



## January 2023 Air Quality Planning Update

### Summary of Updates

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- EPA announces intent to lower the primary annual PM<sub>2.5</sub> NAAQS to 9.0 – 10.0 µg/m<sup>3</sup>
  - EPA will solicit public comments for 60 days
  - 2022 ends with worsening violations of the ozone NAAQS
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### Regulatory Updates

On January 6, 2023, the U.S. Environmental Protection Agency (EPA) announced a notice of proposed rulemaking to strengthen the nation's national ambient air quality standards (NAAQS) for fine particulate matter (PM<sub>2.5</sub>). The EPA is proposing to revise the level of the primary (health-based) annual PM<sub>2.5</sub> standard from 12.0 µg/m<sup>3</sup> to a level within the range of 9.0-10.0 µg/m<sup>3</sup>. EPA is soliciting comment on revising the level as low as 8.0 µg/m<sup>3</sup> and up to 11.0 µg/m<sup>3</sup>.

EPA is also proposing revisions to other key aspects related to the PM NAAQS, including revisions to the Air Quality Index (AQI) and monitoring requirements for the PM NAAQS, with a focus on communities with environmental justice concerns. The PM<sub>2.5</sub> monitoring network design criteria is proposed to include an environmental justice factor to account for proximity of at-risk populations, and other changes to improve the quality of monitoring data used in regulatory decision making and to better characterize air quality in at-risk communities.

EPA will accept public comment for 60 days after the proposal is published in the Federal Register. EPA will also conduct virtual public hearings over several days from 10 am - 7 pm Central Time, with the dates to be announced in the Federal Register publication.

EPA expects to issue a final decision on the PM standards later this year. In accordance with the CAA, the EPA will make initial designations, no later than 2 years after new standards are issued. State Implementation Plans must be submitted no later than 18 months after EPA finalizes nonattainment designations. These plans must provide for attainment no later than the end of the 6<sup>th</sup> calendar year after nonattainment designations. Additional information will also be made available at <https://www.epa.gov/pm-pollution/national-ambient-air-qualitystandards-naaqs-pm>.

## 2022 Ozone Season Recap

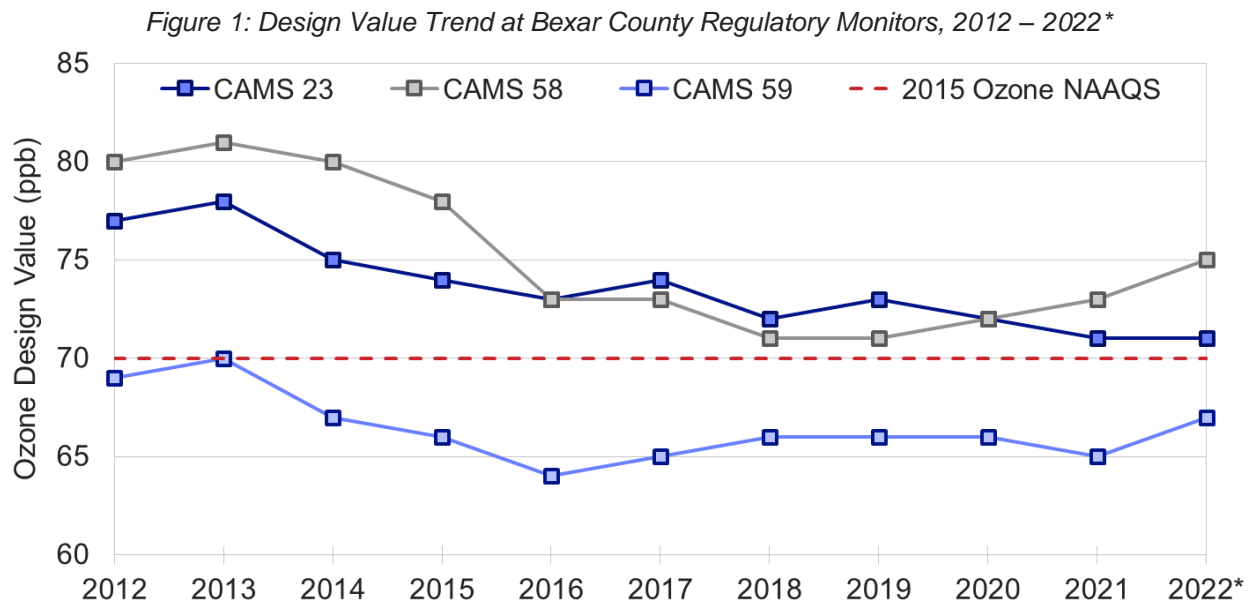
The 2022 ozone season ended on November 30 with two Bexar County monitors exceeding the 2015 ozone NAAQS: San Antonio NW CAMS 23 and Camp Bullis CAMS 58 (Table 1). These values will be certified by EPA no later than May 2023. With 76 ppb now on the books for CAMS 23, it will be much more difficult for that monitor to attain the NAAQS by the end of next ozone season.

