

The Upcoming RDA Permit in the Charles, Mystic and Neponset River Watersheds

A Discussion With Massachusetts Congressional Staff

April 24, 2024

Facilitation by Kate Melanson, EPA OPA

ANNE LEIBY, SENIOR ADVISOR, WATER DIVISION, US EPA, REGION 1

LAURA SCHIFMAN, PH. D., PERMIT WRITER, WATER DIVISION, US EPA, REGION 1

Topics We Will Address

1. Why is EPA Pursuing RDA permitting at time?
2. What are the benefits of the RDA permits?
3. RDA petition and permitting process
4. RDA stakeholder outreach
5. Technical basis for this permit
6. Types of stormwater management controls
7. Benefits of these stormwater management controls in affected communities

Note: The numbers, graphics, and technical conclusions throughout this presentation are pre-decisional, subject to change, and may be different than the final calculations relied upon in the draft and final permits. EPA will publish the availability of the draft RDA permit and RDA determination in the Federal Register for public comment and will consider all significant public comments.



Why is EPA Pursuing an RDA Permit At this Time?

Photo from CRWA



(Co) Benefits of RDA Permitting

Businesses on County Street in Attleboro, Mass. closed due to flooding from heavy rain Tuesday, Sept. 12, 2023.

(Mark Stockwell/The Sun Chronicle via AP)

Clean Water Act 402(p)

Defines specific sources that must be authorized by an "NPDES" permit, but also recognizes that other sources may need to be regulated.

Allows for regulation of "other sources"

Referred to as "Residual Designation Authority," or simply, "RDA."

RDA Authority Can Be Used to Require NPDES permits when:

- * the discharges contribute to a violation of water quality standards,
- * are a significant contributor of pollutant to federally protected surface waters, or
- * controls are needed for the discharge based on wasteload allocations that are part of "total maximum daily loads" (TMDLs) that address the pollutant(s) of concern.

What is RDA?

Petitions Request that EPA Exercise its Residual Designation Authority

(2019 Charles, 2020 Mystic, Neponset)

Petitioners: The Conservation Law Foundation and Charles River Watershed Association.

Request: That all commercial, industrial, and institutional (collectively “CII”) properties 1 acre or greater and large Multi-Family (M) parcels (five or more housing units) in the Charles, Mystic, Neponset receive NPDES permits (an “RDA permit”).

Preliminary Determination

(September 2022)

EPA designates all CII parcels (but not multi-family units) with 1 acre or more of Impervious Cover* (“IC”) in the Charles, Mystic and Neponset Watersheds.

Develop Permitting Framework & Issue Draft Permit

(Goal: September 2024)

EPA is moving forward with the development of a permitting framework and outreach strategy.

*Impervious Cover - any surface that prevents or significantly impedes the infiltration of water into the underlying soil. This can include but is not limited to: roads, driveways, parking areas and other areas created using nonporous material; buildings, rooftops, structures, artificial turf and compacted gravel or soil

