

# ILLICIT DISCHARGE SURVEILLANCE

## FIELD STAFF TRAINING

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April 15<sup>th</sup>, 2025





## Overview



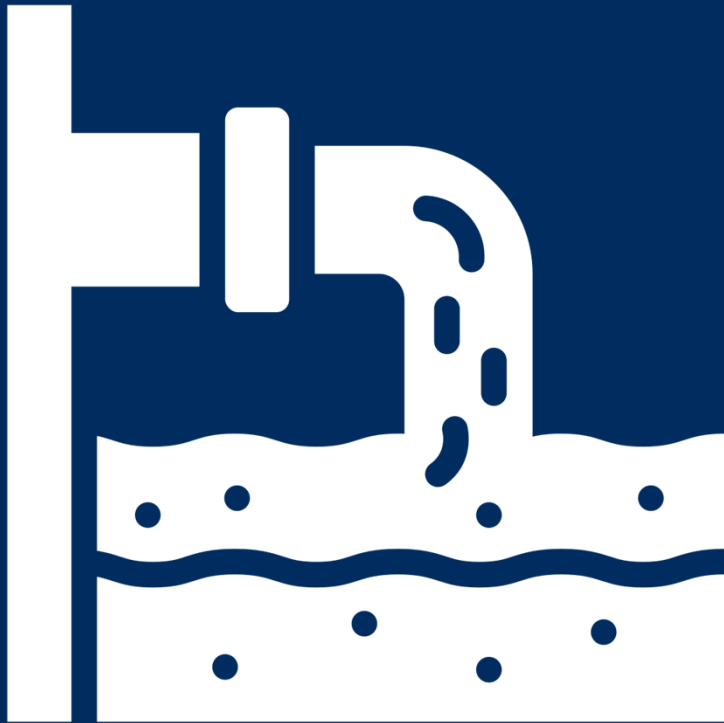
## Common Violations & Environmental Impacts



## Reporting



## Case Studies



# Overview

# Sanitary vs Storm Sewer Systems





# What is an illicit discharge?

**The release of any harmful or non permitted substance to storm sewer or surface water**

Stormwater systems are designed to carry only rainwater and snowmelt, any other materials enter our lakes and streams untreated.

# Possible ways illicit discharge occur

- Poor housekeeping
- Poor waste management
- Spills/accidents
- Illegal dumping/gross negligence



# Applicable Ordinances

City of Madison General Ordinance Chapter 7.46

Dane County Code of Ordinances Chapter 50.06

“Discharge or Release Prohibited. It shall be unlawful for any person to cause or allow an illicit discharge, including permitting the escape of any potentially polluting substance into waters of Dane County, or into any municipal storm sewer system, or drainage way leading into any lake, wetland or stream, or to permit the same to be so discharged to the ground surface.”



# Environmental Impacts



# Nutrient Pollution

Excess nutrient input leads to eutrophication (production overload)

