

Episode 56SFC March 23, 2024. Dane County Snapshot, Wisconsin. PM2.5 % and level in micrograms per cubic meter over 3 days using PurpleAir Data.

County Snapshot of Dane County, Wisconsin. The total of **24** municipality monitors in Dane County are at **7** total at Berry, Black Earth, Deerfield, Deforest, Fitchburg, Maple Bluff, and Mount Horeb and **17** monitors in Madison, Wisconsin. All measurements in micrograms per cubic meter. PurpleAir PM2.5 monitor readings are averages over 3 days of particulate matter of 2.5 micrometer size, the perfect size to infiltrate the human lung, setting off a cascade of human health problems and early deaths. Wood burning emissions are 90% PM2.5, and wood burning emits 2.8 times the PM2.5 and CO2 as the fossil fuel coal burning. Wood burning emits 450 times the PM2.5 as the fossil fuel natural gas burning. Many residents buy PurpleAir PM2.5 monitors to prove that as near neighbors of indoor residential wood burners, the wood burning emissions enter the near neighbors yards and sicken them, at levels above Environmental Protection Agency (EPA) National Ambient Air Quality Standards (NAAQS) which in **2024 are 9** micrograms per cubic meter annually and 35 micrograms per cubic meter in a 24 hour period. The highest average readings for Dane County, Wisconsin PurpleAir monitors are **23 at Wholly Rooted Farm, which advertizes its own wood burning**. The lowest average readings **5** micrograms per cubic meter at Griffin in Deforest and **8** micrograms per cubic meter at **LaFollette High School**. **LaFollette High School has a cemetery at one side, a road at one side and a golf course at two sides** LaFollette High School is only 1.8 miles away from 4205 Elinor Street and 4205 Elinor Street has an average reading of **21** micrograms per cubic meter, but LaFollette High School is not near an indoor residential wood burner. The indoor residential wood burner on Elinor Street is an employee of the Forestry Department and tries to recruit other neighborhood residents to also burn wood, although all residents of Madison, Wisconsin have access to, or are hooked up to, natural gas pipes for heating. The employee of the Forestry Department has a monthly bill for natural gas use. The employee of the Forestry Department also has average Madison Gas and Electric bills (\$135 average bill per month for the last 12 months) higher than the near neighbor 60 feet away from the wood burner's stack (\$105 gas and electric average per month for the last 12 months) resident who lives at 4205 Elinor Street and operates the PurpleAir monitor there named Elinor and Gary, 60 feet away from the home of the Forestry employee and the Forestry Employee's wood burning smokestack. An Excel sheet of all 10 minute readings in a 72 hour period can be downloaded from <https://rawsepresidents.com> at the County Snapshot tab. All 3 days of 10 minute individual PurpleAir PM2.5 readings for all monitors are hidden on the Excel sheet but can be unhidden and viewed.

| DateTime | Turner A | Daniel A | Wholly Rooted Farm A | Griffin A | Lacy Heights A | GoPackOutside A |
|---------------|----------|----------|----------------------|-----------|----------------|-----------------|
| Average PM2.5 | 21 | 23 | 23 | 5 | 19 | 17 |
| % 9 µg/m3 | 63% | 67% | 68% | 18% | 62% | 54% |
| % 15 µg/m3 | 53% | 57% | 50% | 4% | 49% | 41% |
| % 25 µg/m3 | 41% | 40% | 45% | 0% | 37% | 28% |
| % 35 µg/m3 | 27% | 25% | 30% | 0% | 22% | 14% |
| % 45 µg/m3 | 13% | 17% | 12% | 0% | 2% | 2% |
| % 55 µg/m3 | 2% | 10% | 6% | 0% | 0% | 2% |
| % 65 µg/m3 | 0% | 4% | 0% | 0% | 0% | 2% |
| % 75 µg/m3 | 0% | 1% | 0% | 0% | 0% | 1% |

