

OZONE SEASON SUMMARY 2024

Sunil Kumar
Principal Environmental Engineer

Metropolitan Washington Air Quality Committee
May 22, 2024

Peak 8-Hour Average Ozone Levels (ppb)

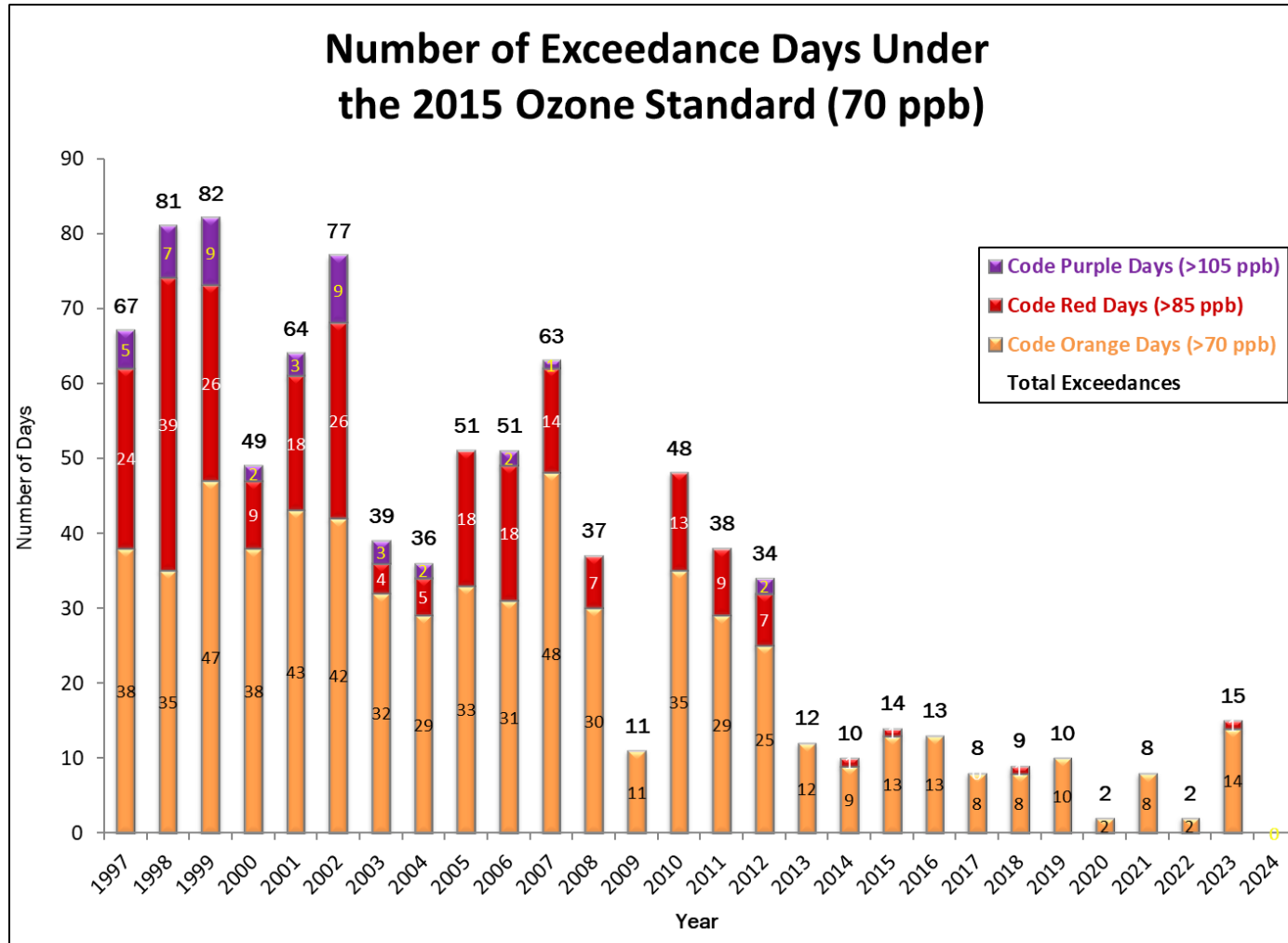
| March 2024 | | | | | | |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| 25 | 26 | 27 | 28 | 29 | 01 | 02 |
| | | | | | 44 | 40 |
| 03 | 04 | 05 | 06 | 07 | 08 | 09 |
| 42 | 44 | 33 | 24 | 39 | 38 | 39 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 40 | 46 | 54 | 57 | 63 | 54 | 47 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 48 | 43 | 42 | 52 | 44 | 42 | 42 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 46 | 48 | 42 | 34 | 46 | 55 | 53 |
| 31 | | | | | | |
| 52 | | | | | | |

