

# NPDES Overview

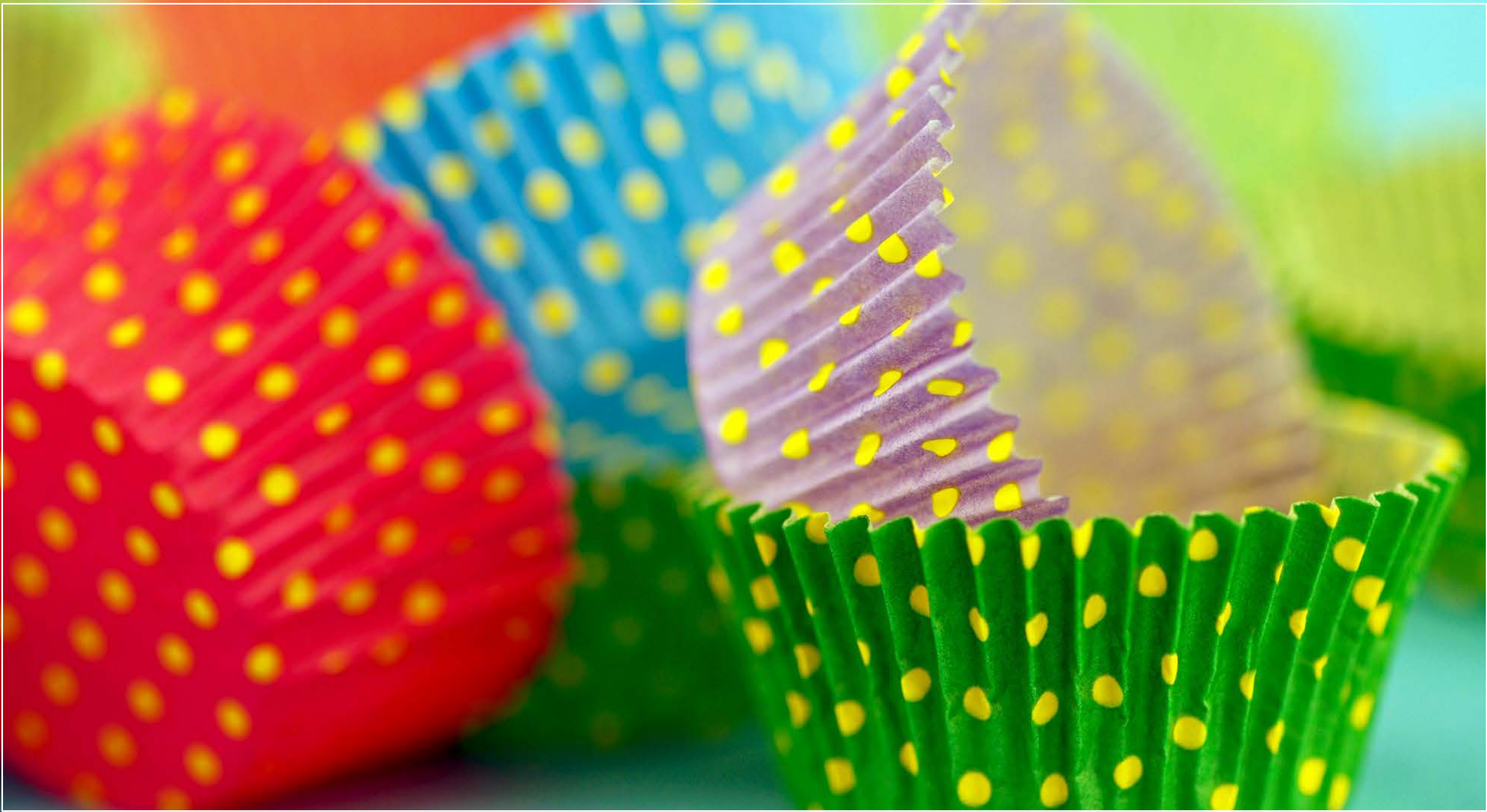
DELAWARE DEPARTMENT OF TRANSPORTATION

## MAKING STRIDES TO IMPROVE WATER QUALITY

A cartoon character made of orange and white striped traffic barrels, wearing a blue hard hat and holding a blue megaphone. It stands next to a green tree and a blue stream. A circular logo with the text 'ONLY RAIN... DOWN THE STORM DRAIN' is positioned near the stream.A circular logo with a blue and white stylized 'A' shape and the text 'DeIDOT' below it.

