

RDA Permitting in Massachusetts: What to Expect in 2024?

January 17, 2024

ANNE LEIBY, ESQ.
SENIOR ADVISOR
WATER DIVISION, EPA, REGION 1

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

Presentation Outline

- 1. What is “Residual Designation Authority?”**
- 2. RDA: Massachusetts/Rest of the Country**
- 3. RDA MA Permitting Timeline for FY 24**
- 4. RDA Permitting Program in MA**
 - Pollution Loads in the RDA Watersheds
 - RDA in the Neponset
 - MS4 and RDA
- 5. Stakeholder Outreach Activities Planned for 2024**

Note: The numbers, graphics, and technical conclusions set forth in 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 its draft RDA permit and RDA determination in the Federal Register for public comment and will consider all significant public comments.

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?



South Portland, ME

Great Bay, NH

Boston Area, MA

RDA Around the Country

not a complete list: see <https://www.epa.gov/npdes/epas-residual-designation-authority>

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”).

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

Charles	Mystic	Neponset
303(d) Impairments Pathogen TMDL Phosphorus TMDL	303(d) Impairments Pathogen TMDL Phosphorus Alt. TMDL	303(d) Impairments Pathogen TMDL -

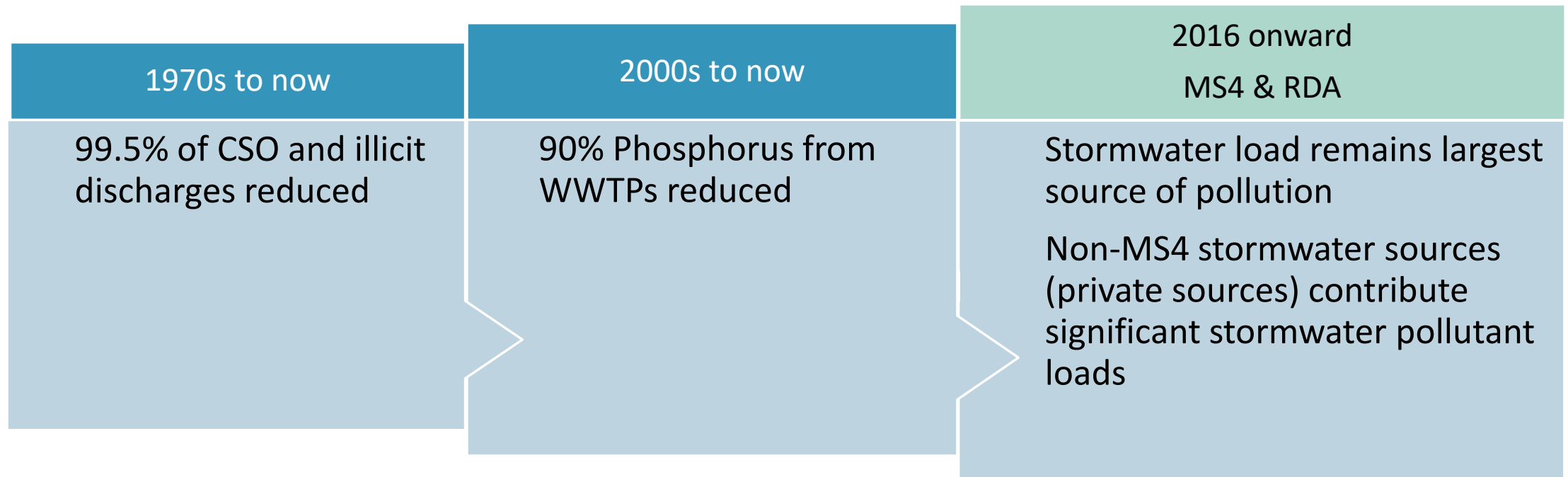
RDA Permitting Timeline

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

Improvements in Pollution Control



RDA and MS4 Permit work in concert to improve water quality in the Neponset

MS4 Permit

- Regulates public property
- Primary regulatory mechanism for stormwater

Adaptive management
Stormwater management actions to address impaired waters

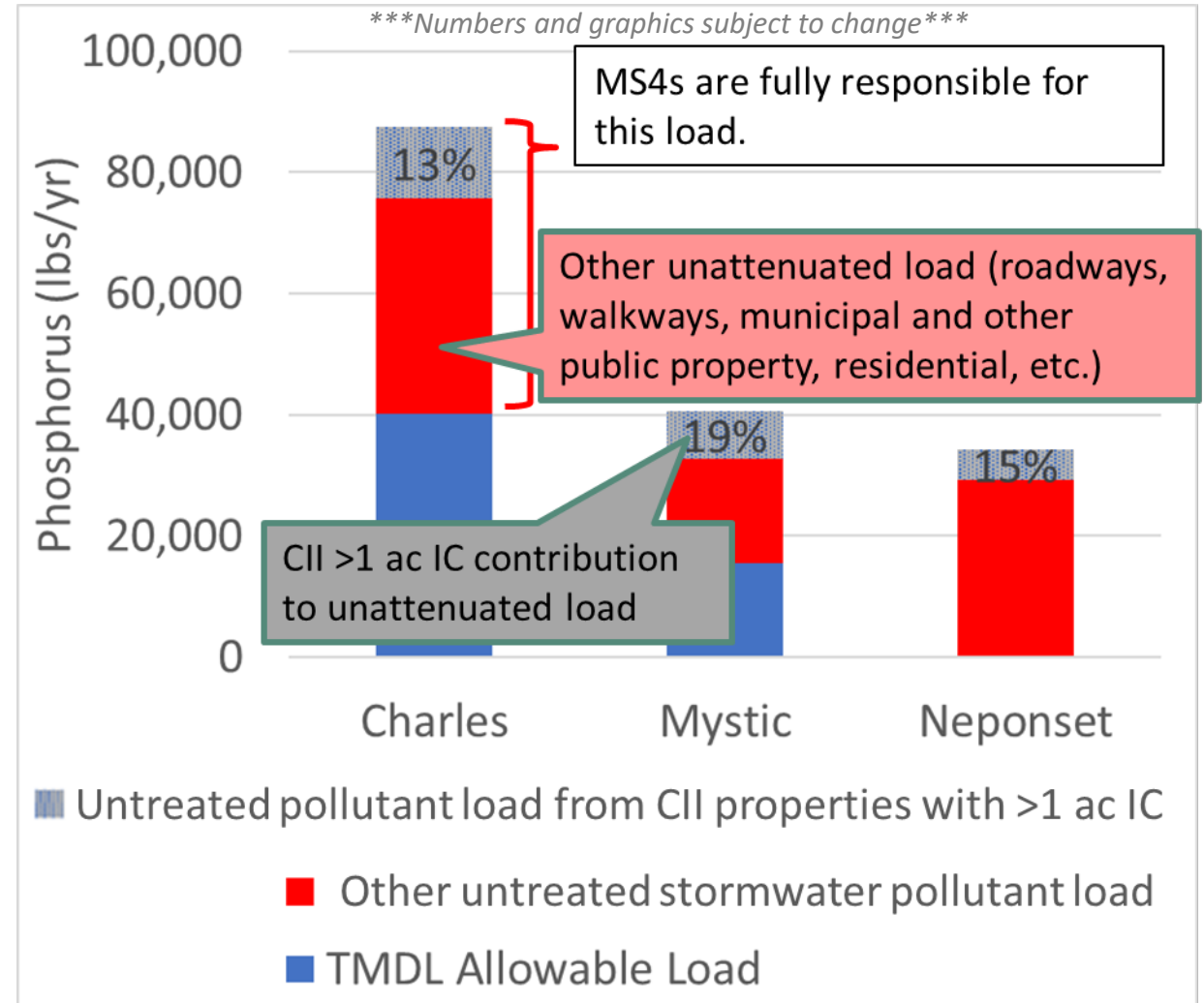
RDA Permit

- Regulates private CII properties with >1 ac impervious cover
- Currently unregulated properties

Neither permit addresses single family homes and other multi-residential sources

RDA Impact in Massachusetts

- All watersheds have significant impairments and are not meeting water quality standards
- Private sources contribute significant untreated stormwater pollutant loads in all watersheds
- An RDA program will lessen a municipality's responsibility to reduce stormwater loads

