

# ODOT's Updated Storm Water Management Plan and MS4 Program

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Presenters: Mark McCabe and Kathryn Gruver



G R E S H A M  
S M I T H   A N D  
P A R T N E R S

# Learning Objectives

- ◉ Brief History of ODOT's SWM program
- ◉ ODOT's Revised SWMP
- ◉ ODOT's BMP Factsheets



2002 to 2018

# PROGRAM HISTORY



# ODOTs MS4 Program

- ◉ Why does ODOT have to do this?
  - ODOT owns and operates separate storm sewer systems
  - Permit allows ODOT to discharge storm water runoff from their roadway and facility storm sewer systems
- ◉ How long has ODOT be been working with implementing their Storm Water Management Program?
  - 2002 – ODOT completed a preliminary program audit prior to the permit being issued in 2003.
  - 2003 – Permit cycle began for ODOT.



# ODOTs MS4 Timeline

- ◉ **Preliminary Audit- 2002 to 2003** – Looked at ODOTs existing practices, policies and operations to see what would be applicable to meet the permit requirements.
- ◉ **2003-2009 Permit Years** – 1<sup>st</sup> generation permit – Ohio EPA added MCM performance standards.
- ◉ **2009 to 2014 Permit Years** – 2<sup>nd</sup> generation permit – Combined BMPs, streamlined SWMP via the Annual Report
- ◉ **2014 to 2019 Permit Years** – 3<sup>rd</sup> generation - Audit occurred w/in this term and SWMP updated.
- ◉ **2019 and beyond** – 2019- next permit cycle begins. SWMP to be updated annually as needed.



# Summary of ODOT MS4 Program Revisions

## ○ ODOTs MS4 Program Overview

- ODOT has been implementing and reporting on storm water best management practices (BMPs) as part of their MS4 permit since 2003.
- ODOTs MS4 Urbanized Area recently changed due to 2010 Census information that modified ODOTs MS4 boundary.
- ODOT is finalized updates to their Storm water Management Plan (SWMP) to Ohio EPA in December of 2017.

