



# NPDES MS4 Program in the State of Delaware

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# Overview of NPDES Programs

- National Pollutant Discharge Elimination System
- A system of **regulating** point sources of pollution to surface waters
- Typical point sources include treated process water discharges from industry
- NPDES Municipal Separate Storm Sewer System (MS4) Permits – point source discharge from non-point sources?

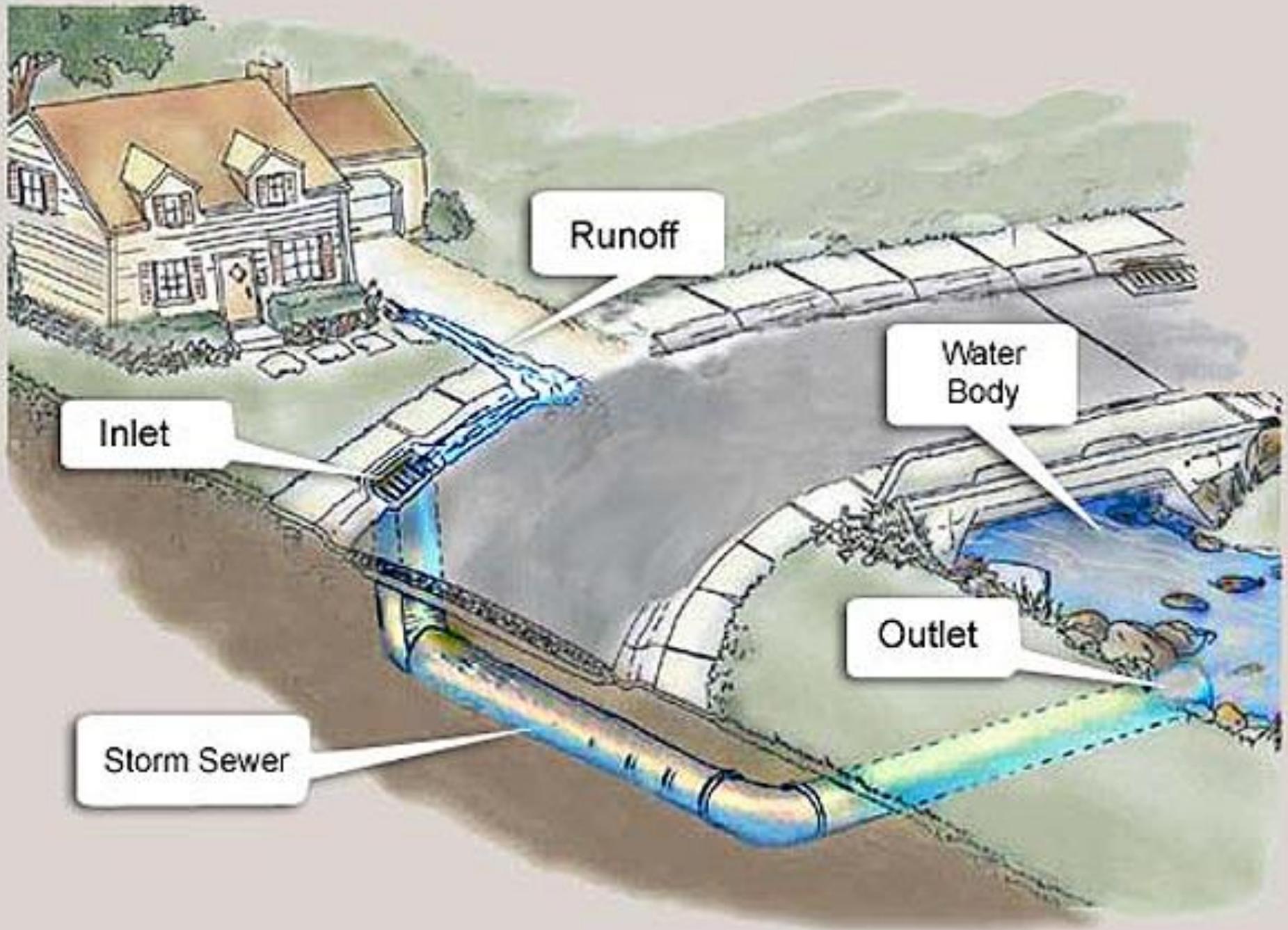


# What is an MS4?

A *municipal separate storm sewer system* (MS4) is:

