

## Attachment 4 MassDEP Monitoring Site Descriptions

### Boston - Kenmore Square

**Site Description:** The Kenmore Square monitoring station is located at the intersection of five roads and provides historical data on air pollution trends in an urban location going back to 1965. The site represents mixed commercial/residential population exposure on a middle scale. The site also has an automated Gas Chromatograph (GC) for measuring benzene, toluene, ethyl benzene and xylene (BTEX).

**Address:** Kenmore Square, Boston

**Lat./Lon.:** 42.34894, -71.097708

**MSA/CMSA:** Boston CMSA, Boston Metropolitan MSA

**Parameters Measured:** PM<sub>2.5</sub> (every 3rd day); PM<sub>10</sub> (every 3rd day); NO, NO<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub> trace, BTEX

**Year Established:** 1965 for population exposure monitoring



## Boston - Harrison Avenue

**Site Description:** The Harrison Avenue monitoring station is an NCore multi-pollutant site and a National Toxics Trends Site (NATTS) that integrates several advanced measurement systems for particles, gases, and meteorology. This site represents urban background population exposure on a neighborhood scale.

**Address:** 1159 Harrison Avenue, Boston

**Lat./Lon.:** 42.3295, -71.082619

**MSA/CMSA:** Boston CMSA, Boston Metropolitan MSA

**Parameters Measured:** PM<sub>2.5</sub> (every 3rd day); PM<sub>2.5</sub> (hourly); PM<sub>10</sub> (every 3rd day); O<sub>3</sub>; CO; NO; NO<sub>2</sub>; NO<sub>x</sub>; NO<sub>y</sub>; SO<sub>2</sub>; Lead, Toxics, Carbonyls, VOCs, PAHs, Black Carbon, Meteorology

**Year Established:** 1998 for population exposure monitoring



## **Boston - North End**

**Site Description:** The North End monitoring station represents mixed commercial/residential population exposure on a middle scale in an urban area. Monitoring originally began at this site in support of the Central Artery construction project.

**Address:** 150 North Street, Boston

**Lat./Lon.:** 42.3631, -71.0542

**Parameters Measured:** PM<sub>2.5</sub> (daily), PM<sub>2.5</sub> (hourly), Black Carbon

**Year Established:** 1998 as a special study in support of the Central Artery construction project



## **Boston - Von Hillern Street**

**Site Description:** The Von Hillern Street monitoring station is located within 50 feet of a heavily traveled urban highway and represents near-road exposure where peak hourly NO<sub>2</sub> concentrations are expected to occur.

**Address:** 19 Von Hillern Street, Boston

**Lat./Lon.:** 42.32519, -71.0561

**CMSA/MSA:** Boston CMSA, Boston Metropolitan MSA

**Parameters Measured:** PM<sub>2.5</sub> (3 day); PM<sub>2.5</sub> (hourly), NO, NO<sub>2</sub>, NO<sub>x</sub>, CO, Black Carbon, Meteorology

**Year Established:** 2013 for near-road NO<sub>2</sub> monitoring



## Brockton – Buckley Playground

**Site description:** The Brockton Buckley Playground monitoring station is located in a park/playground and represents a mixed commercial/residential population exposure on a neighborhood scale.

**Address:** 170 Clinton St., Brockton

**Lat./Lon.:** 42.065131, -71.12667

**CMSA/MSA:** Boston CMSA/Brockton MSA

**Parameters Measured:** PM<sub>2.5</sub> (every 3rd day); PM<sub>2.5</sub> (hourly); O<sub>3</sub>

**Year Established:** 2013 for population exposure monitoring



## **Chelmsford – EPA NERL**

**Site Description:** The Chelmsford EPA New England Regional Laboratory monitoring station is located in a commercial / residential area and represents population on an urban scale downwind of Worcester. EPA had been monitoring ozone at the site since 2005 and MassDEP took over ozone monitoring as part of its network in 2012.

**Address:** 11 Technology Drive, Chelmsford

**Lat./Lon.:** 42.626925, -71.362128

**CMSA/MSA:** Boston CMSA/Lowell MSA

**Parameters Measured:** O<sub>3</sub>

**Year Established:** 2012 for population exposure monitoring



## Chicopee

**Site Description:** The Chicopee monitoring station is located on a military base and represents population exposure on an urban scale. It is a PAMS Type 2 site providing maximum precursor concentrations for the Springfield area. MassDEP conducts year-round 24-hour PAMS sampling via carbonyl and canister samples.

