



## Paso del Norte Air Quality Report

October 20, 2022

Dr. Carlos Rincon, US EPA Region 6

# \*Overview

- Current air monitoring networks
- January - September 2022 data by pollutant with design values for each country
- Open discussion

# El Paso del Norte Airshed Air Quality Monitors

## El Paso del Norte Airshed Air Quality Monitors

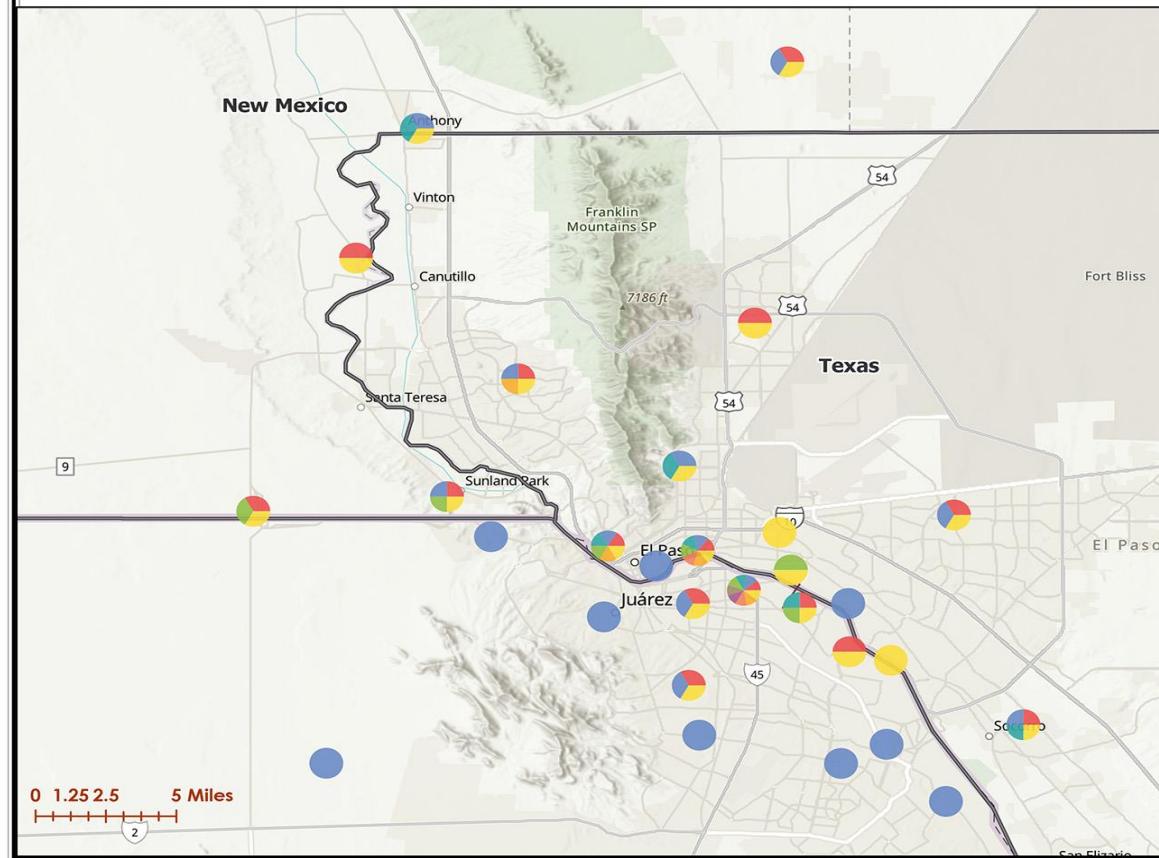
April 2021

Map Requested by TCEQ Office of Air



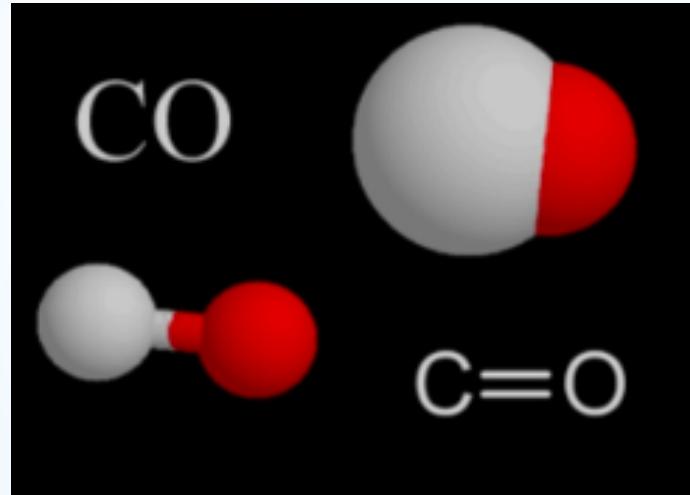
Protecting Texas by  
Reducing and  
Preventing Pollution

Texas Commission on Environmental Quality  
GIS Team (Mail Code 197)  
P.O. Box 13087  
Austin, Texas 78711-3087  
Date: 6/24/2022  
CRF 0073205  
Cartographer: CHoddePi



Source: The location of the facility was provided by the TCEQ Office of Air.

