

# Long Term Management and Maintenance of BMPs Lexington Case Study

*April 13, 2018*



**LEXINGTON**



# **We Began with the End in Mind . . . Now What?!?!**

- Manage – Keeping Up Inventories / GIS
- Inspect
- Maintain or Seek Compliance

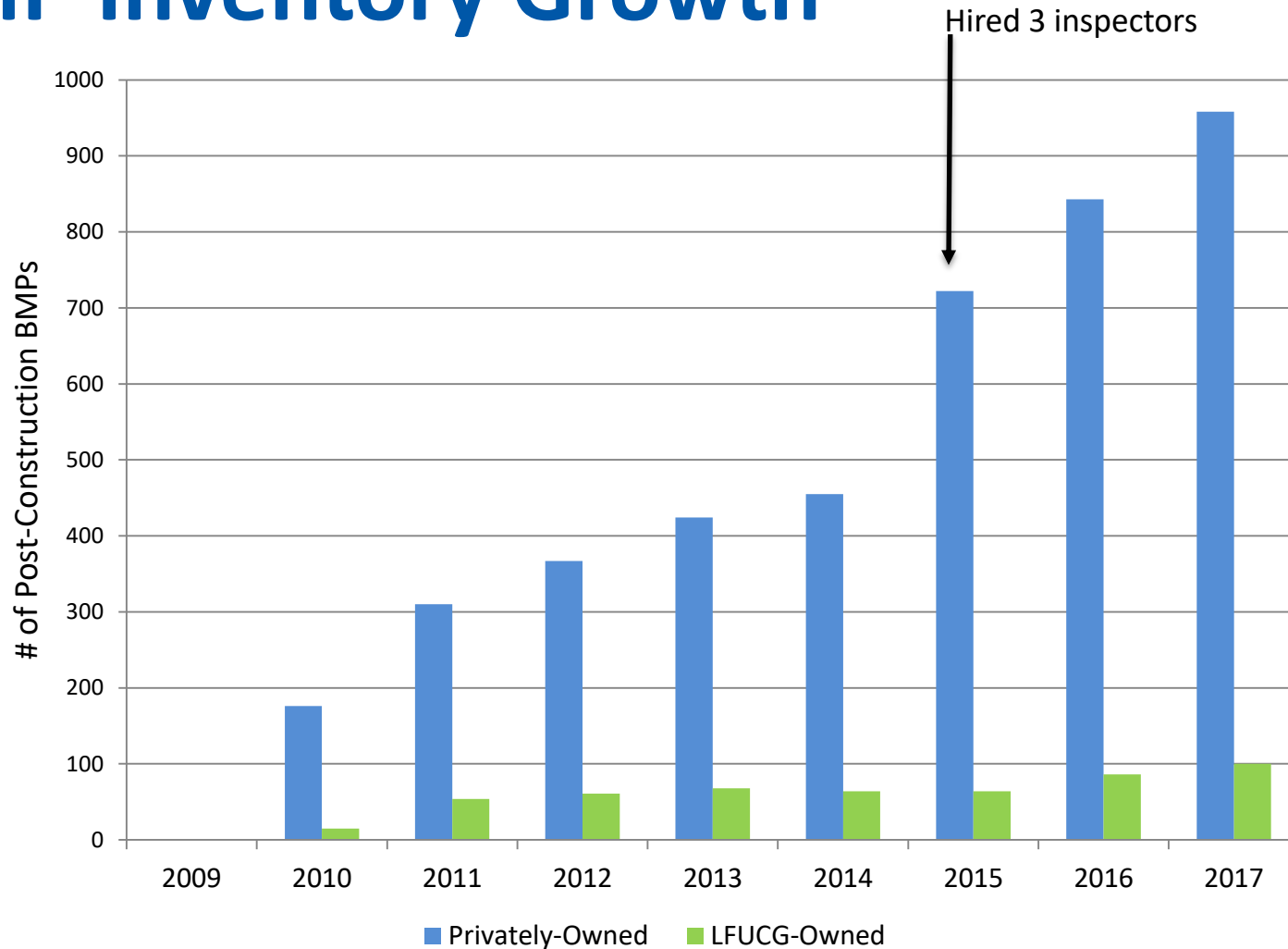


## Inventories (as of 3/31/18)

- Retention Ponds – 101
- Detention Basins – 1,202
- Critical Culverts – 45
- Underground Detention Basins – 91
- Privately-Owned WQ BMPs – 977
- City-Owned WQ BMPs – 86



