

Part 2: Individual Station information

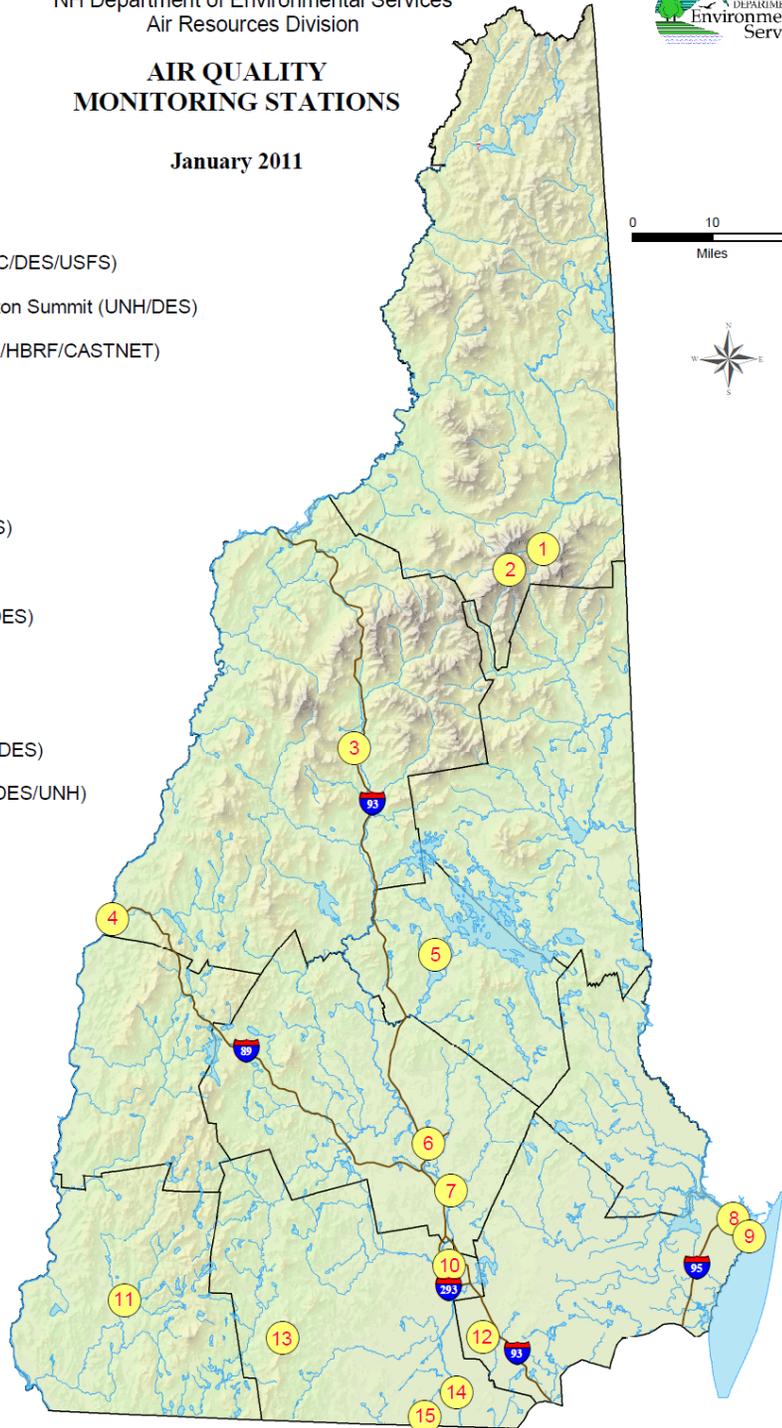
NH Department of Environmental Services
Air Resources Division



AIR QUALITY MONITORING STATIONS

January 2011

- 1 Greens Grant Camp Dodge (AMC/DES/USFS)
- 2 Sargents Purchase Mt. Washington Summit (UNH/DES)
- 3 Woodstock Hubbard Brook (DES/HBRF/CASTNET)
- 4 Lebanon Airport (DES)
- 5 Laconia Green Street (DES)
- 6 Concord Hazen Drive (DES)
- 7 Pembroke Exchange Street (DES)
- 8 Portsmouth Pierce Island (DES)
- 9 Rye Seacoast Science Center (DES)
- 10 Manchester Pearl Street (DES)
- 11 Keene Water Street (DES)
- 12 Londonderry Moose Hill School (DES)
- 13 Peterborough Miller State Park (DES/UNH)
- 14 Nashua Crown Street (DES)
- 15 Nashua Gilson Road (DES)



