DRAFT FOR COMMENT

# Maine DEP Annual Air Monitoring Plan for 2012

**Maine Department of Environmental Protection**
**Bureau of Air Quality**
**May 24, 2011**

DRAFT

## Introduction

The Maine Department of Environmental Protection is responsible for the monitoring and regulation of ambient air quality in the State of Maine. The Bureau of Air Quality, Division of Field Services operates and maintains most of the ambient air quality monitors located in Maine. Additional monitoring is conducted by several federal agencies such as the Environmental Protection Agency, the National Park Service, The U.S. Fish and Wildlife Service to name a few as well as by several of the Indian Tribes within Maine. In 2007 Maine entered into an agreement with three of the Maine tribes conducting air monitoring to form a common Primary Quality Assurance Organization (PQAO). The members share a variety of quality assurance plans and procedures. The members of the PQAO are the State of Maine, the Aroostook Band of Micmacs, the Passamaquodddy Tribe Pleasant Point and the Penobscot Nation. The monitoring of air quality is generally conducted to determine the attainment status of various pollutants in regions of the state, to document trends that may be occurring in the levels of various pollutants around the state and to provide data for forecasting air quality conditions for the citizens of Maine and visitors to the state. The data is also used to support the Maine DEP licensing and permit programs.

Maine has been in the business of monitoring air quality since the early 1970's. The monitoring programs have been evolving since then as standards have changed, pollutants of concern have changed and the technology to monitor these pollutants has changed. The air pollution that was monitored early on was primarily from local sources. As the local sources were controlled their impact was lessened and the monitoring began to look more at the long range transport of some of the pollutants. Pollutants monitored now may originate in the large metropolitan areas down the east coast of the US or it may be from some of the industries located in the central part of the US. Some pollutants monitored may even come from the other side of the world such as particulates from volcanic eruptions, large forest fires or less controlled sources in some of the developing countries.

Maine is also a very large state with varying topography. What impacts one area of the state may be totally different from what impacts another area. Aroostook County may see higher particulate levels because of the large farming operations and the type of soil whereas southern Maine will see higher ozone levels because of the impact of the urban areas to the southwest. Mountain valleys in the western part of the state may see higher pollution levels at times because of inversions which trap the pollution in the valleys for extended periods whereas the coastal locations may have better flushing of pollutants with the fairly constant onshore and offshore winds.

Maine must also deal with changing federal regulations. As more data is collected and more health studies are done the impact of various pollutants needs to be reviewed and standards and controls need to be updated to reflect those changes. The federal government reviews the ambient air quality standards every 5 years. Some of those reviews have been delayed for various reasons and some changes have been implemented only to be challenged in court which meant more delays. Currently, there are a number of air quality standards under review and in most cases the standards are expected to be made more stringent and additional monitoring requirements will need to be implemented. The current National and State of Maine Ambient Air Quality Standards are summarized in the following tables.

### National Ambient Air Quality Standards

| | Primary Standards | | Secondary Standards | |
|---|---|---|---|---|
| **Pollutant** | **Level** | **Averaging Time** | **Level** | **Averaging Time** |
| Carbon Monoxide | 9 ppm (10 mg/m$^3$) | 8-hour [(1)] | None | |
| | 35 ppm (40 mg/m$^3$) | 1-hour [(1)] | | |

| | | | | |
|---|---|---|---|---|
| Lead | 0.15 µg/m$^3$ [2] | Rolling 3-Month Average | Same as Primary | |
| | 1.5 µg/m$^3$ | Quarterly Average | Same as Primary | |
| Nitrogen Dioxide | 0.053 ppm (100 µg/m$^3$) | Annual (Arithmetic Mean) | Same as Primary | |
| | 0.100 ppm | 1-hour [3] | None | |
| Particulate Matter ($PM_{10}$) | 150 µg/m$^3$ | 24-hour [4] | Same as Primary | |
| Particulate Matter ($PM_{2.5}$) | 15.0 µg/m$^3$ | Annual [5] (Arithmetic Mean) | Same as Primary | |
| | 35 µg/m$^3$ | 24-hour [6] | Same as Primary | |
| Ozone | 0.075 ppm (2008 std) | 8-hour [7] | Same as Primary | |
| | 0.08 ppm (1997 std) | 8-hour [8] | Same as Primary | |
| | 0.12 ppm | 1-hour [9] | Same as Primary | |
| Sulfur Dioxide | 0.03 ppm | Annual [10] (Arithmetic Mean) | 0.5 ppm (1300 µg/m$^3$) | 3-hour [1] |
| | 0.14 ppm | 24-hour [1][10] | | |
| | 75 ppb | 1-hour [11] | None | |

[1] Not to be exceeded more than once per year.
[2] Final rule signed October 15, 2008.
[3] To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).
[4] Not to be exceeded more than once per year on average over 3 years.
[5] To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m3.
[6] To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m3 (effective December 17, 2006).
[7] To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)
[8] (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.
(b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.
(c) EPA is in the process of reconsidering these standards (set in March 2008).
[9] (a) EPA revoked the 1-hour ozone standard in all areas, although some areas have continuing obligations under that standard ("anti-backsliding").
(b) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is $\leq$ 1.
[10] (a) The annual and 24-hour standards will remain in effect for one year following the effective date of the initial designations for the new 1-hour standard before they are revoked in most attainment areas.
(b) The annual and 24-hour standards will remain in place for any current nonattainment area, or any area for which a State has not fulfilled the requirements of a SIP call, until the affected area submits, and EPA approves, a SIP with an attainment, implementation, maintenance and enforcement SIP which fully addresses the attainment and maintenance requirements of the new 1-hour standard ("anti-backsliding).
[11] To attain this standard the 3–year average of the 99$^{th}$ percentile of the annual distribution of daily maximum 1-hour average concentrations shall not exceed 75 ppb.

The current air monitoring programs in Maine are primarily geared to monitoring ozone and its precursors and fine particulates. Each year Maine is required to submit by July 1 the proposed monitoring plan for the next calendar year. In 2006 EPA also required states to make their proposed plan available for a 30 day comment period prior to submittal to EPA. While an annual monitoring plan is important it is

## State of Maine Ambient Air Quality Standards

| POLLUTANT | AVERAGING TIME | CONCENTRATION |
|---|---|---|
| Particulates | Refer to NAAQS for all particulate standards | |
| Lead (Pb) | Twenty-Four Hour [1] | 1.5 ug/m$^3$ |
| Carbon Monoxide (CO) | One Hour [1] | 35 ppm (40 mg/m$^3$) |
| | Eight Hour [1] | 9 ppm (10 mg/m$^3$) |
| Ozone (O3) | Refer to NAAQS for ozone standard | |
| Nitrogen Dioxide (NO2) | Annual Arithmetic Mean | .053 ppm (100 ug/m$^3$) |
| Sulfur Dioxide (SO2) | Annual Arithmetic Mean | .022 ppm (57 ug/m$^3$) |
| | Twenty-Four Hour [1] | .088 ppm (230 ug/m$^3$) |
| | Three Hour [1] | .439 ppm (1150 ug/m$^3$) |
| Chromium (Total) | Twenty-Four Hour [1] | 0.3 ug/m$^3$ |
| | Annual Geometric Mean | 0.05 ug/m$^3$ |
| Perchloroethylene | Annual Arithmetic Mean | 0.01 ug/m$^3$ |
| Toluene | Instantaneous | 15,000 ug/m$^3$` |
| | Twenty-Four Hour | 260 ug/m$^3$ |
| | Annual Arithmetic Mean | 180 ug/m$^3$ |

1 = Not to be exceeded more than once per year
ppm = Parts of pollutant per million parts of air
ug/m$^3$ = Microgram's of pollutant per cubic meter of air
mg/m$^3$ = Milligrams of pollutant per cubic meter of air

constantly subject to change as standards are revised, new pollutants of concern are identified, monitoring sites are no longer acceptable to property owners and staffing and budget cuts affect the ability to meet a program's objective.

Consequently, the monitoring plan proposed in this document is our best effort to project what we will be able to do next year given our current standards, staffing and budget constraints.

**Network Review**

The most prevalent air quality issue in Maine, and the one that consumes the most resources, is ozone pollution. Over the years Maine has operated a number of monitoring sites throughout the state in an attempt to define the extent of the problem. Current federal proposals may further lower the standard and create the need for additional monitoring. The particulate network has also been evolving over the last eleven years since fine particulate monitoring began. This standard is also under review and may be lowered creating the need for additional or new monitoring locations in Maine.

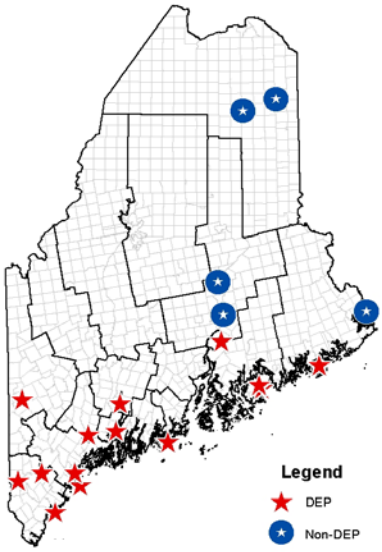
One of the more significant changes in recent years was the requirement to have in operation a multi-pollutant monitoring site. EPA is asking all states to have at least one of these National Core Monitoring Sites (NCore) in operation with some states being required by EPA to have two sites. Maine decided to operate a rural site and received approval on October 30, 2009 from EPA's Office of Air Quality Planning and Standards (OAQPS) for use of the McFarland Hill site in Acadia National Park. That site has been in operation and collecting all the required parameters since January, 2010.

Maine also conducted a review of air toxics in the state and as a result of that review established a priority list of air toxics. As additional data has become available that priority list has been modified. As resources are available Maine has been attempting to establish background concentrations of several of the pollutants on the list.

The following sections will detail the individual networks for the various parameters that are being monitored in Maine and any changes that are proposed as well as identifying future needs for monitoring.

## Monitoring Networks

### *Ozone Network*




ME DEP currently operates fourteen ozone monitoring sites in the state. In addition, EPA operates two ozone sites (at Howland and Ashland) as part of the Clean Air Status and Trends Network, and Maine Indian Tribes operate three additional sites. Three of the ME DEP sites operate year-round while the others operate during the ozone season. The current ozone season for Maine runs from April through September. With a lower anticipated standard and some historical high concentrations in late March most of the Maine sites now operate from March through September, weather permitting. Most of the Maine sites are scattered throughout the state with the heaviest concentration of sites along the coast and in southern Maine. The highest concentrations tend to occur along the coast as a result of plumes of contaminated air from metropolitan areas to the south moving along the coast and creating ozone as those pollutants interact with each other in the presence of sunlight. The other sites in Maine are operated to collect data used in the mapping and forecasting programs that provide air quality data and alerts when necessary to the people in Maine. The current standard has been reviewed and a lowered standard was proposed in the range of .060-.070 ppm. However, the issuance of a final standard has been postponed a couple of times and is now not expected to be issued until December, 2011. If the current standard for ozone is lowered sufficiently then additional monitoring may be needed in the western mountain region and along the coast in the Bath-Brunswick area. A monitor located at Small Point in Phippsburg had recorded some of the higher levels along the coast but had to be removed about ten years ago at the property owner's request. Establishing a new site along the coast of Maine is a very difficult task. A site was operated in Reid State Park in Georgetown for several years and then was moved to a site in Bowdoinham but neither site has recorded similar high levels as was recorded in Phippsburg. With a lower standard it may be necessary to try and establish another site and document the impacts. There is also concern about the adequacy of the current site in North Lovell because it is sited in a more sheltered location and may not see the higher levels expected in a more open and exposed location. If a new site can be located it will be operated concurrently with the North Lovell site for a season to get a comparison of ozone levels in the two locations. Until a new site can be found the current ozone network is expected to be maintained for CY 2012.

