

RDA Permitting in Massachusetts: What to Expect in 2024?

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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 Charles watershed
 - MS4 and RDA
- 5. Stakeholder Outreach: Feedback, Tools and FY 24 Activities**

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 its draft RDA permit and RDA determination in the Federal Register for public comment and will consider all significant public comments.



Clean water/Healthier wildlife/Recreation



Certain private sources of stormwater run-off regulated by this RDA permit will take responsibility for their contribution, thereby reducing the burden on MS4s



May help beautify neighborhoods through green infrastructure installations (i.e., trees, rain gardens) and increase infiltration of stormwater into groundwater.



Actions required by permittees may help counteract impacts of climate change – reductions in flooding and heat island impacts, increases in carbon capture

Why this Permitting Action Matters:

The (Co)Benefits

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



1970s to now

- 99.5% of CSO and illicit discharges reduced

2000s to now

- 90% phosphorus removal from WWTPs

2016 onward:
MS4 & RDA

- Stormwater load remains largest source of pollution
- Non-MS4 stormwater sources (private sources) contribute significant stormwater pollutant loads

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

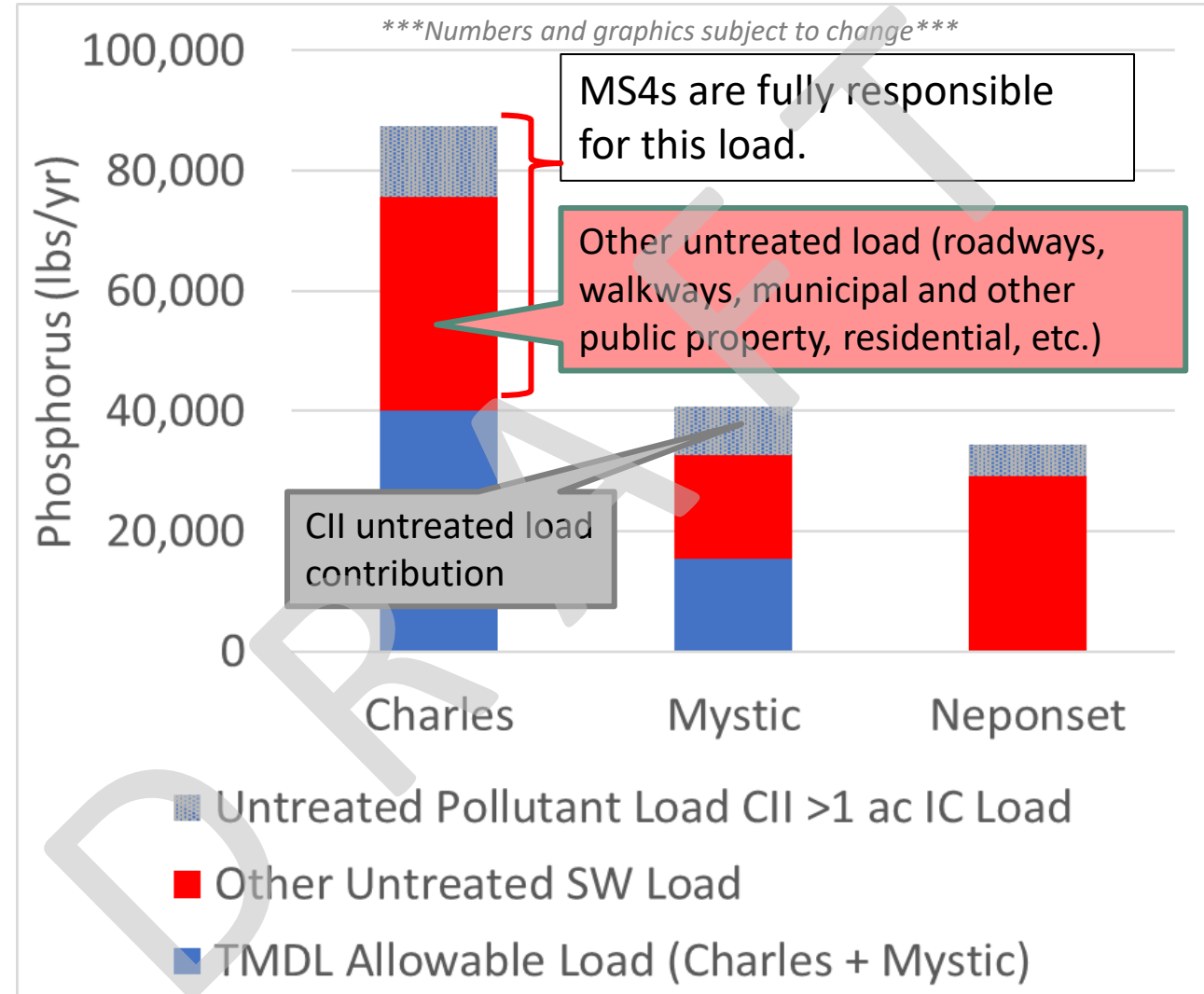
RDA Permit

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

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

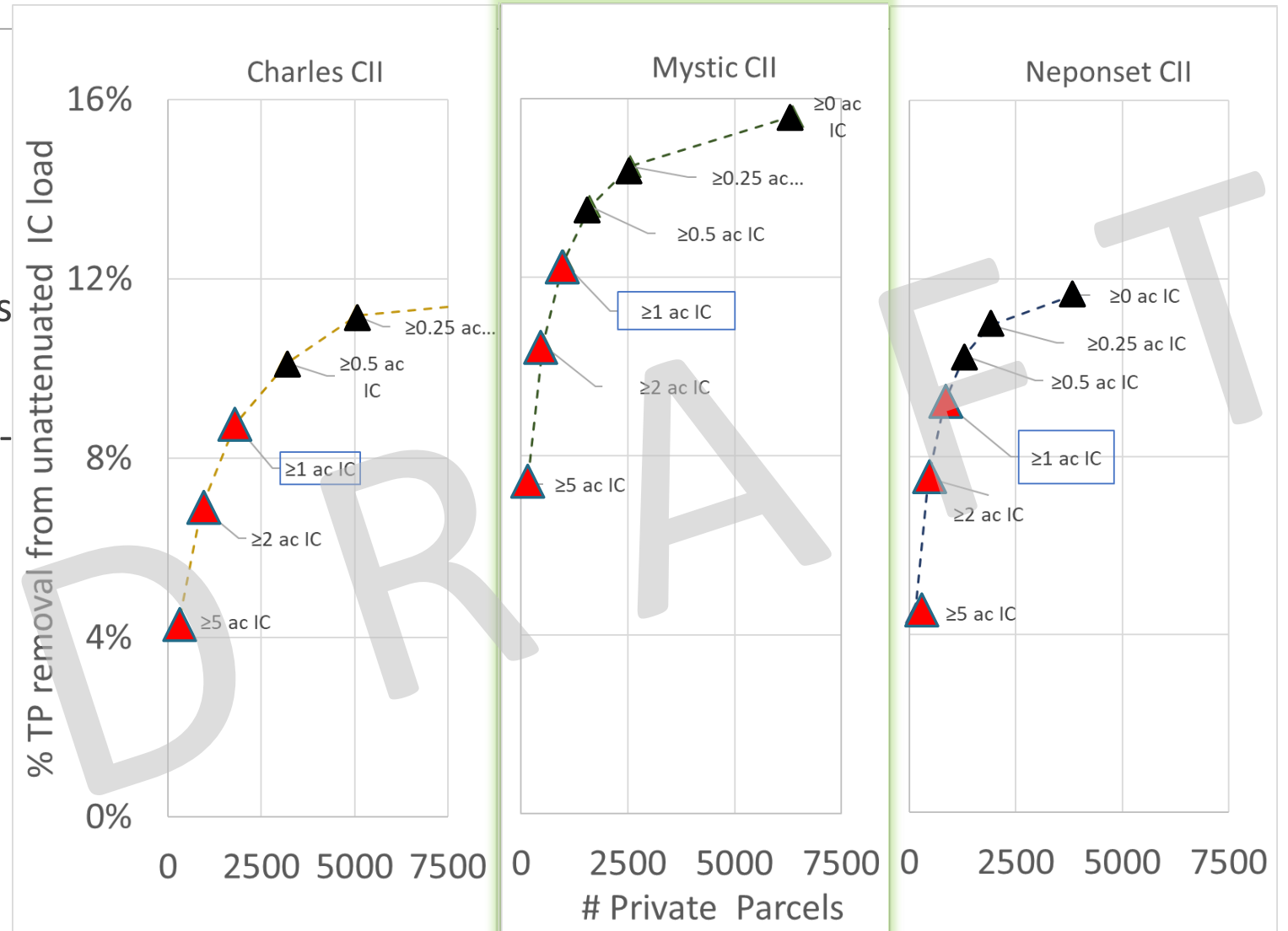
RDA Impact in Massachusetts

- 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

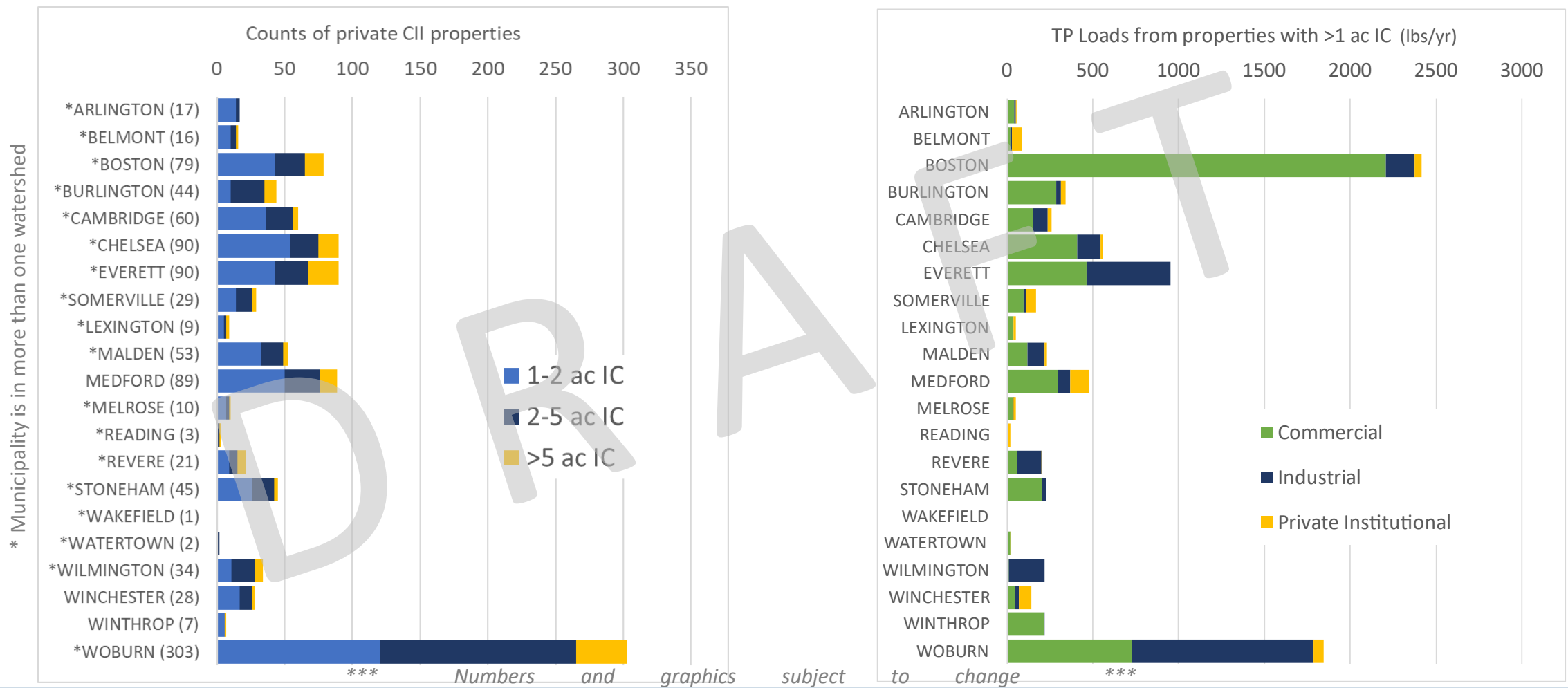


Finding a balance for the RDA program

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



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



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

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



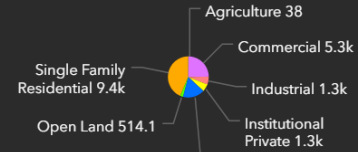
Town of Dedham, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS | Emma Daly (2022) Powered by Esri

