

Air Quality Forecast and Dispersion Outlook of Allegheny County, Pennsylvania for 6/17/2022

Air Quality Forecast: This is the daily forecasted Air Quality Index (AQI) for each area provided by the PA Department of Environmental Protection. The AQI is based on PM2.5 or Ozone, whichever is forecasted to be higher.




Forecast Period	Pittsburgh Area	Liberty-Clairton Area
Today Friday 6/17/22	PM2.5 Good 47 AQI	PM2.5 Good 50 AQI
Tomorrow Saturday 6/18/22	Ozone Good 43 AQI	PM2.5 Good 35 AQI

Today's Forecast: After two very humid days dew point temperatures will fall over the course of the day on Friday as a drier air mass moves in behind the cold front from late Thursday. Temperatures will still be seasonable with highs much more comfortably in the mid-80s. The air mass with the elevated concentrations of fine particulate matter (PM-2.5) from the last two days will move off to the south and east with conditions improving throughout the day. Concentrations may still be at moderate levels for the start of the early morning hours, but will average out to be in the good range as the cleaner air mass moves in. Brisk northwesterly flow will also help to provide plenty of mixing to help limit not only PM-2.5 but also ozone concentrations to result in good air quality overall for the day.

See Page 2 for the Air Quality Index guide

[Data provided by the PA Department of Environmental Protection](#)

ACHD Air Dispersion 36-Hour Forecast: This is the dispersion forecast for Allegheny County starting from this morning through tomorrow afternoon. The atmospheric dispersion index is a rating of the atmosphere's ability to transport pollution away from its source and is based on emissions and weather. Better atmospheric dispersion can improve air quality.

Forecast Period		Atmospheric Dispersion Index	Surface Inversion Strength	Wind (dir, mph)
Today	 Morning	Very Good – 108	None	W 10-15
	Afternoon	Very Good – 135	--	WNW 15 to NW 7-11 Gust 23-28
Tonight	 Evening	Fair – 27	--	NW 7
	Overnight	Poor – 12	--	NW 7-9
Tomorrow	 Morning	Good – 72	None to Slight	NW 9-11 Gust 20-22
	Afternoon	Good – 82	--	NW 9-11 Gust 21-22

See page 2 for the Atmospheric Dispersion Index guide and the daily Surface Temperature Inversion Report.

ACHD Remarks:

Data provided by the National Weather Service (NWS) [Fire Weather Planning Forecast](#) and [PIT NWS Products](#)

Guide to the Air Quality Index (AQI)

Color	Description	Meaning	AQI
Red	Unhealthy	Everyone should limit exertion outdoors.	151 - 200
Orange	Unhealthy for Sensitive Groups	Sensitive people should limit exertion outdoors.	101 - 150
Yellow	Moderate	Extremely sensitive people may wish to limit outdoor exertion.	51 - 100
Green	Good	No health impacts are expected in this range.	0 - 50

Guide to the Atmospheric Dispersion Index

Very Poor	Poor	Generally Poor	Fair	Generally Good	Good	Very Good
1 - 6	7 - 12	13 - 20	21 - 40	41 - 60	61 - 100	> 100

ACHD Surface Temperature Inversion Report:

This is the 7 AM surface-based temperature inversion report for Allegheny County.

This morning's surface inversion of °C with a depth of m is estimated to break at . This surface inversion can be characterized as: **None** / Slight / Weak / Moderate / Strong.

No upper inversion starting below ~1000 m is reported.

What does the Surface Temperature Inversion Report mean?

A surface temperature inversion is a weather pattern that stops mixing of the air near the ground, and pollution released into the air tends to remain at higher concentrations.

Surface temperature inversion conditions include how strong the surface inversion is (in °C), how high the inversion is above the surface (in meters), and when the inversion is expected to break (in Eastern Standard Time). Also included is whether an upper-level inversion or inversions exist, starting at about 1,000 meters.

Surface Temperature Inversion Characterization

- 0-0.9 C°: Slight
- 1-2.9 C°: Weak
- 3-4.9 C°: Moderate
- ≥5 C°: Strong

