THE DAILY ACCOUNTABILITY RECORD OF DELHI'S AIR

# 284

## AQI at Anand Vihar, 24 hours to 4 PM, 20 August 2026, the worst monitor in Delhi today, Poor on CPCB's documented formula, and PM2.5 set that figure. 13.6 lakh people live within 4 km of it.

**Today, 20 August 2026, 24 hours to 4 PM:** worse than last year on the observed index, +32.2 points; with the weather removed, still 0.5 points worse on the model's count. 2 of 3 pollutants, PM2.5, PM10, show no real improvement. Delhi's AQI was 115.8, Moderate, calculated with CPCB's documented formula as the mean of 45 stations' AQIs (CPCB's note "How is AQI calculated?" and its AQI Calculator; page 34 sets out the formula). As measured, 43 of the 45 monitors reading PM2.5 were above the WHO 24-hour guideline of 15 µg/m³. Above AQI 200 today: 2 stations, Anand Vihar 284, Bawana 279. Poor or worse air reached 16.3 lakh people within 4 km of their monitor today, 7.7 per cent of Delhi.

**The year so far, 1 January to 20 August:** the cleaner days of 2026 have been the dirtiest for these dates since 2024, because three days in four read above 113.8 on the particle AQI, against 99.6 on the same dates of 2025. The middle day reads 162.7 against 154.1 on the same dates last year. On an average day, 31.9 per cent of Delhi's reporting monitors, about 13 of 43, sat above 200 on the particle AQI.

**116**

**TODAY, AS MEASURED**

Measured on CPCB's documented formula; with the weather removed, the model's 45 stations read 88, against 116 measured.

**1.67** crore

**NEAR MODERATE OR WORSE**

Within 4 km of 29 Moderate-or-worse monitors: 80.2 per cent of Delhi, every pollutant counted.

**2.6x**

**THE WHO 24-HOUR LINE**

Delhi's PM2.5 today, as measured, against the WHO 24-hour guideline.

The weather-removed figures are on the pages marked WEATHER REMOVED or BOTH.

Source: CPCB hourly station data, 24 hours to 4 PM on 20 August 2026 (CREA compilation); Election Commission 2025 roll, Registrar General 2025 projection, WorldPop 2020 grid; CREA's compilation of CPCB data since 2019; this office's weather-removal model, run 20 August 2026; WHO guidelines, 2021.

## The air record

20 August 2026 · Delhi, in both manners: actual observed, on CPCB's data and its documented formula, and weather impact removed

Published by Shri Ajay Maken, Member of Parliament, Rajya Sabha

# The negatives, the demands, the danger

**FOR THE RECORD, 20 AUGUST 2026, 24 HOURS TO 4 PM.** Anand Vihar read 284, Poor, set by PM2.5; 13.6 lakh people live within 4 km of it. The monitors gave Delhi 115.8, calculated with CPCB's documented formula (CPCB's note "How is AQI calculated?" and its AQI Calculator; page 34). Against the same dates last year, on the weather model's own 37 matched stations: +35.9 as measured and +0.5 points with the weather removed, on the model's count. The headline's own year-on-year change is on page 12.

## What this record finds today

- Three of every four days of 2026 so far read above 113.8 on the particle AQI, the highest that line has stood for 1 January to 20 August since 2024, when it was 128.2; the middle day rose from 154.1 to 162.7.
- With the weather removed, PM10 sat above last year on 159 of 232 measured days of 2026 (68.5 per cent), and PM2.5 on 86 of 232 (37.0 per cent).
- 2 of 3 pollutants, PM2.5, PM10, show no real improvement on last year once the weather is removed.
- The year is worse on the observed index itself, +32.2 points, and stays 0.5 points worse once the weather is removed, on the model's count.
- Anand Vihar read 284, Poor, set by PM2.5, while the city average read Moderate, and 13.6 lakh people live within 4 km of it. An average is not an experience.
- PM2.5 averaged 39.6 µg/m³ over the 24 hours to 4 PM as measured, 2.6 times the WHO 24-hour guideline of 15 µg/m³; 43 of the 45 monitors with a PM2.5 figure sat above that guideline.

## What we ask of the Government

- Fix the worst stations daily; a city average must never bury a neighbourhood.
- Keep the full monitoring network up: every gas channel, every hour; a meter that cannot measure is not a clean-air policy. On 20 August, 9 of the 45 monitors that reported gave no reading for at least one of the six pollutants.

## The health hazard

- Today's category, Moderate, in CPCB's own words, Table 3.12 of its National AQI report: "May cause breathing discomfort to the people with lung disease such as asthma and discomfort to people with heart disease, children and older adults"
- WHO's 2021 guidelines say the evidence points to no level of PM2.5 below which harm stops, and that even the annual guideline of 5 µg/m³ is not a level of no effect.
- The fine particles pass from the lungs into the blood; the burden falls first on children, the elderly, and those who work outdoors and cannot choose their air.

**Shri Ajay Maken**
Member of Parliament, Rajya Sabha

Source: CPCB hourly station data, 24 hours to 4 PM on 20 August 2026 (CREA compilation); this office's weather-removal model, run 20 August 2026; Election Commission 2025 roll, Registrar General 2025 projection, WorldPop 2020 grid; CREA's compilation of CPCB data since 2019; WHO guidelines, 2021; CPCB National AQI report, Table 3.12.

## What this record holds, page by page

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**Part A. The verdict, both rulers side by side** the paired pages; read these and stop if you must

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| 06 | PM2.5 against the WHO | the 24-hour guideline |
| 07 | PM10 against the WHO | the 24-hour guideline |
| 08 | The pollutant board | all tracked species, with how each is used |

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# One fact per page, provable at a glance

## Four ways in, depending on the minute you are in




### 01 Part A. The verdict, both rulers

The summary, then the paired pages: observed and weather removed, side by side.

**Pages 01, 02, then 05 onward.**

### 02 Part B. Observed

What the monitors said: the stations, the 30 days, last year, the year so far.

**Pages 09 onward.**

### 03 Part C. Weather Impact Removed

The year with the weather's effect removed: the days above and below last year, each month, and the weather evidence.

**Pages 16 onward.**

### 04 Part D. People, reference, method

Who the network reaches, the full tables, and how every number is made.

**Pages 21 onward.**

**What weather removed means.** Rain and wind wash or carry pollution away; calm weather traps it. A model removes that effect from the numbers. What remains is the pollution that Delhi's and the region's emissions produce in a typical spell of weather for the season. The two rulers work like this: the first is what the monitors measured, and the second is what the model estimates the air would have been in the usual weather for these dates. Every data page is tagged OBSERVED, WEATHER REMOVED or BOTH, in the same pale and red the charts use.

**What a residual is.** One day's level minus the same days of last year. Above zero means worse than last year. It is a difference, never a level.

**What the margin is.** The band inside which a figure is too close to call. Where a change sits inside its margin, this record says so and rests no claim on it.

**The tab**
It names the data and the exact window.

**The banner**
It states the finding, ready to be read out.

**The three zones**
Reading, caution and a dated source under every chart.

**The point**
The dark band restates the page's sharpest fact.

## The verdict, both rulers

# +35.9

**points on last year, observed, on the weather model's own count**

On the weather model's own count of 37 matched stations, the observed year reads +35.9 points; with the weather removed it reads +0.5 on the model's own count; the stations are too mixed to call. 2 of 3 pollutants, PM2.5, PM10, show no real improvement.

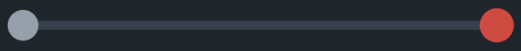
**No real improvement on last year: PM2.5, PM10**




**Last year to today, both ways of counting**

Last year (grey) to today (colour).

**Observed: 85 last year, 116 today**



**Weather removed: 88 last year, 88 today**

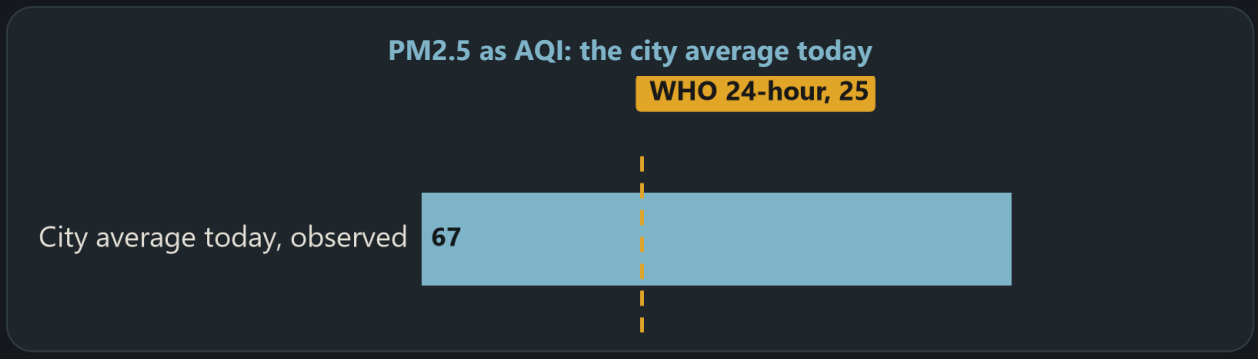
both years

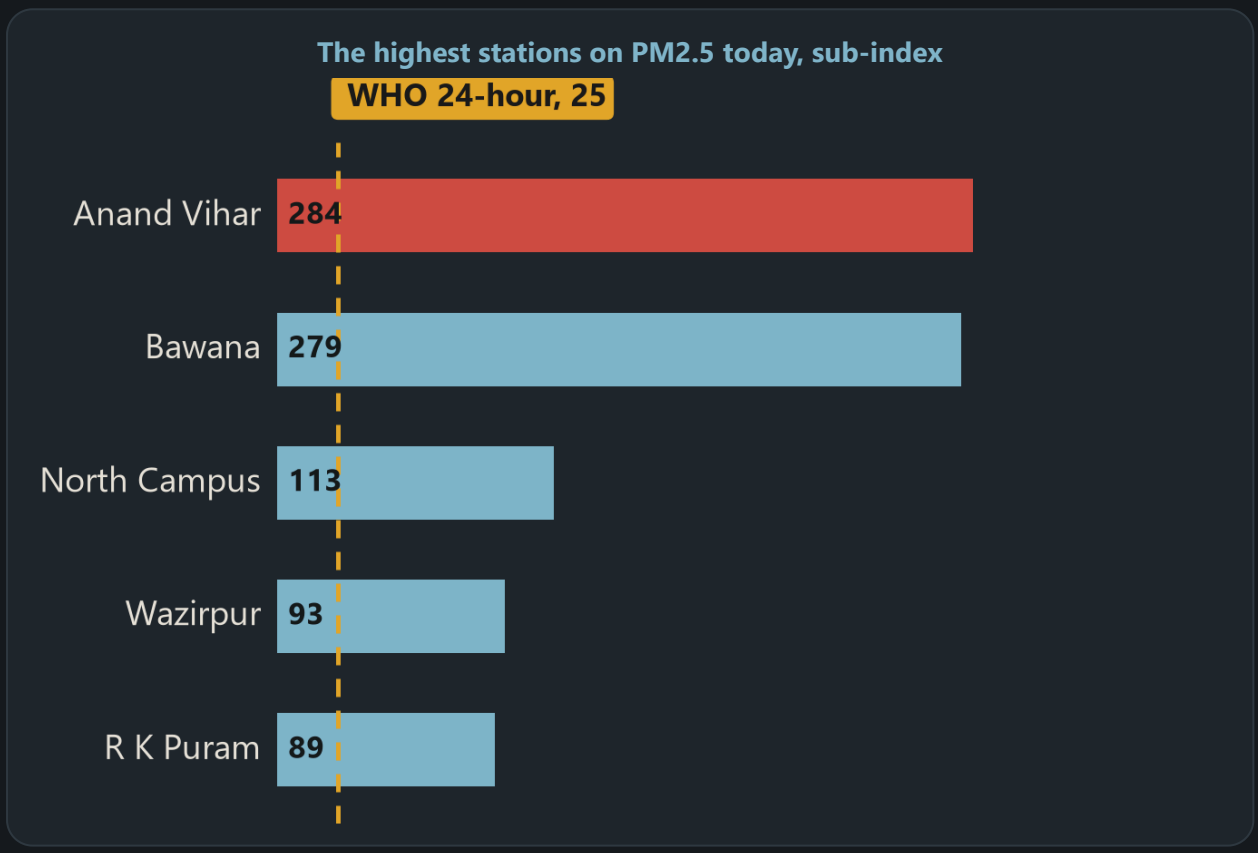
| | |
|---|---|
| READING | Reading: the top row is the raw index, and the bottom row is the same comparison after the model removes the weather's effect. The weather flag is down today: the observed and weather-removed figures are close enough that neither claims the other's story. |
| CAUTION | Caution: the observed figure on this page (116) is counted by the weather model on its own stations and its own figures for last year, so it can differ from the headline of 115.8, calculated with CPCB's documented formula (CPCB's note "How is AQI calculated?" and its AQI Calculator). The weather-removed figure is compared only with this count, never with the headline. |
| SOURCE | This office's weather-removal model, computed 20 August 2026, trained on ERA5 and Open-Meteo weather data [2]. |

THE POINT

On the weather model's own stations the year reads +35.9 points observed and, with the weather removed, still +0.5 on the model's count.

# PM2.5 against the WHO 24-hour guideline




**READING** Reading: every bar is a CPCB sub-index for PM2.5, the conversion of µg/m³ onto CPCB's index scale through CPCB's published breakpoints. The dashed line is the WHO 24-hour guideline of 15 µg/m³, which sits at sub-index 25 on the first, linear segment of that scale.

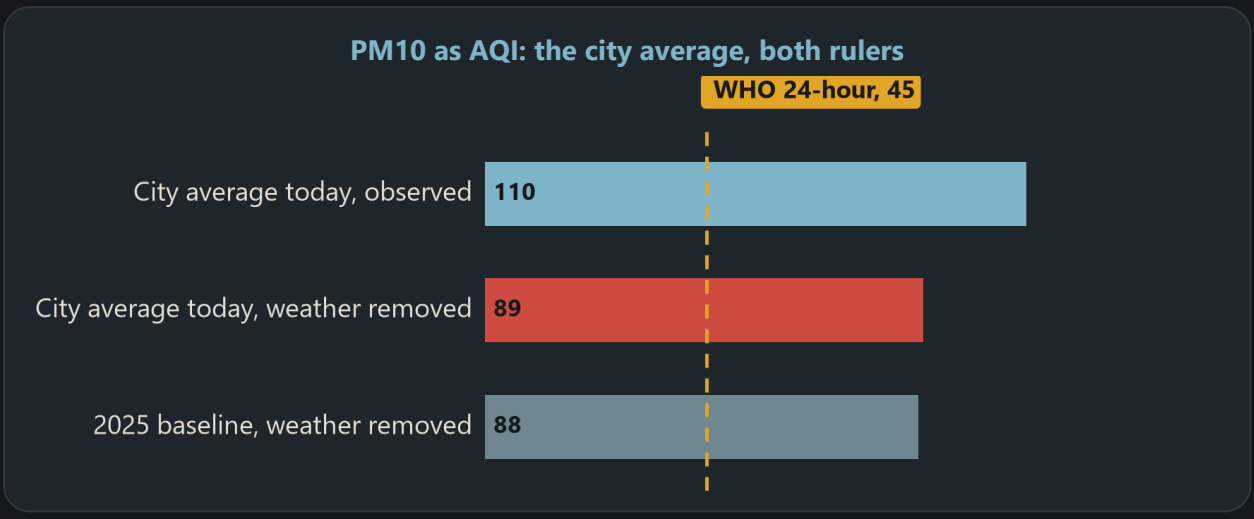
**CAUTION** Caution: every sub-index on this page is the observed one, on CPCB's documented formula, and one station's figure describes one neighbourhood.