A conveyance or system of conveyances... owned by a State, city, town, or other public entity that discharges to waters of the U.S. and is:

- designed or used for collecting or conveying storm water
- not a combined sewer
- not part of a Publicly Owned Treatment Works (POTW)



Runoff

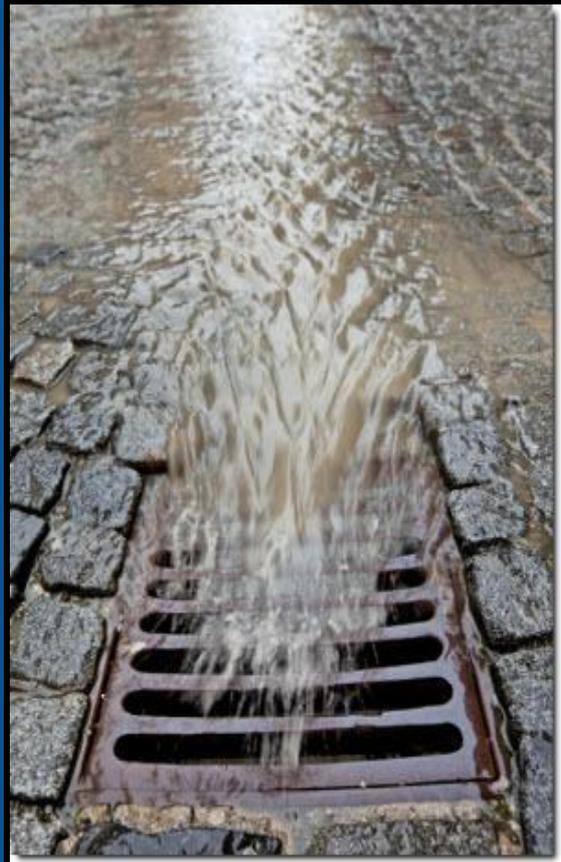
Water Body

Inlet

Outlet

Storm Sewer

# Examples of Conveyances



# NPDES Stormwater Regulations

- EPA's Phased approach
  - Phase I (1990)– regulates discharges from large and medium MS4s and construction activity  $\geq 5$  acres
    - Phase I MS4s – population greater than 100,000 when rule adopted. Specifically identified in reg.
  - Phase II (1998) – regulates discharges from small MS4s and construction activity  $\geq 1$  acre

# What is a Regulated Small MS4?

An MS<sub>4</sub> that....

- Has NOT been designated as a medium or large MS<sub>4</sub>
- Is located within a census defined urbanized area as of the latest decennial census
- Has been designated by the NPDES permitting authority



# DE's NPDES MS4 Program

- (1) Phase I MS4 Permit
  - NCC/DelDOT with co-permittees:
    - Cities of New Castle, Wilmington, Delaware City, and Towns of Bellefonte, Newport, Elsmere
- (4) Phase II MS4 Permits
  - City of Newark/U of D
  - Town of Middletown
  - City of Dover
  - Kent County DelDOT



***Things Are Changing.....***



# Newly Regulated MS4s

- U.S. Census Bureau released its 2010 Census in late 2011
- Some communities in Delaware that were not regulated grew in population, so that they now require permit coverage
- “Urban Area”

A screenshot of the U.S. Census Bureau website. The header includes the U.S. Department of Commerce logo and the U.S. Census Bureau logo. Navigation links for People, Business, Geography, Data, Research, and News are visible. The main content area features a section for "The 2012 Economic Census" with a "See More" button, a "YOUR RESPONSE MAKES A DIFFERENCE FOR YOUR COMMUNITY" banner with photos of people, and a "QuickFacts" section with a dropdown menu to "Select a state to begin". On the right, there is a "Census News" section with a headline "Census Bureau Announces Revised Calendar for Economic Programs" dated 11/15/2013, and a "U.S. Census Bureau E" section with various reports like "Monthly Wholesale Inve" and "International Trade Bal".

# What goes into the Urbanized Area area Definition?

- Densely settled core of census tracts or blocks
- Along with adjacent territory containing non-residential urban land-uses
- As well as, territory with low population density in order to link outlying densely settled territory with the densely settled core.