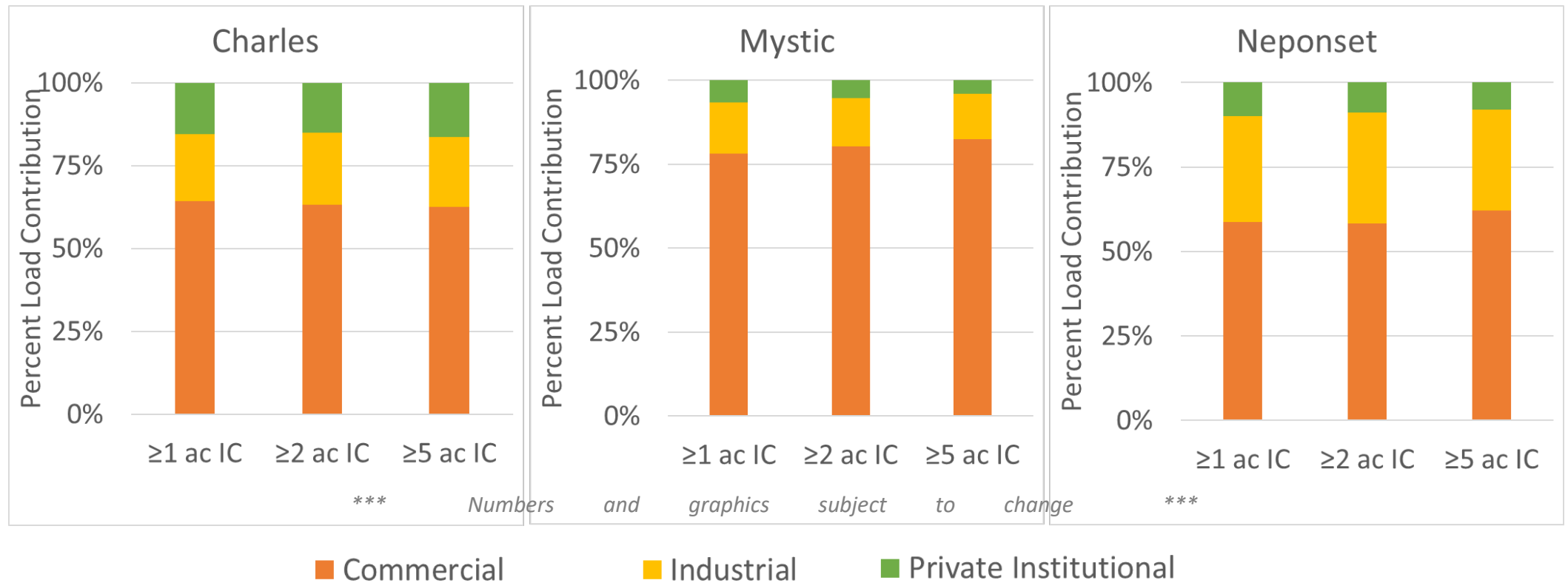


Significant Contributors of Pollutants

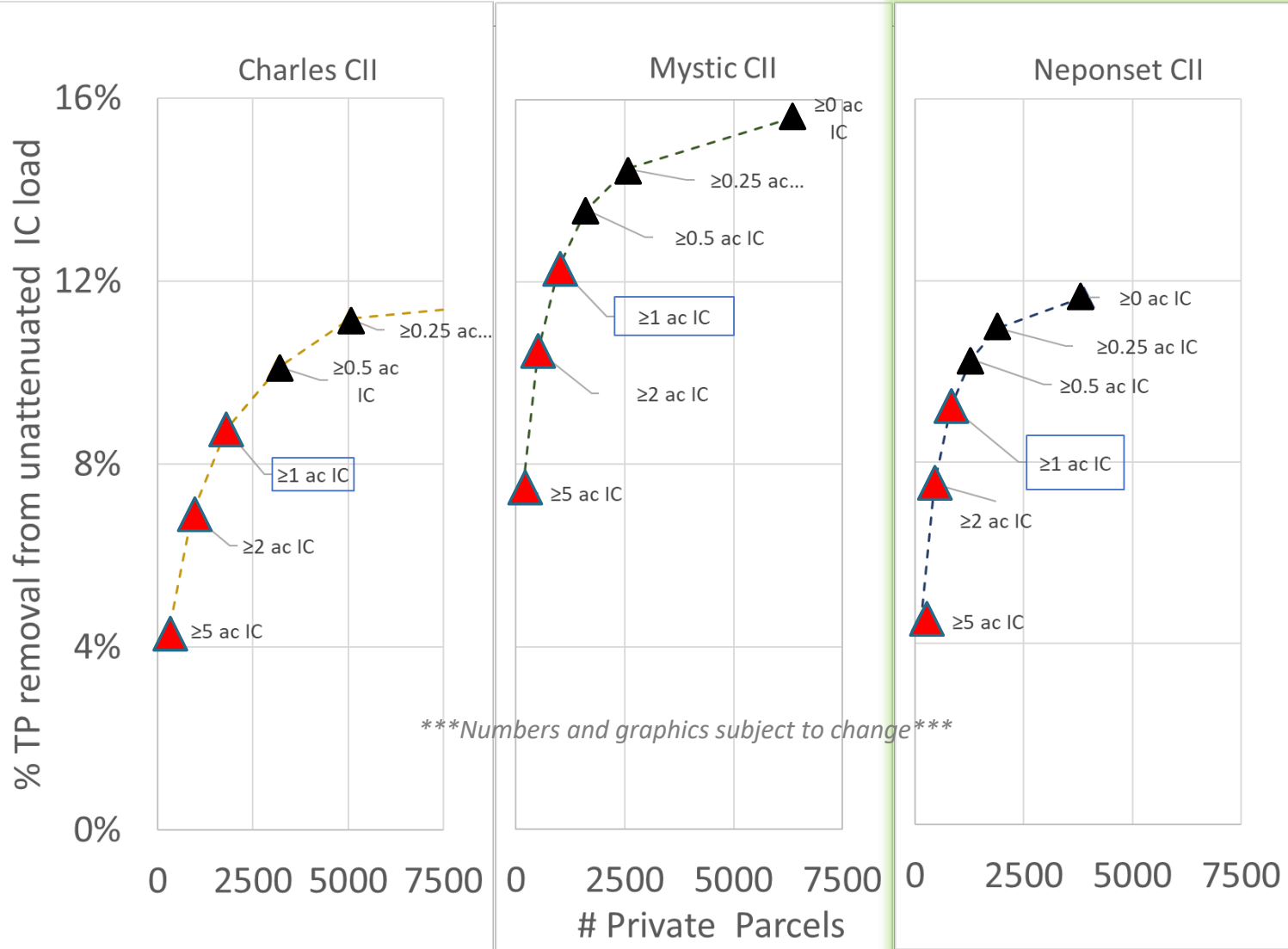
Private CII Sources

Commercial and Industrial properties contribute the most significant pollutant loads.