Table 1: Fourth-Highest MDA8 and Preliminary Three-Year Averages at Bexar County Regulatory Monitors, 2020-2022\*

Monitor	Fourth-Highest MDA8 (ppb)			Preliminary Three-Year Average
	2020	2021	2022*	
San Antonio NW C23	69	70	76	71
Camp Bullis C58	74	78	75	75
Calaveras Lake C59	66	66	70	67

\* Ozone data validated through September 2022 and will be certified by EPA by May 2023

The design value trend from 2012 - 2022 at each regulatory monitor is shown in Figure 1. Although a downward trend was noted through 2016, design values have remained relatively steady since then.



\* Ozone data validated through September 2022 and will be certified by EPA by May 2023

The EPA’s Air Quality Index for ozone defines “moderate” days as those having a maximum daily average 8-hour ozone (MDA8) between 54 and 70 ppb, and “unhealthy for sensitive groups” days as those with MDA8 between 71 and 85 ppb. There were 70 moderate ozone days, with ten of those being unhealthy for sensitive groups, which is above average. Summary ozone statistics

by month during 2022 are shown in Table 2, with red shading indicating above average frequency of high ozone days, and green shading indicating at or below average.

Table 2: 2022 Summary Ozone Statistics by Month

Month	MDA8 > 54 ppb		MDA8 > 70 ppb	
	2022 Actual	2016-2021 Average	2022 Actual	2016-2021 Average
March	12	6.3	0	0.0
April	6	11.2	0	1.0
May	10	11.0	0	1.0
June	5	7.3	1	0.8
July	4	4.2	0	0.8
August	2	5.8	1	1.3
September	17	9.5	5	2.0
October	13	8.0	3	2.0
November	0	1.3	0	0.0
TOTAL	70	64.7	10	9.0

September was exceptionally severe, with over half of the month reporting moderate ozone days or higher. A prolonged high ozone event began in late September and extended through the first week of October, and saw the issuance of ten consecutive Ozone Action Day Alerts, which is a record for the San Antonio area. The previous record was six, set back in 2011.

Table 3: Four Highest MDA8 at Bexar County Regulatory Monitors, 2022

Monitor Site	Date	PPB	Date	PPB	Date	PPB	Date	PPB
San Antonio NW C23	9/30/2022	79	6/29/2022	79	10/1/2022	77	10/6/2022	76
Camp Bullis C58	10/6/2022	76	10/1/2022	75	9/30/2022	75	6/29/2022	75
Calaveras Lake C59	6/29/2022	78	9/29/2022	74	9/30/2022	70	8/12/2022	70

\* Ozone data validated through September 2022 and will be certified by EPA in May 2023

## 2023 Ozone Season

The 2023 ozone season will begin on March 1. In order to attain the ozone NAAQS by the end of this year, the maximum allowable fourth-highest MDA8 must not exceed the values presented in Table 4. It will be very difficult for either non-compliant monitor to attain the standard by the end of 2023.

Table 4: 2022 Maximum Allowable 4<sup>th</sup>-Highest MDA8 to Attain Ozone NAAQS

