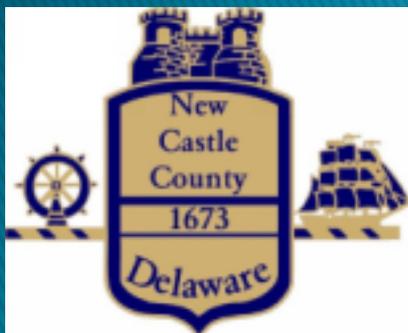


# New Castle County, Delaware Stormwater Amnesty Program Update

CWEA Management of Constructed Assets  
October 21, 2015



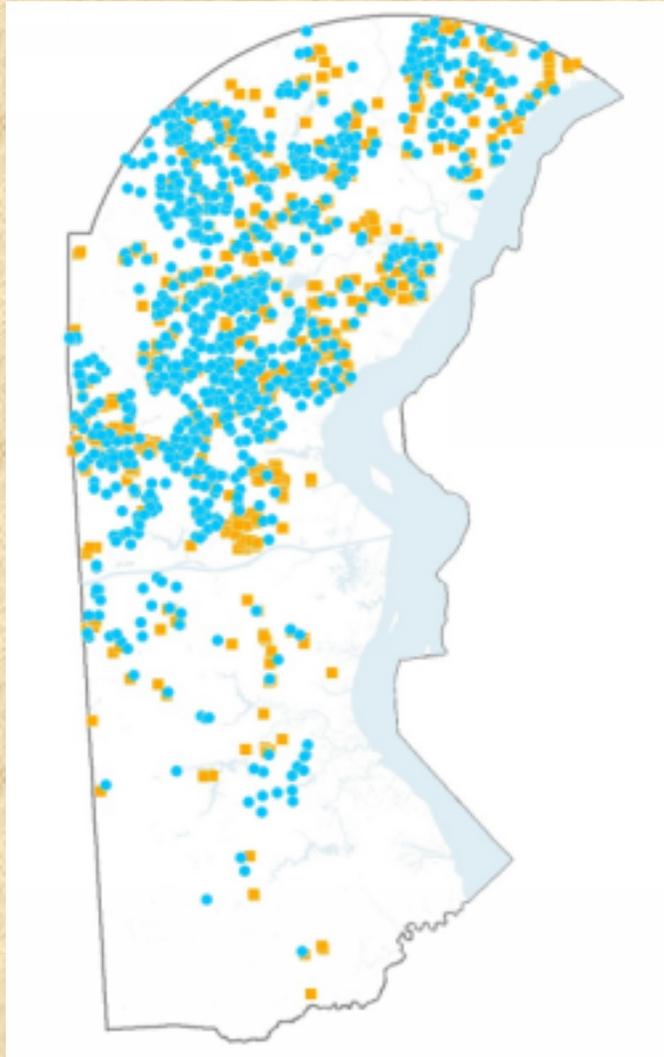




# New Castle County SW Program

- ▶ Has had stormwater regulations since 80's
- ▶ DNREC delegated authority for plan review, construction and post-construction inspection
- ▶ Was issued first Phase I MS4 permit in 2001
  - NCC and DeIDOT are permittees.
  - Co-permittees; Wilmington, Middletown, Elsmere, Newport, New Castle, Delaware City, Odessa, Bellefonte, Townsend, Arden, Ardencroft, and Ardentown.
- ▶ Issued a renewed MS4 permit in 2013
  - NCC and DeIDOT are Principal Permittees.
  - Wilmington, Elsmere, New Castle, Bellefonte, Delaware City and Newport are Co-Permittees.

