



DCR's Stormwater Program

DCR Stewardship Meeting

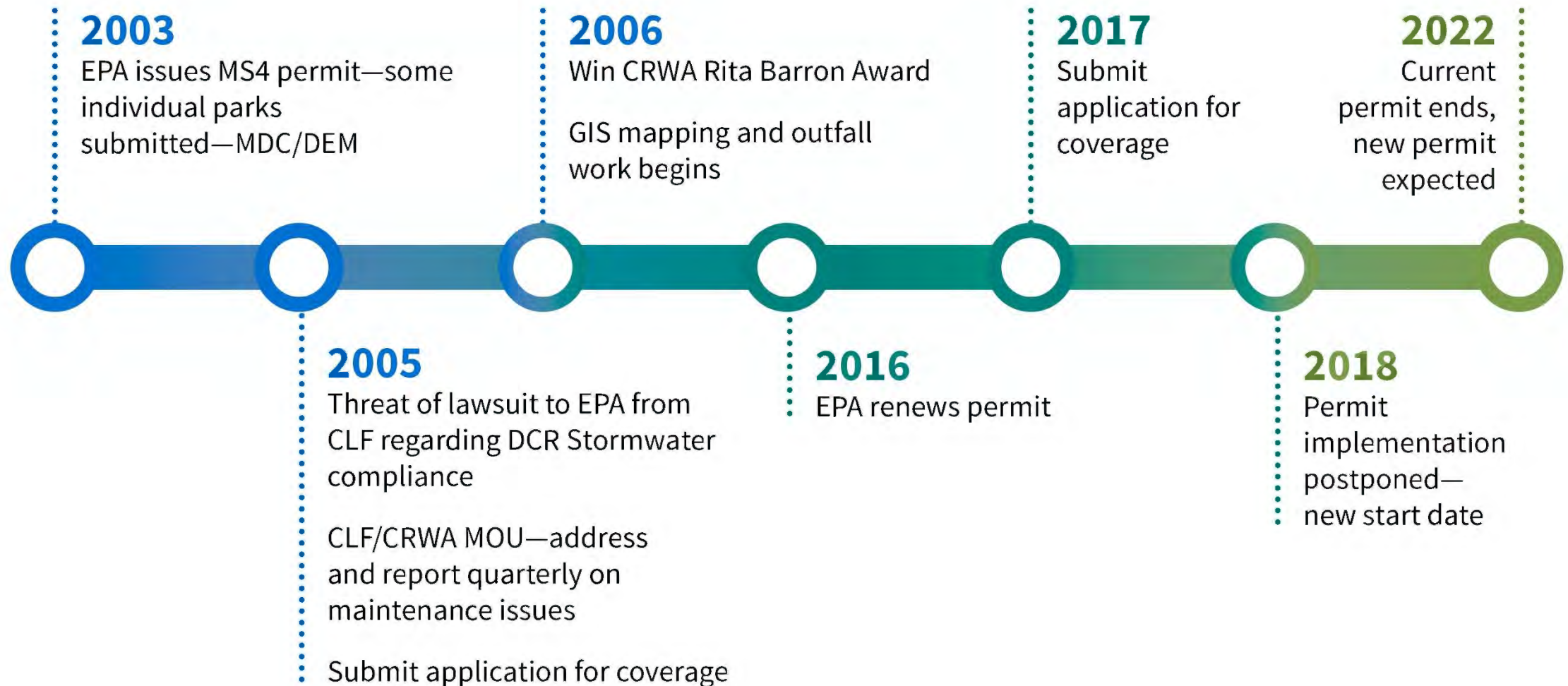
December 10, 2020



dcr
Massachusetts



MS4 Permit Background



DCR Stormwater Team

DCR Team

- Robert Lowell—*Deputy Chief Engineer*
- Thomas Valton—*Director Stormwater & Environmental*
- Debra Berger—*Project Manager*
- Joe McCrann—*Field Supervisor*
- Robert Rose—*Heavy Equipment Operator*
- 6 long-term engineering aides from April 1-November 30

Additional Support

- VHB—*Stormwater program consultant*
- National Water Main Cleaning Co.—*Street sweeping contractor*
- Rapid Flow Inc.—*Catch basin cleaning contractor*
- Tasco Construction—*Infrastructure maintenance and construction repair contractor*