| Site Address | Site Type | Monitoring Objective | Sampling Frequency |
|---|---|---|---|
| Presque Isle, 8 Northern Road | TRIBAL | | Continuous |
| Portland, 356 State Street | SPM | High Pop. Exposure | Continuous |
| Cape Elizabeth, Two Lights State Park | SLAMS | Transport | Continuous - Seasonal |
| Bar Harbor, Top of Cadillac Mountain | SLAMS | Transport | Continuous - Seasonal |
| Bar Harbor, McFarland Hill | NCORE | Transport, Backgrd. | Continuous |
| Gardiner, Pray Street School | SLAMS | Max. Conc., Transport | Continuous - Seasonal |

| | | | |
|---|---|---|---|
| North Lovell, DOT Garage | SPM | Transport | Continuous - Seasonal |
| Holden, Rider Bluff | SLAMS | Transport, Max. Concentration | Continuous - Seasonal |
| Bowdoinham, Brown's Point Road | SPM | Max. Conc., Transport | Continuous - Seasonal |
| Jonesport, Public Landing | SPM | Max. Concentration | Continuous - Seasonal |
| Sipayik, 184 County Road | TRIBAL | | Continuous |
| West Buxton, Plains Road Fire Dept. | SPM | Transport | Continuous |
| Shapleigh, Ball Park, West Newfield Rd | SPM | Transport, Max. Conc. | Continuous - Seasonal |
| Kennebunkport, Parsons Way | SLAMS | Max. Conc., Transport | Continuous - Seasonal |
| Durham, Fire Station, Route 9 | SPM | Max. Concentration | Continuous - Seasonal |
| Port Clyde, Marshall Point Lighthouse | SLAMS | Max. Conc., Transport | Continuous - Seasonal |
| Indian Island, Penobscot Nation | TRIBAL | | Continuous |
| Ashland, Loring AFB | CastNet | Background | Continuous |
| Howland, Seed Orchard Site | CastNet | Background | continuous |

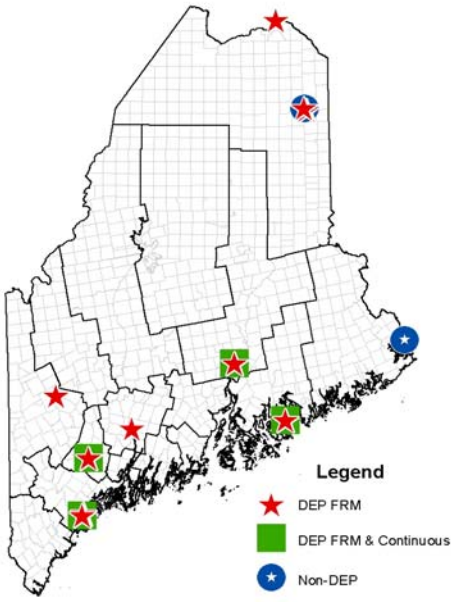
***PAMS Network***

The Photochemical Assessment Monitoring Stations (PAMS) network was originally established in 1993. The monitoring regulations for PAMS provide for the collection of an "enhanced" ambient air quality database which can be used to better characterize the nature and extent of the ozone problem, aid in tracking Volatile Organic Compounds(VOC) and Nitrogen Oxides(NOx) emission inventory reductions, assess air quality trends, make attainment/non-attainment decisions, and evaluate photochemical grid-model performance. The ME DEP operates two PAMS in Maine. These sites are required to be operational for the June – August period but generally operate for May and September also. PAMS are designed to measure the precursors responsible for the development of ozone and were initially required for serious or greater non-attainment areas. Both of the sites in Maine were required as a result of serious non-attainment areas in other states. The site in Cape Elizabeth is considered an extreme downwind site for the Greater Connecticut non-attainment area and the Cadillac Mountain site in Acadia National Park is considered an extreme downwind site for the Boston non-attainment area. As additional controls have been implemented and air quality has improved the serious non-attainment areas have been reduced or eliminated. However, with a lowering of the standard the status of some of these areas may change and continued monitoring of the precursors remains important. There are no plans to change the existing PAMS network for CY 2012.

| **Site Address** | **Site Type** | **Monitoring Objective** | **Sampling Frequency** |
|---|---|---|---|
| Cape Elizabeth, Two Lights State Park | PAMS | Transport | Continuous - Seasonal |
| Bar Harbor, Top of Cadillac Mountain | PAMS | Transport | Continuous - Seasonal |

***PM 2.5 Network***

Maine began a PM2.5 monitoring program using filter based monitors that met the Federal Register Method (FRM) in 1999 with 15 sites started up during the first year of operation. After three years of data were collected, which demonstrated compliance with the standard at all of the sites, some of the sites were relocated or the monitors were modified to collect PM10 data. Currently Maine is monitoring for PM2.5 using the filter based FRM samplers at eleven sites. All of the current sites are in compliance with the standard and are maintained to gather additional trend data, to document future attainment status and the filters can be used in additional analyses to determine levels of some of the air toxics that are on the priority list. No changes are being proposed for CY 2012.



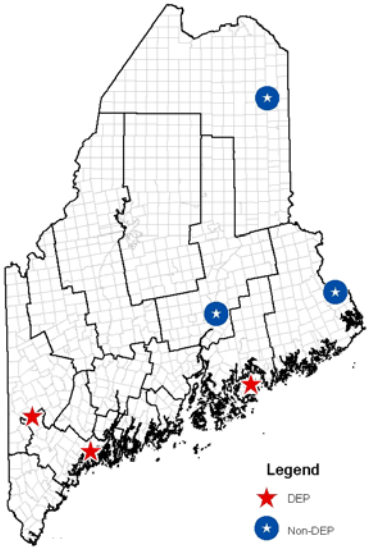

Maine also initiated continuous monitoring of PM2.5 in 2000. Sites were initially located in Bangor, Lewiston and Portland. Since that time additional monitors have been located in Bar Harbor and Greenville. The Passamaquoddy tribe operates a monitor in Perry and the Micmac tribe operates a monitor in Presque Isle. These monitors are not an approved method for determining compliance with the standard but are being used to generate hourly data that can be used to forecast air quality. There are no plans to purchase additional continuous monitors that do not have EPA approval. When the existing monitors need to be replaced they will be replaced with an EPA approved continuous monitor. Until that time Maine will continue to demonstrate compliance using the filter based Federal Register Method monitors. There are no changes planned for CY 2012 with the exception of Greenville. The Greenville monitor was located to provide continuous data for use in a wood smoke study in that area and will be terminated after the 2010/2011 winter season. One area for future consideration is a western mountain valley area to collect data for better forecasting of particulate levels under specific weather conditions.

| **Site Address** | **Site Type** | **Monitoring Objective** | **Sampling Frequency** |
|---|---|---|---|
| Lewiston – Country Kitchen Lot | SLAMS | 200K Pop. Coverage | FRM 1/6 |
| Madawaska – Public Safety Bldg. | SLAMS | High Pop. Exposure | FRM 1/3 |
| Presque Isle – Riverside Street | SLAMS | 200K Pop. Coverage | FRM 1/3 |
| Presque Isle – Regional Office | SPM | Background | FRM 1/3 |
| Portland – Tukey's Bridge | SPM | High Traffic | FRM 1/6 |
| Portland – 356 State Street | SLAMS | MSA of 200-500K | FRM 1/3 |
| Portland – 356 State Street | SLAMS | Collocated | FRM 1/12 |
| Bar Harbor – McFarland Hill | NCORE | Transport | FRM 1/3 |
| Augusta – Lincoln Street School | SPM | 200K Pop. Coverage | FRM 1/6 |
| Augusta – Lincoln Street School | SPM | Collocated | FRM 1/12 |
| Rumford – Rumford Avenue | SPM | High Pop. Exposure | FRM 1/6 |
| Bangor – Kenduskeag Pump Sta. | SLAMS | 200K Pop. Coverage | FRM 1/3 |
| Bangor – Kenduskeag Pump Sta. | SPM | Mapping | Continuous |
| Bar Harbor – McFarland Hill | SPM | Mapping | Continuous |
| Lewiston – Country Kitchen Lot | SPM | Mapping | Continuous |

| | | | |
|---|---|---|---|
| Portland – 356 State Street | SPM | Mapping | Continuous |
| Sipayik – 184 County Road | Tribal | Mapping | Continuous |
| Presque Isle – 8 Northern Road | Tribal | Mapping | Continuous |

***PM Speciation Network***

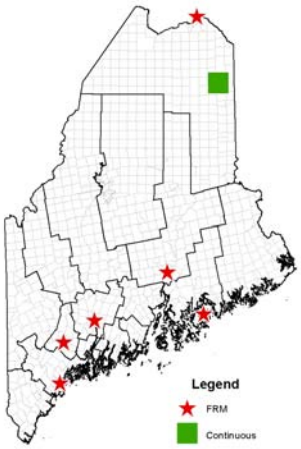
Maine operates a PM speciation network by participating in the Interagency Monitoring of Protected Visual Environments or IMPROVE program. Monitors are currently located in Bridgton and Freeport. Sites are also operated by the National Park Service, the Fish and Wildlife Service and the Penobscot and Micmac tribes. No changes are proposed for CY 2012.




| Site Address | Site Type | Monitoring Objective | Sampling Frequency |
|---|---|---|---|
| Bar Harbor – McFarland Hill | NPS/NCORE | Regional Haze | 1/3 |
| Bridgton – Upper Ridge Rad | SLAMS | Background | 1/3 |
| Freeport – Wolfes Neck Road | SPM | Deposition Project | 1/3 |
| Baring – Moosehorn Wildlife Ref. | USFWS | | 1/3 |
| Indian Island – Penobscots | Tribal | | 1/3 |
| Presque Isle – 8 Northern Road | Tribal | | 1/3 |

***PM10 Network***

Maine operates the current filter based PM10 network using the FRM samplers that have been modified to collect PM10 particles. Data is being collected at seven sites around the state. All of the sites are currently meeting the standards but historically several areas of the state had experienced exceedances of the standard, most recently a site in Madawaska. Increased monitoring in Madawaska has not shown any additional problems in the past two years. The filters collected in the PM10 program can be used for the lead monitoring program. The Van Buren site was shut down in early 2011. An additional site may be established in Aroostook County to gather additional data on PM10 levels in the northern part of the state. No other changes are planned for CY 2012.




