

MassDEP 2024 Air Monitoring Network Plan

May 22, 2024

2024 Draft Plan

- ▶ Draft posted for public comment on MassDEP website
 - ▶ <https://www.mass.gov/info-details/massdep-ambient-air-quality-monitoring-network-annual-plan>
- ▶ 30-day public comment period ends June 10



Massachusetts 2024 Air Monitoring Network Plan

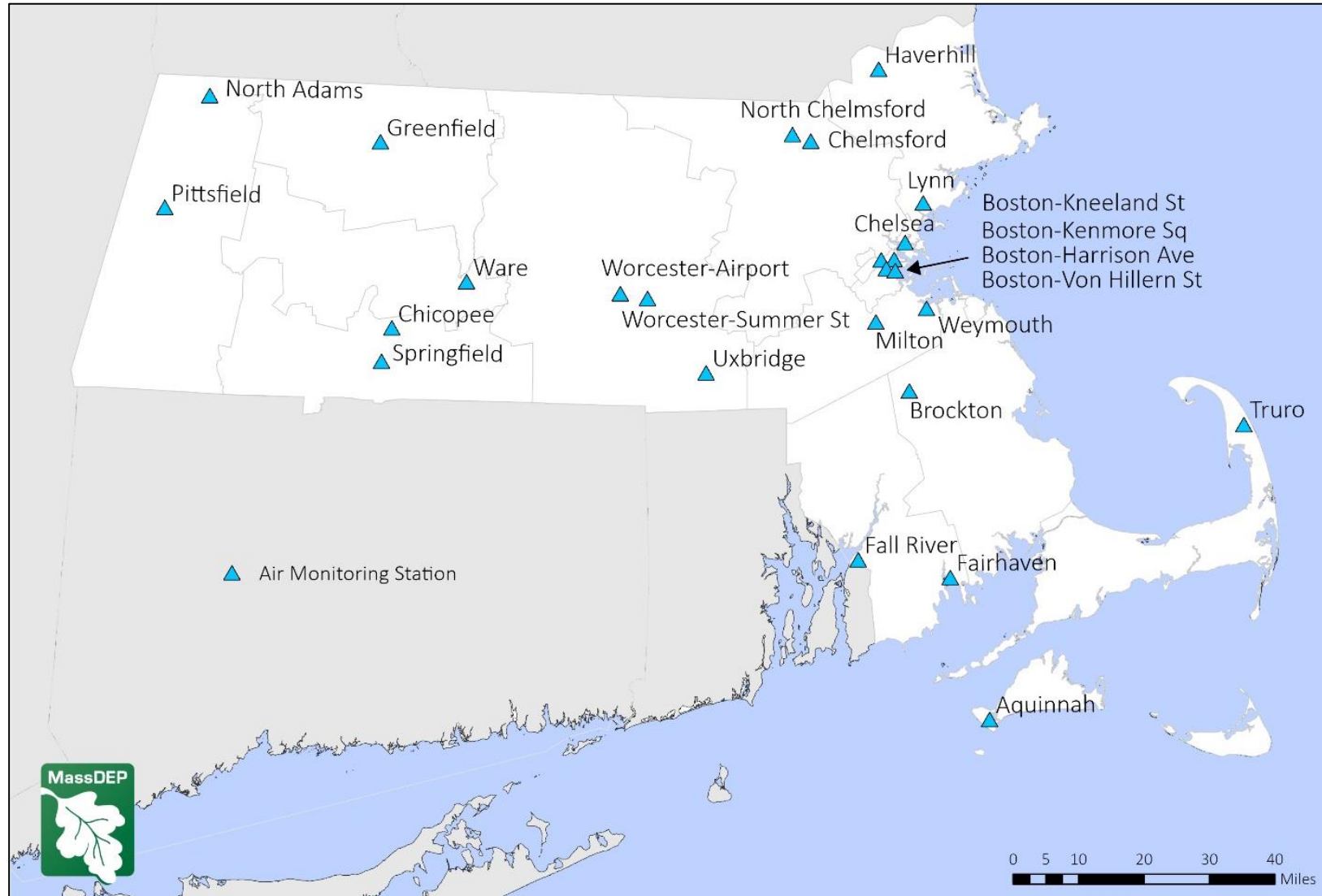
May 9, 2024



Department of Environmental Protection
Bureau of Air and Waste
Division of Air and Climate Programs
Air Assessment Branch
Wall Experiment Station
37 Shattuck Street
Lawrence, Massachusetts 01843



