



# Impacts From Nondomestic Dischargers

Illinois Rural Water Association | February 19, 2025

Presented by Kim Cole | KimHEC Environmental Consulting



# Introductions/Meet the Audience



**Water  
Operators**



**Wastewater  
Operators**



**Pretreatment  
Programs**



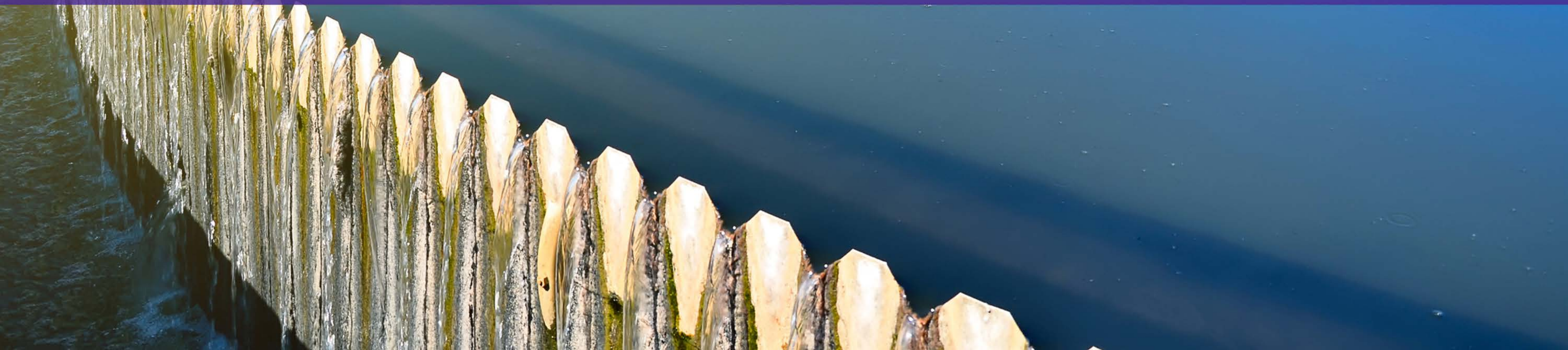
**Issues with  
Nondomestic  
Dischargers**

# Agenda

- POTW Disruptions
- Importance of legal authority
- How to identify nondomestic dischargers
- How to respond to dischargers
- Importance of data



# POTW Disruptions



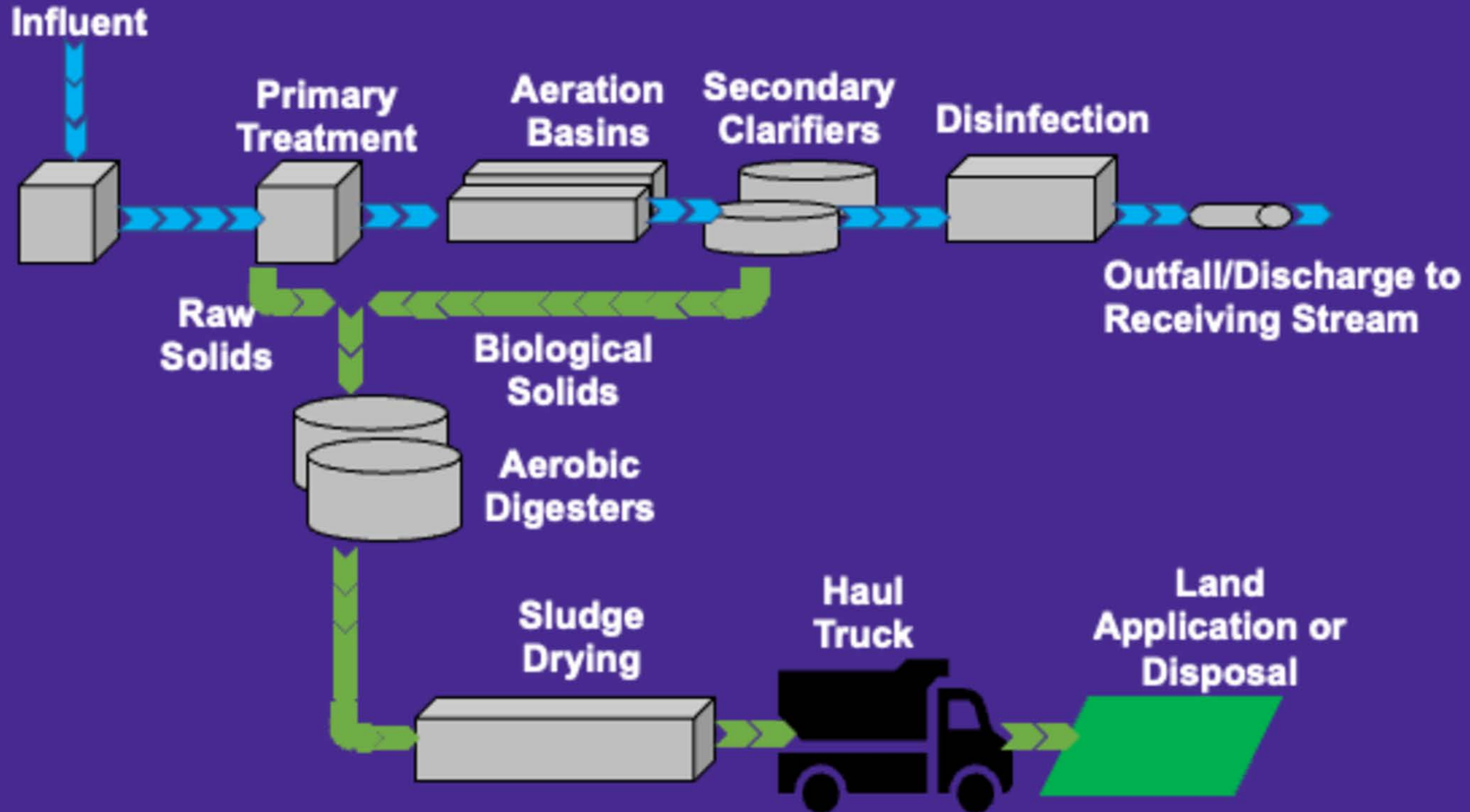
# Examples of POTW “Disruption”





