## Air Quality Forecast and Dispersion Outlook of Allegheny County, Pennsylvania for 06/21/2021

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 Monday 6/21/21	Ozone <b>Moderate</b> 60 AQI	PM2.5 <b>Moderate</b> 57 AQI		
Tomorrow Tuesday 6/22/21	Ozone <b>Good</b> 40 AQI	PM2.5 <b>Good</b> 45 AQI		

Today's Forecast: Partly sunny, rather warm and humid today with late day thunderstorms possible as a cold front moves in from the Midwest. The elevated humidity and light southwest winds may keep particle levels in the 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	Good - 74	None	SW 10 to 15 Gusts 25
Afternoon	Good – 65		SW 10 to 15 Gusts 25
Evening	Fair - 21		NW 5 to 10 Gusts 25
Overnight	Poor - 8		NW 5 to 10 Gusts 25
Morning	Fair — 16	None	NW 5 to 10
Afternoon	Good - 81		NW 5 to 10
	Morning  Afternoon  Evening  Overnight  Morning	Morning Good - 74  Afternoon Good - 65  Evening Fair - 21  Overnight Poor - 8  Morning Fair - 16	Dispersion Index         Strength           Morning         Good - 74         None           Afternoon         Good - 65            Evening         Fair - 21            Overnight         Poor - 8            Morning         Fair - 16         None

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 tonight. Gusts today and tonight up to 25 mph.

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

Prepared by: CG Date: 6/21/2021 Time: 8:30 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.				
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	<b>Generally Poor</b>	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 - with a depth of - is estimated to break at -. This surface inversion can be characterized as: None/ Slight / Weak / Moderate / Strong.

There is an inversion above  $\sim 1000$  meters.

## 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



