

ENVIRONMENTAL Fact Sheet



29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

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New Hampshire's Air Monitoring Network

New Hampshire has monitored ambient (outdoor) air quality since the early 1960s through a statewide network of air monitoring stations. Over the past four decades, the New Hampshire Department of Environmental Services has expanded this network to comply with federal requirements and to improve tracking of air quality throughout the state. The ambient air monitoring network includes multiple site locations across New Hampshire that measure and track numerous air pollutants. DES and other organizations use air monitoring data to determine the status of New Hampshire's air quality, predict air pollution episodes, enact protective measures and warnings, protect public health, and protect the natural environment.



New Hampshire's Air Monitoring Network Locations

What air pollutants are measured by the air monitoring network?

New Hampshire's air monitoring network measures levels of pollutants identified as "criteria pollutants" by the U.S. Environmental Protection Agency. They include ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, particulate matter and lead. Criteria pollutants, at certain levels, have adverse effects on public health and the environment. For each criteria pollutant, EPA sets a health-based, or "primary" standard to protect public health and a welfare-based, or "secondary," standard to protect the environment, e.g., crops, vegetation, wildlife, visibility. DES and EPA evaluate the information from the air monitoring network to determine whether areas in New Hampshire are meeting or exceeding the air quality standards set by EPA and take corrective actions, as necessary.



Multi-Pollutant Air Monitoring Station, Londonderry

In addition to the criteria pollutants, DES also measures ozone precursors (nitrogen oxides and volatile organic compounds) at some of the stations. Most monitoring sites also measure meteorological parameters such as wind speed, wind direction, and external temperature. The following table lists the DES air monitoring network site locations and the pollutants measured at each site. Site locations and parameters measured can change occasionally.

For information on DES's current air monitoring network, contact the Air Resources Division at (603) 271-1370, or visit www.des.nh.gov/organization/divisions/air/tsb/ams/aqmdp/index.htm. Additional information about the University of New Hampshire monitoring sites can be found at www.airmap.unh.edu.

NEW HAMPSHIRE AIR MONITORING NETWORK (as of May 2011)		
Location	Air Monitoring Station*	Parameters Measured*
Concord	Hazen Drive [DES and Laboratory]	Met, O ₃ , SO ₂
Keene	Water Street [DES]	Met, O ₃ , PM _{2.5}
Laconia	Green Street [DES]	Met, O ₃ , PM _{2.5} , RF
Lebanon	Lebanon Airport [DES]	Met, O ₃ , PM _{2.5}
Londonderry	Moose Hill School [DES]	BP, CO, IMPROVE, Met, NO _y , O ₃ , PM _{2.5} , PM ₁₀ , PM Coarse, RH, RF, SO ₂ ,
Manchester	Pearl Street [DES]	CO, Met, PM _{2.5} , SO ₂ ,
Mt. Washington Area	Greens Grant [AMC/DES/USFS], Camp Dodge	ETP, IMPROVE, O ₃
	Sargents Purchase [DES], Summit	ETP, O ₃
Nashua	Crown Street [DES]	PM _{2.5}
	Gilson Road [DES]	Met, NO ₂ , O ₃ , PAMS, RH, RF
Pembroke	Exchange Street [DES]	Met, PM _{2.5} , SO ₂ ,
Peterborough	Miller State Park [DES] Pack Monadnock	BP, CO, IMPROVE, Met, NO _y , O ₃ , PAMS, PM _{2.5} , PM ₁₀ , PM Coarse, RH, RF, SO ₂ , Solrad
Portsmouth	Pierce Island [DES]	Met, O ₃ , PM _{2.5} , PM ₁₀ , SO ₂
Rye	Seacoast Science Center [DES]	Met, O ₃
Woodstock	Hubbard Brook [DES/HBRF/CASTNET]	CASTNET, ETP, NADP, O ₃ ,

*Abbreviations:

AMC	Appalachian Mountain Club
BP	Barometric Pressure
CASTNET	Clean Air Status and Trends Network (EPA & National Park Service)
CO	Carbon Monoxide
ETP	External Temperature
O ₃	Ozone
HBRF	Hubbard Brook Research Foundation
IMPROVE	Interagency Monitoring of Protected Visual Environments
Met	Meteorological Data (e.g., external temperature; wind speed and direction)
NADP	National Atmospheric Deposition Program
NO _y	Nitrogen Oxides, including Nitrogen Dioxide (NO ₂)
NO ₂	Nitrogen Dioxide
PAMS	Photochemical Assessment Monitoring Station
PM _{2.5}	Particulate Matter (≤ 2.5 microns in diameter) – filter-based and/or continuous monitoring
PM ₁₀	Particulate Matter (≤ 10 microns in diameter) – all filter-based monitoring
RH	Relative Humidity
RF	Rainfall
SO ₂	Sulfur Dioxide
Solrad	Solar Radiation
UNH	University of New Hampshire
USFS	United States Forest Service

Lead is no longer monitored in New Hampshire as a criteria pollutant because levels have been well below the EPA standard for some time.