

Agenda
Alamo Area Council of Governments
Air Quality Committee
Wednesday, May 25, 2022 - 9:00 a.m.
2700 NE Loop 410, Suite 101
San Antonio, TX 78217

Request All Electronic Devices Be Silenced

1. Meeting called to Order

The AACOG Air Quality Committee is meeting in accordance with Chapter 551 of the Texas Government Code (Open Meetings Act). As such, the Committee reserves the right to retire into executive session concerning any of the items listed on this Agenda whenever it is considered necessary and legally justified under the Texas Open Meetings Act.

2. Roll Call

3. Public Comments

This time is for anyone to comment to the Air Quality Committee on issues and items of concern. There will be no deliberation or action on these comments. Time allowed is at the discretion of the Chairman; with three (3) minutes being customary

Consent Agenda


The consent agenda consists of items considered being of a routine nature and contains items recommended for approval by the Air Quality Committee or the minutes from previous Committee meetings. These items will be enacted in one motion, or any member of the Committee may request that items be removed from the consent agenda and considered separately for purposes of discussion and voting.

- 4.** Consider and act upon the recommendation to approve the January 26, 2022 Air Quality Committee Meeting Minutes.

New Business

- 5.** Consider and act upon the recommendation to bring before the AACOG Board of Directors a comment letter to EPA regarding its proposal to reclassify Bexar County to moderate nonattainment. - Lyle Hufstetler
- 6.** Staff will provide an update on its air quality planning program areas, including TCEQ Rider 7, MPO, Clean Cities, DERA, and PACE. - Lyle Hufstetler
- 7.** Staff will provide an update on the 2022 Ozone Season and other NAAQS announcements. - Lyle Hufstetler
- 8.** Next meeting is TBD.
- 9.** Adjournment

Items of interest for inclusion on future agendas should be forwarded to the Chair and Executive Director.



John Williams
Air Quality Committee Chair
Mayor, City of Universal City

This meeting is accessible to people with disabilities. The accessible entrance is located at the front entrance of 2700 NE Loop 410, San Antonio, TX 78217. Accessible parking spaces are also available. Please contact AACOG for auxiliary aids and services for the hearing impaired, including interpreters for the deaf, at 210-362-5200 at least 48 hours prior to the meeting or by calling Texas Relay at 7-1-1 for assistance.

Air Quality Committee

4.

Meeting Date: 05/25/2022

Title: January 26, 2022 Meeting Minutes

AGENDA ITEM DESCRIPTION:

Consider and act upon the recommendation to approve the January 26, 2022 Air Quality Committee Meeting Minutes.

BACKGROUND/HISTORY:

DISCUSSION:

FINANCIAL IMPACT:

STAFF RECOMMENDATION:

Attachments

January 26, 2022 Meeting Minutes

Minutes
Alamo Area Council of Governments
Air Quality Committee
Wednesday, January 26, 2022
2700 NE Loop 410, Suite 101
San Antonio, TX 78217

MEMBERS PRESENT

Mayor John Williams, Chair
 Commissioner Rebeca Clay-Flores
 Judge Richard Evans
 Judge Sherman Krause
 Councilman Clayton Perry
 Judge Chris Schuchart

ALTERNATES PRESENT

Angela Rodriguez for
 Ms. Lisa Lewis

MEMBERS ABSENT

Judge Robert Hurley
 Judge Richard Jackson
 Judge Darrel Lux
 Mr. Brian Hoffman, Ex Officio, Non-voting

GUESTS PRESENT**STAFF PRESENT**

Diane Rath
 Kelly Kuenstler
 Susie Ernst
 Lyle Hustetler
 Steven Smeltzer
 Miguel Seguara
 other staff members

1. **Chairman Williams called the meeting to order at 1:14 p.m.**
The AACOG Air Quality Committee is meeting in accordance with Chapter 551 of the Texas Government Code (Open Meetings Act). As such, the Committee reserves the right to retire into executive session concerning any of the items listed on this Agenda whenever it is considered necessary and legally justified under the Texas Open Meetings Act.
2. Roll Call was taken and a quorum was established.
3. No Public Comments were given.
This time is for anyone to comment to the Air Quality Committee on issues and items of concern. There will be no deliberation or action on these comments. Time allowed is at the discretion of the Chairman; with three (3) minutes being customary.

Consent Agenda

The consent agenda consists of items considered being of a routine nature and contains items recommended for approval by the Air Quality Committee or the minutes from previous Committee meetings. These items will be enacted in one motion, or any member of the Committee may request that items be removed from the consent agenda and considered separately for purposes of discussion and voting.

4. Consider and act upon the recommendation to approve the June 23, 2021 Air Quality Committee Meeting Minutes.

Moved by Judge Richard Evans, seconded by Judge Sherman Krause, to approve the June 23, 2021 Air Quality Committee Minutes. The motion carried unanimously.

Vote: 7 - 0

New Business

5. Update and overview of 2021 ozone season. - Lyle Hufstetler
6. Update on Bexar County's Ozone Nonattainment Status. - Lyle Hufstetler
7. Update and summary of activities conducted under the 2020-2021 Rider 7 Air Quality Planning Grant to expand ambient monitoring and inventory emissions. - Steven Smeltzer
8. Next meeting is TBD.
9. There being no further business to discuss, Chairman Williams adjourned the meeting at 2:01 p.m.

Items of interest for inclusion on future agendas should be forwarded to the Chair and Executive Director.



John Williams
Air Quality Committee Chair
Mayor, City of Universal City

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Air Quality Committee

5.

Meeting Date: 05/25/2022

Title: Comment Letter to EPA Regarding Bexar County Nonattainment Reclassification

Presented by: Lyle Hufstetler, Natural Resources Project Coordinator

AGENDA ITEM DESCRIPTION:

Consider and act upon the recommendation to bring before the AACOG Board of Directors a comment letter to EPA regarding its proposal to reclassify Bexar County to moderate nonattainment. - Lyle Hufstetler

BACKGROUND/HISTORY:

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).

Bexar County is currently designated nonattainment with a marginal classification under the 2015 ozone NAAQS. This designation became effective on September 24, 2018, which 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.

DISCUSSION:

On April 13, 2022, the EPA proposed to determine that Bexar County is one of 24 marginal nonattainment areas under the 2015 ozone National Ambient Air Quality Standards (NAAQS) that failed to attain the standard by the applicable attainment date. This failure to attain results in a reclassification to moderate nonattainment, although regulatory relief is possible pursuant to Section 179B(b) of the Clean Air Act if a state can demonstrate that a nonattainment area would have attained the NAAQS by the applicable attainment date but for emissions emanating from outside the United States. Included in the EPA's Proposed Rule is their disapproval of a 179B demonstration made by the Texas Commission on Environmental Quality (TCEQ) for Bexar County.

The EPA proposal triggered a 60-day public comment period that is the basis for the letter presented for your approval. This letter argues that Bexar County has demonstrated a years-long commitment to air quality improvement that is evident in its design value reduction over two decades despite being the fastest growing area in the country during much of that time. It presents evidence of this continued large-scale commitment in the face of stagnant design values since 2016. It makes the case that even with unprecedented emission reductions due to COVID lockdowns in April 2020, ozone was arguably worse than the previous year, so there must be more at play to influence ozone levels that is out of local control. The letter cites AACOG photochemical modeling supported by TCEQ and EPA that suggests only 20% of ozone is locally-produced. Finally, the letter urges continued research into the effects of COVID lockdowns on ozone precursor emissions in other regions and their apparent effect, if any, on ozone.

FINANCIAL IMPACT:

None

STAFF RECOMMENDATION:

Staff recommends bringing before the AACOG Board of Directors for their approval the attached comment letter to the EPA in response to its proposal to reclassify Bexar County as moderate nonattainment. For more information, please contact Lyle Hufstetler, AACOG Natural Resources Project Coordinator, at lhufstetler@aacog.com or 210-376-9901.