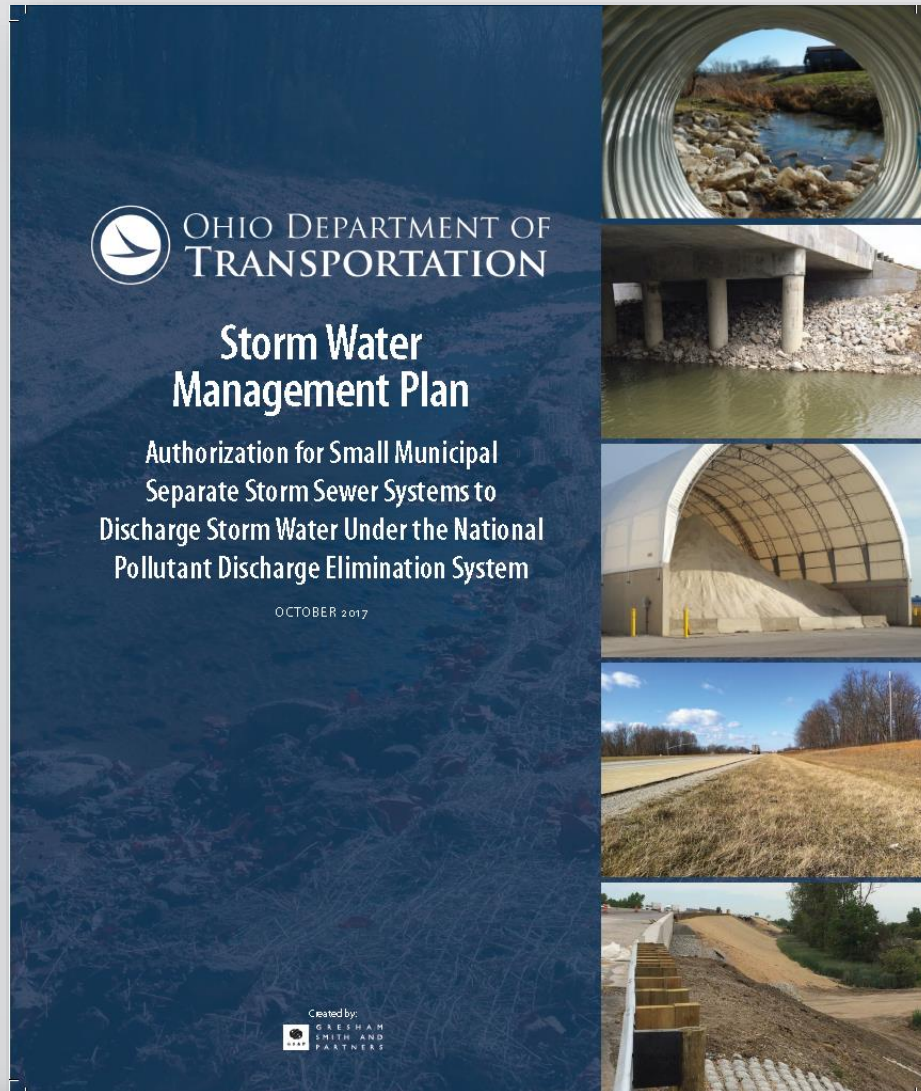


Summary of

# ODOT'S STORM WATER MANAGEMENT PLAN



# ODOT SWMP



- ◉ Streamlined Plan
- ◉ BMP Factsheets
- ◉ Clearly defined roles
- ◉ Updated annually with permit required annual report.





# ODOT's MS4 Program



## Goals

- Addressing permit requirements that include implementation, reporting and enforcement of ODOT's SWMP practices and activities.
- Continued outreach to ODOT audiences through the use of ODOT policies, manuals and specifications and internal/external training activities.
- Annual assessments of ODOT's storm water best management practices (BMPs) and SMWP revisions as necessary.
- Continued evaluation of existing or new ODOT policies, programs or operations for options to improve the SWMP reporting, implementation or best practices.



## Activities

- BMP Factsheets are included to help guide MS4 program implementation and reporting. The factsheets provide a description of the practice, the office or division that shares implementation/reporting responsibilities and the activities needed to implement the practice.
- The BMP Factsheets are designed to be easily updated and portable for use in the field.
- Forms have been included with the BMP factsheets which are made to be removed, photocopied and used in the field.



# ODOT's Public

ODOT is identified as a non-traditional MS4, which is defined as having storm sewer systems similar to municipal separate storm sewer systems. Ohio EPA has identified the public for non-traditional MS4s in the permit.



# ODOT's Themes

- ODOT has developed mechanisms that target a five different storm water themes or messages throughout the permit term that can be documented as reaching at least 50% of ODOT's public over the five year term.
  - Pollution Prevention
  - General Storm Water Awareness
  - Water Quality
  - Storm Water Control Practices
  - Illicit Discharge