# What are we Protecting?

## Biological vs. Conservative Pollutants



A close-up photograph of a waterfall cascading over wooden planks. The water is clear and creates a misty spray at the bottom. A solid purple horizontal band is overlaid across the middle of the image, containing the text 'Legal Authority' in white.

# Legal Authority



# What Tools Do You Have to Respond With?

**Legal Authority**

**Short-Term Responses**

**Long-Term Responses**

**Surcharges,  
Permits or  
Other  
Mechanisms**

# Legal Authority

- Where to find it
- How to read it
- Who updates it?

The image is a screenshot of the City of O'Fallon website. The browser address bar shows 'ofallonmo.gov/services/index.php'. The website header includes the city logo, the name 'O'FALLON', and a navigation menu with categories: GOVERNMENT (Elected Officials | Agendas), DEPARTMENTS (We Are Here To Help!), SERVICES (Business | Residential), THINGS TO DO (Events | Attractions), and HOW DO I (Start Here!). A purple circle highlights the 'GOVERNMENT' menu item, and a purple arrow points from it to a second purple circle highlighting the 'Municipal Code' link in the 'Elected Officials' sub-menu. The 'Municipal Code' link is also circled in purple. Other links in the 'Elected Officials' sub-menu include Mayor Bill Hennessy, Ward 1 Councilmembers, Ward 2 Councilmembers, Ward 3 Councilmembers, Ward 4 Councilmembers, and Ward 5 Councilmembers. The 'Agendas & Minutes' and 'Boards and Commissions' sections are also visible on the page.

ofallonmo.gov/services/index.php

Translate

Subscribe to O'Fallon's E-Newsletter

Search...

**GOVERNMENT**  
Elected Officials | Agendas

**DEPARTMENTS**  
We Are Here To Help!

**SERVICES**  
Business | Residential

**THINGS TO DO**  
Events | Attractions

**HOW DO I**  
Start Here!

EXPLORE O'FALLON

**Agendas & Minutes**

**Boards and Commissions**

Board of Adjustment  
Convention & Visitors Bureau  
Cultural Arts Commission  
Historic Preservation Commission  
Mayor's Youth Advisory Council  
Parks and Recreation Advisory Board  
Planning and Zoning Commission  
Public Works Advisory Committee  
Senior Resident Advisory Committee  
Veterans Commission

**Elected Officials**

Mayor Bill Hennessy  
Ward 1 Councilmembers  
Ward 2 Councilmembers  
Ward 3 Councilmembers  
Ward 4 Councilmembers  
Ward 5 Councilmembers

**Municipal Code**

**Requests for Public Information**

**O'Fallon Ward Map**

**Watch City Meetings**

**History of O'Fallon**

# Important Components

- Definitions
- Prohibited Discharge Standards
- Access to premises
- Authority to require treatment
- Cost Recovery
- Enforcement
- Building Code Requirements

The screenshot displays the eCode360 interface for the City of Park Hills, MO. The breadcrumb trail shows the path: City of Park Hills, MO > 2024-07-09 > Title VII Utilities. The main content area is a tree view of the codebook, with 'Code' highlighted in the left sidebar. The tree view includes:

- Ch AO Adopting Ordinances
- Ttl I **Government Code**
  - Ch 100 General Provisions
  - Ch 105 Elections
  - Ch 110 City Council and Mayor
  - Ch 113 City Council Meetings and Procedure
  - Ch 115 City Officials
  - Ch 120 Personnel
  - Ch 125 Conflicts of Interest
  - Ch 127 Open Meetings and Records Policy
  - Ch 130 Municipal Court
  - Ch 135 Taxation and Revenue
  - Ch 140 Boards, Commissions and Committees
  - Ch 145 Library
  - Ch 150 City Cemeteries
  - Ch 155 Procurement Procedures and Policies
  - Ch 160 Investment Policy
- Ttl II **Public Health, Safety and Welfare**
  - Ch 200 Volunteer Fire Department
  - Ch 203 Police Department
  - Ch 205 Animal Regulations
  - Ch 210 Offenses

On the right side, there is a search bar with the text 'Enter search term...'. Below it, there are navigation options: 'Print', 'Email', and 'Download'. A section titled 'Title VII Utilities' is visible, containing a 'New Laws' section with a search bar and a list of ordinances, including 'Ord. No. 1602-24'. At the bottom left, the eCode360 logo is present, and at the bottom right, there is a disclaimer: 'By using eCode360 you agree to be legally bound by the Terms of...'