Attachments

Nonattainment letter



**Alamo Area Council
of Governments**

Board of Directors

James E. Teal, Chair
County Judge, McMullen County

Clayton Perry, Vice Chair
Councilman, City of San Antonio

Marialyn Barnard
Commissioner, Bexar County

James Blakey
Councilman, City of New Braunfels

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County Judge, Comal County

Kyle Kutscher
County Judge, Guadalupe County

Lisa Lewis
Chief Administrative Officer, CPS Energy

Arnulfo Luna
County Judge, Frio County

Darrel L. Lux
County Judge, Kendall County

Jose Menendez
Senator, State of Texas, District 26

Andrew Murr
State Representative, District 53

Ana Sandoval
Councilwoman, City of San Antonio

Chris Schuchart
County Judge, Medina County

Mark Stroehrer
County Judge, Gillespie County

Sylvester Vasquez
President, Southwest ISD

John Williams
Mayor, City of Universal City

Kyle Biedermann (Ex-Officio)
State Representative, District 27

Ryan Guillen (Ex-Officio)
State Representative, District 31

Brian Hoffman (Ex-Officio)
Joint Base San Antonio

John Kuempel (Ex-Officio)
State Representative, District 44

Judith Zaffirini (Ex-Officio)
State Representative, District 21

June 13, 2022

U.S. Environmental Protection Agency
EPA Docket Center
Office of Air and Radiation Docket
Mail Code 28221T
1200 Pennsylvania Avenue NW
Washington, DC 20460

Attn: Mr. Michael S. Regan

RE: Docket ID No. EPA-HQ-OAR-2021-0742 – Determinations of Attainment by the Attainment Date, Extensions of the Attainment Date, and Reclassification of Areas Classified as Marginal for the 2015 Ozone National Ambient Air Quality Standards

Dear Administrator Regan:

The Alamo Area Council of Governments (AACOG) appreciates the opportunity to provide comments in response to the U.S. Environmental Protection Agency's (EPA) proposal to reclassify Bexar County to moderate nonattainment, and its disapproval to grant regulatory relief to Bexar County pursuant to Section 179B(b) of the Clean Air Act.

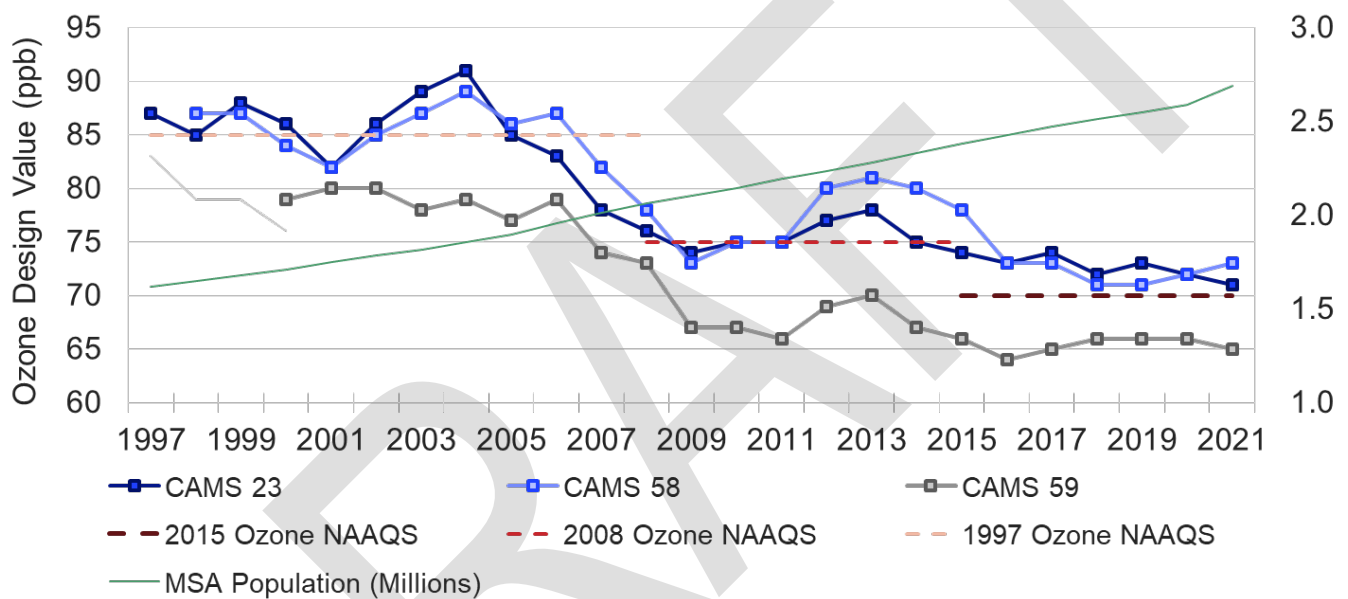
AACOG was established in 1967 as a political subdivision of the State of Texas, under Chapter 391 of the Local Government Code. AACOG is a voluntary association of local governments and organizations that serves its members through planning, information, and coordination activities. AACOG serves State Planning Region 18, covering Atascosa, Bandera, Bexar, Comal, Frio, Gillespie, Guadalupe, Karnes, Kendall, Kerr, Medina, McMullen and Wilson counties. The AACOG Board of Directors is the governing body for the agency, and formally authorizes the submittal of this comment letter.

On April 13, 2022, the EPA proposed to determine that Bexar County is one of 24 marginal nonattainment areas under the 2015 ozone National Ambient Air Quality Standards (NAAQS) that failed to attain the standard by the applicable attainment date. This failure to attain results in a reclassification to moderate nonattainment, although regulatory relief is possible pursuant to Section 179B(b) of the Clean Air Act if a state can demonstrate that a nonattainment

area would have attained the NAAQS by the applicable attainment date but for emissions emanating from outside the United States. Included in the EPA's Proposed Rule is their disapproval of a 179B demonstration made by the Texas Commission on Environmental Quality (TCEQ) for Bexar County.

Bexar County, which contains the City of San Antonio and anchors a region of over 2.5 million people, was first designated nonattainment in 2018. Prior to this designation, San Antonio was the largest city in the country in compliance with the ozone NAAQS. Since 2004, Bexar County has made great strides in reducing its ozone design value, with a nearly 20 percent reduction through 2016 (Figure 1). This is due, in part, to local stakeholder collaboration to develop and implement pollution control measures despite adding nearly one million people to the region over the last 25 years.

Figure 1: Bexar County Design Value and Population Trend



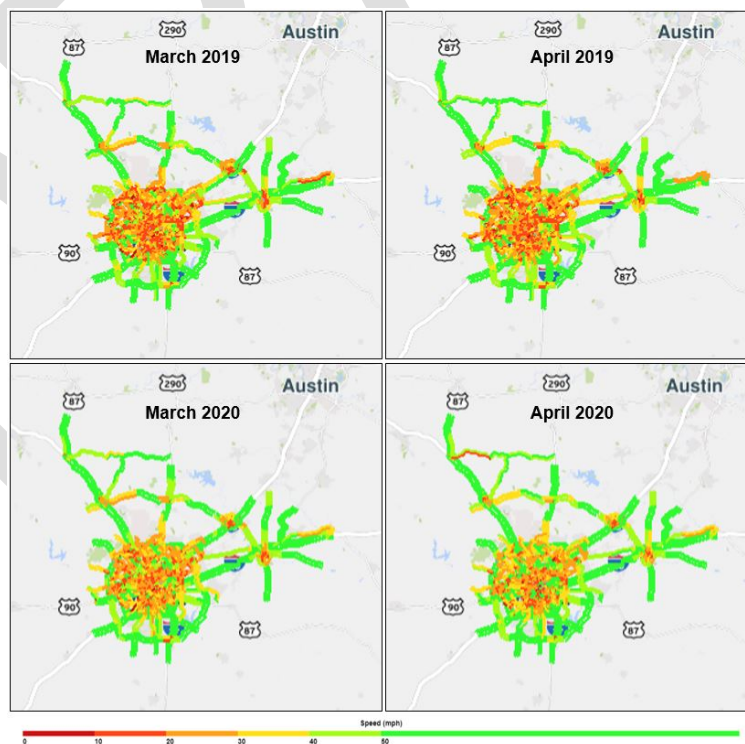
Since 2016, our design value has remained relatively steady, even as automobiles continue to become cleaner and businesses and industries continue to implement emission-reducing technologies. AACOG is proud of the strides that the community has made toward improving our air quality. Some of the most notable achievements since 2016 are listed below:

- Bexar County and Cities of San Antonio, Leon Valley, and Seguin Anti-Idling Ordinances;
- CPS Energy's Save For Tomorrow Energy Plan (STEP) to reduce demand for electricity generated by coal-fired power plants, equal to shutting down a medium-sized coal plant; the 770 MW electricity reduction goal was met one year ahead of schedule
- CPS Energy met its goal of 1,500 megawatts (MW) of renewable energy capacity two years ahead of schedule through the management and expansion of a diverse energy generation portfolio, including wind, rooftop solar, and utility-scale solar; the 1,500 MW amounts to 20% of CPS Energy's total generation capacity;

- Closing of CPS Energy’s oldest coal-fired power plant, eliminating as much as ten tons of NO_x per day;
- Installing selective non-catalytic reduction at cement kilns in Bexar and Comal Counties; one cement plant was the first to implement SkyMine® technology that removes nitrogen oxides (NO_x) from industrial waste streams;
- Equipment and lighting retrofits by San Antonio Water System (SAWS) using incentives from CPS Energy’s Commercial Energy Efficiency Program; SAWS biogas capture from new Dos Rios water treatment facility;
- City of San Antonio ban on coal tar sealants; San Antonio is the largest city in the country with such an ordinance;
- VIA Metropolitan Transit (VIA) began converting its diesel bus fleet to compressed natural gas (CNG) in April 2017; VIA’s new CNG fueling facility is the largest in North America; and
- Investments in the latest technology by both the energy industry in the Eagle Ford shale and the cement industry to reduce emissions.

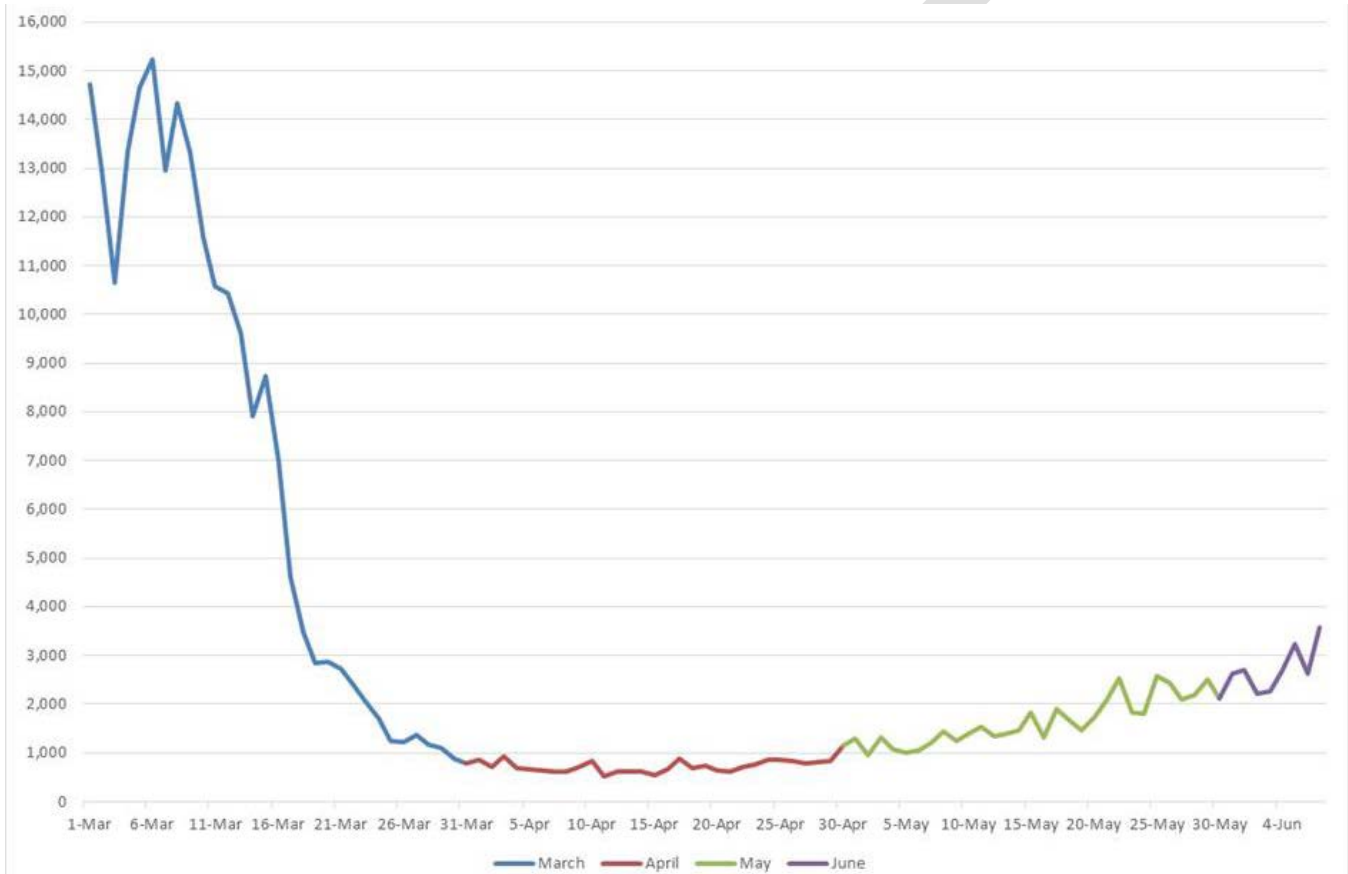
That such large-scale emission reduction efforts implemented since 2016 have not had a noticeable effect on our ozone compliance suggests that ozone design values are less influenced by Bexar County contributions. More evidence of this lack of control can be seen with the dramatic reduction in nitrogen oxide (NO_x) emissions due to local “Stay Home, Work Safe” orders in response to COVID-19 in April 2020. Emissions were greatly reduced across most source types, including on-road emissions as shown in Figure 2. Higher average travel speeds represent lower emissions due to decreased congestion.

Figure 2: Speed Trend Map for AAMPO Region comparing March and April 2019 with March and April 2020



Emission reductions were also noted at San Antonio International Airport, with a marked decrease in passenger enplanements after the second week of March 2020 (Figure 3).¹ Despite these reductions, the number of high ozone events that month was above average. This means there are a number of factors beyond local control which cause high levels of ozone. This corroborates the modeling demonstrating most of our ozone comes from outside the area.