NHDES GIS Program
11 January 2011

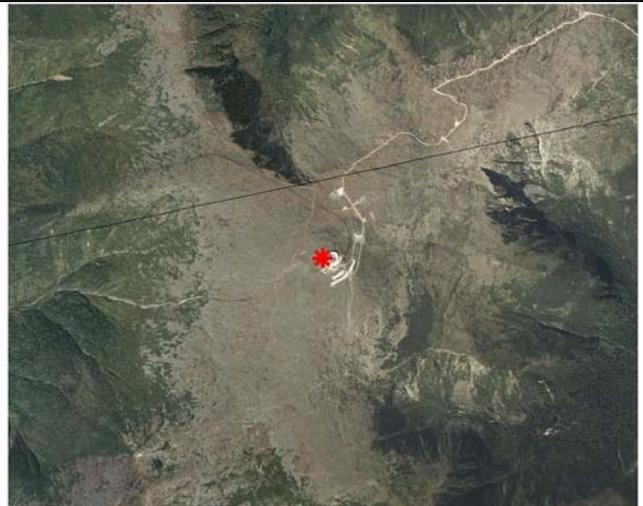
Camp Dodge, Green’s Grant

General Information				
AQS ID:	33-007-4002	Latitude:	44.308119	
Town:	Green’s Grant	Longitude:	-71.217658	
Address:	Route 16	Elevation (m):	335	
County:	Coos	Year Est.:	1995	
Spatial Scale:	Regional			
Site Description				
<p>This air monitoring station is located in a rural forested area off Route 16 in Green’s Grant. This wood clad, stick built shelter is approximately 7’ wide by 10’ long. This station is representative of a Class 1 Type Airshed. DES operates this station in cooperation with the Appalachian Mountain Club and the US Forest Service.</p>				
Pollutants/Parameters				
Ozone – IMPROVE. The US Forest Service operates the IMPROVE sampler.				
Recent Changes				
DES did not make any significant changes to this station during this review period.				
Proposed/Planned Changes				
DES is not planning any significant changes to this station into the foreseeable future.				



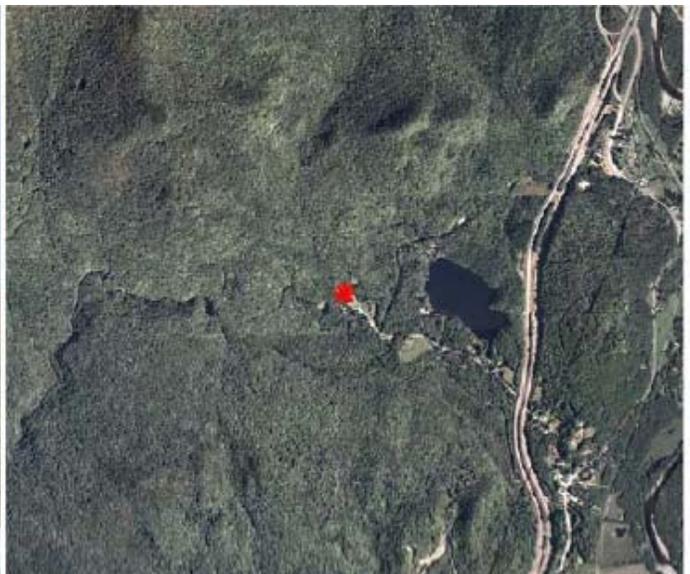
Mt. Washington Summit

General Information				
AQS ID:	33-007-4001	Latitude:	44.270086	
Town:	Sargents Purchase	Longitude:	-71.303844	
Address:	Observatory	Elevation (m):	1,917	
County:	Coos	Year Est.:	1990	
Spatial Scale:	Regional			
Site Description				
<p>This air monitoring station is located at the top of Mt. Washington in the Yankee Building.</p>				
Pollutants/Parameters				
Ozone				
Recent Changes				
DES did not make any significant changes to this station during this review period.				
Proposed/Planned Changes				
DES is not planning any significant changes to this station into the foreseeable future.				



Hubbard Brook, Woodstock

General Information				
AQS ID:	33-009-8001	Latitude:	43.944544	
Town:	Woodstock	Longitude:	-71.700772	
Address:	Mirror Lake Rd.	Elevation (m):	250	
County:	Grafton	Year Est.:	1989	
Spatial Scale:	Regional			
Site Description				
<p>This air monitoring station is located in a rural area in the White Mountain National Forest. This pre-fabricated structure is specifically designed for climate-controlled scientific operations. It measures approximately 8' wide by 10' long. This is a CASTNET station and DES' involvement is limited to capturing ozone data for real-time mapping purposes.</p>				
Pollutants/Parameters				
Ozone - CASTNET				
Recent Changes				
DES did not make any significant changes to this station during this review period.				
Proposed/Planned Changes				
DES is not planning any significant changes to this station into the foreseeable future.				