| April 2024 | | | | | | |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| 31 | 01 | 02 | 03 | 04 | 05 | 06 |
| | 43 | 44 | 43 | 40 | 42 | 43 |
| 07 | 08 | 09 | 10 | 11 | 12 | 13 |
| 48 | 51 | 60 | 58 | 44 | 50 | 52 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 58 | 60 | 60 | 51 | 50 | 38 | 53 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 40 | 51 | 56 | 58 | 41 | 44 | 41 |
| 28 | 29 | 30 | | | | |
| 53 | 60 | 59 | | | | |
| | | | | | | |

| May 2024 | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| 28 | 29 | 30 | 01 | 02 | 03 | 04 |
| | | | 62 | 70 | 52 | 32 |
| 05 | 06 | 07 | 08 | 09 | 10 | 11 |
| 31 | 34 | 46 | 52 | 49 | 41 | 42 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 41 | 51 | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| | | | | | | |
| 26 | 27 | 28 | 29 | 30 | 31 | |
| | | | | | | |

* Data is preliminary.

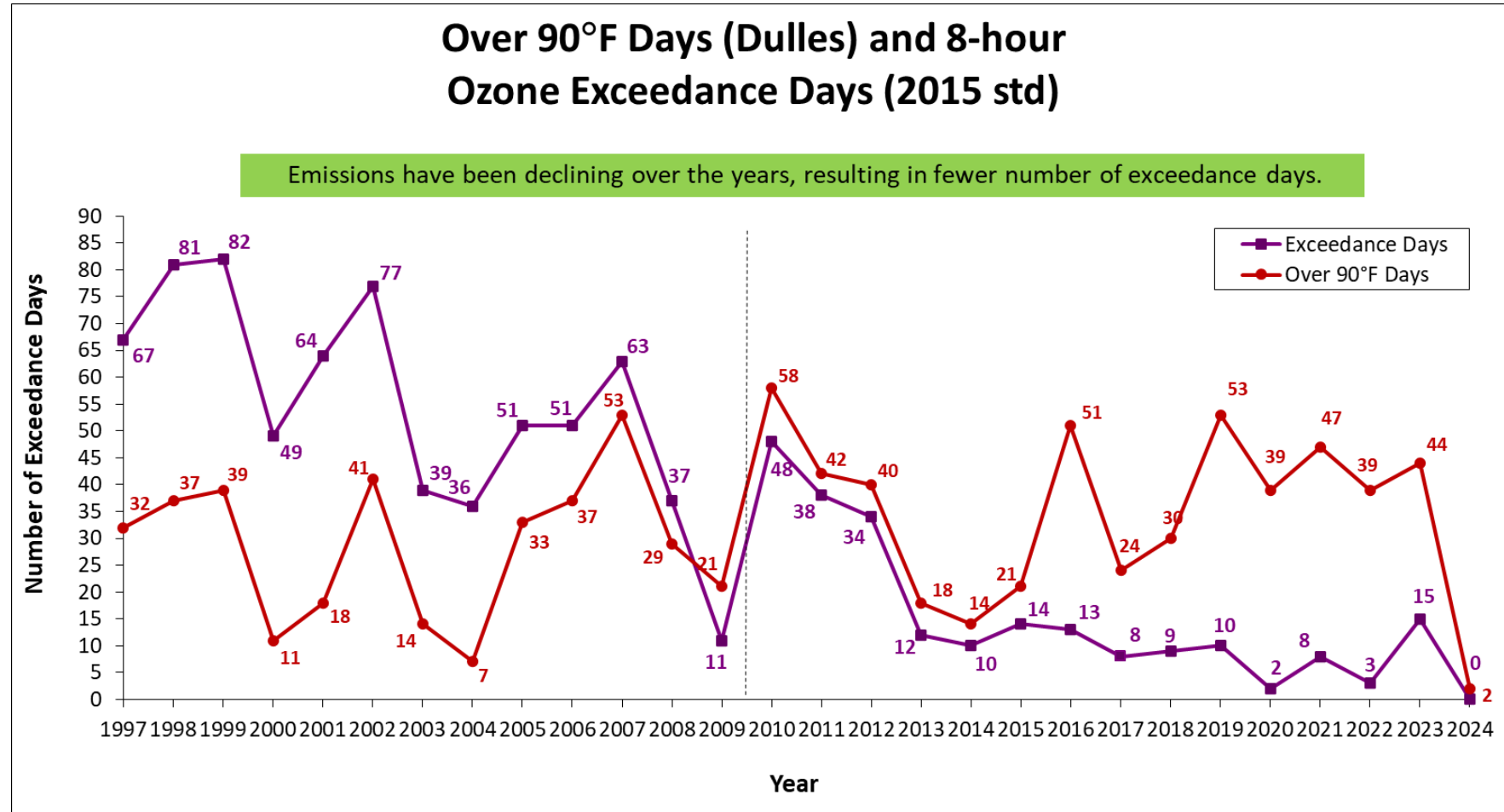
Ozone Exceedance Trend



* 2024 Data is preliminary.