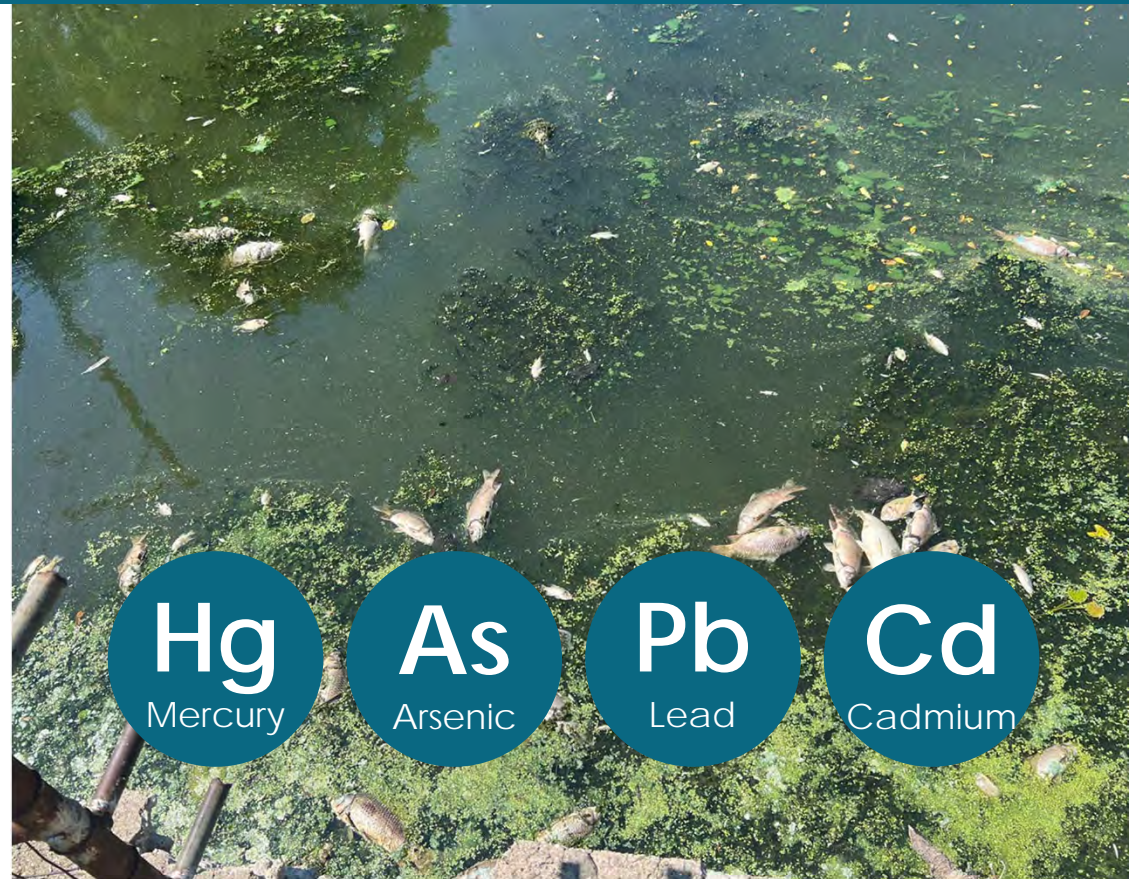
- Algal blooms
- Hypoxia (no oxygen)



# Toxicity

Heavy metals and solvents can directly harm aquatic wildlife

- Reproductive/growth disruption
- Kill organisms outright
- Alter water chemistry





# Sediment Pollution

Run off, excess soil can increase turbidity (amount of suspended particles)