A continuous PM10 monitor is operated in Presque Isle. This monitor was located in Presque Isle as part of the control strategy for high PM10 levels. The monitor provides

hourly data which can be used to determine when high levels are occurring and whether street sweeping or other control strategies need to be implemented. No changes are planned for CY 2012.

| Site Address | Site Type | Monitoring Objective | Sampling Frequency |
|---|---|---|---|
| Augusta – Lincoln Street School | SPM | High Pop. Exposure | 1/6 |
| Bangor – Kenduskeag Pump Sta. | SPM | High Pop. Exposure | 1/6 |
| Bar Harbor – McFarland Hill | NCORE | Background | 1/3 |
| Lewiston – Country Kitchen Lot | SLAMS | High Pop. Exposure | 1/6 |
| Madawaska – Public Safety Bldg. | SLAMS | High Pop. Exposure | 1/3 |
| Portland – Tukey's Bridge | SPM | Maximum Conc. | 1/6 |
| Portland – Tukey's Bridge | SPM | Collocated | 1/12 |
| Presque Isle – Riverside Street | SLAMS | High Pop. Exposure | Continuous |

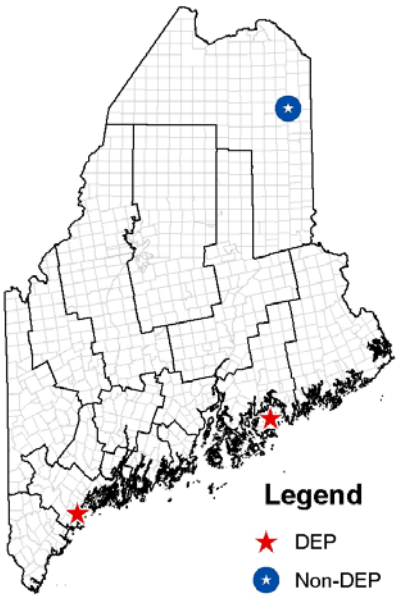
***PM Coarse Network***

Maine is currently required to operate a PM Coarse monitor at the NCORE site in Bar Harbor. Monitoring for PM Coarse was initially conducted by the difference method utilizing FRM samplers that collected PM10 data and PM2.5 data and reporting the difference between the two concentrations as PM Coarse or $PM_{10-2.5}$. In the summer of 2011 a dichotomous PM sampler capable of measuring PM2.5 and $PM_{10-2.5}$ will be installed. If needed, data could also be calculated utilizing the difference method from sites in Madawaska, Bangor, Augusta and Portland.

| Site Address | Site Type | Monitoring Objective | Sampling Frequency |
|---|---|---|---|
| Bar Harbor – McFarland Hill | NCORE | Background | 1/3 |

***Sulfur Dioxide Network***

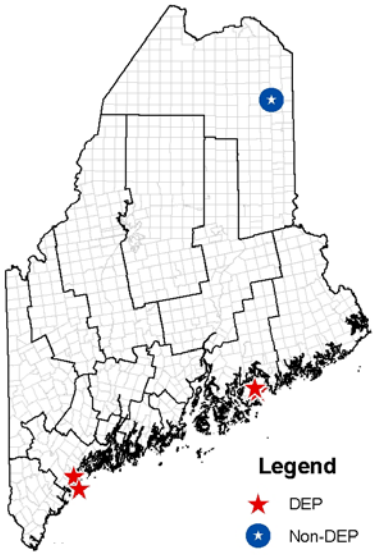
Maine currently operates two monitors for sulfur dioxide. One is a required trace level monitor at the NCore site in Bar Harbor and the other is located in Portland to track levels in the highest population area of the state. Proposed changes to the sulfur dioxide standard were finalized on June 2, 2010. The final rule requires a sulfur dioxide monitor in Core Based Statistical areas based on a population weighted emissions index for the area. Maine does not have any CBSA's that would require a monitor. Consequently, the only required monitoring in Maine is the monitor for the NCore site and an urban and/or rural monitor to collect background/baseline data for the air emission licensing program. Compliance around large sulfur dioxide sources will be determined through computer modeling rather than monitoring. This change was made due to the extreme difficulty in adequately locating monitors to effectively measure maximum one hour impacts from a source. The Micmac tribe operates a monitor at their site in Presque Isle. Should the Micmac site in Presque Isle not be acceptable for a rural background monitor then an additional monitor may be established at a rural site in southern Maine. No other changes are planned for CY 2012.



| Site Address | Site Type | Monitoring Objective | Sampling Frequency |
|---|---|---|---|
| Bar Harbor – McFarland Hill | NCORE | Background | Continuous |
| Portland – 356 State Street | SPM | High Pop. Exposure | Continuous |
| Presque Isle – 8 Northern Road | TRIBAL | | Continuous |

***Nitrogen Oxides Network (NO2, NOx, NO, NOy)***

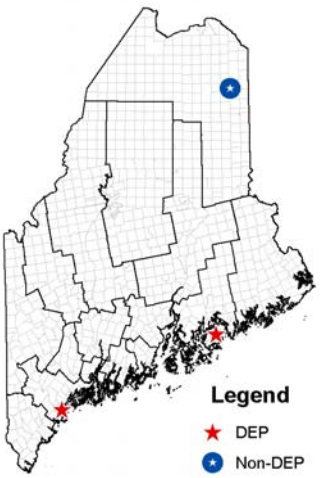
Maine currently operates three NOy monitors and one NO2 monitor. The NOy monitors are located at the NCore site in Bar Harbor and the two seasonal PAMS locations. The NO2 monitor is located at the Deering Oaks site in Portland. The NO2 regulations were finalized on January 22, 2010 and included provisions for near roadway monitoring. The Deering Oaks site appears to meet the requirements for a near roadway monitor. If EPA concurs than no additional monitor(s) may be required. The Micmac tribe also operates a trace level NO2 monitor at their site in Presque Isle. The only other monitoring that may be conducted if equipment is available will be for a rural background site in southern Maine in order to provide one hour and annual background numbers for the air emission licensing program. No other changes are planned for CY2012.




| Site Address | Site Type | Monitoring Objective | Sampling Frequency |
|---|---|---|---|
| Portland – Deering Oaks (NO2) | SPM | Maximum Conc. | Continuous |
| Bar Harbor – Cadillac Mtn. (NOy) | PAMS | Transport | Continuous |
| Bar Harbor – McFarland Hill (NOy) | NCORE | Transport | Continuous |
| Cape Elizabeth – Two Lights State Park (NOy) | PAMS | Transport | Continuous |
| Presque Isle – 8 Northern Road | TRIBAL | | Continuous |

***Carbon Monoxide Network***

Maine currently operates two carbon monoxide monitors. Monitors are located at the NCORE site in Bar Harbor and the Deering Oaks site in Portland. The Micmac tribe also operates a CO monitor at their site in Presque Isle. The CO standard has been reviewed and no change was made in the level or the form of the standard. No changes are planned for CY 2012.



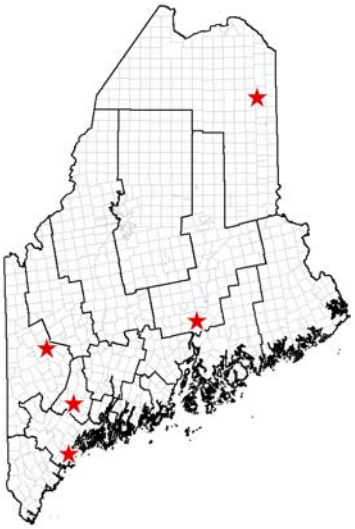
| Site Address | Site Type | Monitoring Objective | Sampling Frequency |
|---|---|---|---|
| Bar Harbor – McFarland Hill | NCORE | Transport | Continuous |
| Portland – 356 State Street | SPM | High Pop. Exposure | Continuous |
| Presque Isle – 8 Northern Road | TRIBAL | | Continuous |

***Lead Network***

In 2008 EPA promulgated a new lead standard and issued some minimum monitoring requirements. At that time the only requirement applicable to Maine would have meant one monitor in the Portland CBSA (Core-based statistical area). They then reconsidered the monitoring requirement and were considering requiring a monitor at the NCore site in Bar Harbor. The final rule required lead monitoring at urban NCORE sites only so there is no requirement for lead monitoring in Maine. However, with a much lower standard Maine will be analyzing selected filters collected over the last eight years from all of the PM10 sites in the state for lead levels and based on those results will decide whether a monitoring network for lead will be needed in the future.

***Air Toxics Network***

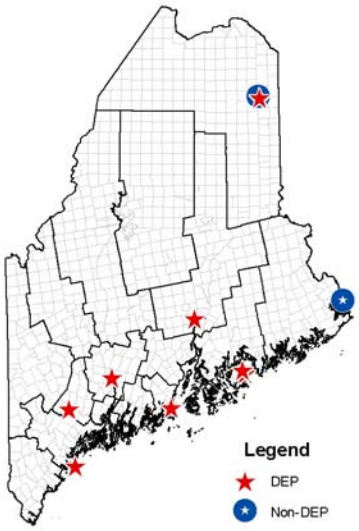
Although not a required monitoring network Maine has been monitoring for 25 air toxic compounds at five locations around the state. The monitoring is to document background concentrations around the state and to establish whether there are any trends in the levels of these compounds. In addition, several of the metals that are listed as air toxics are also being measured at the particulate monitoring sites. Maine continues to refine the method for measuring acrolein and may establish additional monitoring locations if emissions inventory data indicates the potential for a "hotspot" area for any of the priority air toxics. The air laboratory also purchased a new Gas Chromatograph/Mass Spectrometer in early 2011 which will increase the number of compounds that can be monitored as well as lower the detection limits.



| **Site Address** | **Site Type** | **Monitoring Objective** | **Sampling Frequency** |
|---|---|---|---|
| Bangor – Kenduskeag Pump Sta. | SPM | Maximum Conc. | 1/6 |
| Lewiston – Country Kitchen Lot | SPM | Maximum Conc. | 1/6 |
| Portland – 356 State Street | SPM | Maximum Conc. | 1/6 |
| Presque Isle – Riverside Street | SPM | Maximum Conc. | 1/6 |
| Rumford – Rumford Avenue | SPM | Maximum Conc. | 1/6 |

***Meteorological Network***

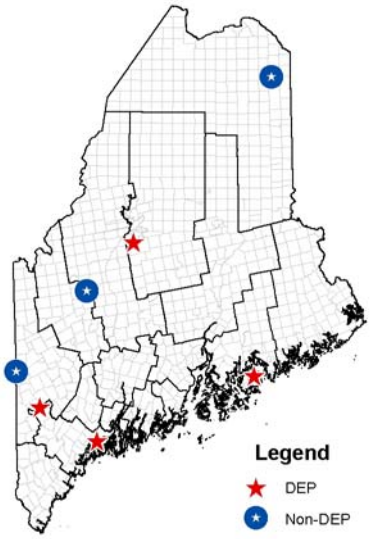
Maine currently operates a number of meteorological sites around the state to collect data for use in the analysis and evaluation of air pollutant data. With the exception of the PAMS monitoring site on Cadillac Mountain the monitors operate year-around. All of the sites collect wind speed and direction information as well as sigma theta, which is an indicator of the amount of variability in the wind direction. A few of the sites collect additional parameters such as relative humidity, barometric pressure, temperature and solar radiation. Meteorological data is also collected at the Passamaquoddy site in Perry and the Micmac site in Presque Isle. An additional met site has been operated in the Greenville area to provide data for a wood smoke study. No other changes are proposed for CY 2012.




| Site Address | Site Type | Monitoring Objective | Sampling Frequency |
|---|---|---|---|
| Auburn – L/A Airport | SPM | | Continuous |
| Augusta – State Airport | SPM | | Continuous |
| Bangor – Air National Gurad | SPM | | Continuous |
| Bar Harbor – Cadillac Mountain | PAMS | Transport | Continuous – Seasonal |
| Bar Harbor – McFarland Hill | NCORE | Transport | Continuous |
| Cape Elizabeth – Two Lights Park | PAMS | Transport | Continuous |
| Owls Head – Municipal Airport | SPM | | Continuous |
| Presque Isle – Regional Office | SPM | | Continuous |
| Presque Isle – 8 Northern Road | TRIBAL | | Continuous |
| Sipiyak – 184 County Road | TRIBAL | | Continuous |

***Deposition Network***

Maine continues to have a fairly extensive deposition network with several sites operated by the Maine DEP. Several of the sites are part of the Mercury Deposition Network (MDN) in addition to being a part of the National Trends Network (NTN) which measures precipitation chemistry. Early in the program there were a number of agencies and organizations that participated and provided funds for the operation of the sites. As funds have dried up and budgets have been cut the continued operation of some of these sites has been in question. The data from this program is used by a wide variety of researchers and the continued operation of the sites is very important to maintain the continuous record of deposition occurring around the state. It is hoped that a new site will be established in the downeast area as a joint effort between EPA and the Passamaquoddy tribe. No other changes are proposed for CY 2012.



| Site Address | Site Type | Monitoring Objective | Sampling Frequency |
|---|---|---|---|
| Bridgton – Upper Ridge Road (NTN and MDN) | SPM | Transport/Trends | Weekly Composite |
| Caribou – Airport (NTN and MDN) | SPM | Transport/Trends | Weekly Composite |
| Freeport – Wolfes Neck Farm (NTN and MDN) | SPM | Transport/Trends | Weekly Composite |
| Greenville – Squaw Brook (NTN and MDN) | SPM | Transport/Trends | Weekly Composite |
| Bar Harbor – McFarland Hill (NTN and MDN) | NPS-SPM | Transport/Trends | Weekly Composite |
| Carrabassett Valley – Airport | TRIBAL | Transport/Trends | Weekly Composite |
| Gilead - | USGS | Transport/Trends | Weekly Composite |

***Proposed Network Changes***

As usual the monitoring network proposed for CY2012 is an ambitious one and will require a significant effort from the staff of the Bureau to accomplish. The program is always subject to change as a result of staffing changes, budget cuts and the willingness of landowners to allow air monitoring sites to be located on their property. We will be looking for increased automation and improved remote access to monitors to lessen some of the impacts from budget cuts and staff retirements.