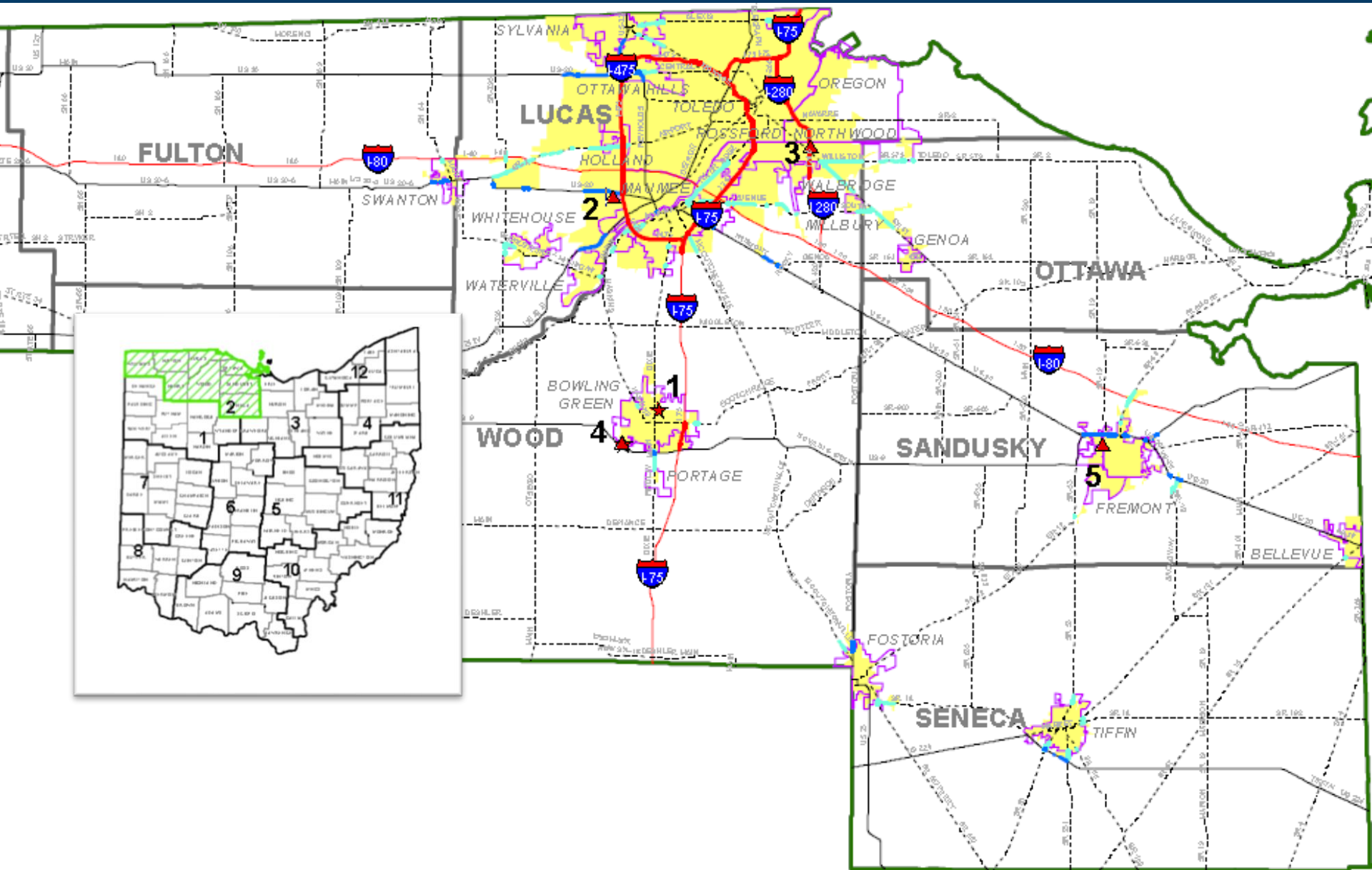
# ODOT's Regulated Area

- In 2015 ODOT's MS4 boundary was updated based on the 2010 US Census Bureau Urbanized Areas.
- All ODOT owned facilities and maintained roadways within the area are subject to the MS4 permit requirements.

| Facility/Roadway Fee | Impervious Area<br>(Acres) | Impervious Area<br>(Square Miles) |
|----------------------|----------------------------|-----------------------------------|
| Facility             | 890                        | 1.4                               |
| Roadway              | 28,308                     | 44.2                              |
| Total                | 29,198                     | 45.6                              |