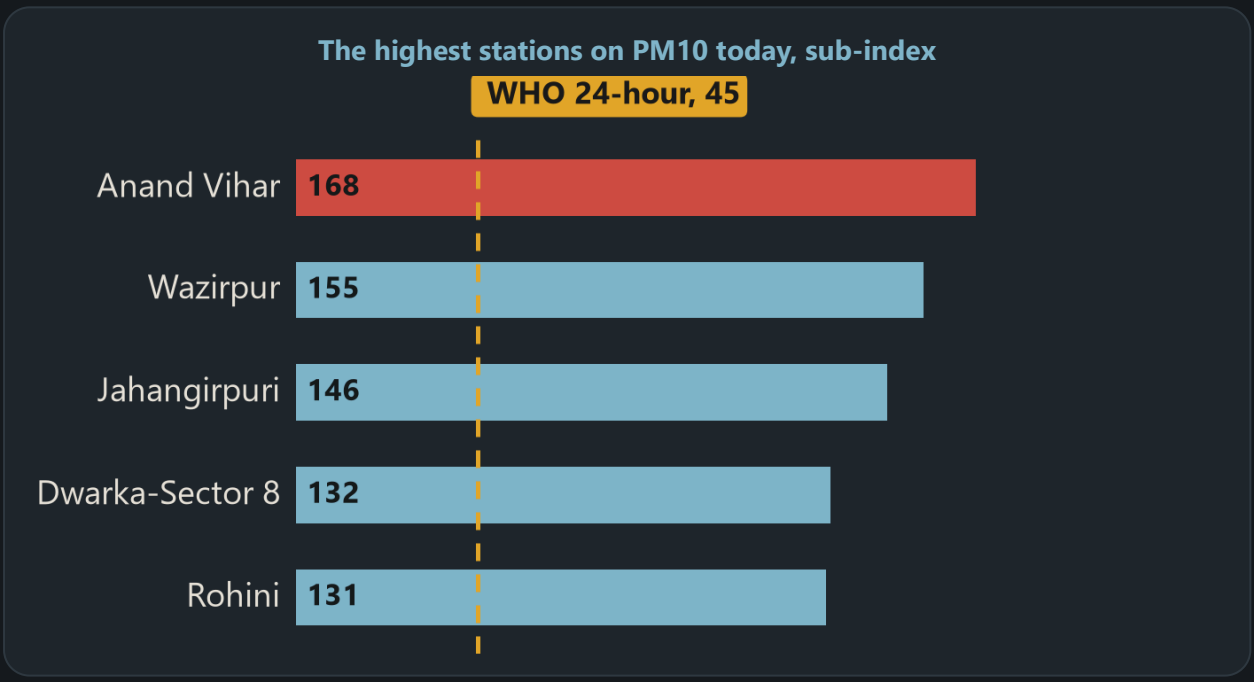
**SOURCE** CPCB's hourly station readings for the 24 hours to 4 PM on 20 August 2026, compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA). The figures are on CPCB's documented formula (CPCB, "How is AQI calculated?"; CPCB AQI Calculator), and the city figure is the mean of station AQIs [1].

**THE POINT**

Delhi's PM2.5 averaged 39.6 µg/m³ today, 2.6 times the WHO 24-hour guideline of 15 µg/m³, and Bawana averaged 113.5 µg/m³, 7.5 times it.

# PM10 against the WHO 24-hour guideline




**READING** Reading: every bar is a CPCB sub-index for PM10, the conversion of µg/m³ onto CPCB's index scale through CPCB's published breakpoints. The dashed line is the WHO 24-hour guideline of 45 µg/m³, which sits at sub-index 45 on the first, linear segment of that scale.

**CAUTION** Caution: weather-removed figures are model estimates, and how well the model performs is set out in the method annexure. A station's sub-index on these pages is the observed one. The weather model also estimates each station, and page 08 counts how many stations stay above the WHO guideline once the weather is removed.

**SOURCE** This office's weather-removal model, computed 20 August 2026, trained on ERA5 and Open-Meteo weather data [2].

**THE POINT**

Delhi's PM10 averaged 113.3 µg/m³ today, 2.5 times the WHO 24-hour guideline of 45 µg/m³, and Anand Vihar averaged 200.3 µg/m³, 4.4 times it.

# Every pollutant, observed and weather removed

| Pollutant | Today obs | Weather removed | Obs YoY | YoY, weather removed [spread across stations] | Skill | How this record uses it |
|---|---|---|---|---|---|---|
| PM2.5 | 39.6 | | +25.2% | | 39% | Used for findings |
| PM10 | 113.3 | 88.3 | +49.2% | +0.9% [-0.4 to 2.6] | 38% | Used for findings |
| NO2 | 25 | | -8.3% | | 24% | Used for findings |
| NOx (ppb) | 20.1 | | -18.8% | | 36% | Shown for context, observed only |
| SO2 | 12 | 10.9 | +33.8% | +8.5% [-0.6 to 18.7] (not used) | 9% | Shown for context, observed only |
| CO (mg/m³) | 1.17 | 1.11 | -0.7% | +13.8% [2.9 to 29.2] (not used) | 28% | Shown for context, observed only |
| Ozone | 28.1 | | -9.5% | | 34% | Observed reading used; weather-removed figure not used |

**43 of 45**
PM2.5 above the WHO 24-hour guideline of 15 µg/m³, as measured.

**45 of 45**
PM10 above the WHO 24-hour guideline of 45 µg/m³, weather removed; 45 of 45 as measured.

**1.9x**
Delhi's PM10 with the weather removed, against the same WHO 24-hour guideline.

**READING** Reading: every pollutant this record tracks, observed and weather removed. Concentrations are µg/m³, except carbon monoxide in mg/m³ and NOx, which the monitors report in ppb; one ppb of NO2 is 1.88 µg/m³. A range spanning zero is too close to call.

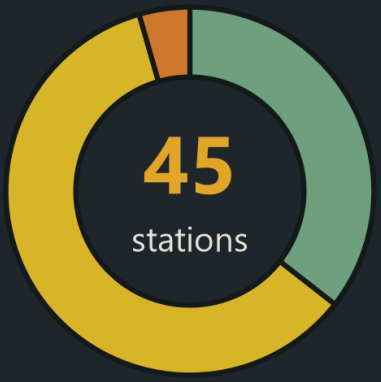
**CAUTION** Caution: skill is the share of the day-to-day variation the model explains on days it has not seen, and the bracket shows only how far a figure moves across the stations, not the model's own error, so the true uncertainty is wider. The weather-removed ozone figure is never the basis of a finding, because ozone forms in sunlight from other pollutants and nitric oxide from traffic consumes it near roads, so it does not follow emissions simply; the observed reading is reported up to CPCB's Poor ceiling, AQI 300. This year the monitors' ozone readings differ from their own of a year ago by more than any real change.

**SOURCE** This office's weather-removal model, computed 20 August 2026, trained on ERA5 and Open-Meteo weather data [2].

**THE POINT**
2 of 3 pollutants, PM2.5, PM10, show no real improvement on last year once the weather is removed.

# One average, and the spread it hides

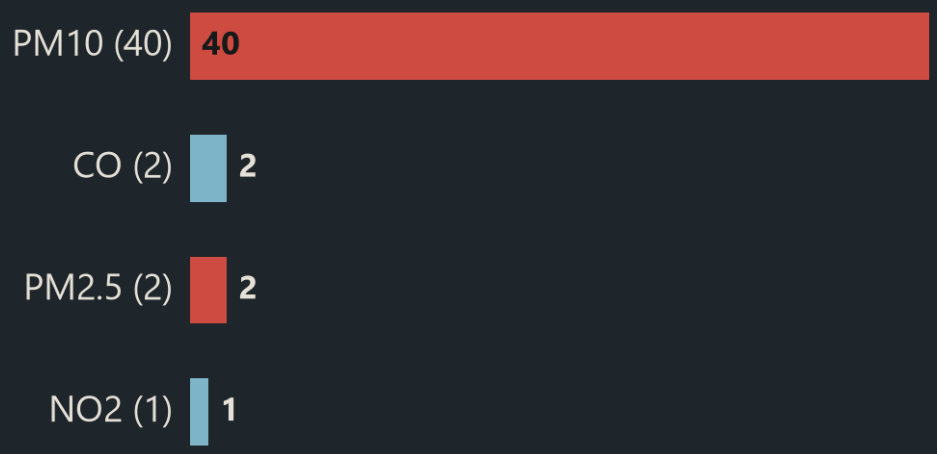
### All 45 stations, by category




### The same count, category by category




### Which pollutant set each station's figure today




**READING** Reading: each station reports its own AQI; the wheel and the bars are the same 45 stations counted by category. The lower panel counts the same stations by the pollutant that set each one's figure. Zero counts are printed as zeros.

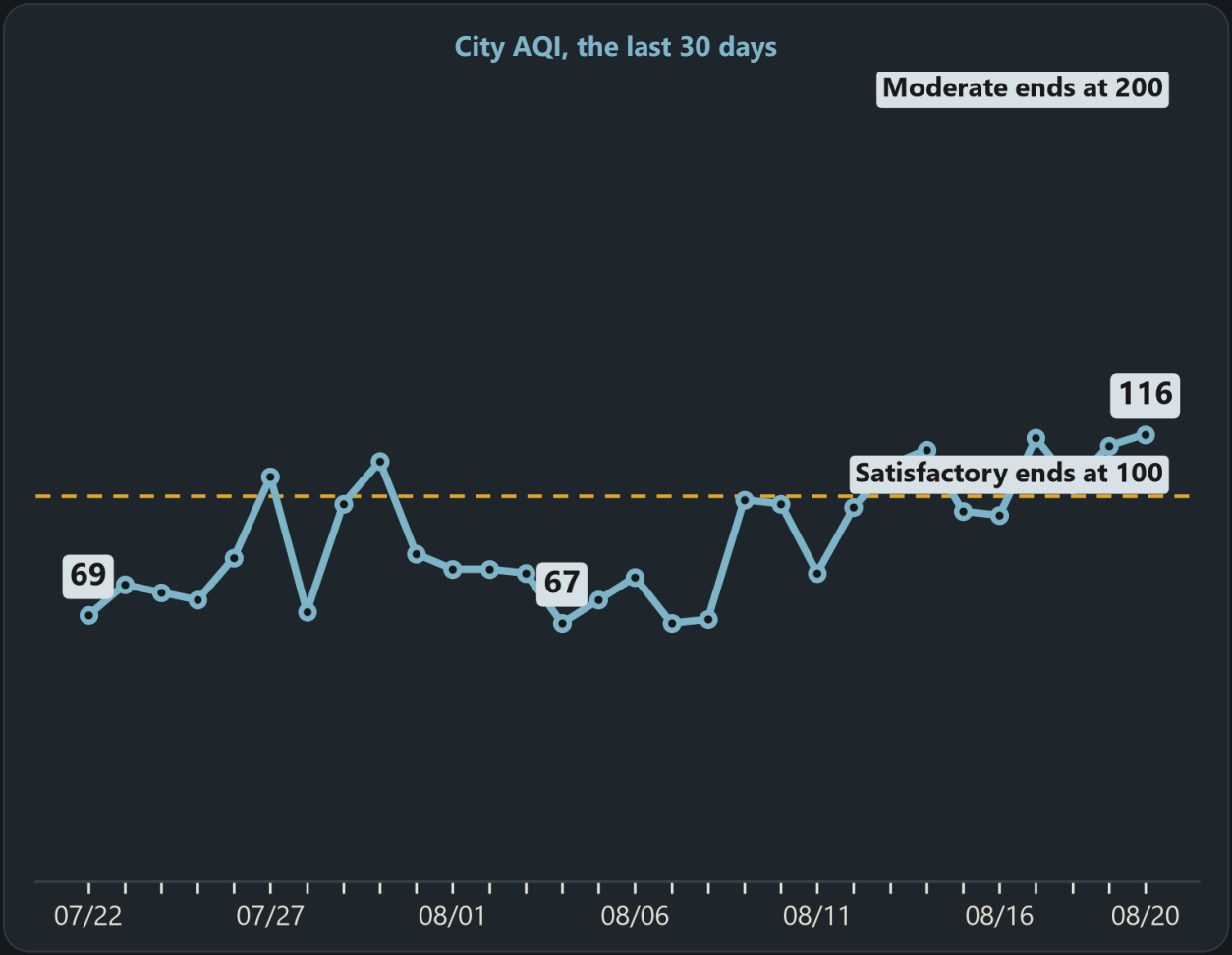
**CAUTION** Caution: the city headline is the mean of station AQIs, so one bad station can sit inside a Satisfactory average. A station's leading pollutant is the worst of its own sub-indices, not a ranking of how much of each was in the air.

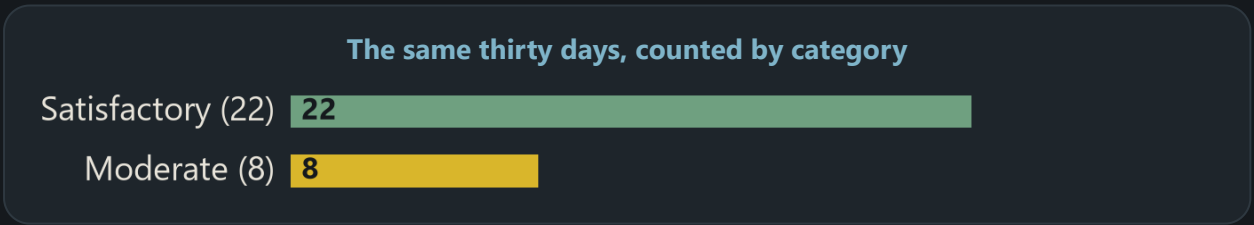
**SOURCE** CPCB's hourly station readings for the 24 hours to 4 PM on 20 August 2026, compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA). The figures are on CPCB's documented formula (CPCB, "How is AQI calculated?"; CPCB AQI Calculator), and the city figure is the mean of station AQIs [1].

**THE POINT**

Anand Vihar read 284, Poor, set by PM2.5, on a day the city average read Moderate.

## Thirty days of the index




**READING** Reading: the line is the city mean of station AQIs, one point per day. The dashed lines are the CPCB category boundaries. The lower panel counts the same thirty days by the category each one fell in.

