



Fats, Oil and Grease (FOG) Control Program

Working together to keep our community healthy

Environmental Engineering and Contracting, Inc.

- FOG Control National Research Study
 - Phase I Completed in 2003 (FOG Program Building Blocks)
 - Phase II Completed in 2006 (Additives, Automatic Grease Traps, Interceptor Monitoring devices)
- Multiple FOG Characterization Studies
- Implementation of FOG Control Programs for Cities and Special Districts
- Thousands of FSE Inspections
- Development of FOG Tool Kit with National Restaurant Association

Why is FOG a Problem?

- Causes blockages and sanitary sewer overflows (SSOs)
- Increases sewer cleaning and maintenance costs
 - (Priority Cleaning Locations)
- Reduces sewer pipe life
- Reduces pipe capacity



Sanitary Sewer Overflows



- Expensive clean up
- Health risks
- Negative impacts on businesses
- Environmental impacts

Example from Orange County

- 2.3 million gallons
- 3 miles of beach closures for six days
- \$2.3 million in repairs, fines and environmental mitigation efforts





Example from Central Coast California

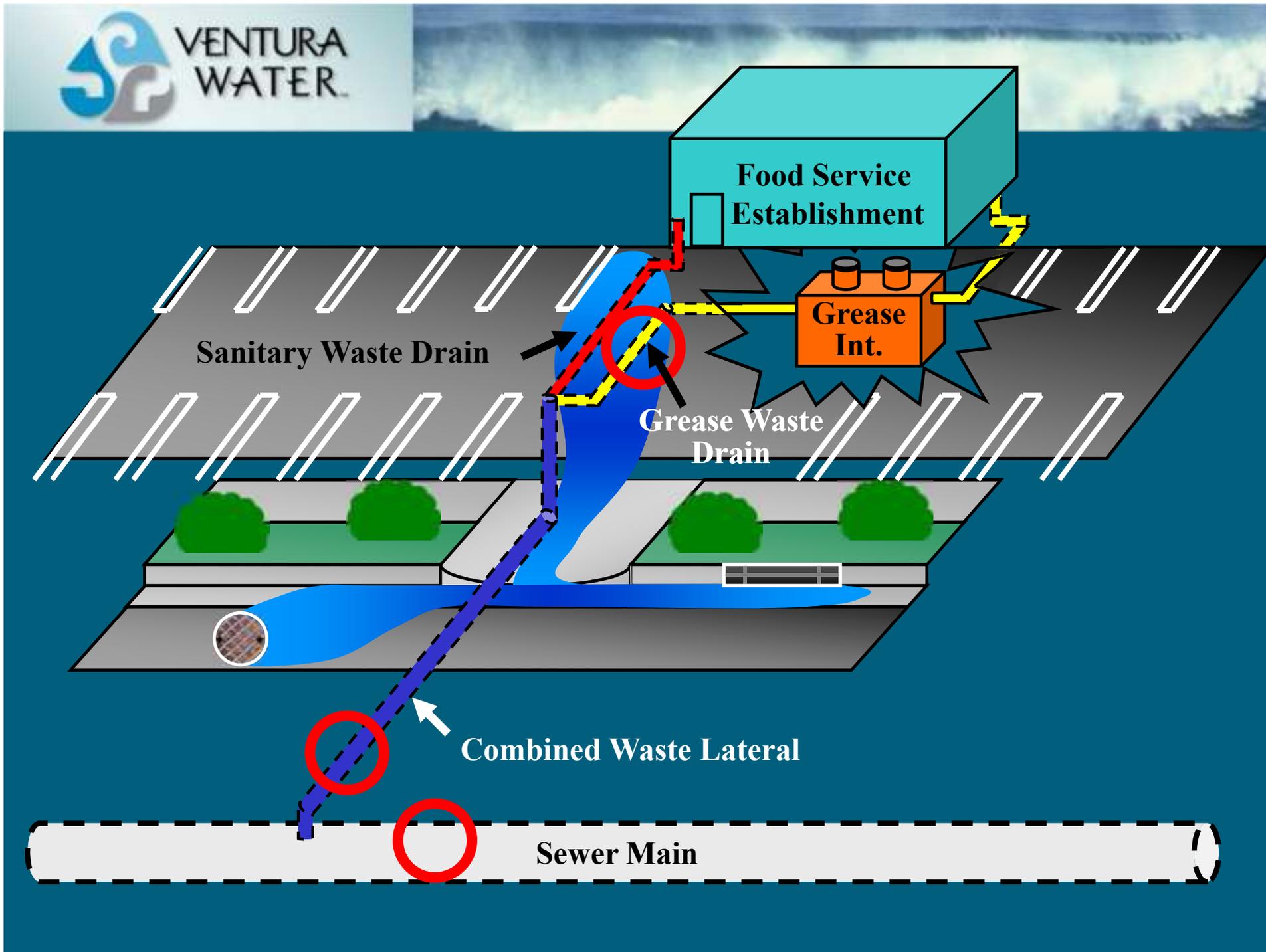
- County Sanitation District is facing fines of up to \$1.4 million for a 2010 spill