# Inventory

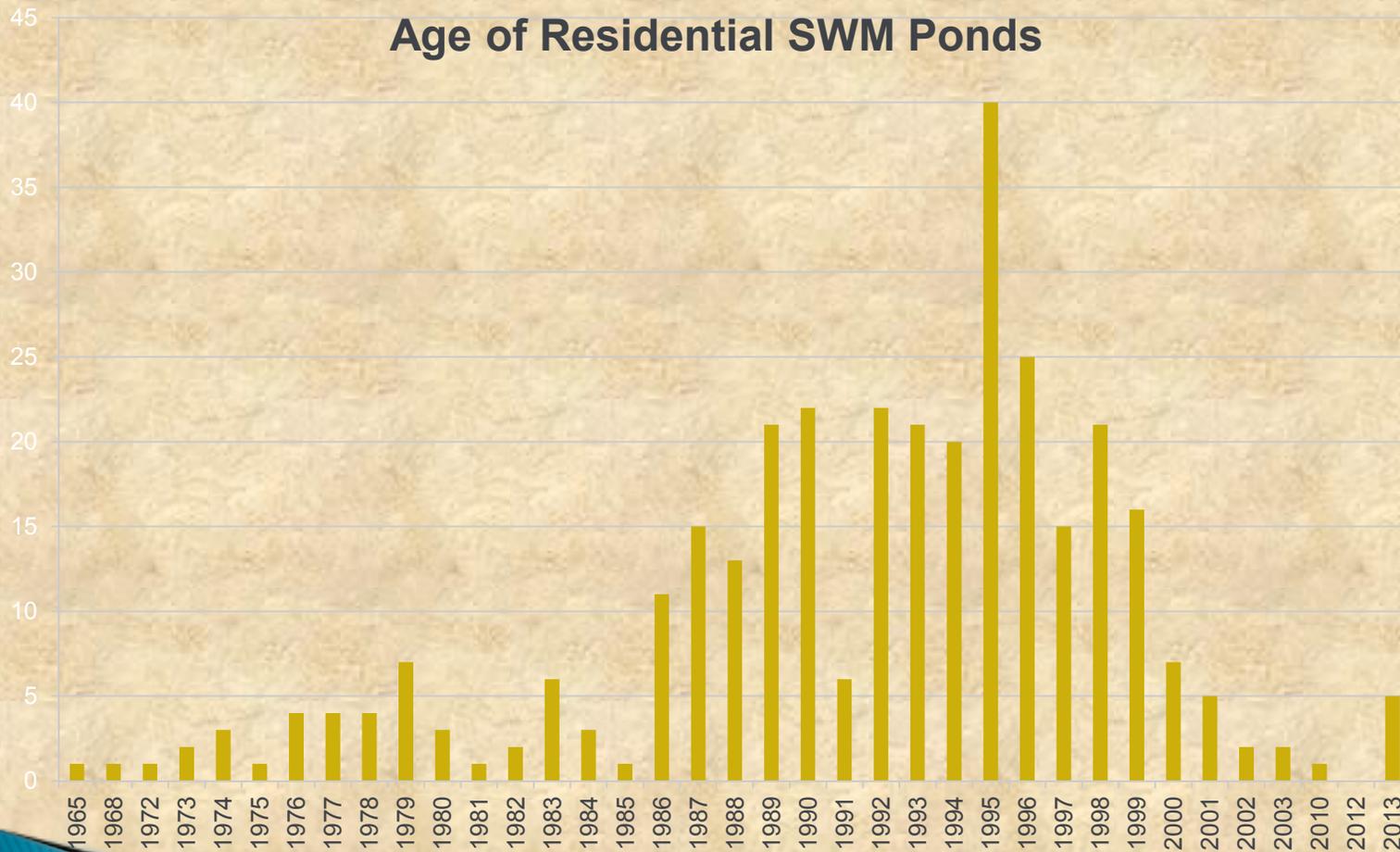


1993  
Facilities

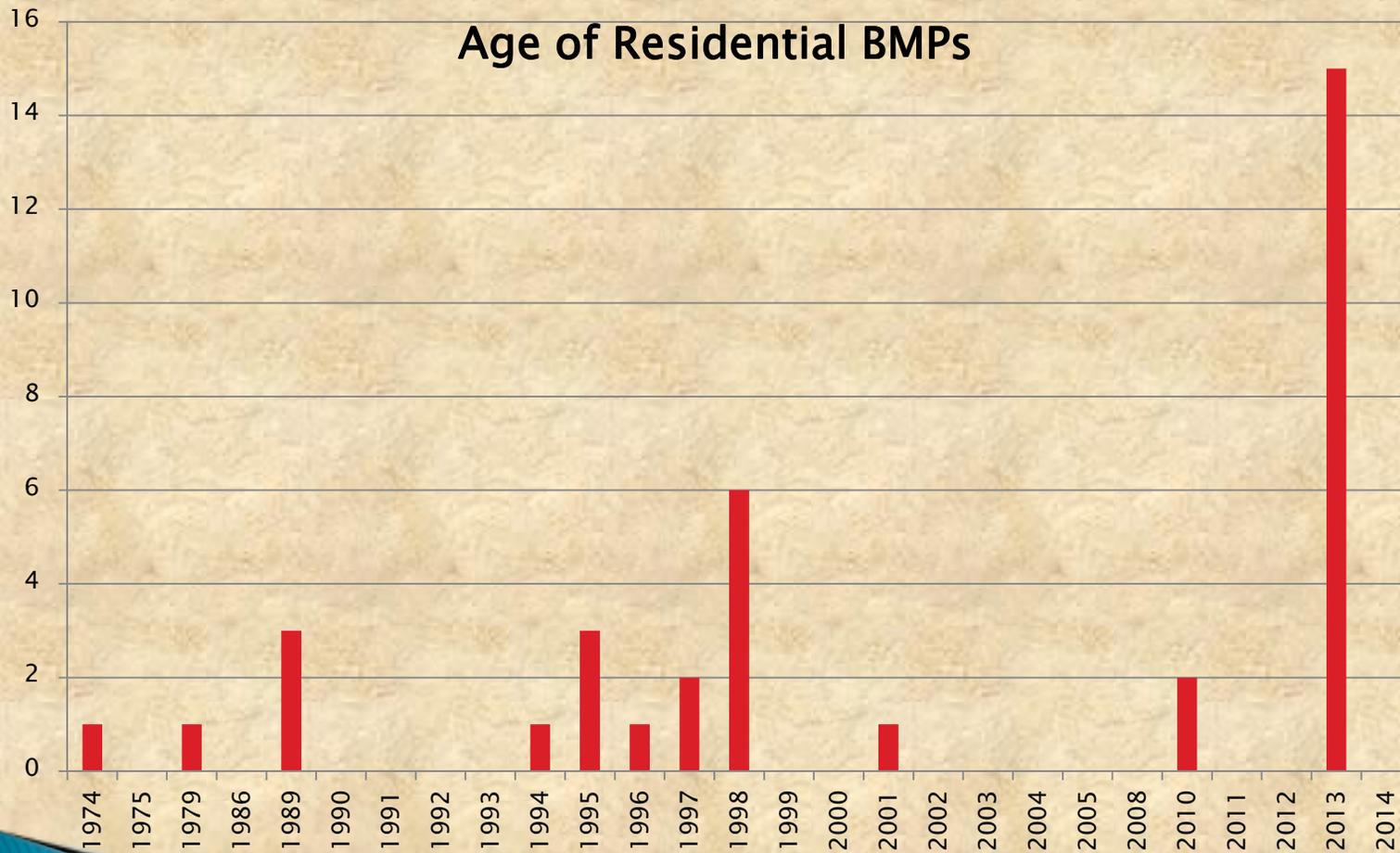
# Inventory Breakdown

<b>Pond Type</b>	<b>Number</b>	<b>GTBMP Type</b>	<b>Number</b>
Dry	550	Bioswale	302
Dry/Infiltration	10	Bioretention	330
Wet	316	Constructed Wetland	7
		Filtterra	2
		Filtration	156
		Green Roof	1
		Infiltration	39
		Infiltration/Underground	17
		Inlet Insert	14
		Level Spreader	4
		Micropool	2
		Porous Pavement	5
		Rain Garden	7
		Rain Tank	6
		Recharge	19
		Sand Filter	83
		Stormceptor	1
		Underground	122
<b>Totals</b>	<b>876</b>		<b>1117</b>

# Age of Residential SWM Ponds



# Age of Residential SWM BMPs



# The Amnesty Program– a Refresher

- ▶ Chapter 40 of NCC Code
- ▶ Maintenance Organizations that register annually with the County and that perform and document “minor” maintenance of their SWM facilities are eligible for County assistance with “major” maintenance subject to funds being available even if the need for major maintenance is due to past failures to perform minor maintenance.
- ▶ Had to execute binding agreement by 12/31/06.
- ▶ New SWM facilities are automatically eligible for the program.
- ▶ Only covers residential maintenance organizations

# The Mechanics of the Program

## Maintenance Organization

- ▶ Annual Registration by January 31<sup>st</sup>
- ▶ Perform and document “minor” maintenance
- ▶ Inspect 2x year and after each major rainfall
- ▶ Submit maintenance and inspection logs by January 31<sup>st</sup>

## The County

- ▶ Annual Post-Construction Inspection
- ▶ Major maintenance as needed.

