Air Quality Forecast and Dispersion Outlook of Allegheny County, Pennsylvania for 09/24/2021

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
Today Friday 9/24/21	Ozone **Good** 38 AQI	PM2.5 **Good** 30 AQI
Tomorrow Saturday 9/24/21	PM2.5 **Good** 46 AQI	PM2.5 **Moderate** 52 AQI

See Page 2 for the Air Quality Index guide

Today's Forecast: High pressure building into the area from the Tennessee valley will bring a mostly sunny sky to the area Friday with a nicer afternoon. While ozone and fine particulate (PM2.5) will rise a little Friday, concentrations of these pollutants will remain in the good range.

*** Extended forecast: A weak cold frontal system will bring more clouds and a shower or two back into western Pennsylvania Saturday afternoon and evening. A new area of high pressure then builds in Sunday into Monday with seasonably mild air. Overall air quality will remain in the good range

[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	Generally Good – 57	Weak	SW 10
	Afternoon	Good – 78	--	SW 8
Tonight	Evening	Very Poor – 5	--	SW 5
	Overnight	Very Poor – 2	--	S 2
Tomorrow	Morning	Fair – 22	Weak to Moderate	SW 7
	Afternoon	Generally Good – 49	--	SW 8

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

ACHD Remarks: Dry and clear conditions will prevail under building high pressure. Areas north of Pittsburgh will experience wind gusts 15-20kts in the afternoon due to a strong pressure gradient and boundary layer mixing.

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 **1.0°C** with a depth of **334 m** is estimated to break at **9:30 am.** This surface inversion can be characterized as: None/ Slight / **Weak** / Moderate / Strong.

No inversion above ~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.

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