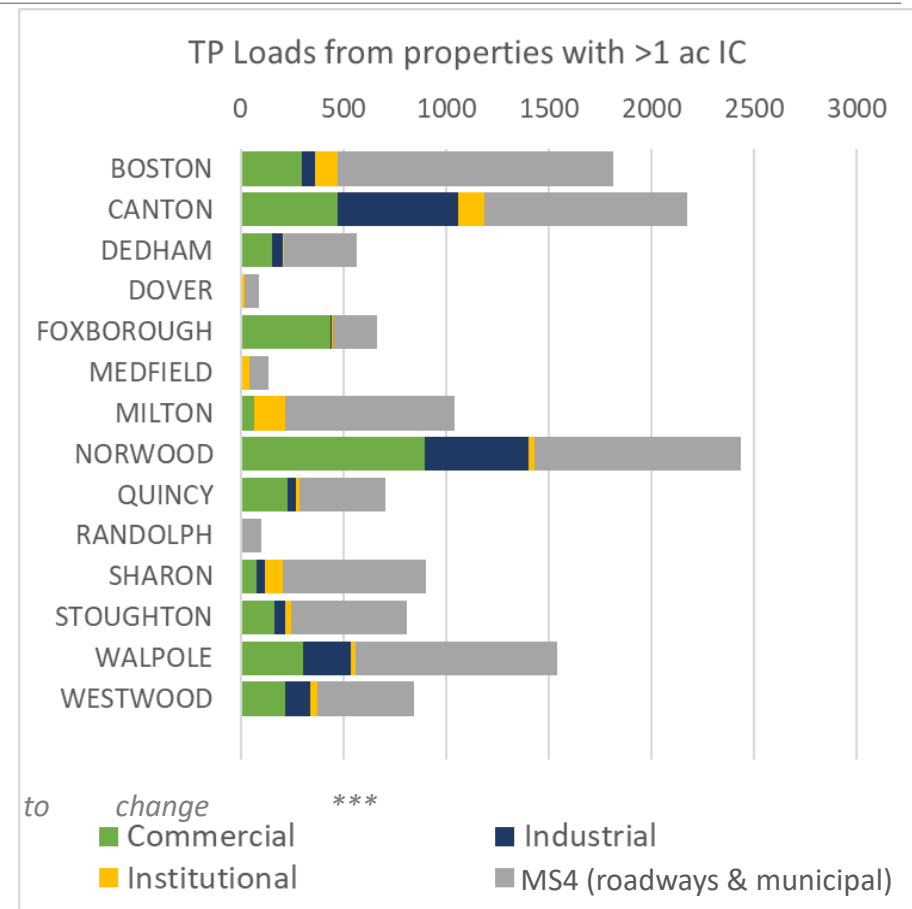
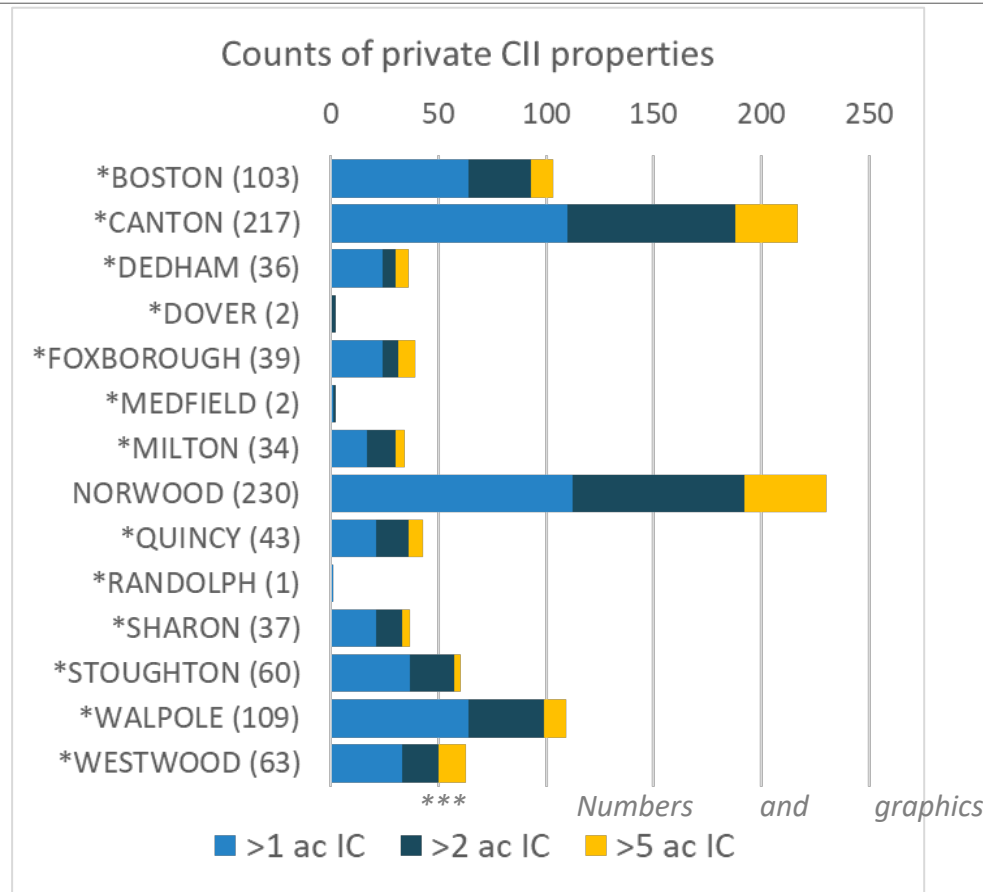
Not included in this graphic are MS4s, roadways, and residential loads, which remain large sources.



Number of properties and pollutant removal at different size thresholds



CII property counts and loads by municipality in the Neponset River Watershed



CII property counts are approximations based on tax assessor's data and/or 2016 MassGIS Land Use data.

Public Institutional properties are managed by MS4 permit and offer a point of comparison to designated CII properties.

Charles River Watershed Dashboard

Select a City
No category selected

Select a Classification
No category selected

Impervious Cover Range
0 - 52.304



Count of Parcels

165,671

Total No. of Parcels: 165,671



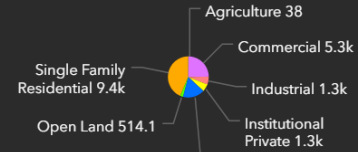
Town of Dedham, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS | Emma Daly (2022) Powered by Esri