2024 Air Monitoring Network



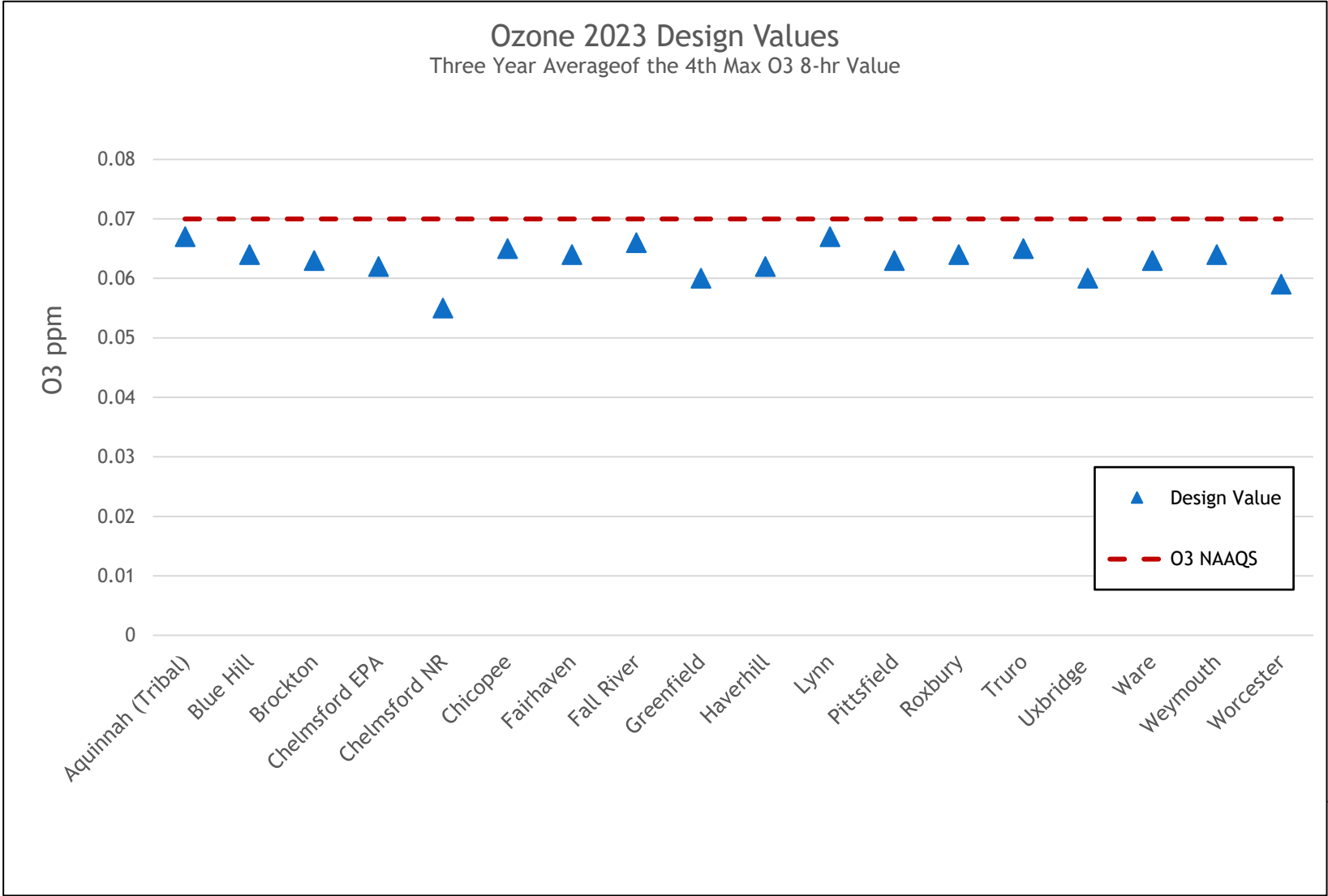
18 Ozone (O₃) Monitors



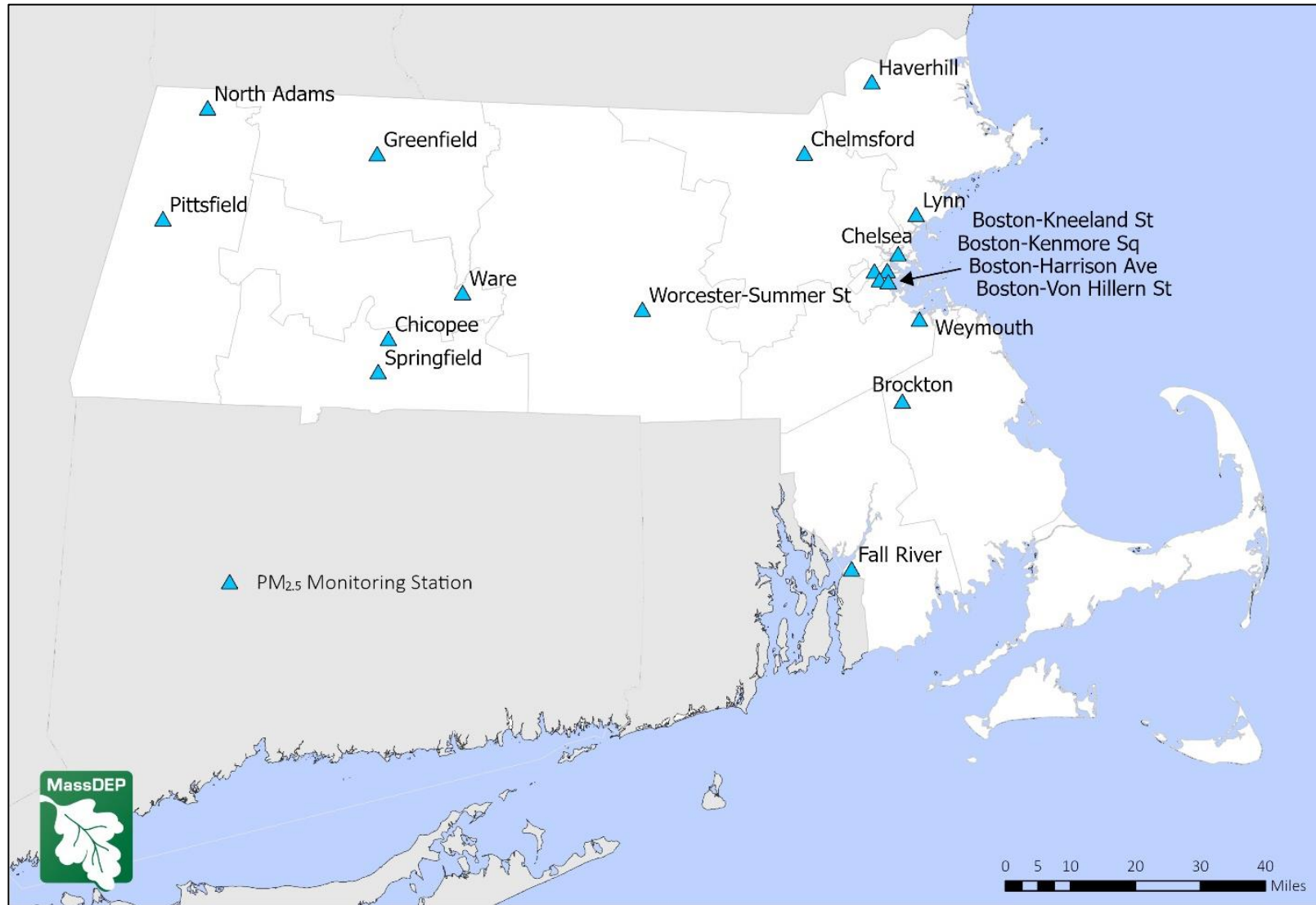
Ozone Network Changes

- ▶ In March 2024 MassDEP moved the Haverhill monitoring station, which monitors ozone, to the Haverhill High School, approximately one mile north of the previous location (move due to redevelopment at previous site)

