water Alliance's Food Services Best Management Practices.

\_\_\_\_\_  
Signature contact or owner

\_\_\_\_\_  
Printed name of contact or owner



\_\_\_\_\_  
Title



\_\_\_\_\_  
Date





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Signature contact or owner

---

Printed name of contact or owner



---

Title



---

Date



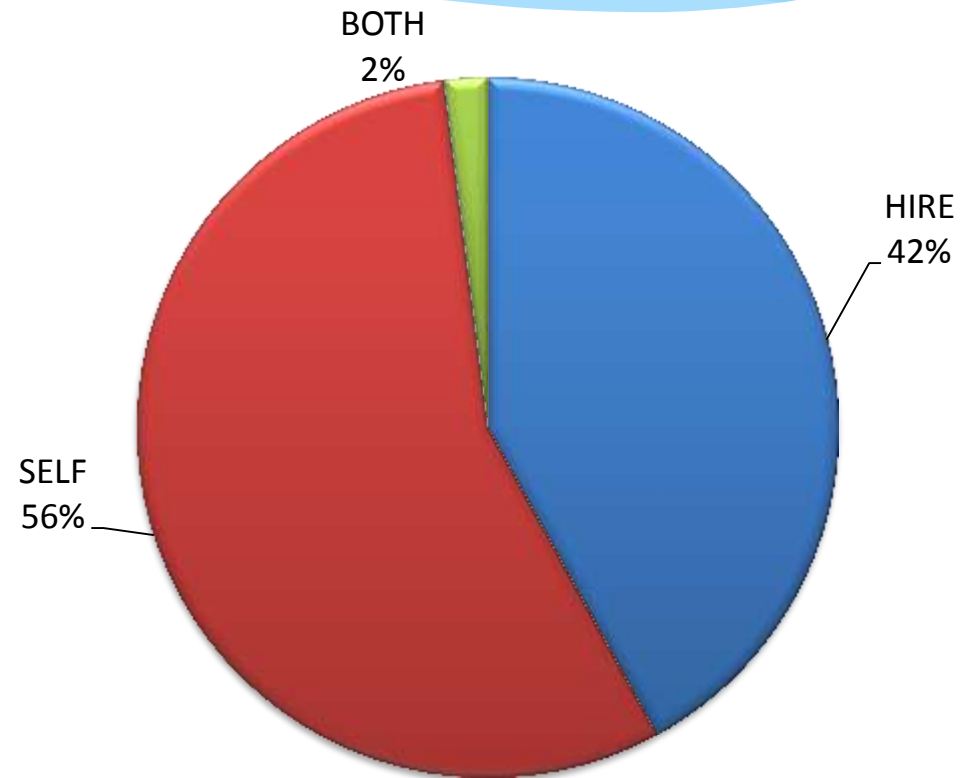
# FSE Survey Results

- \* 123 FSEs Don't have a Device
  - \* Coffee, pizza, small grocery store, ice cream, sandwiches
- \* 157 FSEs have external gravity grease devices
- \* 105 FSEs have hydromechanical devices



# FSE Survey Results

- \* FSEs with interior (HGI) interceptors cleaning preferences:



# FSE Survey Results

- \* FSEs that don't respond, get a site visit

# FSE Survey Results

- \* FSEs that don't respond, get a site visit
  - \* These are unscheduled visits