Figure 3: Passenger Enplanements at SAIA, March - June 2020

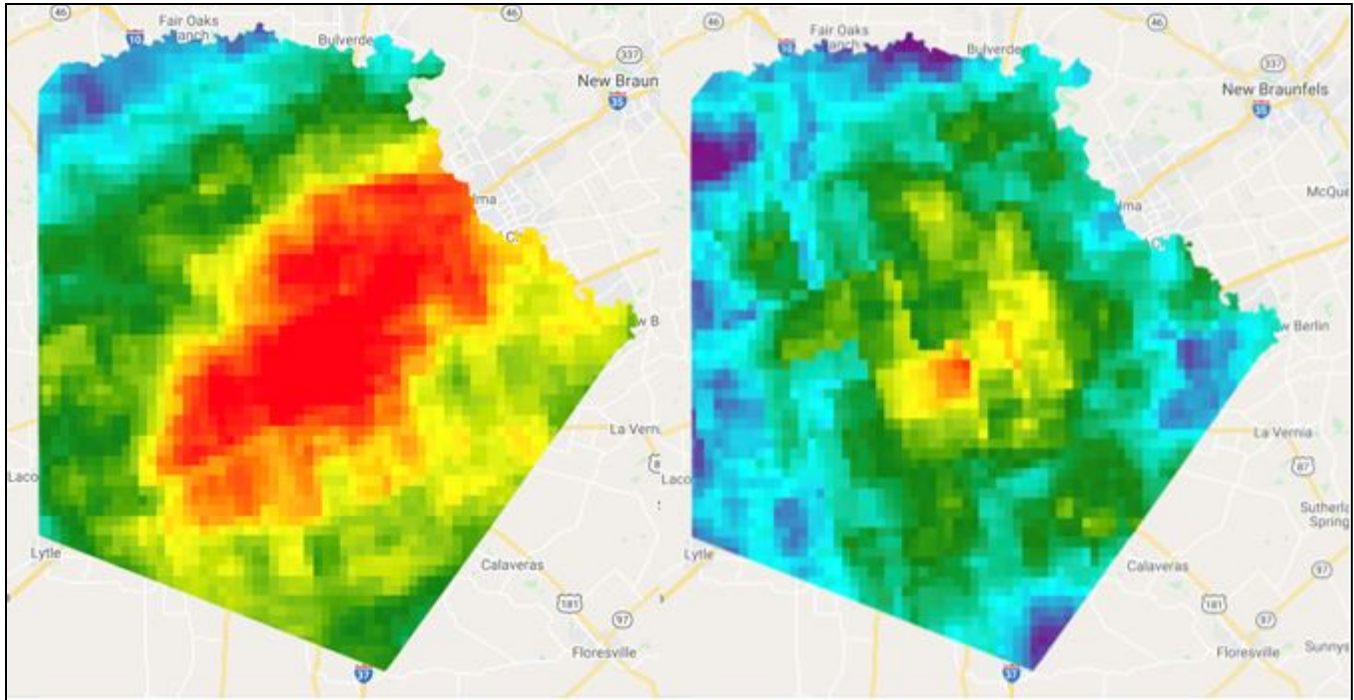


Even electric generating units saw a reduction in emissions caused by a net system-wide reduction in energy use, largely driven by manufacturing, education, and hospitality. Residential energy use increased due to lockdowns, but was not enough to offset other reductions.² With the help of remote sensing, the region-wide effect of these cross-cutting emission reductions can be visualized, and appears in Figure 4. While the severity of the COVID-19 pandemic has been tragic, it presented a once-in-a-lifetime opportunity to experience ozone precursor reductions on such a scale that could only be simulated in modeling.

¹ Source: City of San Antonio Aviation Department

² Source: CPS Energy Board of Trustees Meeting (May 27, 2020), p. 83

Figure 4: Change in Bexar County NO₂ Emissions during COVID-19 “Stay Home Work Safe” Order (L: Feb. 4 - Mar. 15; R: Mar. 15 - Apr. 23)³



AACOG continues to maintain that around 20 percent of ozone in Bexar County is locally-produced, while the majority originates outside the area and is subject to transport into Bexar County. Photochemical modeling conducted by AACOG and supported by the TCEQ and EPA, as well as analysis in previous ozone conceptual models comparing upwind and downwind monitors, corroborate this claim. Moreover, meteorological influences appear to drive ozone formation more than ambient ozone precursor concentrations. Throughout most of 2020, Bexar County monitors were in full compliance with the ozone NAAQS; however, the first half of October alone had four days over 70 ppb – half the total for the entire season. These high ozone events were likely caused by a series of cool fronts that moved through the area beginning September 28, bringing cool, dirty continental air down from the north, and raising background ozone levels. Once winds shift back to southeast, it causes a recirculation of emissions over Bexar County and a further spike in ozone. This was a highly unusual occurrence for Bexar County, with 2010 being the last time there were four days over 70 ppb in October, during an era with far greater annual frequency of high ozone days relative to the present day.

It is clear that there are other forces outside our local control that are driving Bexar County’s continued NAAQS violations. For the reasons cited above, AACOG requests that the EPA not reclassify Bexar County as moderate nonattainment at this time. Furthermore, AACOG urges the EPA to research the nationwide effects of COVID-19 on ozone precursors and on ozone itself. It came as a surprise to local air quality leaders that ozone did not decrease in the same way that our precursors did. If such large-scale ozone precursor reductions seen during the height of COVID-19 had negligible effect on ozone,

³ Source: European Space Agency’s Sentinel 5P satellite

there is little hope for federal regulations to be able to lower ozone levels. More research is needed to improve our understanding of ozone processes in light of COVID-19 findings before subjecting local economies to regulatory hardships that may provide little, if any, ozone benefit.

Sincerely,

James Teal
County Judge, Medina County
Chairman, Alamo Area Council of Governments

DRAFT

Air Quality Committee

6.

Meeting Date: 05/25/2022

Title: Air Quality Program Update

Presented by: Lyle Hufstetler, Natural Resources Project Coordinator

AGENDA ITEM DESCRIPTION:

Staff will provide an update on its air quality planning program areas, including TCEQ Rider 7, MPO, Clean Cities, DERA, and PACE. - Lyle Hufstetler

BACKGROUND/HISTORY:

AACOG's Natural Resources program conducts technical air quality projects that inform local planning efforts to lower emissions. Its outreach and education programs provide local governments, businesses, and residents with the tools to empower them to improve our air quality.

The Texas Commission on Environmental Quality funds regional air quality monitoring and emission inventory activities under its Rider 7 Air Quality Planning program. AACOG provides photochemical modeling services and other technical support related to onroad emissions for the Alamo Area MPO. The Clean Cities Coalition provides fleets with technical and grant assistance to transition to alternative fuel sources, promoting energy independence and environmental sustainability. Under the EPA's DERA grant, AACOG will provide financial assistance to purchase two electric yard trucks. AACOG serves as the PACE administrator for the Alamo Region, promoting low-cost long-term financing for energy efficiency and water conservation improvements on commercial, industrial, and large multifamily properties.

DISCUSSION:

The TCEQ Rider 7 Air Quality Planning Grant provides funding for air quality monitoring activities and emission inventory refinements in Comal, Guadalupe, and Wilson Counties (Study Area). Funding for 2022-2023 will sustain nitrogen oxide (NOx) and metrological (met) monitoring at CAMS 503 Bulverde Elementary School; CAMS 504 New Braunfels Airport; and CAMS 505 Garden Ridge through November 2022 and from March through November 2023. Additionally, an Auto-GC will be installed at CAMS 505 that will measure volatile organic compounds (VOC) from August 2022 through November 2023. AACOG will also update its 2018 Truck Idling Emission Inventory, which will be used to refine onroad emissions modeling inputs. This will entail traveling to truck stops, rest areas, and other heavy-duty truck idling areas across the Study Area, and counting the number of trucks that are present and idling, the percent utilization, and other characteristics during a variety of time periods.

At this time, NOx and met monitoring has begun at the three monitors identified above. Preparations to begin Auto-GC sampling include transporting the equipment from storage at Orsat facilities in Houston, installing an additional climate-controlled trailer purchased during the previous biennium, and ensuring electrical service to the trailer. A Quality Assurance Project Plan is currently under review by the TCEQ for the Truck Idling Emission Inventory. Work on that project is permitted to begin upon its approval. AACOG currently owns three NOx and met monitors and one sulfur dioxide (SO2) monitor purchased with previous biennium funds that lack the funding to continue operation under Rider 7. Additional funding sources to bring these monitors online are being investigated and pursued.