2023 Ozone Design Values



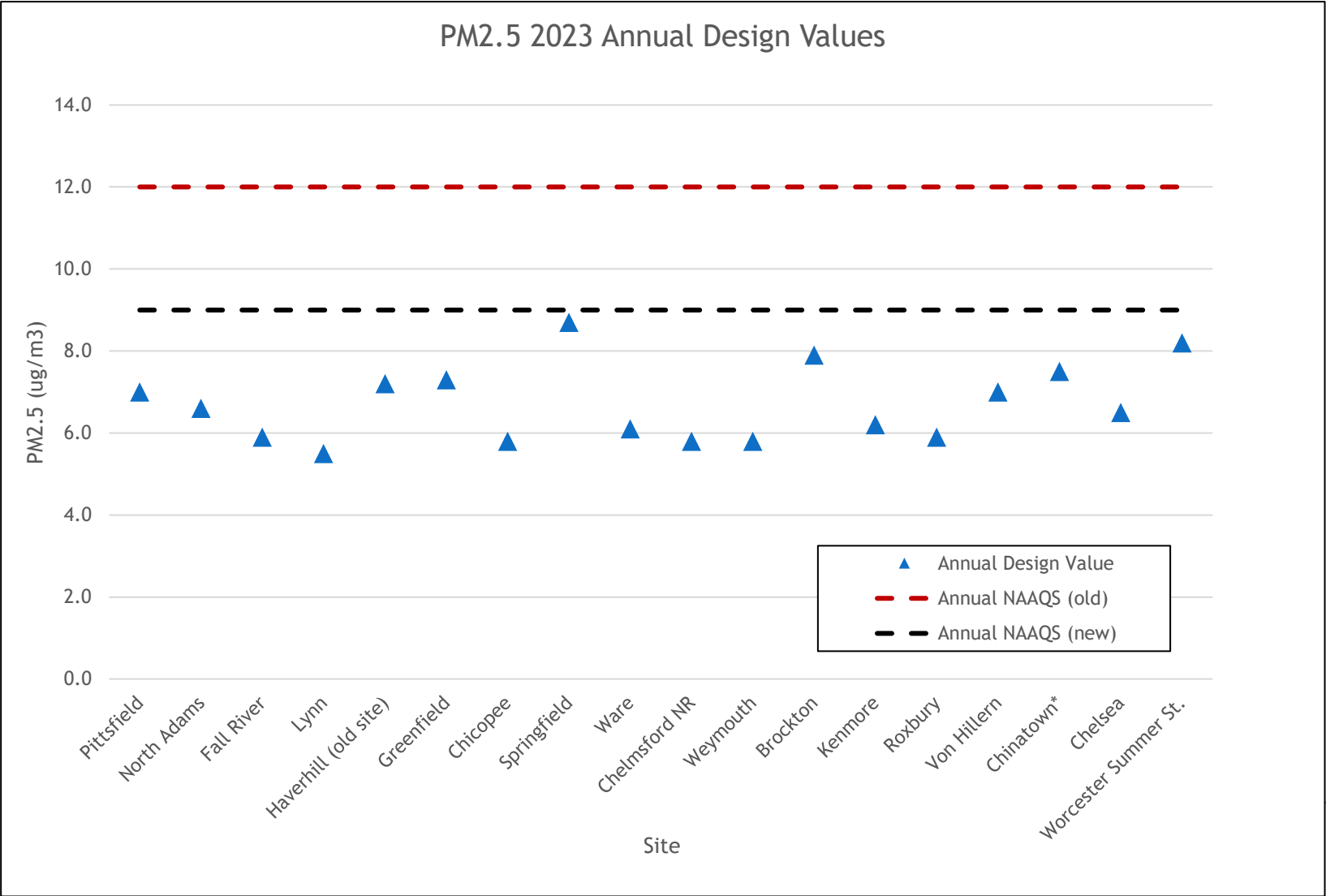
18 Fine Particulate Matter (PM_{2.5}) Monitors