Potential Reduction in MS4 Responsibility

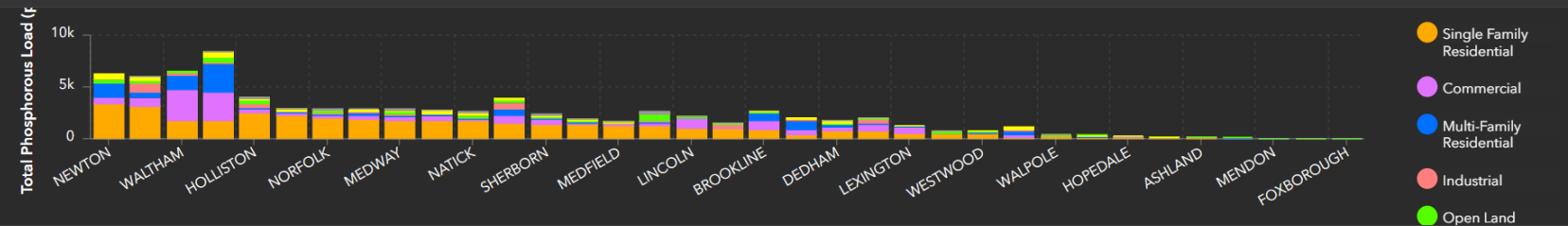
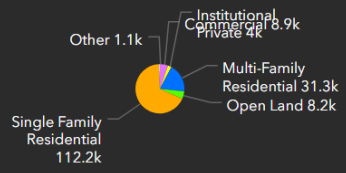
19,156

(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

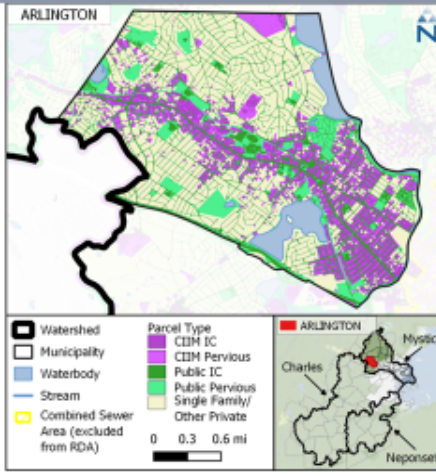
Improving Water Quality in the Mystic River Watershed by Controlling Private Sources of Stormwater Pollution in Arlington



U.S. Environmental Protection Agency Region 1

October, 2023

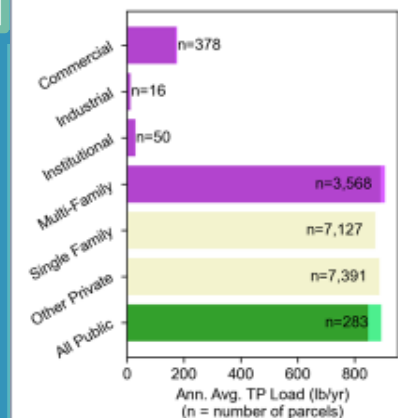
Arlington is part of the Mystic River Watershed, where pollution from untreated stormwater runoff has degraded water quality. Runoff can originate from impervious cover (IC) like roofs and parking areas and pervious areas like lawns and open space. However, runoff from impervious surfaces generates higher 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).

What does stormwater management look like?

STREET SWEEPING



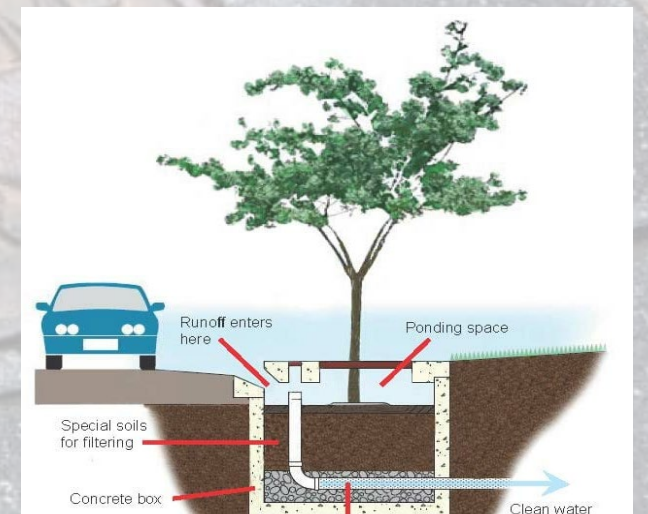
RAIN GARDEN



UNDERGROUND INFILTRATION



TREE BOX FILTER



Stakeholder Outreach: 2024

Outreach events are still
being planned

1. Neponset River Watershed Association: January 17th
2. MA Rivers Alliance: February 28th
3. Charles River Watershed Association: March 7th
4. **Mystic River Watershed Association: March 14th**
5. NAIOP/495 Partnership RDA Presentation: March 22nd
6. Colleges Universities/Hospitals: April 1st
7. Metropolitan Area Planning Council: TBD
8. Communities with Environmental Justice Concerns:
Underway

Represents a continuation of stakeholder outreach initiated in 2020; Report available at: <https://www.epa.gov/npdes/epas-residual-designation-authority>