- Reduce light penetration for aquatic plants
- Habitat loss
- Not aesthetic



# Pathogens

Untreated sewage  
and wastewater can  
introduce harmful  
bacteria



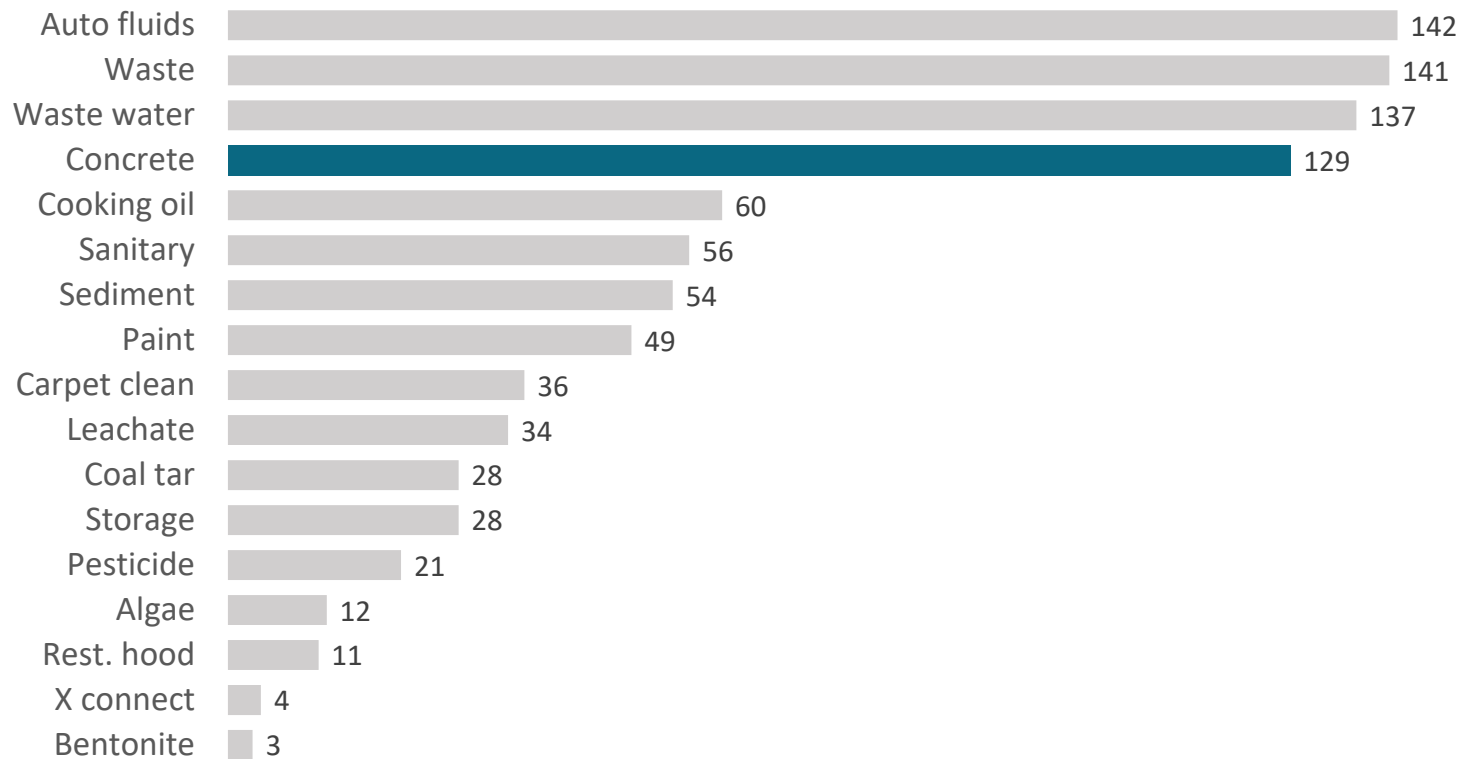




# Common Violations

# Concrete is one of our most common complaints.

## Water Quality Complaints (1993-2019)



# 10,000 gallons of rain water required to neutralize 1 gallon of concrete waste.



Arsenic=3000 ppb

Chromium=20,000 ppb

Copper=15,000 ppb