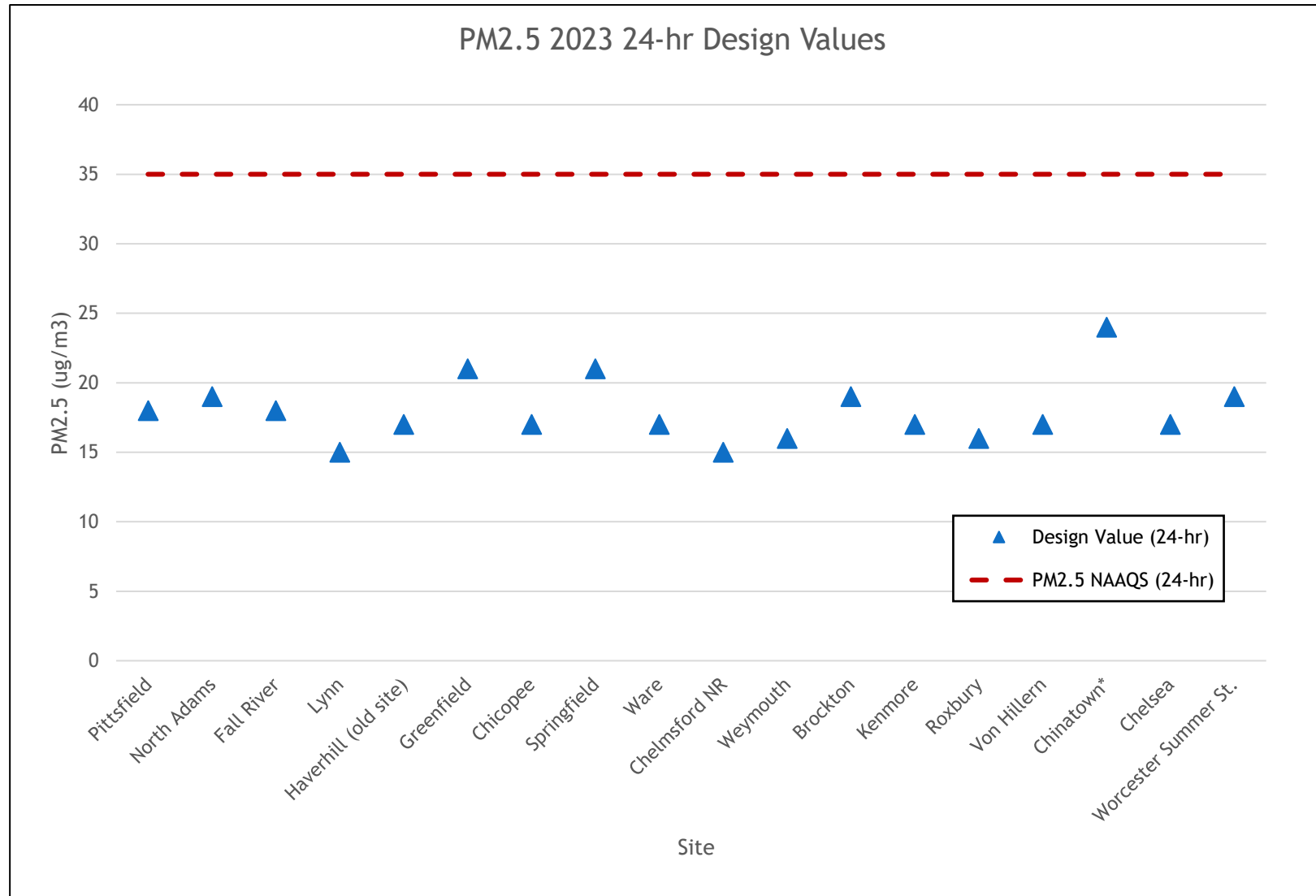
PM_{2.5} Network Changes

- ▶ In March 2024 MassDEP moved the Haverhill monitoring station, which monitors PM_{2.5}, to the Haverhill High School, (approximately one mile north of the previous location) due to redevelopment at previous site
- ▶ MassDEP is in the process of adding two PM_{2.5} monitoring stations in Environmental Justice populations, one in or near Saugus and one in the Framingham area (these stations also will monitor black carbon)
- ▶ Due to EPA's recent lowering of annual PM_{2.5} NAAQS to 9.0 micrograms per cubic meter (µg/m³), an additional PM_{2.5} monitor is required in the Worcester MSA. To satisfy this new requirement, MassDEP plans to add a PM_{2.5} monitor at the Uxbridge monitoring station