# ODOT's Regulated Area



# MCM Evaluation and BMP Selection

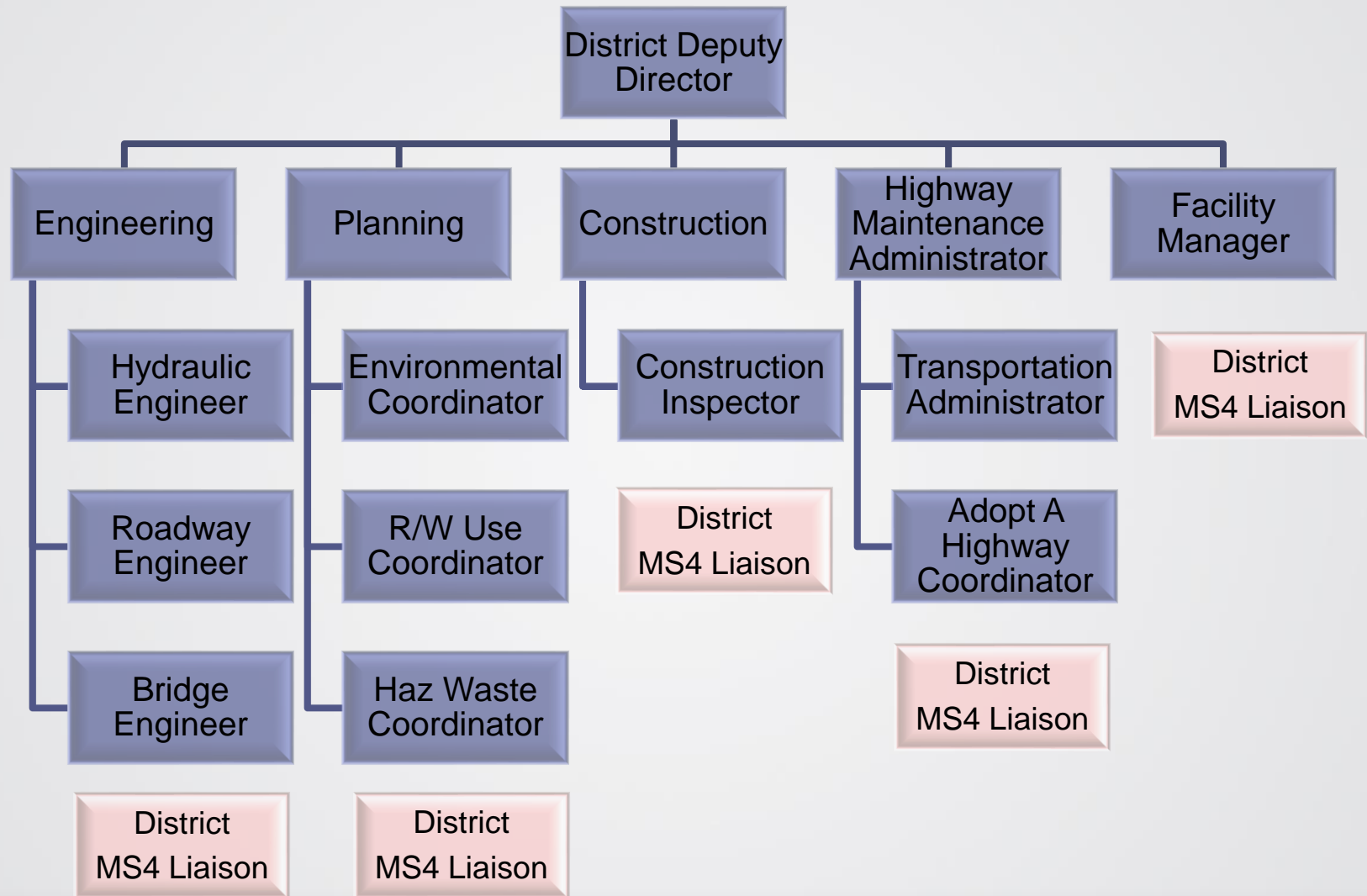


# ODOT's Central Office

Hydraulic Engineering  
Real Estate  
Facilities Management  
Maintenance Operations  
Alternative Project Delivery  
Division of Facilities & Equipment Management  
**Division of Operations**  
Division of Construction Management  
**ODOT Central Office**  
Division of Engineering  
Division of Planning  
Statewide Planning & Research  
Construction Administration  
Environmental Services  
Technical Services



# ODOT's District





# ODOT's Updated MS4 program BMPs



MCM 1  
Public Participation and Outreach



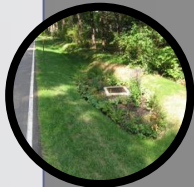
MCM 2  
Public Involvement/Participation



MCM 3  
Illicit Discharge Detection and Elimination



MCM 4  
Construction Site Storm Water Runoff Control



MCM 5  
Post-Construction Storm Water Management in New Development and Re-development



MCM 6  
Pollution Prevention and Good Housekeeping for Municipal Operations

# ODOT's Updated MS4 MCM 1 and 2

## MCM 1

### Public Participation and Outreach

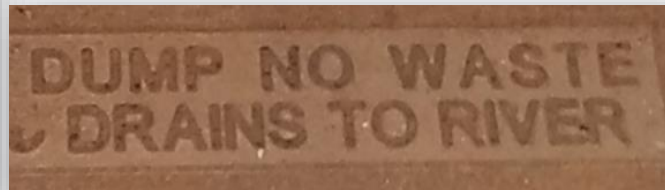
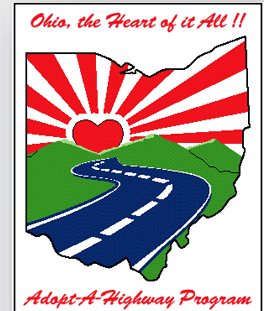
- BMP 1.1 Publications
- BMP 1.2 Storm Drain Stamping
- BMP 1.3 SWM Program Website
- BMP 1.4 Training and Presentations

