

MA MS4 GENERAL PERMIT



NEWTON TEDDER

EPA REGION 1

BOSTON

PRESENTATION OVERVIEW

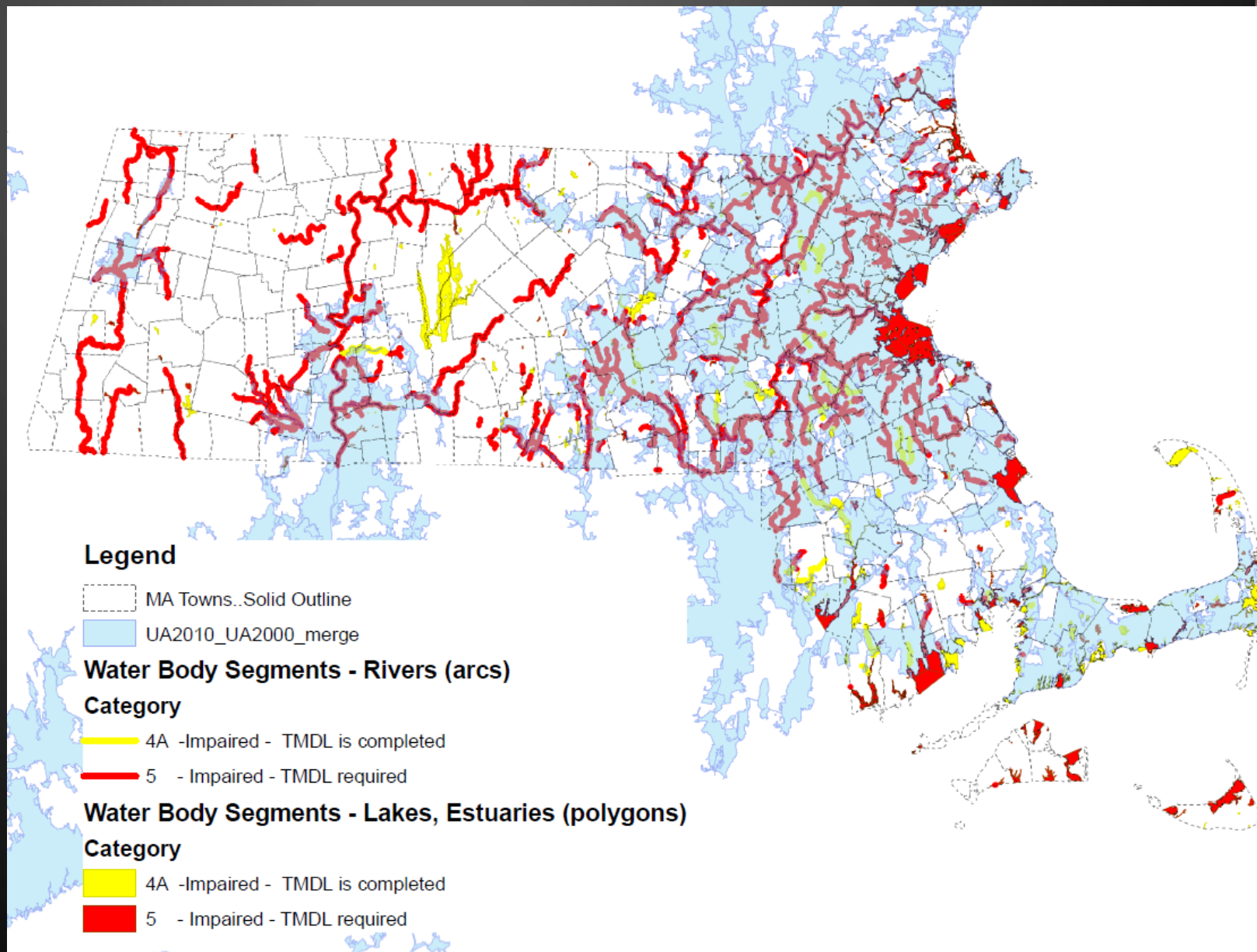
- UPDATE
- GENERAL OVERVIEW MS4 PERMIT REQUIREMENTS AND CHANGES FROM THE DRAFT PERMIT

