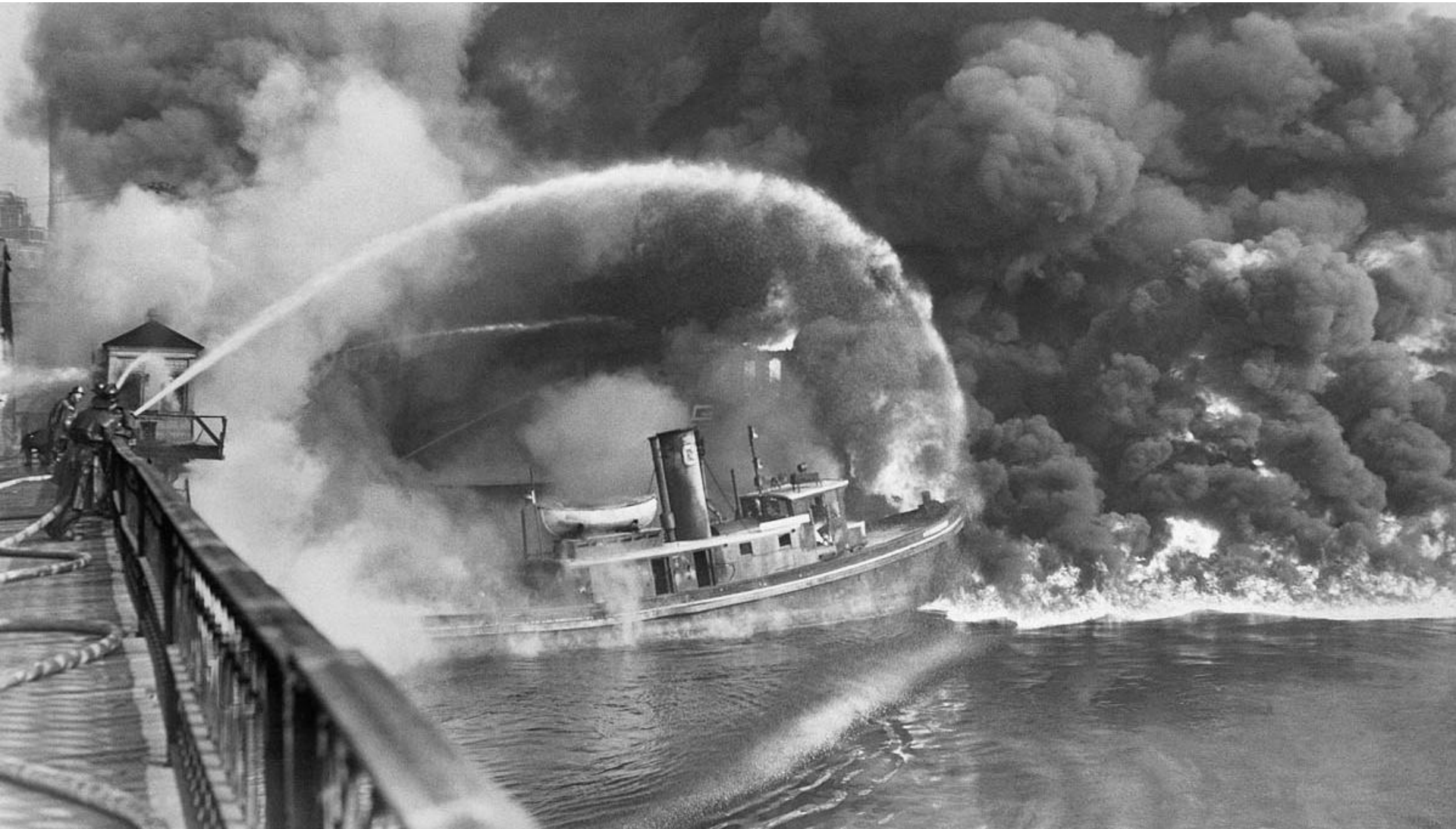


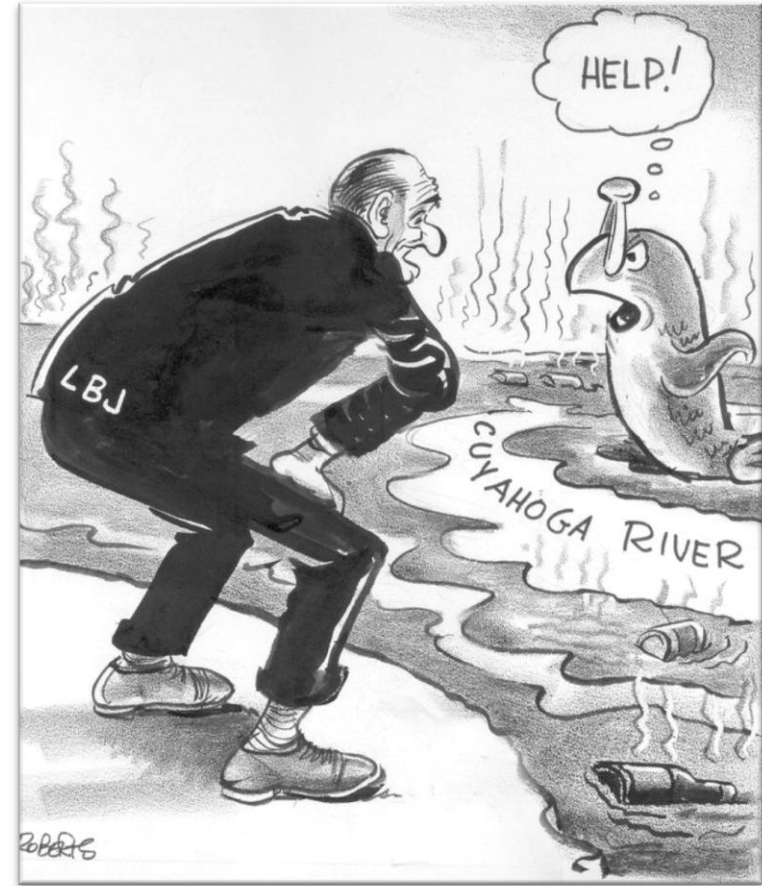
ILLICIT DISCHARGE SURVEILLANCE

- History and importance
- Common violations
- Reporting information
- Investigations