Significant MS4 Program Achievements So Far

- Mapping drainage system statewide
 - >32,000 structures and pipes
- Illicit discharge sampling of 1,000+ outfalls
- Social media messaging
- Focused operation and maintenance of drainage system
- Comprehensive catch basin program
 - Approx. 2,000 tons of material removed from catch basins per year
- Daily & nightly street sweeping on urban parkways and parking lots
 - >1,200 cubic yards



Statewide Infrastructure Achievements

- Underground water quality treatment units along Memorial Drive
- Inline tide gates at Morrissey Blvd to reduce coastal flooding and roadway closures
- Drainage redesign with stormwater recharge areas on Revere Beach Blvd and Winthrop Shore Drive
- Pervious pavement sidewalks in Cambridge
- Rain gardens, retention basins, deep sump catch basins at Wachusett Reservoir and other locations

Deferred Maintenance
Repairs: **\$2.5 Million**



Stormwater Program Collaborations

External Affairs

- Stormwater Website
- Public Education
- Social Media



Office of Water Supply Management

- Wachusett Educational Programs
- Public Education
- Water Quality Protection



Commissioner's Office/Office of General Council

- Overall Program Support
- Drainage Tie In Regs and Policy

Stormwater Engineering

- Project Kickoff Mtgs, Public Review of SWMP
- Catch Basin Cleaning, Street Sweeping



Operations

- Field Services
- Leaf Removal



Park Friend Groups & Associations

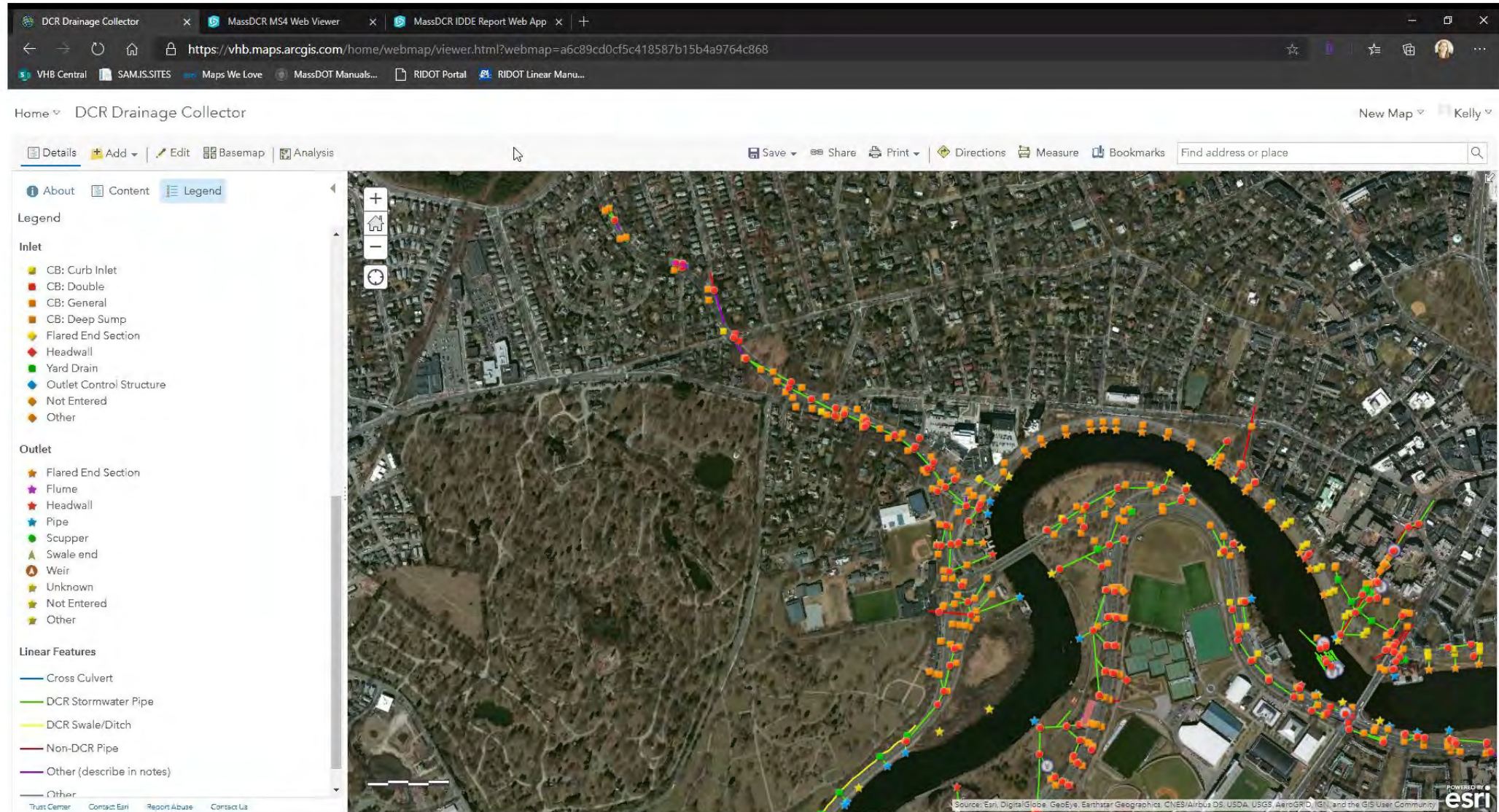
- Volunteer Cleanups
- Public Participation



