Air Quality and Planning Efforts Update

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 maximum daily average 8-hour (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.

2021 Ozone Season Update

The 2021 ozone season began on March 1 and ends November 30. So far this ozone season, there have been 62 moderate ozone days (MDA8 > 54 ppb), with 12 of those days having MDA8 > 70 ppb. October saw nine moderate ozone days, with three of those being over 70 ppb. This is compared to an average of seven and one to two, respectively. It is unusual to have high ozone activity in November, with a moderate day occurring every few years. So far in 2021, two such days have occurred in November. The current four highest MDA8 for each regulatory monitor in Bexar County for 2021 are shown in Table 1.

Table 1: Four Highest MDA8 at Bexar County Regulatory Monitors, 2021[1]

Monitor Site	Date	ppb	Date	ppb	Date	ppb	Date	ppb
San Antonio NW C23	9/10/2021	76	4/11/2021	72	9/23/2021	70	6/18/2021	70
Camp Bullis C58	10/31/2021	84	9/10/2021	84	10/8/2021	80	9/23/2021	78
Calaveras Lake C59	9/10/2021	68	4/11/2021	67	10/6/2021	66	9/9/2021	66

Table 2 shows the preliminary three-year average MDA8 including 2021 data. These figures may be subject to change, and will be certified no later than May 2022.

Table 2: Fourth-Highest MDA8 and Three-Year Averages at Bexar County Regulatory Monitors,

Monitor Site	Fourth-Highest MDA8, ppb			Three-Year Average
	2019	2020	2021	
San Antonio NW C23	75	69	70	71
Camp Bullis C58	69	74	78	73
Calaveras Lake C59	63	66	66	65

[1] As of 11/8/2021; Ozone data validated through July 2021

So far in 2021, there have been 12 Ozone Action Day alerts issued by the Texas Commission on Environmental Quality (TCEQ). These alerts are issued when air quality is expected to be unhealthy for sensitive groups the following day. AACOG offers to forward these alerts to people who sign up to receive them at http://www.aacog.com/list.aspx. Ozone Action Day alerts warn people sensitive to pollution (the elderly, children, and those with underlying respiratory conditions, like asthma) to limit their exposure outdoors. It is also an opportunity for the general public to take measures to mitigate their contribution to pollution by reducing energy consumption at home and driving less. Table 3 lists the days for which an alert was issued, whether ozone reached levels unhealthy for sensitive groups that day, and days when ozone levels were unhealthy for sensitive groups but no alert was issued.

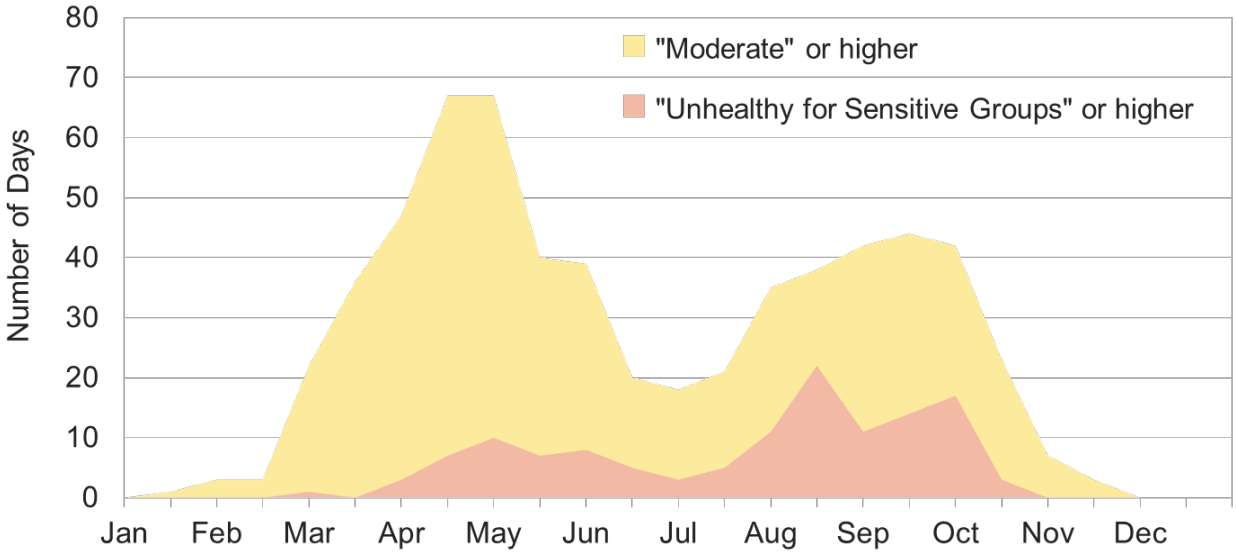
Table 3: Ozone Action Day Statistics, 2021