# Prohibited Discharges

c) Any particulates, solids, organic, or inorganic material including but not limited to food waste, microplastics, resins, or viscous substances in a quantity sufficient to cause, potentially cause, or contribute to Interference or Disruption to the POTW.



## Reg. 2-201 General Prohibited Discharge Standards

No User shall introduce or cause to be introduced into the POTW any Pollutant or Wastewater which causes Pass Through, Interference, or Disruption. These general prohibitions apply to all Users of the POTW whether or not they are subject to Categorical Pretreatment Standards or any other Federal, State, and Local Regulations.

## Reg. 2-202 Specific Prohibitions

No User may discharge or cause to be discharged into the POTW, directly or indirectly, any of the following Nondomestic Wastewater:

- a) Any substance in a quantity sufficient to create a potential for fire or explosion, including, but not limited to: discharges with a closed-cup flashpoint of less than 140 degrees Fahrenheit (60 degrees Celsius), using test methods specified in 40 CFR 261.21; and any Discharge that creates two consecutive readings on an explosive hazard meter at any point in the POTW to exceed five percent (5%), or any single reading to exceed ten percent (10%) of the lower explosive limit.
- b) Any substance having a pH less than 5.0 or greater than 12.0, or otherwise causing corrosive structural damage to the POTW, or endangering human health.
- c) Any particulates, solids, organic, or inorganic material including but not limited to food waste, microplastics, resins, or viscous substances in a quantity sufficient to cause, potentially cause, or contribute to Interference or Disruption to the POTW.
- d) Any substance, including oxygen-demanding Pollutants (BOD, etc.), discharged to the POTW at a flow rate or concentration that will or may cause, either singly or by interaction with other substances, Interference or Disruption to the POTW, sludge process, reuse and resource recovery, or which will constitute a hazard to humans or animals.
- e) Any Discharge having a temperature greater than 120 degrees Fahrenheit (49 degrees Celsius), or which will inhibit biological activity in the treatment plant, but in no case Wastewater which causes the temperature at the introduction into the treatment plant to exceed 104 degrees Fahrenheit (40 degrees Celsius).
- f) Petroleum oil, nonbiodegradable cutting oil, products of mineral oil origin in amounts that will cause Inference, Pass Through, or Disruption.

# Department Coordination

- City (or County) Planning and Zoning Dept.
- Engineering, Building and Construction Dept.
- Public Works Dept.
- Sampling & Flow Monitoring Locations
- Interceptors