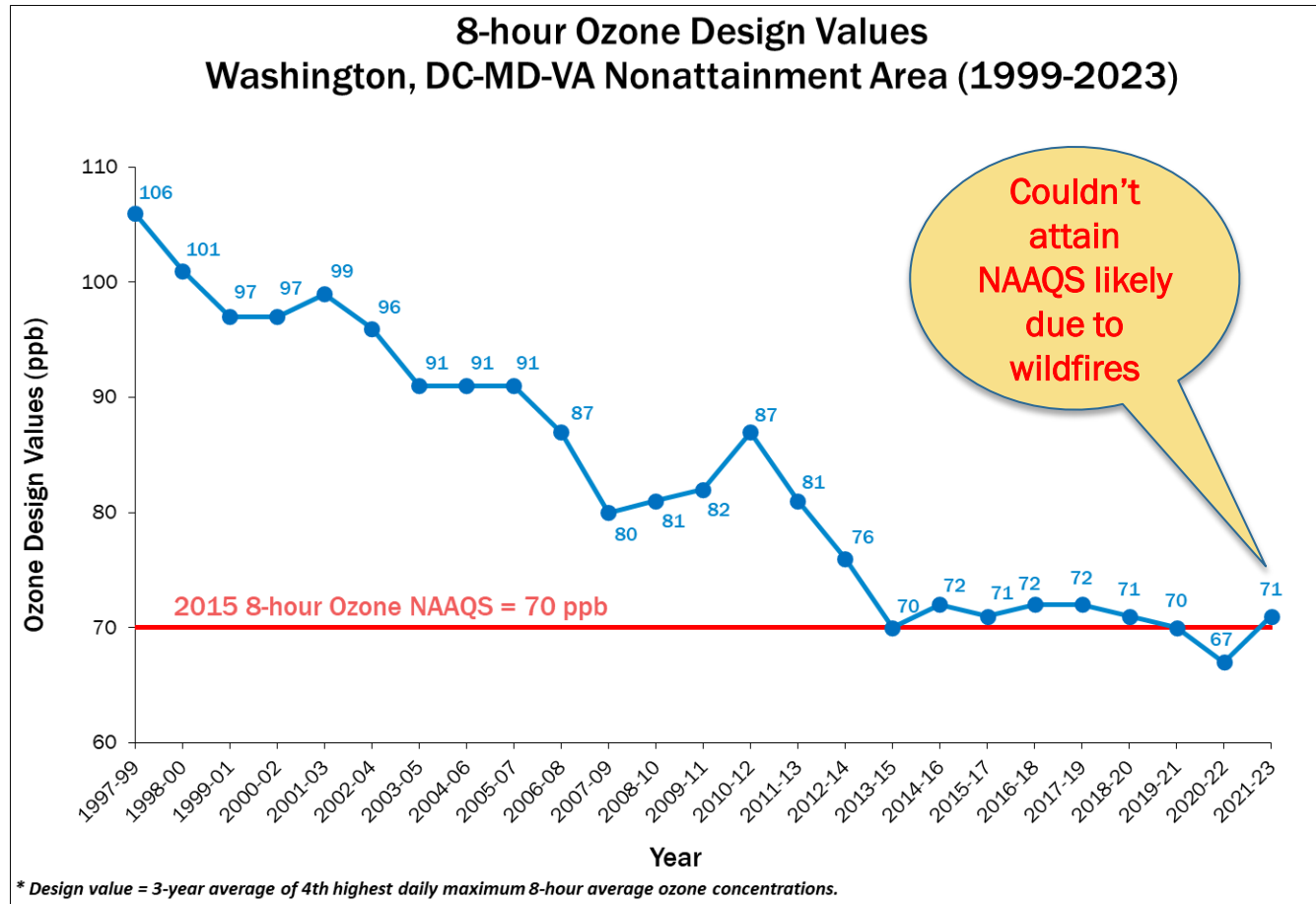
Ozone & Temperature Trend



* 2024 Data is preliminary.



Ozone Design Value Trends



Note: 2021-23 data is preliminary. States requested “Exceptional Events Exemption” to exclude data influenced by wildfires. The region is expected to attain after EPA has granted that request.

24-Hour Average PM2.5 Levels ($\mu\text{g}/\text{m}^3$)

| March 2024 | | | | | | |
|------------|--------|---------|-----------|----------|--------|----------|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| 25 | 26 | 27 | 28 | 29 | 01 | 02 |
| | | | | | 6.1 | 4.8 |
| 03 | 04 | 05 | 06 | 07 | 08 | 09 |
| 7.0 | 5.8 | 3.2 | 7.9 | 3.8 | 4.7 | 5.6 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 2.3 | 1.9 | 6.9 | 10.4 | 13.0 | 10.7 | 4.9 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 5.0 | 3.8 | 3.8 | 7.6 | 5.0 | 7.3 | 5.9 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 4.9 | 6.6 | 7.1 | 7.3 | 9.1 | 7.5 | 7.4 |
| 31 | | | | | | |
| 9.2 | | | | | | |