# BMP Inventory Growth





# BMP Inventory Types

	<b>As Of</b>
<b>BMP Type</b>	<b>12/31/2016</b>
Water Quality Units	66
Oil Water Separators	20
Inserts	577
Swales / Bio-infiltration	10
Isolator Rows	14
Snouts	63
Sand Filters	9
Permeable Pavers	39
Pervious Paving (Asphalt)	22
Pervious Concrete	2
Rain Water Harvesting	1
Rain Gardens / Bio-retention	26
Planter Boxes	2
<b>TOTAL:</b>	<b>851</b>



# Inspection Frequency

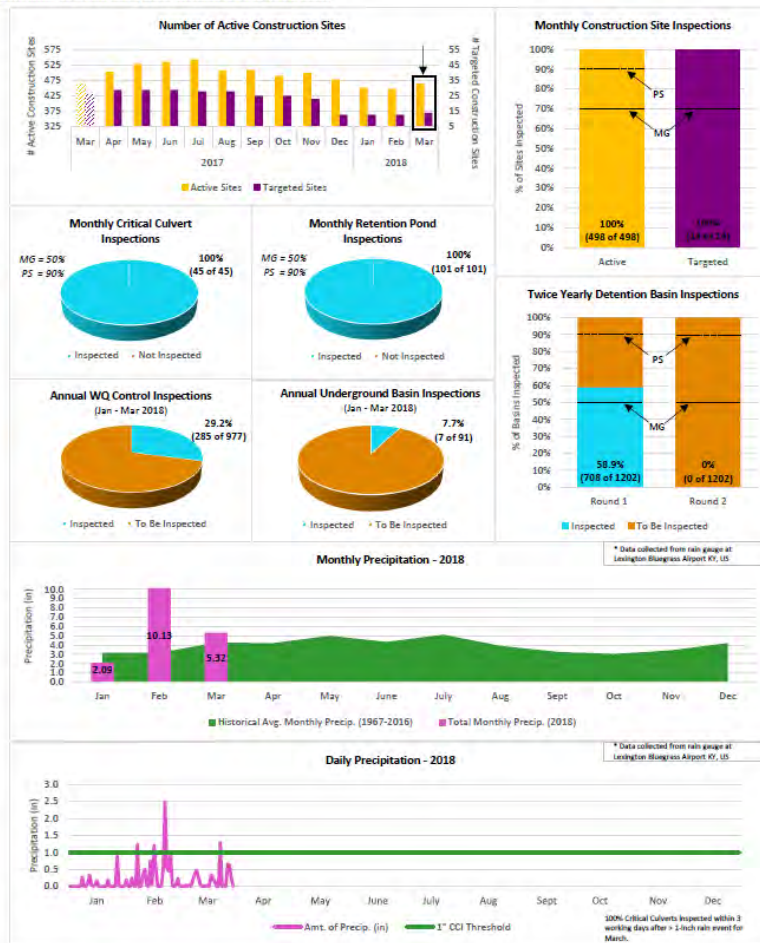
- Retention Ponds – monthly, twice yearly
- Detention Basins – twice yearly
- Critical Culverts – monthly and after >1" rain
- Underground Detention Basins – twice yearly
- Privately-Owned WQ BMPs – annually
- City-Owned WQ BMPs – annually, quarterly

