



Illicit Discharge Detection & Elimination Program

Prepared for:
Doylestown Township and Citizens

Doylestown Township, Pennsylvania
December 20, 2016

Richard Burns / Russell Mehalick | Presenters



At a glance - GHD

GHD leading engineering, environmental, and construction services companies

operating in **5** continents

200+ offices worldwide

85+ years in operation

8500+ people

2014 revenue: USD **1.5** billion

serving **5** global markets

75+ service lines

GHD

Agenda

- Current Status IDD&E
- 2016 Inspections, Sampling, Results
- DNA Sampling
- Going Forward 2017
- Takeaways
- Q&A



Current Status of IDD&E

- Year 14 of the Program
- GHD completed typical hot spot IDD&E sampling
- Doylestown Township remains in compliance
- Application submitted to extend NPDES Permit
- PADEP working on new PAG-13 2018 Permit conditions (March 2018)
- Sep 15, 2017 – NOI for individual MS4 Permit applications due
- March 2018 – Next MS4 report due



IDD&E – Dry Weather Inspection

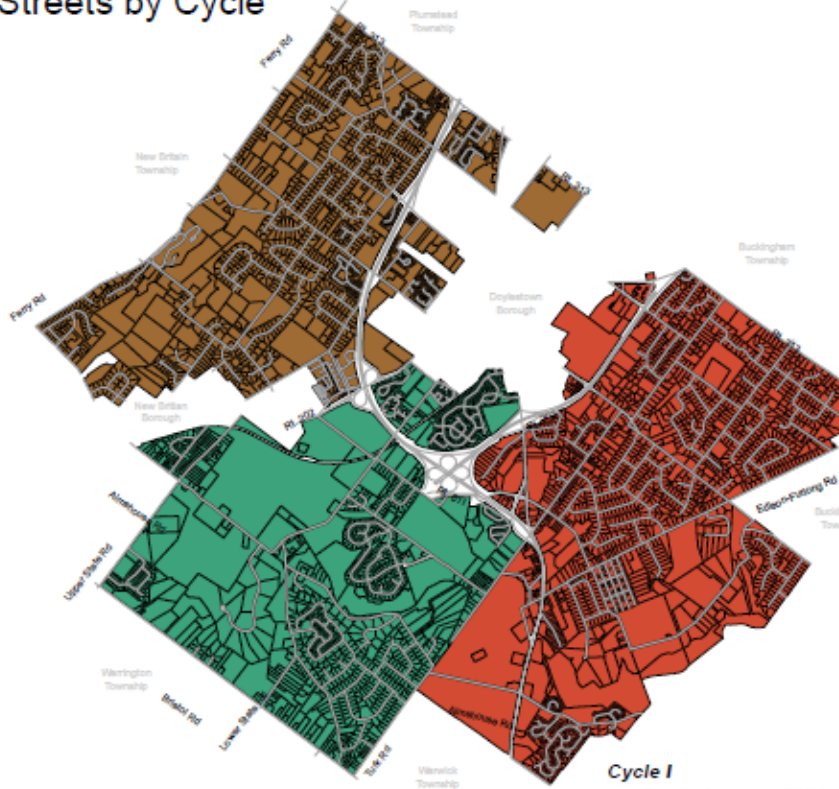


IDD&E – Dry Weather Inspection



IDD&E – Dry Weather Inspection

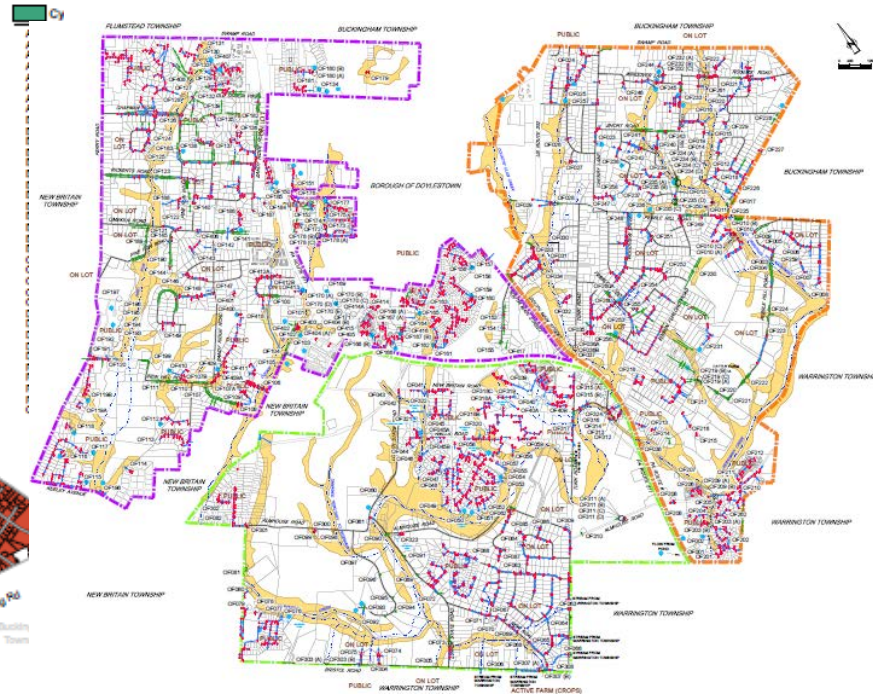
Doylestown Township Septage Management Program Streets by Cycle



Cycle I
Start: January 2004
End: December 2004

Cycle II
Start: January 2005
End: December 2005

Cycle III
Start: January 2006
End: December 2006



IDD&E Inspections, Sampling & Results - 2016

- Focused Inspections & Sampling
 - Historical Hot Spots (Areas 1, 2, and 3)
- Sample Analysis - Fecal coliform at all locations with flow
 - Area 1 – 6
 - Area 2 – 8
 - Area 3 – 1
