Air Quality Forecast and Dispersion Outlook of Allegheny County, Pennsylvania for 06/09/2021

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 Wednesday 6/09/21	PM2.5 Moderate 52 AQI	PM2.5 Moderate 66 AQI		
Tomorrow Thursday 6/10/21	PM2.5 Moderate 54 AQI	PM2.5 Moderate 62 AQI		

Today's Forecast: Warm and humid today with showers and thunderstorms developing again, mainly in the afternoon and evening. The rainfall and clouds will act to keep ozone formation to a minimum, but parts of the area will see PM2.5 averages for the day climb into the lower moderate 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		Surface Inversion Strength	Wind (dir, mph)
Morning	Very Poor - 6	None	SW 5
Afternoon	Generally Poor - 13		SW 5
Evening	Very Poor – 6		SW 5
Overnight	Very Poor – 1		E 5
Morning	Generally Poor – 13	None to Weak	SE 5
Afternoon	Generally Poor - 16		SE 5
	Morning Afternoon Evening Overnight Morning	Morning Very Poor - 6 Afternoon Generally Poor - 13 Evening Very Poor - 6 Overnight Very Poor - 1 Morning Generally Poor - 13	Morning Very Poor - 6 None Afternoon Generally Poor - 13 Evening Very Poor - 6 Overnight Very Poor - 1 Morning Generally Poor - 13 None to Weak

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

ACHD Remarks: Chance of showers and thunderstorms today into tomorrow.

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

Prepared by: CG Date: 6/09/2021 Time: 8:15 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	or Sensitive Groups Sensitive people should limit exertion outdoors.					
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 --- $^{\circ}\underline{C}$ with a depth of --- is estimated to break at ---. This surface inversion can be characterized as: --- Slight / Weak / Moderate / Strong.

No upper 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.

<u>Surface Temperature Inversion Characterization</u>

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



