Air Quality Forecast and Dispersion Outlook of Allegheny County, Pennsylvania for 3/8/23

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	РМ2.5	PM2.5	
Wednesday	Good	Good	
3/8/23	30 AQI	28 AQI	
Tomorrow	РМ2.5	PM2.5	
Thursday	Good	Good	
3/9/23	38 AQI	34 AQI	

Today's Forecast:

Remaining breezy and chilly Wednesday with a partly to mostly sunny sky. Temperatures will not recover past the middle 40s. Decent mixing and the continued presence of very dry air will keep air quality good.

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	55 – Generally Good		N 10
		Afternoon	62 – Good		N 10
Tonight		Evening	10 – Poor		N 5-10
	J	Overnight	8 – Poor	Weak	N 5-10
Tomorrow	*	Morning	22 — Fair	Weak	N 5-10
		Afternoon	28 — Fair		N 5-10

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 inversion of <u>--°C</u> with a depth of <u>-- m</u> is estimated to break at <u>--</u>.

This inversion can be characterized as: <u>None</u> / Slight / Weak / Moderate / Strong.

There is an inversion above ~ 1000 meters 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 $^{\circ}$ 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