The Alamo Area MPO is funding photochemical modeling activities, the implementation of a regional smoking vehicle reporting program, and a school bus inventory under its 2022-2023 Unified Planning Work Program. Staff consulted with NCTCOG for guidance on setting up a smoking vehicle reporting program. An application was submitted to the Texas Department of Motor Vehicles for access to their

Texas Motor Vehicle Information. Staff will begin setting up a call-in hotline and a web-based reporting form for residents to report vehicles they observe emitting visible smoke for at least 10 seconds. Owners of reported vehicles will be notified by mail of the statute prohibiting such actions and a list of resources to assist with vehicle upgrades

The Alamo Area Clean Cities Coalition has committed to providing outreach and assistance to fleets for federal, state and local incentives to purchase alternative fuel vehicles; hosting alt fuel vehicle demonstrations and events; and planning in support of alternative fuel corridors. Recent activities include hosting a South Texas EV Readiness webinar in support of the upcoming National EV Infrastructure Program; a Drive Electric Earth Day event in Seguin; and informing area stakeholders of other current and upcoming grant opportunities for alternative fuel vehicles.

AACOG will be issuing a Request for Applications within Bexar County for the purchase of electric terminal tractors at certain eligible facilities. Eligibility requirements will mirror those of the Environmental Protection Agency's (EPA) Diesel Emission Reduction Act (DERA) program to ensure compliance with EPA General Terms and Conditions, including those for subrecipients.

Staff continues to promote PACE to local governments to encourage its adoption and to businesses to raise awareness and educate property owners about its benefits. The number of PACE-enabled jurisdictions in the Alamo Area continues to grow, with Alamo Heights adopting PACE on March 14. AACOG has closed on its second PACE project ever and the first of what could be a handful of properties in Medina County.

FINANCIAL IMPACT:

None

STAFF RECOMMENDATION:

For technical air quality questions please contact Steven Smeltzer, Environmental Manager, at ssmeltzer@aacog.com or 210-362-5266. For more information about Clean Cities or PACE please contact Lyle Hufstetler, Natural Resources Project Coordinator, at lhufstetler@aacog.com or 210-376-9901.

Attachments

Air Quality Program Update Presentation



AACOG
Alamo Area Council
of Governments

AACOG Air Quality Program Update

Presented by AACOG Natural Resources Staff

Air Quality Committee

Jan. 26, 2022

Natural Resources Program Areas

● Technical Projects

- TCEQ Rider 7 Air Quality Planning – Air Quality Monitoring and Emission Inventories
- MPO – Photochemical Modeling and School Bus Inventory

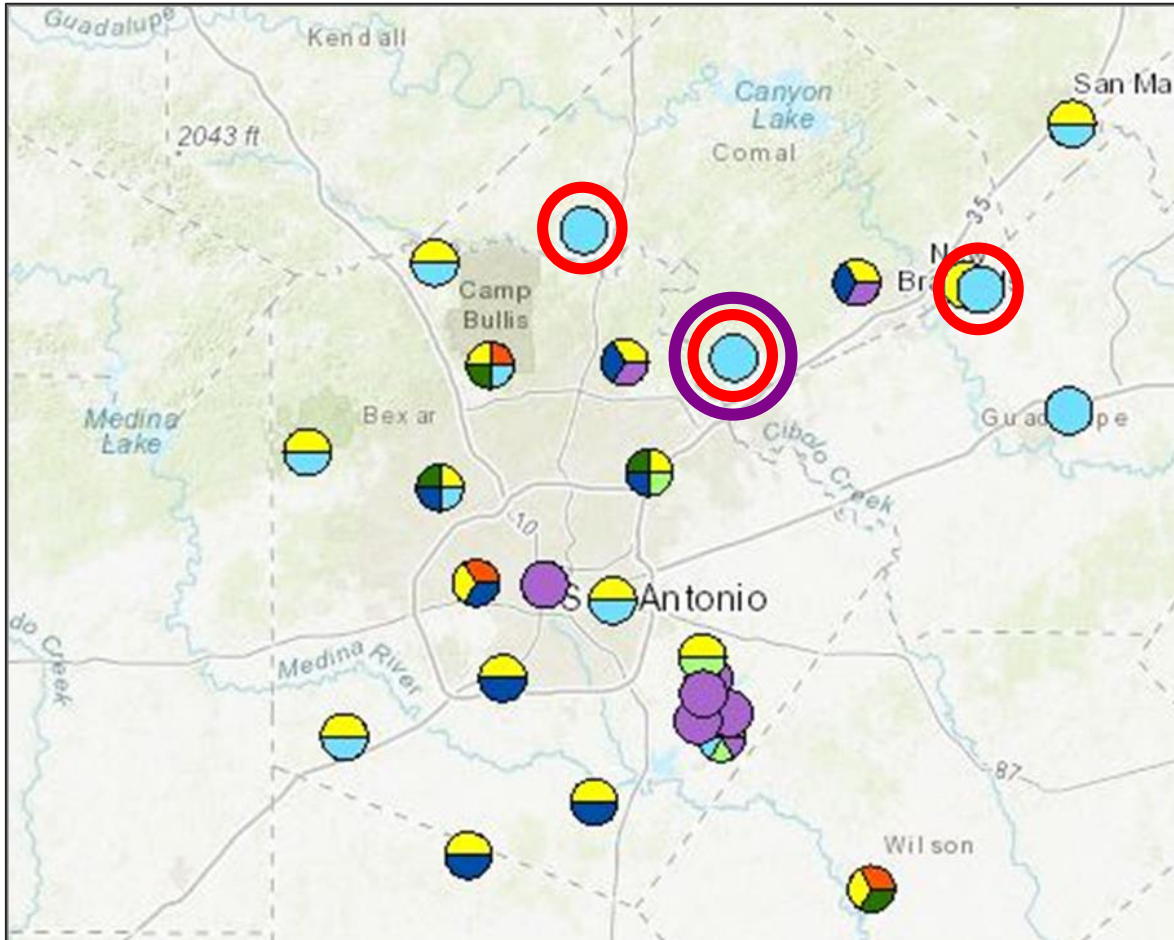
● Solutions

- Clean Cities – Alternative fuels for transportation to promote local economic development, energy independence, and environmental sustainability
- PACE – Low cost, long term financing for commercial clean energy
- DERA – Local grant for electric terminal tractor replacement
- Coming soon: Smoking vehicle reporting program

2022-2023 Rider 7 Air Quality Planning Grant

- Only Comal, Guadalupe, and Wilson Counties
- Continue NOx and meteorological (met) monitoring at CAMS 503 Bulverde Elementary, CAMS 504 New Braunfels Airport, and CAMS 505 Garden Ridge through Nov 2022 and from Mar - Nov 2023
- Install Auto-GC for VOC sampling at CAMS 505 from Aug 2022 - Nov 2023
- Unused equipment due to lack of funds: three (3) NOx and met monitor pairs and one (1) sulfur dioxide monitor; seeking alternate funding sources
- Truck Idling Emission Inventory

Air Quality Monitoring Locations



Red circles:

NOx and met monitoring sites

Bulverde Elementary - C503

New Braunfels Airport - C504

Garden Ridge - C505

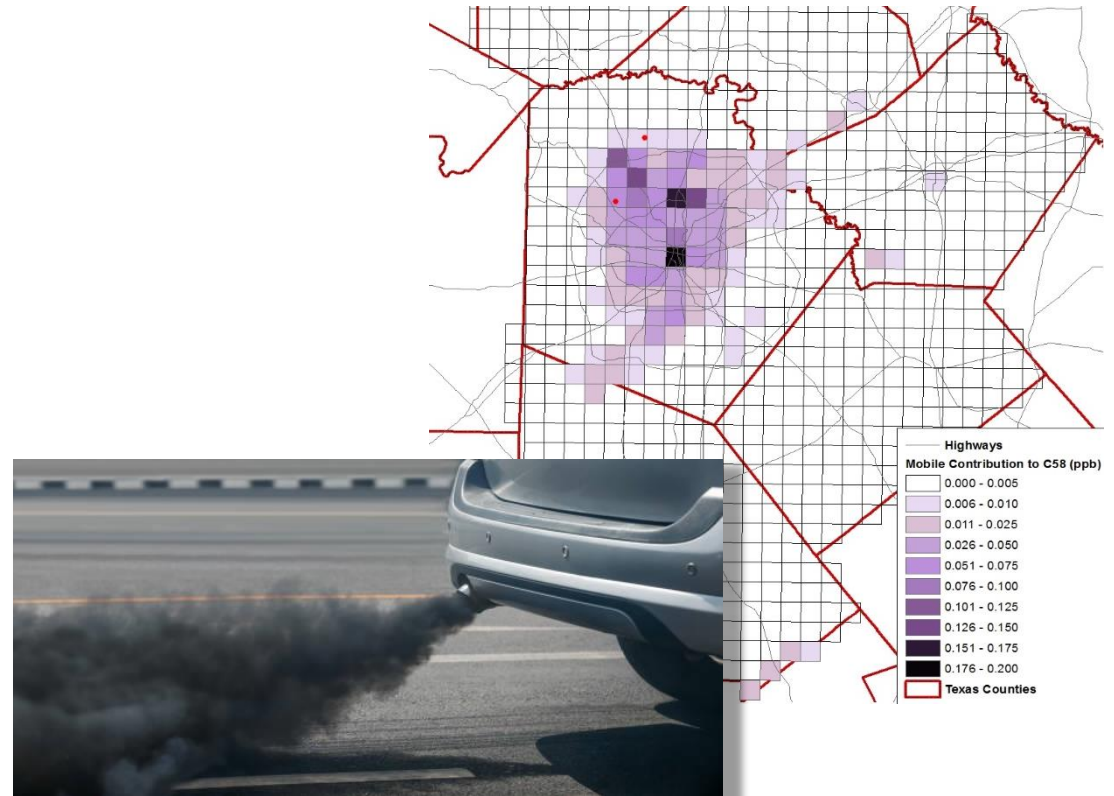
Purple circle:

Auto-GC VOC

Garden Ridge - C505

2022-2023 AAMPO UPWP Subtask 3.3

- Photochemical modeling for onroad emissions sources, including control strategy assessment
 - Ozone projections & responses
 - APCA source apportionment
- Regional Smoking Vehicle Program
- School Bus Inventory
- Presentations to TAC



Clean Cities Updates

- Selected subtasks for 2022-2023:
 - Incentive outreach, coordination, compliance
 - Alternative fuel corridor planning
 - Outreach and demonstration events
- Alternative fuel price reporting
- Alternative fueling station or vehicle price reporting
- Quarterly and annual reporting



DERA & PACE Updates

- DERA – Diesel Emission Reduction Act
 - Local grant (Bexar only) to replace diesel yard trucks with electric
 - Releasing RFA late spring/early summer
 - Requirements will mirror those of the EPA DERA Program for FY20
- PACE – Property Assessed Clean Energy
 - Second PACE project closed May 13 in Castroville
 - Harvard Business School visit





Steven Smeltzer
Environmental Manager, AACOG

Email: ssmeltzer@aacog.com

2700 NE Loop 410, Suite 101
San Antonio, Texas 78217



Current Attainment Status

- Bexar County did not attain the 70-ppb standard by the end of 2020
- Expected reclassification to moderate nonattainment in March 2022
- Triggers 1) additional regulations intended to improve ozone levels in Bexar County, and 2) a tightening of existing regulations already in place under the marginal classification.
- Once reclassified to moderate, Bexar County will be required to attain the standard by September 24, 2024, with 2023 being the final year of data to be considered.



Air Quality Committee

7.

Meeting Date: 05/25/2022

Title: Ozone Report

Presented by: Lyle Hufstetler, Natural Resources Project Coordinator

AGENDA ITEM DESCRIPTION:

Staff will provide an update on the 2022 Ozone Season and other NAAQS announcements. - Lyle Hufstetler

BACKGROUND/HISTORY:

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). Bexar County is currently designated nonattainment with a marginal classification under the 2015 ozone NAAQS. This designation became effective on September 24, 2018, which 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, and now faces reclassification to moderate nonattainment, which was formally proposed on April 13.

DISCUSSION:

The 2022 ozone season began on March 1. So far this year, there have been 22 moderate ozone days, but no days over 70 ppb. Despite this, CAMS 58 Camp Bullis already exceeds the maximum allowable fourth-highest MDA8 ozone to be able to meet the NAAQS by the end of this year. Failure to attain the standard by the end of 2023 will result in another reclassification to serious nonattainment.

The EPA is currently reconsidering two 2020 decisions not to revise the ozone and particulate matter (PM) NAAQS. The PM NAAQS may be revised downward sometime next year to a level that may put the area at risk for a nonattainment designation. The EPA has released its draft policy assessment suggesting the ozone NAAQS may remain 70 ppb.

FINANCIAL IMPACT:

None

STAFF RECOMMENDATION:

For more information, please contact Lyle Hufstetler, Natural Resources Project Coordinator, at lhufstetler@aacog.com or 210-376-9901.

Attachments

Ozone Report Presentation

Ozone Report



OZONE REPORT & NAAQS UPDATE

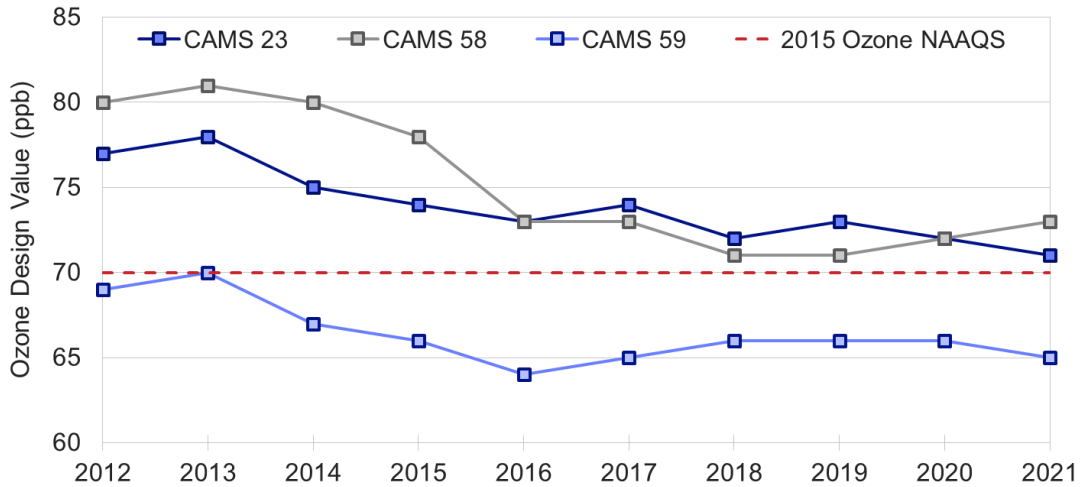
Presented to AACOG Air Quality Committee
 Presented by Lyle Hufstetler
 May 25, 2022

Current Three-Year Average

Monitor Site	4 th Highest 8-Hour Average O ₃ (ppb)			Three-Year Average
	2019	2020	2021	
San Antonio Northwest CAMS 23	75	69	70	71
Camp Bullis CAMS 58	69	74	78	73
Calaveras Lake CAMS 59	63	66	66	65

Two Bexar County regulatory monitors continue to violate the 2015 Ozone NAAQS

Design Value Trend



Alamo Area Council of Governments

Attaining the NAAQS in 2022

Monitor Site	4 th -Highest 8-Hour Average O ₃ (ppb)		2022 Maximum Allowable 4 th -Highest to Attain NAAQS
	2020	2021	
San Antonio Northwest CAMS 23	69	70	73
Camp Bullis CAMS 58	74	78	60
Calaveras Lake CAMS 59	66	66	80

