

# **IDDE Education**

**May 14, 2024**



# Community Wide Stormwater Quality Issue One

## Yard Waste

### Partner with Department of Public Works

- Toter/Door Hangers for targeted areas
  - Includes education on how yard waste impacts localized flooding and water quality
- Includes information on:
  - Yard Waste Pickup Program
  - Leaves
  - Brush Pick-up

**Keep Our Waterways Clean**

**Did you know?**  
Yard waste like grass clippings, leaves and shrubbery trimmings are a significant source of stormwater pollution.

**Why?**  
Storm drains are not connected to the wastewater treatment plant. There is no treatment to remove the yard waste from the water before it reaches nearby ponds, lakes, streams, or rivers.

Yard waste carries fertilizers and pesticides into our waterways. This causes nutrient pollution which depletes the oxygen that aquatic life needs to survive. It can also cause flooding by clogging culverts, storm drains and pipes.


**Proper yard waste disposal is more than just a good idea, it's the law.**

The City of Columbus Municipal Code prohibits dumping or discharging anything other than stormwater into the storm system.

To report a polluter, call 812-376-2540 or visit [columbus.in.gov/contact](http://columbus.in.gov/contact).

For more information on the stormwater program, visit [columbus.in.gov/stormwater](http://columbus.in.gov/stormwater).

**Want more information on yard waste and recycling services? Visit [columbus.in.gov/public-works](http://columbus.in.gov/public-works) or call 812-376-2509.**

  
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**A Handy Guide for Disposing of Yard Waste**

Need a pickup? Call Public Works at 812-376-2509.

Material	Yard Waste Toter	Loose at Curb	Place with Trash
Grass/Weeds/Thatch	X		
Flowers/Garden Waste	X		
Corn/Sunflower Stalks	X	X	
Leaves	X	Oct.-Dec.	
Pine Needles/Cones	X	Oct.-Dec.	
Hedge Trimmings (Green)	X		
Hedge Trimmings (Woody)		X	
Fruit/Gumballs			X
Maple Tree Seedlings			X
Sod/Dirt & Wood Chips <i>Small Amount</i>			X
Chestnuts/Walnuts			X
Roots/Stumps		X	
Woody Vines/Bushes		X	
Branches (1 armful)			X
Tree Trimmings		X	

**Quick Tips**

- Don't put grass clippings, leaves, or other yard waste on a sidewalk, in the street, or near a waterway.
- Aim your mower away from the street or sidewalk, and use a leaf blower or broom to move clippings into your yard.
- Mulch (mow) grass clippings and fall leaves into your lawn to act as a free fertilizer.
- Pile your leaves behind the curb for the curbside pickup service in the fall.
- Properly dispose of yard waste using the table above to determine the best place for it.

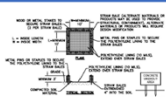
# Community Wide Stormwater Quality Issue Two

## Concrete Washout

- Fact Sheet in Pre-Construction Meeting Packet
- Brochure on concrete washout & saw cutting
- Distributed to
  - Employees
  - Smaller ROW permits
  - Cost-Share sidewalk program participants



### CONCRETE WASHOUT FACTSHEET



#### How to Maintain Concrete/Cementitious Washout Best Management Practices (BMPs):

1. Fully during concrete placing operations, and after every concrete event, inspect concrete washout BMPs. Inspect washout BMPs for signs of deterioration and overall effectiveness.
2. Allow concrete waste material to harden. Excess concrete should be removed when the washout BMP reaches 50 percent of the design capacity.
3. Properly dispose of all concrete waste material. Reuse the material on site, recycle, or haul waste material to an approved landfill site. Excess liquid must be disposed of as wastewater.
4. Upon removal of waste, inspect the BMP and repair, arrange, or construct a new washout BMP as needed.