Municipalities & Other Agencies

- MS4 Coordination
- Maintenance MOUs (Boston)
- DEP Stormwater Advisory Committee

GIS Database



What DCR facilities are included?

A map of the Greater Boston area, including parts of Massachusetts and New Hampshire. The map highlights various DCR facilities in blue, including parks, reserves, and wildlife refuges. Key locations labeled include West Concord, Great Meadows Nat'l Wildlife Refuge, Framingham, Waltham, Watertown, Cambridge, Somerville, Medford, Malden, Everett, Revere, Chelsea, Boston, Logan Int'l Airport, Boston Harbor, Quincy Bay, Hingham Bay, World's End, Base Cove Park, South Weymouth, Norwood, Hyde Park, Boston Center, Framingham, Cordaville, and Lynn Woods Reservation. Major roads like I-90, I-495, and I-93 are also shown.

Fiscal Year 2021 Major Tasks

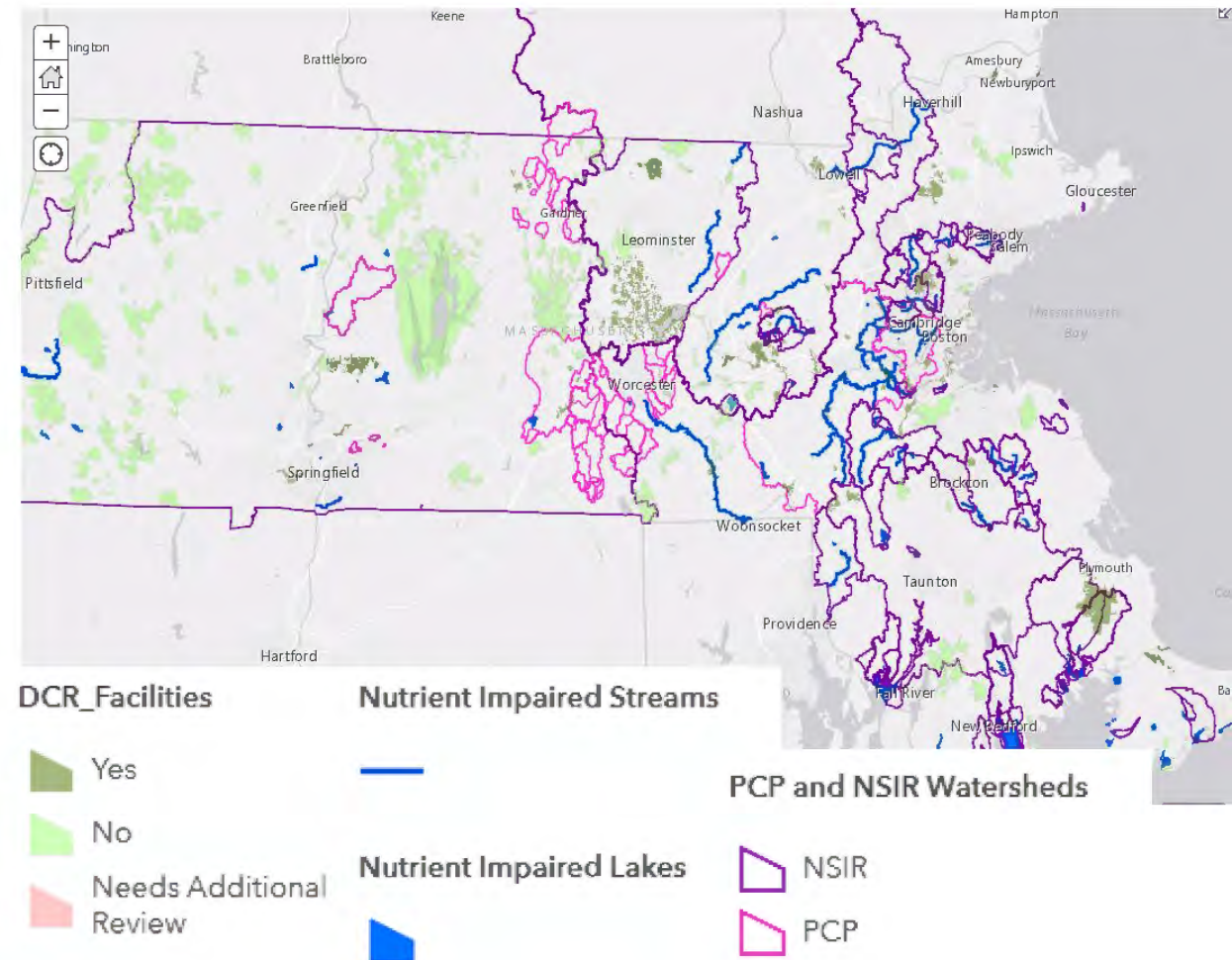
Total Budget for Fiscal Year:
\$5.5 Million