## MCM 2

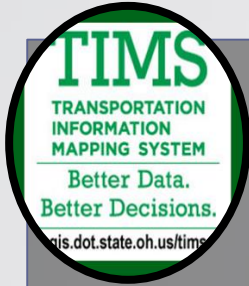
### Public Involvement/Participation

- BMP 2.1 Public Involvement Programs
- BMP 2.2 Storm water Research

- ◉ Duplicate BMPs consolidated
- ◉ New BMP to capture research activity



# ODOT's Updated MS4 - MCM 3

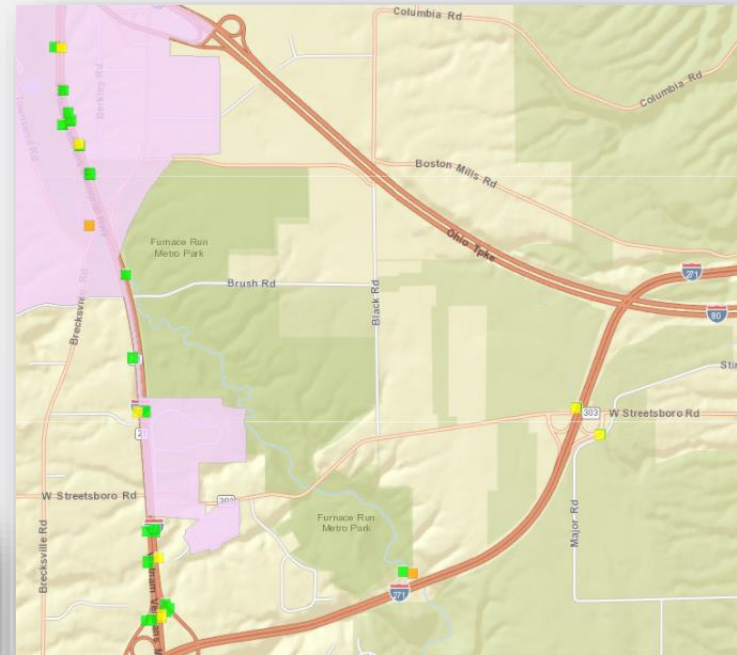


## MCM 3

### Illicit Discharge Detection and Elimination

- BMP 3.1 Storm water Outfall and System Mapping
- BMP 3.2 Illicit Discharge Detection, Reporting, and Removal

- Overlapping BMPs consolidated
- All the offices impacted including the District offices informed of the requirements
- Outfall inventory updated
- Dry weather screening



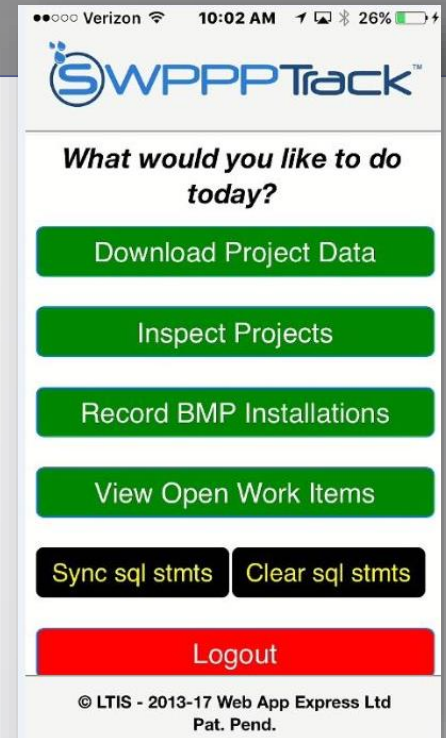
# ODOT's Updated MS4 - MCM 4



## MCM 4 Construction Site Storm Water Runoff Control

- BMP 4.1 Preconstruction SWPPP Review
- BMP 4.2 Inspection and Maintenance
- BMP 4.3 Enforcement

- Three new BMPs
- All the offices impacted including the District offices informed of the requirements





