

Air Quality Forecast and Dispersion Outlook of Allegheny County, Pennsylvania for 6/21/22

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 Tuesday 6/21/22	Ozone Unhealthy for Sensitive Groups 101 AQI	PM2.5 Moderate 76 AQI
Tomorrow Wednesday 6/22/22	Ozone Moderate 75 AQI	PM2.5 Good 38 AQI

Today's Forecast: An Air Quality Action Day is in effect for the day Tuesday with respect to ozone! Temperatures reaching around the 90 degree mark along with sunshine most of the day will allow maximum ozone concentrations to reach the code ORANGE range. PM2.5 will be highest during the morning, but overall daily averages will settle in the middle to upper moderate zone.

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	Fair – 32	none	SW 8
	Afternoon	Good – 77	--	W 11, G 21
Tonight	 Evening	Poor – 9	--	SW 5
	Overnight	Very Poor – 3	--	SW 5
Tomorrow	 Morning	Generally Good – 47	Strong	WSW 7
	Afternoon	Very Good – 136	--	WNW 9

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

ACHD Remarks: There will be an increasing chance for showers and thunderstorms Wednesday as a cold front moves southeastward out of the Great Lakes. The increasing chance for rain will lower ozone maximums to the moderate range. A new area of high pressure then builds in for late in the week with mostly sunny skies, seasonably warm air, and air quality in the upper good /lower moderate range.---McAuliffe, PA DEP

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 inversion starts slightly above the surface at 527 m is 4.8° with a depth of 210 m is estimated to break at 10 am. This surface inversion can be characterized as: None / Slight / Weak / **Moderate** / Strong.

No upper inversion starting at is reported.

What does the Surface Temperature Inversion 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