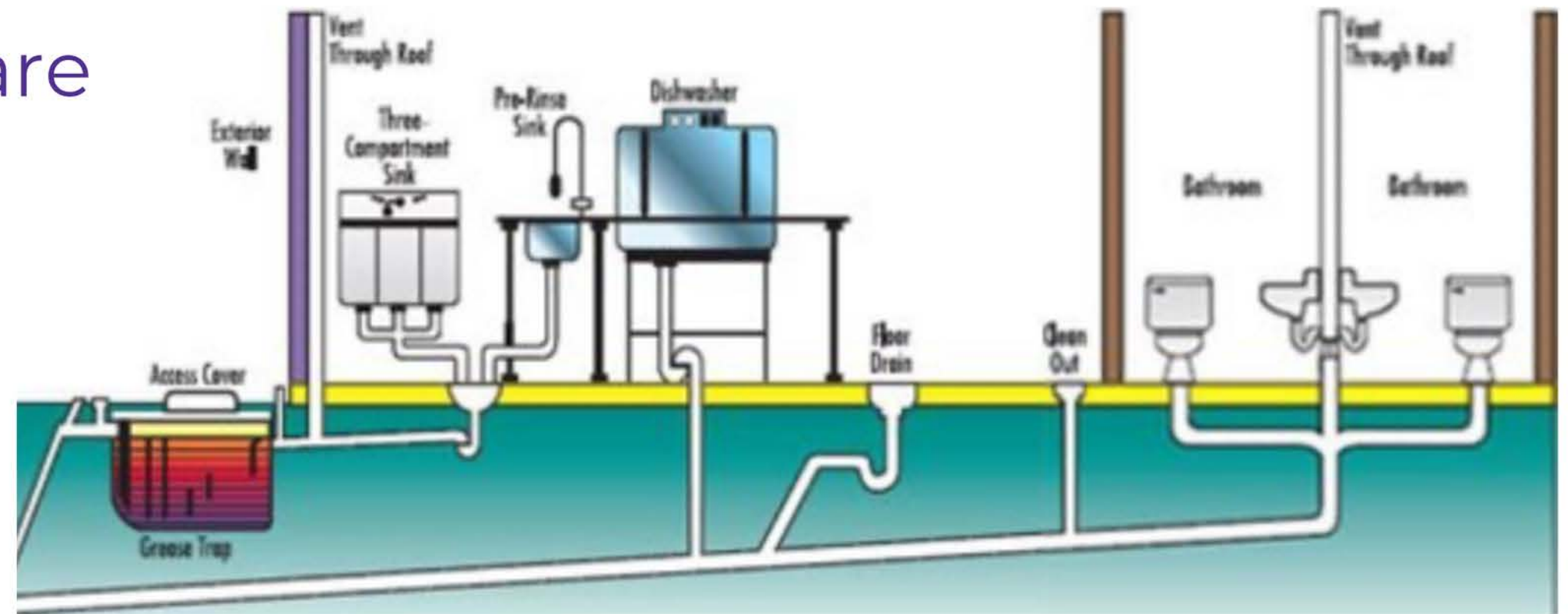
**Integrate into plan review process!**



# Building Code Requirements

## Restaurants, Day Care Centers, Nursing Homes, Car Washes

- Review All New Construction
- Inspect Installations
- Confirm Building Codes are met
- Interceptors
- Flow and/or Monitoring
- BMPs



**IPC or UPC + Modifications**

# Has Anyone Used Their Legal Authority?



**Enforcement**



**Building Code**



**Cost Recovery**



**Letters**

A worker wearing a red hard hat, yellow safety glasses, and an orange safety vest over a green jacket is using a blue-handled tool to work on a large pipe. The worker is standing on a concrete walkway next to a large body of blue water with a metal pole in it. In the background, there is a large industrial building with a corrugated metal roof. The scene is outdoors under a clear blue sky.

# Identifying Nondomestic Dischargers



# Do Nondomestic Dischargers Impact Your POTW?

?

Do you know who did it

?

Anyone have an example

?

Is it the same “user” every time

?

Do “politics” impact ability to respond

# How Do You Identify the Who That is Causing the Issue?



We just “know”