Lead=2500 ppb

Nickel=15,000 ppb

Zinc=90,000 ppb

pH>11.00

ATC=340 ppb

ATC=570 ppb

ATC=100 ppb

ATC=65 ppb

ATC=470 ppb

ATC=120 ppb

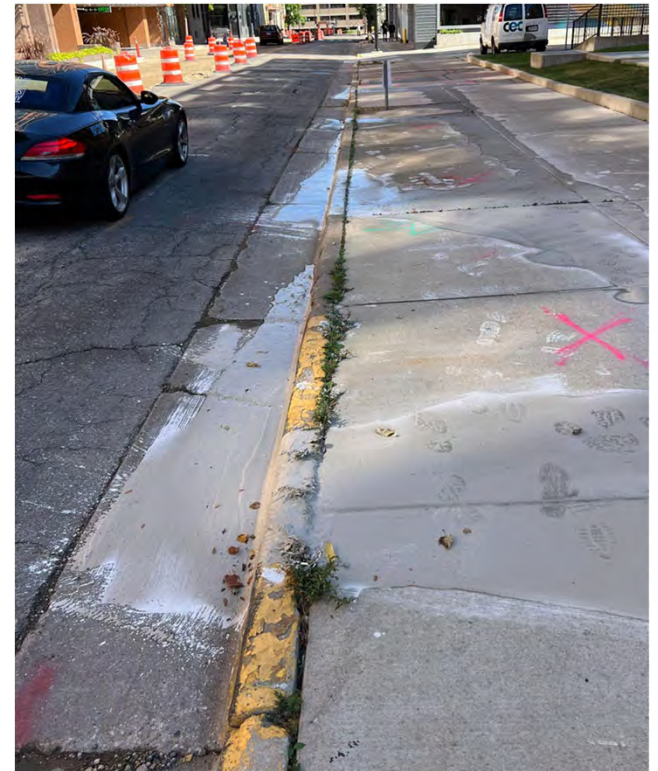
pH>9.00 illegal

# Concrete Violations





# Wet Cutting





# Chute Washout/Tool Cleaning







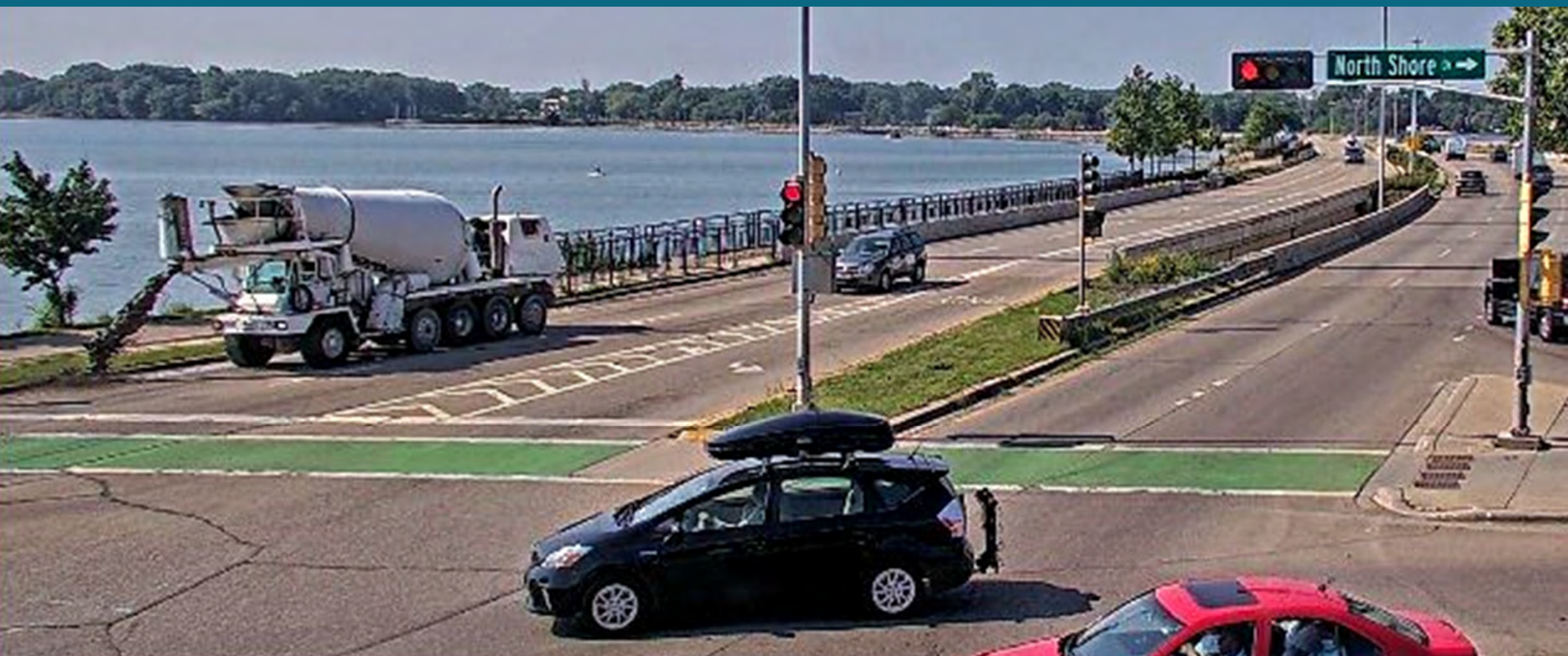


# Designated Washout Overflow





# Transport





# Best Practices





# Used Cooking Oil













# Best Practices





# Best Practices

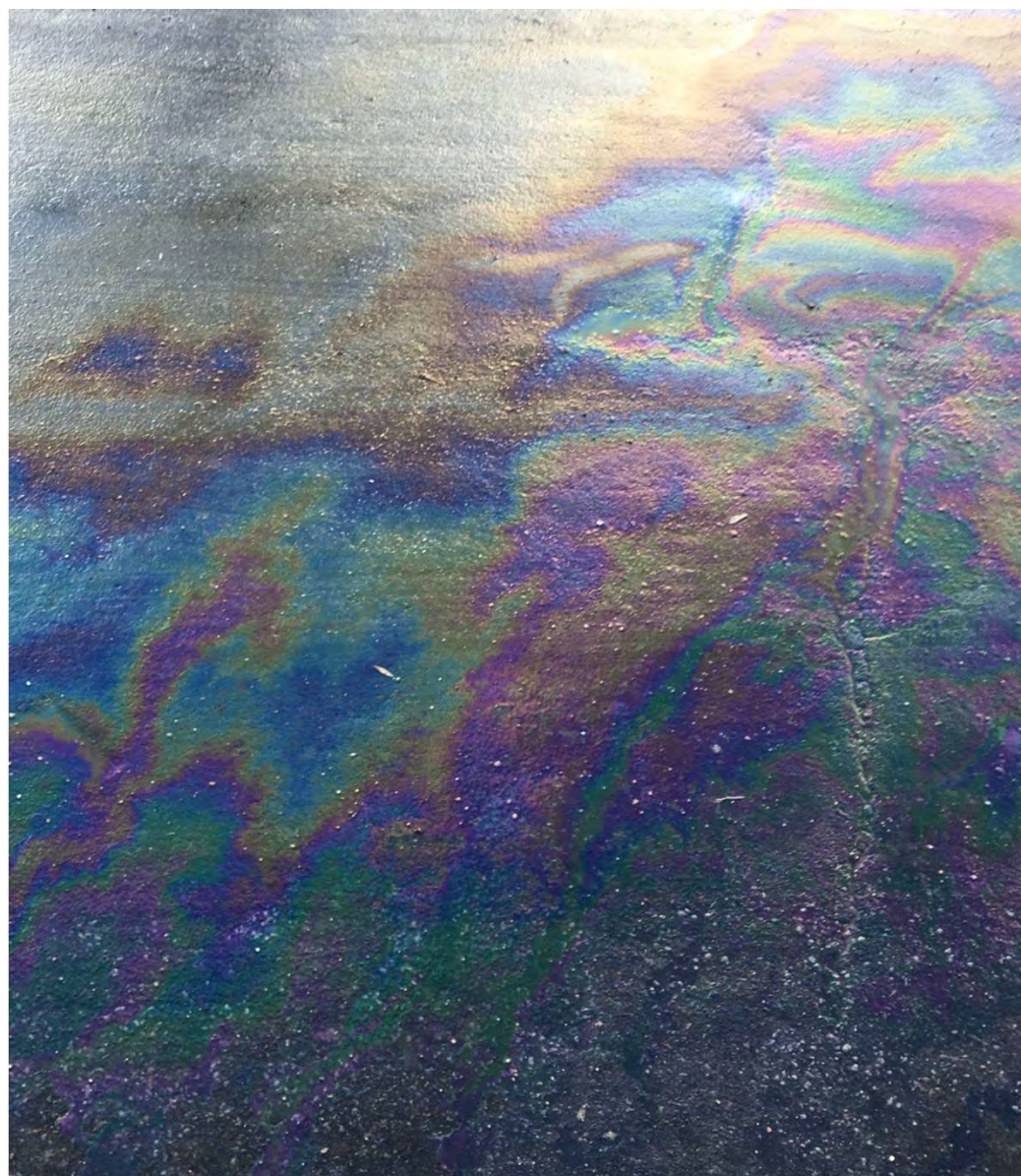




