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# Data Management

Addressing Requirements of the  
2014 Draft Massachusetts MS4 Permit

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# Important Dates

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- Published in Federal Register on September 30, 2014
- Public Comment Through December 29, 2014
- Info meeting today in Haverhill, MA
- Next meeting
  - October 30, 2014 at 1:00pm
  - USEPA office: 5 Post Office Square (Boston)
  - Room: 1529, Court Room 6 (15th Floor Large Courtroom)

## Agenda

7:45am - Registration

8:00am – Welcome – Merrimack Valley Planning Commission

8:10am – Draft Permit Overview - EPA

- MS4 Program Background
- Notice of Intent and Timing
- 6 Minimum Control Measures
- TMDL and Impaired Waters Requirements
  - Bacteria TMDLs
  - Impaired Waters

9:30am – Question and Answer Session

# Review of 6 Minimum Control Measures



# Data Management in MCM 2

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## MCM 2: Public Education & Outreach

- Four target audiences
  1. Residents
  2. Business, institutions (college, school, hospitals), and commercial
  3. Developers (construction)
  4. Industrial
- Progress
  - Eight messages (minimum) over the permit term
  - Two messages (minimum) per target

# Data Management in MCM 2

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## MCM 2: Public Education & Outreach

- Measurement
  - Document the method(s) used to assess the effectiveness of *each message*
  - Document method used to assess effectiveness of *the overall education program*
  - Modify any ineffective message
  - Modify any ineffective distribution method

# Data Management in MCM 2

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## MCM 2: Public Education & Outreach

### *Residential*

Lawn care; stormwater infiltration; automotive work; car washing; disposal of swimming pool water; pet waste management; septic systems

### *Business/Commercial/Institutions*

Lawn care; stormwater infiltration; building maintenance; use and storage of salt and de-icing materials; material storage; waste management; parking lot maintenance and sweeping; vehicle maintenance and washing; disposal of swimming pool water.

# Data Management in MCM 2

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## MCM 2: Public Education & Outreach

### *Developers*

Sediment and erosion control; low impact development;  
USEPA Construction General Permit

### *Industrial*

Equipment inspection and maintenance; material storage;  
waste management; use and storage of salt and de-icing  
materials; appropriate stormwater infiltration; parking lot  
maintenance and sweeping; USEPA MSGP program

# Data Management in MCM 3

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## MCM 3: Illicit Discharge Detection & Elimination

- Mapping Elements, Required
  - Outfalls
  - Pipes
  - Swales/ditches
  - Catch basins
  - Manholes
  - Interconnections w/ other MS4's or systems
  - Municipal BMPs
  - Catchment delineations
  - Waterbody name
  - Impairments



# Data Management in MCM 3

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## MCM 3: Illicit Discharge Detection & Elimination

- Mapping Elements, “Where Available”
  - Sanitary sewer
  - Combined sewer

# Data Management in MCM 3

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## MCM 3: Illicit Discharge Detection & Elimination

- Mapping Elements, Recommended
  - Pipe material
  - Pipe size
  - Pipe age
  - Septic systems in sewerred areas
  - Septic systems discharging to MS4
  - Seasonal high water table
  - Topography
  - Orthophotos
  - Alignments, dates, etc.. of IDDE investigations
  - Confirmed/corrected illicit discharges

# Data Management in MCM 3

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MCM 3: Illicit Discharge Detection & Elimination  
Discharges to impaired waters (Approved TMDL or  
TMDL needed)

- Phosphorus (Charles River, Northern Blackstone, etc...)
- Bacteria or Pathogen
- Nitrogen (Cape Cod/Buzzards Bay, Long Island Sound, etc)
- Chloride
- Oil & grease

Determine if MS4 discharge is  
causing or contributing to the impairment

# Data Management in MCM 3

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MCM 3: Illicit Discharge Detection & Elimination

Catchment Ranking: 4 categories

1. Excluded
2. Problem
3. High Priority
4. Low Priority

Factors

ID history; complaints; screening data; drinking water supplies; public beaches; density of development; fishing; industrial activities; septic vs. sewer

# Data Management in MCM 3

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## MCM 3: Illicit Discharge Detection & Elimination

- Water quality screening helps this ranking
  - Ammonia
  - Surfactants
  - Chlorine
  - Bacteria
  - Conductivity
  - Temperature
- Dry weather screening: little or no precipitation expected
- Wet weather screening: ID's that discharge only during storms; NOT the "first flush"

# Data Management in MCM 6

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## MCM 6: Good Housekeeping & Pollution Prevention

- Catch Basin Cleaning
  - Total # of basins
  - Number inspected each Permit Year
  - Number cleaned
  - Volume or mass removed from each (impaired waters)
  - Volume or mass removed from whole system
  
- Street Sweeping
  - Curb-miles swept
  - Volume or mass of material removed

# Data Management in MCM 6

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## MCM 6: Good Housekeeping & Pollution Prevention

- Catch Basin Cleaning
  - Total # of basins
  - Number inspected each Permit Year
  - Number cleaned
  - Volume or mass removed from each (impaired waters)
  - Volume or mass removed from whole system
- Facility Inspections (SWPPP)
- Street Sweeping
  - Curb-miles swept
  - Volume or mass of material removed