SSO Causes

- FOG
- Roots
- Debris
- Vandalism
- Structural Issues
- Equipment failures





How The City Prevents SSOs

- Pre-emptive sewer line operation & maintenance
 - Line cleaning
 - Inspection
- Source Control
 - Industrial
 - Retail/Commercial (FSEs)
 - Residential



Recent Regulatory Developments

- 2010 - FOG Program Rules and Regulations
 - Statewide General WDR Order
- 2012 - Enhanced FOG Program Rules and Regulations
 - Local Consent Decree Action



Current Rules and Regulations

- Risk-based FSE categorization
- Kitchen best management practices (BMPs) requirements
- Grease control devices (GCD) requirements



Risk-Based Categorization

- **Class 1** – High grease generation, typically due to type of cooking equipment, volume of food served, or menu
- **Class 2** – Moderate to high grease generation, typically fast food with mostly single service dishes
- **Class 3** – Low grease generation, typically no cooking of raw food
- **Class 4** – No significant grease generation, typically establishments with limited food preparation

Why Risk-Based Categorization?

- Identify applicable program requirements
 - Kitchen BMPs – Reduce FOG down drain
 - Kitchen Wastewater Treatment
- Prioritize source control activities
 - Inspections
 - Follow-up

Best Management Practices

- Do not discharge grease or greasy food particles into kitchen drains
- Recycle waste grease using a “yellow grease” recycling barrel or bin
- Scrape grease and greasy food particles off of plates, pots, cooking equipment and utensils before washing. Discard waste into trash
- Train kitchen workers, and maintain FOG BMP training logs to show workers are trained annually
- Proper BMP implementation can reduce grease interceptor pumping frequency, and save dishwashing time in the kitchen



Kitchen BMPs

- Garbage disposals
 - Prohibited for new FSEs
 - Need to be removed from existing FSEs
- Additives
 - Prohibited for purpose of emulsifying FOG
 - Prohibited as a supplement to grease interceptor maintenance
- Proper GCD maintenance

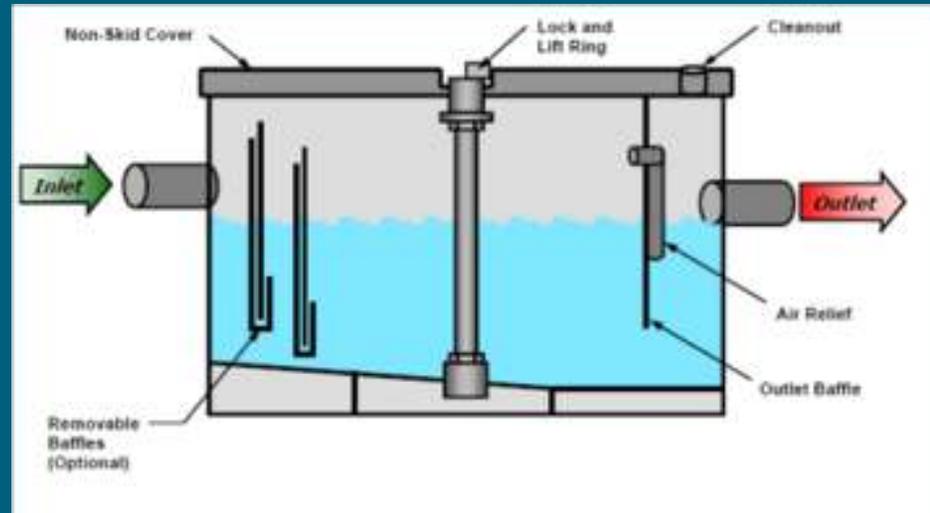


Who Needs to Implement Kitchen BMPs?