2023 Annual PM_{2.5} Design Values



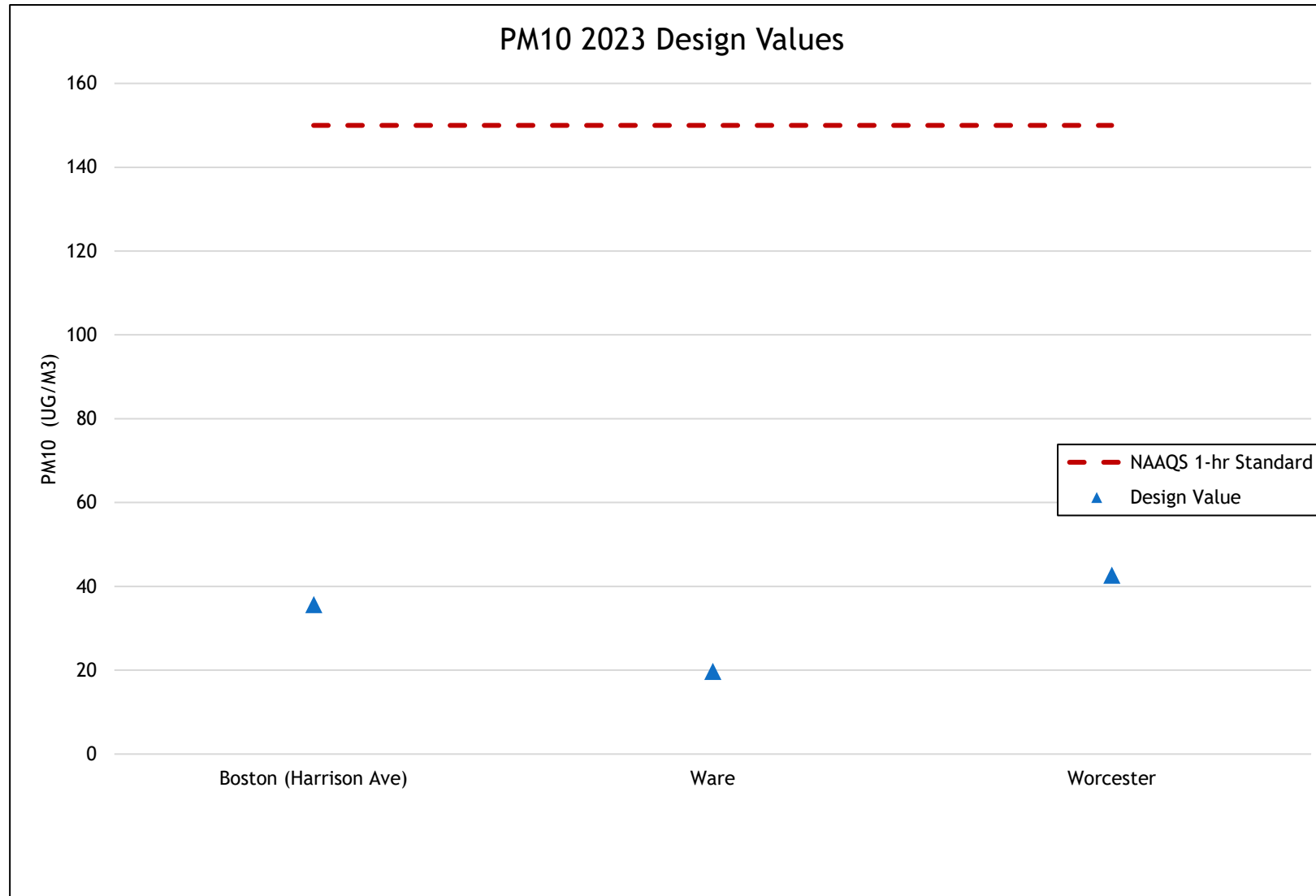
2023 24-hr PM_{2.5} Design Values



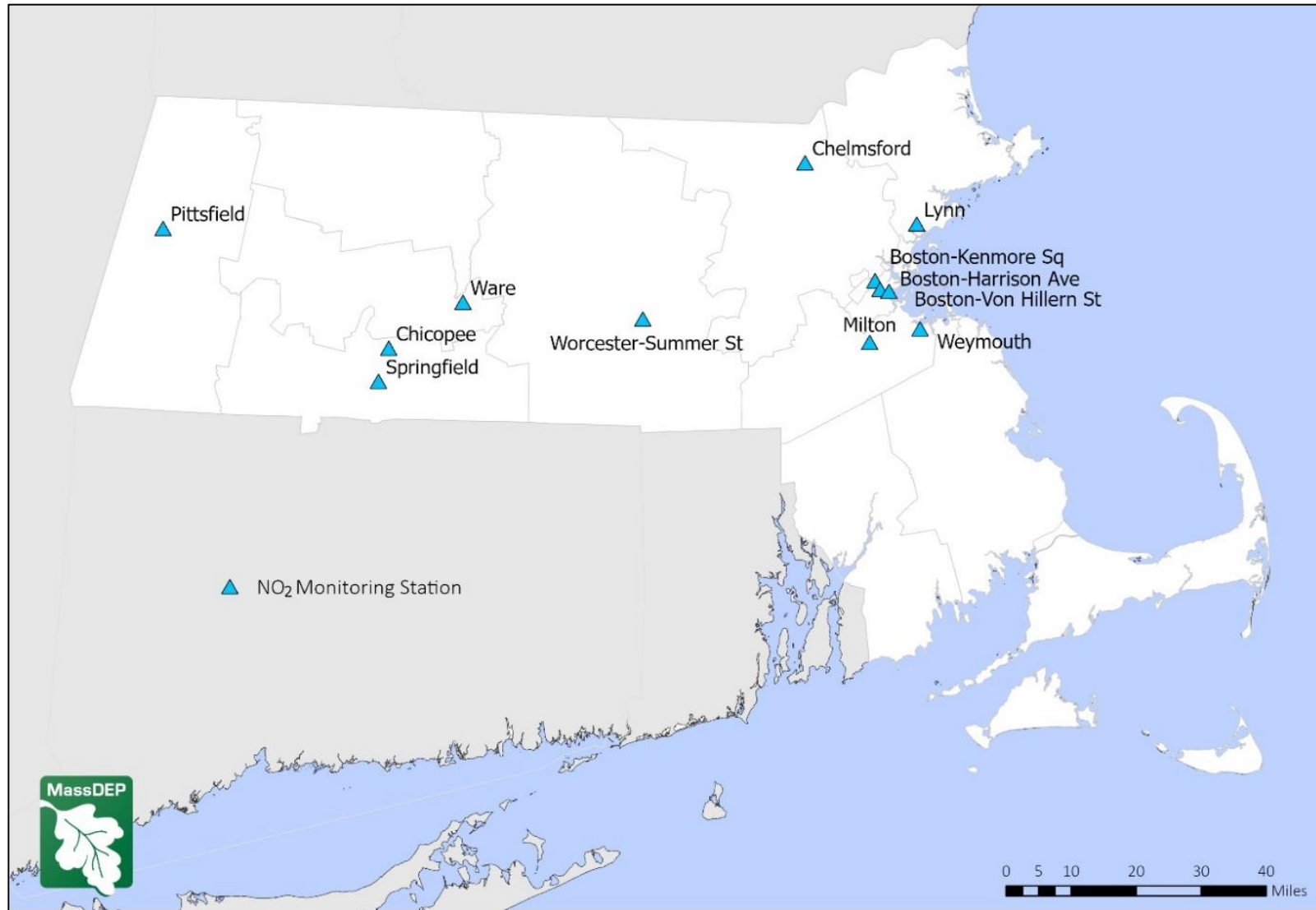
3 PM₁₀ Monitors



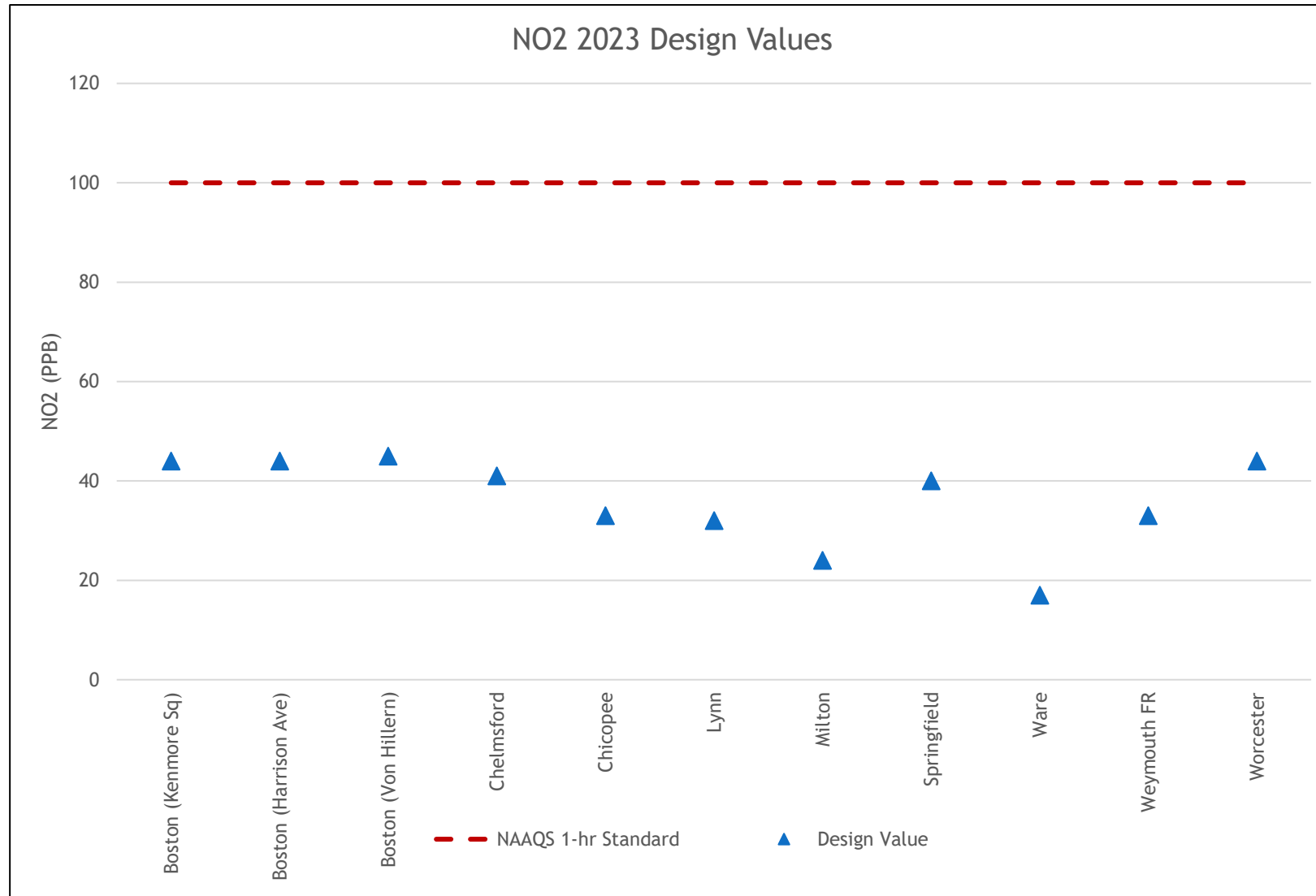
2023 24-hr PM₁₀ Design Values



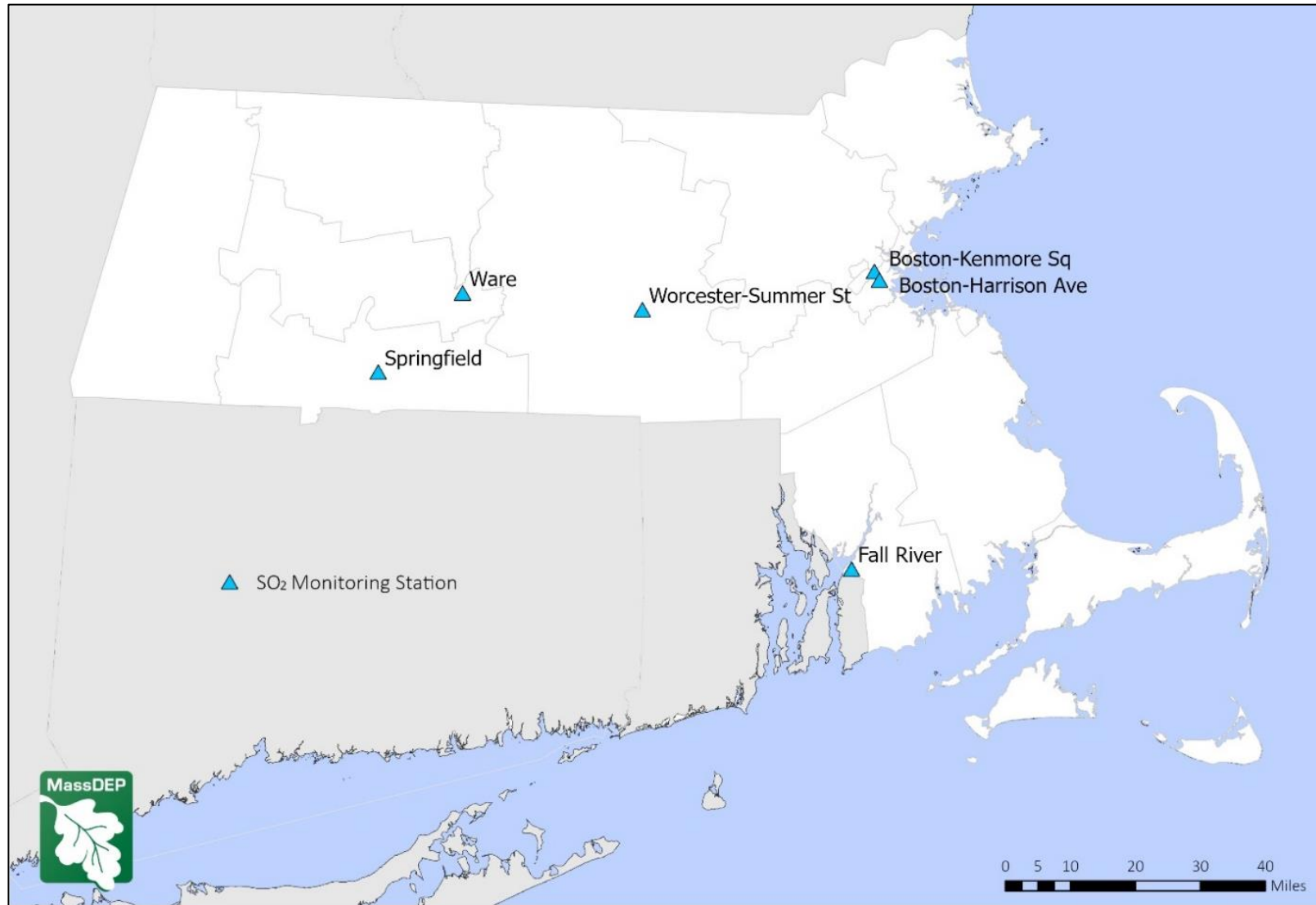
12 Nitrogen Dioxide (NO₂) Monitors



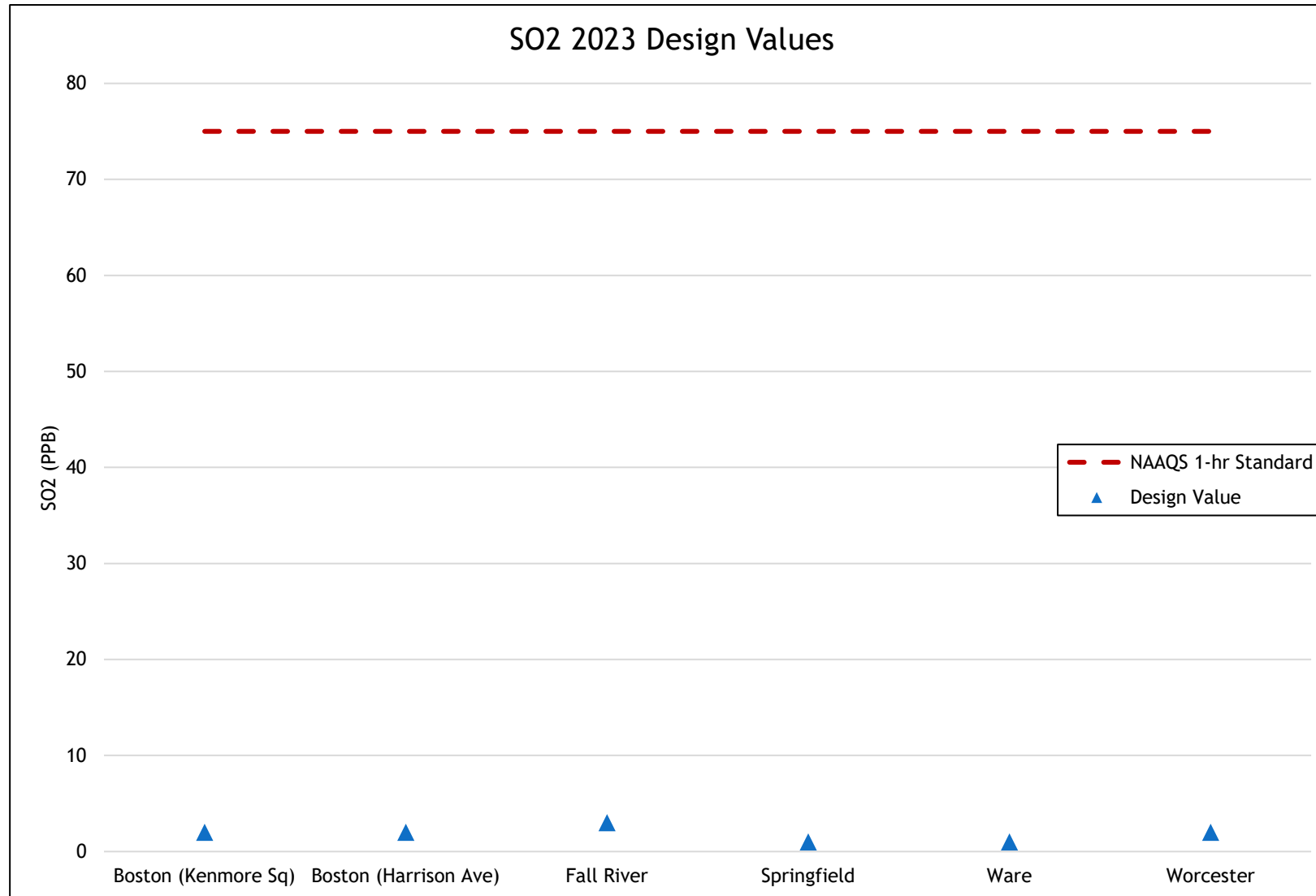
2023 1-hour NO₂ Design Values



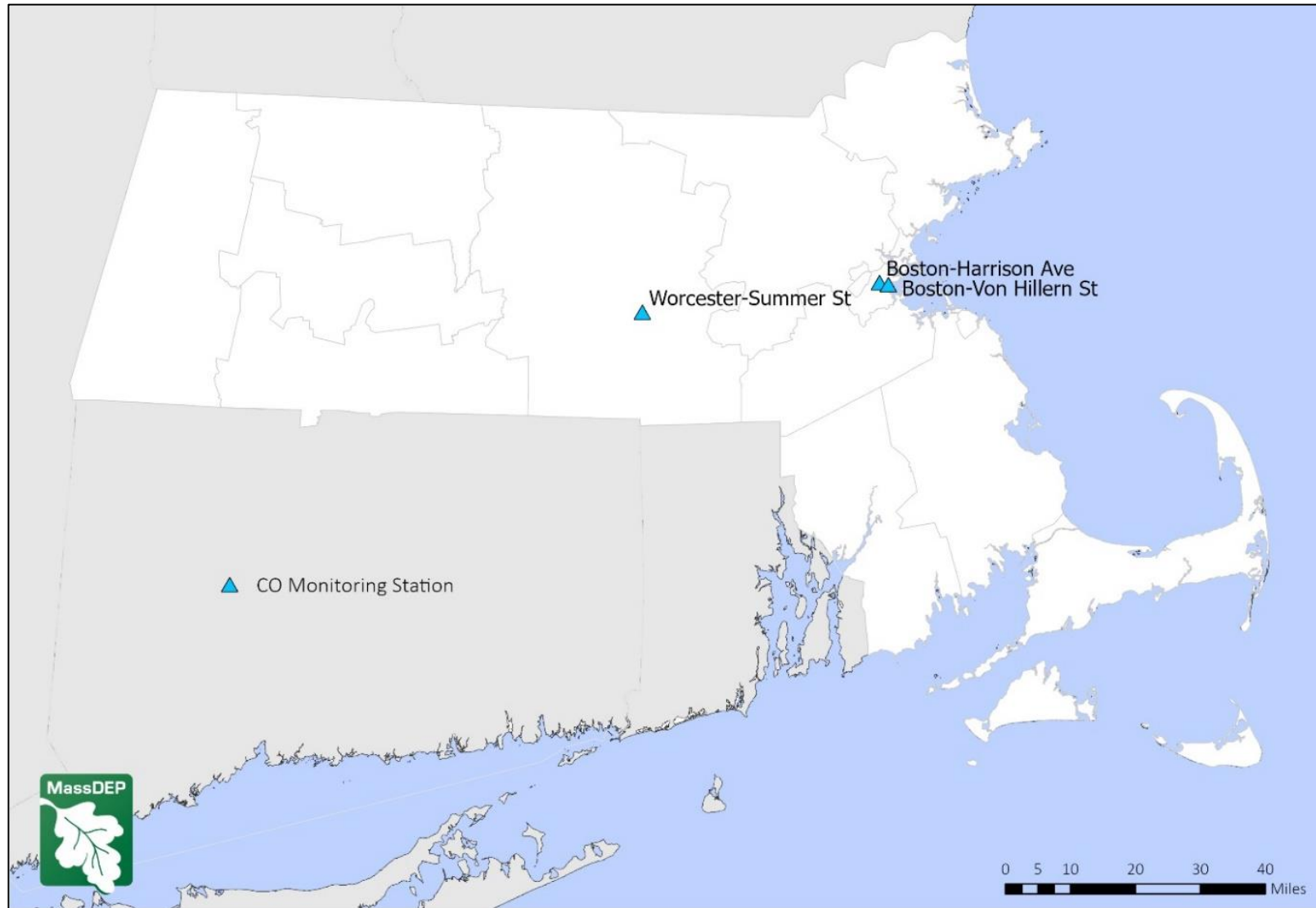
6 Sulfur Dioxide (SO₂) Monitors



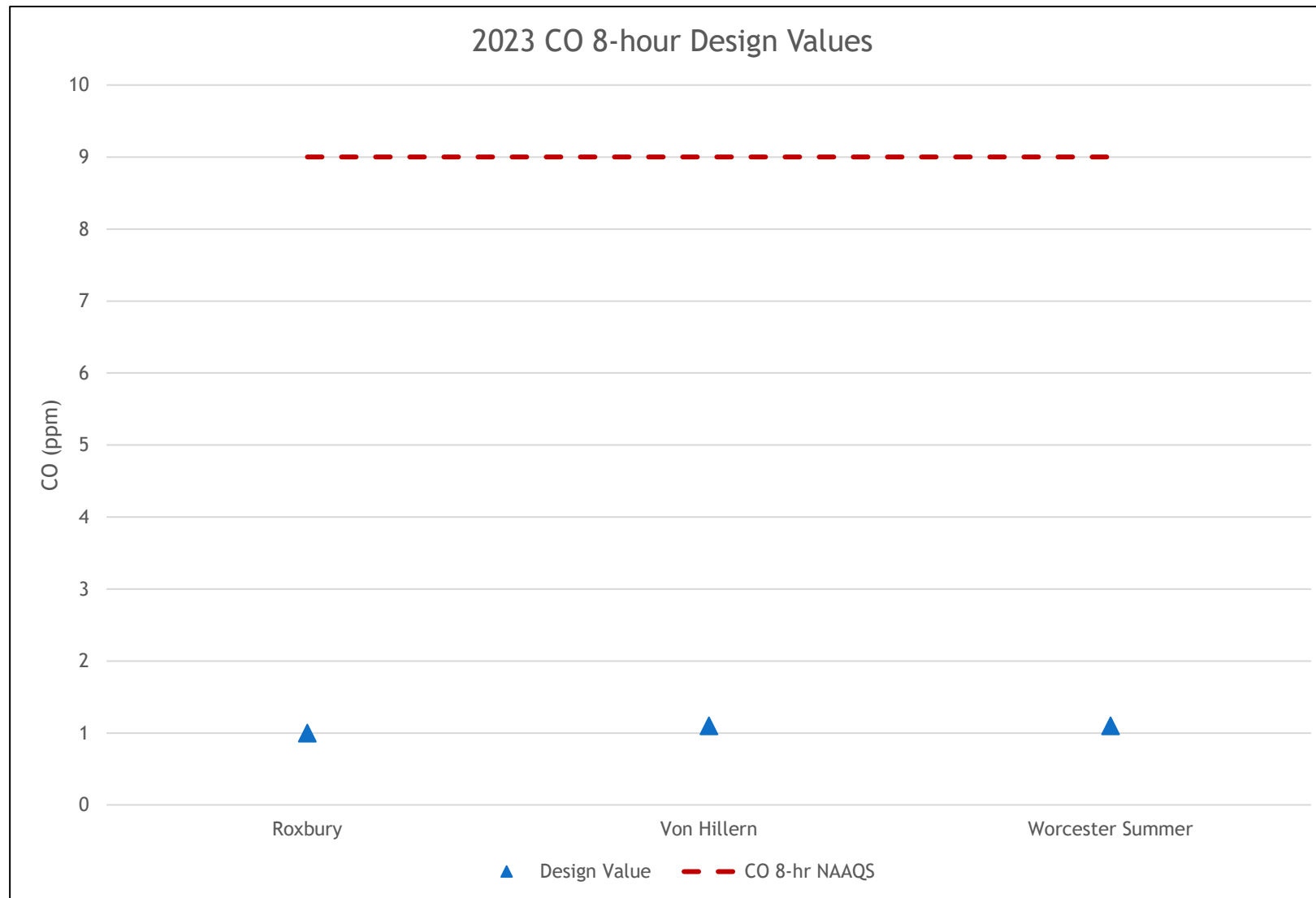
2023 1-hour SO₂ Design Values



3 Carbon Monoxide (CO) Monitors