# Annual Registration

**FOUND !**  
**1 STORMWATER**  
**MANAGEMENT POND**  
**WITH BROKEN RISER**  
**Call 395-5700 to claim**



Thomas P. Gordon  
County Executive



J. Wayne Moritt  
Acting General Manager

Department of Special Services  
2014 Stormwater Management Maintenance Program Annual Registration Form

A maintenance organization must register and file an annual stormwater management facility inspection and maintenance log with the Department of Special Services to qualify for financial assistance for major repairs, subject to the availability of funds, as set forth in Section 48.27.520 and Chapter 11, Article 6.

By signing below, I acknowledge that...All registered maintenance organizations created for the purpose of maintaining common facilities located in residential subdivisions are required to perform minor maintenance (grass mowing and trimming; debris removal; minor sediment removal; fill all eroded areas and animal burrows; and removal of trees or shrubs or embankments) and inspections on their stormwater management facilities as required by Chapter 11, Article 6 of the New Castle County Code in order to qualify for financial assistance from New Castle County for major maintenance and repairs of stormwater management facilities, subject to the availability of funds. I further acknowledge that failure to perform required maintenance could result in corrective action by the County and imposition of a fine as set forth in Section 48.27.530 or its predecessor or any recorded maintenance declaration and ineligibility for County financial assistance unless and until all required inspections and minor maintenance are up to date.

Board Member Signature: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

So we may better assist you with community needs, please provide accurate and complete information. If any area is not applicable, please mark as such.

Development Name \_\_\_\_\_ Do you have a Property Mgmt. Co.? \_\_\_\_\_  
 Name of Organization \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ If yes:  
 Mailing Address \_\_\_\_\_ Name \_\_\_\_\_  
 \_\_\_\_\_ Address \_\_\_\_\_  
 \_\_\_\_\_  
 President \_\_\_\_\_ Phone \_\_\_\_\_  
 Term Expiration Date \_\_\_\_\_ Fax \_\_\_\_\_  
 Address \_\_\_\_\_  
 Primary Phone \_\_\_\_\_ Secondary \_\_\_\_\_  
 Email Address \_\_\_\_\_

Vice President \_\_\_\_\_  
 Address \_\_\_\_\_  
 Primary Phone \_\_\_\_\_ Secondary \_\_\_\_\_  
 Email Address \_\_\_\_\_

Secretary \_\_\_\_\_  
 Address \_\_\_\_\_  
 Primary Phone \_\_\_\_\_ Secondary \_\_\_\_\_  
 Email Address \_\_\_\_\_

Treasurer \_\_\_\_\_  
 Address \_\_\_\_\_  
 Primary Phone \_\_\_\_\_ Secondary \_\_\_\_\_  
 Email Address \_\_\_\_\_

**Return by January 31, 2014 to:**  
 New Castle County  
 Department of Special Services  
 ATTN: Janice Catherman  
 Stormwater Management Section  
 187A Old Churchmans Road  
 New Castle, DE 19728  
 (302) 395-4754  
 JCatherman@nccolc.org  
 FAX: (302) 395-5802

# Perform and Document Minor Maintenance

## STORMWATER MANAGEMENT FACILITY INSPECTION AND MAINTENANCE LOG FOR PONDS 2013

Name of Development: \_\_\_\_\_

Location of Facility: \_\_\_\_\_

Type of Facility: \_\_\_ Wet \_\_\_ Dry

Board Member Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Printed Name: \_\_\_\_\_

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Fill in Date:

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Algae												
Embankment erosion												
Embankment grass cutting												
Embankment vegetation												
Debris/trash removal												
Sediment removal from inlet pipe(s)												
Riser obstructions												
Comments:												

Fill in date of inspection below the month and ✓ each item inspected. **One maintenance log per SWM facility per year.** A minimum of two to three inspections and after each 2" rainfall must be done per year. Mail back to: New Castle County, Department of Special Services, ATTN: Janice Catherman, 187 A Old Churchmans Road, New Castle, DE 19720; [JCatherman@nccode.org](mailto:JCatherman@nccode.org) or FAX: (302) 395-5802 by January 31, 2014.

