2013 New Draft MA Small MS4 General Permit and Drinking Water Source Protection

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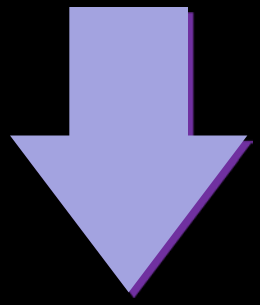
Presentation Overview

- NPDES and Stormwater Regulation
- Permit requirements related to drinking water source protection
  - MEP Requirements
  - Impaired Waters Requirements
- Questions

CWA Section 4

All "point" sources
"discharging pollutants"
into "waters of the U.S."



Must obtain an NPDES permit from an authorized state or EPA

Nationwide Urban Runoff Program (NURP)

- Conducted by EPA between 1979 and 1983
- First comprehensive study of urban runoff pollution across U.S.
- Found high levels of heavy metals and fecal coliform in urban runoff
- Also found high concentrations of TSS and nutrients
- Used as a basis for 1987 amendments to CWA which added stormwater permitting requirements

Phase II Coverage

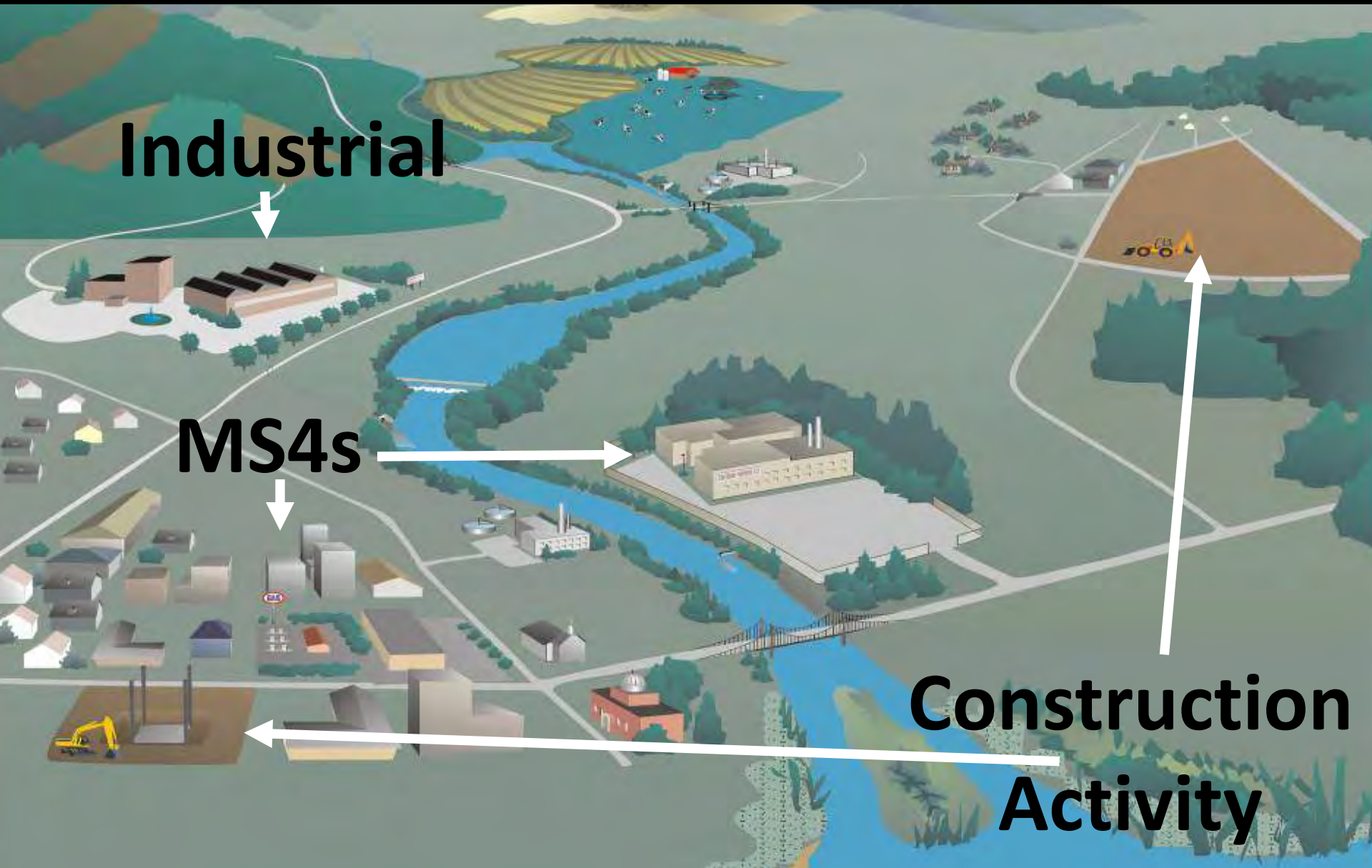
MS4s