Sara Esposito  
February 16, 2021







# Delaware Department of Transportation

**Excellence in Transportation**

**Every Trip • Every Mode • Every Drop of Water  
• Every Dollar • Everyone**

# 2018

DAY 2		
Time	Presentation	Presenter(s)
7:30	<b>Registration</b>	
8:00	Opening Remarks & Autonomous	Secretary Cohan
8:20	Innovation Fair	Sec. Cohan/Breanna Kovach
8:30	Mobile App	<u>LiWen Lin</u>
8:35	Gateway Updates	Drew Boyce
8:45	Project Search	Todd Webb
9:00	Pipeline Process	Shante Hastings
9:15	Drones in Construction	Dan Montag
9:30	E&S Lessons Learned (US301)	Adam Marvin
<b>10:00</b>	<b>BREAK</b>	
10:15	Horizontal Curve Evaluation	Peter Haag/ <u>Mir Wahed</u>
10:45	High Friction Surface Treatment	Adam Weiser
11:00	US 113 Preferred Approach	Mark Whiteside
11:30	Mobile Drivers Licenses Pilot	<u>Scott Vien</u>
11:45	DE Transit Corp Topic	John Sisson
<b>11:45</b>	<b>LUNCH</b>	<b>SLIDESHOW</b>
12:45	Br.1-438 Precast Bridge	<u>Paul Huhn</u> / <u>Gus Toussaint</u>
1:15	Brine Applications	Alastair Probert
1:30	TSDM Database Management	Stephanie Johnson/Jason Vogl
<b>2:00</b>	<b>BREAK</b>	
2:15	ATSSA/ <u>Workzone</u> Updates	Roger Wentz
<b>2:45</b>	<b>NPDES - Map Viewer, Water Quality</b>	<b>Sara Esposito</b>
3:15	<b>Wrap-up</b>	

# 2021

2021 DelDOT Winter Workshop February 16 <sup>th</sup> Day 1 - Live Streaming		
Time	Presentation	Presenter(s)
8:00	Opening Remarks	Secretary <u>Majeski</u> , Shanté Hastings & Doug Atkin
<b>8:15</b>	<b>National Pollutant Discharge Elimination System</b>	<b>Sara Esposito</b>
8:30	HR Training Programs	Missy Heck
8:45	How COVID Affected Software Roll-Out	Todd Reavis
9:00	CM/GC Project Overview/Current Projects	Jason Hastings
9:15	Virtual Workshops	Jesus Reyes & Dan Taylor
9:30	Federal Mandates & Department Procedures "Project Closeout"	Art Jenkins & Christine Lively
<b>9:45</b>	<b>BREAK</b>	<b>BREAK</b>
10:00	Bicycle Mobility Analysis Tool	Paul Moser
10:15	Emergency Response/Debris Management	Dwayne Day
10:30	Community Outreach	C.R. Mcleod
11:45	Update on Strategic Highway Safety Plan (SHSP)	Peter Haag & Scott Neidert
11:30	New Grant for Micro-transit in Georgetown	John Sisson & Veronica Vanterpool
11:45	General Manual Updates	John Caruano
<b>12:00</b>	<b>End of Day</b>	

# The NPDES Problem

- Most people intentionally or unintentionally pollute our waterways
- Everything on land eventually washes into our rivers and streams, or enters our groundwater
- Video from the City of Wilmington (NC):

<https://www.youtube.com/watch?v=jNs28UcjNbk>

(YouTube "Wilmington NC Stormwater Runoff Animation")

- Video from Metro Vancouver:

<https://www.youtube.com/watch?v=7crGd6EoFsk>

(YouTube "Metro Vancouver Managing Stormwater Runoff")



# Pollution



# Why Important?



JAY FLEMING  
PHOTOGRAPHY





# National Pollutant Discharge Elimination System NPDES



## Division of Maintenance & Operations

- Brian Urbanek  
Assistant Director Statewide Support Services
- Sara Esposito  
Program Manager
- Edwin Tennefoss  
NPDES Engineer
- Amanda Doremus  
NPDES Scientist
- Email team at [npdes@delaware.gov](mailto:npdes@delaware.gov)

## Program Responsibilities (To Name a Few)

- Maintenance Yard Environmental Compliance
- Stormwater BMP Maintenance Coordination
- Stormdrain Infrastructure Mapping
- Solid Waste Reporting
- MS<sub>4</sub> / Population Based Stormwater Permits
  - Street Sweeping
  - Water Quality Improvement Projects
  - BMP & Water Quality Research
  - Public Education and Outreach
  - Staff Education
  - Illicit Discharge Detection



# National Pollutant Discharge Elimination System NPDES



## What We Don't Do:

- Erosion and Sediment Control / ES2M reviews
- Stormwater BMP design and as-built approvals
- Wetland and Subaqueous Permitting

## What We're Starting to See A Lot Of:

- Drainage complaints
  - System undersized
  - System failing
- Great Looking Maintenance Yards!
- Pollution in our Water

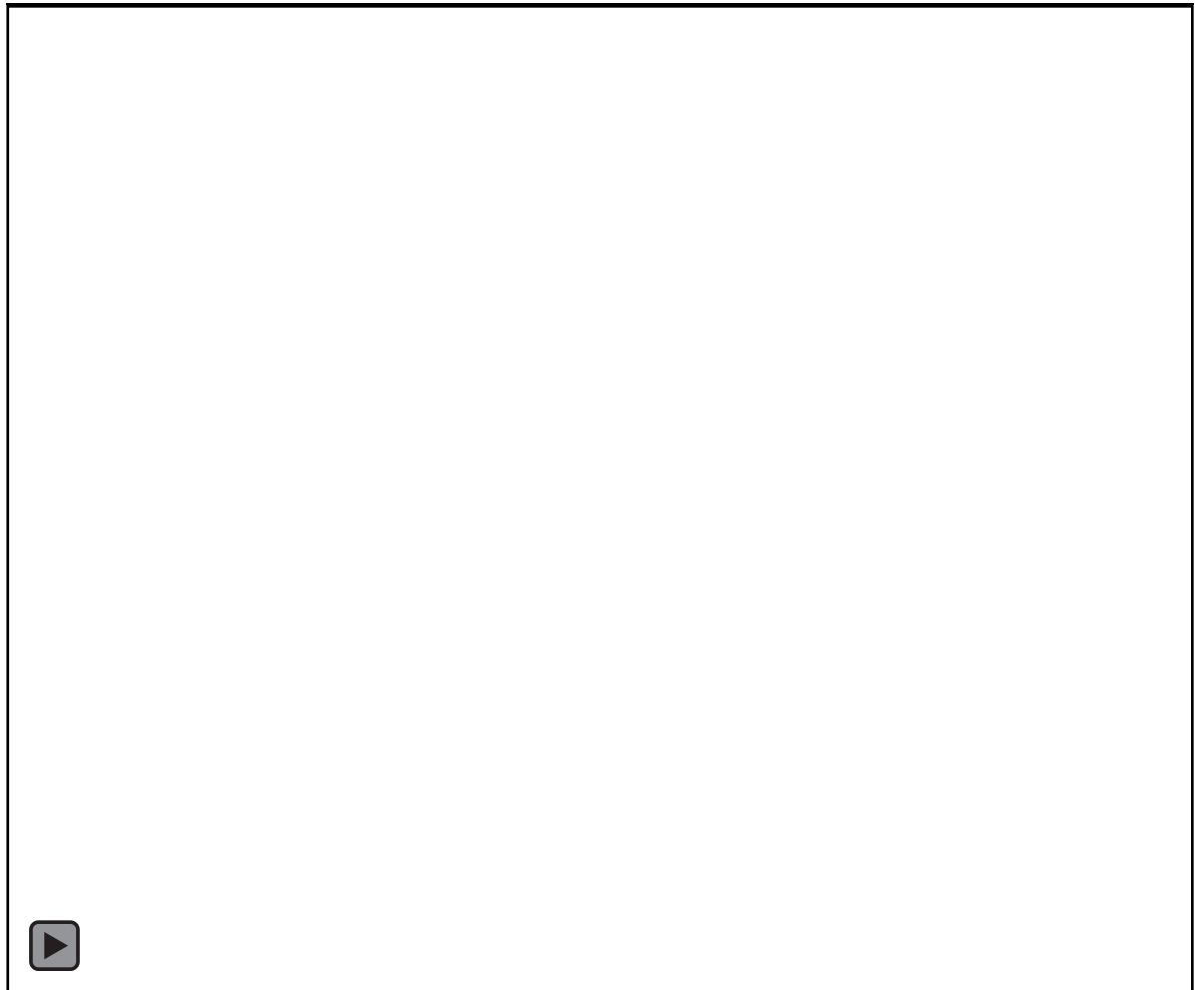
# What Are We Doing to Help?