- Data Review – Chose 5 locations (Areas 1 and 2) for DNA fingerprinting
 - 2nd year of DNA sampling
 - 5 samples in 2015
 - 3 locations in 2016 were different locations



Fecal Coliform Sources



DNA Fingerprinting

DNA Tests

- Goose
- Cow
- Ruminant (e.g. deer)
- Dog
- Human



IDD&E Sampling - 2016

Area 1

- 6 samples (1 sample collected for DNA testing)
- 2 samples FC > 200 col/100 ml
- Maximum FC = 420 col/100 ml
- DNA testing
 - Sample was negative



IDD&E Sampling - 2016

Area 2

- 8 samples (4 samples collected for DNA testing)
- 5 samples FC > 200 col/100 ml
- Maximum FC = 1,700 col/100 ml
- DNA testing
 - 2 positive for human
 - 1 positive for dog & ruminant
 - Other sample was negative



IDD&E Sampling - 2016

Area 3

- 1 sample (No DNA samples collected)
- 0 samples FC > 200 col/100 ml



IDD&E Sampling - 2016

Area 1

FC levels somewhat decreased from 2015 (6 >200 col/ml)

In 2016, 2 > 200 col/ml

Max = 420 col/ml

Area 2

FC levels somewhat increased from 2015 (4 > 200 col/ml)

In 2016, 5 > 200 col/ml

Max = 1,700 col/ml

Area 3

No FC > 200 col/ml



IDD&E – Going Forward 2017

- GPS all outfalls, Update Outfall Map
- Complete inspections/hot-spot sampling throughout Township
~25 locations
 - Historical Hot Spots (Areas 1, 2, and 3)
- Additional Inspections & Sampling as requested by Township
- Comply with current permit PAG-13
- Additional source investigations as needed
 - Dye tracing
 - TV inspections
 - DNA testing



PADEP MS4 Website

Impaired Streams

MS4 Requirements

Tom Wolf, Governor

MS4 Requirements

To see pollution reduction requirements:

Click on urban area 

To see stream impairments:

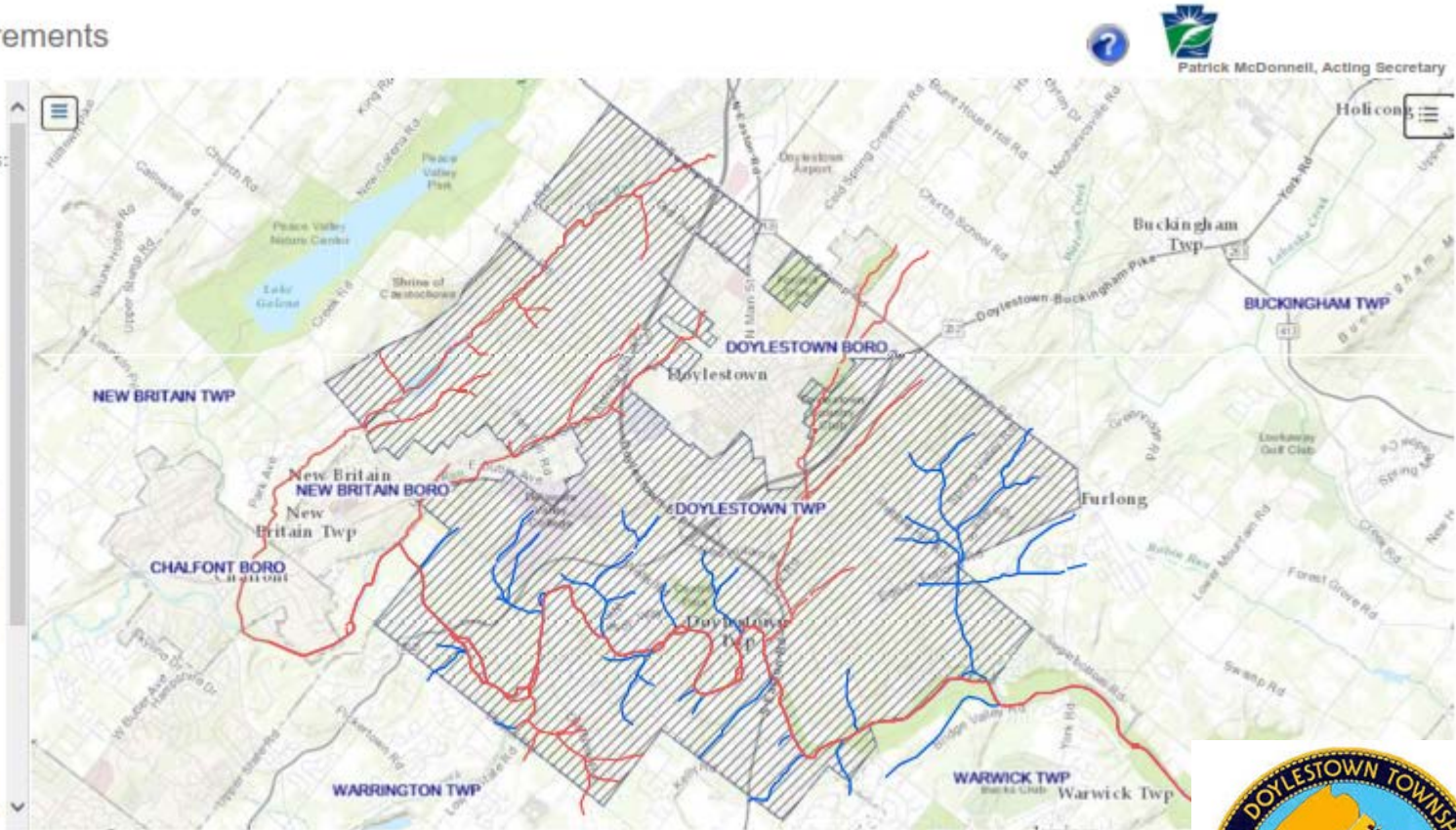
Click on impaired stream 

BACKGROUND

Municipalities and other entities such as universities and prisons that meet certain standards must obtain NPDES permit coverage for discharges of stormwater from their municipal separate storm sewer systems (MS4s).

A municipal separate storm sewer is any conveyance or system of conveyances (including but not limited to streets, ditches, and pipes) that is: owned by a municipality or other public body (created under state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater or other wastes; designed or used for collecting or conveying stormwater; not a combined sewer (i.e., not intended for both sewage and stormwater); AND not part of a publicly owned treatment works (POTW).

Additional information regarding permitting requirements can be found at the [Pennsylvania Municipal Stormwater Homepage](#)



Patrick McDonnell, Acting Secretary



IDD&E – Takeaways

- Township in Compliance
- Continue Inspections/Sampling
- GPS outfalls, Update Outfall Map
- Septic System Maintenance
- Public Participation
- Pollution Prevention and good housekeeping
- Goal is to Improve Water Quality!





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