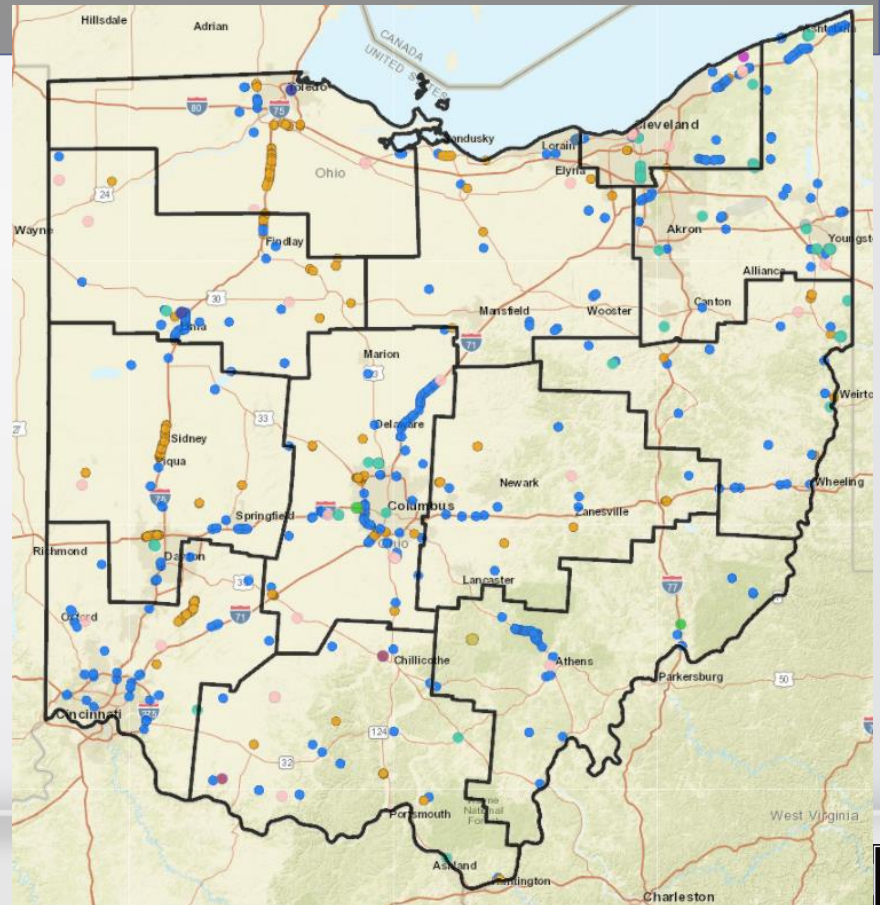
# ODOT's Updated MS4 – MCM 5



## MCM 5 Post-Construction Storm Water Management in New Development and Re-development

- BMP 5.1 Design of Post Construction BMPs
- BMP 5.2 Operation and Maintenance PCBMPs

- ◉ BMPs reviewed and updated
- ◉ All the offices including the District offices informed of the requirements



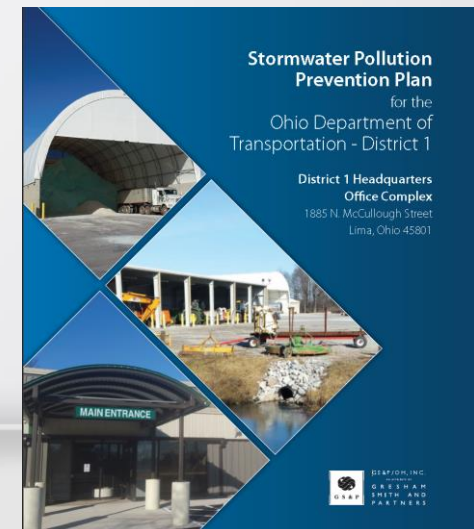
# ODOT's Updated MS4 – MCM 6



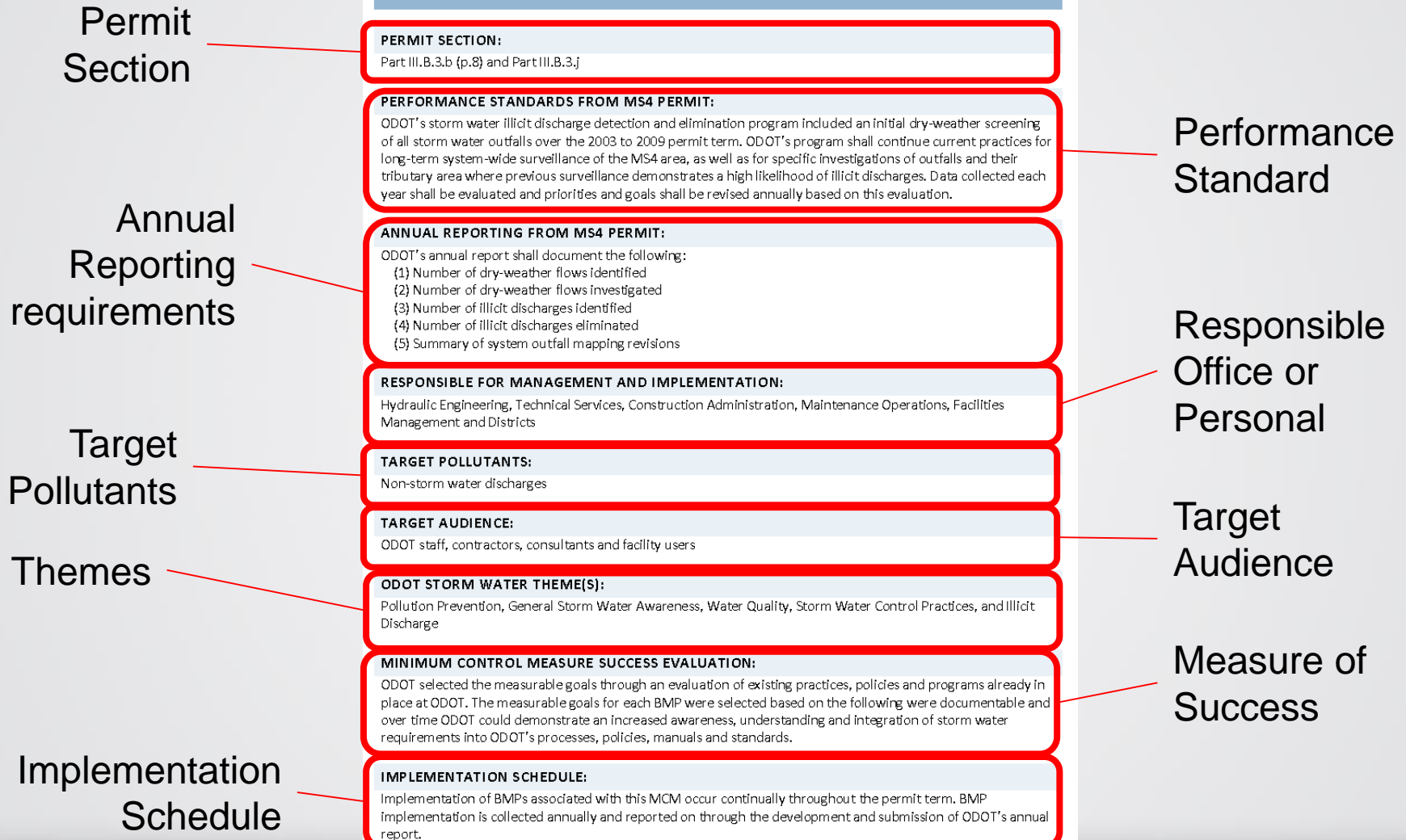
## MCM 6 Pollution Prevention and Good Housekeeping for Municipal Operations