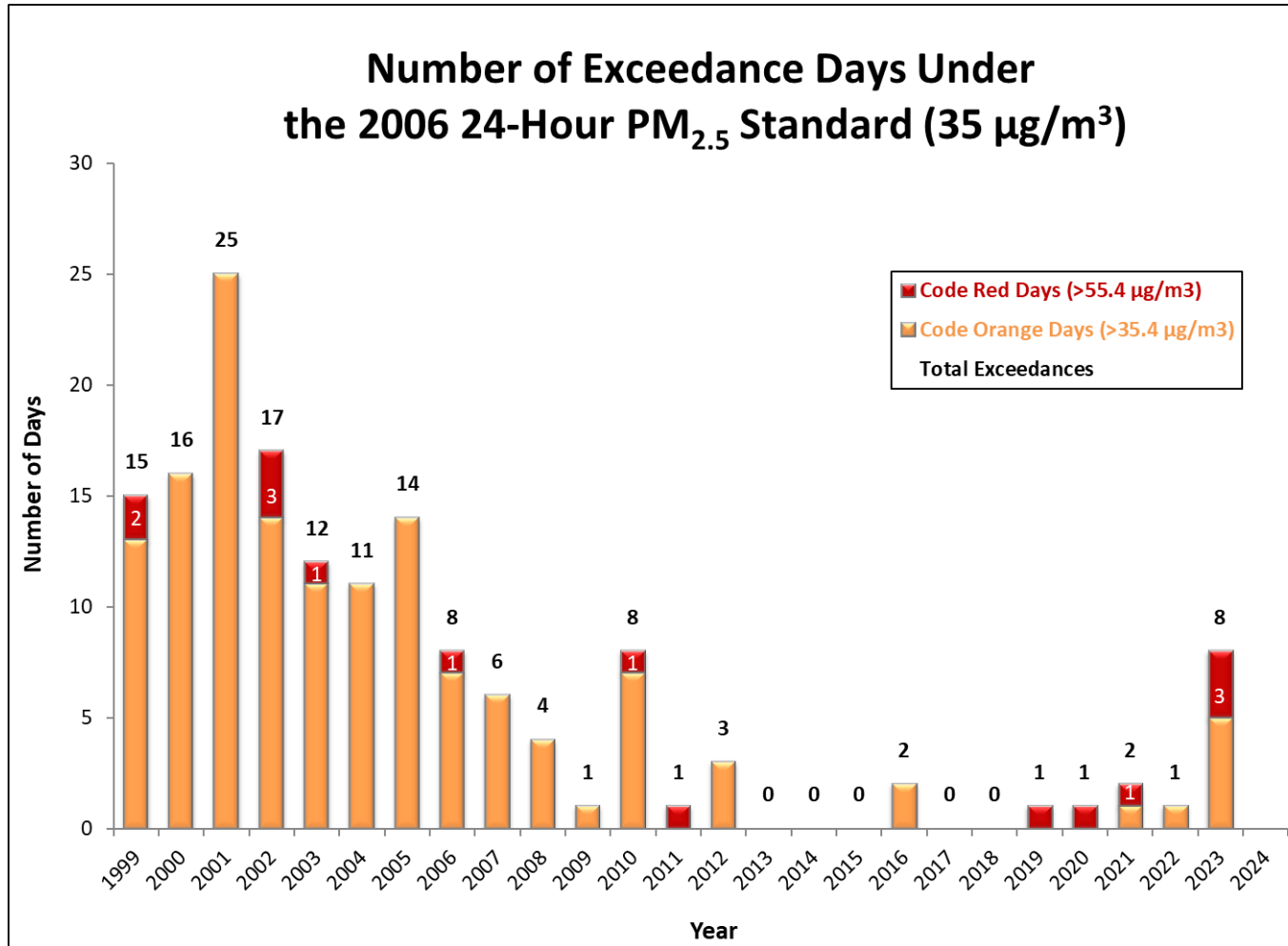
| April 2024 | | | | | | |
|------------|------|------|------|------|------|-----|
| Sunday | | | | | | |
| 31 | 01 | 02 | 03 | 04 | 05 | 06 |
| | 8.3 | 6.1 | 3.7 | 3.4 | 2.0 | 3.0 |
| 07 | 08 | 09 | 10 | 11 | 12 | 13 |
| 3.3 | 9.0 | 13.7 | 9.5 | 8.2 | 3.0 | 3.2 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 7.0 | 10.9 | 6.3 | 10.9 | 10.9 | 12.7 | 8.1 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 4.1 | 5.6 | 6.8 | 6.1 | 5.7 | 5.6 | 6.7 |
| 28 | 29 | 30 | | | | |
| 12.0 | 11.4 | 13.9 | | | | |
| | | | | | | |

| May 2024 | | | | | | |
|----------|-----|-----|-----|-----|-----|-----|
| Sunday | | | | | | |
| 28 | 29 | 30 | 01 | 02 | 03 | 04 |
| | | | 6.7 | 9.8 | 8.6 | 4.1 |
| 05 | 06 | 07 | 08 | 09 | 10 | 11 |
| 6.0 | 8.7 | 9.4 | 9.3 | 8.3 | 4.4 | 3.4 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 4.4 | 6.1 | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| | | | | | | |
| 26 | 27 | 28 | 29 | 30 | 31 | |
| | | | | | | |

A new tougher annual PM2.5 standard (9.0 $\mu\text{g}/\text{m}^3$) became effective May 6, 2024. This may lead to an increase in code yellow (moderate), code red (unhealthy), and worse (very unhealthy and hazardous) PM2.5 days.

Color codes have been assigned to different days here based on the new standard. Data is preliminary as of May 14, 2024.