Urbanized areas

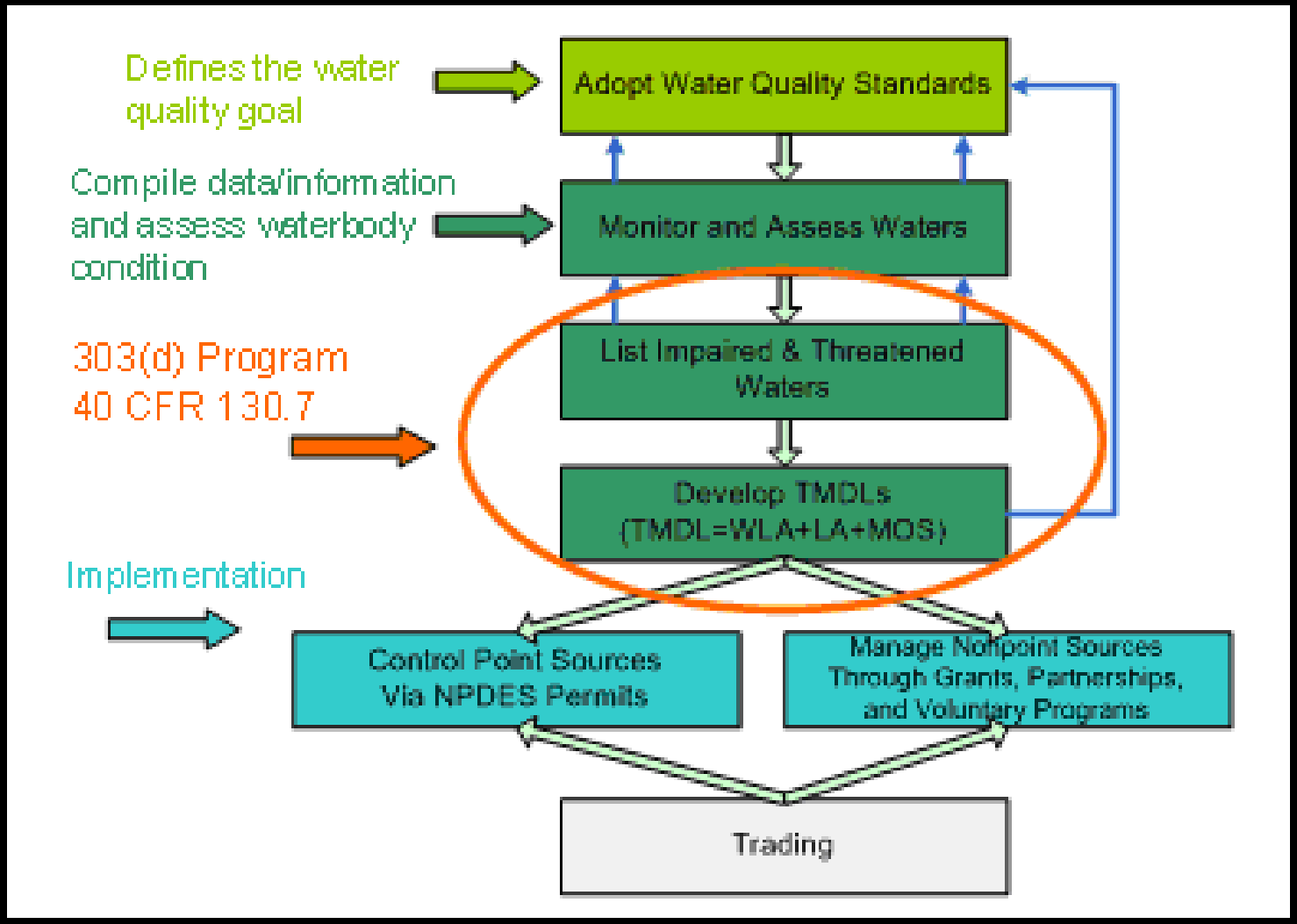
Cities & towns

Non-traditional MS4s

NPDES Stormwater Program Regulates



Water Quality-Based Approach of the Clean Water Act



Impaired Waters

Stormwater discharges are causing or contributing to at least **55%** of the impairments in all Massachusetts assessed waters

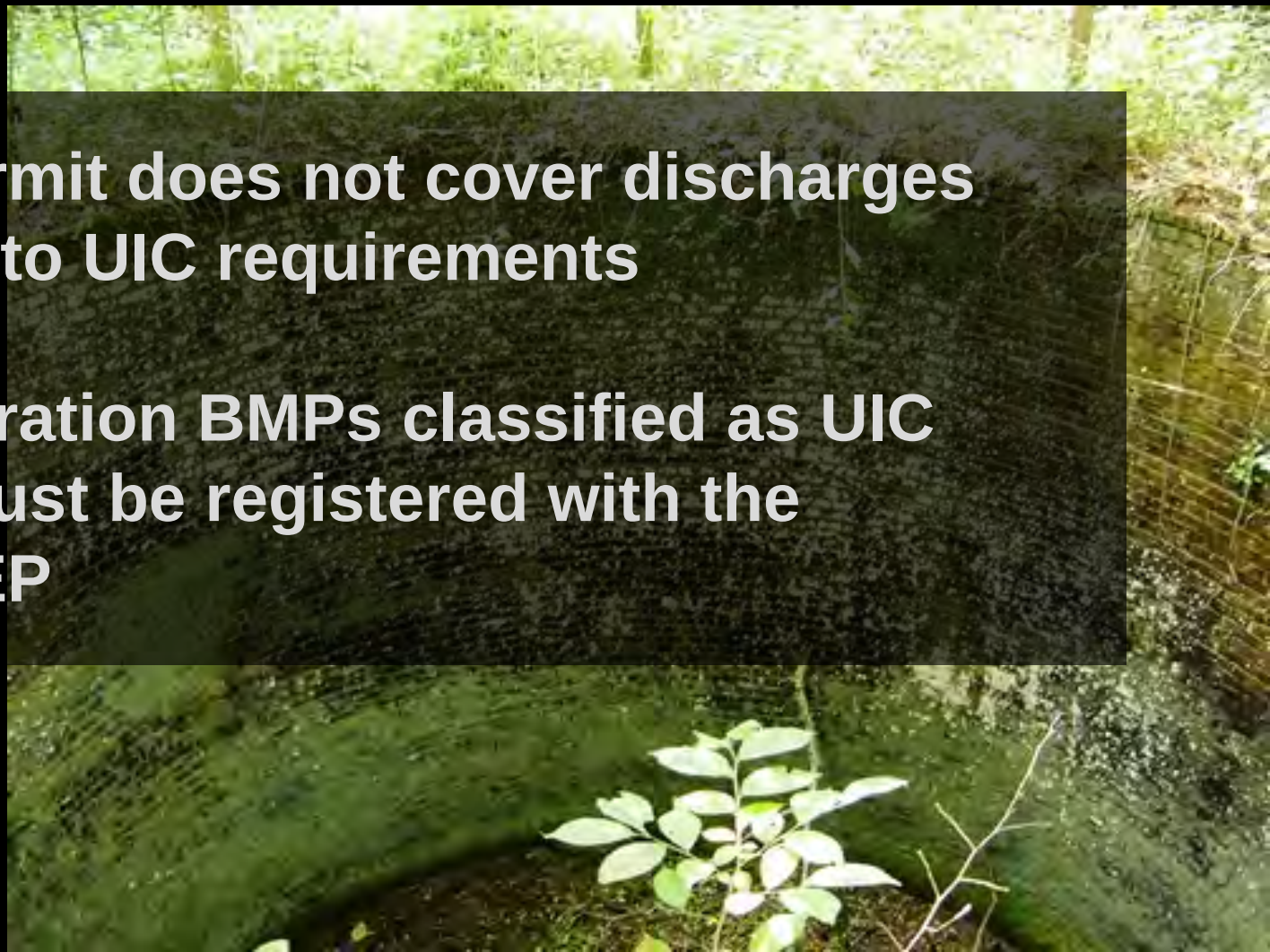
Timing

A Combined MS4 Draft permit for the entire state will be released in the coming months