#### What You Need to Know About Concrete or Cementitious Washouts:

1. Installation of concrete washout BMPs shall be completed prior to concrete delivery.
2. Locate concrete washout BMPs a minimum of 50 feet from storm drains, open ditches, and water bodies.
3. Equip washout BMPs with appropriate signage. Ensure all drivers are aware of the location of the BMPs.
4. Ensure that suppliers, contractors, and others on site are utilizing designated washout BMPs. If concrete waste is being disposed of improperly, identify the violator and take appropriate action.
5. Concrete washout or Cementitious washout means the rinsing of chutes, pumps, curbs and paving machines, hoppers, wheelbarrows, hand tools and any other equipment that are used to handle concrete, mortar, stucco, grout or other mixtures of cement. Concrete washout water is a wastewater slurry containing cementitious materials, metals and is caustic or corrosive, having a high pH.

#### Is The BMP Installed Correctly and Properly Maintained:



## CONCRETE WASHOUT POLLUTION PREVENTION



Roll-off system for concrete washout.

Illegal discharge to storm sewer!

### CONCERNS

- It is illegal to drain concrete washout into storm sewers and local water bodies.
- Concrete washout if discharged to storm sewers drains to local waterways. It can clog fish gills.
- Because it has a pH of 12, similar to Drano™, it can increase toxicity of other substances causing more issues for aquatic life.
- It contaminates soil and kills plants.

### WHAT CAN YOU DO?

- Washout only in designated areas that are lined to contain the wastes and protect soil.
- Have a back-up plan. Carry a storable, expandable washout container in case one is not available on site.



Chute washout system.

Waterproof bags or lined containment.



Easily stored, expandable lined box.

## STREETS TO STREAMS NO TREATMENT IN BETWEEN

Learn more: [www.columbus.in.gov/engineering/stormwater/stormwater-overview/](http://www.columbus.in.gov/engineering/stormwater/stormwater-overview/)  
Source: Iowa Stormwater Education Partnership

## WET SAW CUTTING POLLUTION PREVENTION



### CONCERNS

- It is illegal to discharge concrete cuttings into a storm sewer and waterbodies.
- Wet saw cutting waste has the same pollution concerns as concrete washout shown on the other side of this flyer.
- Cutting is often done near storm drains.

### WHAT CAN YOU DO?

- Use storm drain protection when working near storm drains and sloped areas.
- Use absorbent gels to contain the liquid waste. Scoop up waste and dispose of properly.
- Use a vac-truck or small vacuum.



Inlet protection on a storm drain.

Absorbent gel used on street.



Small vacuums and vac-trucks can be used.

## ONLY RAIN... DOWN THE STORM DRAIN

Learn more: [www.columbus.in.gov/engineering/stormwater/stormwater-overview/](http://www.columbus.in.gov/engineering/stormwater/stormwater-overview/)  
Source: Iowa Stormwater Education Partnership



# Community Wide Stormwater Quality Issue Three

## Restaurant Grease and Oil

- City and County MS4s partnered with the County Health Department to distribute brochure to restaurants annually
- Used brochure as a compliance item
- Employee Training
- Restaurant service companies

**Did You Know?**

**T**he storm drainage system is separate from the sanitary sewer system. The sanitary sewer collects wastewater from sinks, toilets, dishwashers, and floor drains and directs it to a wastewater treatment plant where the contaminants are removed before the water is released to waterways.

The storm drainage system, however, collects stormwater runoff from parking lots, streets, and lawns and directs it to streams and rivers without treatment. That is why it is so important to implement Best Management Practices (BMPs) on a daily basis to make sure that harmful pollutants, like bacteria and chemicals, do not end up in the region's local waterways.

**Restaurant BMPs Protect Local Waters**



*Storm drainage pipes often discharge pollutants, such as bacteria, fertilizers, and everyday household chemicals into local waterways.*

**What is a Stormwater Best Management Practice?**

**Are there Stormwater Best Management Practices for Restaurants?**

**What activities around restaurants can harm local streams, creeks, and rivers?**

**Doesn't stormwater go to a treatment plant?**

See inside. . .