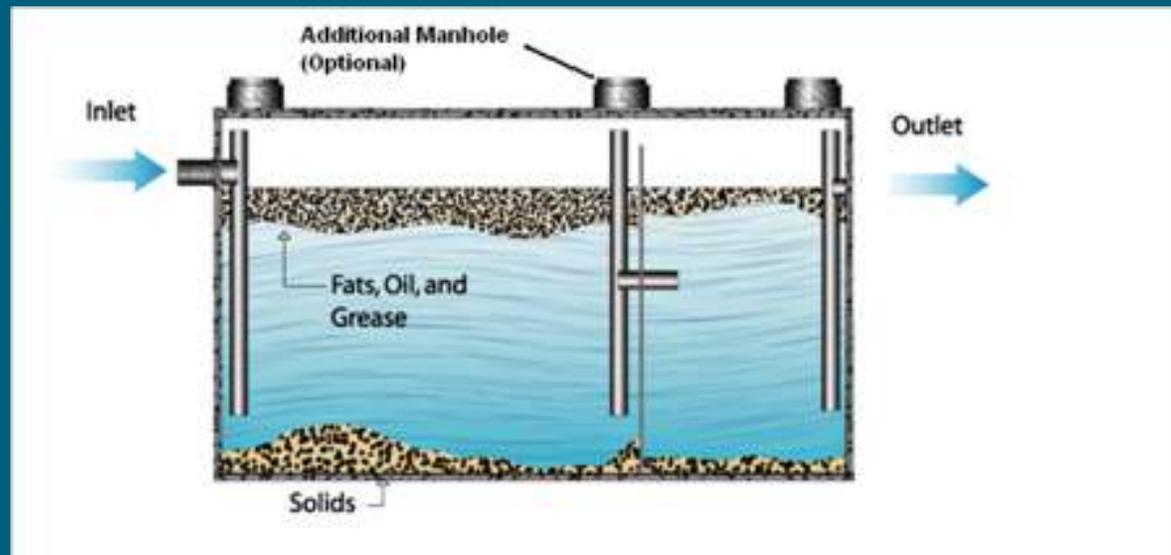
- All new and existing class 1, 2 and 3 facilities

Grease Control Devices (GCDs)

- Grease traps (HGI)