**CAUTION** Caution: each day is the 24 hours ending 4 PM, and not the calendar day, so this line and a midnight series will differ.

**SOURCE** CPCB's hourly station readings for the 24 hours to 4 PM on 20 August 2026, compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA). The figures are on CPCB's documented formula (CPCB, "How is AQI calculated?"; CPCB AQI Calculator), and the city figure is the mean of station AQIs [1].

**THE POINT**

Thirty days ago the city read 69, on 45 reporting stations, and today it reads 116, on 45.

# Against yesterday: the one-day move

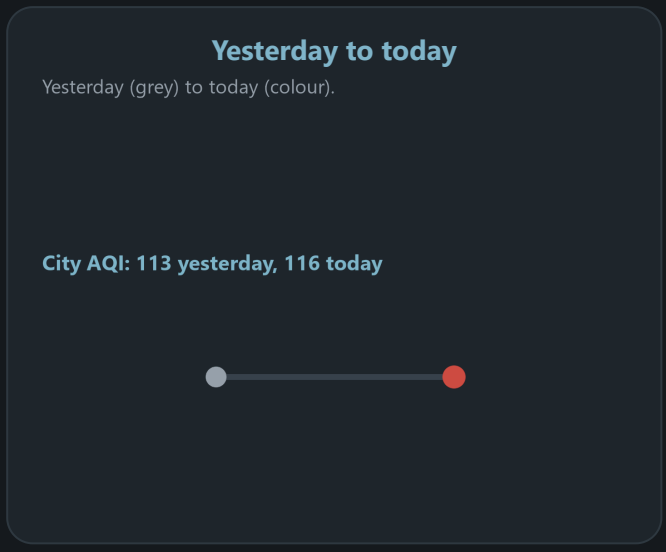
**3**

## points on yesterday

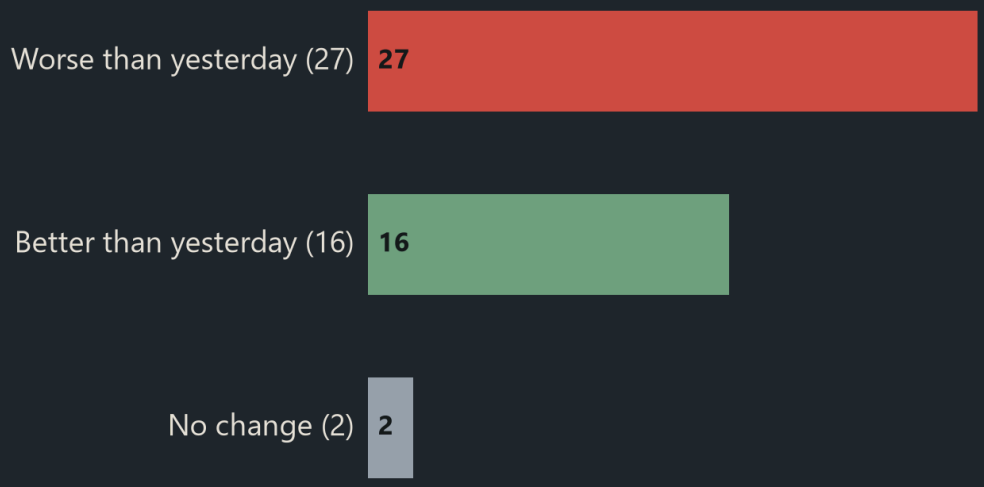
From 113 to 116. On the 45 stations that reported on both days, the 95 per cent interval runs -0.4 to 6.7 points, so the honest reading is level, not worse.

### Yesterday to today

Yesterday (grey) to today (colour).




### Which way each matched station moved since yesterday




**READING** Reading: the grey dot is yesterday, the coloured dot today; red marks a worsening. The lower panel splits the same matched stations by which way each one moved.

**CAUTION** Caution: a change from one day to the next can come from the weather alone, so this record rests its argument on the year pages.

**SOURCE** CPCB's hourly station readings for the 24 hours to 4 PM on 20 August 2026, compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA). The figures are on CPCB's documented formula (CPCB, "How is AQI calculated?"; CPCB AQI Calculator), and the city figure is the mean of station AQIs [1].

**THE POINT**

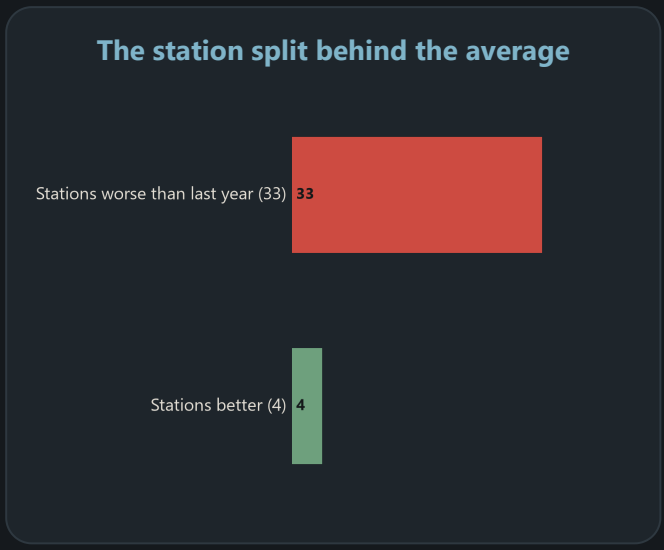
One day proves nothing on its own; the year-on-year and weather-removed pages carry the argument.

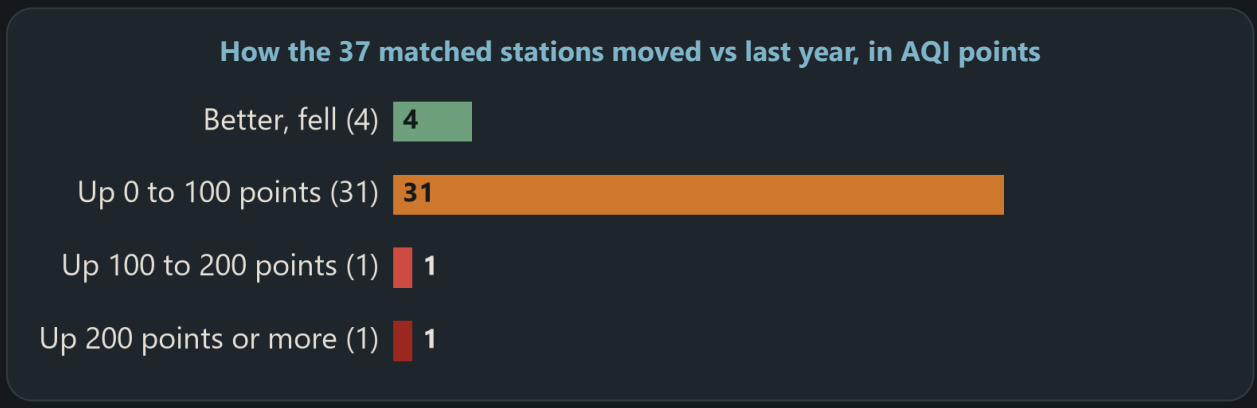
# Against last year: the observed reading

**32.2**

**points on last year, observed**

Today 116 across 45 stations. The year is judged on the 37 matched stations: 121 today against 89, the mean of the same date ±7 days of 2025 at those stations. The interval runs 20.5 to 46.7 points.




**READING** Reading: the observed year-on-year change, on the feed's own canonical figure. The lower panel sizes the moves behind that one number, station by station.

**CAUTION** Caution: 33 of the 37 matched stations read higher than last year, by a median of 27.9 points: Bawana, 279 against 78, set today by PM2.5; the feed does not record which pollutant set its figure last year; Anand Vihar, 284 against 113, set today by PM2.5; the feed does not record which pollutant set its figure last year; NSIT Dwarka, 124 against 57, set today by carbon monoxide; the feed does not record which pollutant set its figure last year; North Campus, 165 against 111, set today by nitrogen dioxide; the feed does not record which pollutant set its figure last year, and today's reading is one this record does not lead on. The other 4 read lower, by a median of 10.5 points, so the average hides both. Weighted by population, today reads 116 across all 45 stations; on the 37 stations matched with last year it reads 119 against 92, a change of 26.7 points.

**SOURCE** CPCB's hourly station readings for the 24 hours to 4 PM on 20 August 2026, compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA). The figures are on CPCB's documented formula (CPCB, "How is AQI calculated?"; CPCB AQI Calculator), and the city figure is the mean of station AQIs [1].

**THE POINT**

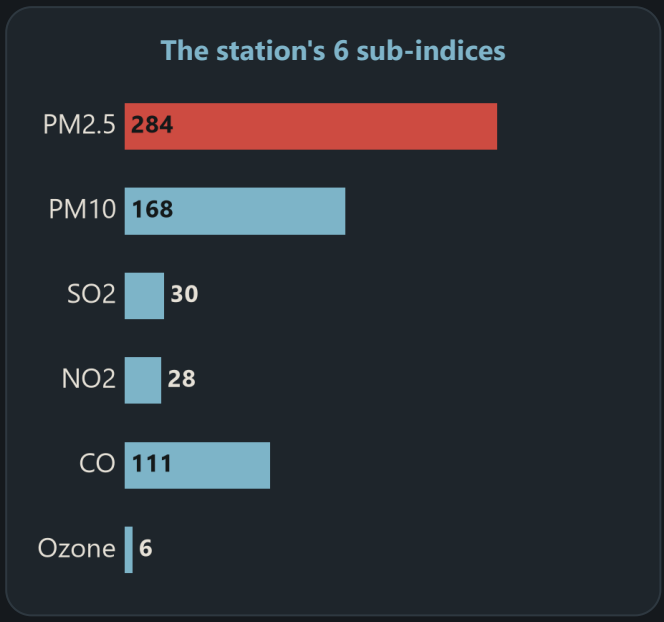
**The observed year reads worse before any correction. The verdict pair is on page 05: observed +35.9 and weather removed +0.5 points, on the weather model's count, the higher positive figure mentioned first.**

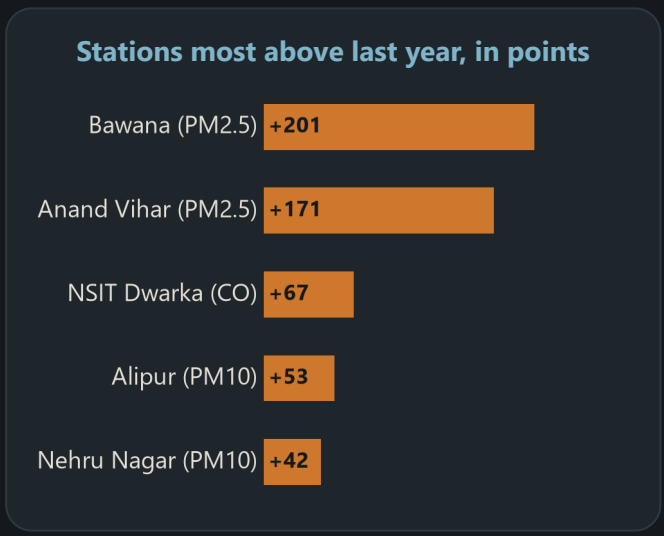
## The worst station in the city today

# 284

### Anand Vihar, Delhi - DPCC

Poor, set by PM2.5. Its PM2.5 averaged 113.1 µg/m³ over the 24 hours to 4 PM, 7.5 times the WHO 24-hour guideline of 15 µg/m³. Last year this station read 113 on the mean of the same date ±7 days, so the change is +171.1 points. 13.6 lakh people live within 4 km of this monitor. Within 500 m of the monitor, 84% of the land is built up and 14% is under vegetation, so this reading describes a densely built neighbourhood.




**READING** Reading: a station's AQI is its worst pollutant's sub-index; the red bar set today's figure. The lower panel lists the stations most above last year, in points, each with the pollutant that sets its figure today.

**CAUTION** Caution: one station describes one neighbourhood. Its sub-indices are printed so that the reading can be checked, and the land around the monitor is stated below the figure because it decides how far the reading travels.

**SOURCE** CPCB's hourly station readings for the 24 hours to 4 PM on 20 August 2026, compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA). The figures are on CPCB's documented formula (CPCB, "How is AQI calculated?"; CPCB AQI Calculator), and the city figure is the mean of station AQIs [1]. Land cover from ESA WorldCover 2021 v200, 10 m, CC BY 4.0.

**THE POINT**

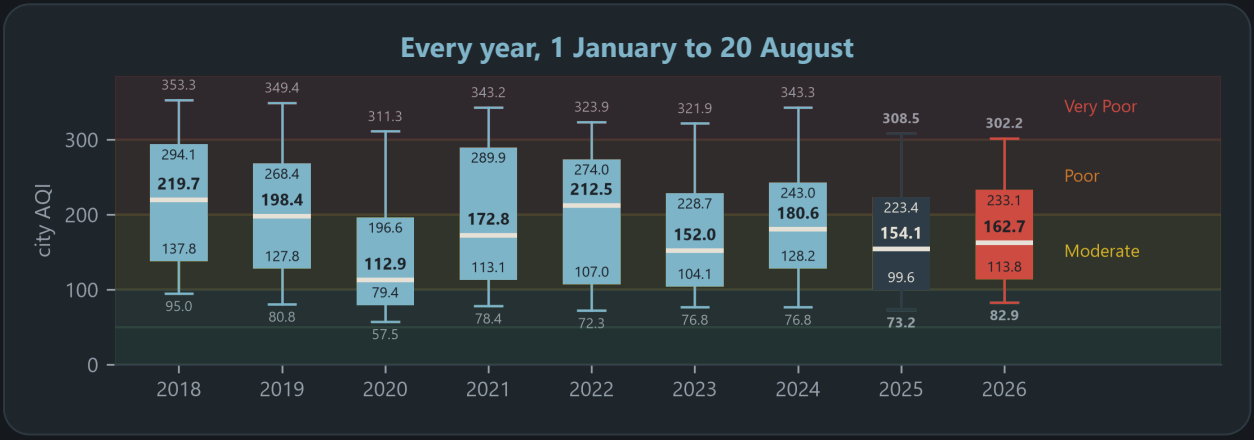
While the city averaged Moderate, Anand Vihar sat at 284, Poor, and 13.6 lakh people live within 4 km of it. An average is not an experience.

# The year, from its best days to its worst

## 162.7

### the middle day of 2026, against 154.1 in 2025

On the same 232 complete dates, 1 January to 20 August, the best tenth of days reads 82.9 against 73.2 and the worst tenth 302.2 against 308.5. The days at or below 200 went from 156 to 154.







**READING** Reading: the box holds the middle half of that year's days, the white rule inside it is the middle day, and the whiskers reach its best and worst tenth. The bands behind are the CPCB categories, so a year that improved would slide the whole box down through them.

**CAUTION** Caution: the whiskers are the tenth and ninetieth percentiles, not the extremes, so each year's worst days lie above them. These are the 232 complete dates present in every year. Neighbouring days resemble each other, so the margins are computed by resampling runs of 14 consecutive dates; on that test none of the six measures, from the best tenth to the worst, has moved outside its margin since last year.

