

Air Quality in Maine Webpage User Guide



MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
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What is the Air Quality Index?

The Air Quality Index (AQI) was established by the Environmental Protection Agency as a guide for reporting air quality. The AQI, which ranges from 0-500, is calculated for five major air pollutants: ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide. For Maine's interactive map, the AQI levels are based solely on ozone and fine particulate matter (PM 2.5), since these pollutants are of greatest concern to the state's air quality. To make it easier to understand, the AQI is divided into six categories:

- **Good:** 0 - 50. Air quality is considered satisfactory, and air pollution poses little or no risk.
- **Moderate:** 51 - 100. Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people. For example, people who are sensitive to ozone may experience respiratory symptoms.
- **Unhealthy for Sensitive Groups:** 101 - 150. People with lung disease, older adults, and children are at a greater risk from exposure to ozone. Persons with heart or lung disease, older adults, and children are at greater risk from the presence of particles in the air. It is okay to be active but take more breaks and do less intense activities.
- **Unhealthy:** 151 - 200. Everyone may begin to experience some adverse health effects, and members of the sensitive groups may experience more serious effects.
- **Very Unhealthy:** 201 - 300. This would trigger a health alert signifying that everyone may experience more serious health effects.
- **Hazardous:** greater than 300. This would trigger a health warnings of emergency conditions. The entire population is more likely to be affected.

Interactive Map

The current conditions reported from Maine Department of Environmental Protection's (DEP) air quality monitoring sites are displayed on an interactive map. The default setting displays the current AQI level within a colored square corresponding to the index level for each site reporting data. Clicking on a site opens a table containing AQI levels for the most current reported hour and several hours leading up to it. Data reported to the site is a few hours behind the current time. Hovering a cursor over a site on the map produces a pop-up dialogue box that indicates the site code, parameter (pollutant) responsible for the AQI level, and the last hourly average concentration reported for that pollutant.

The map window has the same basic functionality as any Google map. To move the map, place the cursor anywhere in the map window and hold a left click. When the cursor is within the map window, it appears as a hand and the hand closes when the map is being dragged. To zoom in or out, click the plus and minus buttons at the bottom right of the window, or hold ctrl on your keyboard and scroll with the mouse. The icon of the orange person at the bottom right can be dragged and dropped onto a desired location to switch to street view or view photos of certain scenic points. Selecting the Map or Satellite buttons in the top left of the window switches between standard map, terrain map, and satellite map views.

Regions

Selecting the Regions drop-down menu at the top left of the map window will modify the monitoring sites that are visible on the map. The state is divided into seven regions, and by selecting a region only sites within it appear on the map.

Layers

The Layers drop-down menu at the top center of the map window changes the monitoring sites displayed from the AQI level to ozone or particulate matter concentrations.

AQI Layer

The AQI levels displayed on this map are based on the higher value of either ozone or PM 2.5. Many sites are monitoring for either PM 2.5 or ozone, so the AQI at that site will only be based on the one parameter being measured. Ozone is averaged over 8 hours and PM over 24 hours for determination of the AQI level.

Ozone Layer

The OZONE_PPB layer displays sites where ground ozone is being monitored and provides concentrations in parts per billion. Once selected, the AQI levels change to ozone concentration values. Although the AQI background color remains, it does not necessarily correspond with ozone level being reported, since the AQI is averaged over many hours. Three sites operate year-round while the majority only operate during the March through September ozone season.

Particulate Matter Layer

The PM25LC layer displays sites where particulate matter is being monitored. The map shows concentrations of particulate matter with diameters that are 2.5 micrometers and smaller (referred to as PM 2.5) in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The AQI color displayed behind the concentration value does not necessarily correspond with the most recent hour being report, since it is an average of many hours.

Site Legend

The site legend lists the DEP's air quality monitoring site locations and codes. Although the sites are listed in the legend, they may not be present on the map. The interactive map does not currently have a layer for wind data, so those sites monitoring wind are not displayed. Most of the ozone sites are only operational from March through September and will only appear on the map during those months.

Auburn – Lewiston-Auburn Airport (AUBURN): SHUT DOWN

Address: Lewiston Junction Rd.