Depending on the final outcome of a number of revisions proposed for air quality standards, additional review of emissions and the need for background data the following changes could occur:

- Additional ozone monitoring in the western mountain region.
- Additional ozone monitoring in the coastal area between Brunswick and Bath.
- Continuous particulate monitoring at a western mountain valley location for forecasting support.
- Additional nitrogen dioxide and sulfur dioxide monitoring in southern Maine for rural background concentrations.
- Additional PM monitoring in Aroostook County.

The monitoring program operated by the Maine DEP undergoes constant review to ensure that the monitoring is appropriate to meet monitoring goals, does not contain extraneous monitoring and can be accomplished within the available budget. However, should budget and staffing issues require cuts in the monitoring program the initial cuts could include the following monitors and/or sites:

- Bowdoinham ozone monitoring site.
- Portland carbon monoxide monitoring.
- Portland sulfur dioxide monitoring.

Discussions will be held with EPA staff prior to any monitors or sites being discontinued.

***Monitoring Site Information***

## Monitoring Equipment Used by Maine DEP

| PARAMETER | INSTRUMENT | METHOD* |
|---|---|---|
| PM 2.5 FRM | R&P/Thermo Sequential Model 2025<br>R&P/Thermo Single Model 2000 | RFPS-0498-118<br>RFPS-0498-117 |
| PM 2.5 Continuous | R&P/Thermo TEOM Model 1400AB | |
| PM 10 FRM | R&P/Thermo Sequential Model 2025<br>R&P/Thermo Single Model 2000 | RFPS-1298-127<br>RFPS-1298-126 |
| PM Coarse | Thermo Dichot Model 2025D<br>Difference Method PM10-PM2.5 | EQPS-0509-180<br>RFPS-0509-176 |
| PM 10 Continuous | R&P TEOM Model 1400AB | EQPM-1090-079 |
| Organic/Elemental Carbon | Sunset Semicontinuous OC/EC Carbon Aerosol Analyzer | |
| Black Carbon | Magee Scientific Aethelometer Model AE-22 | |
| Total PAH | Ecochem PAS 2000 | |
| PM Speciation | IMPROVE Sampler | |
| Lead | R&P Sequential Model 2025<br>R&P Single Model 2000<br>Spectro XEPOS XRF Spectrometer | |
| Metals | R&P Sequential Model 2025<br>R&P Single Model 2000<br>Spectro XEPOS XRF Spectrometer | |
| Ozone | Thermo Models 49C, 49i | EQOA-0880-047 |
| Sulfur Dioxide | Thermo Model 43C, 43C-TLE, 43i, 43i-TLE | EQSA-0486-060 |
| Carbon Monoxide | Thermo Model 48C, 48i, 48iTLE | RFCA-0981-054 |
| Nitrogen Dioxides | Thermo Model 42C, 42i | RFNA-1289-074 |
| Oxides of Nitrogen | Thermo Model 42iY | |
| VOC's (PAMS) | Perkin Elmer Auto System GC | |
| Sulfate Continuous | Thermo Model 5020 | |
| Air Toxics | Xontech 910A | |
| Wind Speed/Direction | Climatronics F460<br>Met One | |
| Temperature | Climatronics<br>Met One | |
| Relative Humidity | Climatronics<br>Met One | |
| Barometric Pressure | Climatronics<br>Met One | |
| Solar Radiation | Climatronics<br>Met One | |
| Atmospheric Deposition | Aerochem Metrics wet/dry collector | |
| Mercury Deposition | Aerochem Metrics<br>N-CON Wet Deposition collector | |
| Precipitation | ETI Instrument Systems NOAH IV | |
| | | |

* Designated Reference and Equivalent Methods as of April 1, 2011.

# SAMPLING SCHEDULE CALENDAR

# 2012

| January '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |

| February '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | | | |

| March '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

| April '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | | | | | |

| May '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

| June '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

| July '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |

| August '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | |

| September '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | | | | | | |

| October '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

| November '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | |

| December '12 | | | | | | |
|---|---|---|---|---|---|---|
| Su | M | Tu | W | Th | F | Sa |
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

www.vertex42.com/calendars

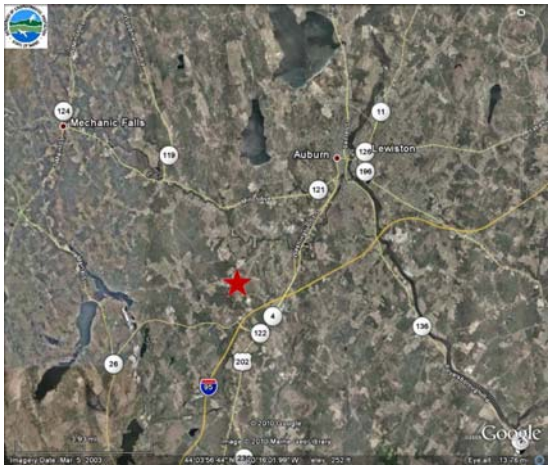
© 2009 Vertex42.com

= 1/3 schedule

= 1/6 schedule

= 1/12 schedule

| | | | |
|---|---|---|---|
| Town – Site: | **Auburn – Lewiston-Auburn Airport** | | |
| County: | **Androscoggin** | Latitude: | **44.0457** |
| Address: | **Lewiston Junction Rd.** | Longitude: | **-70.2902** |
| AQS Site ID: | **23-001-0005** | Elevation: | **79 meters** |
| Spatial Scale: | **Regional** | Year Established: | **1978** |
| Statistical Area: | **Lewiston-Auburn, ME** | | |




**Pollutant and Meteorological Parameters:**

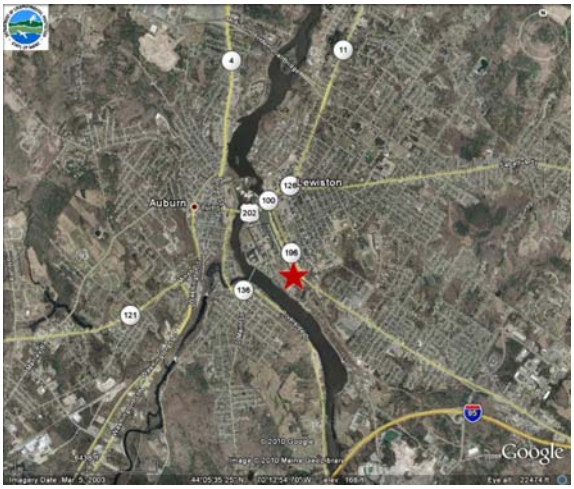
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | 10/18/1978 | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
The site is located in a light industrial park located 4 ½ miles SW of downtown Auburn. Wind Speed and Direction sensors are mounted on a 10 meter retractable tower located on the roof of a maintenance equipment shed at the Auburn-Lewiston Municipal Airport. A data acquisition system and modem are located in a storage room within the equipment shed.

**Monitoring Objectives:**
Hourly averaged wind speed and wind direction, combined with other climatological data obtained from the NOAA National Weather Service, are useful in modeling trajectories of air masses.

**Planned changes for 2012**: None planned

| | | | |
|---|---|---|---|
| Town – Site: | **Lewiston – Country Kitchen Parking Lot** | | |
| County: | **Androscoggin** | Latitude: | **44.0894** |
| Address: | **Canal Street** | Longitude: | **-70.2141** |
| AQS Site ID: | **23-001-0011** | Elevation: | **50 meters** |
| Spatial Scale: | **Neighborhood** | Year Established: | **1981** |
| Statistical Area: | **Lewiston-Auburn ME** | | |




**Pollutant and Meteorological Parameters:**

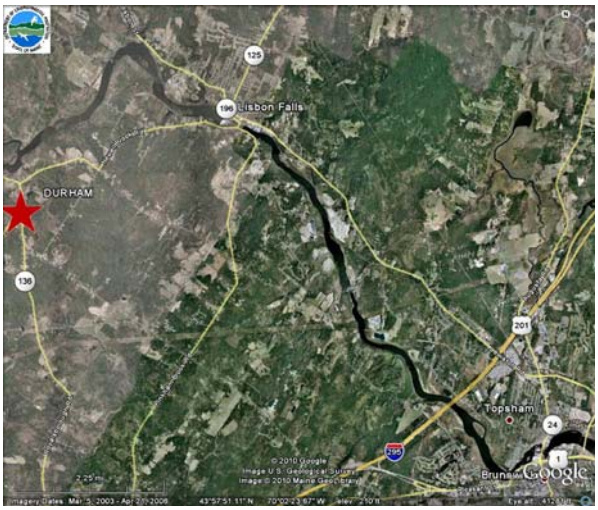
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 01/01/1999 | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | 01/01/2000 | | NOy | | |
| PM10 FRM | 04/01/2004 | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | 06/14/2004 | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | 06/01/1989 | 12/31/1993 | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | 07/13/1998 | 12/30/2002 | UvB Radiation | | |

**Site Description:**
The site is located in downtown Lewiston in the parking lot of the Country Kitchen Bakery. An 8'x8'x8' shelter houses electronic monitoring equipment, data acquisition system and modem, in a climate controlled environment, with PM monitors and intakes situated on the roof. The current location of the monitoring shelter is about 125 feet further SE than the original 1989 site. The shelter move occurred during 12/30/1998 and 1/25/1999.

**Monitoring Objectives:**
Population Exposure.

**Planned changes for 2012:**
None planned

| | | | |
|---|---|---|---|
| Town – Site: | **Durham – Fire Station** | | |
| County: | **Androscoggin** | Latitude: | **43.9745** |
| Address: | **Route 9** | Longitude: | **-70.1249** |
| AQS Site ID: | **23-001-0014** | Elevation: | **50 meters** |
| Spatial Scale: | **Regional** | Year Established: | **2004** |
| Statistical Area: | **Lewiston-Auburn, ME** | | |




**Pollutant and Meteorological Parameters:**

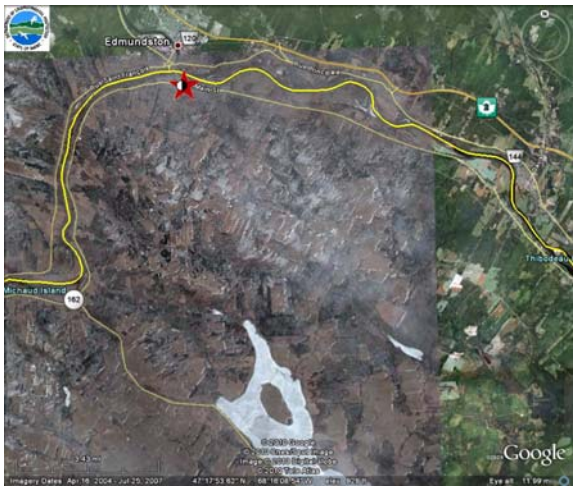
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 04/01/2004 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
The site is located on the grounds of the Durham Fire Station, 9 ½ miles SE of Lewiston. An ozone monitor is located within an 8'x8'x8' environmentally controlled shelter. The shelter was installed in 2006. During the summers of 2004 and 2005 an ozone monitor was set up temporarily, in a corner of the fire station with a probe attached to the roof edge, to determine if the location warranted continued monitoring.