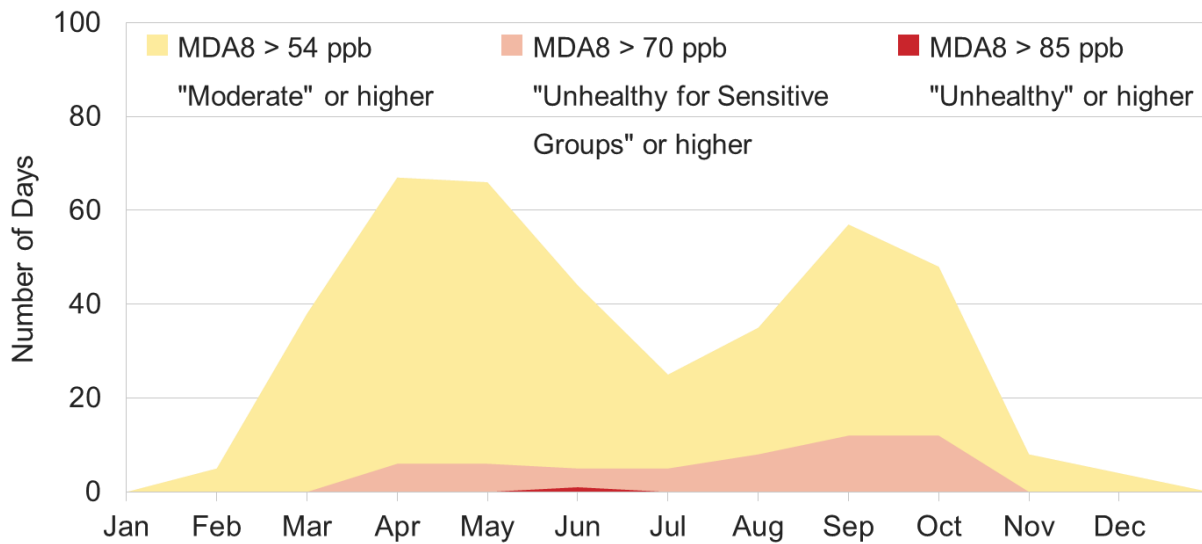
Monitor	4 <sup>th</sup> -Highest MDA8 (ppb)		Maximum Allowable 4 <sup>th</sup> -Highest MDA8 to Attain NAAQS in 2023
	2021	2022*	
San Antonio NW C23	70	76	66
Camp Bullis C58	78	75	59
Calaveras Lake C59	66	70	76

\*Ozone data validated through August 2022; Data will be certified by EPA no later than May 2023

This will be the final year of ozone data that will be used to determine whether we get bumped up to serious nonattainment. Figure 3 shows the regulations that are required under serious nonattainment.

Figure 2 shows the seasonal distribution of high ozone days at selected thresholds using data from 2010-2021. There are two clear peaks during the ozone season where the frequency of elevated ozone days increases sharply. The first of these peaks is in the spring, generally from April through June, and the second peak is in the fall, from August through October. These months have weather patterns that are most favorable for ozone formation. High ozone events in July are less common, a phenomenon known as the “mid-summer minimum,” usually a result of persistent southeasterly winds from the Gulf of Mexico transporting relatively clean air into the region. The historical frequency of high ozone days declines after mid-October.

Figure 2: Ozone Exceedances at Regulatory Monitors by Monthly Period, 2016-2022



## Grant Funding Opportunities

Table 5 is a list of active state grants for mobile source vehicle replacements.

Table 5: List of Active Grants for On-Road Mobile Source Replacement

Program	Description	Deadline
TERP: Texas Natural Gas Vehicle Grant Program (TNGVGP)	CTZ: AAMPO area (excluding Kendall); FCFS; replace or repower on-road gas or diesel MHD vehicles with CNG, LNG, or propane; up to 90% of incremental cost	3/31/2023

## San Antonio - New Braunfels MSA Ozone Status

In October 2015, the U.S. Environmental Protection Agency (EPA) promulgated its revised National Ambient Air Quality Standards (NAAQS) for ground-level ozone. The annual fourth-highest MDA8 ozone concentration, averaged over three years, measured at each regulatory monitor within an area must not exceed 70 parts per billion (ppb). The highest of these three-year averages is that area's design value, which is the metric used by the EPA to determine attainment of the ozone NAAQS. Failure to attain results in a nonattainment designation, with five classification levels of increasing severity based on an area's design value or length of time out of attainment. Each subsequent classification results in additional and more stringent federal air quality regulations intended to bring the area back into attainment.

Bexar County was originally designated nonattainment with a marginal classification under the 2015 ozone NAAQS on September 24, 2018. This triggered a three-year deadline to attain the NAAQS by September 24, 2021 (attainment date), or effectively, the end of the 2020 ozone season (attainment year). Bexar County missed its attainment date based on having a 2020

design value of 72 ppb, which initiated another three-year deadline to achieve the NAAQS. Failure to attain the NAAQS by the 2023 attainment year will result in a reclassification to serious nonattainment. The Federal regulations and thresholds are shown in Figure 3.

Figure 3: Marginal, Moderate, and Serious Nonattainment Federal Regulations