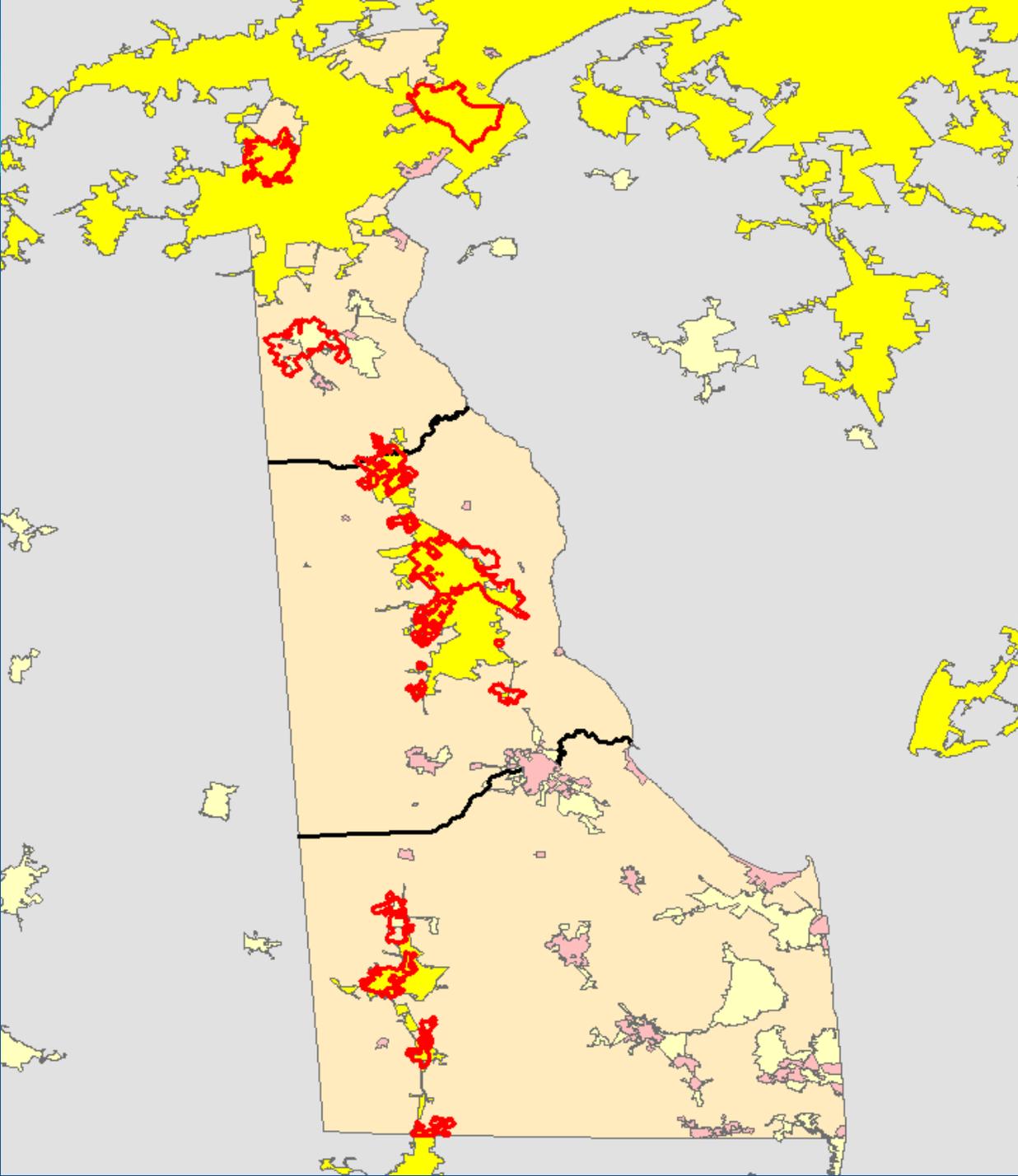


# Newly Regulated MS4s

- Newly Identified Regulated Small Phase II MS4:

- Blades
- Bridgeville
- Camden
- Cheswold
- Clayton
- Delmar
- Felton
- Frederica
- Laurel
- Magnolia
- Smyrna
- SC DelDOT
- Viola
- Woodside
- Wyoming