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2022 Four-Highest

Monitor	Date	ppb	Date	ppb	Date	ppb	Date	ppb
SA Northwest C23	4/3	64	3/26	59	3/25	59	3/1	57
Camp Bullis C58	4/3	66	3/26	64	3/25	64	3/16	62
Calaveras Lake C59	3/25	61	3/1	58	4/2	55	3/16	55

* As of May 16; Ozone data validated through January 2022

2022 to date: 23 moderate ozone days (> 54 ppb); no days > 70 ppb

March was above average, April and May-to-date have been below average

Current fourth-highest at C58 exceeds the maximum allowable to attain the standard

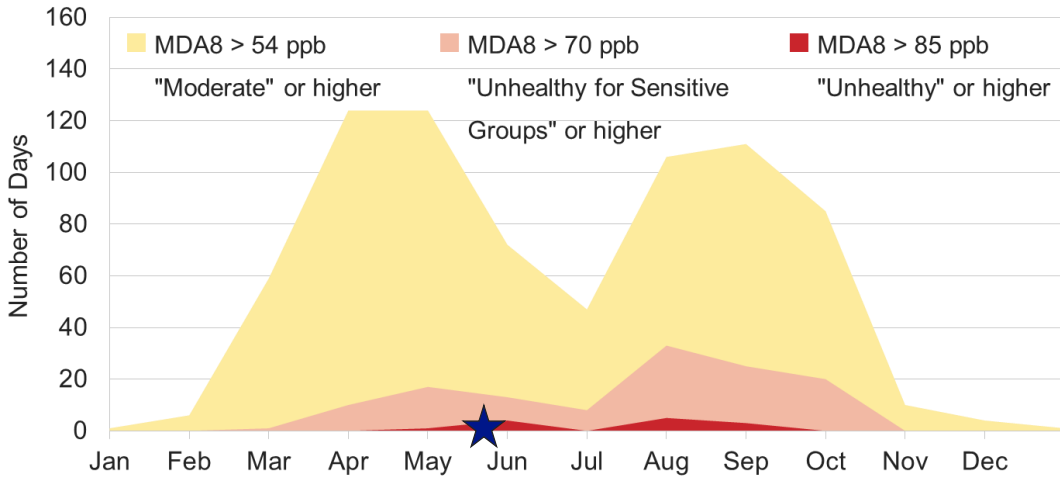
2022 Ozone Action Day Alerts

Date	Alert?	Peak MDA8	Verified?
3/35/2022	Yes	64 ppb	No
5/6/2022	Yes	56 ppb	No

Ozone Action Day Alerts are issued by TCEQ when high ozone levels are expected to occur the following day. When an Ozone Action Day Alert is issued:

- Avoid prolonged exposure outdoors if you are younger, older, or have a respiratory condition
- Limit car use, if possible – telecommute, combine errands, refuel in the evening
- Reduce energy use at home – yard work in the evening, turn up thermostat 1-2°
- Sign up to receive these alerts at <http://www.aacog.com/list.aspx>

Seasonal Ozone Variation



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NAAQS Updates

- **2015 Ozone NAAQS**
 - 2021 reconsideration of 2020 decision not to revise standard underway
 - EPA PA released April 28 suggesting adequate protection at 70 ppb
 - CASAC public meetings to review PA during June with recommendation expected in the summer; final decision end of 2023
- **2012 PM NAAQS** (fine particulate matter)
 - Majority of CASAC in favor of 8.0 - 10.0 $\mu\text{g}/\text{m}^3$; unanimous support for downward revision
 - Reasonable risk of nonattainment if revised to the lower range

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Lyle Hufstetler

Contact Me

Phone: 210-362-5225

Email: lhufstetler@aacog.com

2700 NE Loop 410, Suite 101
San Antonio, Texas 78217



Ozone Report & Regulatory Update

AACOG Air Quality Committee

May 2022

Regulatory Updates

On April 13, 2022, the EPA announced its recommendation to reclassify Bexar County as moderate nonattainment based on a 2020 design value of 72 ppb. This announcement also included a disapproval of the 179B foreign transport demonstration that the TCEQ submitted in 2020. This triggered a 60-day public comment period that ends June 13, with the reclassification expected to be official shortly after. Moderate nonattainment means additional and stricter regulations for Bexar County industries and citizens that will result in:

- Increased vehicle inspection costs;
- Potential road construction delays; and
- Added consumer costs from industries having to control pollution.

At an April 29 public meeting, the Clean Air Scientific Advisory Committee (CASAC) Ozone Panel received a briefing from the EPA on their draft policy assessment (PA) reconsidering the 2020 decision not to revise the current ozone NAAQS. This draft PA, written by the EPA's Office of Air Quality Planning and Standards (OAQPS) staff, reached a preliminary conclusion that "the available evidence and exposure/risk information does not call into question the adequacy of protection provided by the existing standard or the scientific and public health judgments that informed the 2020 decision to retain the current standard, which was established in the 2015 review."

A series of public meetings for the CASAC Ozone Panel to peer review the draft policy assessment will be held throughout June:

- Wednesday, June 8, 11:00 am - 3:00 pm EDT
- Friday, June 10, 11:00 am - 3:00 pm EDT
- Monday, June 13, 11:00 am - 3:00 pm EDT
- Friday, June 17, 11:00 am - 3:00 pm EDT

Late last year, a CASAC Particulate Matter (PM) Review Panel was tasked with reviewing an EPA policy assessment reconsidering the 2020 decision not to revise the 2012 PM NAAQS. They released the final report of their review on March 18 and unanimously concluded that the current annual standard of 12.0 $\mu\text{g}/\text{m}^3$ does not adequately protect public health. Most of the panel supported a revised annual mean of 8-10 $\mu\text{g}/\text{m}^3$, with a minority proposing between 10-11 $\mu\text{g}/\text{m}^3$. A revision of the PM standard to reflect the lower range of the majority opinion could put Bexar County at risk of nonattainment. The panel was more split on the adequacy of the current 35 $\mu\text{g}/\text{m}^3$ 24-hour standard, with the majority opinion being that it does not adequately protect public

health, and recommending a range of 25-30 $\mu\text{g}/\text{m}^3$. EPA expects to issue a proposed rulemaking in summer 2022 and a final rule in spring 2023.

The EPA is seeking public comment on a proposed rule proposing establishing NO_x emissions budgets requiring fossil fuel-fired power plants in 25 states (including Texas) to participate in an allowance-based ozone season trading program beginning in 2023. The EPA is also proposing to establish NO_x emissions limitations applicable to certain other industrial stationary sources in 23 states (including Texas) with an earliest possible compliance date of 2026. These strategies are meant to eliminate significant contribution to downwind ozone air quality problems in other states. More information is at <https://www.epa.gov/csapr/> and public comment ends June 6.

2022 Ozone Season

The 2022 ozone season began 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 1. While it is possible that CAMS 23 could attain the NAAQS by the end of 2022, CAMS 58 already exceeds this threshold. CAMS 59 continues to report the lowest ozone of the three regulatory monitors.

Table 1: 2022 Maximum Allowable 4th-Highest MDA8 to Attain Ozone NAAQS

Monitor	4 th -Highest MDA8 (ppb)		Maximum Allowable 4 th -Highest MDA8 to Attain NAAQS in 2022
	2020	2021	
San Antonio NW C23	69	70	73
Camp Bullis C58	74	78	60
Calaveras Lake C59	66	66	80

The EPA’s Air Quality Index for ozone defines “moderate” days as those having MDA8 between 54 and 70 ppb, and “unhealthy for sensitive groups” days as those with MDA8 between 71 and 85 ppb. So far this year there have been 22 moderate ozone days, which is about average for mid-May. March had an unusually high number of moderate ozone days, while April and May-to-date have been below normal. There have been no days so far this year that have been unhealthy for sensitive groups. The current four highest MDA8 values for 2022 are shown in Table 2.