**Address:** Anderson Road, Chicopee

**Lat./Lon.:** 42.194444,-72.555628

**CMSA/MSA:** Springfield MSA

**Parameters Measured:** PM<sub>2.5</sub> 3 day (2); NO, NO<sub>2</sub>, NO<sub>x</sub>, CO, O<sub>3</sub>, Toxics, Carbonyls, VOCs, PM<sub>2.5</sub> Speciation, PM<sub>2.5</sub> (hourly), PAMS, Meteorology

**Year Established:** 1983 for population exposure monitoring



## **Fairhaven**

**Site Description:** The Fairhaven monitoring station is located in a residential area adjacent to a school and represents population exposure monitoring on an urban scale. This site was established in 2013 to replace a previous Fairhaven monitoring station located at the Wood School on Sconticut Road.

**Address:** 30 School Street, Fairhaven

**Lat./Lon.:** 41.645403, -70.898402

**Parameters Measured:** O<sub>3</sub>, Meteorology

**Year Established:** 2013 for population exposure monitoring



## **Fall River**

**Site Description:** The Fall River monitoring station is located in an urban area at a fire department station and represents population exposure on a neighborhood scale.

**Address:** 659 Globe Street, Fall River

**Lat/Lon:** 41.685728, -71.169764

**MSA/CMSA:** Providence-Pawtucket-Fall River MSA

**Parameters Measured:** PM<sub>2.5</sub> (3 day); SO<sub>2</sub>, O<sub>3</sub>, PM<sub>2.5</sub> (hourly)

**Year Established:** 1975 for population exposure monitoring



## **Greenfield**

**Site Description:** The Greenfield monitoring station is located in a residential area adjacent to a school and represents population exposure on a neighborhood scale.

**Address:** 16 Barr Avenue, Greenfield

**Lat./Lon.:** 42.605832, -72.596647

**CMSA/MSA:** Springfield MSA

**Parameters Measured:** PM<sub>2.5</sub> (3 day); O<sub>3</sub>, PM<sub>2.5</sub> (hourly), Black Carbon, Meteorology

**Year Established:** 2014 for population exposure monitoring



## **Haverhill**

**Site Description:** The Haverhill monitoring station is located in a residential area adjacent to a school and represents population exposure on an urban scale.

**Address:** Consentino School, Washington Street, Haverhill

**Lat./Lon.:** 42.770867, -71.102831

**CMSA/MSA:** Boston CMSA, Lawrence MSA

**Parameters Measured:** PM<sub>2.5</sub> (3 day); O<sub>3</sub>, PM<sub>2.5</sub> (hourly), Meteorology

**Year Established:** 1994 for population exposure monitoring



## **Lawrence**

**Site Description:** The Lawrence monitoring station is located at MassDEP's Wall Experiment Station Laboratory in a mixed commercial and residential area and represents population exposure on a neighborhood scale.

**Address:** 37 Shattuck Street, Lawrence

**Lat./Lon.:** 42.698245, -71.164951

**MSA/CMSA:** Boston CMSA, Lawrence MSA

**Parameters Measured:** PM<sub>2.5</sub> (3-day)

**Year Established:** 1999 for population exposure monitoring



## Springfield

**Site Description:** The Springfield monitoring station is located in a commercial area and represents population exposure on a neighborhood scale.

**Address:** Liberty Street, Springfield

**Lat./Lon.:** 42.105811,-72.597619

**MSA/CMSA:** Springfield MSA

**Parameters Measured:** PM<sub>2.5</sub> (3 day); PM<sub>10</sub> (3-day), PM<sub>2.5</sub> Hourly, NO, NO<sub>2</sub>, NO<sub>x</sub>, CO, SO<sub>2</sub>

**Year Established:** 1988 for population exposure monitoring



## Lynn

**Site Description:** The Lynn monitoring station is located adjacent to a public water supply facility and represents population exposure on an urban scale. It is a PAMS Type 2 site providing maximum precursor concentrations. MassDEP conducts year-round 24-hour PAMS sampling via carbonyl and toxics/VOC samples. Toxics/VOC samples are also used for NATTS background.

**Address:** 390 Parkland Avenue, Lynn

**Lat./Lon.:** 42.474671,-70.971358

**CMSA/MSA:** Boston CMSA; Boston Metropolitan MSA

**Parameters Measured:** PM<sub>2.5</sub> (3 day); NO, NO<sub>2</sub>, NO<sub>x</sub>, CO, O<sub>3</sub>, Toxics, Carbonyls, VOCs, PM<sub>2.5</sub> (hourly), Meteorology

**Year Established:** 1993 for population exposure monitoring



## Milton – Blue Hill

**Site Description:** The Milton - Blue Hill monitoring station is located on top of Blue Hill next to the Blue Hill weather observatory and represents population on an urban scale.