**Monitoring Objectives:**
Regional Transport

**Planned changes for 2012:**
None planned

| | | | |
|---|---|---|---|
| Town – Site: | **Madawaska – Public Safety Bldg** | | |
| County: | **Aroostook** | Latitude: | **47.3553** |
| Address: | **East Maine St.** | Longitude: | **-68.3211** |
| AQS Site ID: | **23-003-0014** | Elevation: | **177 meters** |
| Spatial Scale: | **Neighborhood** | Year Established: | **2009** |
| Statistical Area: | **None** | | |




**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 8-1-2009 | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | 8-1-2009 | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
New site established in 2009 to replace the Tang's Palace site which was no longer available for use after June, 2009. Monitors are located on the roof of the Public Safety Building and are operated on a 1/3 schedule.
PM2.5 monitor: R&P Sequential Model 2025 RFPS 1298-127
PM10 monitor: R&P Sequential Model 2025 RFPS 0498-118

**Monitoring Objectives:**
High population exposure and maximum concentrations for the Madawaska area

**Planned changes for 2012:**
None planned

| | | | |
|---|---|---|---|
| Town – Site: | **Caribou – Caribou Airport** | | |
| County: | **Aroostook** | Latitude: | **46.8683** |
| Address: | **Caribou Airport** | Longitude: | **-67.9931** |
| AQS Site ID: | **23-003-1002** | Elevation: | **191 meters** |
| Spatial Scale: | **Regional** | Year Established: | **1982** |
| Statistical Area: | **None** | | |

**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | 1-1-1982 | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | 1-1-1982 | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Site was moved to its present location in a grassy area inside the fence and off the south end of the runway.

**Monitoring Objectives:**
Long term monitoring of deposition in northern Maine

**Planned changes for 2012:**
None planned

| | | | |
|---|---|---|---|
| Town – Site: | **Presque Isle – DEP Regional Office** | | |
| County: | **Aroostook** | Latitude: | **46.6984** |
| Address: | **528 Central Drive** | Longitude: | **-68.0389** |
| AQS Site ID: | **23-003-1008** | Elevation: | **158 meters** |
| Spatial Scale: | **Neighborhood** | Year Established: | **1983** |
| Statistical Area: | **None** | | |

**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 9-27-2007 | | Ozone | 8-1-1988 | 9-21-1989 |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | 7-1-1989 | 9-27-2007 | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | 2-13-1983 | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | 8-1-1988 | 9-21-1989 | UvB Radiation | | |

**Site Description:**
Suburban background site for monitoring PM and wind. Monitors are located in a field next to the regional office in Presque Isle.
PM2.5 monitor: R&P Sequential Model 2025 RFPS-1298-127
Wind instrument is a Climatronics F460 System.

**Monitoring Objectives:**
Background concentrations of PM for Presque Isle area and meteorological data for analysis of pollutant data.

**Planned changes for 2012:**
None planned

| | | | |
|---|---|---|---|
| Town – Site: | **Presque Isle** | | |
| County: | **Aroostook** | Latitude: | **46.6823** |
| Address: | **Riverside Street** | Longitude: | **-68.0156** |
| AQS Site ID: | **23-003-1011** | Elevation: | **131 meters** |
| Spatial Scale: | **Neighborhood** | Year Established: | **1993** |
| Statistical Area: | **None** | | |

**Pollutant and Meteorological Parameters:**

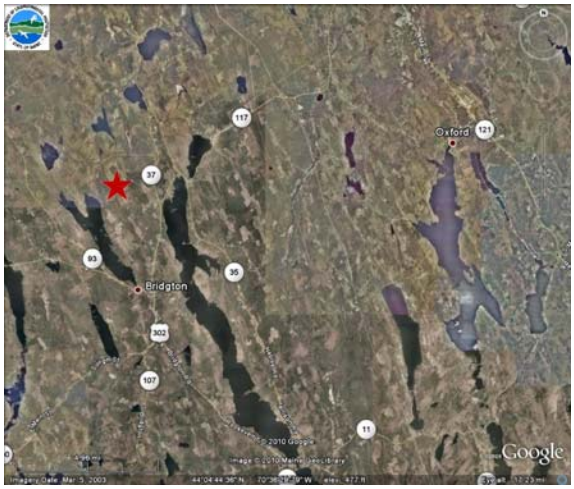
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 10-1-1997 | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | 9-10-1993 | 11-2-1998 | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | 12-14-03 | |
| PM10 TEOM | 9-15-1995 | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | 9-19-1994 | 7-2-1996 | UvB Radiation | | |

**Site Description:**
Monitors are located in a parking lot off Main Street in the downtown area of Presque Isle. The site is relatively open, next to the railroad tracks and the Presque Isle Stream**.**

**Monitoring Objectives:**
Neighborhood scale monitor. The primary purpose was to locate the continuous PM10 monitor in the non-attainment area to provide data for determining whether control activity was needed to keep PM10 concentrations from exceeding the 24 hour standard.

**Planned changes for 2012:**
None planned

| | | | |
|---|---|---|---|
| Town – Site: | **Bridgton** | | |
| County: | **Cumberland County** | Latitude: | **44.1074** |
| Address: | **Upper Ridge Road** | Longitude: | **-70.7290** |
| AQS Site ID: | **23-005-0002** | Elevation: | **223 meters** |
| Spatial Scale: | **Regional** | Year Established: | **1980** |
| Statistical Area: | **Portland-South Portland-Biddeford, ME** | | |




**Pollutant and Meteorological Parameters:**

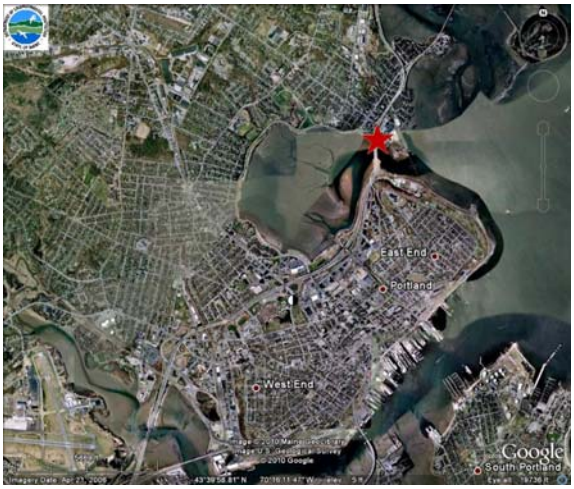
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | 1-1-1980 | |
| IMPROVE | 3-14-2001 | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Site is located on a ridge in an open field area just off the Upper Ridge Road.

**Monitoring Objectives:**
Long term tracking of deposition in the western mountain area of the state.

**Planned changes for 2012:**
None planned

| | | | |
|---|---|---|---|
| Town – Site: | **Portland – Tukey's Bridge** | | |
| County: | **Cumberland** | Latitude: | **43.6780** |
| Address: | **Tukey's Bridge (Route 295)** | Longitude: | **-70.2562** |
| AQS Site ID: | **23-005-0015** | Elevation: | **6 meters** |
| Spatial Scale: | **Middle/Micro** | Year Established: | **1981** |
| Statistical Area: | **Portland-South Portland-Biddeford, ME** | | |




**Pollutant and Meteorological Parameters:**

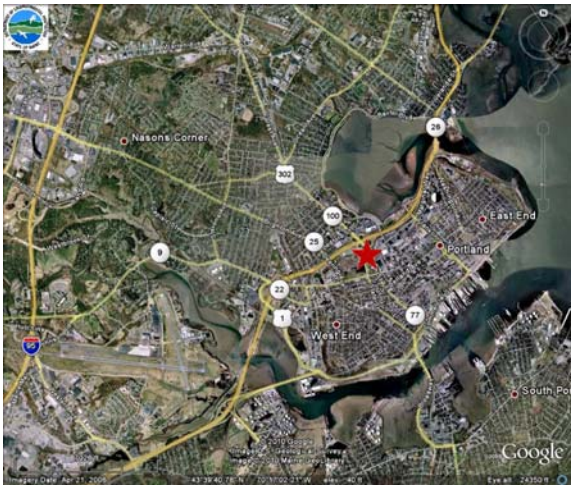
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 1-1-1999 | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | 2-8-1991 | | VOCs (PAMS) | | |
| PM10 Colo | 1-9-2003 | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Monitors are located on a platform next to I-295/Washington Street. This section of road has some of the highest annual average daily traffic volume in the state.

**Monitoring Objectives:**
Monitors were located at this site for maximum concentrations and high traffic volume**.**

**Planned changes for 2012:**
No additional monitors are planned but lead will be added as a parameter, including precision from the collocated monitor.

| | | | |
|---|---|---|---|
| Town – Site: | **Portland – Deering Oaks Park** | | |
| County: | **Cumberland** | Latitude: | **43.6602** |
| Address: | **356 State St.** | Longitude: | **-70.2690** |
| AQS Site ID: | **23-005-0029** | Elevation: | **4 meters** |
| Spatial Scale: | **Neighborhood** | Year Established: | **2008** |
| Statistical Area: | **Portland-South Portland-Biddeford, ME** | | |




**Pollutant and Meteorological Parameters:**

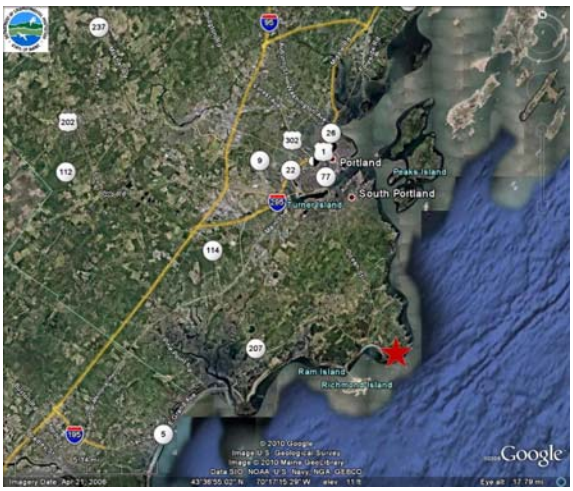
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 1-22-2008 | | Ozone | 1-18-2008 | |
| PM2.5 Colo | 1-31-2008 | | NOx | 2-5-2008 | |
| PM2.5 TEOM | 1-18-2008 | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | 3-14-2009 | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | 5-1-2008 | | Solar Radiation | | |
| SO2 | 1-24-2008 | | UvB Radiation | | |

**Site Description:**
The Deering Oaks site was established in 2008 to replace the Marginal Way site which had to be removed to make way for development activity. The site is located in a grassy area of the Park near the intersection of Forest Avenue and State Street and close to an off ramp from I-295. To the west of the site is a wooded area of the park as well as numerous athletic fields. Annual Average Daily Traffic volume on Forest Avenue is around 46,000. EPA also uses the site for a monitor in their radiation network.