Lat/long: 44.0457, -70.2902

Parameter: wind direction & speed

Augusta – Airport (AUGUSTA)

Address: Augusta State Airport

Lat/long: 44.3179, -69.7919

Parameter: wind direction & speed

Bangor – Kenduskeag Pump Station (KPS)

Address: Washington Street

Lat/long: 44.7989, -68.7697

Parameter: PM 2.5

Bangor – Airport (AIRGUARD): SHUT DOWN

Address: Bangor International Airport, Building 489

Lat/long: 44.8166, -68.8204

Parameter: wind direction & speed

Bangor – Mary Snow School (BMSS)

Address: 435 Broadway

Lat/long: 44.817398, -68.772762

Parameter: PM 2.5

Bar Harbor – Cadillac Mountain, Acadia National Park (CADILLAC)

Address: Top of Cadillac Mountain

Lat/long: 44.3517, -68.2272

Parameter: ozone (seasonal)

Bar Harbor – McFarland Hill, Acadia National Park (BHMH2)

Address: Route 233

Lat/long: 44.3771, -68.2609
Parameter: ozone, PM 2.5

Bethel – Smith Farm Road (BSFR)
Address: Smith Farm Road
Lat/long: 44.377794, -70.854697
Parameter: ozone (seasonal)

Cape Elizabeth (CETL)
Address: Two Lights State Park
Lat/long: 43.5610, -70.2073
Parameter: ozone

Durham – Fire Station (DURHAM)
Address: Route 9
Lat/long: 43.9745, -70.1249
Parameter: ozone (seasonal)

Gardiner – Pray Street, Schoolyard (GPSS)
Address: Pray Street
Lat/long: 44.2306, -69.7850
Parameter: ozone (seasonal)

Holden – Rider’s Bluff (HRB)
Address: Summit of Rider’s Bluff
Lat/long: 44.7365, -68.6711
Parameter: ozone (seasonal)

Jonesport – Public Landing (JONESPRT)
Address: Public Landing
Lat/long: 44.5319, -67.5959
Parameter: ozone (seasonal)

Kennebunkport – Parson’s Way (KPW)
Address: Ocean Avenue
Lat/long: 43.3431, -70.4714
Parameter: ozone (seasonal)

Lewiston – Country Kitchen Parking Lot (LCKP)
Address: Canal Street
Lat/long: 44.0894, -70.2141

Parameter: PM 2.5

Madawaska – Public Safety Building (MADPSB)

Address: East Maine Street

Lat/long: 47.3553, -68.3211

Parameter: PM 2.5

Port Clyde – Marshall Point Lighthouse (PCMP)

Address: Marshall Point Rd

Lat/long: 43.9180, -69.2608

Parameter: ozone

Portland – Deering Oaks Park (PDO)

Address: 356 State Street

Lat/long: 43.6602, -70.2690

Parameter: PM 2.5, ozone

Presque Isle – Riverside Shelter (PIRS)

Address: Riverside Street

Lat/long: 46.6984, -68.0389

Parameter: PM 2.5

Rumford – Rumford Ave. Parking Lot (RAP)

Address: Rumford Ave. Parking Lot

Lat/long: 44.5514, -70.5463

Parameter: PM 2.5

Shapleigh – Shapleigh Ball Park (SBP)

Address: Route 11

Lat/long: 43.5889, -70.8773

Parameter: ozone (seasonal)

West Buxton/Hollis – Fire Department (WBFD)

Address: Plains Road

Lat/long: 43.6568, -70.6291

Parameter: ozone (seasonal)

Reports

The Reports table is located to the right of the map window, below the Site Legend.

This table contains graphical and tabular data that can be accessed by clicking the

desired report link. Both graphical and tabular reports can be printed or downloaded in a variety of formats using the toolbar that appears at the top left of each report.

AQI Legend

The AQI Legend is located below the reports table. It provides information pertaining to the color and number values that appear on the map at each site. Hovering the mouse over the text in each category opens an expanded explanation in a pop-up box.

Links

More information relating to Maine's air quality data and AQI can be found by following the links provided below the map. These links provide search functions to view data collected at Maine's monitoring sites as well as access to EPA websites where national air quality data may be viewed and/or downloaded.

Accessibility

It is our intention that the information available on this webpage be accessible to everyone. If you experience any problems, have data questions, or require assistance please contact:

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