For more information, contact:

City of Columbus  
Lisa Christie  
(812) 376-2540

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 **MS4**

Bartholomew County  
Heather Shireman  
(812) 378-1280 ext 3

Adapted from:  
COUNTY OF ROANOKE VIRGINIA  
5204 Bernard Drive, SW  
P. O. Box 28800  
Roanoke, VA 24018



**Stormwater Best Management Practices for Restaurants**



**A Guide for Restaurants and Eateries**



# Annual Training

Include basic IDDE definition and identification as part of Good Housekeeping & Pollution Prevention Training

- What is an illicit discharge? Provide examples of discharges-
  - Tracking from the site
  - Concrete waste/washout
  - Grass/yard waste in the road
  - Pipes into the road
- Distribute IDDE Tip Card

**Sanitary/Septic Sewer Discharges**

- Sanitary debris/paper
- Staining on pipe
- Soap suds
- Gray or colored water
- Strange odors



**Industrial Discharges**

- Loose debris
- White foam
- Odor
- Color



**Illegal Dumping & Spills**

- Oil sheen
- Stained rocks or vegetation
- Petroleum or chemical odor
- Odor or color
- Many dead fish
- Trash in ditch or stream



**Call authorities immediately**

**Construction Site Runoff**

- Soil leaving site
- Sediment flow to storm drain inlet



**Nutrients/Fertilizer**

- Excessive algae growth



**Spotting Illicit Discharges**

Pollution detection of sediment, nutrients, oil and bacteria that can drain to lakes and streams through storm drains.

**Report These Items:**

- Spills and contamination to lakes, rivers, and streams
- Suspicious dumping to waterways
- Unusual discharges from pipes
- Sewage on the ground or draining to water bodies
- Large number of dead fish in waterways
- Failing or leaky septic systems
- Polluted runoff from storage piles or dumpsters into waterways
- Sewage, detergent, chemical, petroleum, or rotten egg odors
- Soil erosion from construction sites
- Dumping or spilling into storm system or onto roadways

**Contacts**

**Emergencies**

Police/Fire	911
IDEM Emergency Response	888-233-7745

**Non-Emergencies**

Columbus Engineering Dept.	812-376-2540
Stormwater Coordinator	Email information & photos to: <a href="mailto:stormwater@columbus.in.gov">stormwater@columbus.in.gov</a>



Original document created by INAFSM Illicit Discharge Detection & Elimination Subcommittee, with info from Southwest Michigan Regional IDEP Work Group

# Department Training

## Parks Department

- Conduct annual training
  - Worked with them to provide videos
    - Good Housekeeping Pollution and Prevention
    - Refueling
    - Stormwater 101
- Compliance Issue
  - Proper Concrete Washout Procedures for contractors



# Department Training

## Department of Public Works

- **Complaints- responses**
- **Week long Department Training**
  - **Good Housekeeping Pollution and Prevention**
  - **IDDE**
  - **Visual Inspections of conveyance**

Training 11:00		Training 12:00		Training 13:00		Training 14:00	
7:00 AM - 8:AM	<p>Group A Human Trafficking Room: Bors</p> <p>Group B Emotional Intelligence Room: Inst: R. Chaisey</p>	7:00 AM - 10AM	<p>ALL A-B GROUPS Self Defense Training Room: Training Bay Instructor: Columbus Police Department</p>	7:00 AM - 10AM	<p>Group C Human Trafficking Room: Inst: Bors</p> <p>Group D Emotional Intelligence Room: Inst: R. Chaisey</p>	7:00 AM - 10AM	<p>ALL C-D GROUPS Self Defense Training Room: Training Bay Instructor: Columbus Police Department</p>
9:00 AM - 11:00 AM	<p>Group A Emotional Intelligence Room: Inst: R. Chaisey</p> <p>Group B Human Trafficking Room: Inst: Bors</p>	10:00 AM - 11:00 AM	<p>ALL A-B GROUPS Severe Weather Training Room: Training Bay Instructor: Shannon Cooke B.C. Emergency Management</p>	9:00 AM - 11:00 AM	<p>Group C Emotional Intelligence Room: Inst: R. Chaisey</p> <p>Group D Human Trafficking Room: Inst: Bors</p>	10:00 AM - 11:00 AM	<p>ALL C-D GROUPS Severe Weather Training Room: Training Bay Instructor: Shannon Cooke B.C. Emergency Management</p>
11:00 AM - 12:00 PM	LUNCH			11:00 AM - 12:00 PM	LUNCH		
12:00 PM - 1:30 PM	<p>Group A See Something Say Something Room: Inst: Bors</p> <p>Group B MS4 Training Room: Inst: L. Christie</p> <p>Group A MS4 Training Room: Inst: L. Christie</p>	12:00 PM - 1PM	<p>Email/ES Refresher DPW Room: Transit Room:</p> <p>Job Swap</p>	12:00 PM - 1:30 PM	<p>Group C See Something Say Something Room: Inst: Bors</p> <p>Group D MS4 Training Room: Inst: L. Christie</p> <p>Group C MS4 Training Room: Inst: L. Christie</p>	12:00 PM - 1PM	<p>Email/ES Refresher DPW Room: Transit Room:</p> <p>Job Swap</p>
1:30 PM - 3:00 PM	<p>Group B See Something Say Something Room: Inst: Bors</p>	1:00 PM - 3:00 PM		1:30 PM - 3:00 PM	<p>Group D See Something Say Something Room: Inst: Bors</p>	1:00 PM - 3:00 PM	