Areas of the new Draft MS4 Permit Pertaining to Drinking Water Source Protection

- Limitations on Coverage
- 6 Minimum Control Measures (MEP Requirements)
- Water Quality Based Requirements
- State Requirements

Limitations on Coverage



MS4 permit does not cover discharges subject to UIC requirements

All infiltration BMPs classified as UIC wells must be registered with the MassDEP

UIC Requirements

Class V

A stormwater infiltration BMP is a Class V UIC well if it includes:

a bored, drilled, or driven shaft, a dug hole, or seepage pit whose depth is greater than its largest surface dimension; or, an improved sinkhole; or, a soil absorption system.

Best Management Practices

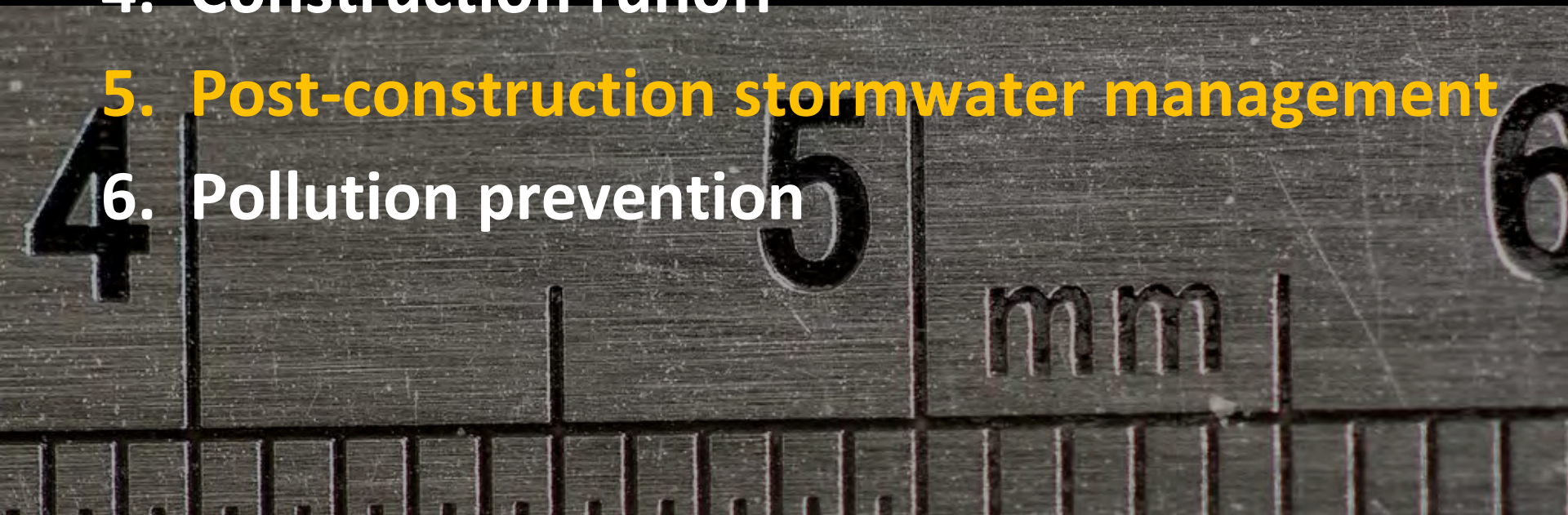
Class V

Generally No: rain gardens, vegetated buffers & swales, permeable pavement, filtration BMPs with no infiltration

Generally So: commercially manufactured detention vault/chambers, drywells, deep sump and leaching catch basins, seepage pits, and improved sinkholes

Six Minimum Measures

1. Public education
2. Public involvement
3. Illicit discharge detection & elimination
4. Construction runoff
5. Post-construction stormwater management
6. Pollution prevention