Table 2: Four Highest MDA8 at Bexar County Regulatory Monitors, 2022

Monitor Site	Date	PPB	Date	PPB	Date	PPB	Date	PPB
San Antonio NW C23	4/3/2022	64	3/26/2022	59	3/25/2022	59	3/1/2022	57
Camp Bullis C58	4/3/2022	66	3/26/2022	64	3/25/2022	64	3/16/2022	62
Calaveras Lake C59	3/25/2022	61	3/1/2022	58	4/2/2022	55	3/16/2022	55

* As of 5/15/2022; Ozone data validated through January 2022

According to these figures, CAMS 58 Camp Bullis already exceeds the maximum allowable fourth-highest MDA8 to be able to attain the standard this year.

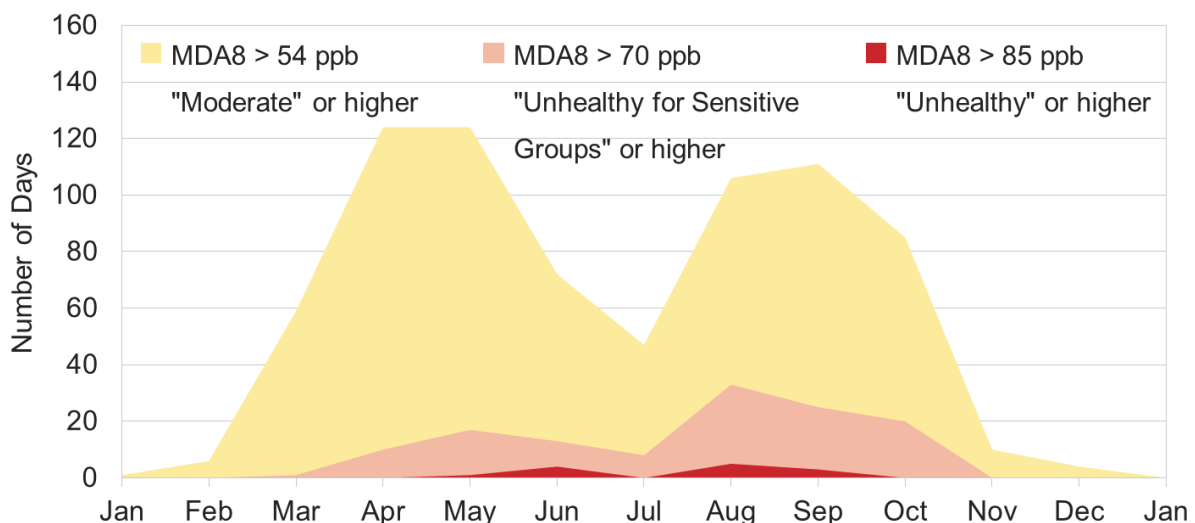
The Texas Commission on Environmental Quality (TCEQ) issues Ozone Action Day alerts when air quality is expected to be unhealthy for sensitive groups the following day. AACOG offers to forward these alerts to people who sign up to receive them at <http://www.aacog.com/list.aspx>. In addition, AACOG offers complimentary Ozone Action Day Alert flags for area schools to display when high ozone levels are predicted. Ozone Action Day alerts warn people, especially those sensitive to pollution (older people, children, and those with underlying respiratory conditions, like asthma), to limit their exposure outdoors. It is also an opportunity for the public to take measures to mitigate their contribution to pollution by reducing energy consumption at home and by driving less. Ozone Action Day alert verification statistics for 2022 are listed in Table 3 and will be updated as they are issued, or on days when MDA8 exceeds 70 ppb and no alert is issued. So far in 2022 there have been two Ozone Action Day issued, neither of which materialized.

Table 3: Ozone Action Day Statistics, 2022

Date	Alert?	Peak MDA8	Verified?
3/25/2022	Yes	64 ppb	No
5/6/2022	Yes	56 ppb	No

Figure 1 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 cleaner air into the region.

Figure 1: Ozone Exceedances at Regulatory Monitors by Monthly Period, 2010-2021

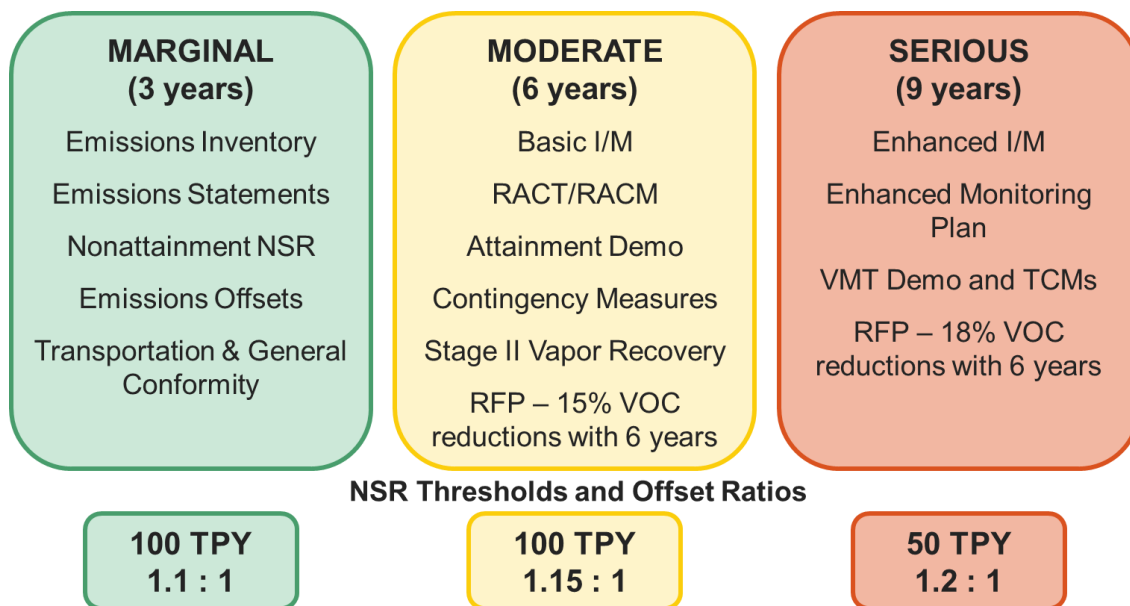


San Antonio - New Braunfels MSA Ozone Status

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 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 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 is currently designated nonattainment with a marginal classification under the 2015 ozone NAAQS. This designation became effective on September 24, 2018, which 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, and now faces reclassification to moderate nonattainment, which was formally proposed on April 13.

Figure 2: Marginal, Moderate, and Serious Nonattainment Federal Regulations



Failure to meet the ozone NAAQS by the attainment date triggered another three-year deadline of September 24, 2024, making the new attainment year 2023. This means that 2021 ozone data will be used to calculate the design value that will be used to determine attainment. Failure to attain by this new deadline will result in another reclassification to serious nonattainment. The federal regulations required to be implemented in marginal, moderate, and serious nonattainment areas are shown in Figure 2.

The 2021 ozone season ended with two regulatory monitors in Bexar County continuing to show violations of the NAAQS through 2021: CAMS 23 San Antonio NW at Marshall High School and CAMS 58 Camp Bullis (Table 4).

Table 4: Four Highest MDA8 at Bexar County Regulatory Monitors, 2021

Monitor	Fourth-Highest MDA8 (ppb)			Preliminary 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

*All 2021 ozone data has been validated by TCEQ and will be certified by EPA no later than May 2022

The design value trend from 2012 - 2021 at each regulatory monitor is shown in Figure 3. Although a downward trend was noted through 2016, design values have remained relatively steady since then.

Figure 3: Design Value Trend at Bexar County Regulatory Monitors, 2012 - 2021