TIMING UPDATE

- ISSUED FINAL APRIL 4, 2016
- EFFECTIVE JULY 1, 2017
- CHALLENGED IN DC CIRCUIT AND FIRST CIRCUIT COURT IN JULY AND AUGUST 2017
 - CENTER FOR REGULATORY REASONABLENESS
 - HOMEBUILDERS ASSOCIATION
 - TOWN OF FRANKLIN AND MCWRS
 - CITY OF LOWELL
 - CLF AND CRWA
- JUNE 30, 2017 EFFECTIVE DATE POSTPONED UNTIL **JULY 1, 2018**
- SEPTEMBER 25, 2017 POSTPONEMENT CHALLENGED IN FIRST CIRCUIT
 - MASS RIVERS ALLIANCE AND 7 OTHER WATERSHED GROUPS

COVERAGE

STORMWATER
DISCHARGES ARE
CAUSING OR
CONTRIBUTING TO AT
LEAST OF THE **55%**
IMPAIRMENTS IN ALL
MASSACHUSETTS'
ASSESSED WATERS



MASSACHUSETTS MS4 GENERAL PERMIT

SIX MINIMUM CONTROL MEASURES

- PUBLIC EDUCATION
- PUBLIC INVOLVEMENT
- ILLICIT DISCHARGE DETECTION & ELIMINATION
- CONSTRUCTION SITE RUNOFF
- POST-CONSTRUCTION STORMWATER MANAGEMENT
- GOOD HOUSEKEEPING/POLLUTION PREVENTION

WATER-QUALITY BASED REQUIREMENTS

- IMPAIRED RECEIVING WATERS
 - NITROGEN OR PHOSPHORUS
 - METALS
 - SOLIDS
 - BACTERIA OR PATHOGENS
 - CHLORIDE
 - OIL AND GREASE
- W/ OR W/O A TMDL

MCM -1 PUBLIC EDUCATION AND OUTREACH

REQUIREMENTS

- FOUR AUDIENCES
 - RESIDENTS
 - BUSINESSES AND COMMERCIAL FACILITIES
 - DEVELOPERS
 - INDUSTRIAL FACILITIES
- TWO MESSAGES TO EACH AUDIENCE OVER THE PERMIT TERM

