

## Air Quality Forecast and Dispersion Outlook of Allegheny County, Pennsylvania for 11/26/2021

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		
<b>Today</b> Friday	Ozone <b>Good</b> 38 AQI	PM2.5 <b>Good</b> 37 AQI		
<b>Tomorrow</b> Saturday	PM2.5 <b>Good</b> 50 AQI	PM2.5 <b>Moderate</b> 52 AQI		

Today's Forecast: Windy and colder Friday in the wake of the cold front with a couple of snow showers and temperatures remaining in the middle 30s. \*\*\* Extended forecast: High pressure then brings back a little sunshine for Saturday, but things will remain chilly with less wind. A weak area of low pressure may bring rain and snow showers Saturday night into the day Sunday, then mostly cloudy, breezy and cold Monday with a snow shower or two. There might be a brief period of moderate PM2.5 concentrations Saturday, otherwise air quality over the weekend will remain in the good range.

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	Good – 83	Weak	WNW 14 Gusts 24
		Afternoon	Good – 93		WNW 15 Gusts 25
		Evening	Fair — 35		WNW 12 Gusts 22
Tonight		Overnight	Poor – 12		W 8
Tomorrow	-> -	Morning	Generally Good – 44	Slight to Weak	W 7
		Afternoon	Generally Good – 50		W 7
		·	,	Slight to Weak	

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

Prepared by: DG Date: 11/26/2021 Time: 8:39 am 1

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	Moderate Extremely sensitive people may wish to limit outdoor exertion.		
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 --- $\frac{^{\circ}C}{}$  with a depth of --- $\underline{m}$  is estimated to break at ---- $\underline{am}$ . This surface inversion can be characterized as:  $\underline{None}/$  Slight / Weak / Moderate / Strong.

No inversion above  $\sim 1000$  meters 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.

<u>Surface Temperature Inversion Characterization</u>

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

≥5 C°: Strong