Cuyahoga River Fire of 1969



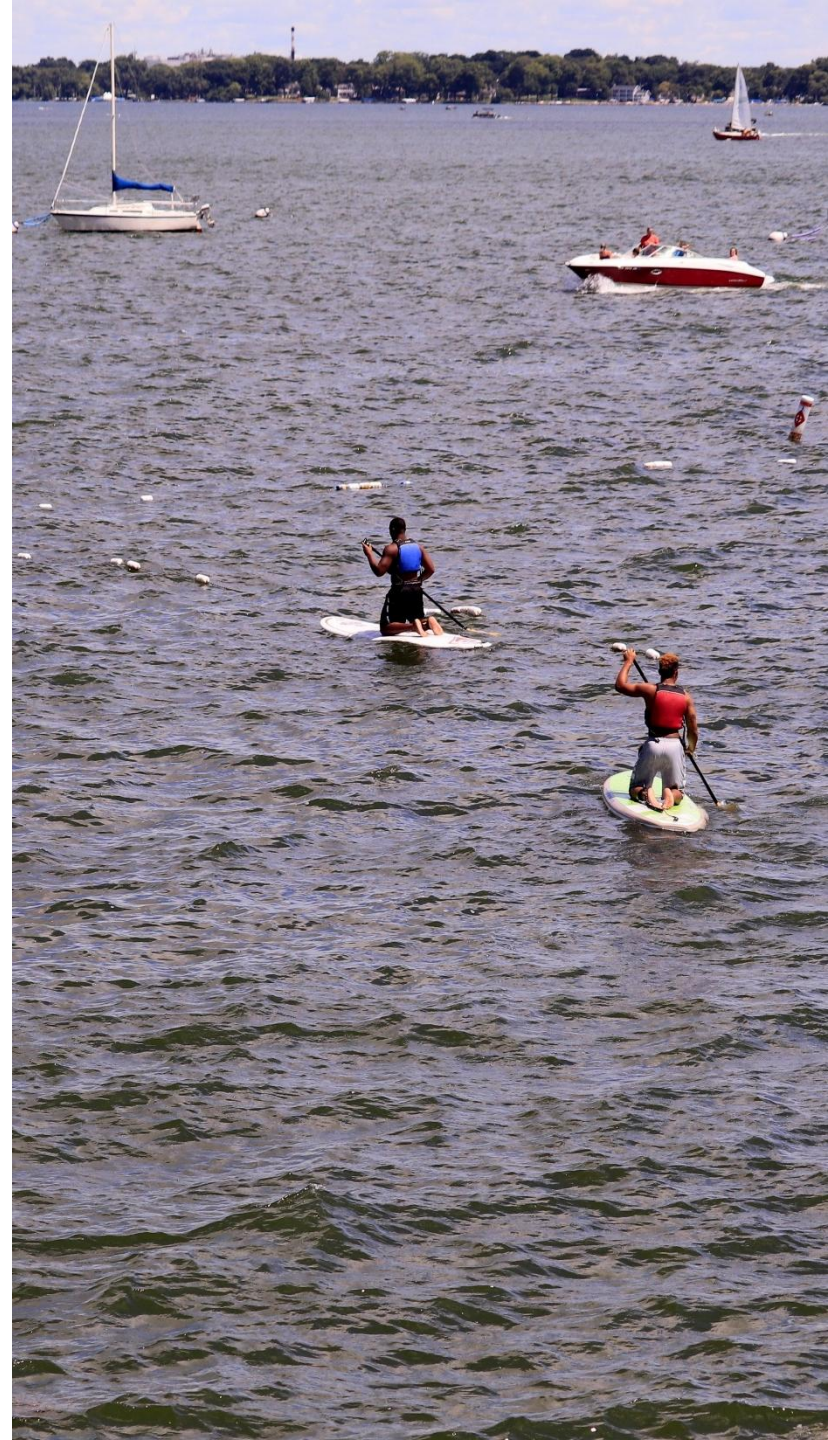
Earth Day, 1970



- National Environmental Protection Act of 1970 – Established the EPA
- Clean Water Act of 1972

Clean Water
Act-Restore and
maintain the
integrity of the
nations
waterways.

Restore water
bodies to a
fishable/swimable
state.

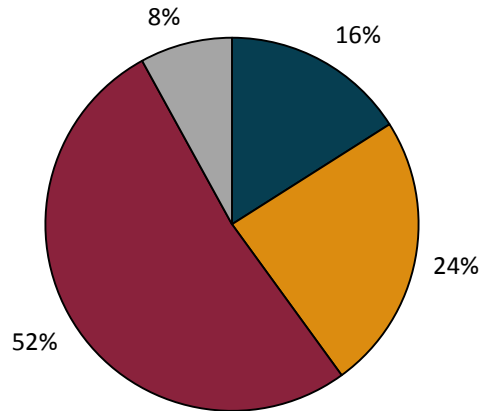




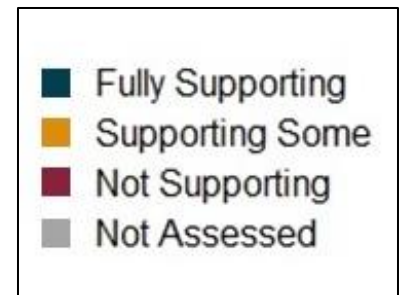
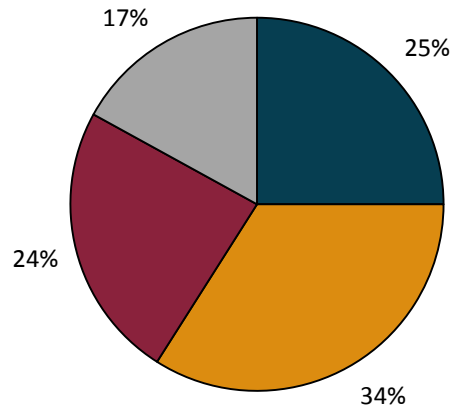
Where are we now?