**Monitoring Objectives:**
The site was located on the Portland Peninsula to monitor for maximum impacts in a neighborhood area. The ozone monitor is a special purpose monitor installed for the Bureau of Health and is considered a non-regulatory monitor. The nitrogen dioxide monitor has also been considered a non-regulatory monitor because it does not meet the distance from a roadway requirement for a standard monitor. This monitor and location will be reviewed to determine if it will meet the requirements for a near roadway monitor required in the new regulations promulgated in January.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Cape Elizabeth** | | |
| County: | **Cumberland** | Latitude: | **43.5610** |
| Address: | **Two Lights State Park** | Longitude: | **-70.2073** |
| AQS Site ID: | **23-005-2003** | Elevation: | **24 meters** |
| Spatial Scale: | **Regional** | Year Established: | **1981** |
| Statistical Area: | **Portland-South Portland-Biddeford, ME** | | |




**Pollutant and Meteorological Parameters:**

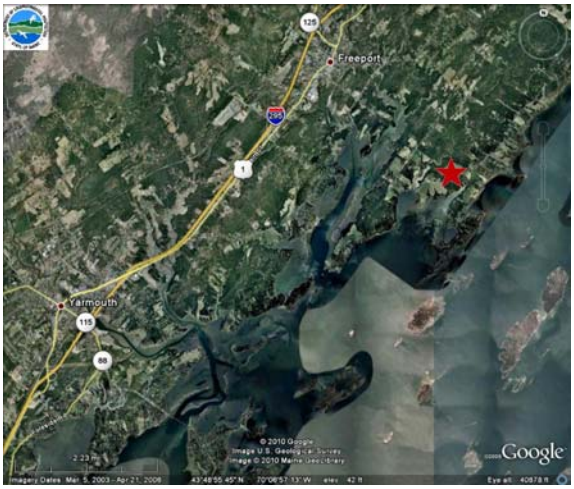
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 1-1-1999 | 12-17-2002 | Ozone | | |
| PM2.5 Colo | | | NOx | 6-9-1993 | 10-31-1995 |
| PM2.5 TEOM | | | NOy | 6-26-1995 | |
| PM10 FRM | | | VOCs (PAMS) | 6-1-1993 | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | 6-25-1985 | |
| Cont. OC/EC | | | Temperature | 6-7-1994 | |
| Cont. Sulfate | | | Bar. Pressure | 6-7-1994 | |
| Black Carbon | | | Relative Humidity | 6-7-1994 | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | 5-1-2001 | 10-1-2007 | Solar Radiation | 6-7-1994 | |
| SO2 | | | UvB Radiation | 6-1-1995 | |

**Site Description:**
Site is located in an open elevated area in the Two Lights State Park in Cape Elizabeth. A new large shelter was installed last year replacing two smaller shelters. The site was located to pick up the plumes entering Maine from the urban areas to the southwest. With the exception of the meteorological parameters this site is normally operated during the ozone season only.

**Monitoring Objectives:**
The site is located to pick up long range transport of pollutants into the state.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Freeport – Wolfes Neck Farm** | | |
| County: | **Cumberland** | Latitude: | **43.8325** |
| Address: | **Wolfes Neck Road** | Longitude: | **-70.0644** |
| AQS Site ID: | **23-005-9002** | Elevation: | **27 Meters** |
| Spatial Scale: | **Regional/Neighborhood** | Year Established: | **1998** |
| Statistical Area: | **Portland-South Portland-Biddeford, ME** | | |




**Pollutant and Meteorological Parameters:**

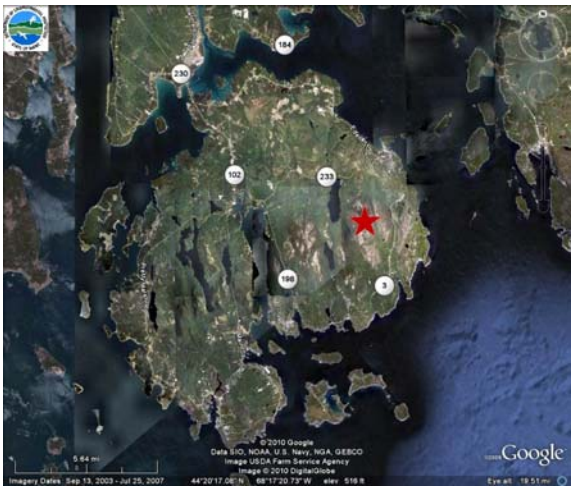
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | 1-7-1998 | |
| PM Coarse | | | Atm. Deposition | 1-7-1998 | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | 1-7-1998 | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Site is located within a fenced in area in the middle of a large open field used as a pasture by the farm.

**Monitoring Objectives:**
Site designed to monitor the long range transport of pollutants on a regional scale.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Bar Harbor – Cadillac Mountain, Acadia National Park** | | |
| County: | **Hancock** | Latitude: | **44.3517** |
| Address: | **Top of Cadillac Mountain** | Longitude: | **-68.2272** |
| AQS Site ID: | **23-009-0102** | Elevation: | **463 M (1519 ft)** |
| Spatial Scale: | **Regional** | Year Established: | **1995** |
| Statistical Area: | **None** | | |




**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 7-25-1995 | |
| PM2.5 Colo | | | NOx | 4-1-2004 | 9-30-2007 |
| PM2.5 TEOM | | | NOy | 1-1-2008 | |
| PM10 FRM | | | VOCs (PAMS) | 5-1-1996 | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | 5-6-1996 | |
| Cont. OC/EC | | | Temperature | 4-19-1996 | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | 4-19-1996 | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | 4-1-2002 | 10-1-2003 | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Site established as a PAMS site in 1995. Located on the top of Cadillac Mountain in Acadia National Park. This is a seasonal site operating during the ozone season only.

**Monitoring Objectives:**
Site was established to monitor long range transport of ozone precursors from urban areas to the southwest.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Bar Harbor – McFarland Hill, Acadia National Park** | | |
| County: | **Hancock** | Latitude: | **44.3771** |
| Address: | | Longitude: | **-68.2609** |
| AQS Site ID: | **23-009-0103** | Elevation: | **156 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **1998** |
| Statistical Area: | **None** | | |

**Pollutant and Meteorological Parameters:**

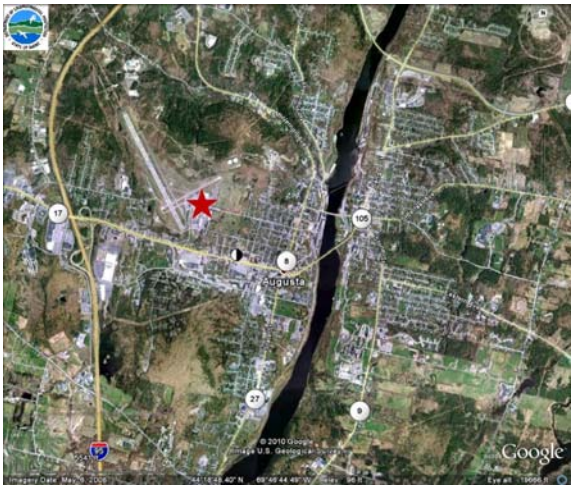
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 1-1-1999 | | Ozone | 2-1-1998 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | 10-1-2003 | | NOy | 2-1-2004 | |
| PM10 FRM | 1-1-2010 | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | 1998 | |
| PM Coarse | 1-1-2010 | | Atm. Deposition | 1998 | |
| IMPROVE | 3-2-1988 | | Wind | 2-1-1998 | |
| Cont. OC/EC | 6-29-2004 | | Temperature | 2-1-1998 | |
| Cont. Sulfate | 6-26-2004 | | Bar. Pressure | | |
| Black Carbon | 2004 | | Relative Humidity | 2-1-1998 | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | 2-1-1998 | |
| CO | 2-1-2004 | | Solar Radiation | 2-1-1998 | |
| SO2 | 2-1-2004 | | UvB Radiation | | |

**Site Description:**
Site is located in a field on the side of McFarland Hill in Bar Harbor. Site slopes to the south/southeast with the hill rising to the north. The site was established by the National Park Service but has since grown to include a variety of monitors for EPA programs, special studies such as the Rural Aerosol Intensive Network and most recently has received approval as the NCORE site for Maine. Monitoring at this site is a joint effort between the NPS and the Maine DEP.

**Monitoring Objectives:**
This is a regional scale site operated to determine background levels, transport and for use in the mapping programs to forecast the air quality index.

**Planned changes for 2012:**
None planned

| | | | |
|---|---|---|---|
| Town – Site: | **Augusta – Civil Air Patrol Hanger** | | |
| County: | **Kennebec** | Latitude: | **44.3179** |
| Address: | **Augusta State Airport** | Longitude: | **-69.7919** |
| AQS Site ID: | **23-011-0008** | Elevation: | **107 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **1981** |
| Statistical Area: | **Augusta-Waterville, ME** | | |




**Pollutant and Meteorological Parameters:**

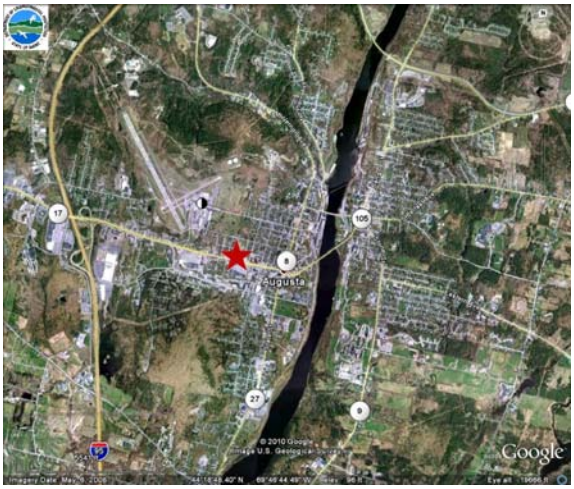
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | 01/20/1981 | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
A 10 meter retractable tower with wind speed direction sensors is situated on the roof of the Civil Air Patrol hanger at the Augusta State Airport, 0.8 miles NW of the state capitol. The data acquisition equipment and modem are located in the adjacent equipment shed to the west.

**Monitoring Objectives:**
Hourly averaged wind speed and wind direction, combined with other climatological data obtained from the NOAA National Weather Service, are useful in modeling trajectories of air masses.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Augusta – Lincoln Street School** | | |
| County: | **Kennebec** | Latitude: | **44.3123** |
| Address: | **30 Lincoln Street** | Longitude: | **-69.7867** |
| AQS Site ID: | **23-011-0016** | Elevation: | **71 Meters** |
| Spatial Scale: | **Neighborhood** | Year Established: | **1999** |
| Statistical Area: | **Augusta-Waterville, ME** | | |




**Pollutant and Meteorological Parameters:**

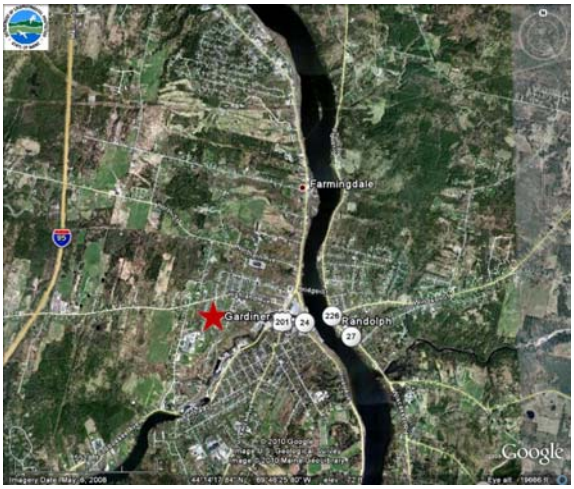
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 01/01/1999 | | Ozone | | |
| PM2.5 Colo | 01/01/1999 | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | 12/02/2002 | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Lincoln Street School is located in Augusta just off Western Avenue, 0.4 miles NW of the state capitol. A wooden platform is situated on the roof of the gymnasium. Particulate monitors are attached to the platform.