# Automotive Fluids









# Improper Storage





# Improper Storage





# Carpet Cleaning/Wastewater









# Dumpster Leachate





# Organic Food Waste





# Paint/Polymer Applications



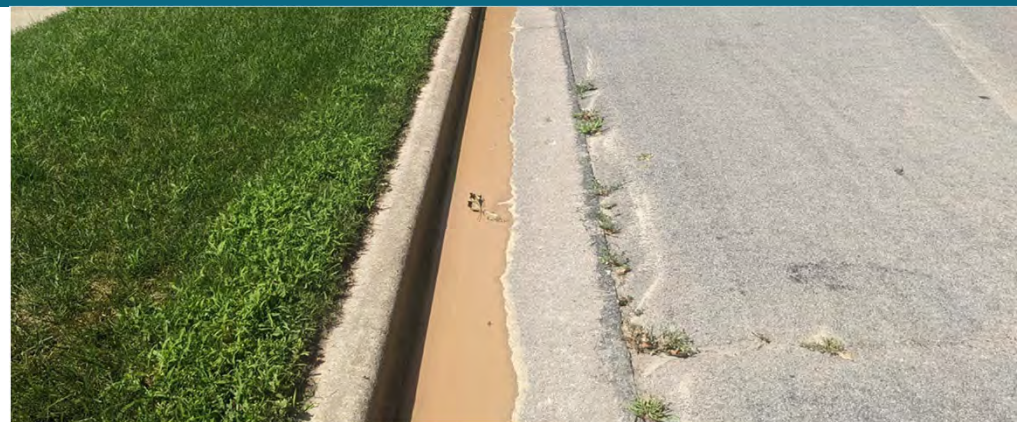


# Sanitary Sewer Overflows





# Bentonite





# Restaurant Hood Cleaning









# Car Wash





# Common Violations

## Performix

- Corrosive
- Contains phosphates