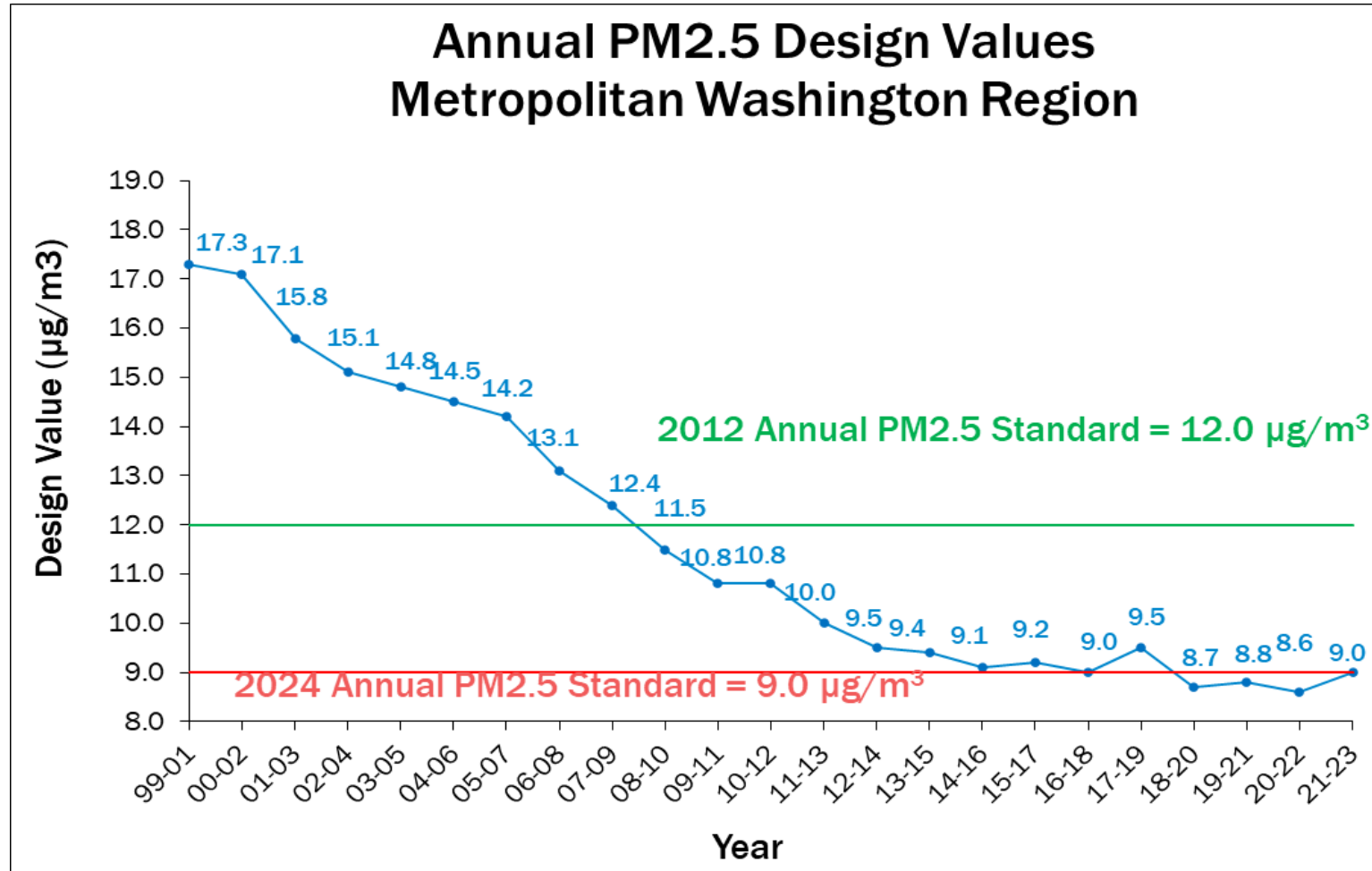
PM2.5 Exceedance Trend



* 2024 Data is preliminary.