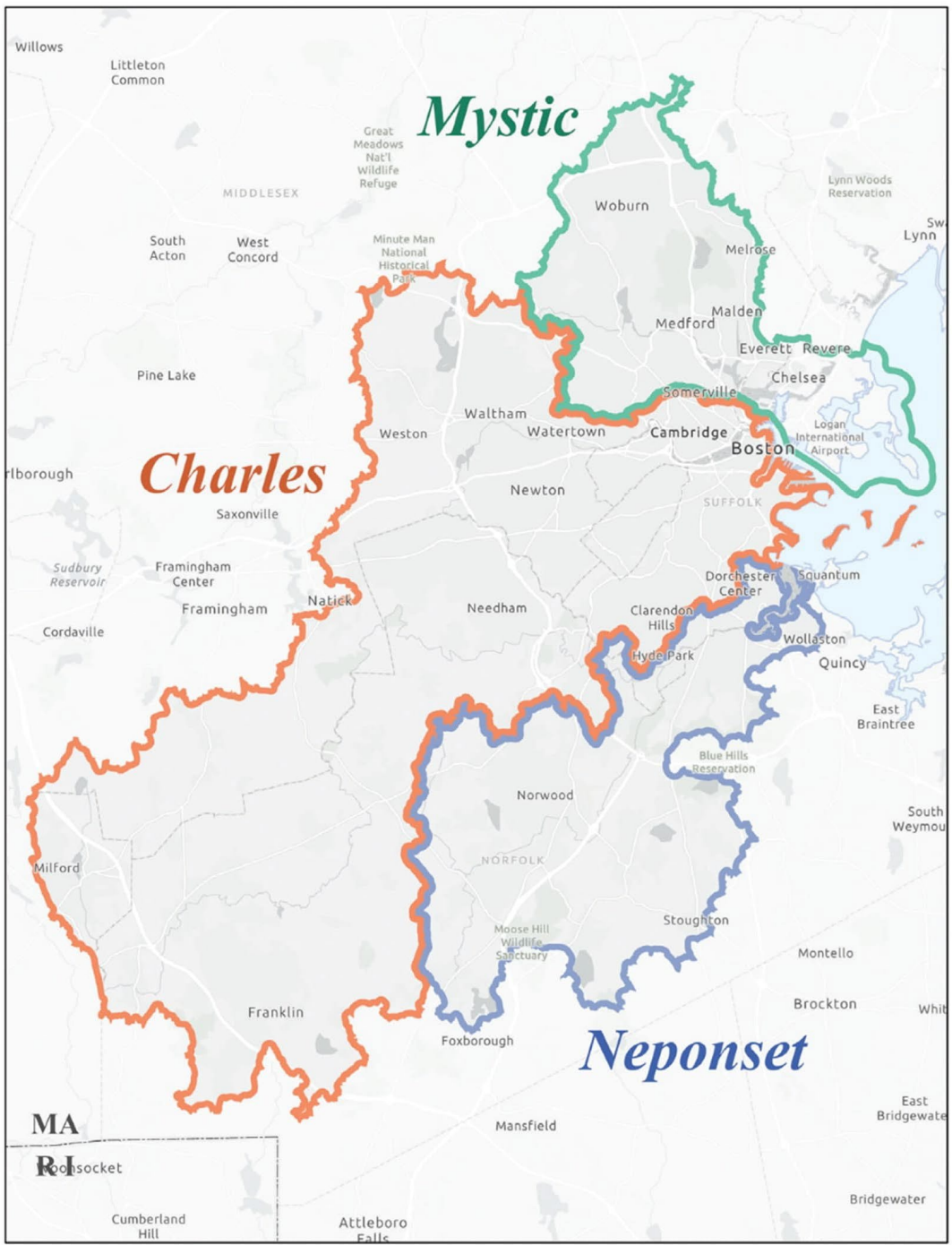
RDA Process

RDA Permitting Timeline

Draft RDA Permit Target – Fall 2024

Public Comment Period (at least 30 days
40 CFR § 124.10(b))