MCM – 2 PUBLIC INVOLVEMENT AND PARTICIPATION

REQUIREMENTS

- PUBLIC REVIEW OF SWMP
- ALL REPORTS AVAILABLE TO THE PUBLIC

MCM 3 - ILLICIT DISCHARGE DETECTION AND ELIMINATION

- MORE PRESCRIPTIVE THAN 2003 PERMIT
- BASED ON REGION 1 ENFORCEMENT

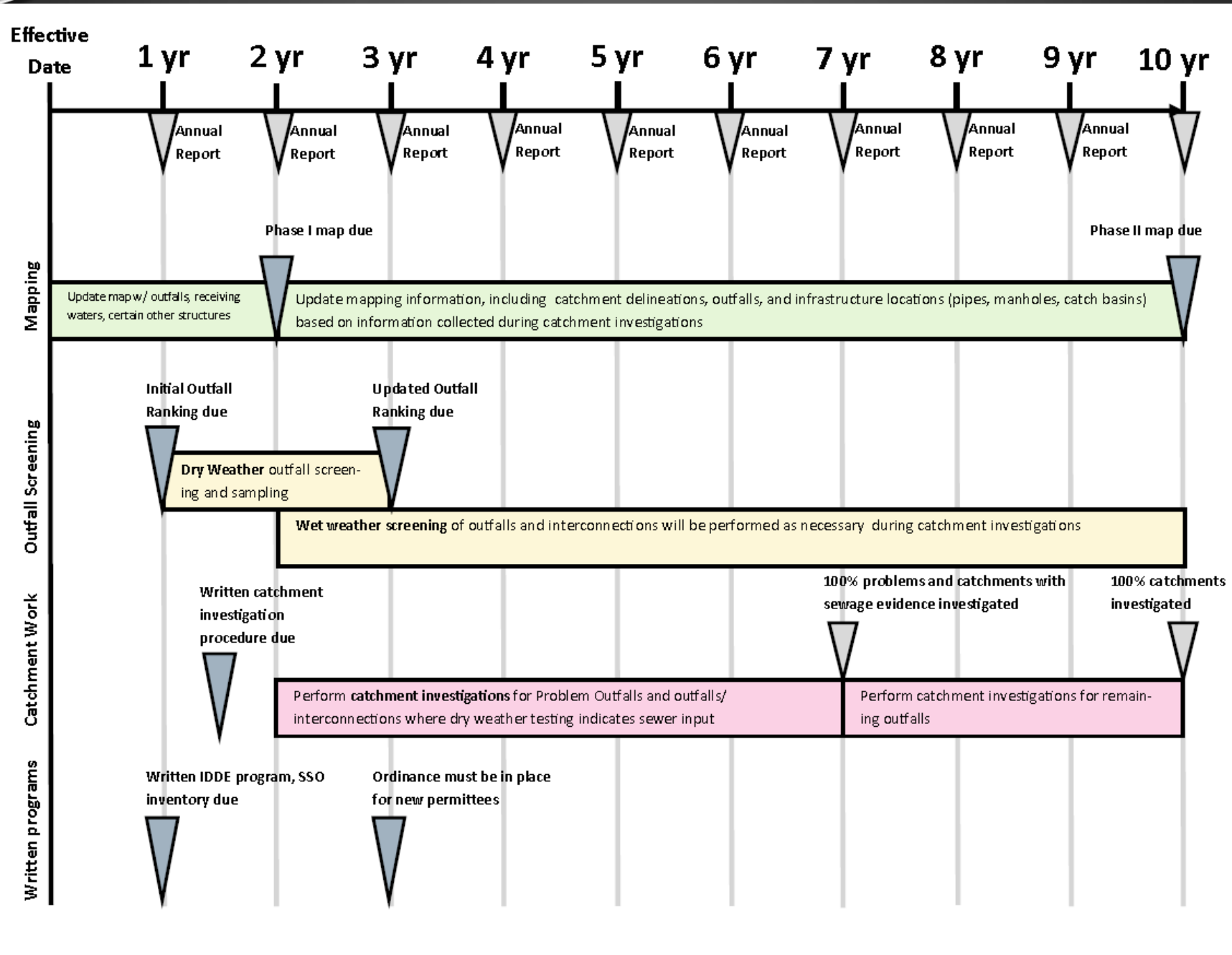
ACTIONS:

EX: OVER 58 MILLION GALLONS PER YEAR OF SEWAGE REMOVED FROM STORMWATER IN THE BOSTON HARBOR WATERSHED



- 10-YEAR
IMPLEMENTATION
TIMEFRAME





MCM-4 CONSTRUCTION SITE STORMWATER CONTROL

REQUIREMENTS

- ORDINANCE
- SITE INSPECTION PROCEDURES
- SEDIMENT CONTROL REQUIREMENTS
- REQUIREMENTS TO CONTROL WASTE
- SITE PLAN REVIEW

MCM -5 POST CONSTRUCTION STORMWATER MANAGEMENT

NEW DEVELOPMENT

- COMPLY WITH MASSACHUSETTS STORMWATER STANDARDS 1, 2, 3, 5, 6 AND 9 FULLY
- RETAIN THE FIRST 1 INCH OF RUNOFF FROM IMPERVIOUS AREA ONSITE OR DESIGN TREATMENT SUCH THAT 90% OF THE AVERAGE ANNUAL LOAD OF TOTAL SUSPENDED SOLIDS (TSS) AND 60% OF THE AVERAGE ANNUAL LOAD OF TOTAL PHOSPHORUS GENERATED FROM THE IMPERVIOUS AREA ON THE SITE IS REMOVED PRIOR TO DISCHARGE

REDEVELOPMENT

- COMPLY WITH MASSACHUSETTS STORMWATER STANDARDS 1, 2, 3, 5, 6 AND 9 TO THE MAXIMUM EXTENT FEASIBLE
- RETAIN THE FIRST 0.8 INCH OF RUNOFF FROM IMPERVIOUS AREA ONSITE OR DESIGN TREATMENT SUCH THAT 80% OF THE AVERAGE ANNUAL LOAD OF TOTAL SUSPENDED SOLIDS (TSS) AND 50% OF THE AVERAGE ANNUAL LOAD OF TOTAL PHOSPHORUS GENERATED FROM THE IMPERVIOUS AREA ON THE SITE IS REMOVED PRIOR TO DISCHARGE
 - OFFSITE MITIGATION IS ALLOWED