- Social media
- Illicit Discharge Detection and Elimination (IDDE)
 - Detects unpermitted connections to DCR drainage system
 - Completion of dry weather screening (~500 outfalls)
 - Progress catchment mapping and investigations of drainage system
 - Progress wet weather outfall screening
 - Potential illicit discharge follow up
 - Finalize regulation for drainage connections
- Labor Yard Pollution Prevention Plans and quarterly inspections
- Street sweeping and catch basin cleaning
- Stormwater Handbook for more stringent water quality treatment requirements



Impaired Watershed Requirement Major Tasks

- Long-term land planning for water quality
- Develop Phosphorus Control Plans (PCPs) for up to 8 watersheds
 - Charles River Watershed has 116 DCR facilities
 - Lakes and ponds watersheds
- Nutrient Source Identification Reports (NSIR) for up to 13 impaired watersheds
 - Phosphorus or Nitrogen
- Identify pollutant sources/ develop load calculations
- Plan for and build retrofit structural controls to address TMDL requirements and make progress on water quality goals



Annual Requirements

- EPA Annual Report
- Review of regulated facilities and impacted receiving waters
- Distribute public education messages
- Public involvement events
- Employee training
- Quarterly inspections of labor yards
- Catch basin cleaning and reporting
- Inspection of DCR-owned water quality units
- Street and parking lot sweeping
- Updating of Stormwater Management Plan and Operation & Maintenance Plan

Year 2 Annual Report Massachusetts Small MS4 General Permit Reporting Period: July 1, 2019-June 30, 2020	
<i>**Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form**</i>	
<i>Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed. Please ONLY report on activities between July 1, 2019 and June 30, 2020 unless otherwise requested.</i>	
Part I: Contact Information	
Name of Municipality or Organization: Department of Conservation and Recreation	
EPA NPDES Permit Number: MAR043001	
Primary MS4 Program Manager Contact Information	
Name: Robert Lowell	Title: Deputy Chief Engineer
Street Address Line 1: 251 Causeway Street	
Street Address Line 2:	
City: Boston	State: MA Zip Code: 02114
Email: Robert.Lowell@mass.gov	Phone Number: 617.626.4370
Stormwater Management Program (SWMP) Information	
SWMP Location (web address): https://www.mass.gov/service-details/dcr-stormwater-management	
Date SWMP was Last Updated: Jun 30, 2020	
If the SWMP is not available on the web please provide the physical address:	
NA	

Longer Term Requirements

- Tracking and maintaining structural controls
- Dry weather outfall screening – **2021**
- Projects to include increased water quality requirements - **2021**
- Stormwater retrofit opportunities identified and construction scheduled - **2022**
- Construct controls to provide 20% pollutant reduction
 - Charles River – **2028**
 - Lakes and Ponds watersheds - **2026**
- Catchment investigations
 - ~50 problem outfalls - **2025**
 - Remaining +1,000 Outfalls – **2028**
- Stormwater system mapping of entire drainage system - **2028**
- Wet weather outfall screening - **2028**



Water Quality Benefits to DCR

- Public enjoyment and recreation
- Stormwater impacts surface water quality
 - Impacts beach closures
- Drinking Water
 - Quabbin and Wachusett Reservoirs
 - Most public water supply wells



Questions?