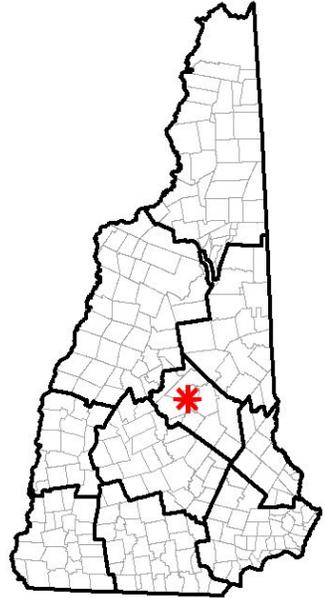


Lebanon Airport, Lebanon

General Information				
AQS ID:	33-009-0010	Latitude:	43.6296	
Town:	Lebanon	Longitude:	-72.309533	
Address:	Airport Road	Elevation (m):	167	
County:	Grafton	Year Est.:	2005	
Spatial Scale:	Neighborhood			
Site Description				
<p>This 8' wide by 10' long insulated trailer is located at the northeast edge of the Lebanon Municipal Airport in a commercial area. The filter based PM2.5 sampler is located on a deck on top of the trailer.</p>				
Pollutants/Parameters				
Ozone - Continuous PM2.5 (BAM) – filter based PM2.5 (1 every 12 days) - Wind Speed - Wind Direction - Temperature				
Recent Changes				
DES did not make any significant changes to this station during this review period.				
Proposed/Planned Changes				
DES is not planning any significant changes to this station into the foreseeable future.				



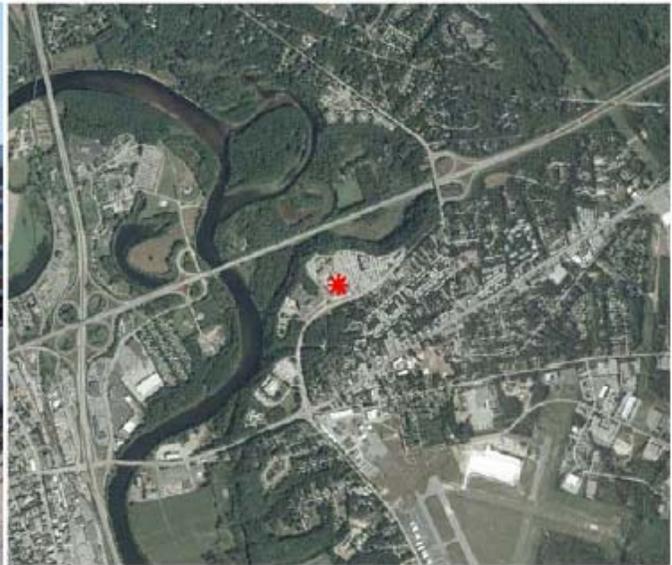
Green Street, Laconia

General Information				
AQS ID:	33-001-2004	Latitude:	43.566111	
Town:	Laconia	Longitude:	-71.496322	
Address:	Green Street	Elevation (m):	216	
County:	Belknap	Year Est.:	2001	
Spatial Scale:	Regional			
Site Description				
<p>This 10' wide by 12' long cedar clad, stick-built air monitoring station is located in an open field in a rural residential area. The filter-based PM2.5 sampler is located on a platform approximately 30m from the structure.</p>				
Pollutants/Parameters				
Ozone – filter based PM2.5 (1 every 6 days) – Wind Speed – Wind Direction – Temperature - Precipitation				
Recent Changes				
DES did not make any significant changes to this station during this review period.				
Proposed/Planned Changes				
DES is not planning any significant changes to this station into the foreseeable future.				