2023 8-hour CO Design Values



Black Carbon			
ID Number	City / Town	Location	CBSA
25-025-0042	Boston - Roxbury	Harrison Avenue	Boston-Cambridge-Newton MSA
25-025-0044	Boston - Von Hillern	Von Hillern Street	Boston-Cambridge-Newton MSA
25-017-0010	Chelmsford	Manning Road	Boston-Cambridge-Newton MSA
25-011-2005	Greenfield	Veterans Field	Springfield MSA
25-003-6001	North Adams	Holden Street	Pittsfield MSA
25-003-0008	Pittsfield	Silver Lake Drive	Pittsfield MSA
25-013-0018	Springfield	Liberty Street	Springfield MSA

Volatile Organic Compounds (VOCs)			
ID Number	City / Town	Location	CBSA
25-025-0042	Boston - Roxbury	Harrison Avenue	Boston-Cambridge-Newton MSA
25-025-1004	Chelsea	Highland Park	Boston-Cambridge-Newton MSA
25-009-2006	Lynn	Parkland Avenue	Boston-Cambridge-Newton MSA
25-021-2005	Weymouth	Monatiquot Street	Boston-Cambridge-Newton MSA

Total Reactive Nitrogen (NOy)			
ID Number	City / Town	Location	CBSA
25-025-0042	Boston - Roxbury	Harrison Avenue	Boston-Cambridge-Newton MSA
25-009-2006	Lynn	Parkland Avenue	Boston-Cambridge-Newton MSA
25-015-4002	Ware	Quabbin Summit	Springfield MSA

Speciated PM _{2.5}			
ID Number	City / Town	Location	CBSA
25-025-0042	Boston - Roxbury	Harrison Avenue	Boston-Cambridge-Newton MSA
25-013-0008	Chicopee	Westover AFB	Springfield MSA
25-001-0002 ¹	Truro	Fox Bottom Area	Barnstable MSA
25-007-0001 ²	Aquinnah	Wampanoag Tribe	Vineyard Haven MSA

¹ IMPROVE sampler operated by National Park Service

² IMPROVE sampler operated by Wampanoag Tribe

Additional Monitoring

Additional Monitoring Network Plans

- ▶ MassDEP is in the process of adding ultrafine particle (UFP) monitors at its monitoring stations at Boston-Von Hillern Street, Boston-Chinatown, Chelmsford Near Road, and Springfield.