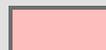




### Legend

#### Municipalities

#### MS 4s

-  Not Required
-  Required
-  County\_Boundaries

#### Urban\_Areas\_2010

#### UATYP10

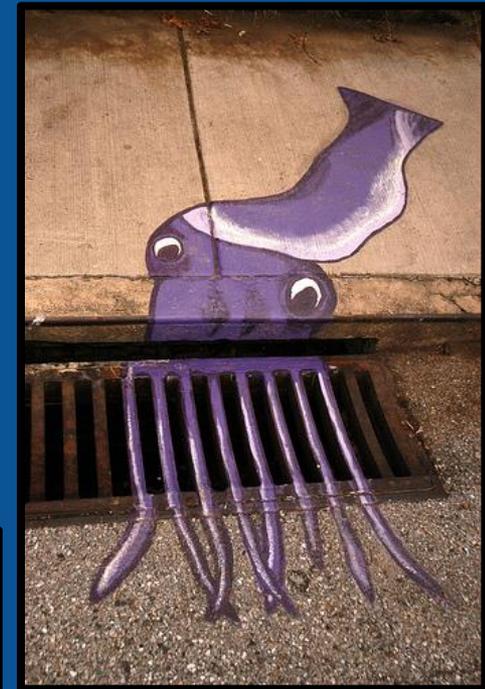
-  Urban Cluster
-  Urban Area



# Provisions of the MS4 Program

- Intent
  - Authorized Discharges
- 6 Minimum Control Measures (MCMs)
  1. Public Education and Outreach
  2. Public Involvement and Participation
  3. Illicit Discharge, Detection and Elimination
  4. Construction Site Stormwater Runoff Control
  5. Post-Construction Storm Water Management
  6. Pollution Prevention and Good Housekeeping
- For each Minimum Component:
  - BMPs, goals, timelines and responsible party

# MCM #1: Public Education and Outreach



# MCM #2: Public Involvement and Participation



# MCM #3: Illicit Discharge Detection and Elimination





Sometimes  
Obvious.....



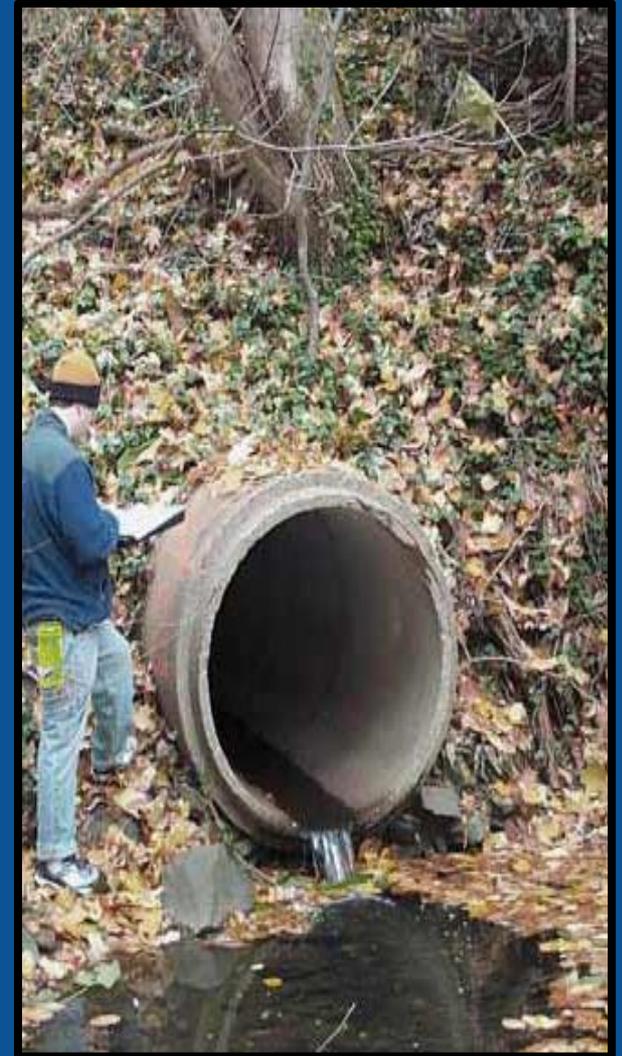
Sometimes  
not



# Methods for tracking illicit discharges



Outfall Sampling



Visual Outfall Monitoring



Dye Testing

# Construction Site Stormwater Runoff

## Control

### EPA Recommendations:

- Develop a strong relationship with your County Conservation District (MOA/MOU)
- Communicate frequently and share information
- Develop your own system to track complaints
- Educate developers and site operators



# MCM #5: Post-construction Stormwater Management in New Development and Re-development

## Recommendations:

- Maintain an inventory of PCSM BMPs
- Create a tracking system to track BMP inspections, repairs and long-term maintenance
- Take enforcement and escalate to DNREC if necessary
- Provide proper training