# Annual Inspection Process



IN 4351 INFILTRATION SWALE INSPECTION, Applecross 1, (W) - Cityworks - Mobile

Cityworks

Inspection View

Inspection Details

ID: 3051 Apply to All:

Location: Applecross 1, (W)

Status: COMPLETED Resolution:

Projected Start: 4/11/2016 3:03 PM Projected Finish:

Exp. Date: 3/1/2014 2:28 PM Inspector: GARDNER, STEVEN C

GENERAL CONDITIONS

EROSION CONTROL

GOOD  FAIR  POOR

N/A

CONDITION OF VEGETATION

GOOD  FAIR  POOR

N/A

Maintain vegetation by cutting it twice a year in early spring and late fall.

WEEDING REQUIRED  NO  YES  N/A

PONDING EVIDENT IN CHANNEL

NO  YES  N/A

List where in comments.

RAIN ON 3/30/2014.

MOWING HEIGHT TOO LOW  NO  YES  N/A

INLET STRUCTURE/FOREBAY

GOOD  FAIR  POOR

N/A

SEDIMENT ACCUMULATION/REMOVAL

GOOD  FAIR  POOR

N/A

CONTROL OF TRASH/DEBRIS

GOOD  FAIR  POOR

N/A

# Minor vs Major Maintenance

- ▶ **Minor Maintenance**
  - Grass cutting
  - Debris removal
  - Animal burrow repair
  - Minor erosion and sediment removal
  - Algae Control
- ▶ **Major Maintenance**
  - Structural repairs
  - Major sediment removal



# Major Projects

- ▶ 298 Residential MCs are registered with NCC
- ▶ Originally 74 SWM facilities on list for Major Maintenance
- ▶ As of today, 225 SWM facilities have been added to the list for repairs
- ▶ As of today, more than 150 of these facilities have been fixed
- ▶ Over \$12.8M has been spent to date for all those repairs.
- ▶ The County always retrofits whenever possible

