



# Illicit Discharge Detection & Elimination Program

**Prepared for:  
Doylestown Township and Citizens**

**Doylestown Township, Pennsylvania  
April 2, 2019**

**Richard Burns / Russell Mehalick | Presenters**



# Agenda

- Current Status IDD&E
- 2018 Inspections, Sampling, Results
- DNA Sampling
- Going Forward 2019
- Takeaways
- Q&A



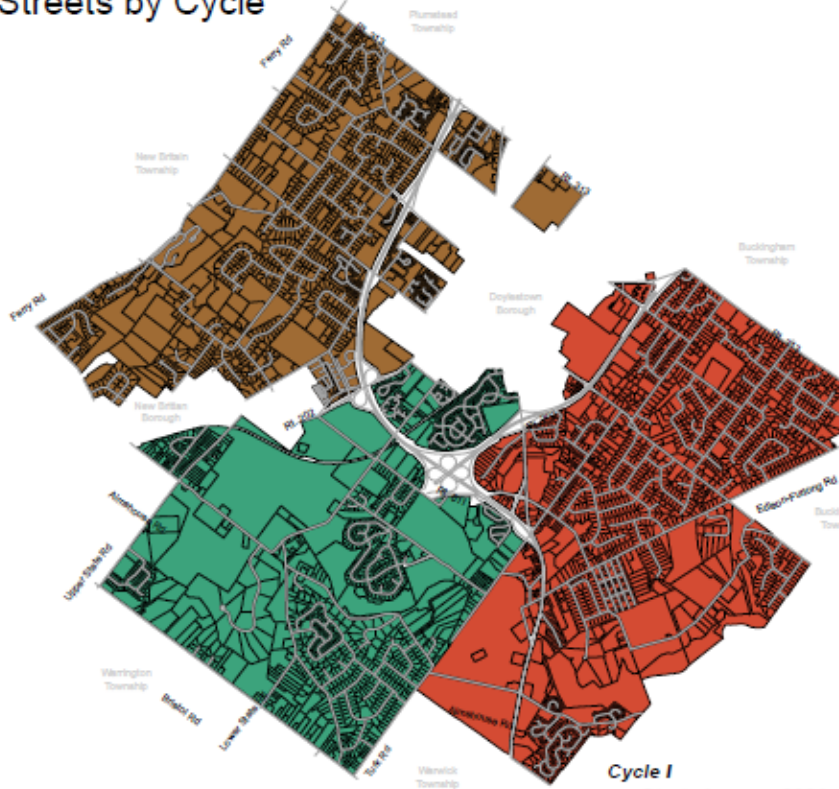
# Current Status of IDD&E

- Year 16 of the Program
- GHD completed typical hot spot IDD&E sampling
- Doylestown Township remains in compliance
- New Permit received in 2019
- September 2019 – Next MS4 report due



# IDD&E – Dry Weather Inspection

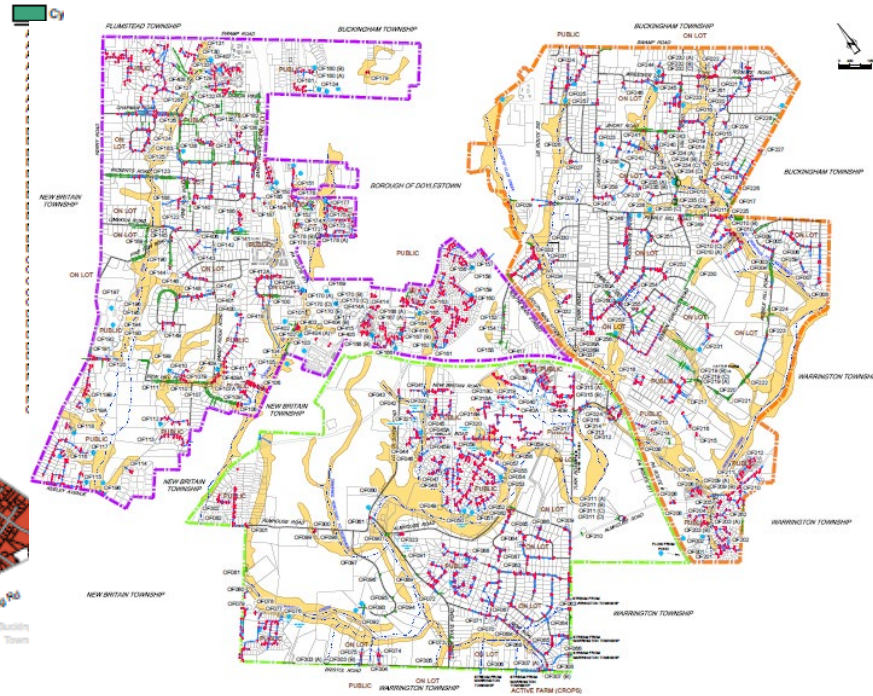
Doylestown Township  
Septage Management Program  
Streets by Cycle



**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 - 2018

- Focused Inspections & Sampling
  - Historical Hot Spots (Areas 1, 2, and 3)
- Sample Analysis - Fecal coliform at all locations with flow
  - Area 1 – 11
  - Area 2 – 10
  - Area 3 – 1
- Data Review – Chose 5 locations (Areas 1 and 2) for DNA fingerprinting
  - 4th year of DNA sampling
  - 5 samples per year since 2015
  - In 2018, 5 Outfalls sampled



# DNA Fingerprinting

## DNA Tests

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



# IDD&E Sampling - 2018

## Area 1 – 11 Inspections

- 11 samples
- 5 samples FC >200 col/100 ml
- Maximum FC = 3200 col/100 ml
  
- DNA testing (2 samples)
  - Both samples were positive for Human
  - One also positive for Dog



# IDD&E Sampling - 2018

## Area 2 – 10 Inspections

- 10 samples
- 5 samples FC >200 col/100 ml
- Maximum FC = >6000 col/100 ml
  
- DNA testing (3 samples)
  - 2 positive for Human
  - 2 also positive for Dog





# IDD&E Sampling - 2018

## Area 3 – 2 Inspections

- 1 sample
- 1 samples >200 col/100 ml
- Maximum FC = 240 col/ml
  
- No DNA samples collected



# IDD&E Sampling – 2015 through 2018

## Area 1

- 2015 - 6 >200 col/ml
- 2016 - 2 >200 col/ml
- 2017 - 5 >200 col/ml (Max >600)
- 2018 - 5 >200 col/ml (Max 3200)

## Area 2

- 2015 - 4 >200 col/ml
- 2016 - 5 >200 col/ml (Max = 1,700)
- 2017 - 7 >200 col/ml (Max = 600)
- 2018 - 5 >200 col/ml (Max = >6000)

## Area 3

- 2015 - No FC >200 col/ml
- 2016 - No FC >200 col/ml
- 2017 - 1 >200 col/ml (Max = 2200)
- 2018 - 1 >200 col/ml (Max = 240)



# IDD&E – Going Forward 2019

- GPS outfalls and observation points using new CSDatum program, Update Outfall Map
- Complete inspections/Historical hot-spot sampling (Areas 1, 2, and 3) using new CSDatum program (~30 locations)
- Additional Inspections & Sampling as requested by Township
- Comply with current permit PAG-13
- Additional source investigations as needed
  - Dye tracing
  - TV inspections
  - DNA testing



# 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!





## **For more information contact**

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