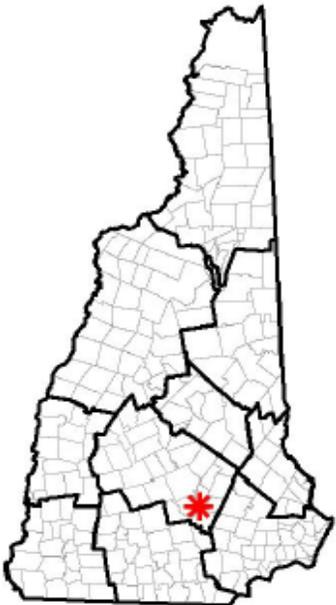


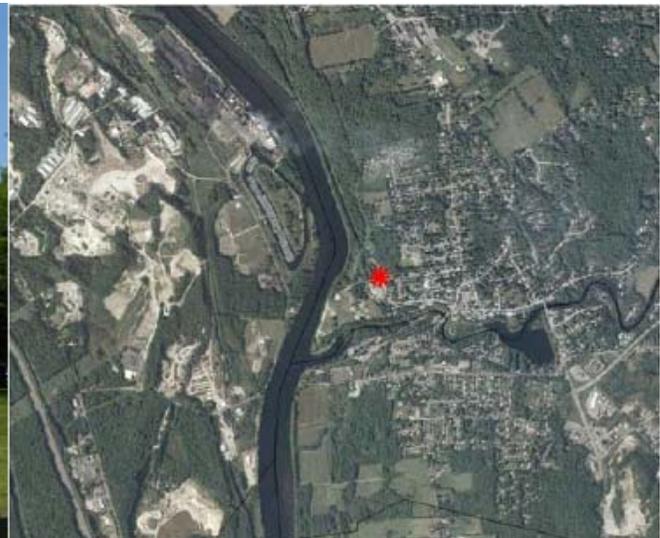
Hazen Station, Concord

General Information				
AQS ID:	33-013-1007	Latitude:	43.218478	
Town:	Concord	Longitude:	-71.514533	
Address:	27 Hazen Dr.	Elevation (m):	100	
County:	Merrimack	Year Est.:	2004	
Spatial Scale:	Neighborhood			
Site Description				
<p>This site has the advantage of being in close proximity to the DES main office, for both outreach opportunities and ease of maintenance. It is also in the proximity of residential neighborhoods, retirement communities and schools. The Station measures 8’ wide by 18’ long. Its insulated, box-type structure is specifically designed for climate-controlled scientific functions.</p>				
Pollutants/Parameters				
<p>Ozone – Sulfur Dioxide – Temperature – Wind Speed – Wind Direction. DES also uses this station as an air monitoring laboratory and a staging area for field-ready equipment.</p>				
Recent Changes				
<p>DES did not make any significant changes to this station during this review period.</p>				
Proposed/Planned Changes				
<p>DES is not planning any significant changes to this station into the foreseeable future.</p>				

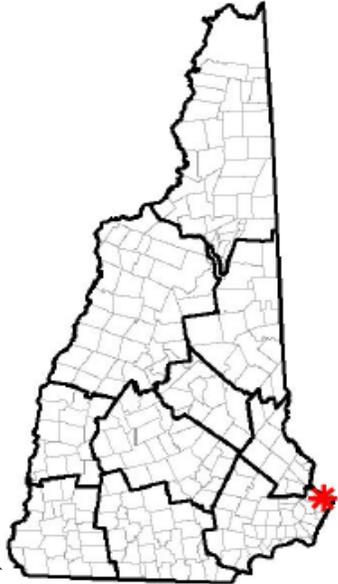


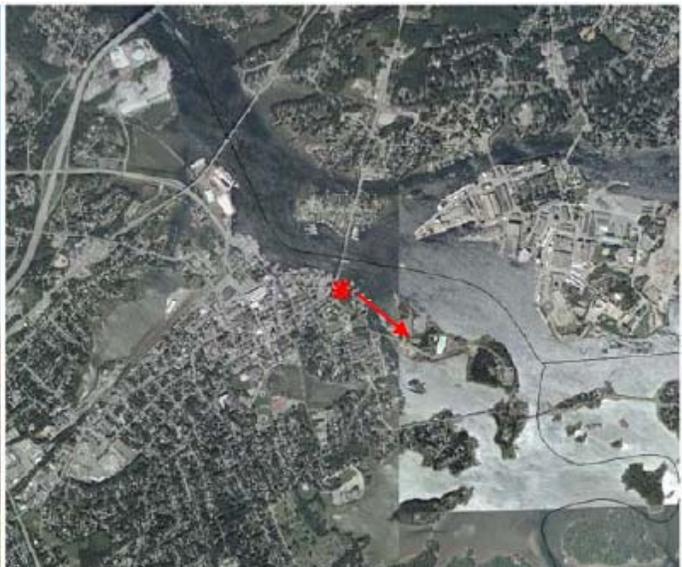
Exchange Street, Pembroke

General Information				
AQS ID:	33-013-1006	Latitude:	43.132444	
Town:	Pembroke	Longitude:	-71.458270	
Address:	Pleasant St.	Elevation (m):	100	
County:	Merrimack	Year Est.:	2002	
Spatial Scale:	Neighborhood			
Site Description				
<p>This station is located in a suburban residential area southeast of the coal burning Merrimack station power plant. It is the ideal location for improving our understanding of near-field emissions from the Merrimack Station power plant. This insulated, box-type structure is specifically designed for climate-controlled scientific functions and measures approximately 8' wide by 10' long. The filter based PM2.5 samplers are located on a deck on top of the structure.</p>				
Pollutants/Parameters				
<p>Sulfur Dioxide – filter based PM2.5 (1 every 3 days) – filter based PM2.5 Audit (1 every 6 days) – Temperature – Wind Speed – Wind Direction.</p>				
Recent Changes				
<p>DES did not make any significant changes to this station during this review period.</p>				
Proposed/Planned Changes				
<p>DES is not planning any significant changes to this station into the foreseeable future.</p>				