Date	Alert?	Peak MDA8	Verified?
4/11/2021	No	76 ppb	No
4/25/2021	Yes	70 ppb	No
5/3/2021	Yes	57 ppb	No
5/6/2021	Yes	67 ppb	No
5/7/2021	No	71 ppb	No
6/16/2021	Yes	69 ppb	No
6/18/2021	Yes	73 ppb	Yes
6/19/2021	Yes	69 ppb	No
7/29/2021	No	72 ppb	No
9/9/2021	No	72 ppb	No
9/10/2021	No	84 ppb	No
9/23/2021	Yes	78 ppb	Yes
9/24/2021	Yes	71 ppb	Yes
9/25/2021	Yes	71 ppb	Yes
9/26/2021	Yes	73 ppb	Yes
10/6/2021	Yes	84 ppb	Yes
10/7/2021	Yes	71 ppb	Yes
10/8/2021	No	80 ppb	No

Figure 1 shows the seasonal distribution of elevated ozone days using data from 2010-2020. 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 to early June, and the second peak is in the fall from August to early October. Historically, the fall peak has been

more severe than the spring peak, with recent trends favoring high ozone in October. We have levelled off from our fall peak as we approach the November 30 end of ozone season.

Figure 1: Ozone Exceedances of Selected Air Quality Health Index Thresholds at Regulatory Monitors by Semi-Monthly Period, 2010-2020



San Antonio – New Braunfels MSA Ozone Status

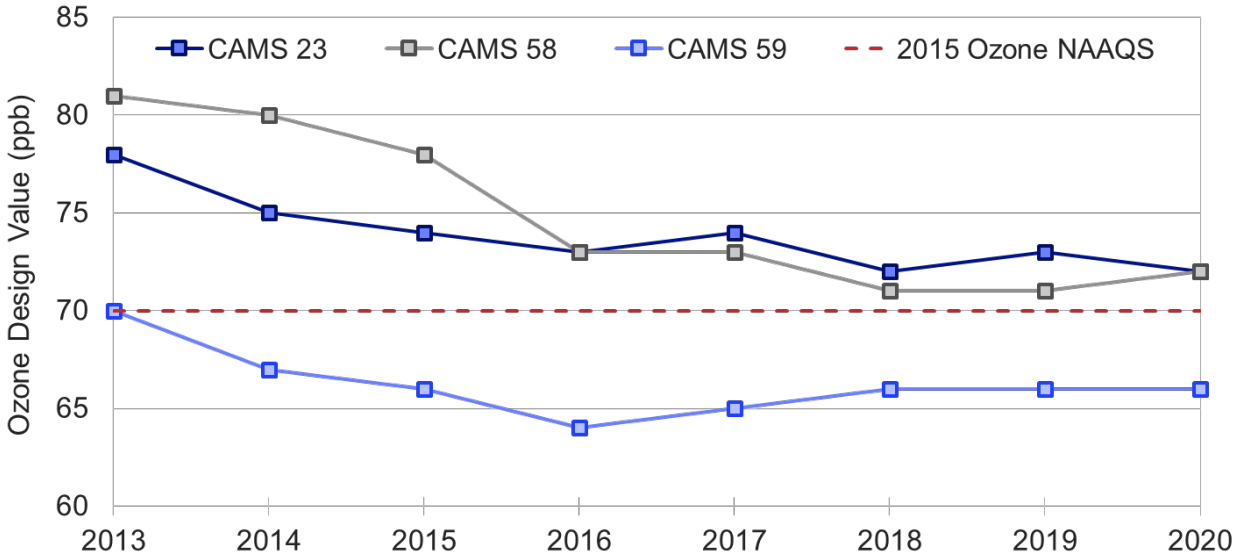
In July 2018, Bexar County received a nonattainment designation under the 2015 ozone NAAQS by the EPA, with a marginal classification, based on a certified design value for the area of 74 ppb using data from 2015-2017. This designation became effective on September 24, 2018, which triggered a three year timeframe to attain the NAAQS by the attainment deadline of September 24, 2021, or effectively, the end of the 2020 ozone season. Failure to do so results in a reclassification to moderate nonattainment, and another three year timeframe to attain the NAAQS.