# FSE Survey Results

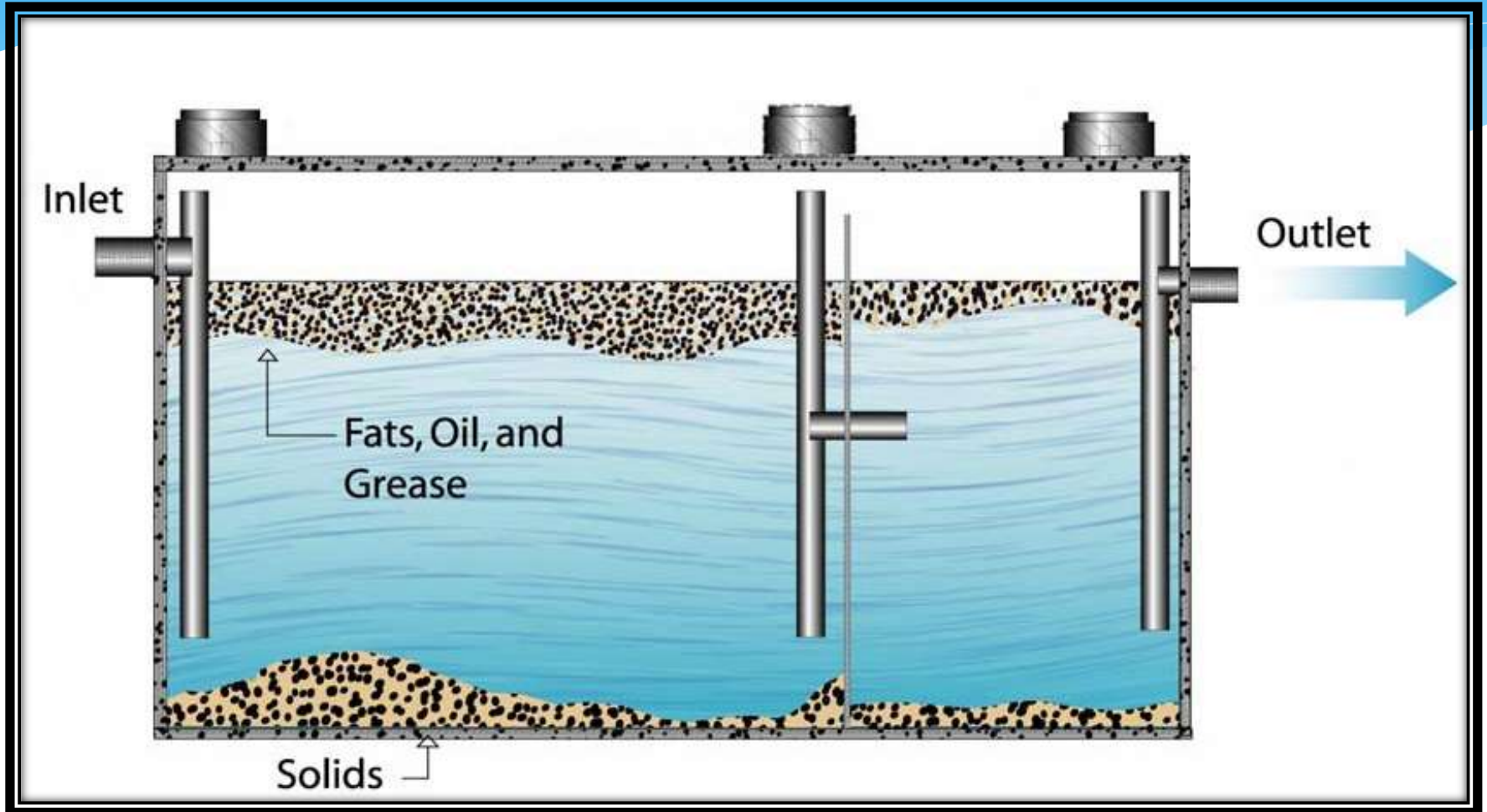


LOTT Alliance  
Budd Inlet Treatment Plant  
500 Adams Street NE  
Olympia, WA 98501