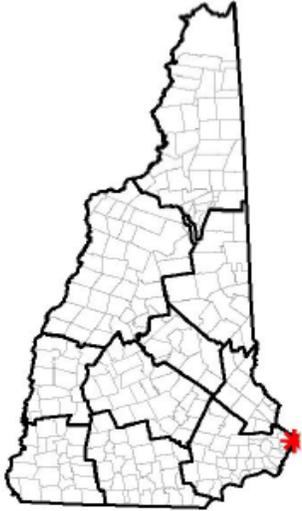


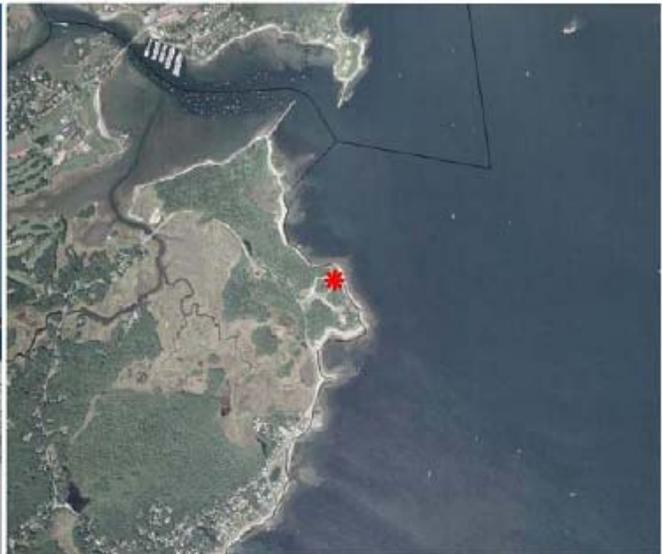
Pierce Island, Portsmouth

General Information				
AQS ID:	33-015-0014	Latitude:	43.075367	
Town:	Portsmouth	Longitude:	-70.748014	
Address:	Pierce Island	Elevation (m):	4	
County:	Rockingham	Year Est.:	2001	
Spatial Scale:	Neighborhood			
Site Description				
<p>This station is located in an urban commercial/residential area. It is strategically positioned to capture air quality data from the Portsmouth Shipyard (northeast), the urban center of Portsmouth (southwest), the industrialized Piscataqua River (northwest) and ocean fetch-type events (southeast) depending on wind direction. The cedar clad, stick built shelter is approximately 10' wide by 12' long. Filter based PM2.5 samplers are located on platforms approximately 8m from the shelter.</p>				
Pollutants/Parameters				
<p>Ozone – PM2.5 Continuous (BAM) – filter based PM2.5 (1 every 12 days) – filter based PM10 (1 every 6 days) – filter based PM10 Colocation (1 every 6 days) – Sulfur Dioxide – Temperature – Wind Speed – Wind Direction</p>				
Recent Changes				
<p>DES did not make any significant changes to this station during this review period.</p>				
Proposed/Planned Changes				
<p>DES is not planning any significant changes to this station into the foreseeable future.</p>				

