

Highest AQI Levels
For December 2024

66 December 18
Laird
PM_{2.5}

62 December 25
Laird
PM_{2.5}

59 December 24
Laird
PM_{2.5}

57 December 11, 27
Laird
PM_{2.5}

Air Quality Summary | December 2024

Youngstown-Warren



Air quality conditions in December 2024 were in the Good Air Quality Index (AQI) category on 20 days and the Moderate category on 11 days. No Unhealthy for Sensitive Groups (USG) AQI levels were recorded, and no Air Quality Advisories were issued during the month. Air quality in December 2024 was worse than the previous two Decembers.

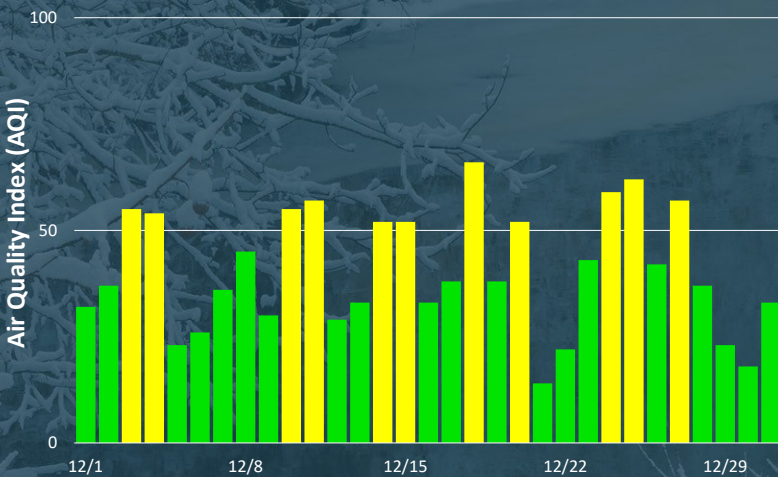
A progressive weather pattern this month allowed several storm systems to impact the Mahoning Valley, with precipitation measured on 18 days. Despite the unsettled pattern aiding mixing, surface wind speeds were lighter than normal for the month, which reduced dispersion and allowed pollutants to accumulate. Of the 11 days with Moderate AQI levels in December, 8 featured wind speeds averaging 10 mph or less. Furthermore, winds on most days with Moderate AQI levels were southwesterly or southeasterly, which allowed pollutants to enter the Youngstown-

Warren region. The majority of days with Moderate AQI levels had morning low temperatures below 32°F, with associated inversions trapping pollutants near the ground. Additionally, fog and high humidity enhanced particle formation on eight days with Moderate AQI levels.

The day with the highest AQI levels during the month occurred on December 18. On this day, the Youngstown-Warren airport reported dense fog, which promoted particle production. In addition, calm-to-light southeasterly morning winds limited pollutant dispersion and also carried pollutants into the region, while westerly to northwesterly winds during the afternoon and evening transported additional pollutants into northeastern Ohio. Therefore, despite a passing upper-level low-pressure system aiding atmospheric mixing, the daily AQI value at the Laird monitoring site reached 66, which is in the mid-Moderate category.

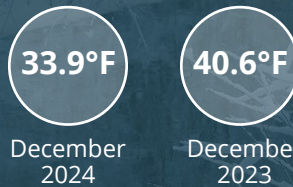
Daily Maximum AQI Levels for December

In December 2024, AQI levels in the Mahoning Valley were Good on 20 days and Moderate on 11 days. No USG AQI levels were recorded, and no Air Quality Advisories were issued during the month.



Average Temperature

The average temperature for Youngstown-Warren in December 2024 was 33.9°F, which is 1.8°F above normal.



Average Precipitation

Youngstown-Warren received 3.95 inches of precipitation in December 2024, which is 0.78 inches above normal.

Daily Maximum AQI Level for December by Category