2012 DNR Water Quality Report to Congress

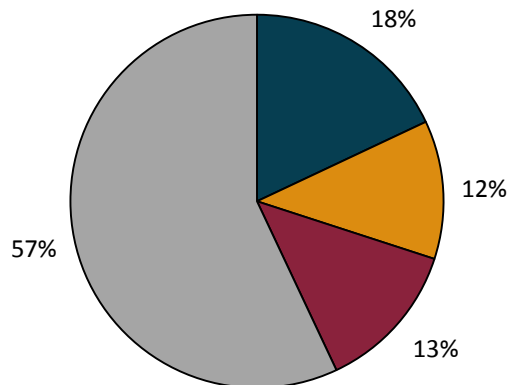
Impoundments



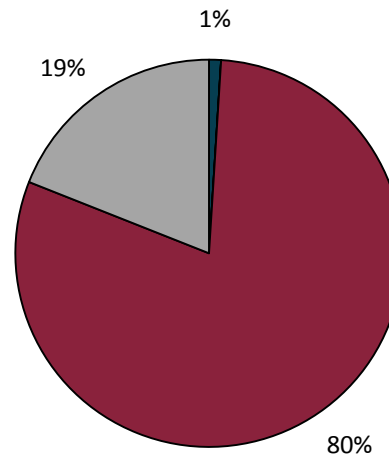
Lakes



Rivers



Harbors



NONPOINT SOURCE POLLUTION

Occurs when runoff is contaminated by contact with waste or transports material to surface water.