**Monitoring Objectives:**
SLAMS – State and Local Air Monitoring Station.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Gardiner – Pray Street School** | | |
| County: | **Kennebec** | Latitude: | **44.2306** |
| Address: | | Longitude: | **-69.7850** |
| AQS Site ID: | **23-011-2005** | Elevation: | **55 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **1991** |
| Statistical Area: | **Augusta-Waterville, ME** | | |




**Pollutant and Meteorological Parameters:**

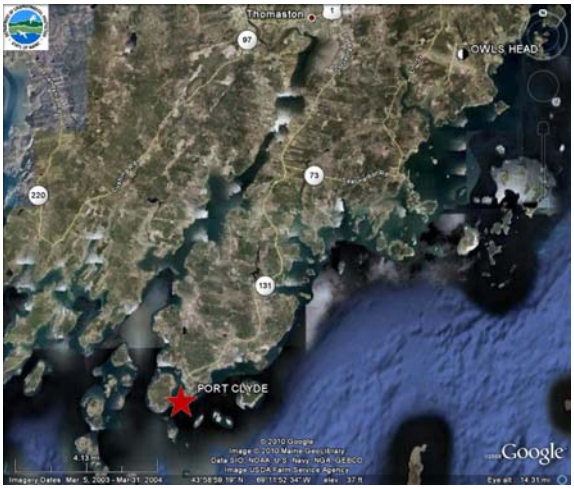
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 04/01/1991 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
The site is located on the north edge of the Gardiner Area High School grounds. The Pray Street Elementary School next door has closed and is now housing a YMCA. An 8'x8'x8' environmentally controlled shelter is situated outside the fence line of the playing fields. An ozone monitor is located within. The shelter was installed in 2006.

**Monitoring Objectives:**
SLAMS – State and Local Air Monitoring Site

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Port Clyde – Marshall Point Lighthouse** | | |
| County: | **Knox** | Latitude: | **43.9180** |
| Address: | | Longitude: | **-69.2608** |
| AQS Site ID: | **23-013-0004** | Elevation: | **9 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **1987** |
| Statistical Area: | **Rockland, ME** | | |




**Pollutant and Meteorological Parameters:**

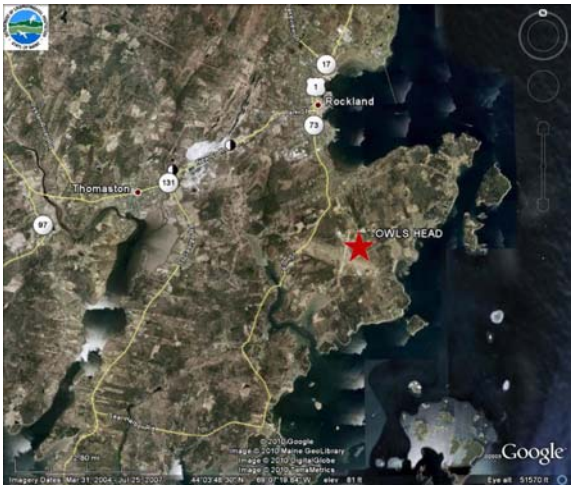
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 05/01/1987 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
The site is located at Marshall Point on the grounds of the Marshall Point Lighthouse Museum about 14.8 miles southwest of downtown Rockland. An 8'x8'x'8 environmentally controlled shelter houses the monitor, data acquisition equipment and modem.

**Monitoring Objectives:**
SLAMS – State and Local Air Monitoring Site

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Owls Head – Municipal Airport** | | |
| County: | **Knox** | Latitude: | **44.0627** |
| Address: | **1 Airport Rd.** | Longitude: | **-69.0934** |
| AQS Site ID: | **23-013-0014** | Elevation: | **15 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **2002** |
| Statistical Area: | **Rockland, ME** | | |




**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | 03/01/2002 | |
| Cont. OC/EC | | | Temperature | 03/01/2002 | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
The site is located on the grounds of the Knox County Regional Airport, 2.9 miles south southeast of downtown Rockland. Wind Speed and Direction sensors are mounted on a 10 meter retractable tower located on the roof of a maintenance equipment shed. A data acquisition system and modem are located in an 8'x8'x8' monitoring shelter between the shed and an office trailer to the east. An outdoor temperature sensor is mounted at the roof line of the monitoring shelter.

**Monitoring Objectives:**
Hourly averaged wind speed and wind direction, combined with other climatological data obtained from the NOAA National Weather Service, are useful in modeling trajectories of air masses.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Rumford** | | |
| County: | **Oxford** | Latitude: | **44.5514** |
| Address: | **Rumford Ave. Parking Lot** | Longitude: | **-70.5463** |
| AQS Site ID: | **23-017-2011** | Elevation: | **135 Meters** |
| Spatial Scale: | **Neighborhood** | Year Established: | **1998** |
| Statistical Area: | **None** | | |

**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 12/01/1998 | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | 07/01/1998 | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
The site is located in a paper mill employee parking lot off of Rumford Avenue in Rumford, Maine approximately 35 miles northwest of the center of the Rt. 11 bridge in Lewiston/Auburn. An 8'x8'x8' environmentally controlled shelter houses HAPs sampling equipment, data acquisition system and modem. A PM2.5 sampler is located on the roof of the shelter.

**Monitoring Objectives:**
Population exposure

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **North Lovell – DOT Garage** | | |
| County: | **Oxford** | Latitude: | **44.2509** |
| Address: | **Route 5** | Longitude: | **-70.8606** |
| AQS Site ID: | **23-017-3001** | Elevation: | **213 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **1998** |
| Statistical Area: | **None** | | |

**Pollutant and Meteorological Parameters:**

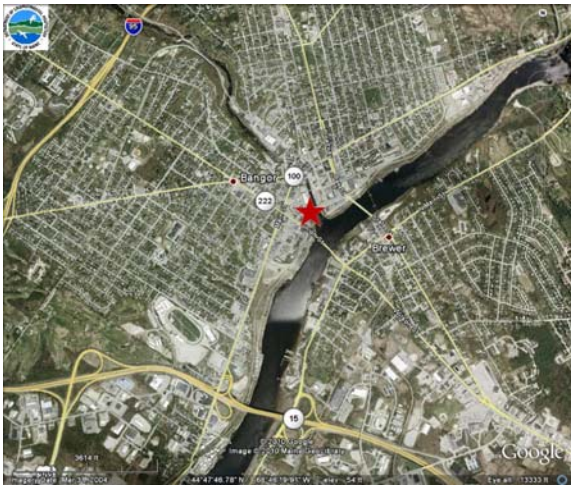
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 5-6-1992 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Monitor is located in an office section of a garage belonging to the Department of Transportation. Building is in a small cleared area surrounded by woods.

**Monitoring Objectives:**
The site is located to get maximum concentrations in the western mountain area of Maine.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Bangor – Kenduskeag Pump Station** | | |
| County: | **Penobscot** | Latitude: | **44.7989** |
| Address: | **Washington Street** | Longitude: | **-68.7697** |
| AQS Site ID: | **23-019-0002** | Elevation: | **10 Meters** |
| Spatial Scale: | **Neighborhood** | Year Established: | **1977** |
| Statistical Area: | **Bangor, ME** | | |




**Pollutant and Meteorological Parameters:**

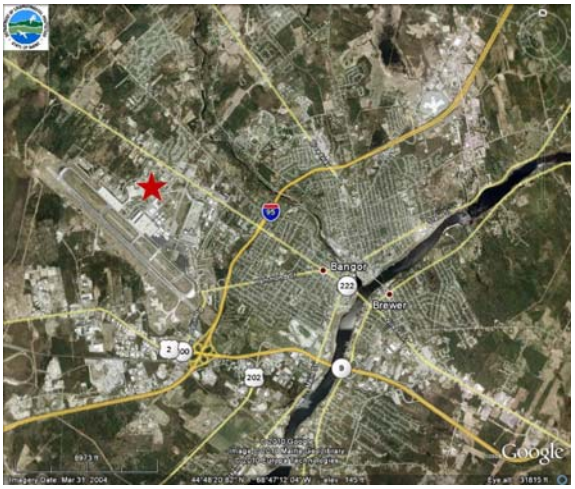
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 1-1-1999 | | Ozone | | |
| PM2.5 Colo | 12-1-1999 | 12-29-2003 | NOx | | |
| PM2.5 TEOM | 1-1-2007 | | NOy | | |
| PM10 FRM | 1-1-2003 | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | 2-12-2004 | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | 1-1-1978 | 10-1-1992 | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | 1-1-1986 | 7-1-1987 | UvB Radiation | | |

**Site Description:**
Monitors are located on the roof of a pumping station building for the Bangor treatment plant. It is located on the shore of the Kenduskeag stream near the Penobscot River and sits in the bowl of downtown Bangor. Site was originally established to help define the extent of the particulate problems in Bangor.

**Monitoring Objectives:**
Site was located to pick up maximum concentrations in the downtown area of Bangor.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Bangor -- Airport** | | |
| County: | **Penobscot** | Latitude: | **44.8166** |
| Address: | **BIA Bldg 489, Bangor Airport** | Longitude: | **-68.8204** |
| AQS Site ID: | **23-019-0010** | Elevation: | **50 Meters** |
| Spatial Scale: | | Year Established: | **1987** |
| Statistical Area: | **Bangor, ME** | | |




**Pollutant and Meteorological Parameters:**

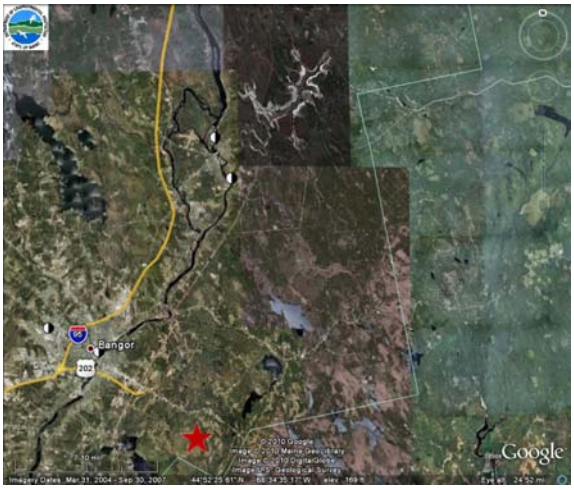
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | 6-1-1987 | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Tower and sensors are located on the roof of building 489 on the Air National Guard Base at Bangor International Airport. Area is very open with some large aircraft hangars to the northwest of the tower at sufficient distance so as to not cause any interference.

**Monitoring Objectives:**
Wind data is collected to use in analysis of air pollutant data in the Bangor area.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Holden** | | |
| County: | **Penobscot** | Latitude: | **44.7365** |
| Address: | **Summit of Rider's Bluff** | Longitude: | **-68.6711** |
| AQS Site ID: | **23-019-4008** | Elevation: | **250 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **1993** |
| Statistical Area: | **Bangor, ME** | | |




**Pollutant and Meteorological Parameters:**

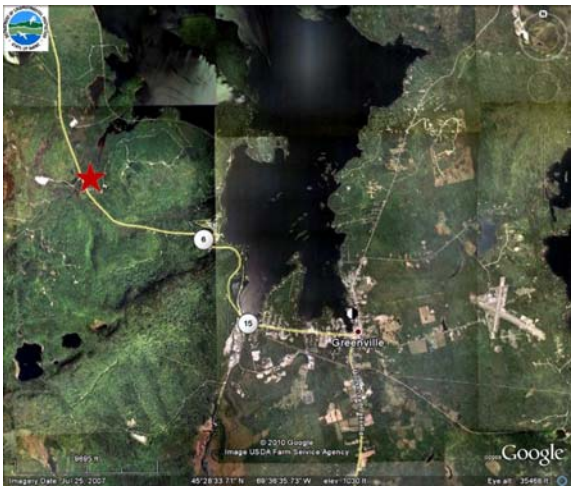
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 5-19-1993 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Site is a transmission tower location for a local TV station at the top of a hill in Holden with good exposure in all directions.