MCM – 5 POST CONSTRUCTION STORMWATER MANAGEMENT

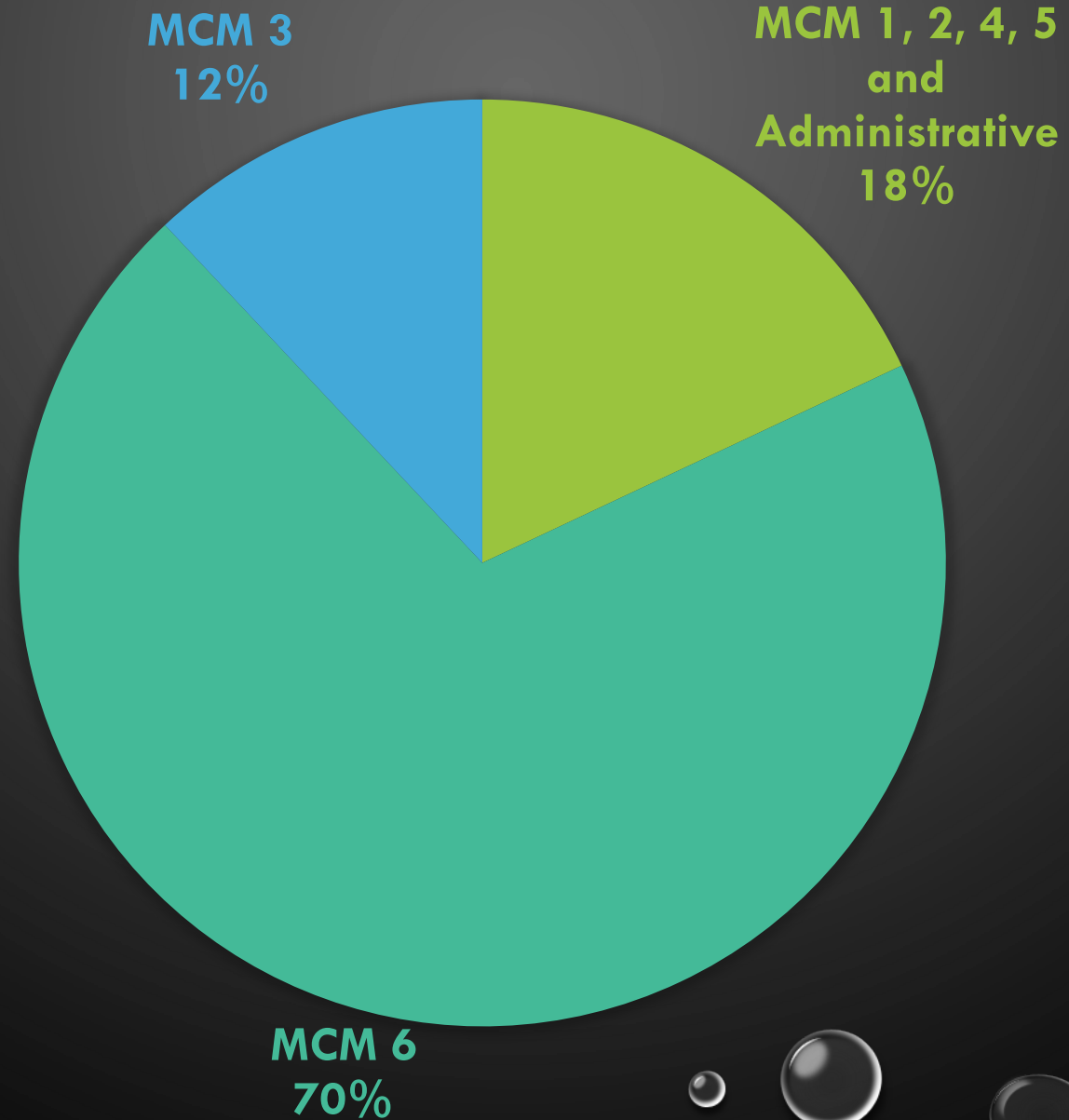
- REPORT ASSESSING STREET DESIGN AND PARKING AND ROADBLOCKS TO
GI - 4 YEARS FROM PERMIT EFFECTIVE DATE
- INVENTORY OF RETROFIT SITES NOW REQUIRES IDENTIFICATION OF 5
SITES, NOT ALL SITES
- NO REQUIREMENT TO TRACK DCIA