Potential Reduction in MS4 Responsibility

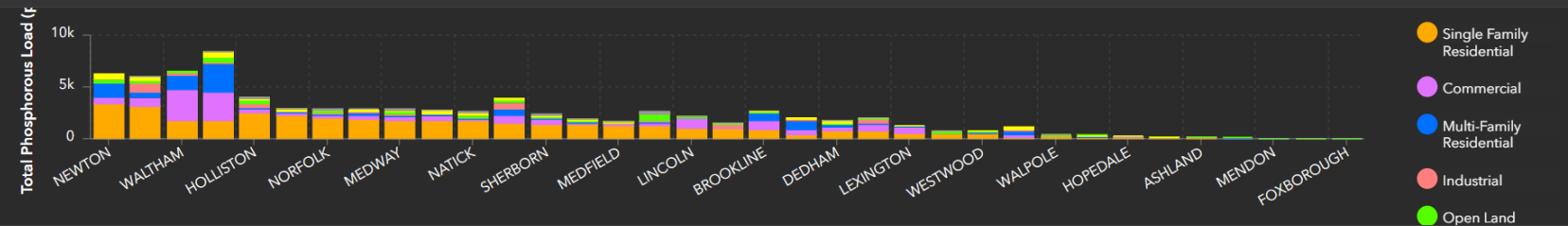
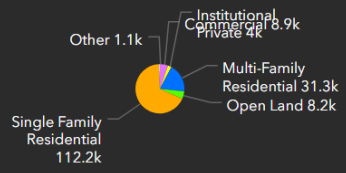
19,156

(Total Phosphorous lb/yr)

Total Area (acres) of Impervious Cover by Land Use Type



Total Count of Parcels by Land Use Type



Impervious Cover Dashboard

Community-Specific Technical Information Sheets

Improving Water Quality in the Mystic River Watershed by Controlling Private Sources of Stormwater Pollution in Arlington

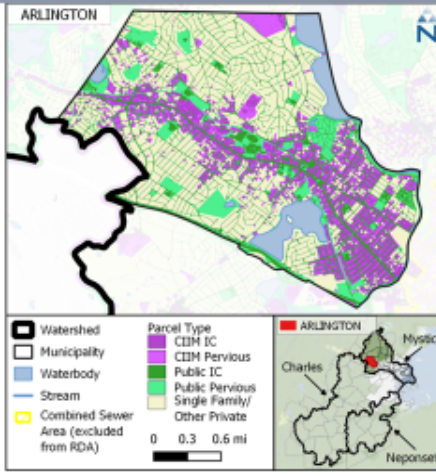


U.S. Environmental Protection Agency Region 1

October, 2023

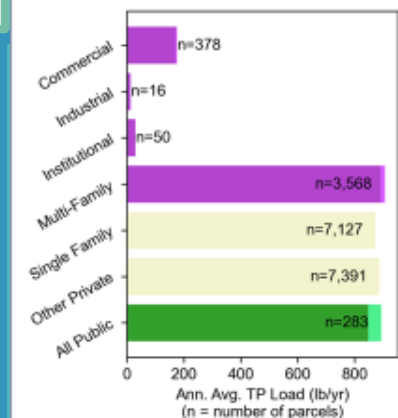
Arlington is part of the Mystic River Watershed, where pollution from untreated stormwater runoff has degraded water quality. Runoff can originate from impervious cover (IC) like roofs and parking areas and pervious areas like lawns and open space. However, runoff from impervious surfaces generates higher pollutant loads if left untreated. The map to the right shows IC and pervious areas on different land uses, including private commercial, industrial, institutional, and multi-family (collectively CIIM), single-family, and public lands that make up Arlington's stormwater load.

Arlington already manages its stormwater runoff from public areas through a municipal stormwater permit program (MS4). However, as a step towards meeting water quality goals in the Mystic River Watershed, EPA plans to begin a Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) permitting effort to address stormwater runoff on private parcels in Arlington and other municipalities in the watershed. This permitting effort will be implemented using EPA's CWA Residual Designation Authority (RDA).



More information on RDA in Massachusetts and the preliminary designation related to this effort can be found at <https://www.epa.gov/npdes-permits/watershed-based-residual-designation-actions-new-England>.

Outreach Tools for BMP Planning



What are the major sources of stormwater nutrient pollution?

- Stormwater pollution can contain nitrogen and phosphorus (collectively nutrients) from fertilizers and yard waste, oil and grease from roadways and driveways, pathogens from pet and wildlife waste, and other toxic pollutants. In this fact sheet, examples rely on total phosphorus (TP) as a surrogate for stormwater pollutants.
- Overall, runoff from Arlington's IC contributes 2,786 lbs of phosphorus per year, which is about 7% of the phosphorus load of the Mystic River Watershed.
- Private CIIM parcels contribute 39% of all TP in Arlington, including 38% from impervious areas.
- The contributions of TP from public lands, CIIM parcels, and other private sources (including single family residences) in separated sewer areas within Arlington are detailed in the chart to the left (there are no combined sewer areas).