- BMP 6.1 Roadway Infrastructure
- BMP 6.2 Deicing
- BMP 6.3 Facilities

- ◉ BMPs reviewed and updated
- ◉ New Deicing BMP added
- ◉ All the offices impacted including the District offices informed of the requirements



# MCM Summaries



# BMP Factsheet

Summary

Measurable  
Goal

Implementation  
Guidance

## INSPECTIONS AND MAINTENANCE

CSRC  
4.2



### SUMMARY/OVERVIEW

Construction inspections are completed by qualified contractor personnel in accordance with SS 832. The inspections are performed using an inspection software developed to ensure quality of each inspection. The P.E./CPESC who prepared the SWPPP reviews each inspection report and provides a monthly inspection of the project to ensure the SWPPP is accurate. All inspections are reviewed for quality by the ODOT Project Engineer. Completeness reviews are performed by Central Office technical staff on a representative number of projects in each District to assess quality of inspections being performed by the contractor's personnel.

### MEASURABLE GOAL(S):

- Number of qualifying projects receiving an initial inspection
- Number of qualifying projects receiving required weekly and monthly inspections
- Number of qualifying projects receiving ODOT technical process reviews

### RESPONSIBLE OFFICE/POSITION

Construction Administration  
Hydraulic Engineering  
District Construction personnel  
MS4 Liaison

### IMPLEMENTATION GUIDANCE:

#### Construction Administration

- Update SS832 for E&S inspection procedures
- Perform quality assurance inspections
- Provide training to district staff and contractors
- Maintain *SWPPPTrack* Website

#### Hydraulic Engineering

- Collect data for annual reporting

#### District Staff/MS4 Liaison

- Support quality assurance inspections
- Track active projects in the District within MS4 area
- Ensure NOI and NOT are submitted appropriately

### ADDITIONAL INFORMATION

#### TARGET AUDIENCE:

ODOT Staff, contractor consultants and contractors

#### MS4 LIAISON ACTIVITY

- Monitor active construction projects for implementation of E&S required inspections
- Review *SWPPPTrack* website monthly
- Notify ODOT construction administration and Ohio EPA liaison of poor performing projects
- Verify NOT submittals
- Verify and document construction close out

Responsible  
Office/Position

MS4 Liaison  
Activity





# BMP Factsheet

## INSPECTION AND MAINTENANCE FORMS – JANUARY TO DECEMBER 2017

Send Completed Form to Office of Hydraulic Engineering (OHE) – Storm Water Project Manager