Final Permit Issued with a Response
to the Public Comments



Stakeholder Outreach Timeline

WINTER

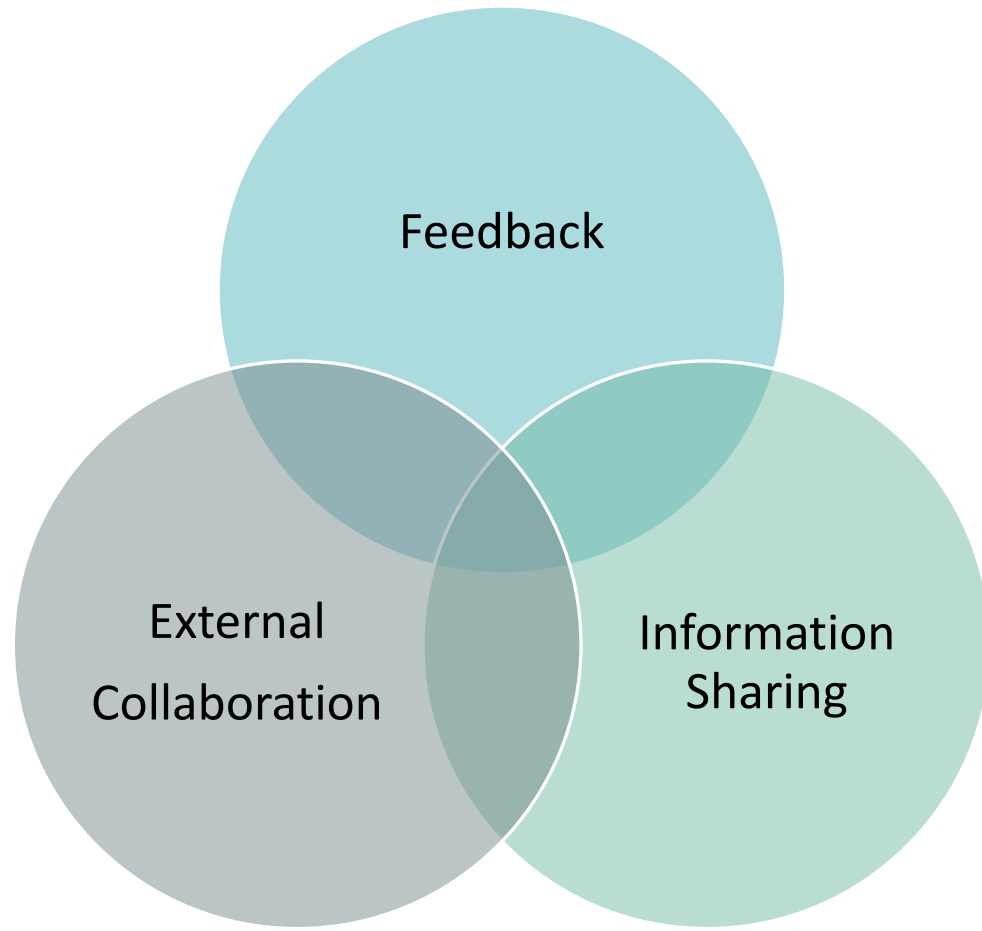
- ✓ Re-engage stakeholders across all three watersheds

SPRING

- ✓ Information sharing with stakeholders
- Seek feedback on permit implementation

SUMMER

- Meet with Environmental Justice groups
- Refine options for permit framework



Seek Feedback on Permit
Implementation Challenges and
Strategies

Facilitate Information-Sharing
between stakeholders and EPA

Foster External Collaborations
With Municipalities/Watershed
Groups/Others

Goals of Stakeholder Outreach

Types of Questions EPA Seeks Feedback On:

1. Permit Administration

- Phasing of permit
- Compliance timeframes
- Accounting & tracking of obligations

2. Stormwater Controls

- Stormwater Control options
- Credits for existing stormwater controls

3. Funding Mechanisms

- Regionalized stormwater management
- Impact on stormwater utilities

4. Needed Resources

- Data tools & technical assistance
- EPA support
- Assistance w/ Reporting

Improvements in Pollution Control

1970s to now

99% of CSO and illicit discharges reduced

2000s to now

90% Phosphorus from WWTPs reduced

2016 MS4

Municipal Stormwater Programs manage stormwater from the entire municipality and are responsible for all required load reductions

RDA

Private CII land uses cover 14-18% of the area in the three watersheds. An RDA program will distribute stormwater management responsibilities among municipalities and designated private sources

Who does the RDA permit apply to?