- **“Keep spills away from storm drains, surface waters, and soil.”**

## Polish Cherry Blue 311, Red 312, & Yellow 313

- Oxygen demand
- **“Keep spills away from storm drains, surface waters, and soil.”**

## Drying Agent 400 & LustraShield

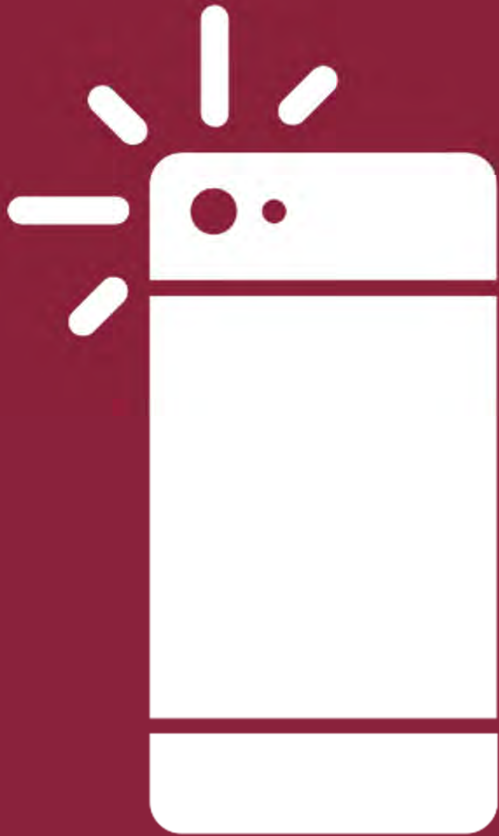
- “Keep spills away from storm drains, surface waters, and soil.”
- **“This product is considered very toxic to aquatic life. May cause long lasting harmful effects to aquatic life.”**