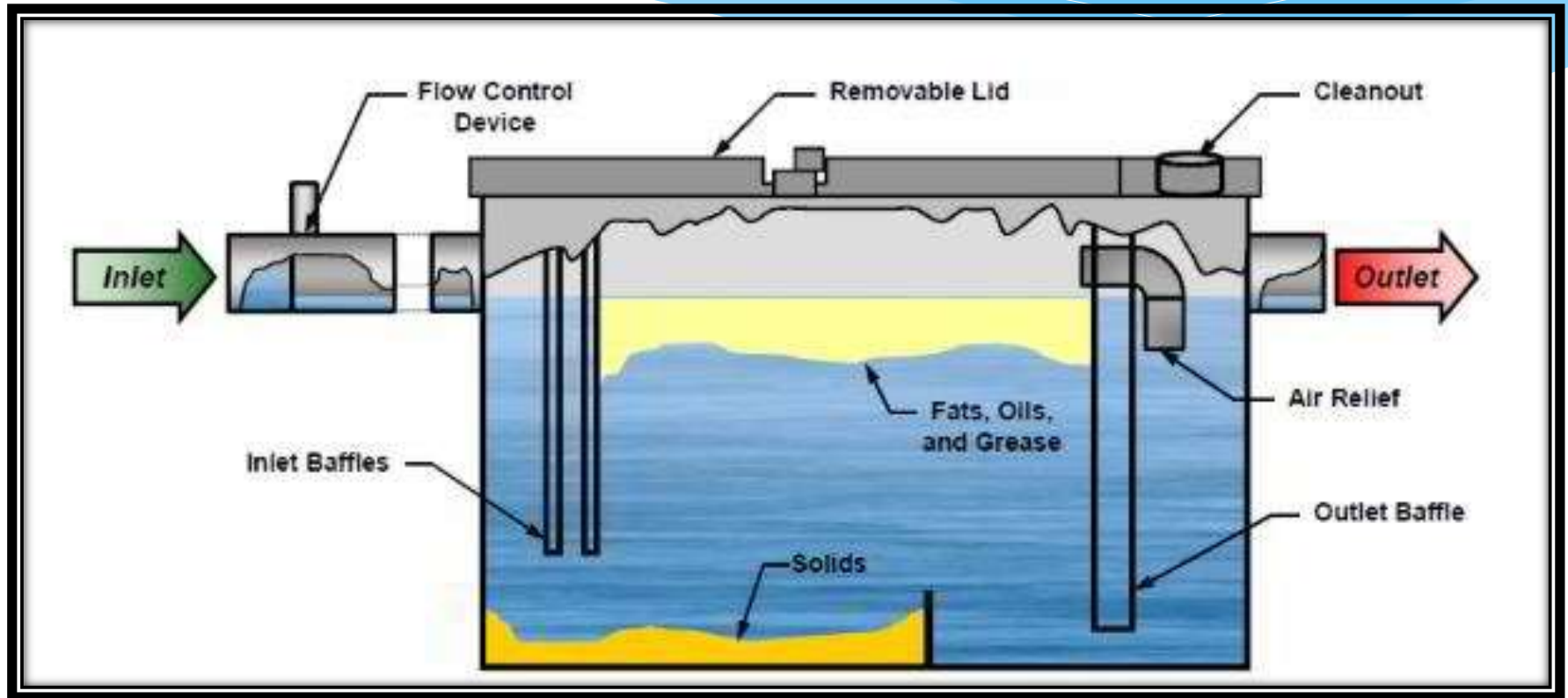
Name _____	Date _____
Address _____	
City, State, Zip _____	
Is hereby requested to perform one of the following:	
<input type="checkbox"/> Submit a copy of the receipt, manifest, or similar written documentation from the grease pumping company that most recently serviced the grease interceptor by mail or email.	
LOTT Clean Water Alliance 500 Adams St. NE Olympia WA 98501 justinboyes@lottcleanwater.org	
Please be advised that failure to provide the required report by _____ may subject you to late fees in the amount of \$50 per day for each day that the report is not received.	
<input type="checkbox"/> Have the grease interceptor cleaned by _____.	
After the interceptor has been cleaned, contact the LOTT Clean Water Alliance, by phone or email, to schedule a follow-up inspection.	
(360) 528-5728 justinboyes@lottcleanwater.org	
Please be advised that failure to maintain a grease interceptor is a violation of applicable local codes and may subject you to administrative penalties, including but not limited to fines.	
Contact Signature _____	
Inspector Signature _____	

Keep this slip for reference

# Gravity Grease Interceptor (GGI)



# Hydromechanical Grease Interceptor (HGI)



Something is off here...







Oh, That's  
what's Wrong!