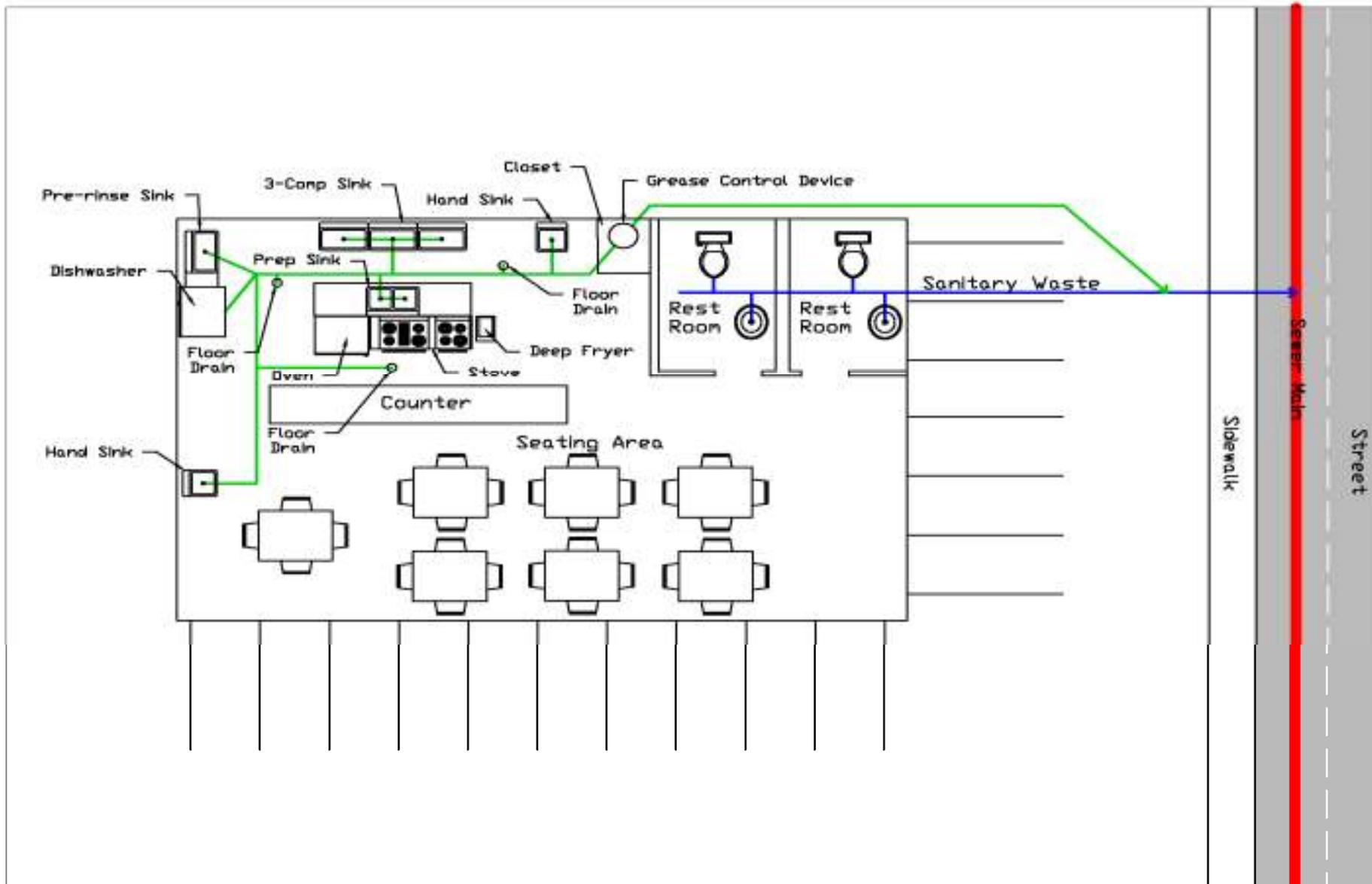
- Gravity grease interceptors



Grease Traps

- Separate FOG and solids from water
- Require manufacturer recommended maintenance for optimal efficiency
- Typically require daily to monthly cleaning





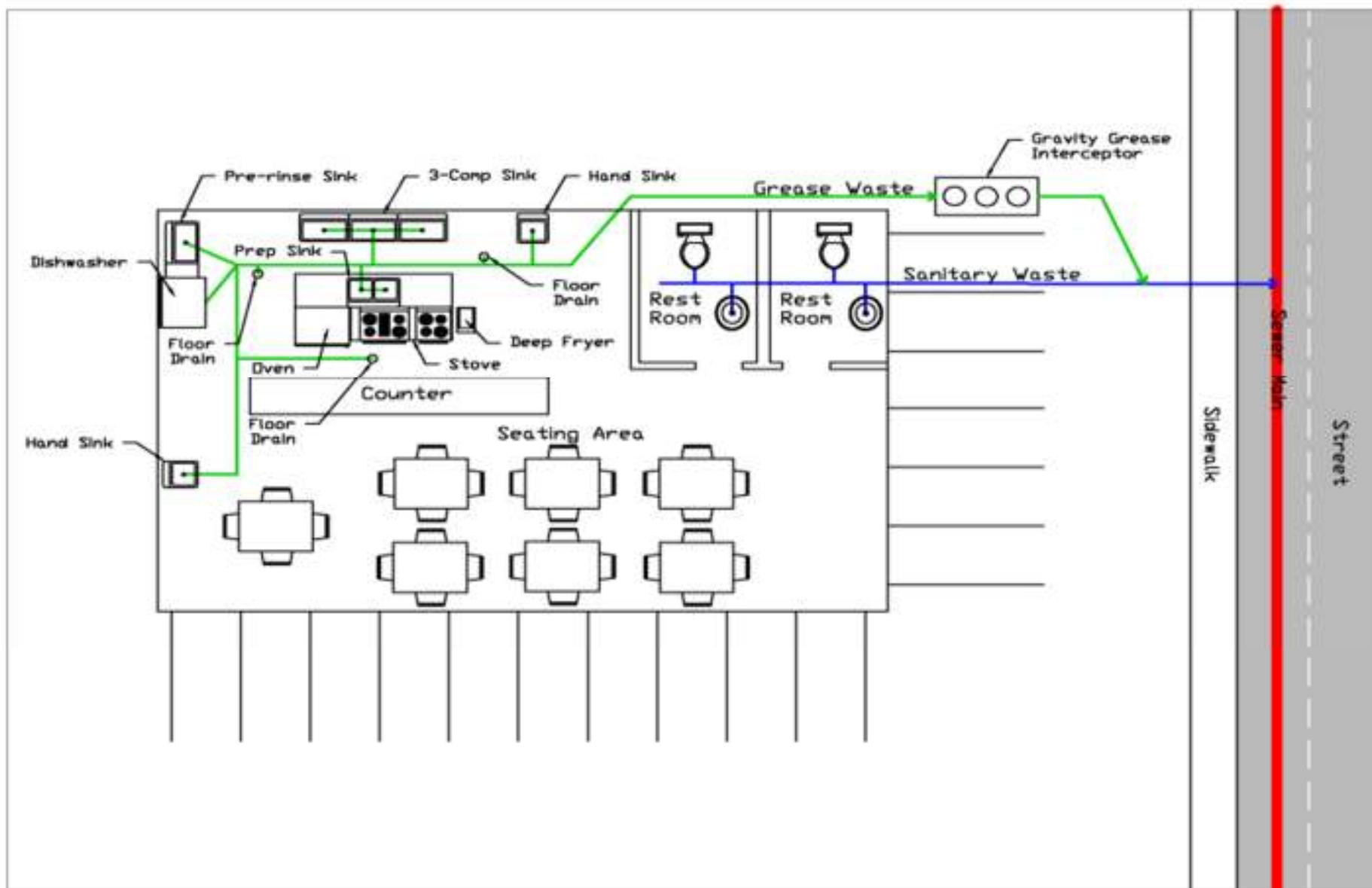
Grease Traps (cont.)