Non-point Source Pollution

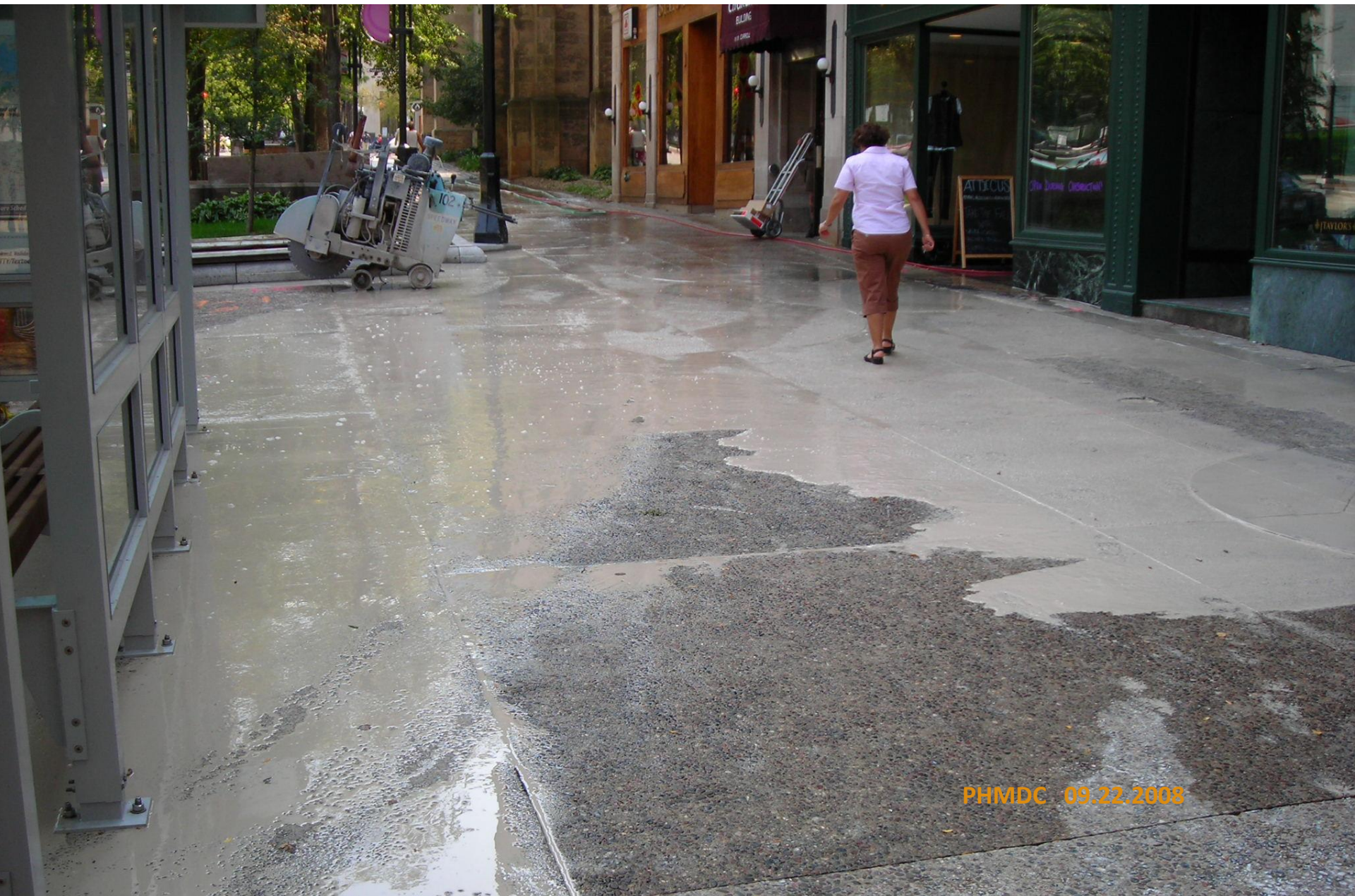


Poor housekeeping



PHMDC 11.08.2011

Poor waste management



PHMDC 09.22.2008



