



# These Two Drains Are Not Made the Same

Challenges created by redirecting  
discharges from the storm water  
system to the sanitary sewer system





# Storm Water Ordinances

- Only storm water is allowed in the storm water system (with a few exceptions)

*“No Person shall cause or allow the discharge or disposal of Non-Stormwater, either directly or indirectly, to the Storm Water System, Waters of the State, or upon the land...”*

- Examples of exemptions: potable water, personal vehicle washing, uncontaminated groundwater, flows from emergency fire operations, etc.



# Implications for Wastewater System

Additional discharges may lead to:

- Possible Sanitary Sewer Overflows
  - Localized overwhelming of pipes
- Impacts to treatment plant capacity
  - Higher volumes, flow rates, etc. – exceed capacity?
- Additional pollutant loading
  - Effect on treatment facility effluent limits

# Wastewater Discharges

- Pressure Washing (parking lots, restaurants, etc.)
- Mobile Vehicle Washing
- Engine Cleaning
- Swimming Pools
- Heating and Cooling System Discharges

# Parking lot pressure washing



- Lots of oil, automotive fluids, heavy metals, bacteria, sediment
- Very harmful to surface waters; also harmful to WWTPs
- Sanitary sewer – must pass through oil/water separator



# Restaurant pressure washing



- Grease, food particles, bacteria
- Sanitary sewer – pass through grit chamber and grease trap
- Grease trap issue – grease sold as chicken feed stock



# Example guidance language

**“...dumping of pressure wash wastewater down a drain which routes to a sanitary treatment plant is the correct method of disposal for the pressure wash operator**

...some pressure washing activities produce waste streams that can be harmful to the sanitary treatment plant and may need some additional form of pre-treatment before discharging. All discharges into sanitary lines/drains that route to a treatment plant are regulated/permitted under Metro Code of Laws (Metro Code) §§15.60 “Industrial Waste Discharges. For permitting questions and applications, call the MWS Industrial Compliance Office at (615) 862-4590 or go online at...”

# Engine cleaning



- Oil, grease, heavy metals, toxics
- Very harmful to surface waters; also harmful to treatment plants
- Disposal through environmental waste company may be necessary



# Mobile Vehicle Washing



- Detergents & cleaners; minor dirt & oil/grease
- Relatively small volumes
- Alternative – discharge to landscaped areas?

# Swimming pools and spas



- Chlorine and pool treatment chemicals
- Volume issue – may overwhelm sanitary system

**From one city's guidance brochure:**  
**"DRAINING YOUR POOL OR SPA**

**Using the sanitary sewer is best**

If you need to drain your pool or spa, it is best to discharge the water to the sanitary sewer since the sanitary sewer system is conveyed to a treatment plant where it is designed to remove most chemicals found in pools and spas...

Never open a manhole to discharge the water!...

When discharging water to the sanitary sewer, make sure the flow rate is slow enough that it does not cause the sewer to back up and overflow..."

# Heating/Cooling System Discharges

- Cooling water (contact and non-contact)
- Cooling system condensate
- Boiler blowdown
- Similar wastewaters



- Volume issues
- Toxic additives (biocides, etc.)
- Oil & Grease
- Temperature



# Groundwater & Stormwater

- Mixed flows – “stormwater or groundwater mixed with wastewater is wastewater”
- Polluted stormwater – wastewater treatment is sometimes used as a practice instead of pollution prevention, onsite stormwater treatment, etc.

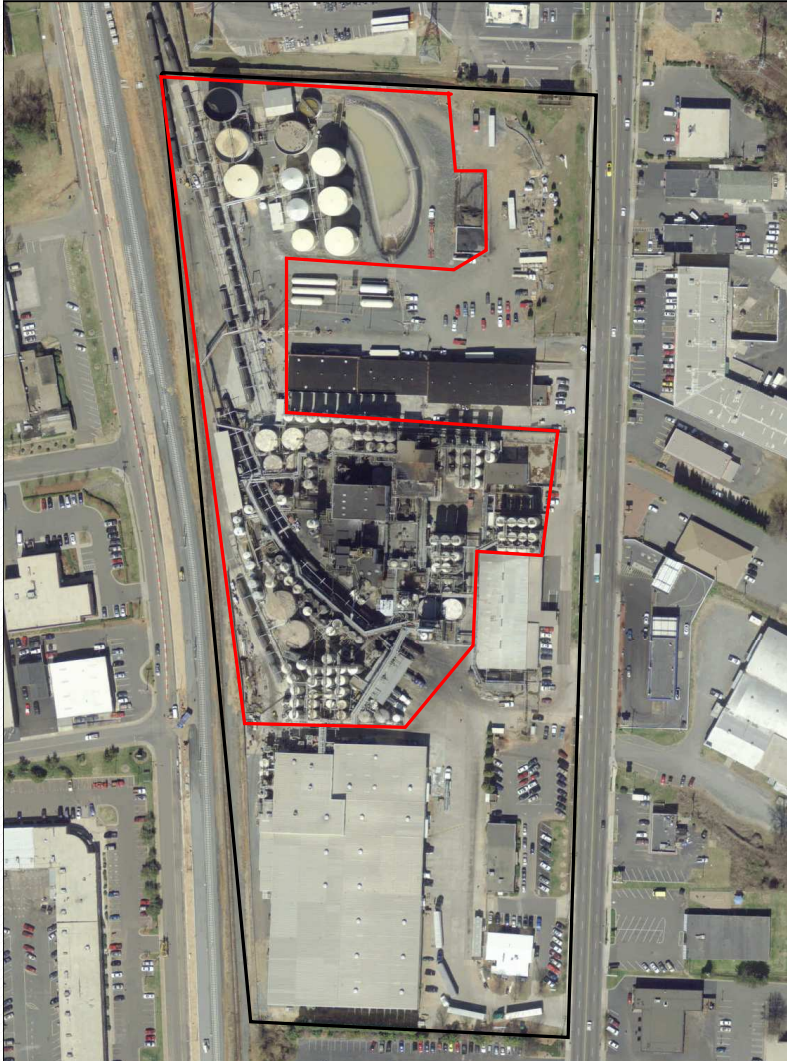


# Groundwater sumps

- Example:  
Groundwater infiltration into the sub-grade area of a grain silo: very high in nutrients, BOD and bacteria; low pH ( $\sim 4$ )



# Stormwater from Uncovered Process Areas



- Typically, heavy industrial processing areas & tank farms
- Stormwater too polluted to meet stormwater permit discharge limits
- Discharge to onsite wastewater treatment plant
- Volume issues – high wet weather flows
- Example – Approx. 45% of 17 ac. site (= 27,150 gal. of water from 1 in. rain event)

# Let's Talk Solutions

How can stormwater and wastewater professionals resolve these issues to the satisfaction of both utilities?



# Solutions

- Encourage pollution prevention and onsite treatment/reuse to reduce discharges to our systems
- Seek other disposal options – landscaping (if legal), environmental waste company
- Understand each others regulations – read ordinances
- Consider effects on other utility when developing policies and guidance
- Share and review policies and educational materials
- Work together, meet regularly, communicate openly!