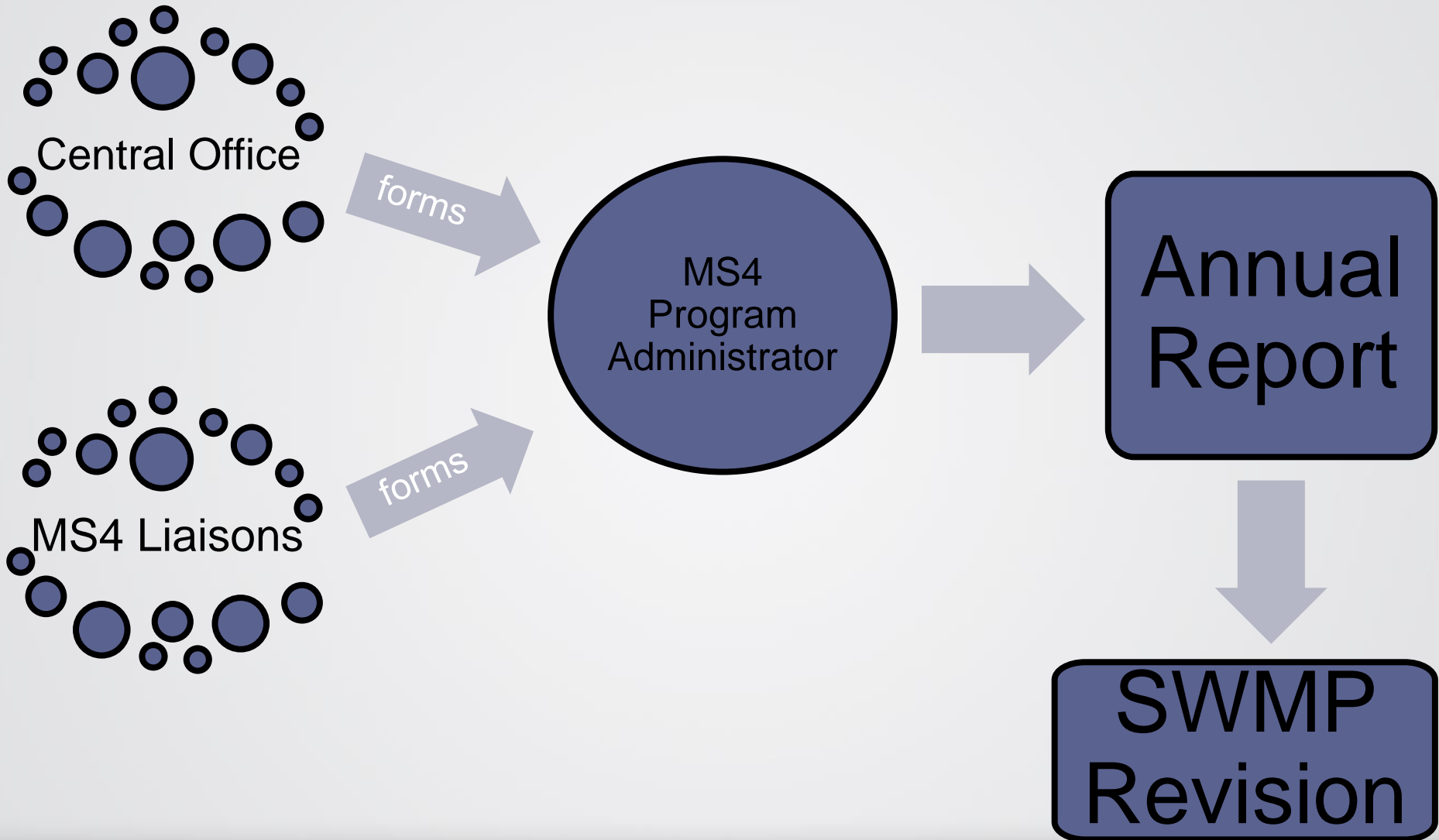
### District Inspection

| Project Inspections and Reviews   | Number |
|---|--------|
| Number of qualifying projects receiving an initial inspection                   |        |
| Number of qualifying projects receiving required weekly and monthly inspections |        |
| Number of qualifying projects receiving ODOT technical process reviews          |        |
| Number of qualifying projects receiving an initial inspection                   |        |
| Number of completed construction projects                                       |        |
| Number of NOTs submitted  |        |

Forms to be used for collecting annual reporting information



# MS4 Annual Report Information Flow



Important dates and milestones

# LOOKING TO THE FUTURE



# Upcoming Permit

- ◉ Construction General Permit renewal 2018
- ◉ General MS4 Permit renewal 2019



# Questions/Comments