# MCM #6: Pollution Prevention/Good Housekeeping for Municipal Operations

## Recommendations:

- Develop a site-specific SWP and/or O&M Plan
- Ensure adequate/appropriate controls exist at all municipal facilities
- Maintain stormwater BMPs
- Properly train municipal staff
- Lead by example
- Obtain ISWGP Coverage when appropriate



# Sharing Responsibility



- 40 CFR 122.35 allows permittees to rely on another entity to satisfy NPDES permit obligations if:
  - The other entity does in fact implement the control measure;
  - The control measure is at least as stringent as the NPDES permit req't;
  - The other entity agrees to implement the control measure on your behalf (legal agreements are encouraged)

# Sharing Compliance Responsibility

- If you are covered as a co-permittee under an individual permit or under a general permit by means of a joint NOI, you remain responsible for all terms of the permit in your jurisdiction

# Documentation





# Introducing the Phase II MS4 General Permit Program!!

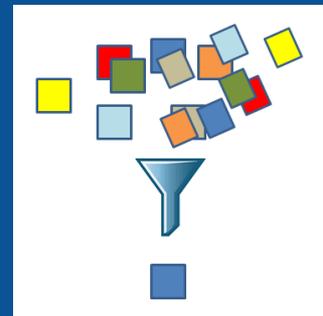
- New Draft “State of Delaware Phase II MS4 General Permit” *is ready* for review!!
- Accepting preliminary comments now through January 2016.





# What is a General Permit?

- Provides NPDES permit coverage to a category/class of discharges that are similar in nature
- One permit – many permittees
- Still allows for co-permittee relationships
- As with an individual permit, it is only current for 5 years





# Phase II MS4 General Permit

- Authorizes all existing and new point source discharges of storm water from covered small MS4s
  - Part I – describes authorized discharges; limitations on coverage; permittee responsibilities; and how you apply
  - Part II – focuses on the Storm Water Pollution Prevention & Management Program (SWPP&MP)
  - Part III – is about SWPP&MP evaluation requirements
  - Parts IV – details sampling and reporting procedures
  - Part V – contains a bunch of standard NPDES permit conditions
  - Part VI – is the definitions section



# Phase II MS4 General Permit (Part I)



## Who does it cover?

- Regulated small municipal separate storm sewer systems (MS4s)
  - Located in an “urbanized area” as determined by the latest Decennial Census, or
  - Designated as a regulated small MS4 by DNREC

# Phase II MS4 General Permit (Part I)



## What it does/does not cover?

- Does cover the discharge of storm water from the MS<sub>4</sub>
- Does not cover:
  - non-storm water discharges (except those listed in Part II.C.2(a)(iii));
  - Industrial storm water (unless covered under separate NPDES permit)
  - Spills
  - Discharges with reasonable potential to cause or contribute to an exceedance or violation of applicable surface water quality standards

# Phase II MS4 General Permit (Part I)



## Who is responsible for what?

- Each permittee is responsible for compliance with all permit conditions
- Co-permittee relationships require inter-jurisdictional agreements (IJAs) that define responsibility for permit requirements
  - Submit IJA within 6 months of authorization to discharge
- Co-permittees must participate in an annual meeting of all co-permittees to coordinate permit implementation

# Phase II MS4 General Permit (Part I)



## Applying for Permit Coverage

- Within 120 days of permit effective date, all current and newly identified small MS4s must submit a Notice of Intent (NOI) for coverage under the GP
  - Basic permit applicant info
  - Names, designated use, impairment status of receiving waters and if TMDLs exists
  - Certification statement/signature of a Responsible Official



# The Waiver Process



- Criteria in 40 CFR 122.32 (d) and (e)
  1. MS4 serves a population  $< 1,000$  within the UA
    - a. Your system does not contribute to the pollutant loading of a physically interconnected MS4; and
    - b. If you discharge any pollutants identified as a cause of impairment to a waterbody to which you discharge, stormwater controls are NOT needed based on WLA that are part of an approved TMDL that addresses the pollutant(s) of concern

# More Waiver Criteria

2. MS4 serves a population under 10,000
  - a. The permitting authority has evaluated all waters of the US that receive a discharge from your MS4 and has determined that stormwater controls are NOT needed based upon WLAs that are part of an approved TMDL that addresses the pollutant(s) of concern
  - b. POCs include any pollutant that has been identified as a cause of impairment of any waterbody that will receive a discharge from the MS4; and
  - c. The permitting authority has determined that future discharges from your MS4 do not have the potential to result in exceedances of water quality standards

# Part 2 - THE PLAN



- Storm Water Pollution Prevention & Management Program (SWPP&MP)
- Details the “How?” for how permit compliance will be achieved
  - Details all Best Management Practices (BMPs), control measures, and all other permit implementation reqs
  - Establishes implementation plans for the 5 Minimum Control Measures required in the GP.