**SOURCE** Computed from the CREA compilation of the CPCB hourly record, CPCB 2014 sub-index, calendar day, city figure the mean of station AQIs; PM basis, the higher of the PM2.5 and PM10 sub-indices [1].

**THE POINT**

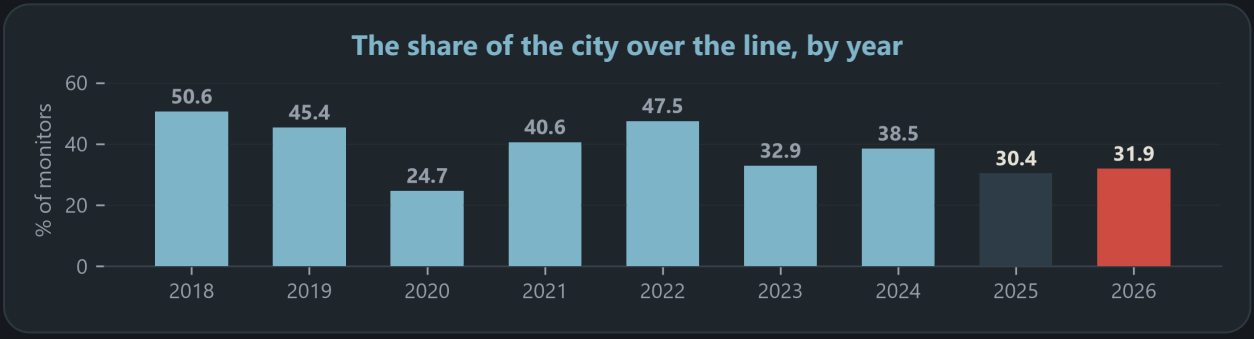
The cleaner days of 2026 have been the dirtiest for these dates since 2024: the lower quarter stands at 113.8, against 99.6 in 2025 and 128.2 in 2024.

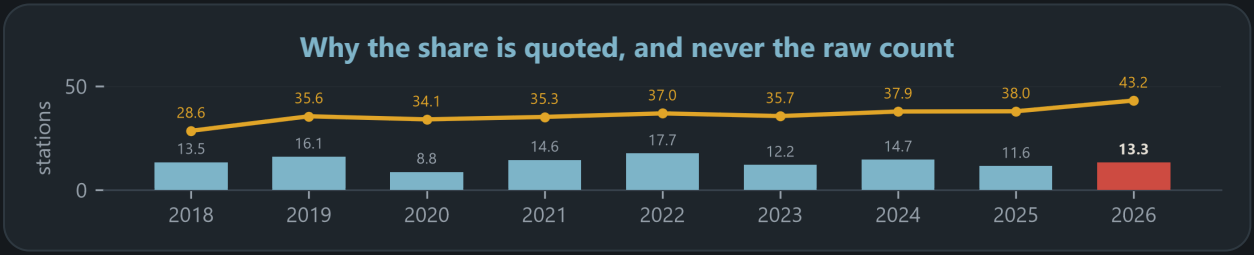
# How much of the city was above AQI 200

**31.9%**

**of Delhi's monitors above AQI 200 on an average day**

That is 13.3 of 43.2 reporting stations, against 30.4 per cent over the same dates last year, a change of +1.6 points on an interval of -4.4 to +8.1, so it is unchanged inside its margin.




**READING** Reading: the upper bar is the share of Delhi's own reporting monitors that read above AQI 200 on an average day of that year, so it asks how much of the city was over the line rather than how the city average behaved. Beneath it the amber line counts the monitors reporting at all, and the bars count how many of those read above 200.

**CAUTION** Caution: the share is quoted and never the raw count, because the reporting network grew from 28 stations to 43 across this record, and a rising count of stations over 200 could mean nothing more than a growing network. It is measured on each day against that day's own reporting stations and then averaged, so it is not exactly the one line below divided by the other.

**SOURCE** Computed from the CREA compilation of the CPCB hourly record, CPCB 2014 sub-index, calendar day, city figure the mean of station AQIs; PM basis, the higher of the PM2.5 and PM10 sub-indices [1].

**THE POINT**

On an average day this year, about 13 of the 43 reporting monitors, 31.9 per cent, sat above 200 on the particle AQI.

## The weather's hand, driver by driver

**4.4 km/h**
Wind speed today; last year 8.8 km/h.
z = -0.52

**0.4 mm**
Rain today; last year 5.7 mm.
z = 0.67

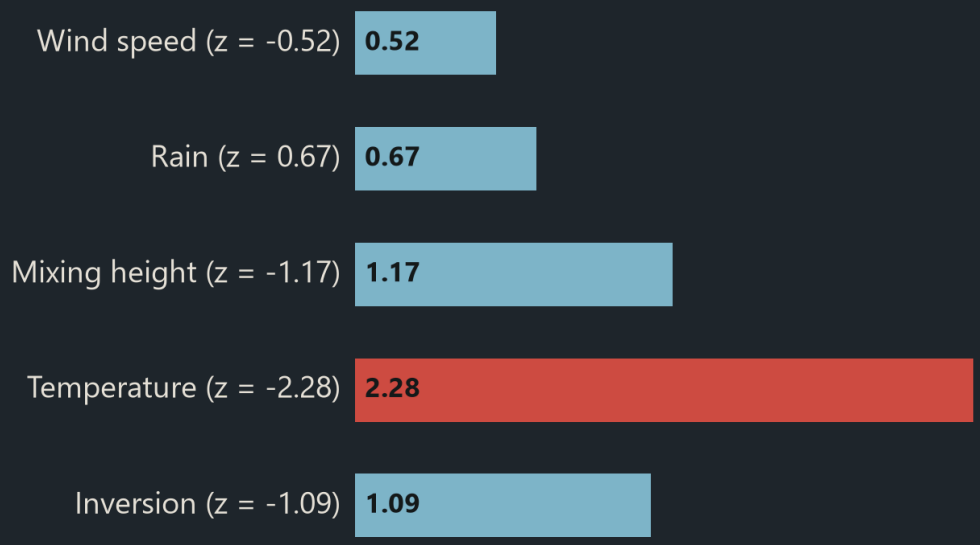
**220.8 m**
Mixing height today; last year 439.3 m.
z = -1.17

GATED OUT
**30.7 °C**
Temperature today; last year 29.4 °C.
z = -2.28

**0 °C**
Inversion today; last year 0.3 °C.
z = -1.09

**NW**
Wind direction today; last year E.
compass points only

### How far last year's baseline sat from normal, in standard deviations



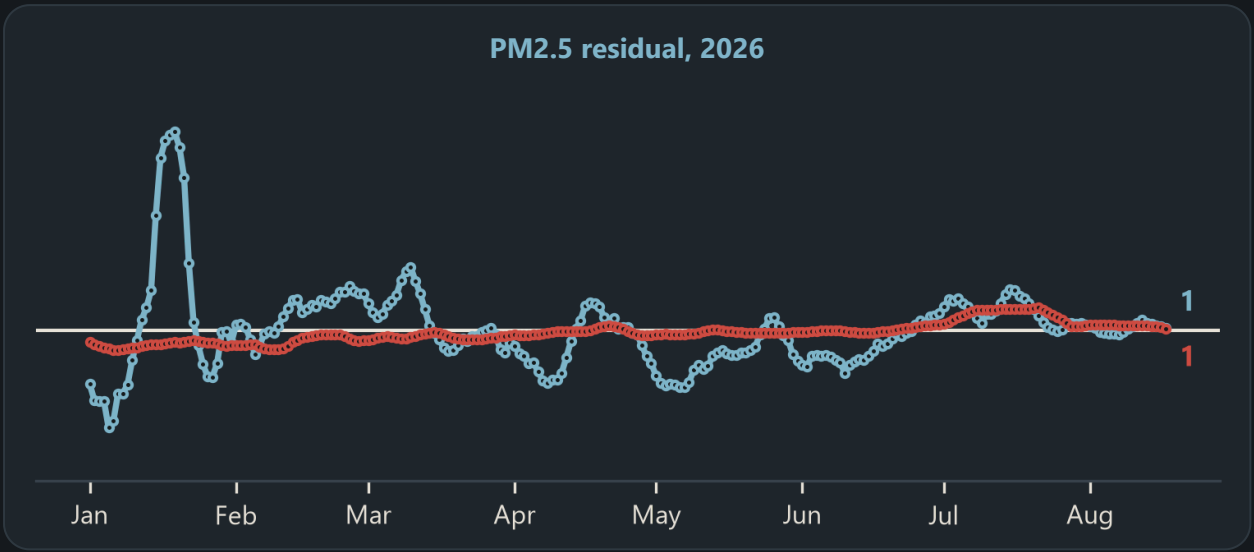

**READING** Reading: each tile is one weather driver, today against the same date last year. The z value is how far last year's baseline sat from the 2021 to 2024 normal. The chart draws those same z values as distances, so the gated drivers can be seen rather than counted.

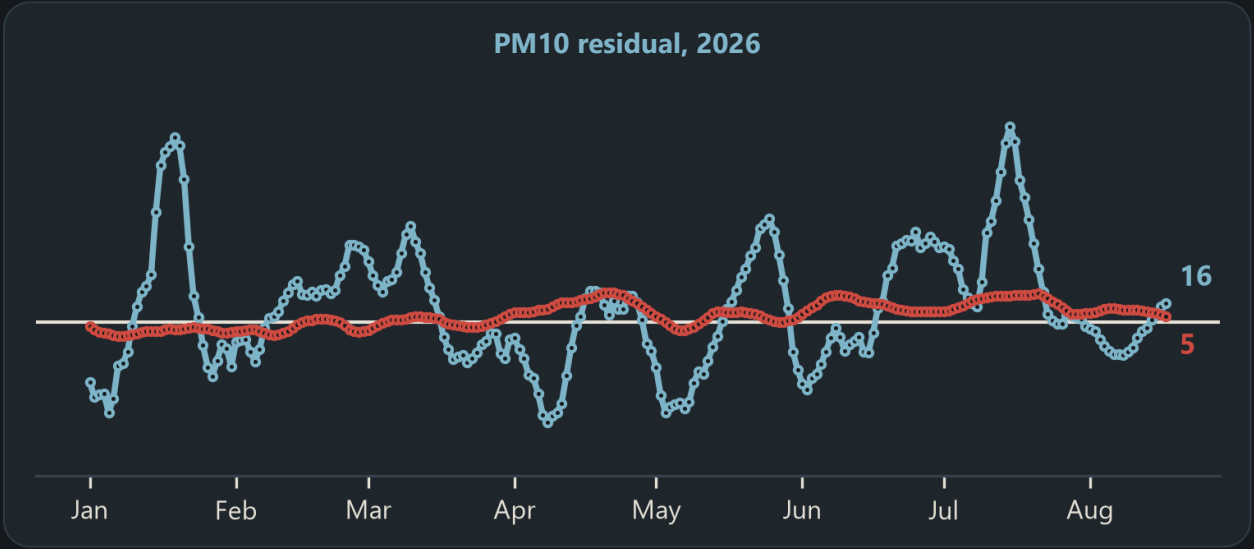
**CAUTION** Caution: a driver whose baseline was itself abnormal is greyed and marked. Last year's baseline was abnormal for temperature, so no argument rests on it. The bars carry no threshold line, because each driver's verdict is printed on its own bar.

**SOURCE** Weather comparison from the daily weather file, read 20 August 2026: last year and 2021 to 2024 are ERA5; today's hours are provisional airport observation and forecast-model values until ERA5 arrives [3].

**THE POINT**
Weather removed, the year reads +0.5 points on the model's count, against +35.9 as measured.

# Weather removed, PM10 sat above last year on 159 of 232 days, PM2.5 on 86




**READING** Reading: a residual is this year's level minus the same ±7 days of 2025. The pale line is the observed residual, weather included. The red line is the weather-removed residual, the change that remains once the weather's effect is removed. Above the zero line means worse than last year.

**CAUTION** Caution: each line is a seven-day centred average, so the last three days are not yet shown. Days with fewer than 30 reporting stations, or fewer than 15 matched with last year, are left out, which leaves 232 usable days. The weather model is retrained every week, most recently on data to 11 October 2026. The day counts depend only on whether each day was above or below last year, and not on any margin.

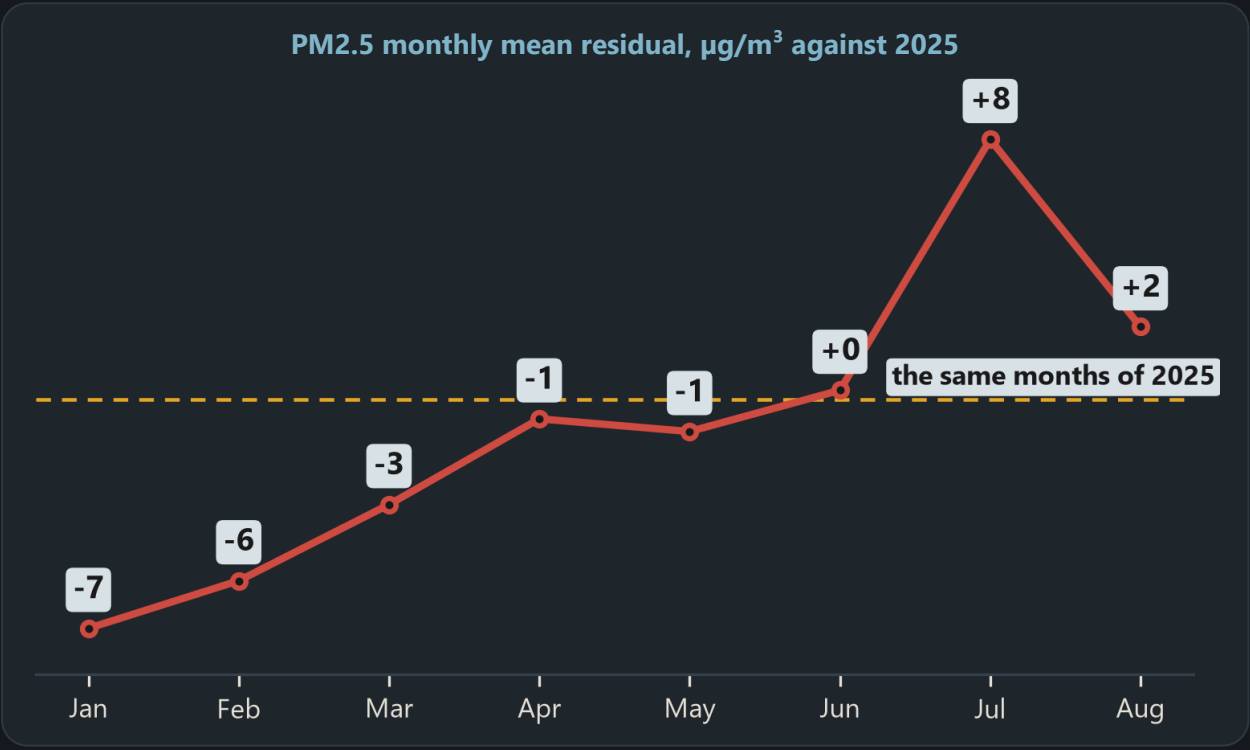
**SOURCE** This office's weather-removal model, computed 20 August 2026, trained on ERA5 and Open-Meteo weather data [2].