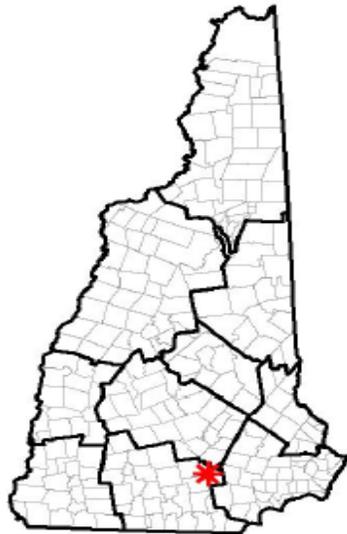


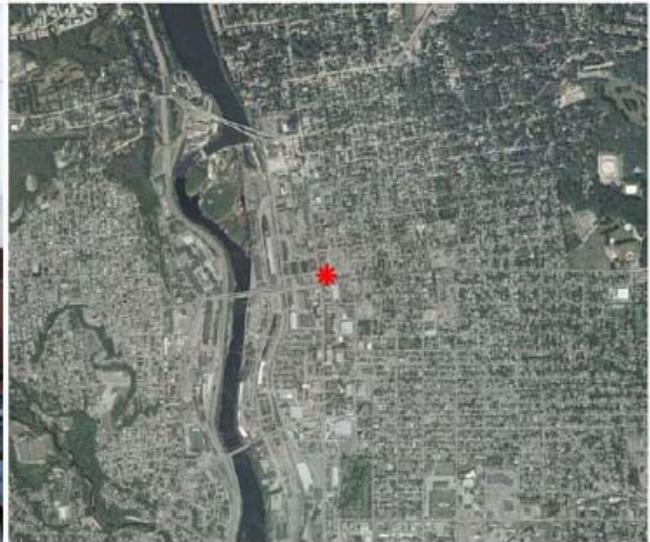
Seacoast Science Center, Rye

General Information				
AQS ID:	33-015-0016	Latitude:	43.045267	
Town:	Rye	Longitude:	-70.713953	
Address:	Seacoast Science Ctr.	Elevation (m):	10	
County:	Rockingham	Year Est.:	2003	
Spatial Scale:	Neighborhood			
Site Description				
<p>This station is located in a suburban residential neighborhood on the seacoast in direct exposure to the Atlantic Ocean. The station is located inside a modified corner of the main facility building at the Seacoast Science Center. DES established this station to measure coastal ozone episodes as well as to promote public understanding of air pollution and monitoring.</p>				
Pollutants/Parameters				
Ozone - Temperature – Wind Speed – Wind Direction.				
Recent Changes				
DES did not make any significant changes to this station during this review period.				
Proposed/Planned Changes				
DES is not planning any significant changes to this station into the foreseeable future.				



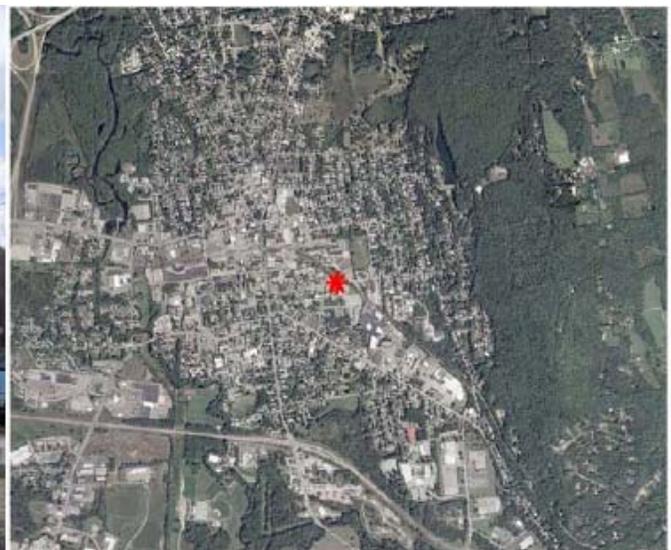
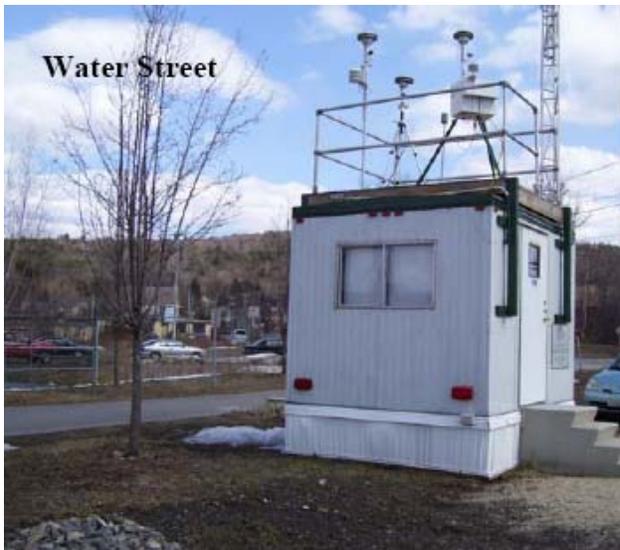
Pearl Street, Manchester - Discontinued

General Information				
AQS ID:	33-011-0020	Latitude:	42.995689	
Town:	Manchester	Longitude:	-71.462528	
Address:	Pearl Street	Elevation (m):	61	
County:	Hillsborough	Year Est.:	2001	
Spatial Scale:	Urban			
Site Description				
<p>This air monitoring station was located in a commercial area near the center of the city of Manchester. This construction type trailer was approximately 8' wide by 16' long. Filter based PM samplers were located on a deck on top of the trailer.</p>				
Pollutants/Parameters				
Carbon Monoxide – Sulfur Dioxide – Temperature – Wind Speed – Wind Direction				
Recent Changes				
DES discontinued PM _{2.5} continuous monitoring with the 8500AB TEOM at this location in August 2011.				
Proposed/Planned Changes				
Station shut down in May 2012				