PHMDC 09.22.2008

Spills



PHMDC 05.18.2015

Illegal dumping



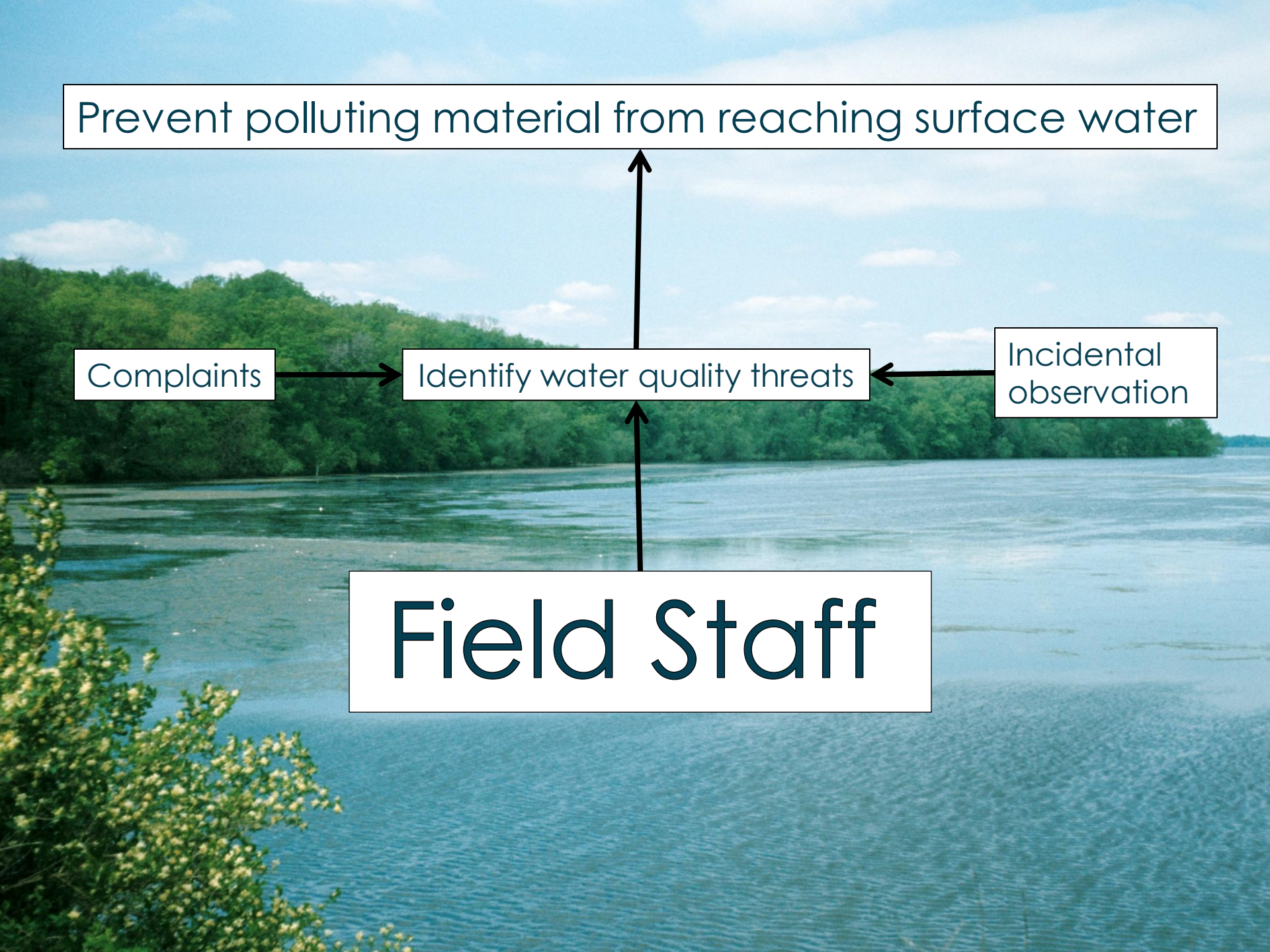
Prevent polluting material from reaching surface water