**THE POINT**

With the weather removed, PM10 was above last year on 159 of 232 days, 68.5 per cent of them, and PM2.5 on 86 of 232. Averaged over all 232 days, PM10 with the weather removed sat 5.8 µg/m³ above the same days of last year.

# PM2.5, month by month, weather removed

| | | | |
|---|---|---|---|
| **-7** January: margin ±11, 31 days. | **-6** February: margin ±11, 28 days. | **-3** March: margin ±10, 31 days. | **-0.6** April: margin ±10, 30 days. |
| **-1** May: margin ±10, 31 days. | **+0.3** June: margin ±10, 30 days. | **+8** July: margin ±10, 31 days. | **+2** August so far: margin ±10, 20 days. |




**READING** Reading: each tile is one month's mean of the daily weather-removed residuals for PM2.5, in µg/m³ above or below the same days of 2025. Red is worse than last year and green better. The chart is the same figures in order, so the year's shape can be seen rather than assembled from tiles.

**CAUTION** Caution: the margin is a rough guide, worked out by dividing the model's hourly error by the number of stations, and it is not a formal confidence interval. No finding in this record rests on it, and the day counts on page 17 do not depend on it.

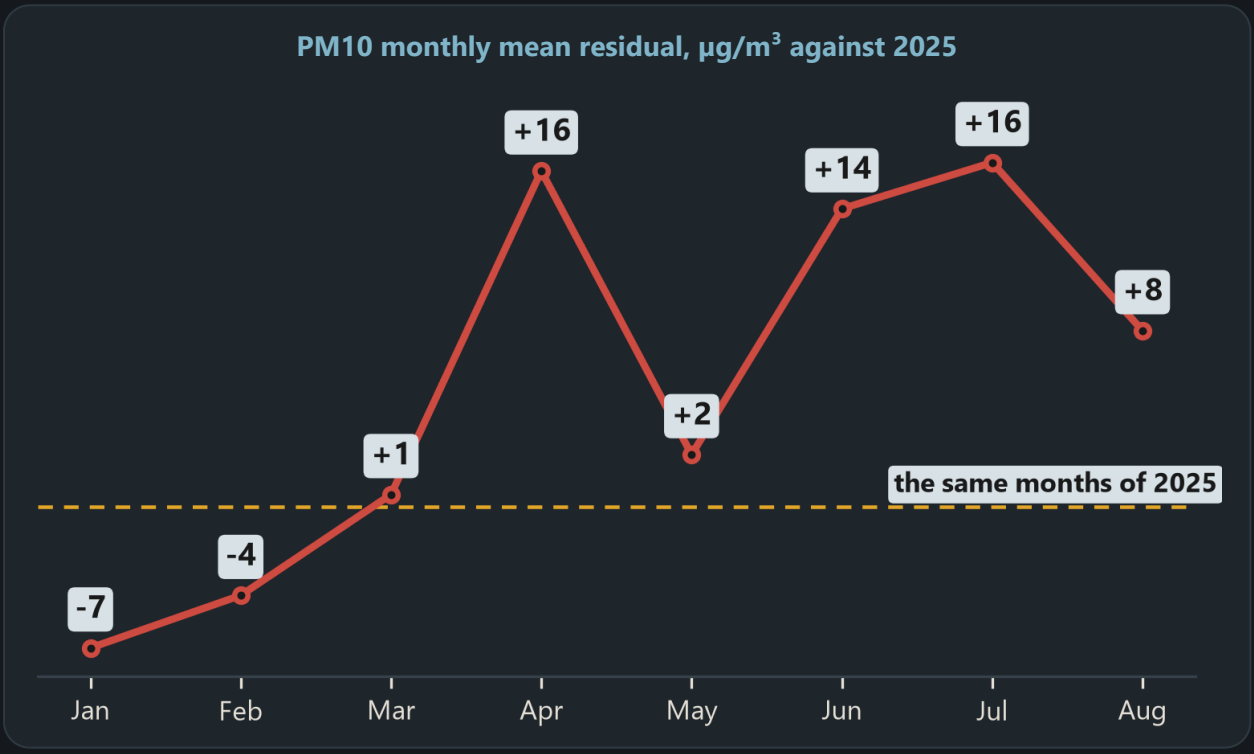
**SOURCE** This office's weather-removal model, computed 20 August 2026, trained on ERA5 and Open-Meteo weather data [2].

**THE POINT**

PM2.5: 3 of 8 months sat above last year on the weather-removed residual, 5 below.

# PM10, month by month, weather removed

| | | | |
|---|---|---|---|
| **-7** January: margin ±17, 31 days. | **-4** February: margin ±17, 28 days. | **+0.6** March: margin ±16, 31 days. | **+16** April: margin ±16, 30 days. |
| **+2** May: margin ±15, 31 days. | **+14** June: margin ±15, 30 days. | **+16** July: margin ±15, 31 days. | **+8** August so far: margin ±15, 20 days. |




**READING** Reading: each tile is one month's mean of the daily weather-removed residuals for PM10, in µg/m³ above or below the same days of 2025. Red is worse than last year and green better. The chart is the same figures in order, so the year's shape can be seen rather than assembled from tiles.

**CAUTION** Caution: the margin is a rough guide, worked out by dividing the model's hourly error by the number of stations, and it is not a formal confidence interval. No finding in this record rests on it, and the day counts on page 17 do not depend on it.

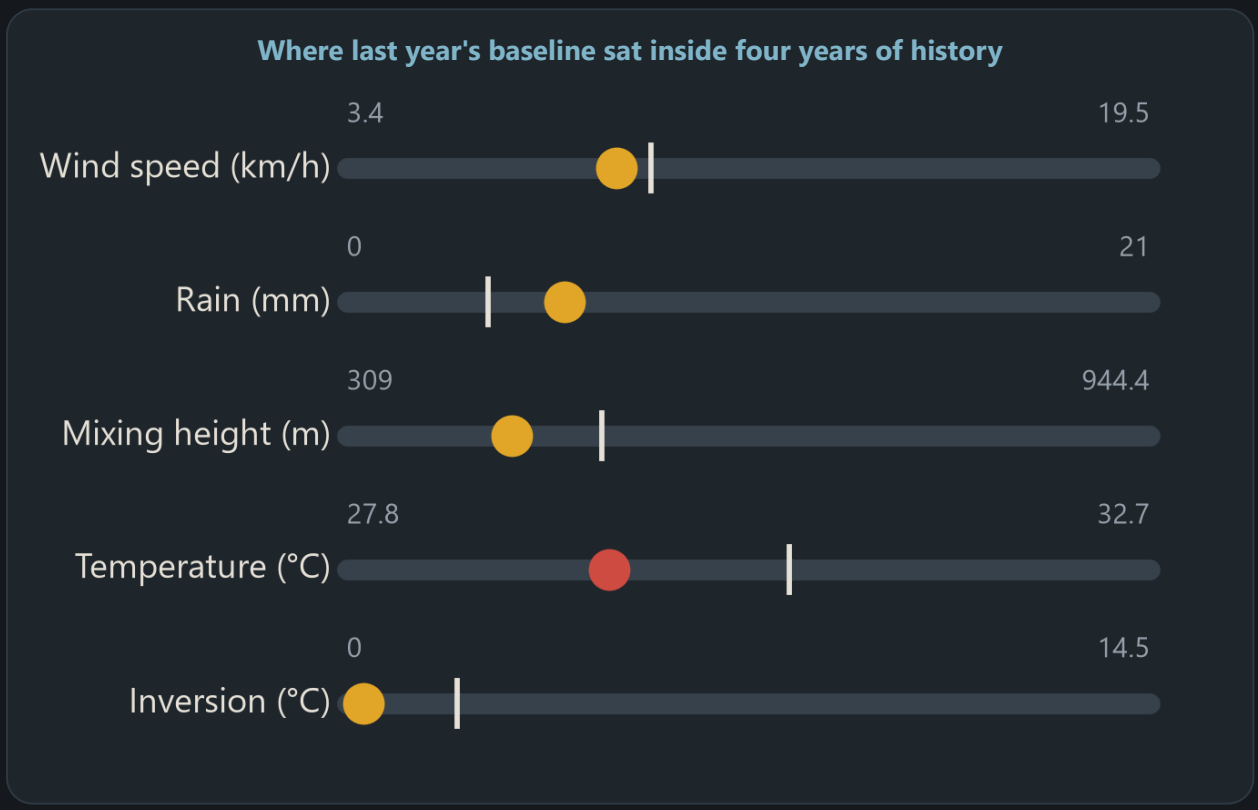
**SOURCE** This office's weather-removal model, computed 20 August 2026, trained on ERA5 and Open-Meteo weather data [2].

**THE POINT**

PM10: 6 of 8 months sat above last year on the weather-removed residual, 2 below.

# The full weather evidence, with its climatology

| Driver | Today | Last yr | Normal | SD | p1 | p99 | z | Verdict |
|---|---|---|---|---|---|---|---|---|
| Wind speed (km/h) | 4.4 | 8.8 | 9.5 | 1.4 | 3.4 | 19.5 | -0.52 | normal |
| Rain (mm) | 0.4 | 5.7 | 3.7 | 3 | 0 | 21 | 0.67 | normal |
| Mixing height (m) | 220.8 | 439.3 | 510.8 | 61.2 | 309 | 944.4 | -1.17 | normal |
| Temperature (°C) | 30.7 | 29.4 | 30.5 | 0.5 | 27.8 | 32.7 | -2.28 | abnormal, gated out |
| Inversion (°C) | 0 | 0.3 | 2 | 1.6 | 0 | 14.5 | -1.09 | normal |
| Wind direction | NW | E | none | none | none | none | none | compass only |




**READING** Reading: the full fairness evidence behind the driver tiles. Normal, SD and the p1 to p99 envelope come from the 2021 to 2024 history for these same calendar days. Each bar below is one driver's own envelope, from p1 at the left to p99 at the right, with a tick at the normal and a dot where last year's baseline sat. A red dot is a baseline the check ruled abnormal.

**CAUTION** Caution: the check runs in either direction. A driver ruled abnormal is gated out whether it would help our argument or hurt it. Each bar has its own scale and its own unit, so a dot's position compares a driver with its own history and never with another driver.

**SOURCE** Weather comparison from the daily weather file, read 20 August 2026: last year and 2021 to 2024 are ERA5; today's hours are provisional airport observation and forecast-model values until ERA5 arrives [3].

**THE POINT**

Before any weather driver is cited, last year's baseline is checked against the 2021 to 2024 history for the same days, and a baseline outside its normal range is not used.

# Who the monitoring network reaches

## 2.1 km

**from the typical resident to the nearest monitor**

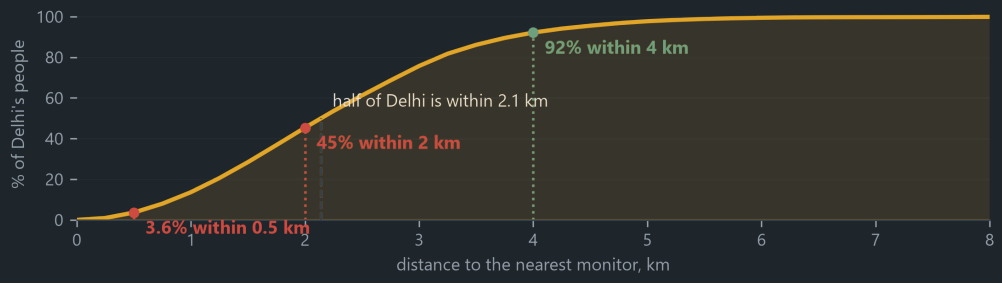
Within 4 km live 92 per cent of Delhi's people, within 2 km 45 per cent, and within 500 m only 3.6 per cent. Delhi has 55 monitors in 53 zones, of which 45 reported today, and 30 of the 53 zones stretch past 4 km, the distance that the US EPA's neighbourhood scale treats as the furthest a monitor speaks for.

### The network on the map

53 monitors, and the 2 km around each



### How far Delhi lives from its nearest monitor




**READING** Reading: the curve is the distance from a Delhi resident to their nearest monitor, counted over every person in the city. The three marked points are the shares within 500 m, 2 km and 4 km, so they are readings of one curve rather than three separate facts.

**CAUTION** Caution: living near a monitor is not protection. This says how far the network can speak, and nothing about the air itself. Monitors just outside Delhi are excluded here, and counting them would add about 0.3 points at 4 km.

**SOURCE** Population shape from WorldPop India, constrained and UN-adjusted, 2020, 100 m, CC BY 4.0. The level comes from the Election Commission 2025 Delhi roll, scaled to the Registrar General's 2025 projection of 2.094 crore. The radii are the US EPA neighborhood scale, set in 40 CFR 58 App D s1.2. Method after Manoj Kumar, "604 air quality stations. But how well do they represent India?", India Air Quality & Energy Insights, 11 August 2026.

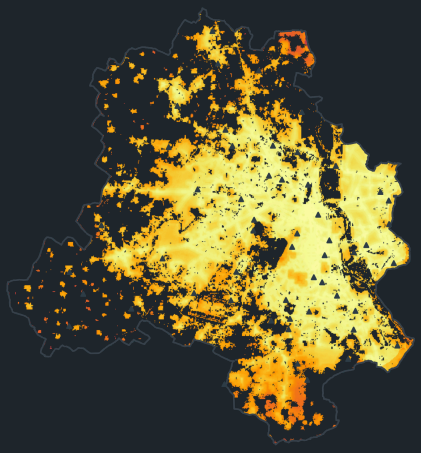
**THE POINT**

16.4 lakh Delhi residents live more than 4 km from any monitor, beyond the US EPA's neighbourhood scale.

# Where Delhi's people are, and how the zones are drawn

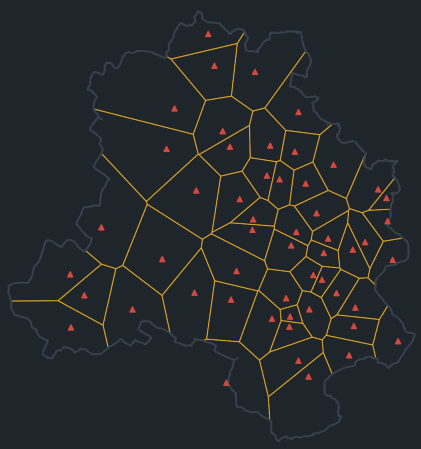
## Where the people are

People per 100 m cell, brighter is denser



## The zones those people fall in

The 53 zones, tiling Delhi exactly



## The Voronoi method, in full

### What a Voronoi zone is

Draw a line halfway between each pair of neighbouring monitors. Those lines cut the city into one patch per monitor. Every point in a patch sits nearest that monitor. The patches meet with no gaps and no overlaps, so together they cover Delhi exactly once.