# Working with Public Works

- \* Public Works staff see what we can't see

# Working with Public Works

- \* Public Works staff see what we can't see
  - \* Routine line cleaning

# Working with Public Works

- \* Public Works staff see what we can't see
  - \* Routine line cleaning
    - \* Excessive grease build-up
    - \* Blockages

# Working with Public Works

- \* Public Works staff see what we can't see
  - \* Routine line cleaning
    - \* Excessive grease build-up
    - \* Blockages
- \* Public Works staff know which areas are “Problem Areas” or “Sight Specific Areas”

# Working with Public Works

- \* Problem Area Identified
  - \* Schedule a visit each FSE in that vicinity

# Working with Public Works

- \* Problem Area Identified
  - \* Schedule a visit each FSE in that vicinity
  - \* Document fixtures in food prep area

# Working with Public Works

- \* Problem Area Identified
  - \* Schedule a visit each FSE in that vicinity
  - \* Document fixtures in food prep area
  - \* Type and condition of interceptor

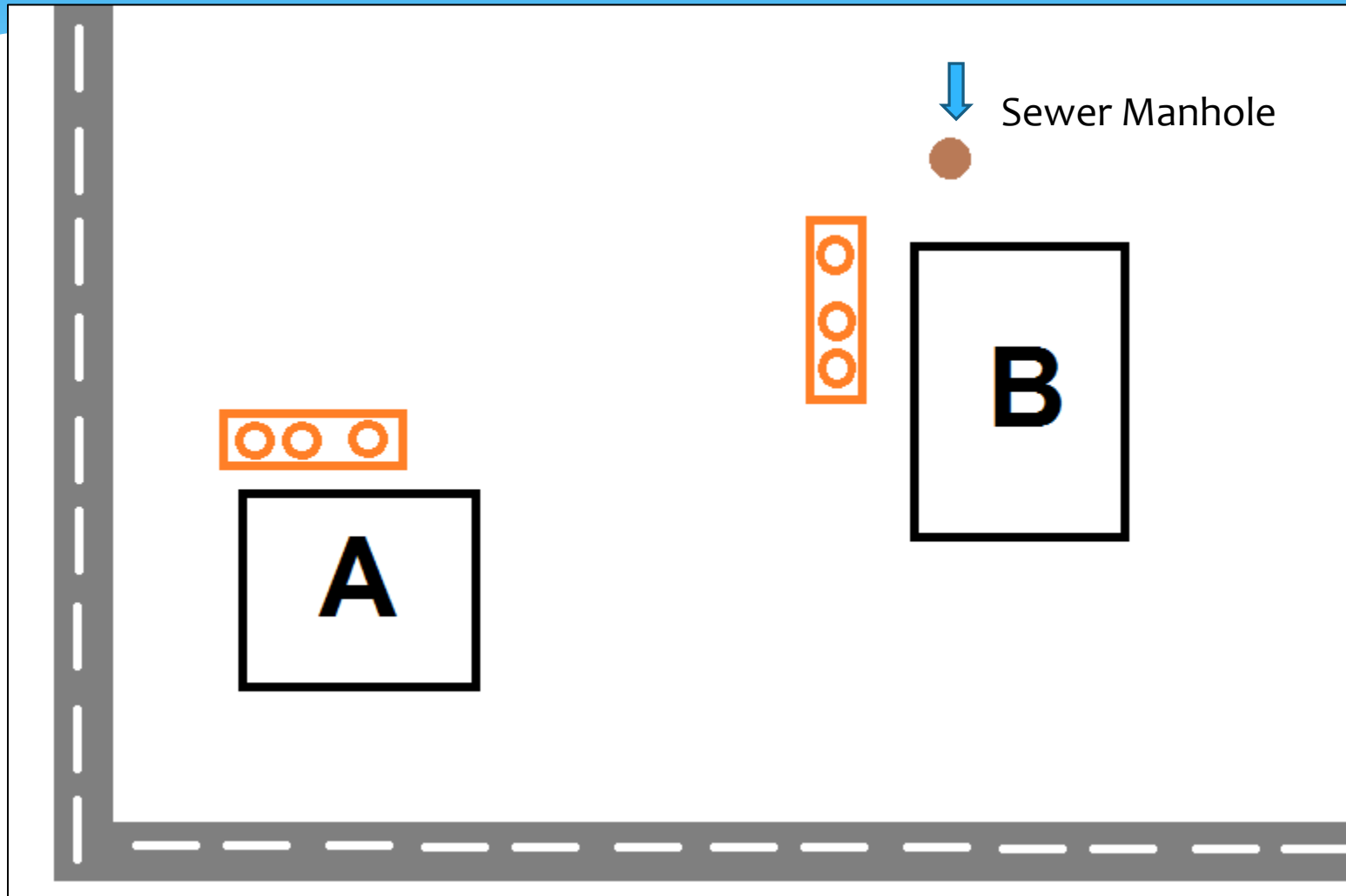
# Working with Public Works

- \* Problem Area Identified
  - \* Schedule a visit each FSE in that vicinity
  - \* Document fixtures in food prep area
  - \* Type and condition of interceptor
  - \* Dye test fixtures



# Problem Area 1

2 FSEs



# FSE A

- \* Interceptor is functioning
- \* Cleaning frequency is not adequate



# FSE A

- \* Required to completely empty and clean interceptor
- \* Increase cleaning frequency

# FSE B Where's the Inlet?





FSE B There it is!



# FSE B Outlet Pipe



# FSE B

- \* Required to completely empty and clean interceptor
- \* Install T-Drop Leg pipes
- \* Increase cleaning frequency