# IDDE Case Studies

# Other Responders

- Fire Department
- IDEM Emergency Response
- County Emergency Response
- County Health Department
- Wastewater
- Street Department
- Parks Department
- Etc.



# Potential Reporters

- Fire Inspectors
- Building Inspectors
- Code Enforcement Inspectors
- Planning Inspectors
- Wastewater
- Wastewater Pretreatment Inspectors
- Health Department Inspectors
- Street Department
- Parks Department
- Etc.

# Delivery Truck Leaking Diesel

## Summary:

- What Occurred?
  - Delivery truck had punctured fuel tank
    - They stopped made delivery and then stopped for breakfast
    - They continued to make deliveries out of the community and through county and other communities. They were finally stopped multiple communities away.
- Who Reported/How did Stormwater find out?
  - Local Fire Department was notified and responded first and contacted Stormwater.



# Delivery Truck Leaking Diesel

## Summary:

- Who was involved?
  - Local Fire Department
  - MS4 Community- multiple departments
- IDEM Emergency Response
- County Emergency Management- The coordinator between violator, company responsible, Fire Departments, communities, and IDEM.
- Delivery Truck Company
- Environmental Clean-Up Company



# Delivery Truck Leaking Diesel

## Summary:

- **Wrap-Up**
  - Conducted After-Action Meeting with Local Fire, MS4 Community departments. Reviewed what went well and what didn't and why
  - Recouped costs from the delivery company for manpower, equipment, vehicles, and supplies
  - Clean-up company flushed the storm system and disposed of the wastewater
  - Clean-up company soil remediation
  - Stormwater ensured cleanup with coordination with IDEM and County Emergency Management





# POOL Installation

## Summary:

- What Occurred?
  - Company installing underground pool washed out and dumped into storm drain of gunite. Discharged to open waterway
- Who Reported/How did Stormwater find out?
  - MS4 Community Employee witnessed
- Who was involved?
  - Stormwater Department
  - Building Department
  - Pool Company
  - Owner of Property
  - IDEM Emergency Response





# POOL Installation

## Summary:

- **Wrap-Up**
  - Met with owner of pool company
  - Met with owner of property
  - Stop work order was placed (\$)
  - Notice of violation was issued (\$)
  - Storm line was plugged
  - IDEM Emergency Response worked with MS4 Community to spur getting the illicit discharge cleaned up.
  - Site was cleaned up, pipes were cleaned up. Due to access and that it had rained the stream was not cleaned.



# Restaurant

## Summary:

- What Occurred?
  - A restaurant used a structure as their grease disposal area. This caused back-ups for neighboring businesses but also the restaurant as well. The dog-house structure was a sanitary line. The restaurant tried to unblock line by bailing out the “water” out of structure and onto ground. They also had improper storage of grease outdoors.
- Who Reported/How did Stormwater find out?
  - Wastewater
    - They had received multiple complaints from neighboring businesses of plumbing backing up.