### Why the zones differ in size

A monitor in central Delhi has close neighbours on every side, so its zone comes out small. A monitor on the outskirts has few neighbours, so its zone is large. Zone size therefore measures how thinly the network is spread, and not how dirty the air is.

### How a zone becomes a weight

The grid counts the people inside each zone. That share then becomes the monitor's weight. A monitor speaking for a tenth of Delhi counts for a tenth, where once it counted the same as one speaking for a fiftieth.

### What the weighting allows for, and what it cannot

Monitors are not spread the way people are, and the weighting allows for that. It cannot allow for where a monitor sits inside its zone, nor for the weather that day. It weights a city average, so it is never an estimate of what one person breathed.

**READING** Reading: the left map is the population grid, one cell per 100 m, and brighter means denser. The right map cuts Delhi into one zone per monitor, so every point belongs to its nearest one.

**CAUTION** Caution: the grid is a model, not a census. It places people where satellites see buildings. How many it places comes from the Election Commission's 2025 electoral roll, because India's population has not been counted since the 2011 Census.

**SOURCE** Population shape from WorldPop India, constrained and UN-adjusted, 2020, 100 m, CC BY 4.0. The level comes from the Election Commission 2025 Delhi roll, scaled to the Registrar General's 2025 projection of 2.094 crore. The radii are the US EPA neighborhood scale, set in 40 CFR 58 App D s1.2. Method after Manoj Kumar, "604 air quality stations. But how well do they represent India?", India Air Quality & Energy Insights, 11 August 2026.

**THE POINT**

**Weighting each monitor by the people in its zone gives a city average that follows where people live, and these zones are how each weight is worked out.**

# What each monitor's reading speaks for

## 16.3 lakh

### live within 4 km of a Poor monitor today

That is 7.7 per cent of Delhi, living around the 2 monitors that read Poor or worse. Anand Vihar was worst at 284, and 13.6 lakh people live within 4 km of it. On the wider count, 1.67 crore people, 80.2 per cent of Delhi, live within 4 km of a monitor at Moderate or worse.

**Today, Poor or worse**

| | |
|---|---|
| Anand Vihar | 284 · 13.6 lakh |
| Bawana | 279 · 2.6 lakh |

AQI, then people within 4 km. These circles overlap, so the figures do not add.

| Station | Lakh within 4 km | Reach km | Avg km |
|---|---|---|---|
| IHBAS, Dilshad Garden | 20.7 | 4.2 | 2.2 |
| Mundka | 18.3 | 6.5 | 2.6 |
| Punjabi Bagh | 15.7 | 5.0 | 2.1 |
| Vivek Vihar | 15.7 | 2.9 | 1.1 |
| Shadipur | 15.1 | 3.5 | 1.8 |
| Sonia Vihar | 14.8 | 4.6 | 2.5 |
| Okhla Phase-2 | 14.6 | 3.7 | 1.6 |
| Patparganj | 14.4 | 4.2 | 1.9 |
| Wazirpur | 14.0 | 3.3 | 1.6 |
| Anand Vihar | 13.6 | 3.7 | 1.9 |
| NSIT Dwarka | 13.2 | 6.2 | 3.0 |
| Chandni Chowk | 13.2 | 4.2 | 2.1 |
| Ashok Vihar | 13.2 | 3.5 | 1.8 |
| Mandir Marg | 12.5 | 3.5 | 1.9 |
| Rohini | 12.1 | 4.0 | 2.1 |
| Jahangirpuri | 11.9 | 4.7 | 1.7 |
| CRRI Mathura Road | 11.8 | 3.8 | 1.7 |
| Commonwealth Sports Compl | 11.5 | 3.9 | 1.4 |
| Pusa | 10.7 | 5.6 | 2.6 |
| Dr. Karni Singh Shooting | 10.6 | 3.9 | 2.3 |
| ITO | 9.6 | 3.9 | 1.4 |
| North Campus, DU | 9.4 | 3.4 | 1.5 |

**READING** Reading: each row gives the people living within 4 km of that monitor, then how far its zone reaches, then how far its average resident sits. US rules treat 4 km as the furthest a PM2.5 monitor can speak. The large figure is today's, so it moves with the pollution and not with the map.

**CAUTION** Caution: these circles overlap, heavily at 4 km. Added up they return about twice Delhi's population, so read the column one monitor at a time. It has no valid total. Living within 4 km is not the same as breathing that exact reading.

**SOURCE** Population shape from WorldPop India, constrained and UN-adjusted, 2020, 100 m, CC BY 4.0. The level comes from the Election Commission 2025 Delhi roll, scaled to the Registrar General's 2025 projection of 2.094 crore. The radii are the US EPA neighborhood scale, set in 40 CFR 58 App D s1.2. Method after Manoj Kumar, "604 air quality stations. But how well do they represent India?", India Air Quality & Energy Insights, 11 August 2026.

**THE POINT**

Today Anand Vihar read 284, Poor, set by PM2.5, and 13.6 lakh people live within 4 km of it.

## Every reporting station

| # | Station | AQI | Category | Main pollutant |
|---|---|---|---|---|
| 1 | Anand Vihar | 284 | Poor | PM2.5 |
| 2 | Bawana | 279 | Poor | PM2.5 |
| 3 | North Campus | 165 | Moderate | NO2, set aside |
| 4 | Wazirpur | 155 | Moderate | PM10 |
| 5 | Jahangirpuri | 146 | Moderate | PM10 |
| 6 | Dwarka-Sector 8 | 132 | Moderate | PM10 |
| 7 | Rohini | 131 | Moderate | PM10 |
| 8 | IIT Delhi | 131 | Moderate | PM10 |
| 9 | Pusa (DPCC) | 126 | Moderate | PM10 |
| 10 | NSIT Dwarka | 124 | Moderate | CO |
| 11 | Sirifort | 124 | Moderate | PM10 |
| 12 | R K Puram | 124 | Moderate | PM10 |
| 13 | Chandni Chowk | 123 | Moderate | PM10 |
| 14 | Nehru Nagar | 119 | Moderate | PM10 |
| 15 | CRRI Mathura Road | 118 | Moderate | PM10 |

**READING** Reading: all 45 stations that reported in today's window, worst first. Each station's AQI is on CPCB's documented formula: the worst of its pollutant sub-indices.

**CAUTION** Caution: a monitor speaks for its own neighbourhood, not for the city. The network is not identical from day to day, because stations report on different schedules. A main pollutant marked "set aside" comes from a monitor whose nitrogen oxide readings fail this record's consistency check; it is printed as reported, and this record does not lead on it.

**SOURCE** CPCB's hourly station readings for the 24 hours to 4 PM on 20 August 2026, compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA). The figures are on CPCB's documented formula (CPCB, "How is AQI calculated?"; CPCB AQI Calculator), and the city figure is the mean of station AQIs [1].

**THE POINT**

**Not one of the 15 stations on this page was rated Good. The highest here is Anand Vihar at 284.**

## Every reporting station, continued

| # | Station | AQI | Category | Main pollutant |
|---|---|---|---|---|
| 16 | Sonia Vihar | 117 | Moderate | PM10 |
| 17 | Punjabi Bagh | 115 | Moderate | PM10 |
| 18 | Vivek Vihar | 115 | Moderate | PM10 |
| 19 | ITO | 114 | Moderate | PM10 |
| 20 | Ashok Vihar | 114 | Moderate | PM10 |
| 21 | Alipur | 111 | Moderate | PM10 |
| 22 | Patparganj | 109 | Moderate | PM10 |
| 23 | Aya Nagar | 107 | Moderate | PM10 |
| 24 | Okhla Phase-2 | 107 | Moderate | PM10 |
| 25 | Jawaharlal Nehru Stadium | 106 | Moderate | PM10 |
| 26 | Mundka | 105 | Moderate | PM10 |
| 27 | IGI Airport (T3) | 102 | Moderate | PM10 |
| 28 | Burari Crossing | 101 | Moderate | PM10 |
| 29 | Mandir Marg | 101 | Moderate | PM10 |
| 30 | Narela | 100 | Satisfactory | PM10 |

**READING** Reading: the table continues, same window, same method, worst first.

**CAUTION** Caution: a monitor speaks for its own neighbourhood, not for the city. The network is not identical from day to day, because stations report on different schedules. A main pollutant marked "set aside" comes from a monitor whose nitrogen oxide readings fail this record's consistency check; it is printed as reported, and this record does not lead on it.

**SOURCE** CPCB's hourly station readings for the 24 hours to 4 PM on 20 August 2026, compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA). The figures are on CPCB's documented formula (CPCB, "How is AQI calculated?"; CPCB AQI Calculator), and the city figure is the mean of station AQIs [1].

**THE POINT**

Not one of the 15 stations on this page was rated Good.

## Every reporting station, continued

| # | Station | AQI | Category | Main pollutant |
|---|---|---|---|---|
| 31 | Dr. Karni Singh Shooting Range | 97 | Satisfactory | PM10 |
| 32 | IMD Lodhi Road | 96 | Satisfactory | PM10 |
| 33 | Pusa (IITM) | 93 | Satisfactory | PM10 |
| 34 | Major Dhyan Chand National Stadium | 93 | Satisfactory | PM10 |
| 35 | Sri Aurobindo Marg | 93 | Satisfactory | PM10 |
| 36 | Najafgarh | 92 | Satisfactory | PM10 |
| 37 | Commonwealth Sports Complex | 91 | Satisfactory | PM10 |
| 38 | IHBAS | 88 | Satisfactory | PM10 |
| 39 | Cantonment Area | 87 | Satisfactory | CO |
| 40 | DTU | 84 | Satisfactory | PM10 |
| 41 | JNU | 81 | Satisfactory | PM10 |
| 42 | NSUT Jaffarpur | 79 | Satisfactory | PM10 |
| 43 | IGNOU Maidan Garhi | 79 | Satisfactory | PM10 |
| 44 | Talkatora Garden | 77 | Satisfactory | PM10 |
| 45 | Shadipur | 74 | Satisfactory | PM10 |

**READING** Reading: the table continues, same window, same method, worst first.

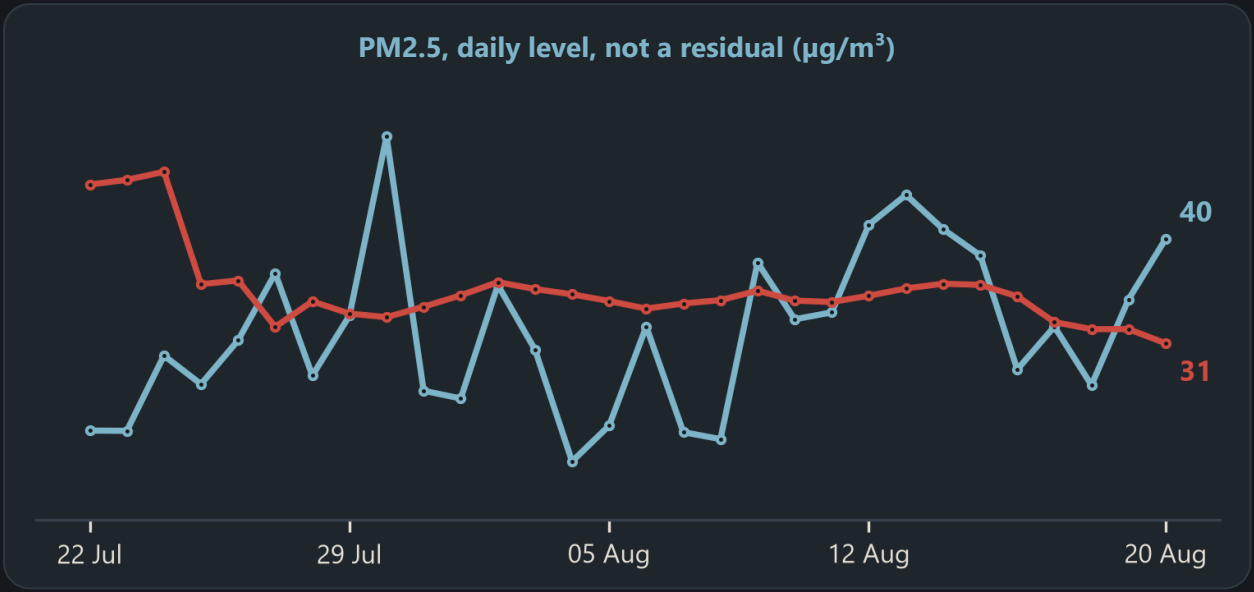
**CAUTION** Caution: a monitor speaks for its own neighbourhood, not for the city. The network is not identical from day to day, because stations report on different schedules. A main pollutant marked "set aside" comes from a monitor whose nitrogen oxide readings fail this record's consistency check; it is printed as reported, and this record does not lead on it.

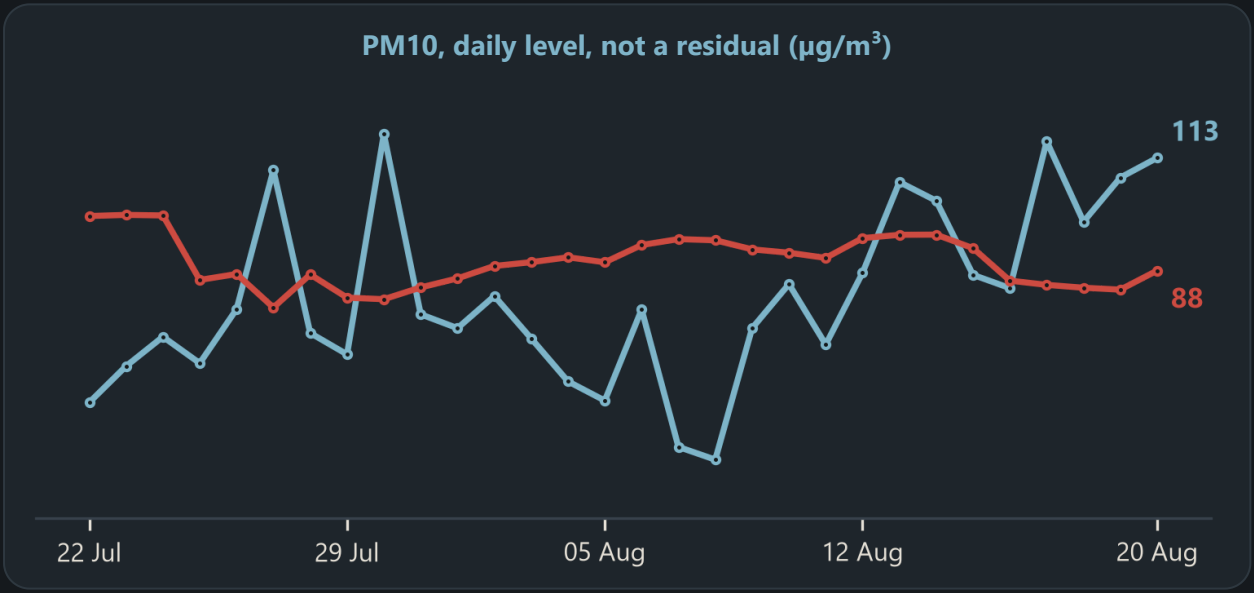
**SOURCE** CPCB's hourly station readings for the 24 hours to 4 PM on 20 August 2026, compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA). The figures are on CPCB's documented formula (CPCB, "How is AQI calculated?"; CPCB AQI Calculator), and the city figure is the mean of station AQIs [1].