MCM – 6 GOOD HOUSEKEEPING

REQUIREMENTS

- O&M PROCEDURES
- CATCH BASIN CLEANING
- STREET SWEEPING
- SWPPP

PROGRAM COST BREAKDOWN



IMPAIRED WATERS REQUIREMENTS

- NITROGEN
- PHOSPHORUS
- METALS
- SOLIDS
- BACTERIA OR PATHOGENS
- CHLORIDE
- OIL AND GREASE

ALL REQUIREMENTS IN
APPENDIX H

BACTERIA/PATHOGEN REQUIREMENTS

REQUIREMENTS

- ADDITIONAL PUBLIC EDUCATION MESSAGES
- CATCHMENTS RANKED AS HIGH PRIORITY FOR IDDE

MAJOR CHANGES

- EDUCATION MESSAGES CAN BE COMBINED WITH OTHER IMPAIRED WATERS REQUIREMENTS
- RELIEF FROM REQUIREMENTS AVAILABLE UNDER CERTAIN CONDITIONS

NUTRIENT IMPAIRED WATERS

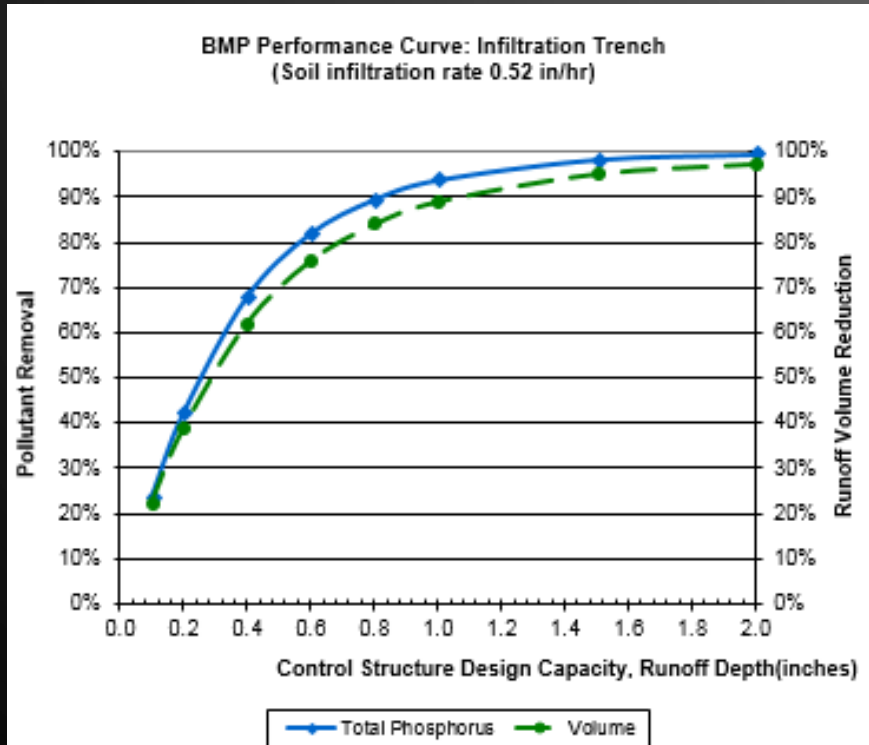
REQUIREMENTS

- ADDITIONAL PUBLIC EDUCATION MESSAGES
- ADDITIONAL NEW AND REDEVELOPMENT REQUIREMENTS
- ADDITIONAL GOOD HOUSEKEEPING REQUIREMENTS
- NUTRIENT SOURCE IDENTIFICATION REPORT

MAJOR CHANGES

- EDUCATION MESSAGES CAN BE COMBINED WITH OTHER IMPAIRED WATERS REQUIREMENTS
- RELIEF FROM REQUIREMENTS AVAILABLE UNDER CERTAIN CONDITIONS

NUTRIENT SOURCE IDENTIFICATION REPORT



- Due Year 4
- Delineate potential N or P sources
- ID potential retrofits
- 1 demonstration project by year 6
- Tracking of N or P reductions through implementation of structural BMPs