| | Turner A | Daniel A | Wholly Rooted Farm A | Griffin A | Lacy Heights A | GoPackOutside A |
|--------------|-----------|-----------------|----------------------|--------------|----------------|-----------------|
| | Berry, WI | Black Earth, WI | Deerfield, WI | Deforest, WI | Fitchburg, WI | Maple Bluff, WI |
| # of monitor | 1 | 2 | 3 | 4 | 5 | 6 |

| DateTime | Hickory Hills A | 950 Clarence Ct A | Dudgeon-Monroe A | Elinor and Gary A | Elmside Circle Park A | LaFollette High School A |
|---------------|-----------------|-------------------|------------------|-------------------|-----------------------|--------------------------|
| Average PM2.5 | 15 | 21 | 22 | 21 | 12 | 8 |
| % 9 µg/m3 | 49% | 67% | 62% | 65% | 49% | 33% |
| % 15 µg/m3 | 38% | 51% | 51% | 51% | 34% | 20% |
| % 25 µg/m3 | 30% | 36% | 37% | 38% | 20% | 10% |
| % 35 µg/m3 | 14% | 25% | 31% | 26% | 2% | 0% |
| % 45 µg/m3 | 5% | 7% | 14% | 10% | 0% | 0% |
| % 55 µg/m3 | 0% | 0% | 3% | 0% | 0% | 0% |

| | Hickory Hills A | 950 Clarence Ct A | Dudgeon-Monroe A | Elinor and Gary A | Elmside Circle Park A | LaFollette High School A |
|--------------|-----------------|-------------------|------------------|-------------------|-----------------------|--------------------------|
| | Mount Horeb, WI | Madison, WI | Madison, WI | Madison, WI | Madison, WI | Madison, WI |
| # of monitor | 7 | 8 | 9 | 10 | 11 | 12 |

| DateTime | LAWD2 A | LAWD4 A | LAWD5 A | LAWD6 A | LAWD 7 A | SASY1A A |
|---------------|---------|---------|---------|---------|----------|----------|
| Average PM2.5 | 23 | 18 | 19 | 22 | 22 | 21 |
| % 9 µg/m3 | 66% | 58% | 60% | 65% | 64% | 64% |
| % 15 µg/m3 | 57% | 46% | 46% | 55% | 51% | 50% |
| % 25 µg/m3 | 40% | 34% | 35% | 39% | 37% | 37% |
| % 35 µg/m3 | 30% | 19% | 26% | 30% | 32% | 24% |
| % 45 µg/m3 | 15% | 3% | 9% | 12% | 15% | 7% |
| % 55 µg/m3 | 3% | 0% | 0% | 1% | 3% | 0% |

LAWD2 A LAWD4 A LAWD5 A LAWD6 A LAWD 7 A SASY1A A
 Madison, WI Madison, WI Madison, WI Madison, WI Madison, WI Madison, WI

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|--------------|----|----|----|----|----|----|
| # of monitor | 13 | 14 | 15 | 16 | 17 | 18 |
|--------------|----|----|----|----|----|----|

| DateTime | SASY 3b A | SASY 6 A | Sasy7a A | 9 N. Third A | Wexford Village - Madison A | MNA WilMar Location A |
|---------------|-----------|----------|----------|--------------|-----------------------------|-----------------------|
| Average PM2.5 | 15 | 14 | 12 | 20 | 13 | 20 |
| % 9 µg/m3 | 53% | 52% | 47% | 62% | 50% | 69% |
| % 15 µg/m3 | 39% | 34% | 33% | 50% | 35% | 53% |
| % 25 µg/m3 | 25% | 22% | 16% | 35% | 20% | 35% |
| % 35 µg/m3 | 8% | 6% | 4% | 22% | 0% | 19% |
| % 45 µg/m3 | 0% | 0% | 1% | 6% | 0% | 5% |

SASY 3b A SASY 6 A Sasy7a A 9 N. Third A Wexford Village - Madison A MNA WilMar Location A
 Madison, WI Madison, WI Madison, WI Madison, WI Madison, WI Madison, WI

| | | | | | | |
|--------------|----|----|----|----|----|----|
| # of monitor | 19 | 20 | 21 | 22 | 23 | 24 |
|--------------|----|----|----|----|----|----|