**THE POINT**

Not one of the 15 stations on this page was rated Good.

## Thirty days of levels: PM2.5 and PM10



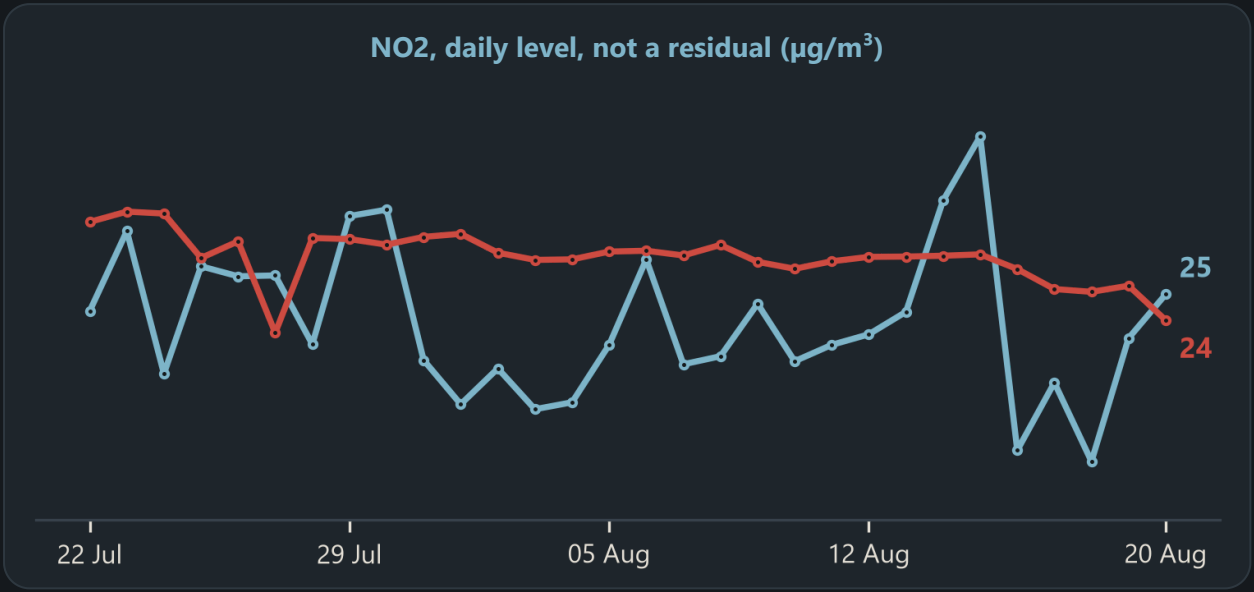



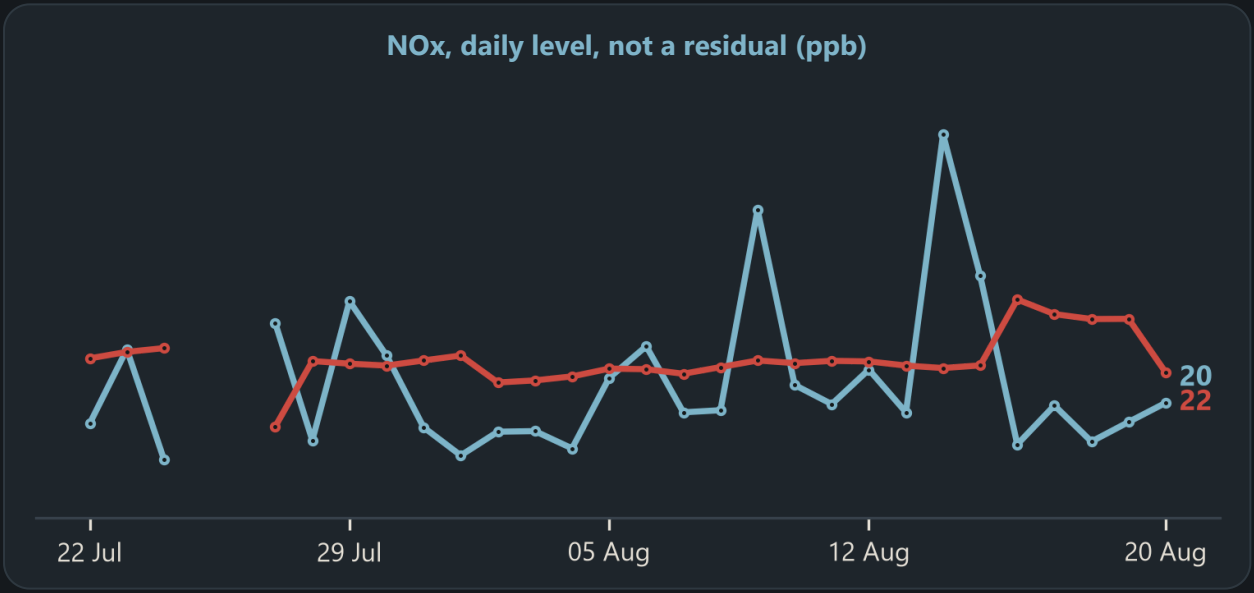

| | |
|---|---|
| READING | Reading: these are LEVELS, not residuals; higher means more pollution that day. The pale line is the observed level, weather included. Red is the weather-removed level, the pollution that Delhi's and the region's emissions produce in a typical spell of weather for the season. Gaps are days without a model run. |
| CAUTION | Caution: 24-hour city means to 4 PM, except CO and Ozone, which are 8-hour maxima; NOx is in ppb. |
| SOURCE | This office's weather-removal model, computed 20 August 2026, trained on ERA5 and Open-Meteo weather data [2]. |

**THE POINT**

The weather-removed line sat above the measured line on PM2.5 for 21 of 30 days. On PM10 it did so on 22 of 30. On those days the weather was flattering the city.

## Thirty days of levels: NO2 and NOx



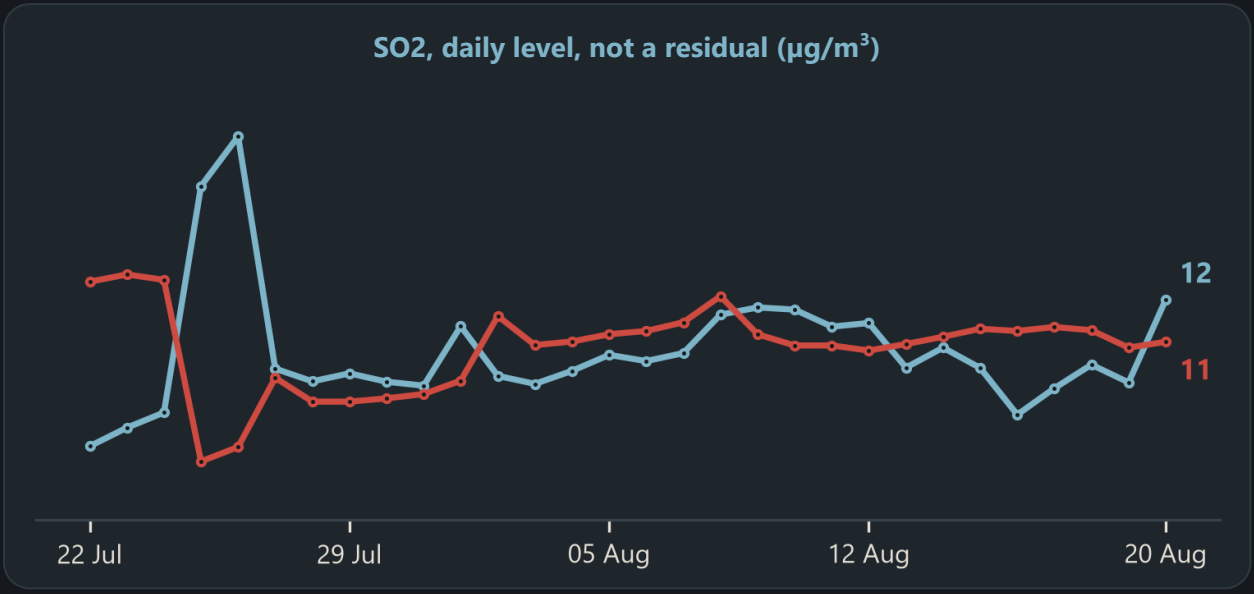



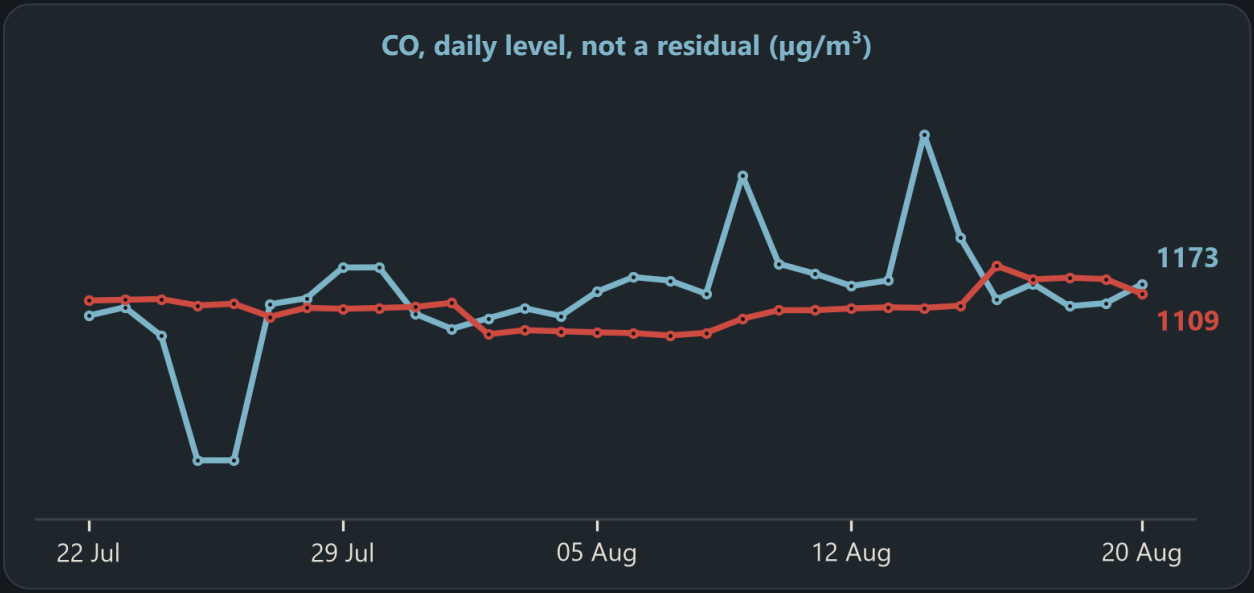

| | |
|---|---|
| READING | Reading: these are LEVELS, not residuals; higher means more pollution that day. The pale line is the observed level, weather included. Red is the weather-removed level, the pollution that Delhi's and the region's emissions produce in a typical spell of weather for the season. Gaps are days without a model run. |
| CAUTION | Caution: 24-hour city means to 4 PM, except CO and Ozone, which are 8-hour maxima; NOx is in ppb. |
| SOURCE | This office's weather-removal model, computed 20 August 2026, trained on ERA5 and Open-Meteo weather data [2]. |

**THE POINT**

The weather-removed line sat above the measured line on NO2 for 24 of 30 days. On those days the weather was flattering the city. On the latest day, as measured, the city's NOx read 20.1 ppb.

## Thirty days of levels: SO2 and CO



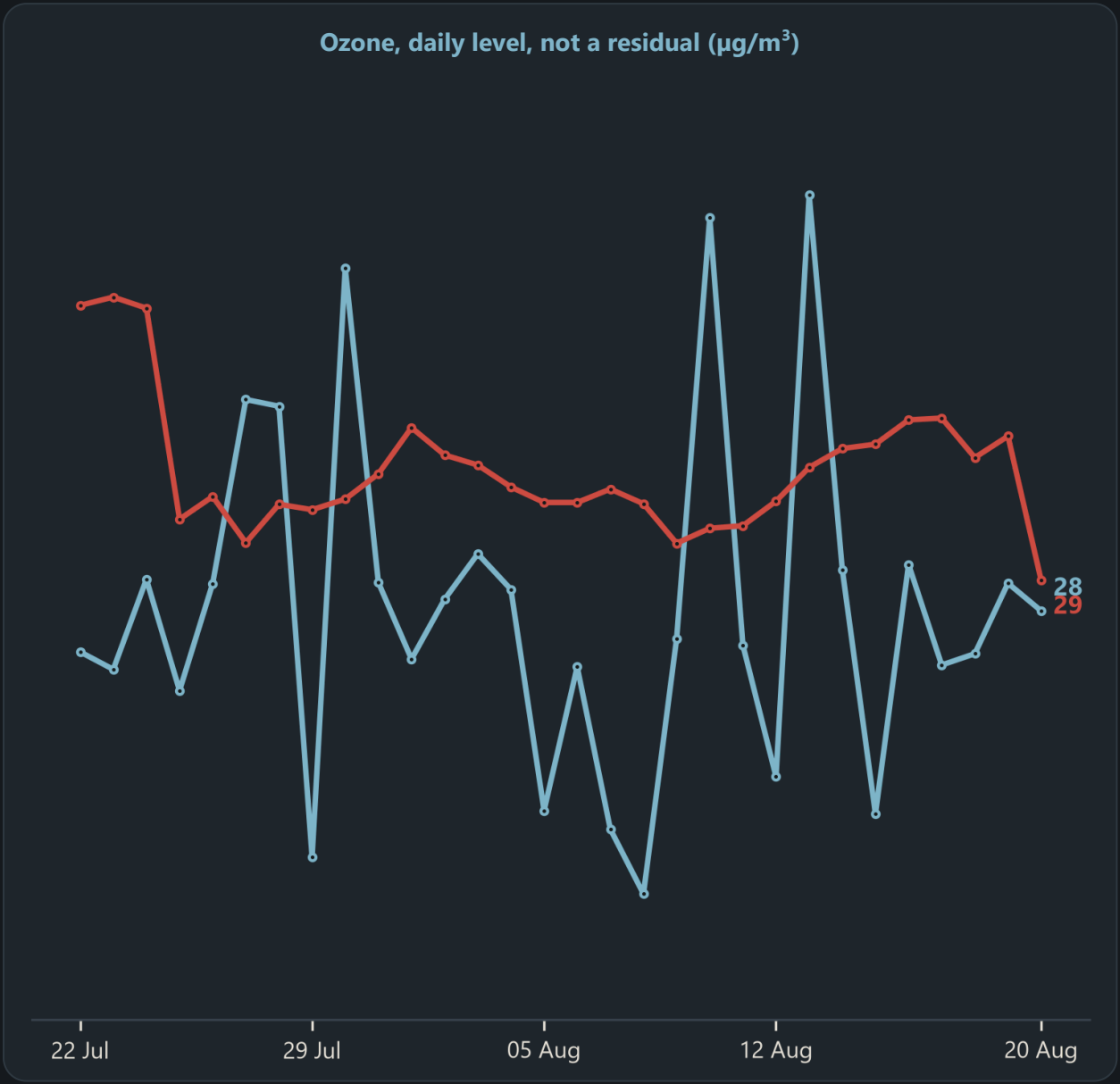




| | |
|---|---|
| READING | Reading: these are LEVELS, not residuals; higher means more pollution that day. The pale line is the observed level, weather included. Red is the weather-removed level, the pollution that Delhi's and the region's emissions produce in a typical spell of weather for the season. Gaps are days without a model run. |
| CAUTION | Caution: 24-hour city means to 4 PM, except CO and Ozone, which are 8-hour maxima; NOx is in ppb. |
| SOURCE | This office's weather-removal model, computed 20 August 2026, trained on ERA5 and Open-Meteo weather data [2]. |

**THE POINT**

On the latest day, as measured, the city's sulphur dioxide read 12 µg/m³ and carbon monoxide 1173.3 µg/m³ on its 8-hour maximum.