Public  
Outreach



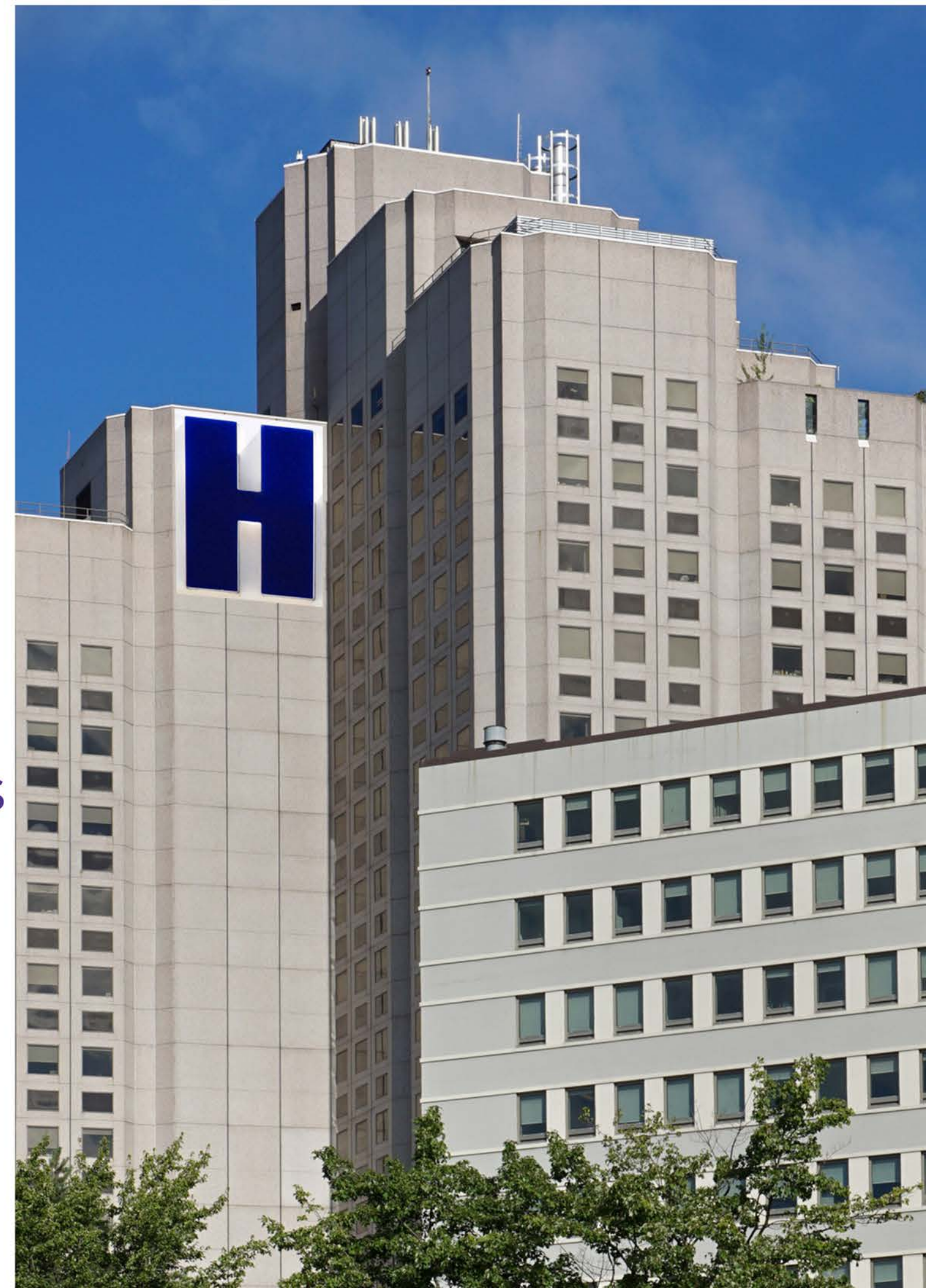
IWS Process



Investigations

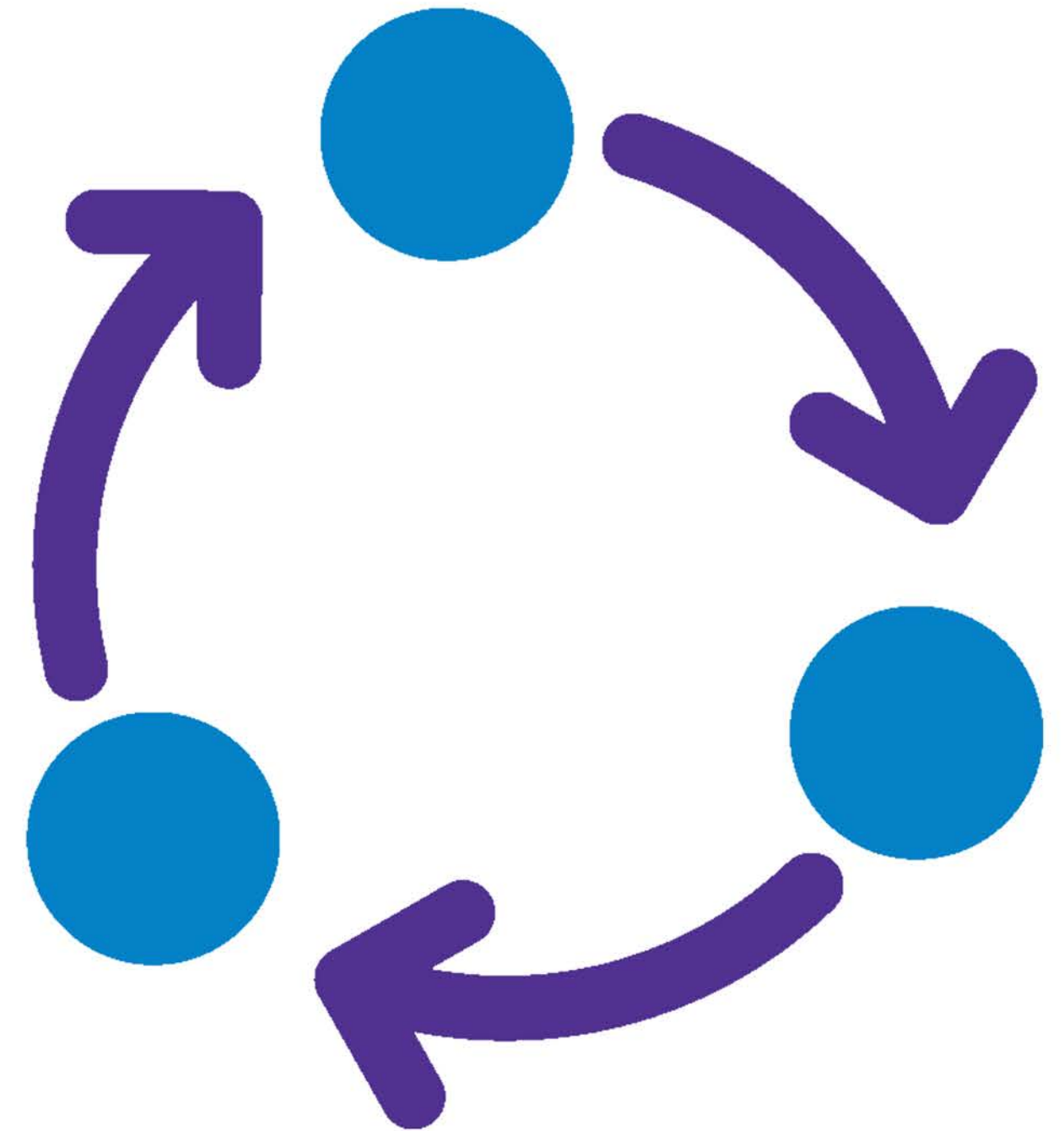
# Types of Nondomestic Discharges

- Food Service Establishments
- Hospitals
- Fermented Beverage Industries
- Printers
- Dry Cleaners and Industrial Laundries
- Car Washes
- Automobile Repair Shops
- Meat Processors (small)
- Manufacturers



# Industrial Waste Survey


- Initial comprehensive effort
- On-going integration
- Goal is to know “nondomestic” users
- Identify potential users that may impact POTW
- Categorical Facilities



**Know who might impact your POTW!**

# Starting Points

- Water usage data
- Health Department list of food service establishments
- Business Licenses
- Knowledge of your community
- Past issues in the collection system or WWTP
- Publicly available databases: Data Axle, EPA ECHO, Dunn & Bradstreet