# Restaurant

## Summary:

- Who was involved?
  - Wastewater
  - County Health Department
  - Stormwater
  - Owner of Commercial Property
  - Owner of Restaurant





# Restaurant

- **Wrap-Up**
  - Each entity had their regulations that they could enforce.
  - Structure was cleaned and replaced. Sanitary line was cleaned.
    - Under supervision of Wastewater.
  - Remediation of the soil. Revegetate ALL areas.
  - Educate ALL employees of Restaurant on the proper disposal of wastes.  
Provide detailed documentation of topics covered, date, and attendance list.
  - Restaurant was required to provide daily documentation of amount grease disposed, while Wastewater Staff inspected weekly to ensure that the spent oil is being dispensed into the appropriate container, and the indoor grease trap is being maintained properly.



# Plumbing Company

## Summary:

- What Occurred?
  - Sanitary lateral problems. MS4 community involved because of work in ROW and sanitary connection.
  - Street cut had the high potential to have mixed water in the trench.
  - Dewatering into storm drain. MS4 employees witnessed and informed company to cease and desist. Plumbing company immediately stopped.
  - Dewater into sanitary.
- Who Reported/How did Stormwater find out?
  - MS4 employees





# Plumbing Company

- Who was involved?
  - MS4 Employees, wastewater
  - Stormwater
  - Plumbing Company
- Wrap-Up
  - Investigation follow-up next day. Rained.
  - Leaking truck onsite-clean streets and dewater trench more.
  - Notice of Violation issued- Carbon Copied: Wastewater, Health Department, IDEM Wastewater.
    - IDEM Wastewater forwarded to IDEM Criminal Investigator



# Diesel Release

## Summary:

- What Occurred?
  - Company was performing maintenance on emergency generator. Emptied generator of fuel. Refilled fuel, overflowed and went into storm drain and immediately outlet to creek. Immediate report was 200 gallons, but was upgraded to 1300 gallons.
- Who Reported/How did Stormwater find out?
  - IDEM Emergency Management



# Diesel Release

## Summary:

- Who was involved?
  - Fire Department
  - Property Owner
  - Generator company
  - Clean-up company
  - IDEM
  - Stormwater





# Diesel Release

## Summary:

- **Wrap-Up**
  - Fire Department received call, responded, and reported to IDEM Emergency Management.
  - Clean-up efforts begun before Stormwater notified.
  - IDEM Emergency Response notified Stormwater.
  - IDEM Emergency Response and Stormwater worked together to oversee clean-up.
  - Grey area- direct discharge to creek. No fines, no NOV etc.



# Trash complaint

## Summary:

- What Occurred?
  - Complaint received from homeowner of trash and discharge coming from property to the north of the small subdivision, a hobby farm. Been going on for years.
- Who Reported/How did Stormwater find out?
  - Homeowner
- Who was involved?
  - Stormwater
  - Police Department



# Trash complaint

## Summary:

- **Wrap-Up**
  - Homeowner called back, report of trash coming from neighbor instead.
  - Homeowner was reporting on behalf of other neighbor too.
  - Homeowner called back, left message. Demanding follow-up now. Goons with tattoos (one of his neighbors came to talk to him). He felt unsafe.
  - Police Investigative Department was consulted to determine safety.
  - Drive-by was performed by Stormwater, no trash found.
  - Police Officer made site visit, spoke with Homeowner and neighbors. No trash found.

**Lisa R Christie**  
**Stormwater Coordinator**  
**City of Columbus**  
**[lchristie@columbus.in.gov](mailto:lchristie@columbus.in.gov)**



The background of the slide features a repeating pattern of stylized donut charts. These charts are rendered in a variety of colors including light blue, light green, light yellow, light red, and light grey. Each donut chart is composed of two concentric circles with a small gap between them, creating a ring-like appearance. The charts are scattered across the slide, some appearing as full rings and others as partial arcs, adding a decorative and thematic touch to the presentation.

**Questions?**