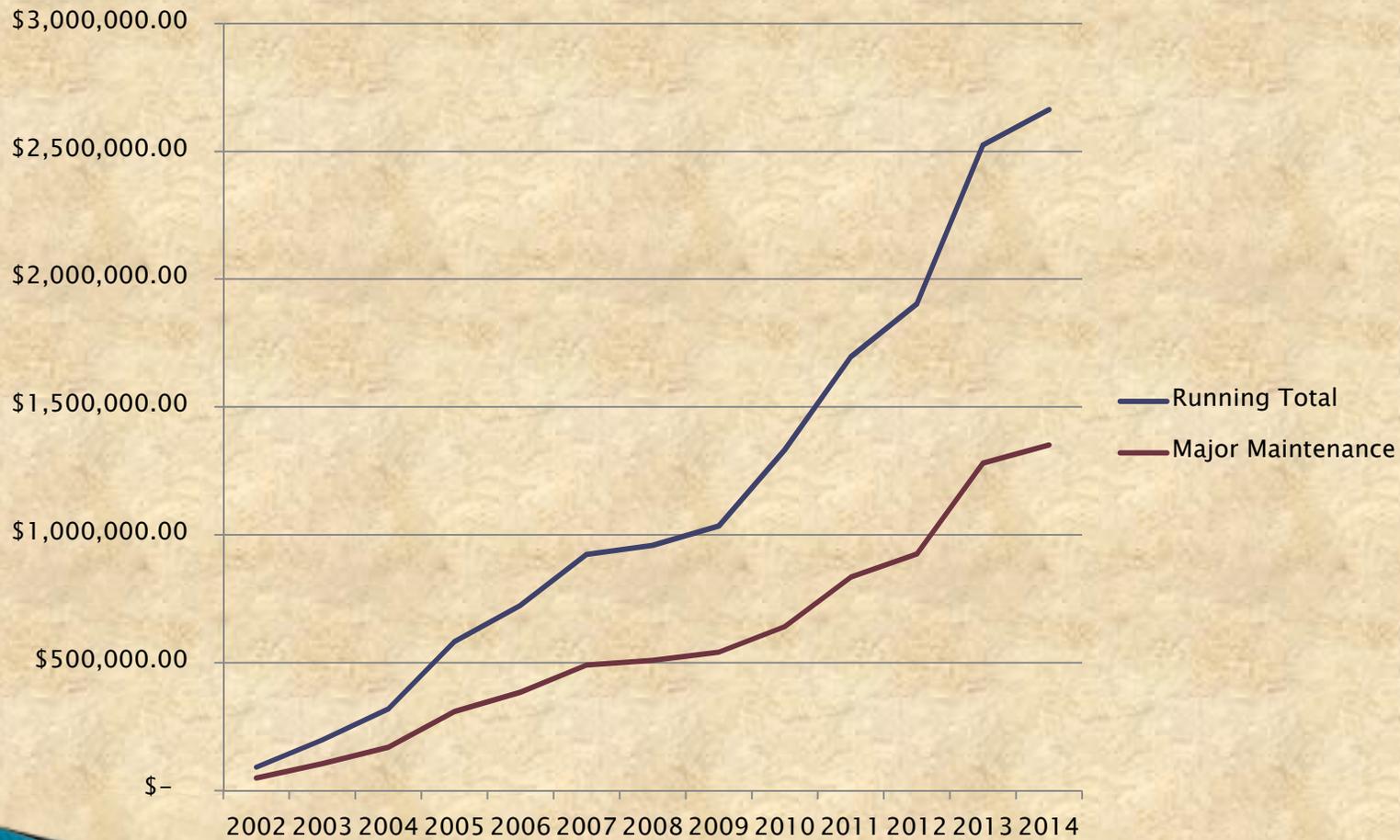
# How to Pay for Amnesty

- ▶ Secured State funding through Bond Bill
  - \$8.9 M over Fiscal Years 04, 05 and 06
- ▶ Budgeted additional \$600K per FY since
- ▶ Collecting funds for future projects through creation of the Residential Stormwater Management Facility Maintenance Fund.

# Residential Stormwater Management Facility Maintenance Fund

- ▶ Developer must pay a fee calculated by the County to cover annual inspections and major maintenance of new SWM facilities
  - Current calculation \$500 per building lot–major maintenance
  - \$8,000 per facility to fund 20 years of inspections
- ▶ Funds are due at 75% Build out
- ▶ Since 2003, approximately \$2.7 M has been collected in escrow for inspection and repairs
- ▶ A Non–Residential Stormwater Management Facility Maintenance Fund also exists but only covers inspections.