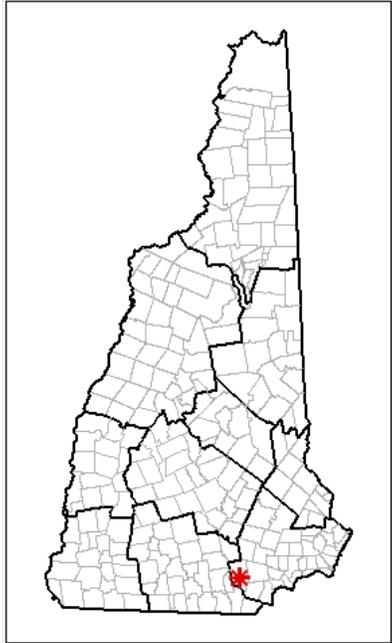


Water Street, Keene

General Information				
AQS ID:	33-005-0007	Latitude:	42.930517	
Town:	Keene	Longitude:	-72.272372	
Address:	Water Street	Elevation (m):	145	
County:	Cheshire	Year Est.:	1989	
Spatial Scale:	Neighborhood			
Site Description				
<p>This 8' wide by 10' long air monitoring station is situated in a commercial area, close to the center of the city of Keene. The filter-based PM_{2.5} sampler is located on the rooftop deck.</p>				
Pollutants/Parameters				
<p>Ozone - PM_{2.5} Continuous (BAM) – filter based PM_{2.5} (1 every 12 days) – Wind Speed - Wind Direction - Temperature</p>				
Recent Changes				
<p>DES changed the PM_{2.5} FRM sampling frequency from once every six days to once every 12 days starting on January 1, 2012.</p>				
Proposed/Planned Changes				
<p>DES is not planning any significant changes to this station into the foreseeable future.</p>				

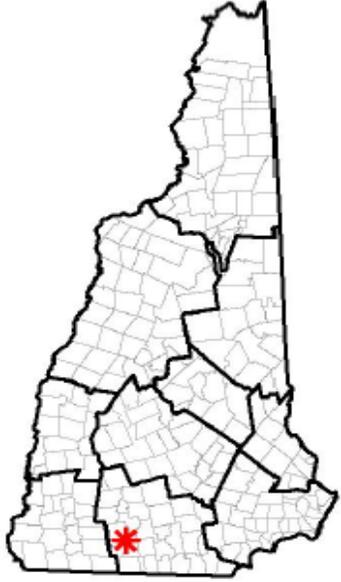
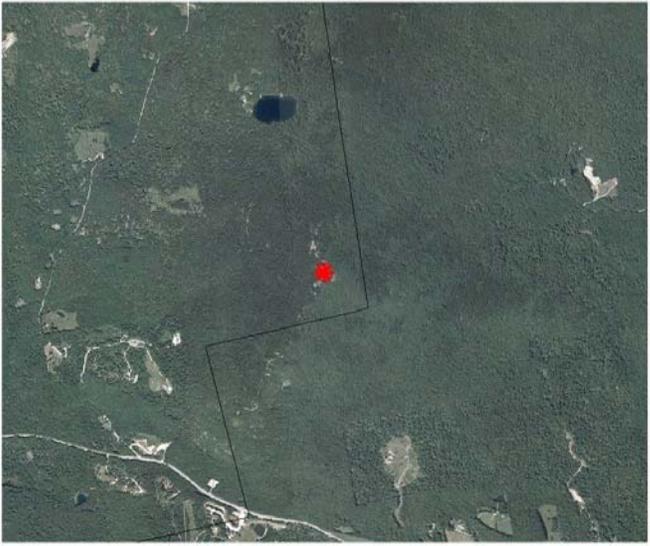


Moose Hill, Londonderry

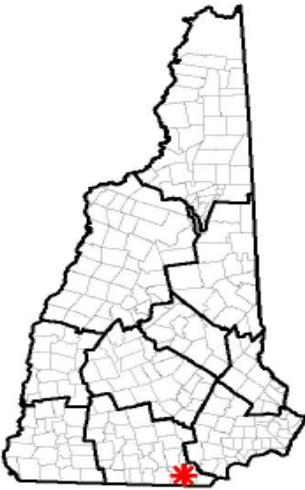
General Information				
AQS ID:	33-015-0018	Latitude:	42.862522	
Town:	Londonderry	Longitude:	-71.380153	
Address:	Moose Hill Sch.	Elevation (m):	104	
County:	Rockingham	Year Est.:	2009	
Spatial Scale:	Neighborhood			
Site Description				
Proposed: This 12' wide by 16' long wood clad, stick-built air monitoring station is located in a very open field in the heart of suburban New Hampshire, approximately halfway between the state's two largest cities (Manchester and Nashua). It has virtually zero local interferences from nearby pollution sources or obstructions, making it an ideal location to measure regional air quality. Filter-based PM2.5 samplers are located on platforms approximately 15 m from the structure.				
Pollutants/Parameters				
NCORE: PM2.5 Continuous (BAM) - filter based PM2.5 (1 every 3 days) – IMPROVE – PM Course (1 every 3 days) – filter based PM10 (1 every 3 days) – Nitrogen Oxides – Ozone – Sulfur Dioxide (trace) – Carbon Monoxide (trace) – Lead – Temperature – Wind Speed – Wind Direction – Relative Humidity.				
Recent Changes				
DES initiated lead monitoring on January 1, 2012.				
Proposed/Planned Changes				
DES is not planning any significant changes to this station into the foreseeable future.				