**Monitoring Objectives:**
Monitor was located to pick up transport of ozone into the Penobscot County area and to measure maximum impacts in this area.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Greenville** | | |
| County: | **Piscataquis** | Latitude: | **45.4893** |
| Address: | **Squaw Brook** | Longitude: | **-69.6637** |
| AQS Site ID: | **23-021-0001** | Elevation: | **339 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **1980** |
| Statistical Area: | **None** | | |




**Pollutant and Meteorological Parameters:**

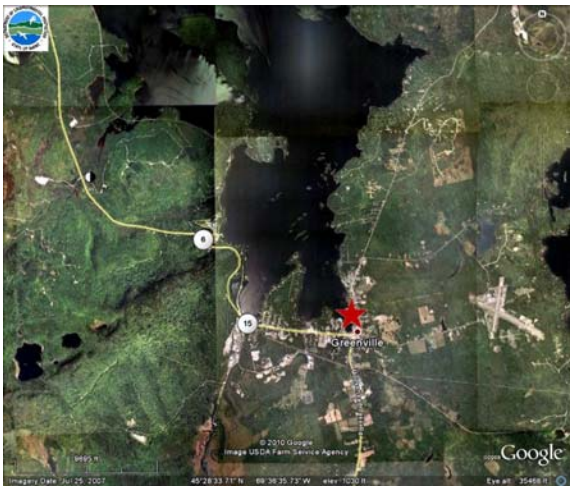
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | 1997 | |
| PM Coarse | | | Atm. Deposition | 1980 | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | 1980 | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Site is located in a small clearing on private property to the northwest of Greenville Junction. This is one of the oldest deposition monitoring sites in the country.

**Monitoring Objectives:**
Measure the chemistry of the rain and snowfall in this area of the state.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Greenville – Wortman's Property** | | |
| County: | **Piscataquis** | Latitude: | **45.4630** |
| Address: | **Village Street** | Longitude: | **-69.5922** |
| AQS Site ID: | **23-021-0004** | Elevation: | **318 Meters** |
| Spatial Scale: | **Neighborhood** | Year Established: | **2006** |
| Statistical Area: | **None** | | |




**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | 1-3-2007 | | Ozone | | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | 1-1-2007 | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Site is located on private property next to the Inland Fisheries and Wildlife office on the shore of Moosehead Lake. Site was established to gather data for use in evaluating a wood smoke study conducted by the University of Maine and the American Lung Association. Monitors are housed in or on the roof of an 8x8x8 shelter.

**Monitoring Objectives:**
Collect particulate data during inversions to identify possible wood smoke impacts. Additional data may be collected during the winter of 2010/2011 using an aethelometer for carbon, a total PAH meter and a canister sampler for air toxics.

**Planned changes for 2012:**
Site was terminated in 2011.

| | | | |
|---|---|---|---|
| Town – Site: | **Bowdoinham – Merrymeeting Bay** | | |
| County: | **Sagadahoc** | Latitude: | **44.0050** |
| Address: | **Brown's Point** | Longitude: | **-69.8278** |
| AQS Site ID: | **23-023-0006** | Elevation: | **3 meters** |
| Spatial Scale: | **Regional** | Year Established: | **2008** |
| Statistical Area: | **Portland-Lewiston-South Portland** | | |

**Pollutant and Meteorological Parameters:**

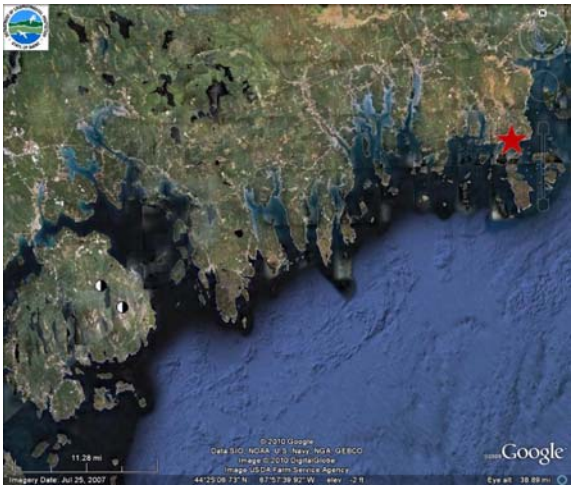
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 05/08/2008 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
The site is located on the unimproved property of Mrs. Erla Kelley, adjacent to 598 Brown's Point Road in Bowdoinham, approximately 32 miles NE of Portland. An ozone sampler, data acquisition system and modem are located inside an environmentally controlled 8'x8'x8' shelter.

**Monitoring Objectives:**
Maximum Ozone Concentration

**Planned changes for 2012:**
Possible relocation of this monitor if an acceptable site can be found closer to the coast.

| | | | |
|---|---|---|---|
| Town – Site: | **Jonesport** | | |
| County: | **Washington** | Latitude: | **44.5319** |
| Address: | **Public Landing** | Longitude: | **-67.5959** |
| AQS Site ID: | **23-029-0019** | Elevation: | **16 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **1989** |
| Statistical Area: | **None** | | |




**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 5-19-1989 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Monitor is located in a town building at the Public Landing in Jonesport.

**Monitoring Objectives:**
Monitor sited to obtain maximum concentrations in the coastal area of Washington County.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Hollis/West Buxton Fire Department** | | |
| County: | **York** | Latitude: | **43.6568** |
| Address: | **Plains Road** | Longitude: | **-70.6291** |
| AQS Site ID: | **23-031-0038** | Elevation: | **84 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **1999** |
| Statistical Area: | **Portland-South Portland-Biddeford, ME** | | |

**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 4-1-1999 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Monitor is located in an 8x8x8 shelter in an open area around the West Buxton Fire Department building.

**Monitoring Objectives:**
Monitoring location was selected to define the inland extent of the non-attainment area in the southern coastal area of Maine.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Shapleigh Ball Park** | | |
| County: | **York** | Latitude: | **43.5889** |
| Address: | **Route 11** | Longitude: | **-70.8773** |
| AQS Site ID: | **23-031-0040** | Elevation: | **171 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **2008** |
| Statistical Area: | **Portland-South Portland-Biddeford, ME** | | |

**Pollutant and Meteorological Parameters:**

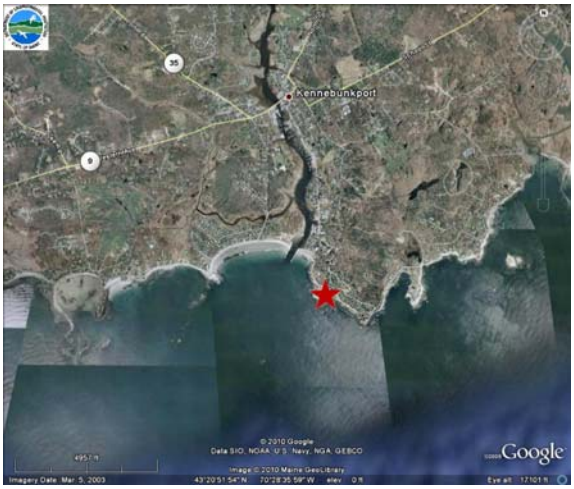
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 6-13-2008 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Site is located in an open field area surrounding a baseball field just off Route 11.

**Monitoring Objectives:**
Maximum impact area from transport and the precursors generated in southern New Hampshire.

**Planned changes for 2012:**
None planned.

| | | | |
|---|---|---|---|
| Town – Site: | **Kennebunkport – Parson's Way** | | |
| County: | **York** | Latitude: | **43.3431** |
| Address: | **Ocean Avenue** | Longitude: | **-70.4714** |
| AQS Site ID: | **23-031-2002** | Elevation: | **6 Meters** |
| Spatial Scale: | **Regional** | Year Established: | **1983** |
| Statistical Area: | **Portland-South Portland-Biddeford, ME** | | |




**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 1-1-1983 | |
| PM2.5 Colo | | | NOx | 6-1-1990 | 9-1-1990 |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**
Site is located on a rocky beach area just off Ocean Avenue. Site has good exposure and has recorded some of the highest ozone concentrations in the state. The shelter has to be removed each fall and re-installed each spring to avoid winter storm damage.

**Monitoring Objectives:**
Monitor was located to measure maximum impacts in the southern coastal area.

**Planned changes for 2012:**
None planned.

**TRIBAL MONITORING SITES**

**FOR 2012**

| | | | |
|---|---|---|---|
| Town – Site: | **Presque Isle** | | |
| County: | **Aroostook** | Latitude: | **46.6964** |
| Address: | **8 Northern Road** | Longitude: | **-68.0330** |
| AQS Site ID: | **TT-031-1100** | Elevation: | **165 meters** |
| Spatial Scale: | **Neighborhood** | Year Established: | **2004** |
| Statistical Area: | **None** | | |

**Pollutant and Meteorological Parameters:**

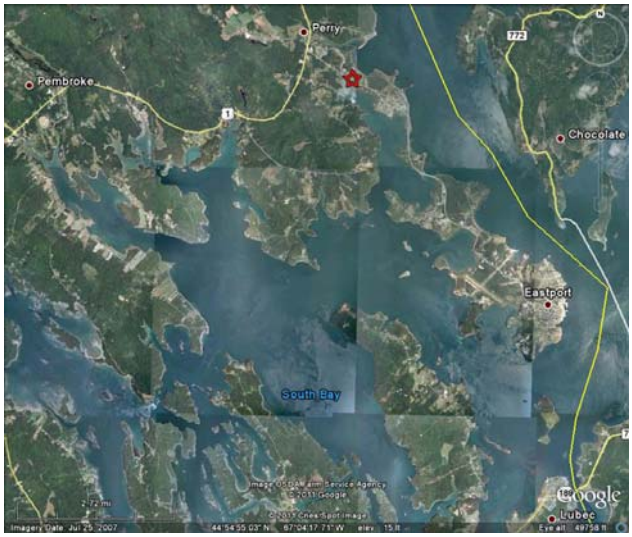
| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 1-1-2006 | |
| PM2.5 Colo | | | NOx | 1-1-2006 | |
| PM2.5 TEOM | 1-1-2006 | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | 1-1-2004 | | Wind | 1-1-2006 | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | 1-1-2006 | | Solar Radiation | | |
| SO2 | 1-1-2006 | | UvB Radiation | | |

**Site Description:**
The Aroostook Band of Micmacs ambient air monitor site continuously monitors Ozone, PM2.5, Carbon Monoxide, Sulfur Dioxide, Nitrogen Dioxide, Carbon Dioxide and Meteorological parameters in Presque Isle, ME

**Monitoring Objectives:**
.

**Planned changes for 2012:**

| | | | |
|---|---|---|---|
| Town – Site: | **Sipiyak** | | |
| County: | **Washington** | Latitude: | **44.9630** |
| Address: | **184 County Road** | Longitude: | **-67.0592** |
| AQS Site ID: | **TT-017-0032** | Elevation: | **4 meters** |
| Spatial Scale: | **Regional** | Year Established: | **2006** |
| Statistical Area: | **None** | | |




**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 3-31-2006 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**

**Monitoring Objectives:**

**Planned changes for 2012:**

| | | | |
|---|---|---|---|
| Town – Site: | **Indian Island** | | |
| County: | **Penobscot** | Latitude: | **44.95204** |
| Address: | **27 Wabanaki Way** | Longitude: | **-68.64768** |
| AQS Site ID: | **TT-018-1100** | Elevation: | **41 meters** |
| Spatial Scale: | **Regional** | Year Established: | **2006** |
| Statistical Area: | **None** | | |

**Pollutant and Meteorological Parameters:**

| Parameter | Date Began | Date Ended | Parameter | Date Began | Date Ended |
|---|---|---|---|---|---|
| PM2.5 FRM | | | Ozone | 1-1-2006 | |
| PM2.5 Colo | | | NOx | | |
| PM2.5 TEOM | | | NOy | | |
| PM10 FRM | | | VOCs (PAMS) | | |
| PM10 Colo | | | HAPs | | |
| PM10 TEOM | | | Mercury Deposition | | |
| PM Coarse | | | Atm. Deposition | | |
| IMPROVE | | | Wind | | |
| Cont. OC/EC | | | Temperature | | |
| Cont. Sulfate | | | Bar. Pressure | | |
| Black Carbon | | | Relative Humidity | | |
| Cont. PAH | | | Dewpoint | | |
| Lead | | | Precipitation | | |
| CO | | | Solar Radiation | | |
| SO2 | | | UvB Radiation | | |

**Site Description:**

**Monitoring Objectives:**

**Planned changes for 2012:**