Clackamas River Water  
P O Box 2439  
Clackamas OR 97015-2439

## INVOICE

**ACCOUNT INFORMATION**

UTILITY BILLING NUMBER: 123456-12  
 SERVICE ADDRESS: 12345 SE Fake AVE  
 BILLING DATE: 8/31/2013

*This is where the water is received*

**METER READ INFORMATION**

Read Date			Water Reading		
Current	Prior	Days	Current	Prior	Consumption
8/18/2013	6/17/2013	60	651	635	16

**CURRENT WATER CHARGES**

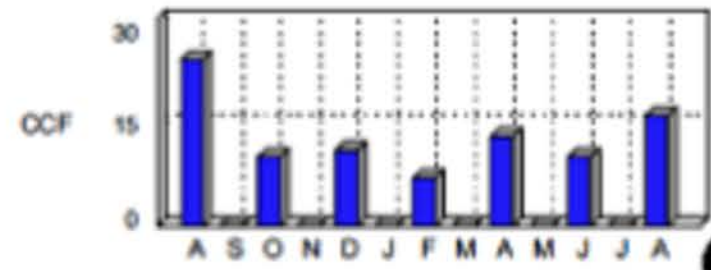
Description	Starting Units	Ending Units	Number of Units	Rate Per Unit	Amount
Bi-Monthly Base Rate					Monthly Service Charge → 19.08
Block 1	0	4	4	1.90	7.60
Block 2	4	8	4	2.11	8.44
Block 3	8	24	8	2.51	20.08
					Water Use Charges

**AMOUNT DUE**

CURRENT CHARGES	55.20
PREVIOUS BALANCE	40.14
PAYMENTS RECEIVED	40.14
<b>TOTAL AMOUNT DUE</b>	<b>1 Total Due → 55.20</b>
CREDIT BALANCE	0.00
<b>DUE DATE:</b>	<b>9/15/2013</b>

*ACCOUNT IS DELINQUENT ON THE 25TH - SEE BACK OF STATEMENT ON IMPORTANT DATES TO REMEMBER*

**YOUR MONTHLY WATER USAGE**



1 Unit = 100 Cubic Feet (CCF) of Water  
1 CCF = 748 Gallons


**SPECIAL MESSAGE**

DOES YOUR BILL SEEM HIGH? A HOT & DRY JUNE, JULY & AUGUST HAVE CONTRIBUTED TO SOME OF THE HIGHEST WATER USE SINCE 2008. GO TO WWW.CRWATER.COM TO PAY YOUR BILL AT NO CHARGE. UNPAID AUGUST BILLS WILL BE SHUT OFF ON OR AFTER OCTOBER 7. IF SHUT OFF, THERE WILL BE A \$40 SHUT OFF FEE & \$40 DEPOSIT. IF YOU NEED ARRANGEMENTS, PLEASE CALL PRIOR TO SEPTEMBER 29.

PLEASE RETURN THIS PORTION WITH YOUR PAYMENT - MAKE YOUR CHECKS PAYABLE TO: CLACKAMAS RIVER WATER

ACCOUNT INFORMATION	AMOUNT DUE
UTILITY BILLING NUMBER: 123456-12	TOTAL AMOUNT DUE 55.20
SERVICE ADDRESS: 12345 SE Fake AVE	AMOUNT ENCLOSED
BILLING DATE: 8/31/2013	
DUE DATE: 9/15/2013	