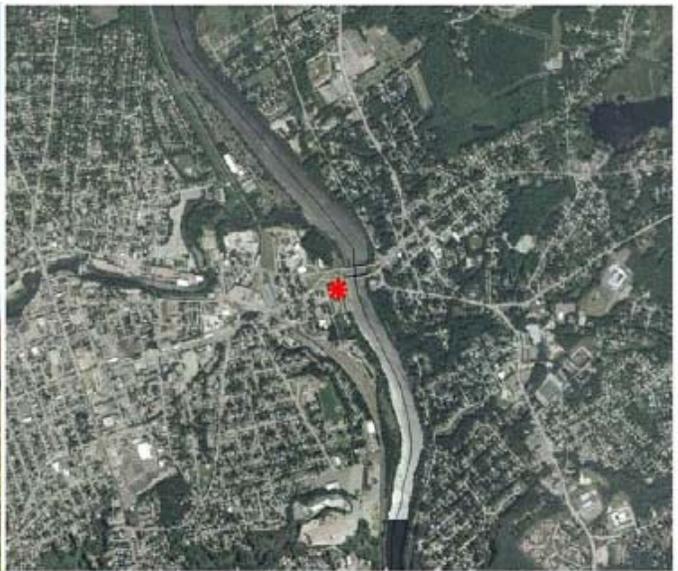


Pack Monadnock Mountain

General Information				
AQS ID:	33-011-5001	Latitude:	42.861901	
Town:	Peterborough	Longitude:	-71.878613	
Address:	Miller State Park	Elevation (m):	694.6	
County:	Hillsborough	Year Est.:	2002	
Spatial Scale:	Regional			
Site Description				
<p>This station is located in an elevated forest environment on the summit of Pack Monadnock Mountain. DES recently renovated this 27' by 10' structure to include many efficiency initiatives. The location of this station is scientifically significant because it is the highest accessible peak that lies directly within the primary air pollution transport corridor into the central part of the state. This allows this site to be the ideal location for improving our understanding of air pollution transport into the heavily populated Merrimack Valley and beyond. The Filter based PM2.5 sampler is located on a deck on top of the structure.</p>				
Pollutants/Parameters				
<p>NCORE: PM2.5 Continuous (BAM) - filter based PM2.5 (1 every 3 days) – IMPROVE – PM Course (1 every 3 days) – filter based PM10 (1 every 3 days) – Nitrogen Oxides – Ozone – Sulfur Dioxide (trace) – Carbon Monoxide (trace) – Temperature – Wind Speed – Wind Direction – Relative Humidity.</p>				
Recent Changes				
<p>DES modified the Old State Police Building at the base of the fire tower on Pack Monadnock Mountain to meet NCore monitoring needs. DES started the construction phase for this project during October 2010 and was operational in the new station in November 2011.</p>				
Proposed/Planned Changes				
<p>DES is not planning any significant changes to this station into the foreseeable future.</p>				
				

Crown Street, Nashua

General Information				
AQS ID:	33-011-1015	Latitude:	42.762028	
Town:	Nashua	Longitude:	-71.444572	
Address:	Crown Street	Elevation (m):	33.5	
County:	Hillsborough	Year Est.:	2005	
Spatial Scale:	Urban			
Site Description				
<p>This air monitoring station is located in an urban commercial and residential neighborhood. It is located approximately 30 meters from the Merrimack River and consists of a small fenced-in platform approximately 12' long by 8' wide.</p>				
Pollutants/Parameters				
Filter based PM2.5 (1 every 6 days)				
Recent Changes				
DES did not make any significant changes to this station during this review period.				
Proposed/Planned Changes				
DES is not planning any significant changes to this station into the foreseeable future.				



Gilson Road, Nashua

General Information				
AQS ID:	33-011-1011	Latitude:	42.718656	
Town:	Nashua	Longitude:	-71.522428	
Address:	57 Gilson Rd.	Elevation (m):	59	
County:	Hillsborough	Year Est.:	2003	
Spatial Scale:	Neighborhood			
Site Description				
<p>This air monitoring station is located in a suburban residential neighborhood near a Superfund site. DES requires two 8’ wide by 16’ long trailers to accommodate the equipment needed to measure ambient air parameters, including PAMS. DES collects meteorological data from a tower located on an adjacent building.</p>				
Pollutants/Parameters				
Ozone - Nitrogen Dioxide – PAMS – Temperature – Wind Speed – Wind Direction – Relative Humidity				
Recent Changes				
DES did not make any significant changes to this station during this review period.				
Proposed/Planned Changes				
DES is not planning any significant changes to this station into the foreseeable future.				