# Residential SWM Escrow Fund

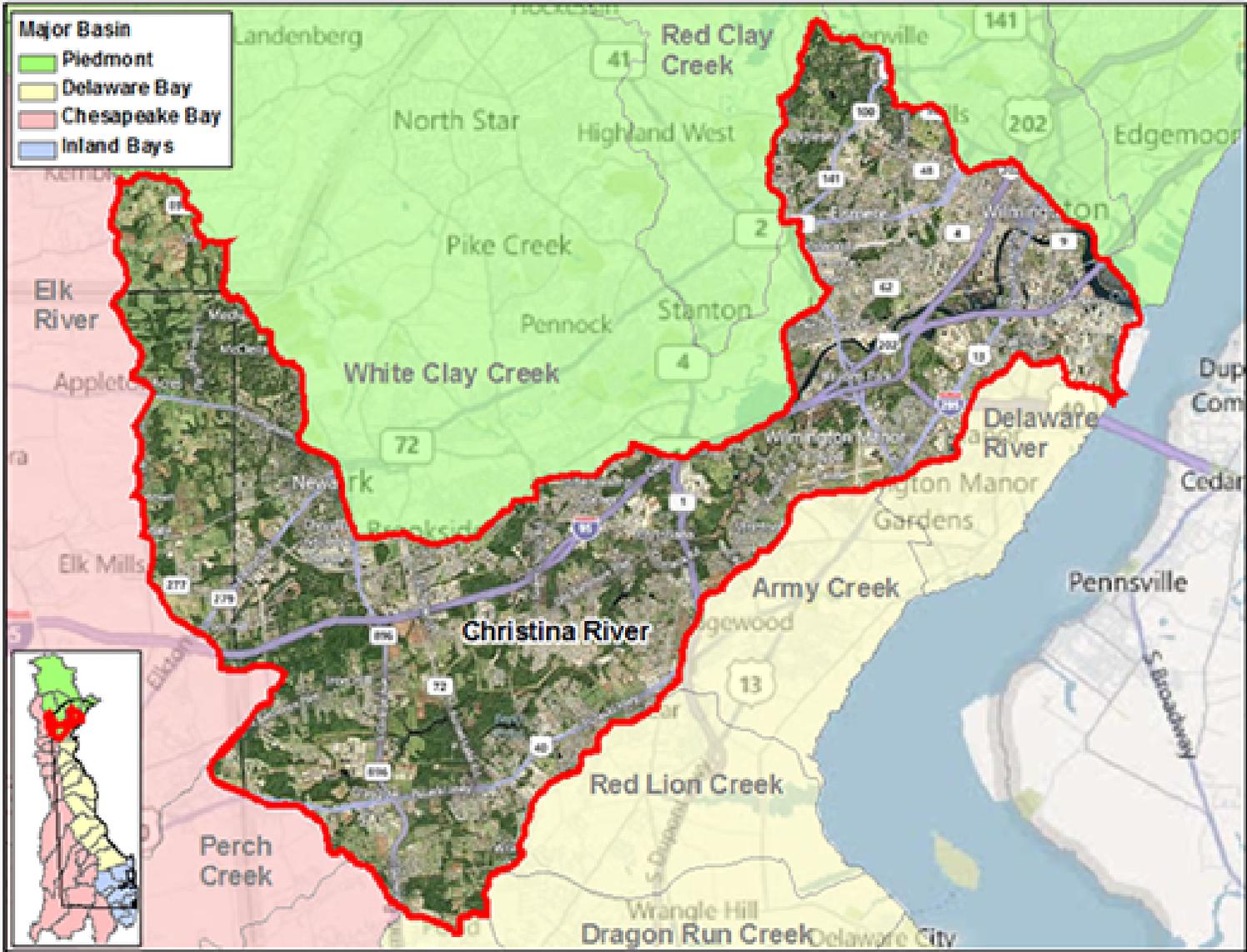


# Getting Into The “Weeds”

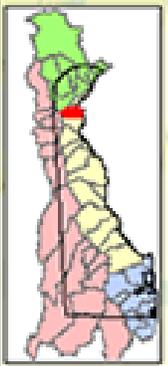
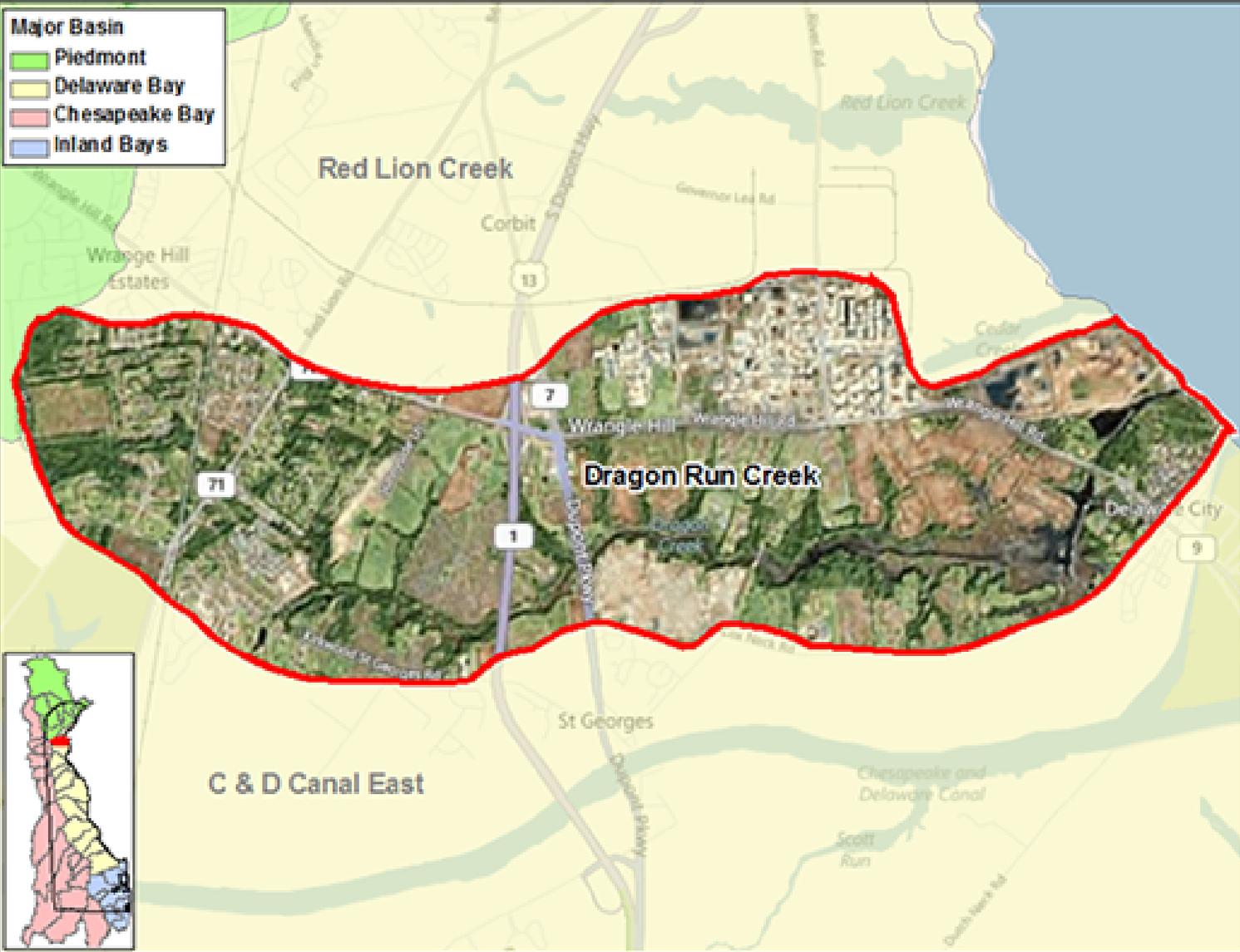
- ▶ Alignment with WQIP development
  - Christina River Basin
  - Dragon Run
- ▶ Alignment with Community desire
  - Ensuring that retrofit projects achieve water quality goals while at the same time remain pleasing to the community (the owners).
- ▶ Enforcement Against Residential Maintenance Corporations During Challenging Times.
- ▶ Ensuring proper turnover to the Community.