123456120000055201

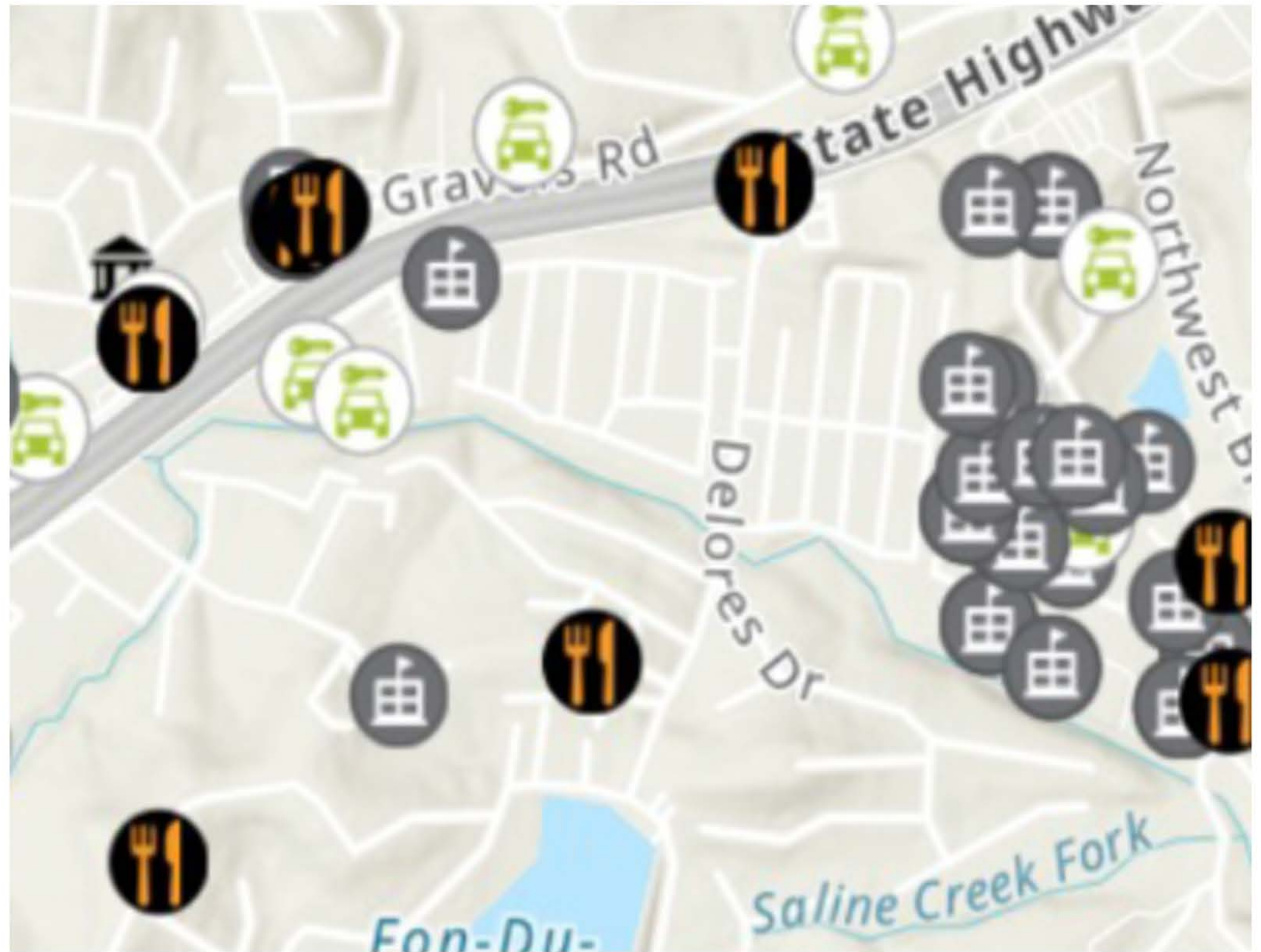

**CLACKAMAS RIVER WATER**  
 PAYMENT PROCESSING  
 PO BOX 3277  
 PORTLAND OR 97208-3277

# Example List in Excel

1	A	B	C	G	H	I	J	K	L	M	
2	Exclusion Code	IWS Mailing Date 1	IWS Respo...	Primary NAICS Description							
3	2 3	9/12/2023 (blank)	11/7/2023	Administrative Management And...	Air-Conditioning And Warm Air H...	Air-Conditioning and Warm					
4	4 5	IWS Mailing Date 2	4/1/2024	All Other General Merchandise R...	All Other Industrial Machinery M...	All Other Miscellaneous Ch					
5	6 7	4/1/2024 4/10/2024	4/2/2024	All Other Miscellaneous Fabricate...	All Other Miscellaneous Manufac...	All Other Miscellaneous Te					
6	8 (blank)	Priority?	4/11/2024	All Other Professional, Scientific, ...	All Other Publishers	All Other Rubber Product M					
7		Priority (blank)	(blank)	Automobile And Light Duty Moto...	Automobile And Other Motor Ve...	Automotive Body, Paint, An					
8				Automotive Glass Replacement S...	Automotive Oil Change And Lubri...	Automotive Parts And Acco					
9											
10											
11											
12	Company Name	Operating Name	Exclusio	Physica	City (physical)	State (p	ZIP (physical)	Mailing Address (if differer	City (mailing)	State (mailin	Zip (r
13	Atlasta Specialty Ink Inc				4600 S Sq High Ridge	MO	63049				
14	Mastertaste-Fenton				747 Sunpa Fenton	MO	63026				
15	Sieveking Fuels and Lubes	Sieveking Fuels and Lubes			4636 Walk High Ridge	MO	63049	2130 Kielen Ave	St. Louis	MO	63049
16	Production Castings Inc				1440 West Fenton	MO	63026				
17	Liberty Blasting LLC				209 Seebo Fenton	MO	63026				
18	H-J Enterprises		2		6217 High High Ridge	MO	63049				
19	Gateway Stone Fabricators		6		2516 N Lar Fenton	MO	63026				
20	Scientific Lighting Products	SLP Lighting			1400 S Olc Fenton	MO	63026				
21	Wegmann Co LLC	Wegmann Companies			111 Trw Ir High Ridge	MO	63049				
22	American Gold Label & Printing Co				2614 Grav High Ridge	MO	63049				
23	Flexible Cutting Systems	JMJ Enterprise LLC	6		4581 N Sq High Ridge	MO	63049				
24	Jerry Haas Race Cars Inc		6		350 Haas I Fenton	MO	63026				

# Map It!

- Target industry sectors
- Surveys (mail, email or hand deliver)
- GIS or Google Maps
- Integrate with other locational data



# Communication and Follow-up

- Phone Calls
- Site Visits
- Supplementary Forms
- Define Best Management Practices