Stakeholder Outreach Timeline

Winter

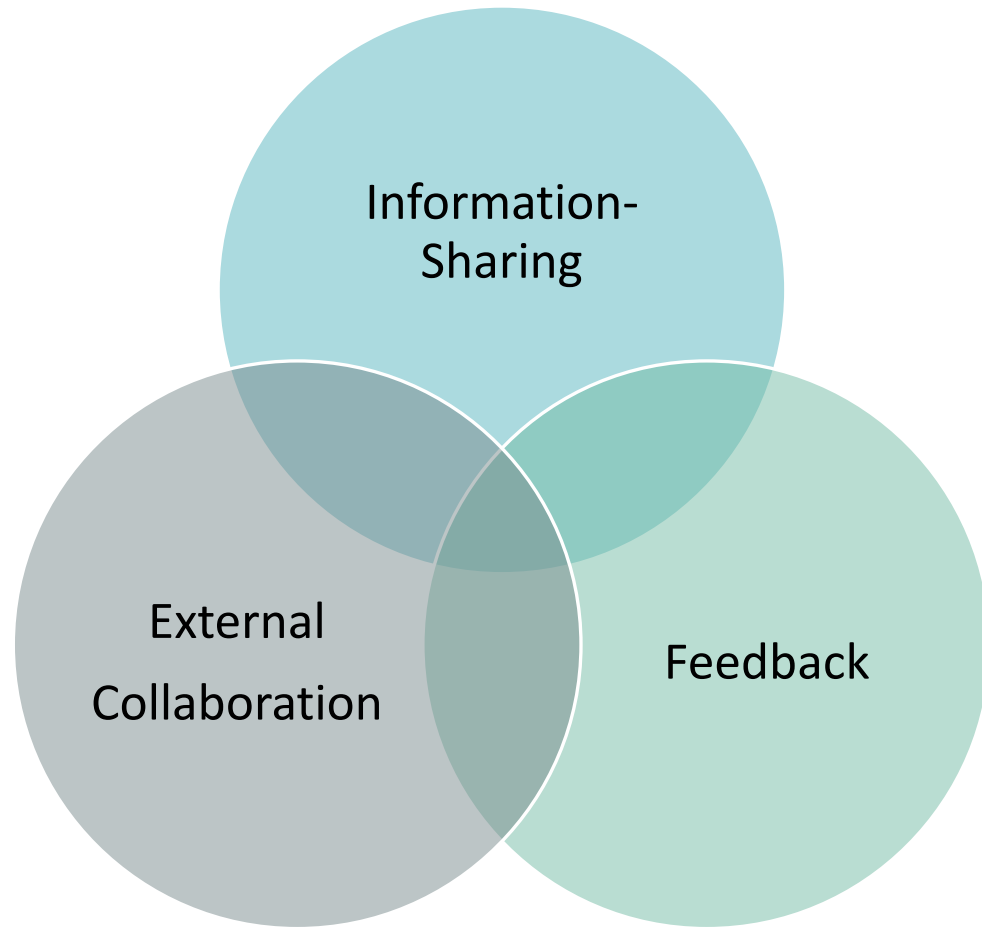
- Re-engage stakeholders across all three watersheds

Spring

- Seek feedback on permit implementation
- Information sharing with stakeholders (including information sheets translated where needed)

SUMMER

- Refine options for permit framework



Facilitate Information-Sharing between stakeholders and EPA

Seek Feedback on Permit Implementation Challenges and Strategies

Foster External Collaborations With Municipalities/Watershed Groups/Others:

- trading/crediting/ stormwater utilities/regionalized approaches/other ideas?

Goals of Stakeholder Outreach

Stakeholder Input

Seeking Feedback On:

Permit administration?

- Role of municipalities
- Tracking and accounting
- Compliance/enforcement

BMP implementation?

- Siting challenges
- Timing for BMP implementation

Who to target?

- Large landowners/Permit phasing

Multiple regulations?

- MS4/RDA overlaps
- Inconsistency of local, state, and federal requirements

Funding?

- Impact to Stormwater Utilities
- Public private partnerships

Communities with Environmental Justice Concerns

Climate/Resilience Planning



Not Seeking Feedback on:

- * Whether EPA should go forward with exercise of residual designation
- * Legally/technically-required permitting provisions
- * Parcel thresholds or pollution reduction targets
- * Any consensus position by any group or group of individuals

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 and Presentations

EPA plans to hold more focused conversations on specific topics of importance that arise as part of this engagement process. Check the website for more information.

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



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?