# Data Management in MCM 6

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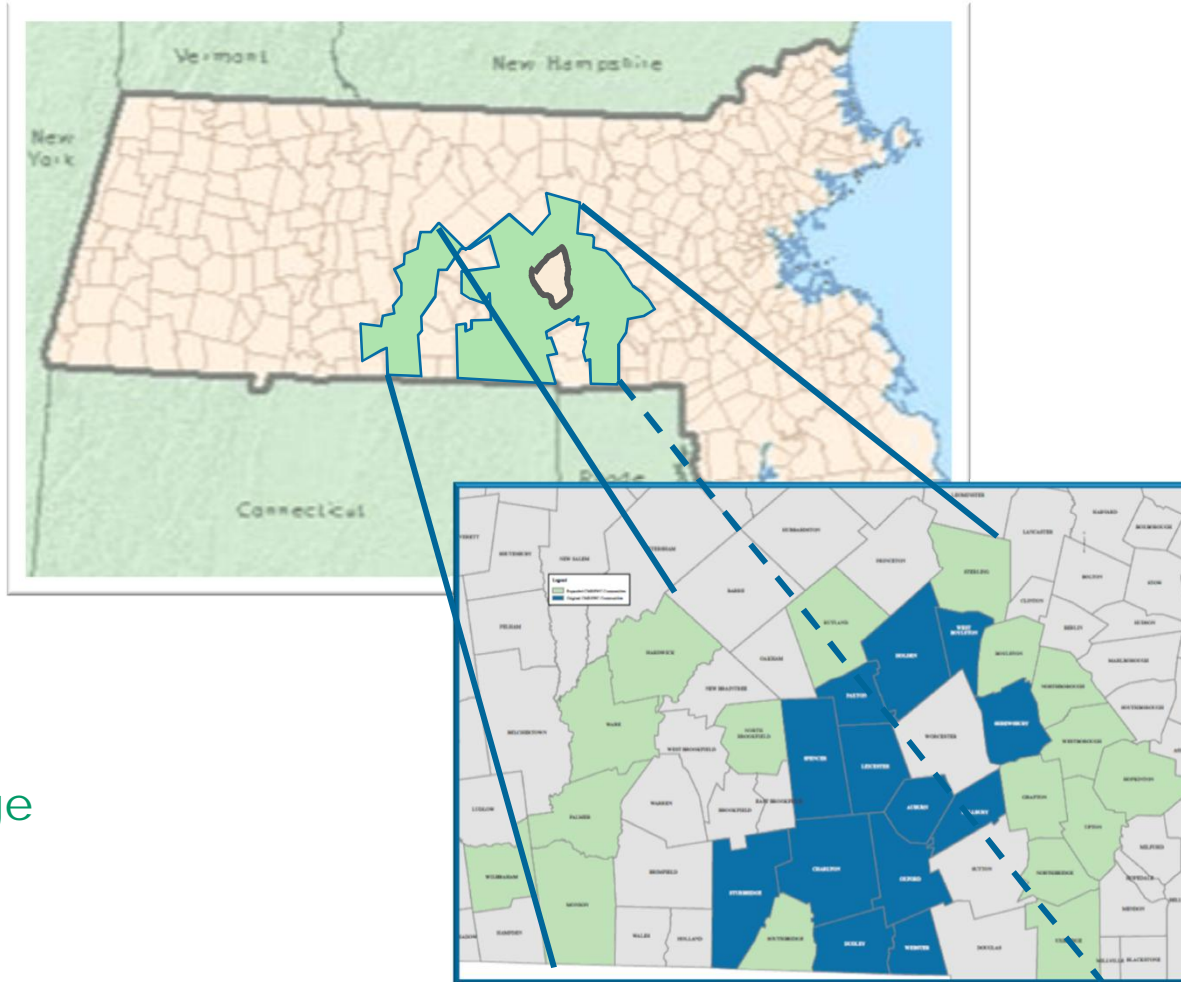
## MCM 6: Good Housekeeping & Pollution Prevention

- Winter Road Maintenance
  - Storage of salt and other materials
  - Efforts to reduce usage
  - Consideration of alternative materials
  - Snow disposal methods
  
- Stormwater system O&M
  - Water quality swales
  - Retention/detention basins
  - Sediment forebays
  - Vortex devices
  - Infiltration systems (including subsurface)
  - Porous pavement management



# CMRSWC Towns: FY2012 (13) & 2013 (30)

Paxton  
 Spencer  
 Leicester  
 Charlton  
 Sturbridge  
 Dudley  
 Webster  
 Grafton  
 Monson  
 Boylston  
 Hardwick  
 Northbridge  
 Sterling  
 Ware  
 Wilbraham



Holden  
 West Boylston  
 Shrewsbury  
 Auburn  
 Millbury  
 Oxford  
 Northborough  
 Uxbridge  
 Upton  
 Westborough  
 North Brookfield  
 Palmer  
 Rutland  
 Southbridge  
 Hopkinton

\* Worcester has a different permit

# Selection of GIS Platform

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- Estimates included in FY2012 Grant Application
  - Mapping
  - Data Management System
- Evaluation of alternatives
  - Ease of use
  - Security
  - Cost
  - Implementation within timeline
  - Password protection
  - Ownership of data

# Questions and Contact Information

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