#### CHARLES RIVER STORMWATER PERMITTING

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EPA Region I





#### **Charles River Watershed**

- 80-mile river Hopkinton to Boston Harbor
- Drainage area 310 square miles
- 35 municipalities



## Human Uses

- Upper Charles
  - Recreational Boating
  - Fishing
- Lower Charles
  - Recreational Boating
  - Sailing and Rowing Clubs
  - Swimming\*
  - Public Events



Photos: epa.gov/charlesriver

#### **Clean Water Act History of Success**

- Significant Reduction in Sewer Overflows
- 2003 Municipal Stormwater General Permit (2016 and 2020 updates)
- Removal of illegal sewage discharges into storm drains
- 2020's 25<sup>th</sup> Anniversary Charles River "Report Card"





#### Progress has been made; however, work remains

#### Need to Reduce Phosphorus

- Phosphorus triggers algal blooms some are toxic
- MA and EPA set reduction targets
- Municipal wastewater plants have achieved a 90%+ reduction
- Biggest remaining source is stormwater municipalities reducing, but private property is a large source





#### **Charles River phosphorus reductions**



Land Use Group	Upper TMDL WLA % Reduction Rate	Lower TMDL WLA % Reduction Rate
Commercial	65%	62%
Industrial	65%	62%
High Density Residential	65%	62%
Medium Density Residential	65%	62%
Low Density Residential	45%	62%
Highway	65%	62%
Open Space	35%	62%
Agriculture	35%	62%
Forest	0%	0%



# **Phosphorus Control Strategies**

- I. Reduce or disconnect impervious cover
- 2. Small-scale infiltration practices (e.g., rain gardens, tree trenches, dry wells, infiltration trenches)
- 3. Stormwater capture (e.g., irrigation cisterns, rain barrels, green roofs)
- 4. Filtration practices (e.g., biofiltration, gravel wetland)
- 5. Non-Structural control strategies (e.g., leaf litter pickup, street/parking lot sweeping)





## Role of the MS4 Permits in RD Petition Review



EPA's 2016 MA small municipal separate storm sewer system (MS4) general permit covers 34 communities in the Charles River watershed.

Permit effective date: 7/1/2018.

Each community is assigned a phosphorus reduction requirement consistent with a TMDL and WLA.

Requires communities to develop a plan for reducing phosphorus in any stormwater discharged via their system (regardless of source).





# Residual Designation Authority (RDA)



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- See, Clean Water Act (CWA) Section 402(p)
- A Residual Designation decision can be made...
  - By the EPA, acting on its own volition, or
  - As the result of a petition
- A discharge may require a permit under this authority if it:
  - Is contributing to a water quality violation, or
  - Is a significant contributor of pollutants to a water of the United States.



## **Residual Designation Permits**

If EPA finds there is a need to use its RD Authority and issue a permit for a stormwater discharge, tools available include:

- General permits for certain classes of sites, facilities, or entities;
- Individual permits for individual stormwater discharges; or
- A combination of these approaches.



## 2019 Charles River RD Petition

On May 9, 2019 petition from the Conservation Law Foundation and Charles River Watershed Association asking EPA to exercise its residual designation authority (RDA) to regulate certain stormwater discharges from privately-owned <u>commercial, institutional, industrial, and multi-</u> <u>family residential properties</u> that are <u>one acre or greater</u> in the Charles River watershed.



# **EPA's Petition Review**

EPA needs to consider:

- Whether to grant the petition—in whole or in part
- How stormwater permits for privately-owned sites would relate to municipal stormwater permits
- What types/sizes of facilities would be included
- What the permits would require
- Whether to use general or individual permits (or both)
- What would be a realistic schedule to implement the permits



## **Engagement Timeline**





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#### Thank You!