# SWPP&MP Development

Timeframe	Action
180 days from NOI Authorization	SWPP&MP Outline
12 Months from date of NOI Authorization	Draft SWPP&MP Due
Months 13-17	Department Review
Month 17-18	Modification Period
Month 18	Commencement of SWPP&MP

# Individual vs Co-Permittees



- SWPP&MP must reflect whether the permittee is an individual or co-permittee.
- Co-permittees submit one SWPP&MP.
- The SWPP&MP must outline each permittees' roles and responsibilities. The Department does not assign these.
- Responsibilities are to be assigned through inter-jurisdictional agreements (IJAs) where necessary.
- IJAs must be in place by commencement of plan.

# MS4 GP Five Minimum Control Measures



- 5 Minimum Components
  1. Public Education/Public Involvement
  2. Illicit Discharge, Detection and Elimination
  3. Construction Site Stormwater Runoff Control
  4. Post-Construction Storm Water Management
  5. Pollution Prevention and Good Housekeeping
- For each Minimum Component:
  - BMPs, measurable goals, timelines and responsible party(ies)



# Measure 1: Public Education/Public Involvement



Program to ↑ community knowledge of SW pollution impacts and BMPs; change behavior; and ↓ discharge of pollutants to the MS4

## GP Requirements:

- Develop Public Education and Outreach program in 365 days (or update if existing permittee)
  - Include at least 2 public education opportunities on SW management each year
  - Ensure one impression per year for every two people
  - Perform statistically valid public education survey to measure effectiveness
  - Develop a process for public SWPP&MP review and comment
  - A plan for public participation in addressing Minimum Control Measures



# Measure 2: Illicit Discharge Detection and Elimination



Establishes programs to find and prevent discharge of anything but SW to the MS4\*

## GP Requirements:

- Develop an Ordinance effectively prohibiting d/c of anything but SW to MS4
- Sanitary Sewer Overflow (SSO) training and reporting
- Program to detect IDDEs
  - Water Quality Citizen Complaint Hotline
  - Mapping of all outfalls, storm sewer, structural BMPs and green infrastructure
  - Screening program for illicit discharges



# Measure 2: IDDE (continued)



Establishes programs to find and prevent discharge of anything but SW to the MS4\*