Stakeholder Outreach: Fall 2020

Sought initial input from Charles River watershed stakeholders (Mystic and Neponset not yet included)

Held Five Focus Groups with:

- NAIOP
- Hospital, University, Colleges
- MMA
- NGOs
- 495 Partnership

Report available at: <https://www.epa.gov/npdes/epas-residual-designation-authority>

Feedback from 2020 Focus Groups

Permit approach/administration?

Role of municipalities

In phases?

Tracking and accounting/compliance/enforcement

BMP implementation?

Siting challenges

Timing for BMP implementation

Who to target?

Go after big polluters first → all sources of stormwater (run-off from single family)

Multiple regulations?

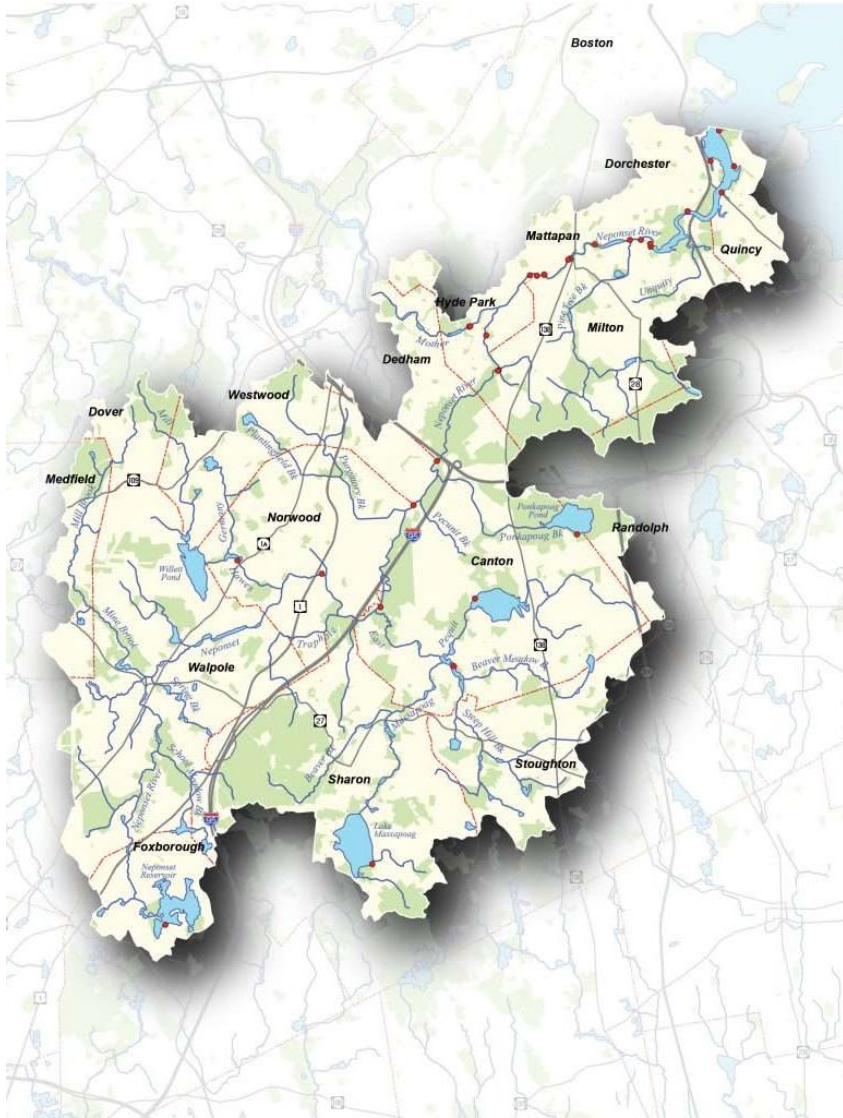
Inconsistency of local, state and federal requirements

MS4/RDA overlaps

Funding?

Is there federal or state funds available?