Complaints

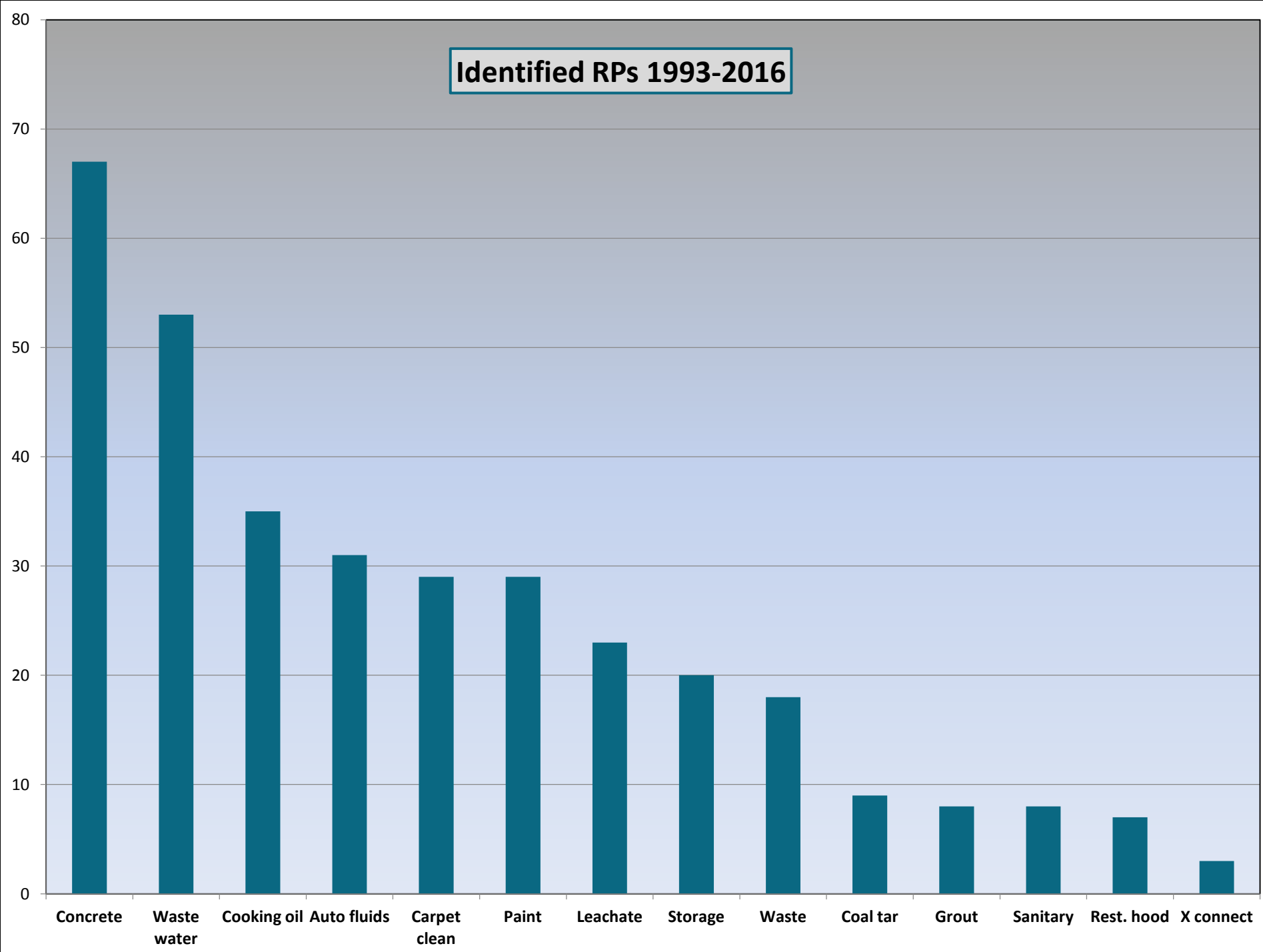
Identify water quality threats

Incidental
observation

Field Staff



Identified RPs 1993-2016



How does concrete pollute?

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

Cutting



Standard Specification

- If it is not practical to direct slurry to an appropriate unpaved disposal area it may be directed to a **street gutter provided sand bags or other devices are used to contain the slurry on the pavement and minimize the distance the slurry travels**. Contractor shall remove such slurry or residue from the pavement prior to the end of each work day by vacuum systems or other methods. Slurry may be pumped to an approved containment structure for on-site storage.

Chute washout





PHMDC 09.27.2016

Sediment=turbidity + phosphorus





Univers

L a k e M e n d o t a

Willow Dr



04/11/2016



04/11/201

Outside washing





PHMDC 07.19.2013



PHMDC 09.14.2011

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

Personal precautions,
Protective equipment and
emergency procedures

: Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: Do not allow contact with soil, surface or ground water.