# Discharge Exceptions under NR 216.21

- Residential car wash
- Irrigation water
- Lawn watering
- Air conditioning condensation
- Landscape irrigation
- Uncontaminated pumped groundwater
- Potable water sources





# Reporting

# Information to Collect

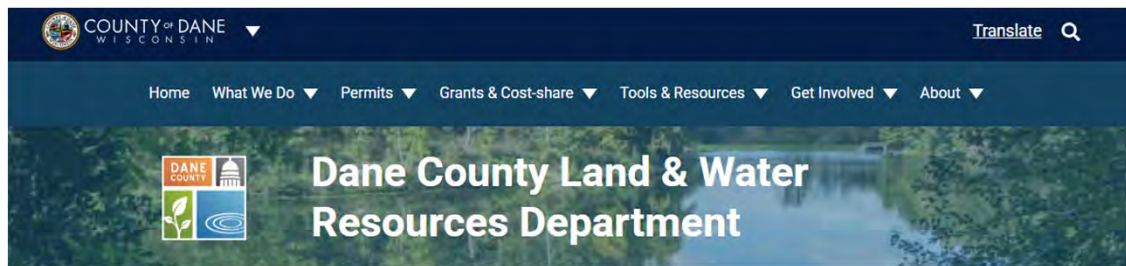
- Business Name
- Time
- Location
- License plate/truck number (if applicable)
- Description of illicit discharge
- Photos!!!



# Example

"I witnessed a **XXXX concrete truck** washing their chute, discharging concrete into the curb at **2:00pm today**. The slurry from the concrete washout **ran from the point of washout to the storm sewer located at the intersection of XXX and XXX**. The concrete truck number was **XXX**, with **license plate XXXXX**."

# Where do I report?

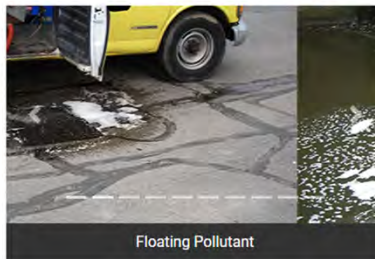


## Report Pollution Entering Storm Drains or Waterways

In Dane County, anything that enters our storm drains eventually makes its way through the storm sewer system to our lakes, rivers, and streams. When debris, trash, chemicals, paint or other substances are placed in our streets, storm drains or drainage ways it is the same as dumping it straight into our waterways. During rain storms **only rain should enter the storm drain**. If it's not raining, nothing should be washing down storm drains or into area waters.

If you see illegal discharges or storm sewer dumping, click the button below to fill out an online report. You can also call MDCPH at (608) 266-4821 during business hours.

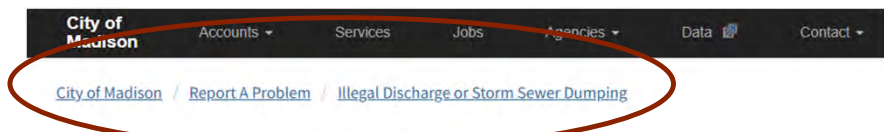
[Report an Illegal Discharge](#)



To report spills or discharges that require immediate attention during non-business hours (4:00 p.m. - 8:00 a.m.) or weekends (Saturdays and Sundays), please contact the Wisconsin Department of Natural Resources 24-hour Emergency Hotline at 1-800-943-0003.

What is an illegal discharge?

What should I report?

The header of the City of Madison website, featuring navigation links: Accounts, Services, Jobs, Agencies, Data, and Contact. The "Report A Problem" link is circled in red, along with the breadcrumb "City of Madison / Report A Problem / Illegal Discharge or Storm Sewer Dumping".

## Illegal Discharge or Storm Sewer Dumping

\* indicates required field

**Contact Information**

First Name:

Last Name:

Phone:  Ext.