SEDIMENT, METALS OR OIL AND GREASE IMPAIRED WATERS

REQUIREMENTS

- ADDITIONAL GOOD HOUSEKEEPING REQUIREMENTS
- ADDITIONAL NEW AND REDEVELOPMENT REQUIREMENTS

MAJOR CHANGES

- RELIEF FROM REQUIREMENTS AVAILABLE UNDER CERTAIN CONDITIONS

CHLORIDE IMPAIRED WATERS

REQUIREMENTS

- SALT REDUCTION PLAN
- ADDITIONAL PUBLIC EDUCATION MESSAGE
- MECHANISM TO ENSURE PRIVATE INDUSTRY AND COMMERCIAL SITES COVER SALT PILES
- ADDITIONAL NEW AND REDEVELOPMENT REQUIREMENTS

MAJOR CHANGES

- RELIEF FROM REQUIREMENTS AVAILABLE UNDER CERTAIN CONDITIONS

RELIEF FROM IMPAIRED WATERS REQUIREMENTS

- RECEIVING WATER (INCLUDING DOWNSTREAM RECEIVING WATERS FOR NUTRIENT IMPAIRMENTS) DETERMINED TO BE NO LONGER IMPAIRED
- A TMDL INDICATES ADDITIONAL MUNICIPAL STORMWATER CONTROLS ARE NOT NECESSARY TO ADDRESS POLLUTANT OF CONCERN IN WASTE LOAD ALLOCATIONS
- THE PERMITTEE'S DISCHARGE IS DETERMINED TO BE BELOW APPLICABLE WATER QUALITY CRITERIA
 - (BACTERIA, METALS, SEDIMENT, CHLORIDE, OIL AND GREASE IMPAIRMENTS ONLY)

TMDL REQUIREMENTS

- BACTERIA AND PATHOGEN TMDLS
- CHARLES RIVER PHOSPHORUS TMDLS
- LAKE AND POND PHOSPHORUS TMDLS
- CAPE COD NITROGEN TMDLS
- ASSABET RIVER PHOSPHORUS TMDLS
- LONG ISLAND SOUND NITROGEN TMDL
- PHOSPHORUS AND METALS TMDLS FOR RHODE ISLAND WATERS

RELIEF FROM TMDL REQUIREMENTS

- IF THE TMDL HAS BEEN MODIFIED/REVISED/WITHDRAWN WITH EPA APPROVAL
- A NEW TMDL INDICATES ADDITIONAL MUNICIPAL STORMWATER CONTROLS ARE NOT NECESSARY TO ADDRESS THE POLLUTANT OF CONCERN IN THE WASTE LOAD ALLOCATIONS

ASSISTANCE TOOLS AND WORKSHOP/WEBINAR IDEAS

THINGS WE HAVE

- OPTI-TOOL
- BATT
- COST ESTIMATOR SPREADSHEETS
- IDDE TIMELINE
- MASSDEP WEBSITE

OTHER IDEAS

- TIMELINE FOR PERMIT DELIVERABLES
- PERMIT CHECKLISTS
- TEMPLATES FOR ANNUAL REPORT, SWPPP
OTHERS?
- TARGETED WORKSHOPS /WEBINARS ON
SPECIFIC TOPICS (E.G.: IDDE)

TIMING

- EFFECTIVE DATE **JULY 1, 2018**
- NOTICE OF INTENT DUE **SEPTEMBER 29, 2018**
- STORMWATER MANAGEMENT PLAN **JULY 1, 2019**

YEAR 1 REQUIREMENTS

REQUIREMENT	TASK	PERMIT SECTION FOR REFERENCE
Notice of Intent (NOI)	Prepare and Submit Notice of Intent for Permit Coverage (NOI) * Within first 90 days	Appendix E
Catch Basin Cleaning	Clean catch basins to ensure no catch basin is more than 50% full. Document catch basins inspected and cleaned, including total mass removed and proper disposal.	2.3.7 a iii b
Street Sweeping	Sweep all streets (rural exceptions apply) a minimum of once a year in the spring. Each annual report shall include number of miles cleaned and volume or mass of material removed.	2.3.7 a iii c
Develop Infrastructure O&M Procedures: Winter Road Maintenance	Establish written procedures for winter road maintenance including storage of salt and sand; minimize use of sodium chloride and other salts; ensure snow disposal activities do not result in disposal of snow into surface waters.	2.3.7 a iii e
Prepare and Submit Stormwater Management Plan (SWMP)	Develop/update written SWMP.	1.10.a & 1.10.2
Illicit Discharge Detection and Elimination (IDDE)	Complete written IDDE procedures and rank outfalls for IDDE investigation Document Sanitary Sewer Overflows to the MS4	2.3.4.6 & 2.3.4.7 2.3.4.4.b
Construction Site Runoff Control	Create written procedure for inspecting construction sites for proper sediment controls	2.3.5