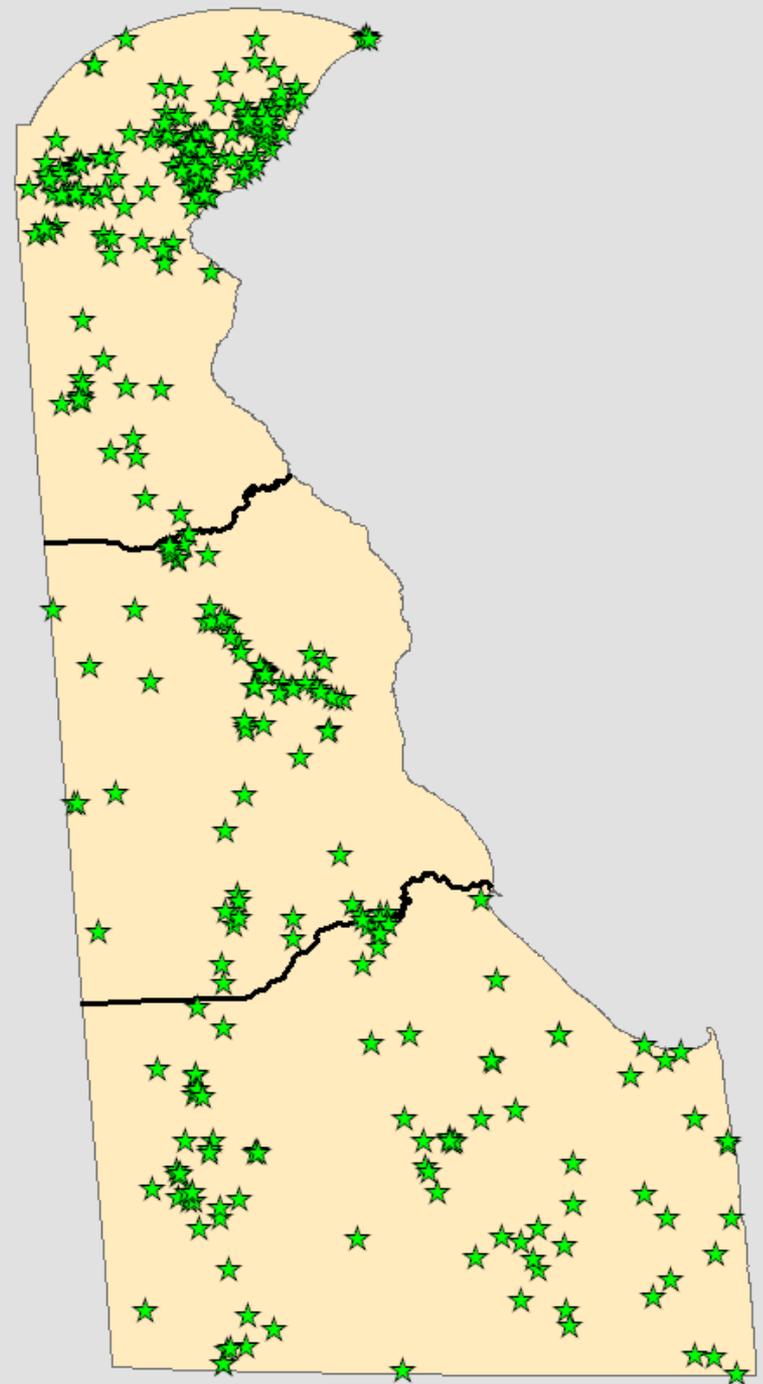
## GP Requirements:

- Develop a plan to eliminate illicit discharges
  - Floatables control program for litter
  - Plan for response actions by permittee if IDDE is discovered/reported and documentation of those response actions
- Industrial Storm Water Program
  - Assist Dept with an inventory of Industrial Facilities in your jurisdiction
  - Drive-by inspections of Industrial Facilities



## NPDES Industrial SW Permit Universe

- Currently, DE holds permits for 364 Active Facilities
  - ~103 of these are No Exposure Certified



# Measures 3 & 4: Construction and Post-Construction Storm Water Management



Requires development, implementation, and enforcement of a program consistent with *DE Sediment and Stormwater Regulations (7 Del. C. Ch. 40)* for sw quantity and quality control during and after construction

## GP Requirements:

- Local regulatory mechanism for enforcing onsite compliance within 3yrs of permit authorization
- MOU within 180 day of permit authorization if applicable



Typically requirements of this part are met via the Sed and Stormwater Programs of Delegated Agencies and compliance is evaluated via Tri-ennial Delegation Review under DNREC's Sediment and Stormwater Program

# Measure 5: Pollution Prevention & Good Housekeeping



## Minimizing SW Pollution From Your Own Operations

### GP Requirements for Good Housekeeping Plan:

- Inventory of all permittee owned/operated facilities (Public Works yards, parks, composting areas...)
- A street cleaning and catch basin cleaning programs
- Snow and ice management program
- Litter control program
- Program for proper pesticide, herbicide and fertilizer application/disposal
- Employee Training Program



# Measure 5 continued: Pollution Prevention & Good Housekeeping



## More on Street Cleaning and Catch Basin Cleaning

### GP Requirements:

- Street sweeping/cleaning must occur 2 times per year (once in Spring and once in Fall)
- Catch basin cleaning program shall ensure that no catch basin sumps are ever more than 50% full
- Annual reports should include the volume or mass of material removed via street sweeping/catch basin cleaning, total area swept, number of catch basin inspected/cleaned, etc...