- ✓ Commercial, Industrial, and Institutional properties in the Charles, Mystic, and Neponset River Watershed
 - Charles River Watershed: 35 cities and towns
 - Mystic River Watershed: 21 cities and towns
 - Neponset River Watershed: 14 cities and towns
- X Municipal and other public property (regulated via MS4 permit)
- X Municipal and state roadways (regulated via MS4 permit)
- X Residential properties

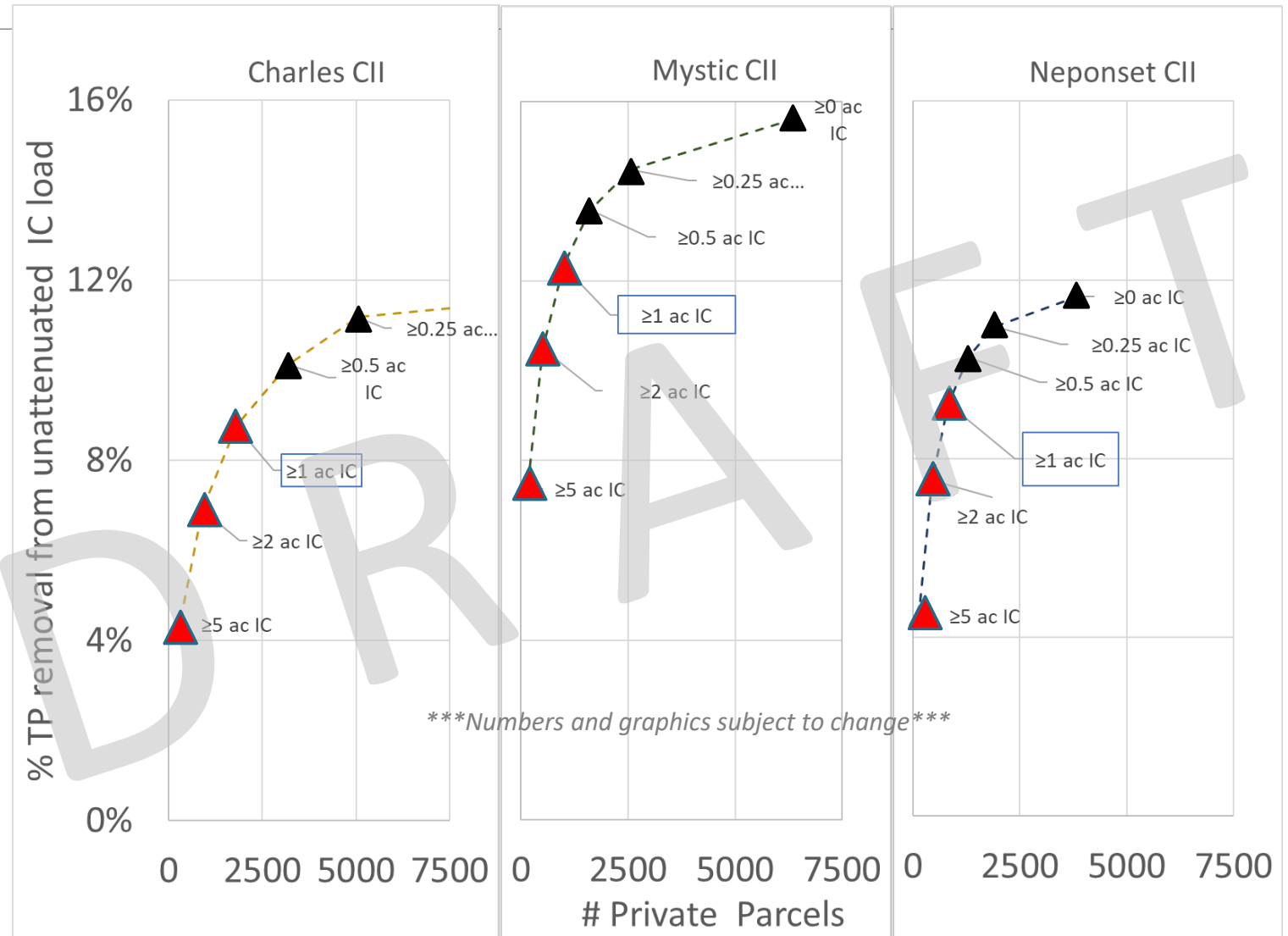
How did EPA designate CII properties?