**Send 2nd Notices for Nonresponsive Surveys or Hand Deliver**





# Federal Regulations

- Process-specific discharge limits
- 40 CFR 405 – 471
  - [eCFR :: 40 CFR Chapter I Subchapter N -- Effluent Guidelines and Standards](#)
- 59 Categorical Industrial User types in the CFR books
- Industrial users that may impact your system



# Other Users of Interest

- Food Service Establishments
  - Interceptors and cleaning frequencies
  - Best Management Practices to keep grease out of sewer
  - Escalating Enforcement
- Waste Haulers
- Printers
- Meat Processors
- Alcoholic Beverage Facilities





# Responding to Disruptions



# Why is it Important to Control Discharges?

**Disruption to  
Collection  
System**

**Impact to  
POTW**

**Cost Recovery**

**Permit  
Compliance**

# Slug Loading Events

## Responses



### Identify Event

Damage Already Done



### Short-Term Response

Mitigate Damage



### Long-Term Response

Methodical:  
Cause or  
Symptoms

# Short-Term Response: Slug

## Can you divert?

- Wet weather storage
- Equalization basin
- Primary clarifier

## Slow discharge down (solids shuffling)

- Switch Clarifiers in Service
- Gives Scum Removal Time to Work



# Discussion: Slug Events



**Event  
Documentation**



**Success in  
Identifying the  
Source**



**Ability to  
“Hold”  
Wastewater**



**Collection  
System  
Notifications**

# Plant Observation Incident Report



\* Required

## 1. Person Performing Report \*

Person reporting and observing the incident

## 2. Date of Incident \*

Date incident was observed





# Long-Term Response:

## Anticipate Impacts

- Flow/Loading Increases
- Collection System
- Biosolids

## Track and Trend Events



# Long-Term Response:

- Plan for Early Action
- Operator Training
- Operator Empowerment
- SOPs
- Data Collection and Trends





# Collecting and Using Data

# Why Do We Collect Data?

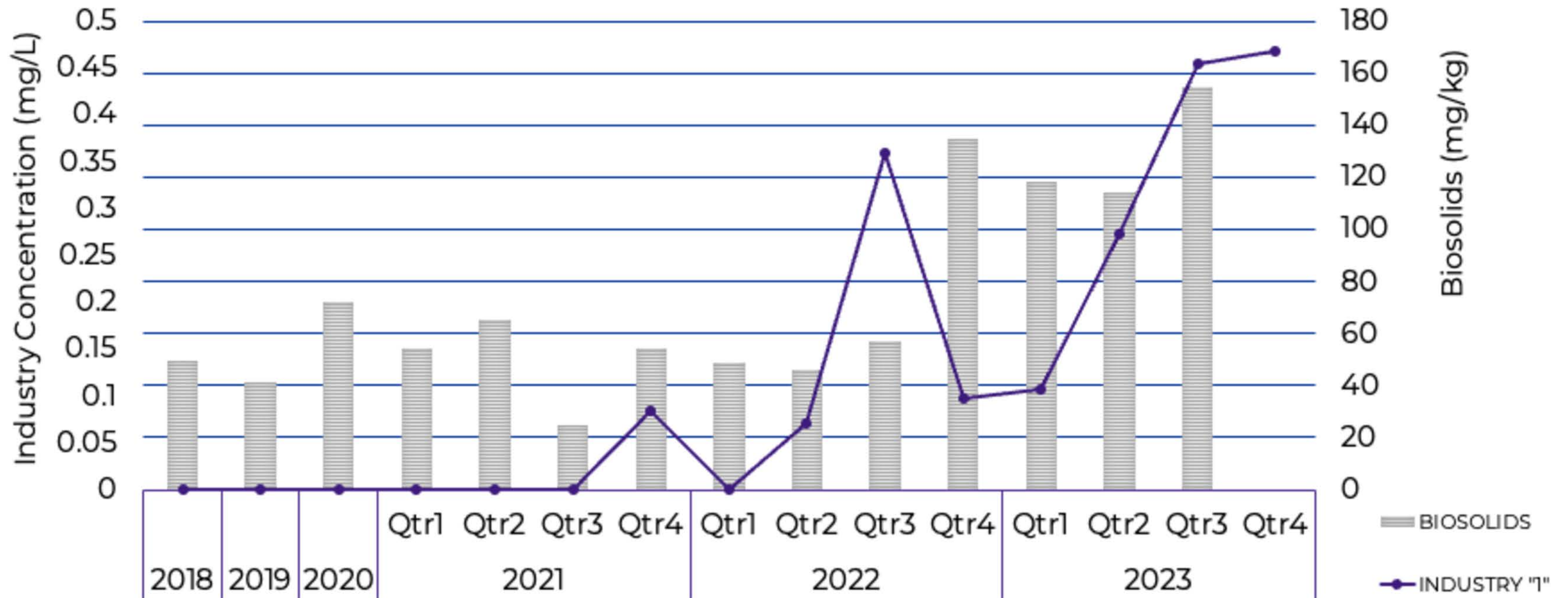
**Permit  
Requirements**

**To run our  
WWTPs better  
(operational  
data)**

**Trending**

**Correlations**

# Lead Example



# Closing Thoughts

- Know your Dischargers
- Use your Legal Authority
- Look at Your Data
- Communication





# Thank You / Questions

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