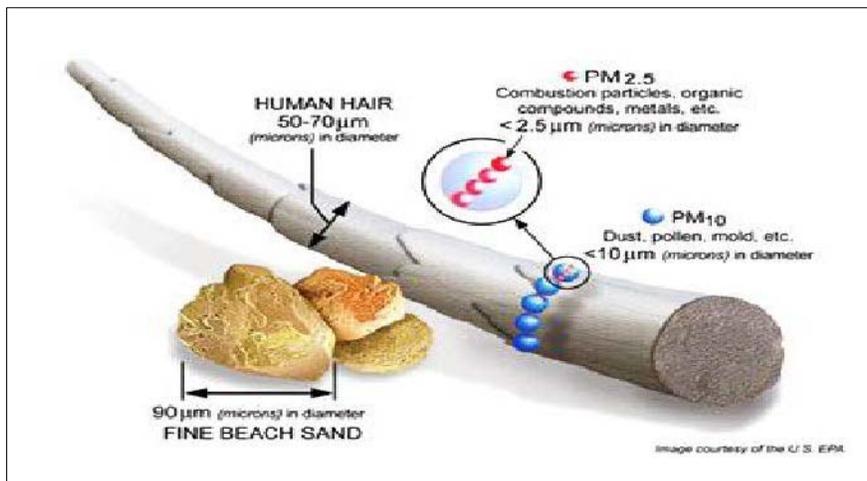




Air Quality Analysis of PM₁₀

PM₁₀ refers to airborne particles — particulate matter — smaller than 10 micrometers in diameter. People may inhale these particles, but no one can see them with the naked eye. Examples include microscopic mold, dust and pollen. The general public may encounter particulate matter in this size range near roads and industries, among other areas. These particles are so tiny that by comparison, the average human hair is seven times larger than the widest ones.



Due to their small size, these particles can entrench themselves in one's lungs and bloodstream. Studies have shown that particle pollution can impact people in all age groups. However, children, the elderly, and those with heart and/or lung disease are highest at risk. Particle pollution also impairs the environment and damages buildings. For more information, go to <https://www.epa.gov/pm-pollution>.

The EPA has set a standard for PM₁₀ at 150 micrograms per cubic meter of ambient air (150 µg/m³), averaged over a 24-hour day. A site does not meet this standard if it exceeds the level more than once per year, averaged over a three-year period. The PM₁₀ standard is expressed as “expected number of days exceeding the standard.” The word *expected* is used because PM₁₀ is not always measured every day at a specific monitoring site. Consequently, determining the number of days of exceedance requires adjustment by the ratio of the number of days in the year (365 or 366) to the number of days on which PM₁₀ is measured.

The following pages show a map of the Missouri PM₁₀ monitoring sites and a table of PM₁₀ design values. A value greater than one indicates exceedance of the PM₁₀ standard; a value less than or equal to one indicates that a site is meeting the standard. Each site uses the continuous federal equivalent methods to determine the concentration of airborne PM₁₀.

All but two of the department’s sites have met the PM₁₀ standard in recent years. One site exceeded the standard for the 2011-2013 period, and the other exceeded the standard for the 2012-2014 period. Both are located in areas near industrial facilities whose operations may release PM₁₀ into the air. Staff members from the department’s Air Pollution Control Program continue to work with these facilities to ensure that the PM₁₀ standard will continue to be met in the future.



PM₁₀ Design Values
Expected Numbers of Days that Air Monitoring Sites
in Missouri Exceed the PM₁₀ Standard
 (150 micrograms per cubic meter)

Updated 10/05/2020

Site numbers correspond to map legend.

Expected exceedance days through December 2019 are based on quality assured data as reported to US EPA.

Yellow highlighting indicates expected exceedance days greater than 1. The standard is exceeded at these sites for the indicated period.

Site/3-Year Period	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018	2017-2019	2018-2020†
Nos. 01 - 04 in St. Louis area												
01 Margareta [^]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
02 Blair Street [*]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
03 Branch Street	0.7	0.7	0.7	1.8	2.1	2.1	1.0	0.7	0.3	0.3	0.3	0.0
04 Arnold West	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0
Nos. 05 -06 in Kansas City area												
05 Front Street	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
06 Troost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No. 07 in Springfield area												
07 Hillcrest High School	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0
Nos. 08 - 10 in Outstate area												
08 Carthage in southwest Missouri	0.3	0.0	1.3	1.9	1.9	0.9	0.3	0.7	0.3	0.3	0.0	0.0
09 Mark Twain State Park in northeast Missouri	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 St. Joseph Pump Station in northwest Missouri	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

†2020 includes first, second, and third quarter data and data are preliminary.

[^]Monitoring at Margareta was discontinued on December 31, 2018.