## Thirty days of levels: Ozone




| | |
|---|---|
| READING | Reading: these are LEVELS, not residuals; higher means more pollution that day. The pale line is the observed level, weather included. Red is the weather-removed level, the pollution that Delhi's and the region's emissions produce in a typical spell of weather for the season. Gaps are days without a model run. |
| CAUTION | Caution: 24-hour city means to 4 PM, except CO and Ozone, which are 8-hour maxima; NOx is in ppb. |
| SOURCE | This office's weather-removal model, computed 20 August 2026, trained on ERA5 and Open-Meteo weather data [2]. |

THE POINT

On the latest day, as measured, the city's ozone read 28.1 µg/m³ on its 8-hour maximum.

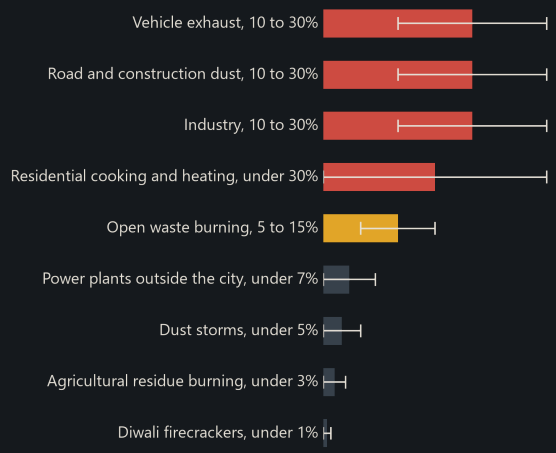
# What the daily figures cannot say alone

### The year behind today

Over the twelve months to 20 August 2026, Delhi's mean PM2.5 was 95.3 micrograms per cubic metre, which is 19.0 times the WHO annual guideline and 2.3 times India's annual standard, computed over 15,001 complete station-days at 47 reference stations. This is this office's own computation: the mean PM2.5 concentration over complete station-days at reference-grade monitors. The daily headline is an AQI figure, the mean of the station AQIs, so the two measure different things and are not interchangeable. The published calendar-year means, 106 in 2021, 100 in 2022, 103 in 2023 and 102 in 2024 micrograms per cubic metre, come from UrbanEmissions.Info, What Is Polluting Delhi's Air, 2023-24 update, from a 40 station network; they cover a different network and a different period from the figure above, so the two cannot be read as a trend. A single day is the wrong unit for a policy verdict, which is why this page carries the year beside it.

### What is actually polluting this air

Across studies from 1990 to 2022, vehicle exhaust, road and construction dust and industry, including power plants each account for 10 to 30 per cent of Delhi's annual PM2.5, so no single sector explains the level and no single remedy can fix it. Agricultural residue burning is under 3 per cent of Delhi's ANNUAL average PM2.5, though its share in a smoke episode is far higher. Diwali firecrackers are under 1 per cent of the annual average, as a two day extreme event. These are annual shares. In winter the residential heating share rises sharply, and the seasonal sources rise with it. Source: Guttikunda and colleagues, What Is Polluting Delhi's Air? A Review from 1990 to 2022, Sustainability, 2023, Table 5.




Each bar is the midpoint and the whisker is the published range, so the width of a whisker is how much the studies disagree. The top three overlap completely, which is the finding: no one sector can be named the villain.

### What the delay costs

Holding at 95.3 micrograms per cubic metre instead of reaching the 40 target by 2040 costs Delhi about 32 per cent more exposure and estimated mortality, and the delay since 2019 has already added about 23 per cent. The cost of delay has at least doubled since the National Clean Air Programme began, with little to no change in concentrations between 2019 and 2025. Reaching 40 micrograms per cubic metre by 2040 needs at least 10 to 15 years of systematic implementation across every sector at regional scale. These are increases in exposure and estimated mortality against reaching the target, not sums of money. Source: Guttikunda and colleagues, 40 by 2040: Cost of inaction and delays in reaching Delhi's air quality target, SIM-air working paper 63-2025, Tables 3 and 4.

The source shares and the cost of delay on this page are published work, cited so the reader can check them; the year's mean is this office's own, as its paragraph says.

# The method, in plain English

### How CPCB's AQI is formed

The air-quality index, or AQI, turns the reading of each pollutant into a sub-index on one scale from 0 to 500, through breakpoints that the Central Pollution Control Board (CPCB) publishes. A station's AQI is the highest of its pollutant sub-indices, and the pollutant that sets it is named beside it. This record follows CPCB's documented formula, quoted from both of CPCB's documents on page 34. It computes six pollutants; CPCB's note counts eight, and ammonia and lead are not included here. The day is the 24 hours ending 4 PM. This record moved to that window on 13 October 2026; the daily figures first published for 7 June to 12 October 2026 used the 24 hours ending 10 AM. The city figure is the mean of the station AQIs, on the stations that report enough hours in the window: 45 today.

### How today is compared with last year

Last year is never a single day. It is the average of the same date and the seven days either side of it in 2025, using only the stations that reported in both years, which is 37 stations today. Delhi's air is driven by weather systems that come and go every three to seven days, so a 15-day window spans two or three of them, and no single storm or calm night can set the comparison. Neighbouring days are alike, so the 15 days act like about seven independent readings. A wider window would blur the arrival of the monsoon and the crop-burning season. Festival emissions are real pollution and stay in, so a festival such as Diwali that falls in one year's window and not the other's carries that caveat in October and November.

### What population-weighted means

Delhi's monitors are not spread evenly over its people, so the weighted figure divides the city into zones, one per monitor, with every point belonging to its nearest monitor. The people in each Assembly Constituency come from the 2025 Delhi electoral rolls, about 15.61 million electors, scaled to the Registrar General of India's 2025 projection of 20.94 million, and where they live inside each constituency comes from the WorldPop 2020 grid at 100 m. A station's weight is its zone's share of the people, re-scaled each day over the stations that reported. Residents without voter registration are under-counted, and no weighting corrects a monitor's siting or calibration.

### What weather removed means

Rain and wind wash or carry pollution away, and calm weather traps it. A random-forest model, trained on hourly data from 2021 to 11 October 2026, learns how wind, rain, temperature and mixing height move each pollutant. It then estimates what each day would have read in the usual weather for that time of year, which still includes the pollution the usual winds carry in from the region around Delhi. The model is retrained every week on ERA5 and Open-Meteo weather data. On days it has not seen, it explains this share of the day-to-day variation: PM2.5 39 per cent, PM10 38 per cent, NO2 24 per cent, NOx 36 per cent, SO2 9 per cent, carbon monoxide 28 per cent and ozone 34 per cent. Its outputs are estimates, and this record never claims more precision than the model has.

Source: CPCB hourly station data, 24 hours to 4 PM on 20 August 2026 (CREA compilation); the Election Commission's 2025 Delhi roll, the Registrar General's 2025 projection and the WorldPop 2020 grid; this office's weather-removal model, computed 20 August 2026.

# The method, in plain English

### Which pollutants carry a finding

Weather-removed findings are made on PM2.5, PM10 and NO2. For NOx, SO2 and carbon monoxide, which the model explains less well, only the observed figures are used. The weather-removed ozone figure is never the basis of a finding, because ozone forms in sunlight from other pollutants and nitric oxide from traffic consumes it near roads, so its level does not follow emissions in a simple way; the observed ozone reading is reported like any other pollutant, up to CPCB's Poor ceiling of AQI 300. A single gas reading at one monitor can be raised by a fault in the analyser or by a source beside the monitor, and one day's data cannot tell which, so this record does not lead on a reading that carbon monoxide set, and it sets aside a channel whose monitor fails its nitrogen oxide consistency check.

### Which figure leads

Where a level exists both as measured and with the weather removed, this record leads with the higher of the two and prints the other beside it. Where a change exists in both forms, the one showing the larger rise or the smaller fall is mentioned first.

### The fairness check

Before any weather driver is cited, last year's weather on the same days is compared with the 2021 to 2024 history for those calendar days. Where last year was unusual for a driver, no argument is built on that driver, whichever way it would point.

### How a change is judged

Every observed change is given a range by resampling the stations or the days, and a change whose range spans zero is counted as unchanged, never as better or worse. The range beside a weather-removed figure shows only how much the stations differ and leaves out the model's own error, so no weather-removed finding rests on its size. The monthly margins are a rough guide from the model's hourly error, and no finding rests on them.

### The WHO guidelines

A day's concentration is set against the WHO 24-hour guideline: 15 µg/m³ for PM2.5 and 45 µg/m³ for PM10. WHO defines each 24-hour level as the 99th percentile of a year's days, which allows three or four days a year above it, and sets annual levels of 5 and 15 µg/m³ (WHO Global Air Quality Guidelines 2021, Table 0.1).

### Words used

AQI: the air-quality index, 0 to 500, higher is worse: 0 to 50 Good, 51 to 100 Satisfactory, 101 to 200 Moderate, 201 to 300 Poor, 301 to 400 Very Poor, over 400 Severe. µg/m³: micrograms of a pollutant in a cubic metre of air. Particle AQI: the higher of the PM2.5 and PM10 sub-indices, used for the year pages. Range: how far a figure moves when the set of reporting stations is resampled; it leaves out the weather model's own error, so the true uncertainty is wider than the printed range. Residual: one day's level minus the same days of last year.

Source: CPCB hourly station data, 24 hours to 4 PM on 20 August 2026 (CREA compilation); WHO's Global Air Quality Guidelines, 2021, Table 0.1.

# CPCB's documented formula, in plain words

### The formula

This record calculates Delhi's AQI with CPCB's documented formula. CPCB's AQI Calculator asks for the 24-hour average of PM2.5, PM10, sulphur dioxide and nitrogen dioxide and the "max 8-hr" value of carbon monoxide and ozone, and converts each through CPCB's published breakpoints; CPCB's note "How is AQI calculated?" says the sub-index uses the "24-hourly average concentration value (8-hourly in case of CO and O3)". A station's AQI is its worst pollutant's sub-index, and the city figure is the mean of the station AQIs. This record computes six pollutants, without ammonia and lead, which the note also counts.

### The 8-hour rule, in plain words

Carbon monoxide and ozone are averaged over 8 hours rather than 24. The day's 24 hours, ending at 4 PM, hold several 8-hour blocks that lie wholly inside them, and this record takes the highest 8-hour average among those blocks. It does so because the calculator asks for the maximum 8-hour value and the note's fourth point says the index takes in data from the previous 24 hours only, so no hour from before the day's window is used.

### Today, on this formula

| | On CPCB's documented formula |
|---|---|
| Delhi's AQI today | 115.8 |
| CPCB's category | Moderate |
| Stations in the mean | 45 |
| Highest station | Anand Vihar, 284 |

The window is the 24 hours ending 4 PM on 20 August 2026. The city figure is the mean of the AQIs of the 45 stations that reported enough hours in that window; the highest station's figure was set by PM2.5.

### CPCB's six categories

| AQI | CPCB's category |
|---|---|
| 0 to 50 | Good |
| 51 to 100 | Satisfactory |
| 101 to 200 | Moderate |
| 201 to 300 | Poor |
| 301 to 400 | Very Poor |
| 401 to 500 | Severe |

A higher AQI is worse air. The category of a station, and of the city, is the band its AQI falls in.

### CPCB's own documents

CPCB's note, "How is AQI calculated?": https://airquality.cpcb.gov.in/ccr_docs/How_AQI_Calculated.pdf. CPCB's AQI Calculator: https://cpcb.nic.in/upload/national-air-quality-index/AQI-Calculator.xls.

Source: CPCB's hourly station readings for the 24 hours to 4 PM on 20 August 2026, compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA); CPCB's note and calculator as linked on this page.

# Every figure traces to a dated feed

Sources: the six feeds behind the record of 20 August 2026, each with its own date below.

**01** CPCB's hourly station readings, as compiled from CPCB's CCR portal by the Centre for Research on Energy and Clean Air (CREA), read on 20 August 2026. The window is the 24 hours ending 4 PM. The city figure is the mean of station AQIs, and each station's AQI is its worst sub-index on CPCB's documented formula.

**02** Weather-removed figures, computed by this office on 20 August 2026 with a random-forest weather model on ERA5 and Open-Meteo hourly data. How well the model performs on days it has not seen is set out in the method annexure. This office's own computation.

**03** Weather comparison, read 20 August 2026: last year's days and the 2021 to 2024 normal from the ERA5 reanalysis; today's hours from the Palam airport weather report and the Open-Meteo forecast model until ERA5 is available; each aggregated over the same 24 hours to 4 PM as the AQI.

**04** Population weighting: how many people each constituency holds comes from the 2025 Delhi electoral rolls, about 15.61 million electors in Election Commission of India turnout data, scaled to the Registrar General of India's 2025 projection for the National Capital Territory of 20.94 million. Where they sit inside a constituency comes from the WorldPop 2020 population grid at 100 m, adopted 12 August 2026 in place of an even spread over area, because that spread credited outer monitors with the residents of surrounding farmland. Station zones are a Voronoi map of the active monitors. Tier 1 as data, all series dated.

**05** The year's weather-removed series on page 17 and the two pages after it: every day of 2026 recomputed with one version of the weather model, and where a recomputed day is missing, the figure published on that day is used. The model is retrained every week, most recently on data to 11 October 2026, and uses the same definitions as the daily figures on hawakahisab.in. This office's own computation.

**06** Health characterisation: the CPCB category health descriptors as published with the index, and the WHO Global Air Quality Guidelines, 2021, for the PM2.5 and PM10 guidelines. Tier 1.

THE POINT

**Every figure in this record is computed from the data before the report is written, and the report never edits a figure. Where a figure is not available, the page says so.**