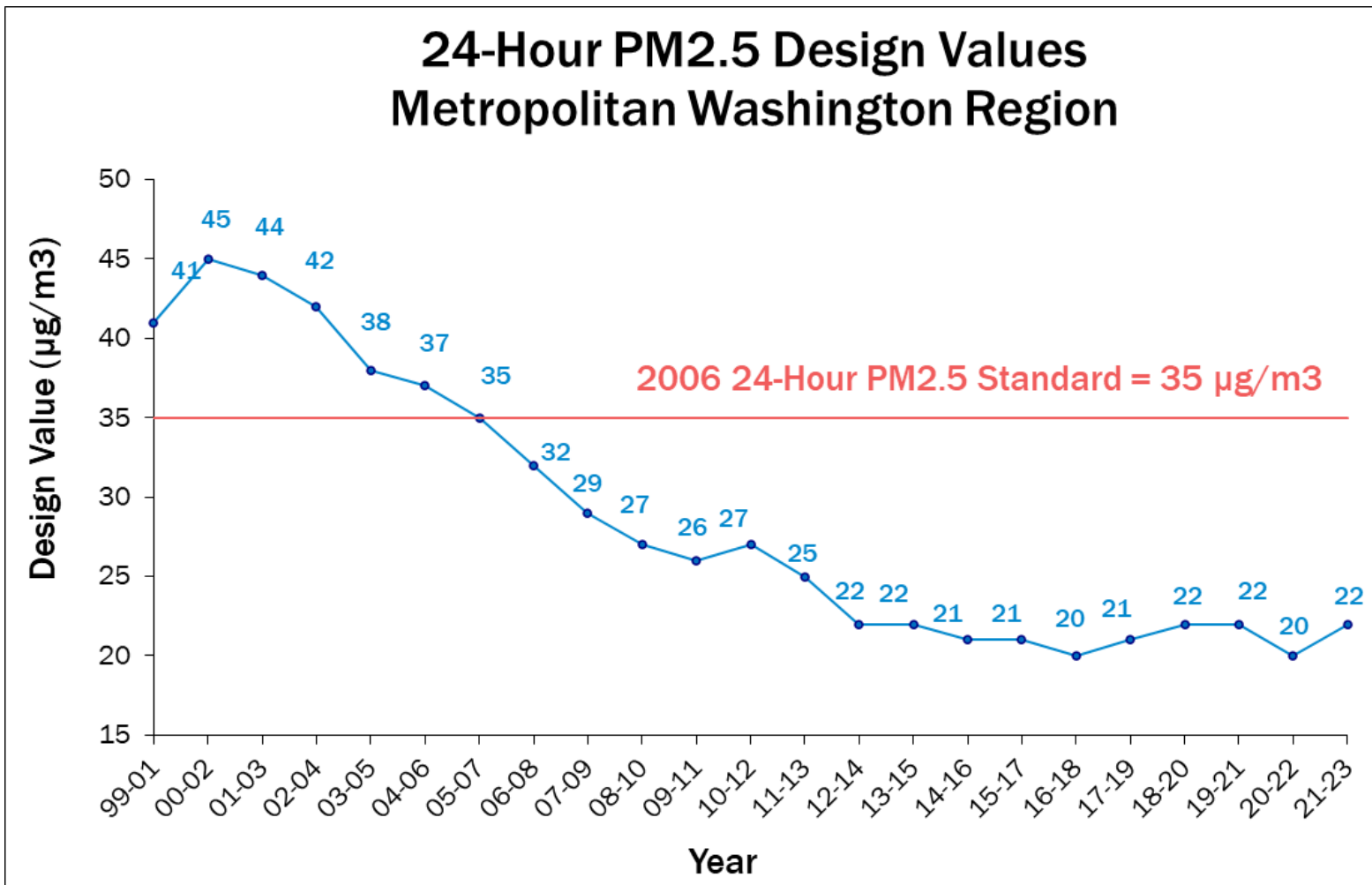
Annual PM2.5 Design Value Trend



New annual PM2.5 standard (9.0 ug/m3) became effective May 6, 2024

* 2021-23 Data is preliminary.