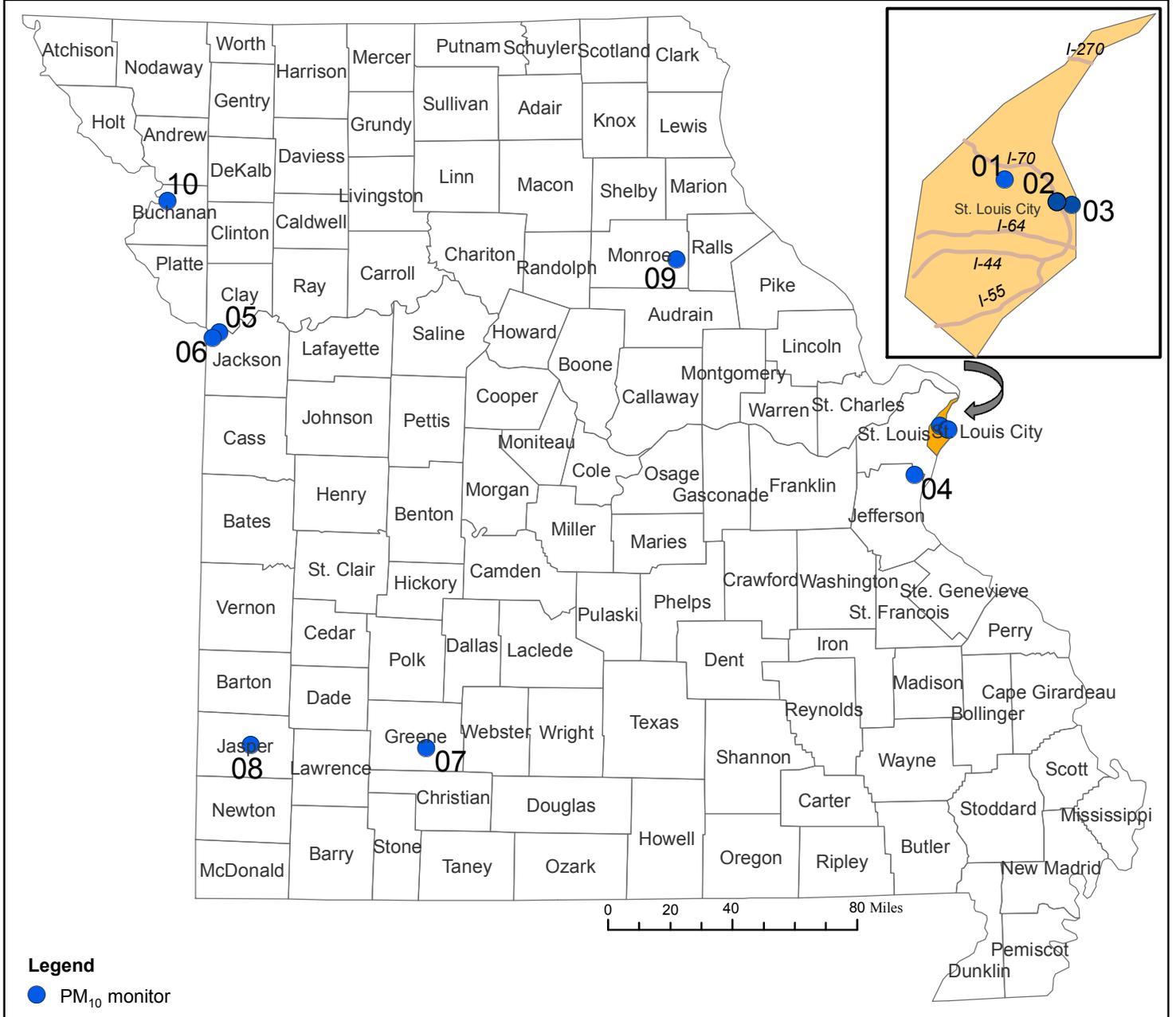
^{*}Blair Street data are continuous as of January 1, 2019.

Arnold West data are from July 2015.

Front Street data are from October 2010.

Hillcrest High School data are from April 2015.

Missouri Statewide PM₁₀ Monitoring Network, 2020



St. Louis Area

Site# Site Name

- 01 Margaretta[^]
- 02 Blair Street*
- 03 Branch Street
- 04 Arnold West

Kansas City Area

Site# Site Name

- 05 Front Street
- 06 Troost

Outstate Area

Site# Site Name

- 08 Carthage
- 09 Mark Twain State Park
- 10 St. Joseph Pump Station

Springfield Area

Site# Site Name

- 07 Hillcrest High School

[^]Monitoring was discontinued on December 31, 2018

*Reporting continuous data since January 1, 2019