- Identified use codes from tax assessor's database that indicate commercial, industrial, institutional land uses in the three watersheds
- Geospatial analysis to determine impervious cover* acreage per parcel
- Maximize environmental benefit by permitting the fewest number of CII sources led to 1 acre impervious cover permitting threshold

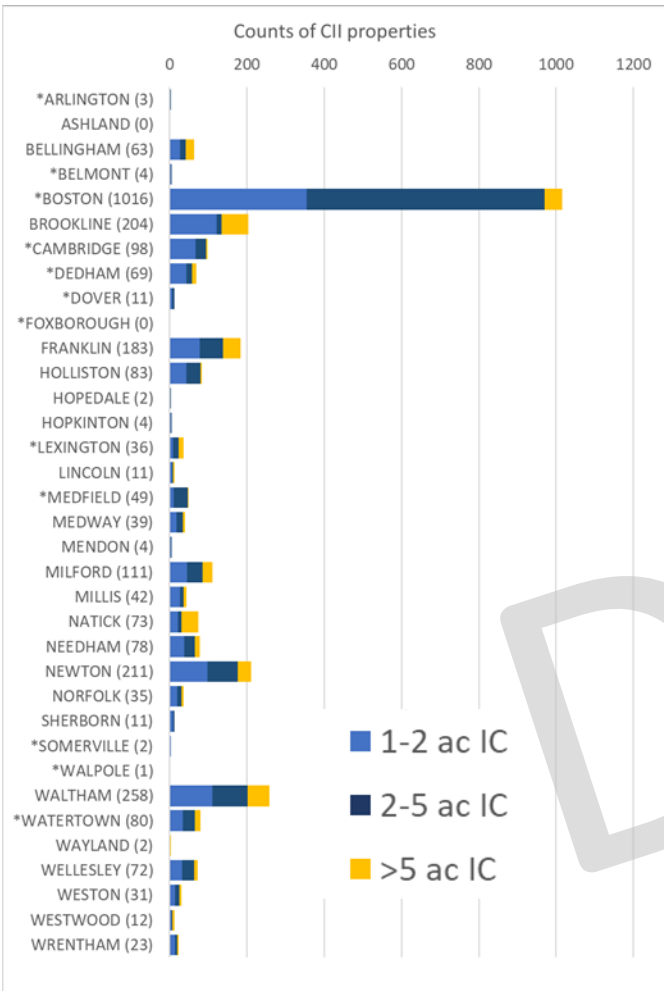
Parcel level analysis reports: <https://www.epa.gov/npdes-permits/january-2024-update-residual-designation-authority-rda-activities-underway-charles>