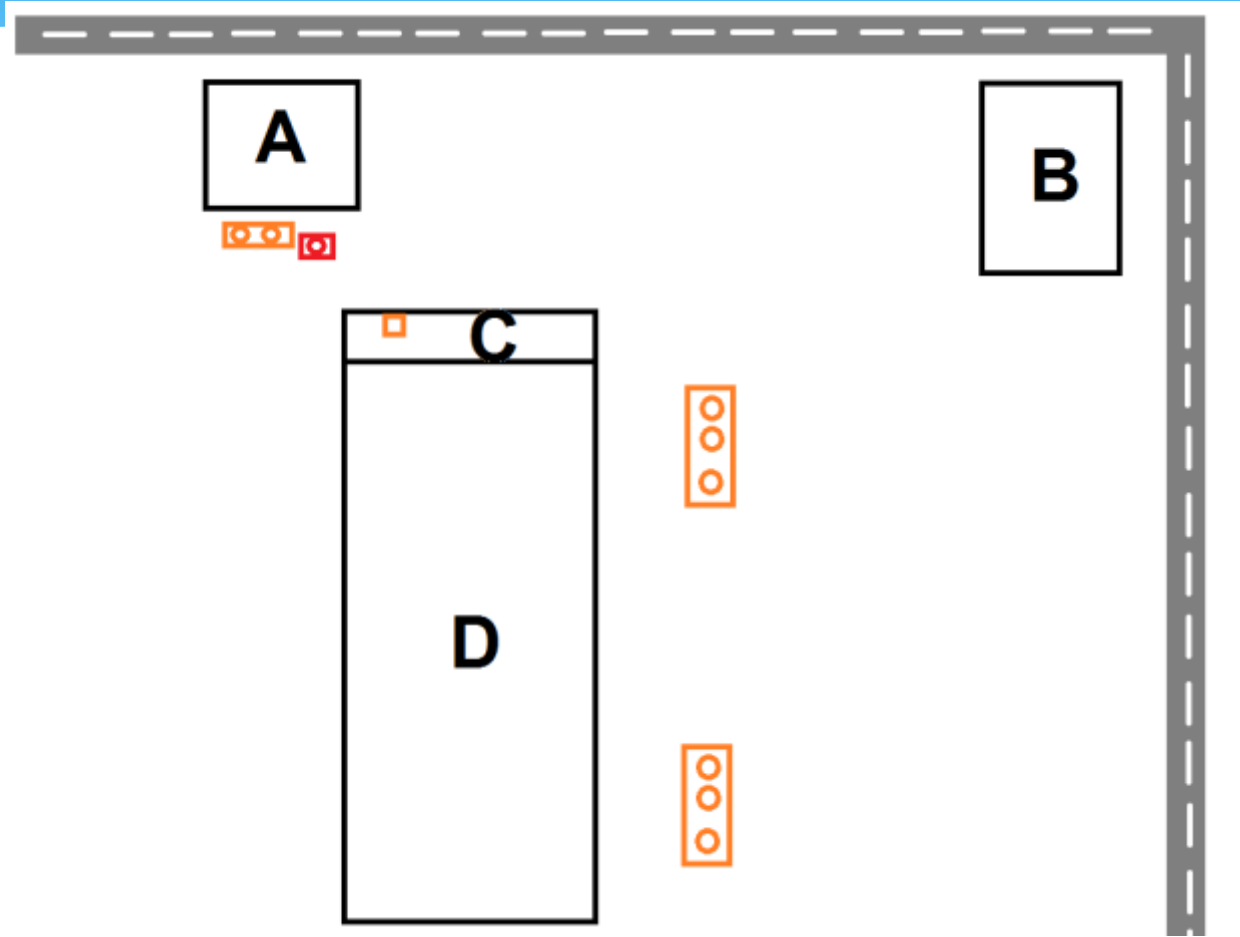
# FSE B Fixed and Cleaned





# Problem Area 2

## 4 FSEs



# FSE A

- \* Two chamber interceptor (converted septic tank)



# FSE A

- \* Two chamber interceptor (converted septic tank)



- \* Private lift station



# FSE A

- \* Dye tested kitchen fixtures
- \* All fixtures are hooked up to interceptor
  - \* Except for the mop sink
    - \* Which is hooked up to the lift station w/ domestic waste-lines.

# FSE A

- \* Need to follow BMPs for Mop Sink
- \* Increase cleaning frequency
  - \* Which includes the lift station

# FSE B

- \* No interceptor!

# FSE B

- \* No interceptor!
- \* He owns the same restaurant up North that is required to have a device.
- \* He voluntarily installed a hydromechanical interceptor at this location.

# FSE C

- \* Small FSE with a small hydromechanical interceptor.
- \* Guarded by ants
- \* Cleaned Annually



# FSE C



# FSE C

- \* Required pump out & cleaning by a professional company
- \* Increase cleaning frequency to Monthly

# FSE D

- \* Grocery store
  - \* Bakery
  - \* Deli
  - \* Butcher

# FSE D

- \* Grocery store
  - \* Bakery
  - \* Deli
  - \* Butcher
- \* 2 Gravity Grease Interceptors

# FSE D

- \* Grocery store
  - \* Bakery
  - \* Deli
  - \* Butcher
- \* 2 Gravity Grease Interceptors
  - \* 1 they weren't aware of