# Monitoring Requirements as part of the SWPP&MP



- TMDLs and WLA
  - Identify applicable TMDLs and WLAs
  - Provide compliance schedule to achieve applicable WLA including timelines, interim milestones and end dates
  - Description of actions that will take place to make progress towards milestones/WLA
  - By year 4 of the permit submission of a GIS layer detailing all MS4 urbanized/impervious areas



**LOAD**

# Monitoring Requirements as part of the SWPP&MP



- Performance Monitoring Plan
  - Track/analyze expected pollutant load reductions
  - Designed to demonstrate any progress toward achieving Surface Water Quality Standards
  - Existing Phase II MS4 also need to develop a statistically based wet-weather outfall monitoring program



# Monitoring Requirements as part of the SWPP&MP



- Dry Weather Screening Plan
  - Covered in Part II.C.2.b(ii) for IDDE
- In-Stream Monitoring
  - Can choose to provide in-stream data to support goals of TMDL
  - Or, permittee can use State 305(b) reports to substitute for in-stream monitoring
- SWPP&MP Monitoring Plan
  - Describes analysis measures that will be used to gauge SWPP&MP effectiveness





# Modifying the SWPP&MP

- Dept approval needed for swapping out BMP or changes to SWPP&MP monitoring plans
- Dept approval not required for changes adding (but not subtracting or replacing) components, controls, or requirements
- Change requests must be certified via signature by all permittees & co-permittees



# Phase II MS4 General Permit (Part IV)



## Sampling and Reporting Procedures

- Contains info on records content and retention, test procedures and annual reporting
- Something that we missed: Need to add language for e-reporting to comply with the Federal NPDES E-Reporting Rule that went into effect at the end of December.



# Phase II MS4 General Permit (Part V)



## Standard Conditions

- Bunch of provisions about reapplying and modifying your permit, proper operation and maintenance, duty to comply, right of entry, signatory requirements, etc....





# So great...now what do I do?

- Don't Panic!
- Become familiar with the GP and provide comments/feedback
- Start thinking of how you will proceed
- *Contact us for questions or support!*





# Thank You!

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Surface Water Discharge Section  
(302) 739-9946



# <http://www.epa.gov/npdes/stormwater-discharges-municipal-sources#resources>

Stormwater Discharges from Municipal Sources | National Pollutant Discharge Elimination System (NPDES) Page 2 of 3

- particularly stormwater sources, and sets ambitious targets for audits and inspections of Phase I and II MS4s, construction sites, and industrial facilities.
- Urbanized Area Maps for NPDES MS4 Phase II Stormwater Permits - Includes links to maps based on 2010 urbanized areas and the 2000 urbanized areas.

## Fees and Funding

### Federal Government and Stormwater Fees

- Federal Government Obligations to Pay Stormwater Fees —On January 4, 2011, President Obama signed into law "An Act to Amend the Federal Water Pollution Control Act to clarify Federal responsibility for stormwater pollution," Pub. L. No. 111-378, 124 Stat 4128 (2011) to clarify that reasonable service charges payable by federal agencies, as described in section 313(a), include certain stormwater assessments.
- Memorandum Clarifying that New Legislation Provides for Stormwater Fees to be Paid from Current Lump-sum Appropriations —On March 18, 2011, the Department of Justice/Office of Legal Counsel released a memorandum to clarify that language in section 313(c)(2)(B) of the Clean Water Act contained in new legislation obligating federal agencies to pay stormwater managements fees does not impose a specific appropriation requirement. Stormwater assessments are payable from annual—including current—lump-sum appropriations.

### Funding Sources and Resources

- Clean Water State Revolving Fund (CWSRF) —This page describes funding options for a wide variety of water quality projects.
- Nonpoint Source (319) Grant Program —This page describes grant money that is available under section 319 of the Clean Water Act to states, territories, and Indian Tribes to support activities as part of an approved nonpoint source management program.
  - Catalog of Federal Funding Sources for Watershed Protection —This searchable database provides information on financial assistance sources (grants, loans, cost-sharing) available to fund a variety of watershed protection projects.
- Water Infrastructure and Resiliency Finance Center —This page serves as a resource to communities for improving their wastewater, drinking water, and stormwater systems, particularly through innovative financing and increased resiliency to climate change.

### Fact Sheets and Guidance

- Funding Stormwater Programs — This fact sheet for municipalities provides information on alternatives for funding their stormwater programs.
- Guidance for Municipal Stormwater Funding —This document was developed in January 2006 by the National Association of Flood and Stormwater Management Agencies (NAFSMA) under a grant provided by EPA to provide funding guidance for stormwater utilities.

### Training and Webcasts

EPA provides webcasts for stormwater professionals on the minimum control measures as well as joint EPA-Federal Highway Administration (FHWA) webcasts on transportation stormwater management.

- Green Infrastructure