Gravity Grease Interceptor (GGI)

- Separate FOG and solids from water
- Maintained such that the floating FOG and solids does not exceed 25% capacity
- Typically pumped-out completely quarterly



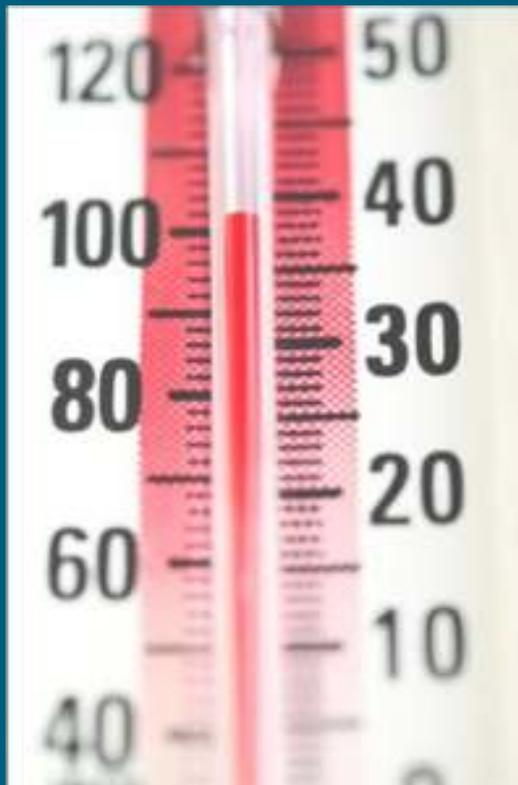


Advantages of a Gravity Grease Interceptors vs. Grease Traps

- Serves entire kitchen
- Long-term costs
- Simplified maintenance



High Temp Discharges



Discharge from dishwashers to any grease removal equipment, including grease traps and grease interceptors, is prohibited, unless the interceptor capacity is greater than 101 gallons

Who Needs a Grease Control Device?

- New Class 1, 2 and 3 facilities
 - New Construction
 - Remodel/Change in Operations
 - Under slab plumbing
 - Change in size or type of cooking equipment
 - Increased seating or size of kitchen area
 - Class 1 and 2 require GGI (for all fixtures/drains discharging grease-laden water)
 - Class 3 require approved GCD (unless substantial evidence provided demonstrating GCD is not required)

Who Needs a Grease Control Device?

- Existing Class 1, 2, and 3 facilities
 - Connected to priority cleaning locations
 - Determined to have reasonable potential to adversely impact the public sewer system
 - Found to be cause of or contributor to sewer blockage or SSO
 - Chronic non-compliance with FOG regulations
 - Existing device is dilapidated or inoperable
 - Class 1 and 2 require GGI (for all fixtures/drains discharging grease-laden water)
 - Class 3 require approved GCD (unless substantial evidence provided demonstrating GCD is not required)

Routine FOG Inspections



- Provide FOG outreach/education to FSEs
- Verify implementation of BMPs
- Verify maintenance condition of GCD

Questions?

<http://www.cityofventura.net/water/fog>

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