QUESTIONS

EPA MA MS4 WEBSITE:

[HTTPS://WWW3.EPA.GOV/REGION1/NPDES/STORMWATER/MS4_MA.HTML](https://www3.epa.gov/region1/npdes/stormwater/ms4_ma.html)

Newton Tedder

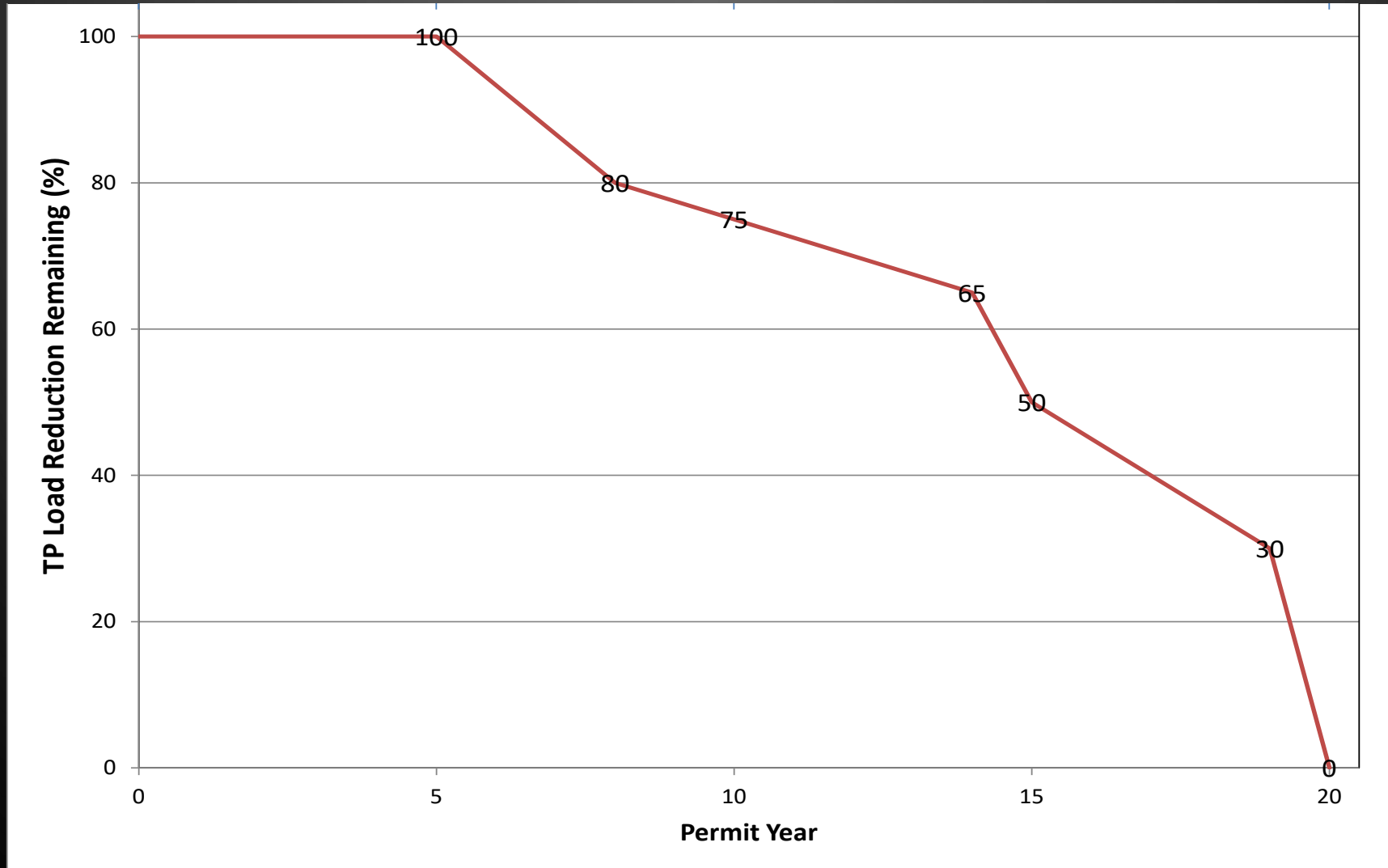
tedder.newton@epa.gov

617-918-1038

CHARLES RIVER TMDL

5 years after permit effective date	5-10 years after permit effective date	10-15 years after permit effective date	15-20 years after permit effective date
Create Phase 1 Plan	Implement Phase 1 Plan		
	Create Phase 2 Plan	Implement Phase 2 Plan	
		Create Phase 3 Plan	Implement Phase 3 Plan