Finding a balance for the RDA program

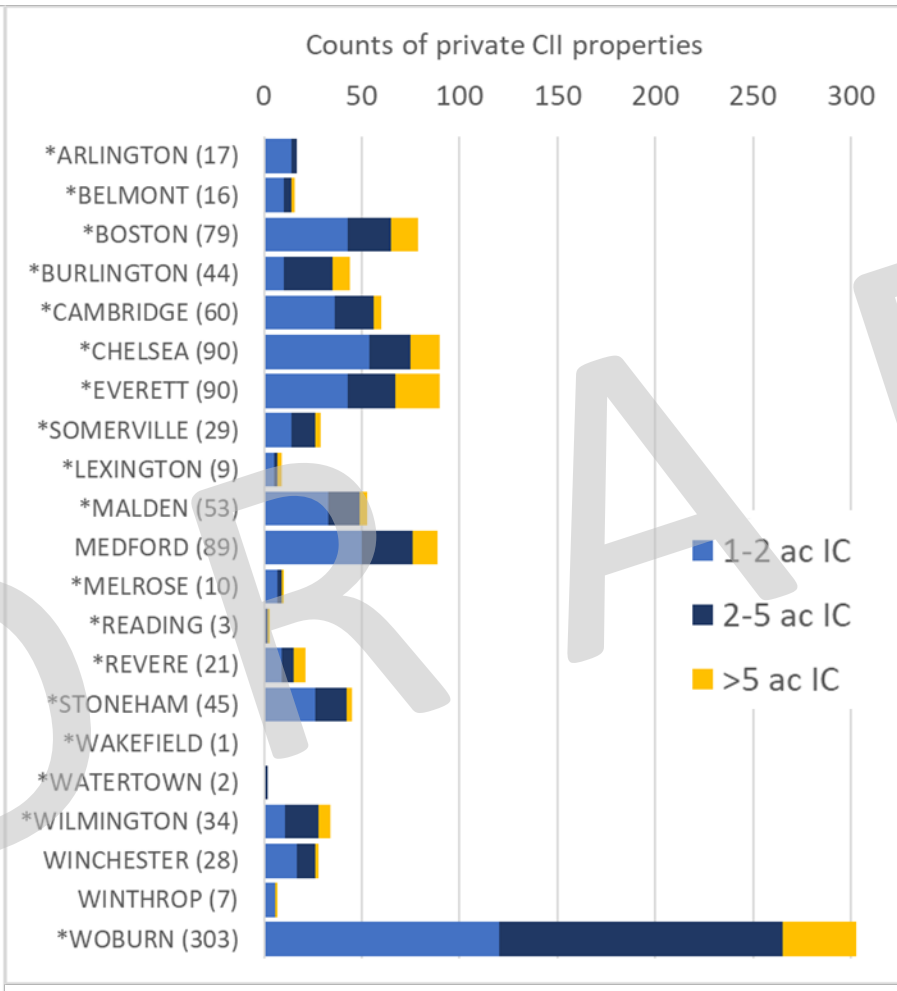
- “Knee of the curve”
 - Balance highest pollution reduction potential with permitting fewest number of CII properties
- Same acreage threshold for all CII properties
- Differences in estimated pollution reductions reflect variations in non-CII land use and overall impervious cover of the watershed



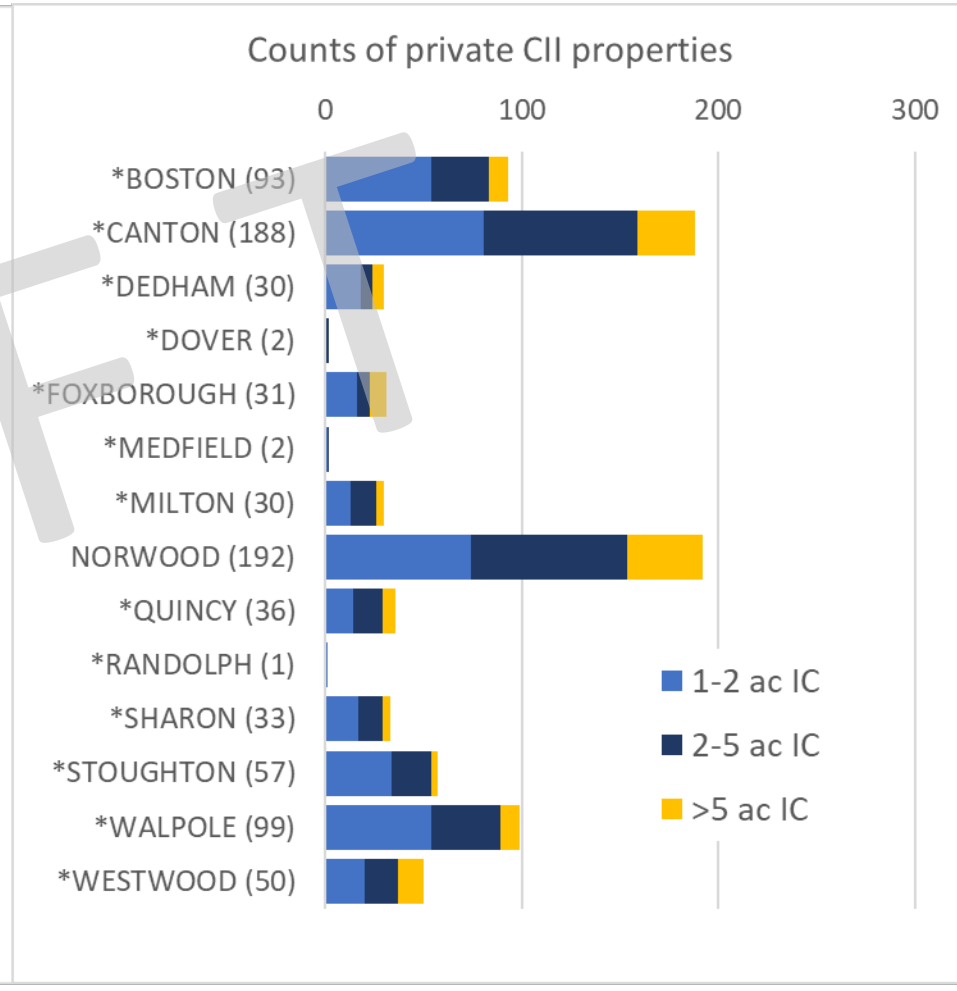
Numbers of properties considered for permitting