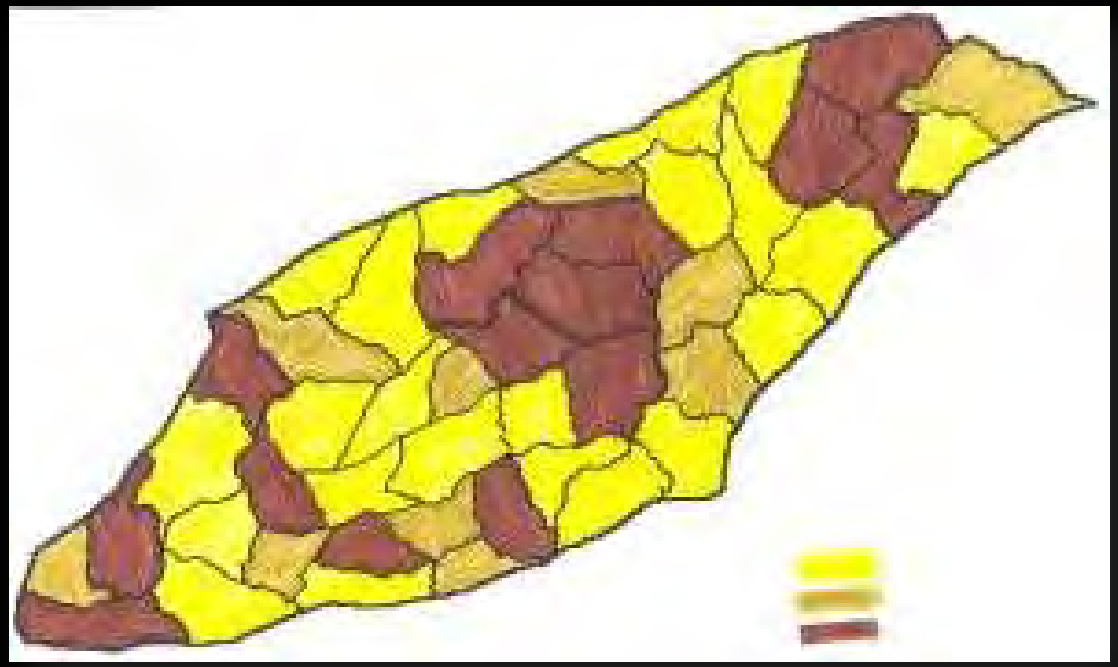


Illicit Discharge Detection and Elimination (IDDE)

- Ordinance
- SSO inventory
- Identification of responsibility
- Outfall inventory and map
- Catchment rankings
- Detailed written IDDE program
- Tracking progress
- Screening

Catchment Ranking for IDDE Investigation

- Excluded Catchments
- Problem Catchments
- High Priority Catchments
- Low Priority Catchments



Post-Construction Stormwater Management

Requirement to comply with Massachusetts Stormwater Standards in new and re-development disturbing >1 acre

Massachusetts Stormwater Standards

- Infiltration where feasible
- TSS removal standards
- Specific controls for discharges in Zone II areas

Discharges to Impaired Waters

Discharges to waters *without* a TMDL

Discharges to waters *with* an Approved TMDL

Special requirements for each

Approved TMDLs

- Bacteria and Pathogen TMDLs
- Charles River Phosphorus TMDLs
- Lake and Pond Phosphorus TMDLs
- Long Island Sound and Cape Cod Nitrogen TMDLs
- Assabet River Phosphorus TMDLs

Discharges to Waterbodies *Without* an Approved TMDL

Special requirements for Bacteria, Nutrient, Solids, Chloride, Metals and Oil and Grease

Infiltration Design Considerations

- Locate BMPs outside drinking water surface intake zone and wellhead protection areas
- Design BMPs to remove contaminants of concern and consider site constraints
- Pretreatment may be necessary to reduce pollutants
- Select stormwater BMPs that can treat existing and future stormwater pollutants

State Requirements

surface & ground water supplies

Avoid direct discharges to Class A waters

Prioritize discharges to drinking water source areas

Provide pretreatment and spill control

Promote groundwater recharge and infiltration where feasible

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Thank you

Questions ?

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