# FSE D



# FSE D



# FSE D

- \* First Interceptor required installation of T-drop leg pipes
- \* Second Interceptor
  - \* Added to cleaning frequency
  - \* Given BMPs to keep garbage out.



# Area 2 Progress

- \* Within 2 months, collection crews saw improvements

# Other Success Stories

- \* FSE with an old HGI, had no baffles, non-functioning.

# Progress

- \* FSE with an old HGI, had no baffles, non-functioning.
  - \* 2 compartment sink connected to HGI
  - \* Prep sink discharges to sewer

# Progress

- \* FSE with an old HGI, had no baffles, non-functioning.
  - \* 2 compartment sink connected to HGI
  - \* Pre-rinse sink discharges to sewer
- \* Voluntarily installed 2 new HGIs

# Progress

- \* FSE without an interceptor
  - \* Given BMPs to follow

# Progress

- \* FSE without an interceptor
  - \* Given BMPs to follow
  - \* Voluntarily installed a new HGI























# Automotive Progress

- \* Hydrocarbon odor in sewer

# Automotive Progress

- \* Hydrocarbon odor in sewer
  - \* Large vehicle wash rack
  - \* Oil/Water separator missing sanitary T-Drop legs



# Wrap-up

# Getting the Most Out of Your Industrial User Surveys

Industrial User Surveys and Partner Collaboration

To receive any of our surveys or BMPs, please email me.

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LOTT Clean Water Alliance

## Questions?