Charles River Watershed



Mystic River Watershed



Neponset River Watershed

What does stormwater management under an RDA Program look like?

STRUCTURAL CONTROLS

Infiltration Practices

- Infiltration trenches
- Infiltration basins/ Rain gardens
- Biofiltration/ Tree filters
- Gravel Wetlands
- Enhanced Biofiltration with internal storage
- Sand Filters
- Porous Pavements

Disconnection

- Impervious Cover Disconnection with and without storage

Storage/Detention

- Dry Ponds Water Quality Swale with Detention
- Enhanced Biofiltration with internal storage
- Wet Ponds

Stormwater Reuse

Manufactured Treatment Devices *

NON-STRUCTURAL CONTROLS

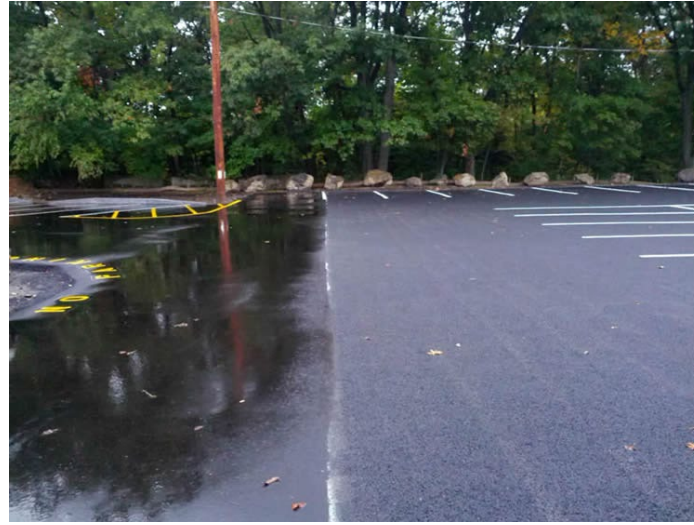
Street and parking lot sweeping

Catch basin cleaning

Leaf litter collection program



Street sweeping
City of Palo Alto, CA



Pervious pavement, right, allows water to seep into the ground.



Parking lot infiltration
MN Pollution Control Agency

Examples of stormwater management options

Resources

Feedback

Questions

More Information:

<https://www.epa.gov/npdes-permits/watershed-based-residual-designation-actions-new-england>

RDA Petitions for Charles, Mystic and Neponset River Watersheds

EPA's Initial RDA Designation

Monthly RDA Updates

Parcel-level analyses for all three watersheds

Tools and Informational Fact Sheets

Stakeholder Events/Upcoming Focus Groups

Check the website for more information on upcoming events.

Feedback and Questions:

Do you have any feedback on permit implementation challenges or ideas for solutions to those permit challenges?

Email us: R1.RDA@epa.gov