E-mail:

**Incident Information**

License Plate #:

Company Name:

Time of Violation: \*

Date of Violation: \*  (mm/dd/yyyy)

Other Responsible Party Identification Details:



# When to Contact DNR

## If material is a reportable quantity

- Gasoline >1 gallon
- Any petroleum product > 5 gallons
- Gas/petroleum product contained on impervious surface (any amount)
- Liquid Fertilizer > 25 gallons
- Dry Fertilizer > 250 pounds
- Pesticides that would cover 1 acre or more



[Reporting and Responding to Spills || Wisconsin DNR](#)

# Closing the Loop

- Notify complainant or municipality that the complaint has been received
- Follow up once investigation has been completed
- Original Complainant
- Municipality (if needed)
- With Responsible Party



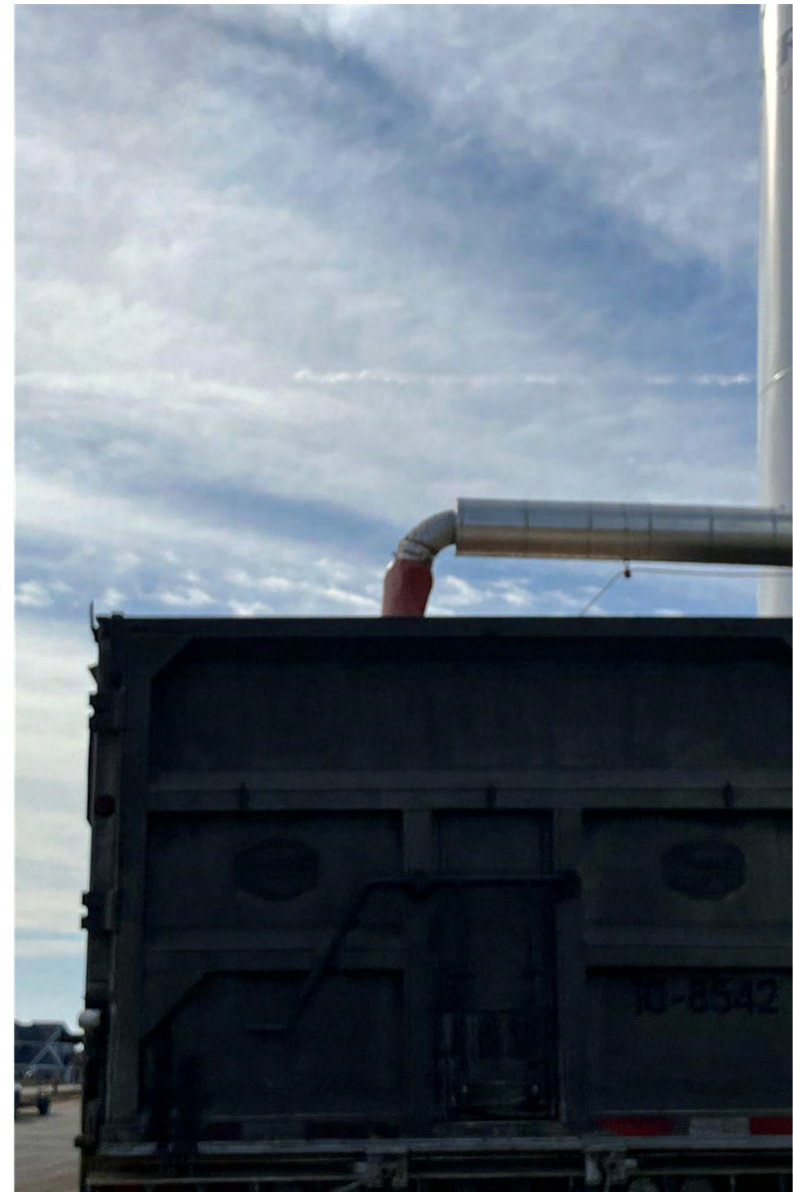


# Case Studies

# Case Study 1: Brewery









# Case Study 2: Oregon Oil Spill









# Case Study 3: Monona Diesel Spill









Thank you!  
Questions?