# New Castle County WQIPs

- ▶ Still in development
- ▶ Must reduce effective impervious area by 3%
- ▶ Mechanism for quantifying EIA reductions still not finalized
  - DURMM model most probable solution
- ▶ Equally weighted projects will be prioritized if in Christina River or Dragon Run



- Major Basin**
- Piedmont
  - Delaware Bay
  - Chesapeake Bay
  - Inland Bays



# Community Desire

- ▶ Residential BMPs are almost always open on private open space owned by the community.
- ▶ County will always promote the most environmentally sustainable and beneficial practice.
- ▶ Common decision is wet pond vs infiltration or constructed wetland practice.
- ▶ Ultimate decision whether or not to proceed falls on the Maintenance Corporation.

# Barb's Farm East – Before



# Barb's Farm East- After



# Dartmouth Woods– Before



# Dartmouth Woods – After



# Wyndom – Before



# Wyndom – After



# Enforcement

- ▶ Some MC's, in current economic climate, not able to engage members to participate
- ▶ Taking enforcement action against a maintenance corporation not desirable

# The Turnover Process

- ▶ Found that in some cases, original construction responsible for premature failure
- ▶ Responsibility starts at 90% issuance of building permits.
- ▶ Holds bond in the amount of 20% of the cost of the SWM facilities for 3 years.
- ▶ Fine line of when to turn property over to MC
- ▶ Who is to blame for failures that happen during the warranty period?



# Partial Amnesty for Non-Residential Owners?

- ▶ Non-residential owners only required to maintain to original design standards
- ▶ Upgrades of non-residential BMPs to today's standards could be an effective tool in meeting WQIPs and TMDLs
- ▶ At a very conceptual level, NCC exploring options to provide assistance (technical or financial) to upgrade.



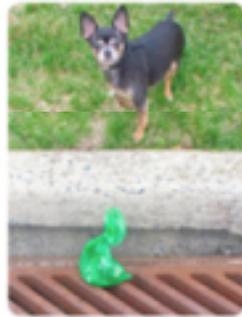
# What Else is New – STOPPIT Hotline



**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!



 <p>Vehicle Fluids</p>	 <p>Household Waste</p>	 <p>Pet Waste</p>	 <p>Yard Waste</p>
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**Call or text (302) STOPPIT**  
Email [hotline@302stoppi.org](mailto:hotline@302stoppi.org) or visit [www.302stoppi.org](http://www.302stoppi.org)  
City of Wilmington residents can also use the Report It/ Resolve It App

**Prevent Pollution**

# 302- STOPPIT

- ▶ Program to encourage reporting of illicit discharges to the MS4
- ▶ Secured over 10 million impressions through bus ads, TV commercials, billboards, and social media.
- ▶ Received 42 illicit discharge reports during the campaign
- ▶ Did a before and after survey and received a statistically valid increase in resident's knowledge of IDDE issues.

# Questions