Methods and materials for
Containment and cleaning up

: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Restaurant hood cleaning





PHMDC 07.06.2015



PHMDC 07.06.2015

Commercial car wash



Cooking Oil



PHMDC 05.12.2016



PHMDC 05.12.2016



diso
osho



BOOKS
TO
PRISONERS



LGBT
BOOKS TO
PRISONERS





PHMDC 05.23.2016

ND BUT FOR
T FOR



PHMDC 05.23.2016



PHMDC 05.23.2016



PHMDC 05.23.2016



PHMDC 05.23.2016



PHMDC 04.27.2014

Automotive fluids



PHMDC 05.06.2016



PHMDC 08.05.2008



PHMDC 06.08.2016



11.16.2012 08

PHMDC 11.13.2012

Carpet cleaning waste



PHMDC 06.18.2010



PHMDC 07.26.2016

Paint





Courtesy of David Thompson

Dumpster leachate



08.06.2015 09:02



PHMDC 08.17.2015



PHMDC 05.24.2016

Improper storage



07.12.2013 09:49



PHMDC 04.26.2011



PHMDC 03.07.2012

Pesticides and fertilizers



FHMDC 08.03.2010





Mulch



04.14.2015 09:55

Top soil and fertilizer



Sawdust





PHMDC 10.19.2016

Hazardous spill reporting

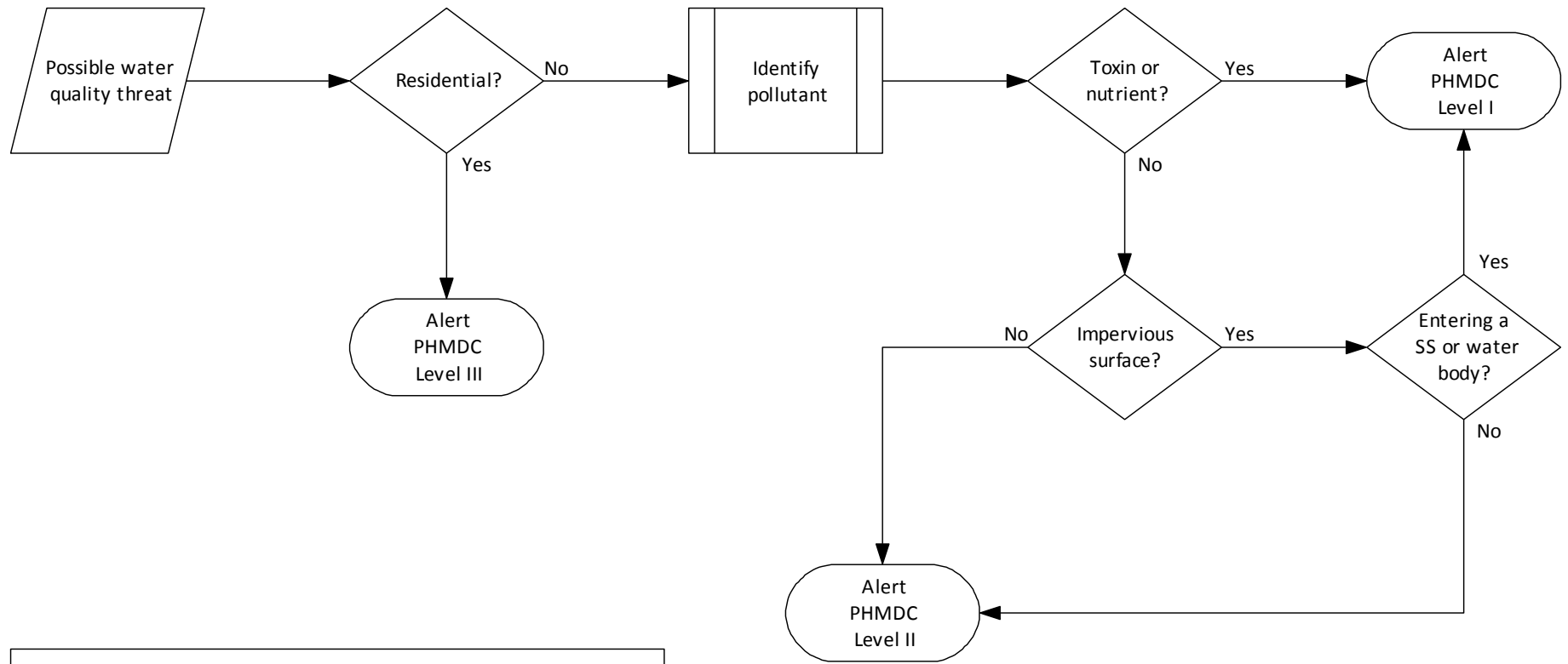
- All hazardous spills must be reported immediately: 24hr DNR hotline – 1-800-943-0003
- Mike Schmoller: 608-275-3303
- <http://dnr.wi.gov/topic/Spills/>

What is a hazardous spill?

- Impact on human health
- Impact on the environment
- Fire, explosion or safety hazard (slippery road)
- Spill has not been immediately cleaned up
- The spill is a reportable quantity

Reportable quantities

- 1 gallon of gasoline
- 5 gallons of diesel or oil
- 250 lbs dry fertilizer
- 25 gallons of liquid fertilizer