Consent Decree | MS4 Permit | Both | LFUCG goal

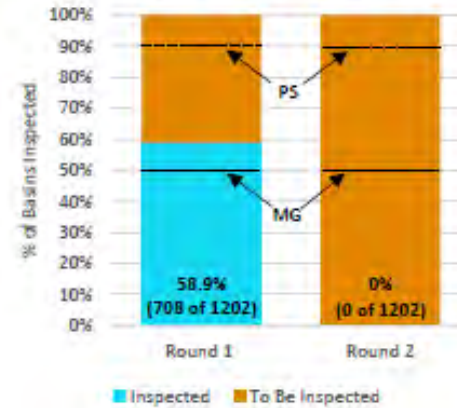


# Inspection Tracking

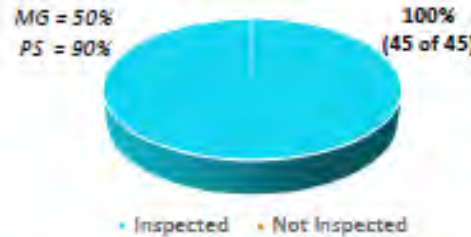
March 2018  
Performance Standard / Measurable Goal Dashboard



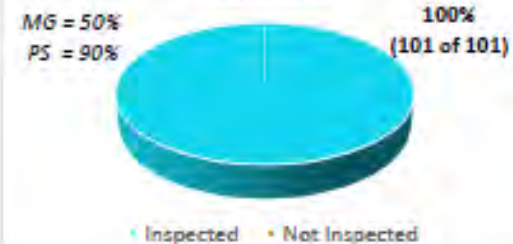
Twice Yearly Detention Basin Inspections



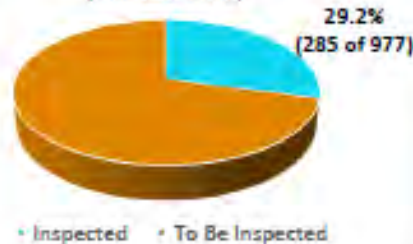
Monthly Critical Culvert Inspections



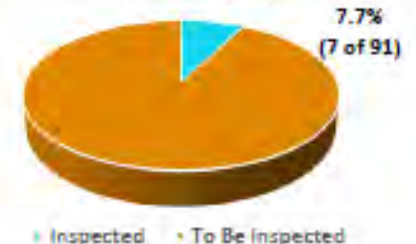
Monthly Retention Pond Inspections



Annual WQ Control Inspections (Jan - Mar 2018)



Annual Underground Basin Inspections (Jan - Mar 2018)





# Inventories + Inspections = Asset Mgmt

- Retention Ponds – Accela
- Detention Basins – Accela
- Critical Culverts – Accela and paper
- Underground Detention Basins – Excel, but next to transition to Accela
- Privately-Owned WQ BMPs – Excel
- City-Owned WQ BMPs – Accela (as of 3/30/18)





## Maintenance by LFUCG

- All city-owned Post-Construction Controls
- Structural components of detention basins and retention ponds in residential areas that are in an easement
- Post-Construction Controls on commercial properties = NEVER (#goals)



## Maintenance by LFUCG

- Maintenance effort needed (low to high):
  - MS4 / Water Quality staff
  - ~~DOE UPC Contractors~~
  - DES Woody Debris / Litter Contractors
  - ~~Streets and Roads Maintenance staff~~
  - Sewer Line Maintenance staff
  - Storm Sewer System Cleaning / Rehabilitation Contractor
  - Design and Bid



# Seeking Compliance

- Follow Enforcement Response Plan
  - Verbal warnings
  - NOVs
  - Refer to DES for escalating enforcement



# Seeking Compliance

## LFUCG Stormwater Program Monthly Coordination Meeting

*Division of Engineering*

*Division of Environmental Services*

*Division of Water Quality*

### Meeting Agenda

1. Old Business
2. New Business
3. Truant Basin List
4. Enforcement Issues – NOVs and Citations
  - a. Permanent Stormwater Controls
  - b. Erosion and Sediment Control
5. Other Topics
  - a. Sanitary sewer issues
  - b. Floodplain compliance
6. Review plans that are going before the Division of Planning Technical Committee

**Note:** Focus areas for 2017 are on page 2



## Begin with the End in Mind

- Staffing and Dividing the Workload
- Funding – Compliant not Cool
- Test New Approaches on Subsets
- The End is Probably Going to Change



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# FOR MORE INFORMATION

*[www.lexingtonky.gov](http://www.lexingtonky.gov)*

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