Bexar County missed its attainment deadline, and now faces reclassification to moderate nonattainment. With a 2020 design value of 72 ppb (Table 4), two regulatory monitors in Bexar County continue to show violations of the NAAQS: CAMS 23 at Marshall High School (San Antonio NW) and CAMS 58 at Camp Bullis. The three-year average trend from 2013-2020 at each regulatory monitor is shown in Figure 2. Although a downward trend was noted through 2016, the design value has remained relatively stagnant since then.

Table 4: Fourth-Highest MDA8, Three-Year Averages, and Design Value (in blue) at Regulatory Monitors, 2018-2020

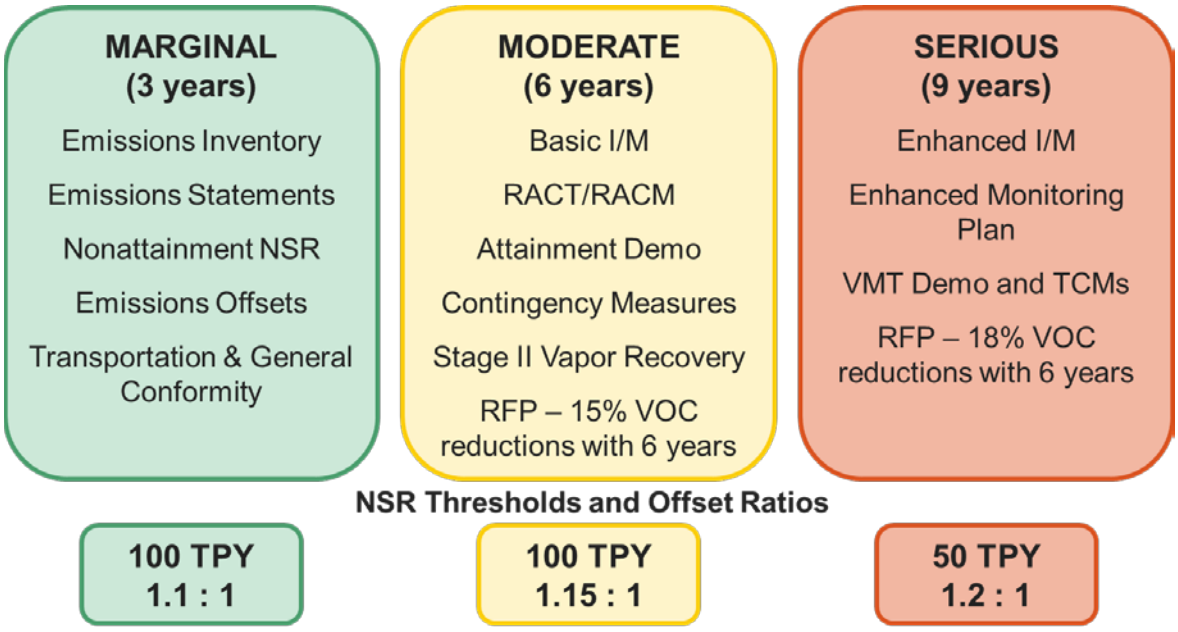
Monitor Site	Fourth-Highest MDA8, ppb			Three-Year Average
	2018	2019	2020	
San Antonio NW C23	72	75	69	72
Camp Bullis C58	73	69	74	72
Calaveras Lake C59	71	63	66	66

Figure 2: Three-Year Average Trend at San Antonio Regulatory Monitors, 2013-2020



Nonattainment areas require federal regulations that are intended to improve its air quality. Moderate nonattainment areas face additional and more stringent regulations compared to those with a marginal classification (Figure 3). Bexar County's moderate classification is expected to be effective sometime in March 2022, although its next attainment deadline will be September 24, 2024, or effectively, the end of the 2023 ozone season. If Bexar County does not attain the NAAQS by that date, it risks being reclassified to serious nonattainment.

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



Volkswagen Settlement & Other Grant Opportunities

The TCEQ opened its Light Duty Motor Vehicle Purchase or Lease Incentive Program (LDPLIP) on October 29. The LDPLIP is part of the Texas Emission Reduction Plan (TERP), and offers up to $2,500 in rebates for light duty electric vehicle purchases. There are 5,000 rebates available statewide for EVs under this round of LDPLIP. Some exclusions apply, including restrictions on eligible vehicle makes and models. The deadline to apply for this grant program is January 7, 2023. Other TERP grant programs will begin rolling out over the coming months.

The TCEQ Direct Current Fast Charging (DCFC) grant program, part of the Texas Volkswagen Environmental Mitigation Program (TxVEMP), was only open for eight hours before it was closed after having received a sufficient number of applications.

Other Program Updates

Steven Smeltzer presented photochemical model results at the November TAC meeting.