Impact to Stormwater Utilities



Stakeholder Outreach Timeline

WINTER

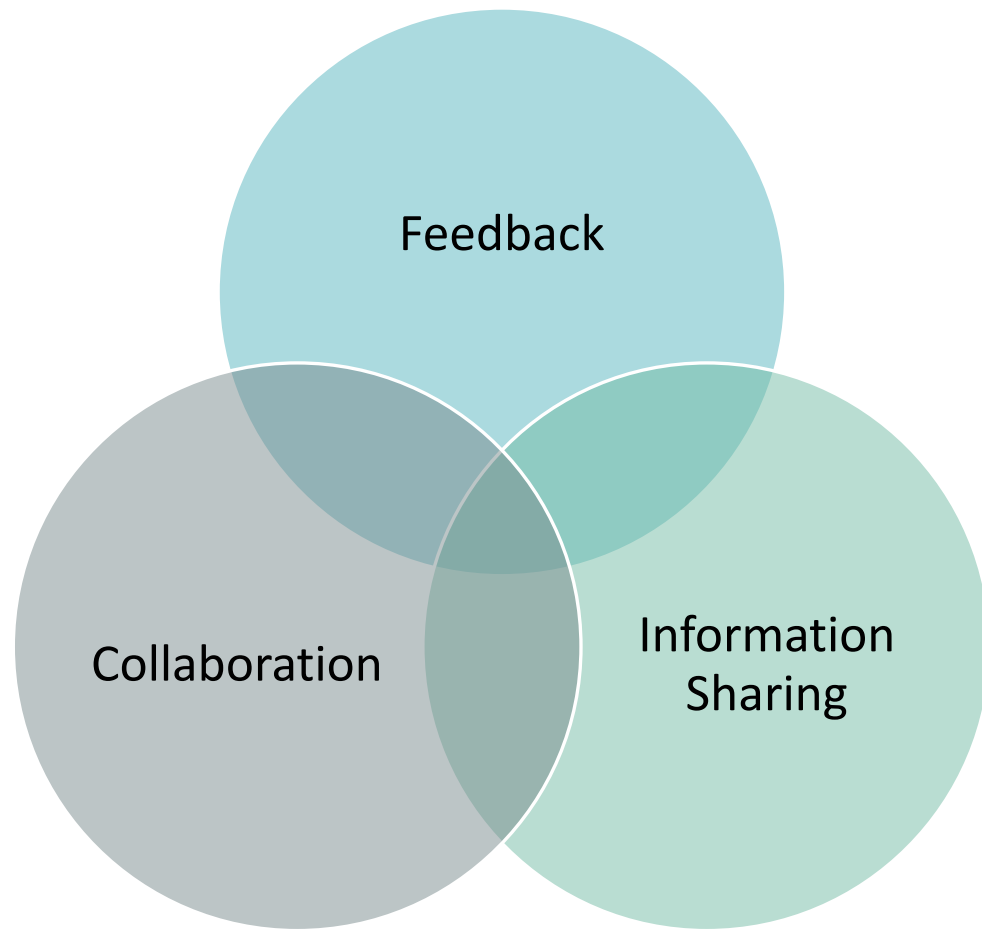
- Re-engage stakeholders across all three watersheds

SPRING

- Seek feedback on permit implementation
- Information sharing with stakeholders

SUMMER

- Refine options for permit framework



Seek Feedback on Permit Implementation Challenges and Strategies

Facilitate Information-Sharing between stakeholders and EPA

Foster Foundational Collaborations With Municipalities/Watershed Groups/Others

Goals of Stakeholder Outreach Going Forward

Incentivizing Collaborative Action and Partnerships

BMP implementation/benefits

- Large-scale BMP infiltration (to address siting challenges)
- Resiliency benefits of green infrastructure/BMPs
- Environmental benefits of permit
- Information-sharing on BMP approaches

Development of Fee/Funding Structures

- Stormwater utilities
- Public-private partnerships
- Crediting/trading

What ideas do you have?

Stakeholder Input

Seeking Feedback On:



Implementation Challenges:

- Siting challenges for infiltration in urbanized areas
- Potential conflicts with local ordinances
- Timing associated with large capital expenditures
- Cost and resources for BMP installation

Permit Phasing

Role of Municipalities

- Accounting and tracking
- Overlaps with MS4

Communities with Environmental Justice Concerns

Not Seeking Feedback on:



- * Whether EPA should go forward with exercise of residual designation
- * Parcel thresholds or pollution reduction targets
- * Specific permit details
- * Any consensus position by any group or group of individuals



Effective Stakeholder Outreach?

How best to:

- 1) Promote collaboration,
- 2) Information sharing about permit benefits
- 3) Foster feedback on implementation concerns and successful strategies?



Technical Assistance?

What specific technical assistance and educational efforts would be useful?

What external groups can support or help lead these efforts?



RDA Permit Implementation Challenges?

What implementation challenges are raised by the RDA permit?

What strategies could meet those implementation strategies?



Large Landowner Interactions?

How would the RDA permit impact municipal interactions on stormwater management with large landowners?



Stormwater Funding Mechanisms?

How can the RDA permit support the creation and use of municipal stormwater funding mechanisms?