- Pesticide sufficient to cover 1 acre of land



Level I: Material to be contained and removed ASAP

Level II: Material should be removed before a rain

Level III: Prevent future occurrences

I witnessed a XXXXX Cleaning truck dumping waste water into the storm water causeway running along the driveway, from the drive way of the Maple Grove condo's around 1:45pm today. The water was dirty and produced a noticeable amount of foam. After the water was done draining the driver got in the truck and left. The truck's license plate is XX XXXXX.

Investigations



Only rain is allowed in the SS (with some exceptions)

- Foundation water
- Irrigation water
- Swimming pool discharges
- Condensate
- Residential car washing
- Firefighting discharges



Assessing Material in the Storm Sewer

- Will the material affect the quality of the receiving water more than storm water?
 - Aesthetics
 - Odor
 - Color
 - Turbidity
 - Oil/grease
 - Chemical
 - Conductivity
 - pH
 - Dissolved Oxygen
 - Ammonia
 - Quick lab analysis
 - Biological
 - Sewage release
 - Dead or dying fish or other organisms
 - Micro results
- Does the scale of the release warrant the expense of its disposal?
- Is the release the result of illegal dumping?
 - Responsible party identified?

Identifying characteristics

- Concrete – high pH (11-13)
- Wastewater – $Cl > 500$; $F > 0.3$
- Cooking oil – sheen doesn't break
- Auto fluids – color; oil sheen
- Carpet cleaning – foam (travels); hair and fibers
- Ammonia – odor
- Cross connection – flowing water with “sewage odor” = sanitary waste