24-Hour PM2.5 Design Value Trend



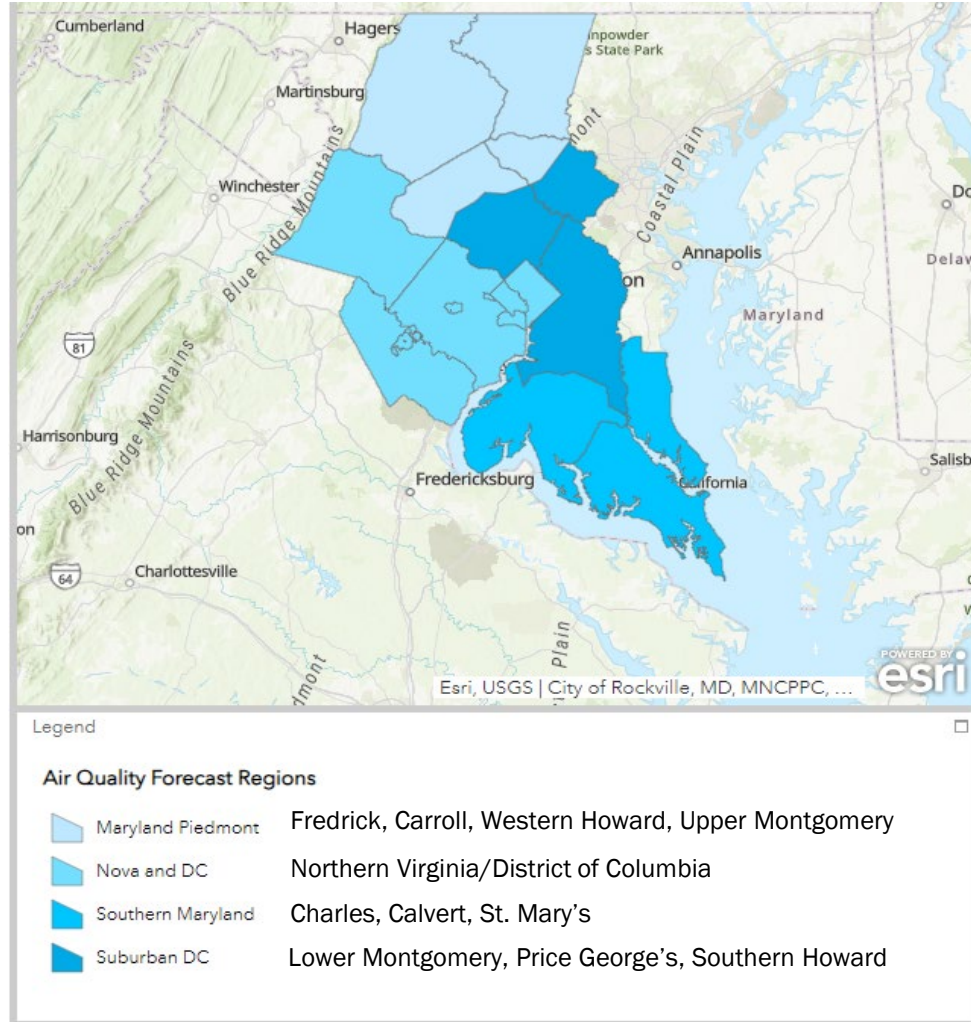
* 2021-23 Data is preliminary.



Status - 2015 Ozone NAAQS Attainment

- Washington region was designated as a Marginal Nonattainment Area for the 2015 Ozone NAAQS effective August 3, 2018.
- It was reclassified to Moderate Nonattainment Area on November 7, 2022, following its failure to attain by the deadline.
- Current draft 2023 data shows nonattainment largely due to smoke originating from wildfires in Canada. States requested EPA to grant waiver for smoke influenced high ozone days.
- If EPA grants a waiver, then the region will need to submit a request to redesignate it to attainment along with a maintenance plan to demonstrate that it will keep attaining the NAAQS in the future.
- The region intends to start laying the groundwork for the above plan in June 2024.

New Air Quality Forecast Subregions



Washington DC forecast region has now been divided into 4 separate subregions to provide more accurate forecasts that reflect local conditions.



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