**Address:** Blue Hill Observatory, Milton

**Lat./Lon.:** 42.2118, -71.114506

**CMSA/MSA:** Boston CMSA, Boston Metropolitan MSA

**Parameters Measured:** NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>

**Year Established:** 2002 as a PAMS Type 1 site



## Newburyport

**Site Description:** The Newburyport site is located on Plum Island and represents population exposure on an urban scale. It is a Type 3 PAMS site for Boston.

**Address:** 261 Northern Avenue, Newburyport

**Lat./Lon.:** 42.814444, -70.818333

**CMSA/MSA:** Boston CMSA, Boston Metropolitan MSA

**Parameters Measured:** NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, NO<sub>t</sub>, VOCs, Meteorology

**Year Established:** 2010 as a PAMS Type 3 site





## Pittsfield – South Street

**Site Description:** The Pittsfield is located in a mixed commercial and residential area and represents population exposure on a neighborhood scale.

**Address:** 1 South Street, Pittsfield

**Lat./Lon.:** 42.452036, -73.255556

**MSA/CMSA:** Pittsfield MSA

**Parameters Measured:** PM<sub>2.5</sub> hourly

**Year Established:** 2005 for population exposure monitoring



## **Pittsfield – Center Street**

**Site Description:** The Pittsfield site is located in a mixed commercial and residential area and represents population exposure on a neighborhood scale.

**Address:** 78 Center Street, Pittsfield

**Lat./Lon.:** 42.448028, -73.254575

**CMSA/MSA:** Pittsfield MSA

**Parameters Measured:** PM<sub>2.5</sub> (3-day)

**Year Established:** 1998 for population exposure monitoring



## Truro

**Site Description:** The Truro site is located in a rural area adjacent to conservation land and represents population exposure and regional ozone transport.

**Address:** Fox bottom area, Truro

**Lat./Lon.:** 41.975833, -70.024167

**CMSA/MSA:** No MSA; Downwind Providence-Pawtucket, RI

**Parameters Measured:** O<sub>3</sub>, Meteorology

**Year Established:** 1987 for population exposure monitoring



## Uxbridge

**Site Description:** The Uxbridge site is located in a residential area adjacent to a park and represents population exposure and ozone transport on an urban scale.

**Address:** 366 East Hartford Avenue, Uxbridge

**Lat./Lon.:** 42.099722, -71.619917

**CMSA/MSA:** Boston CMSA, Worcester MSA

**Parameters Measured:** O<sub>3</sub>, Meteorology

**Year Established:** 2008 for population exposure and ozone transport monitoring



## Ware

**Site Description:** The Ware site is located at the Quabbin reservoir in a rural background location and represents population exposure on an urban scale. It is a PAMS Type 3 site for the Springfield area, and was originally an Acid Rain monitoring site.

**Address:** Quabbin Summit, Ware

**Lat./Lon.:** 42.298514, -72.334575

**CBSA/MSA:** Springfield MSA

**Parameters Measured:** PM<sub>10</sub> (3 day); NO, NO<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub>, NO trace, O<sub>3</sub>, VOCs, PM<sub>2.5</sub> (hourly), Meteorology

**Year Established:** 1985 for population exposure monitoring



## Worcester Airport

**Site Description:** The Worcester Airport site is located in a commercial area adjacent to an airport and represents population exposure on an urban scale.

**Address:** Airport Drive, Worcester

**Lat./Lon.:** 42.274342, -71.876022

**CMSA/MSA:** Boston CMSA, Worcester MSA

**Parameters Measured:** O<sub>3</sub>, Meteorology

**Year Established:** 1979 for population exposure monitoring



## Worcester YWCA

**Site Description:** The Worcester YWCA site is located in a mixed commercial and residential area and represents population exposure on a neighborhood scale.

**Address:** 2 Washington Street, Worcester

**Lat./Lon.:** 42.260125, -71.798889

**CMSA/MSA:** Boston CMSA, Worcester MSA

**Parameters Measured:** PM<sub>2.5</sub> 3-day

**Year Established:** 2003 for population exposure monitoring



## Worcester Summer Street

**Site Description:** The Worcester Summer Street site is located in an urban area adjacent to several major roadways and represents population exposure on a neighborhood scale.

**Address:** Summer Street, Worcester

**Lat./Lon.:** 42.263978, -71.794836

**CMSA/MSA:** Boston CMSA, Worcester MSA

**Parameters Measured:** PM<sub>2.5</sub> (3 day); PM<sub>10</sub> (3 day) NO<sub>2</sub>, SO<sub>2</sub>, CO, PM<sub>2.5</sub> (hourly), Radnet

**Year Established:** 2004 for population exposure monitoring