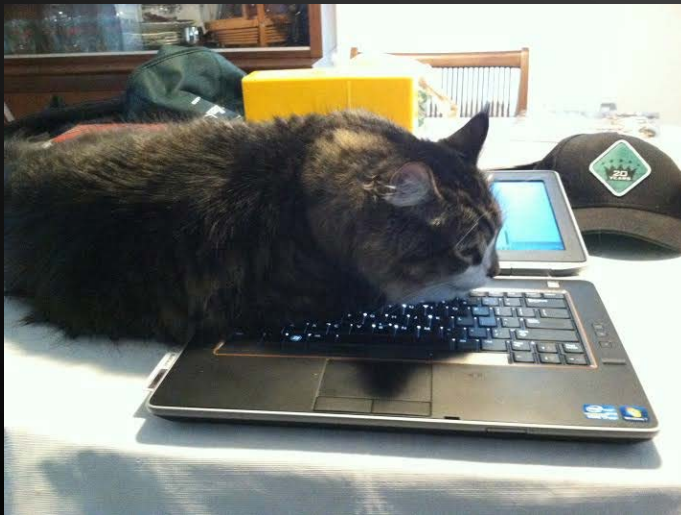
IMPLEMENTATION SCHEDULE



BATT AUTOMATED CALCULATIONS

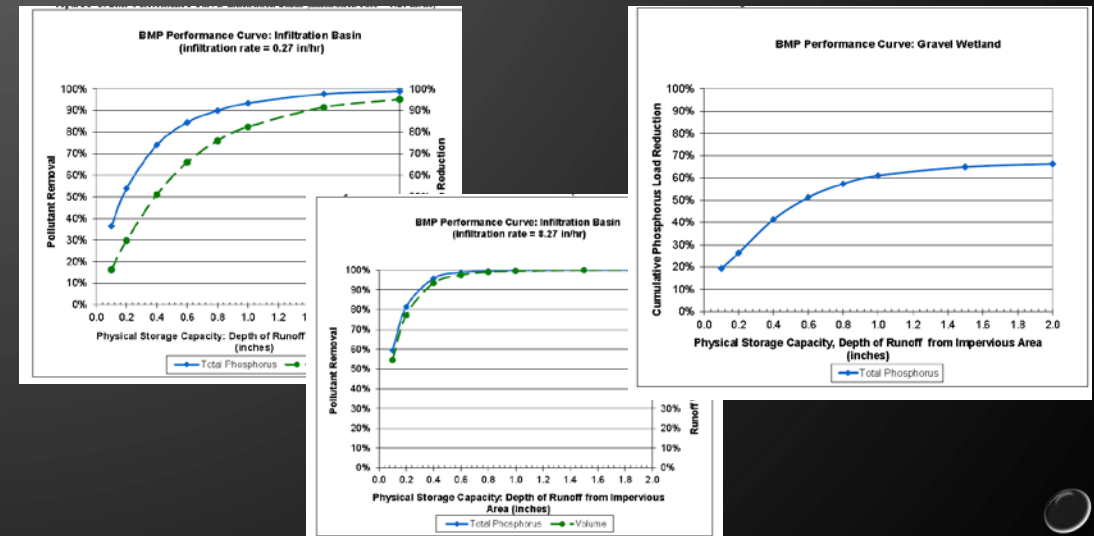
LAND AREA POLLUTANT LOADING:

- BASED ON LAND USE, SOIL TYPE, IMPERVIOUS AREA
- ANNUAL PHOSPHORUS LOAD EXPORT RATES (PLERS) FROM PERMIT BUILT INTO TOOL



BMP POLLUTANT REDUCTIONS:

- EPA/TETRATECH WORK ON BMP CURVES FOR STRUCTURAL BMPS IN PERMIT AND BUILT INTO TOOL



- LITERATURE VALUES FOR NON-STRUCTURAL BMPS FROM PERMIT BUILT INTO TOOL