- Per year Screen 20% of all outfalls during dry weather (ie, not raining) to determine if any pollutants
  - Dry weather flow could simply be groundwater
  - Septic and sump pumps with washing machines are often culprits
  - In the last 6 years, looked at over 10,000 outfalls in NCC
- Also sample maintenance yard outfalls 2x a year



# What Are We Doing to Help?

- Provide a hotline for residents to call anonymously to report pollution: **302-STOPPIT**
  - Consultant will investigate and sample water if necessary
  - Depending on severity of case, placed on watch list, educational door hangers distributed, or a Notice of Violation sent.



# Public Education & Outreach

- Participate in public events, such as stream clean-ups, community days, and K-12 educational programs
- Educate on vehicle fluids, hazardous household waste, litter, car washing, lawn care, animal waste, etc

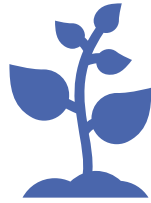


# Livable Lawns –

[www.delawarelivablelawns.org](http://www.delawarelivablelawns.org)



**Residential Homeowner and  
Commercial Applicator Incentive  
Programs**



**Educates on proper fertilizer  
use:**

- Conduct a soil test (sent for free)
- Apply fertilizer based on results
- Only apply in the fall when grass roots utilize
- Don't apply right before rain



**Once homeowner completes,  
receive a \$50 native plant  
voucher**

# Livable Lawns –

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# Scoop the Poop!

- Animal waste acts like fertilizer in the water, just as it does on land
- May have harmful bacteria or parasites
- Yes “natural” but the amount of dogs we have isn’t!





# No PILE is Left Behind



We've seen it all!



We've seen it all!



We've seen it all!



We've seen it all!





# See it, Report it!

- Call **302.STOPPIT**  
(anonymously)
- Contact me:  
Sara Esposito  
NPDES Program Manager  
302.760.2346  
[sara.esposito@delaware.gov](mailto:sara.esposito@delaware.gov)
- Team at: [npdes@delaware.gov](mailto:npdes@delaware.gov)

**Water Pollution is a Crime.  
Don't Stand For It. STOPPIT**

If you see pollution going into or out of the storm sewer system, report it!

**Prevent Pollution**

Vehicle Fluids    Household Waste

Pet Waste    Yard Waste

...ONLY RAIN...  
DOWN THE STORM DRAIN

DelDOT

**Call or text (302) STOPPIT**  
Email [hotline@302stoppit.org](mailto:hotline@302stoppit.org) or visit [www.302stoppit.org](http://www.302stoppit.org)  
City of Wilmington residents can also use the Report It/ Resolve It App