This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (312) 239-0800.

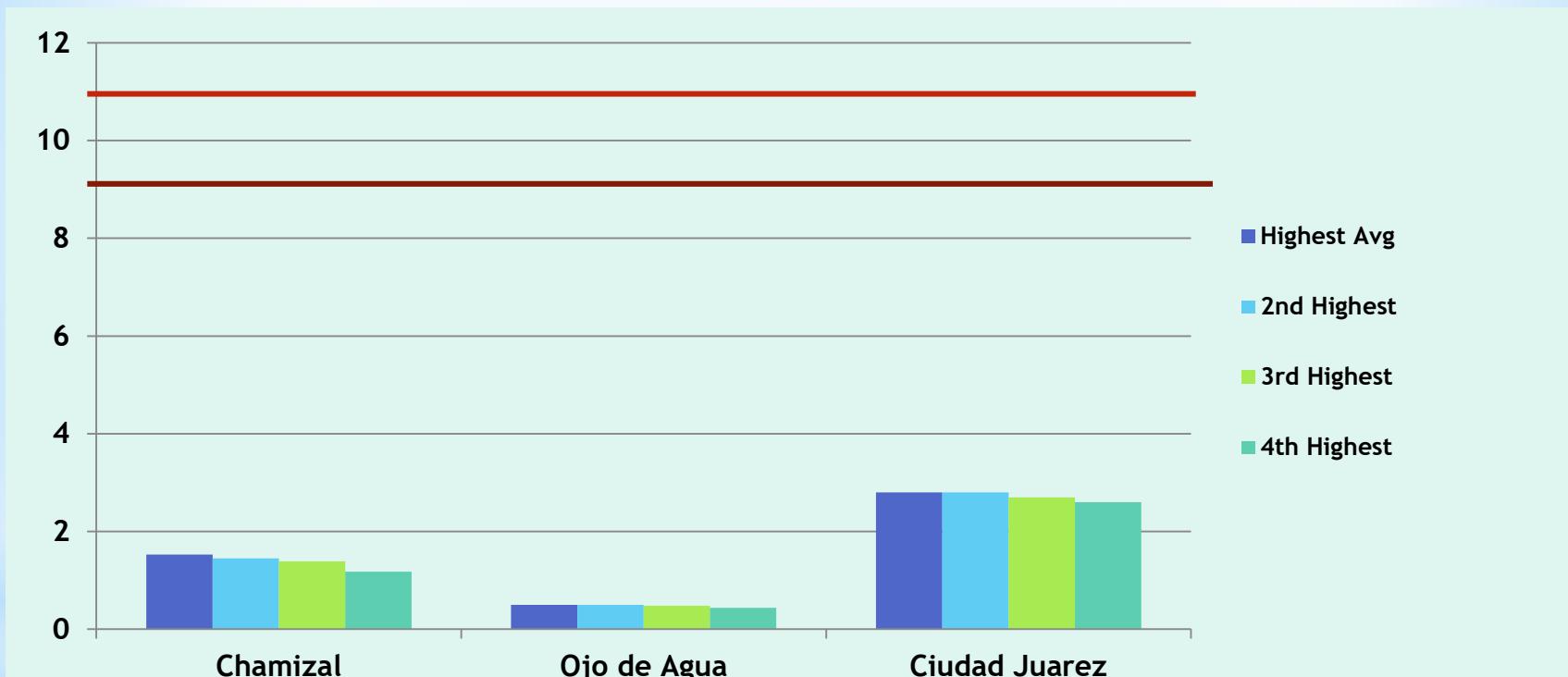


\*Carbon monoxide (CO)  
Monóxido de carbono

# CO 8 Hr. Averages Four Highest Values in (ppm)

## El Paso and Ciudad Juarez

### (January - September 2022)



The U.S. federal standard, **9.0 ppm**, is violated when more than one reading at the same monitor in one calendar year is at or above that value.

The Mexico federal standard is a highest allowable limit of **11 ppm**.

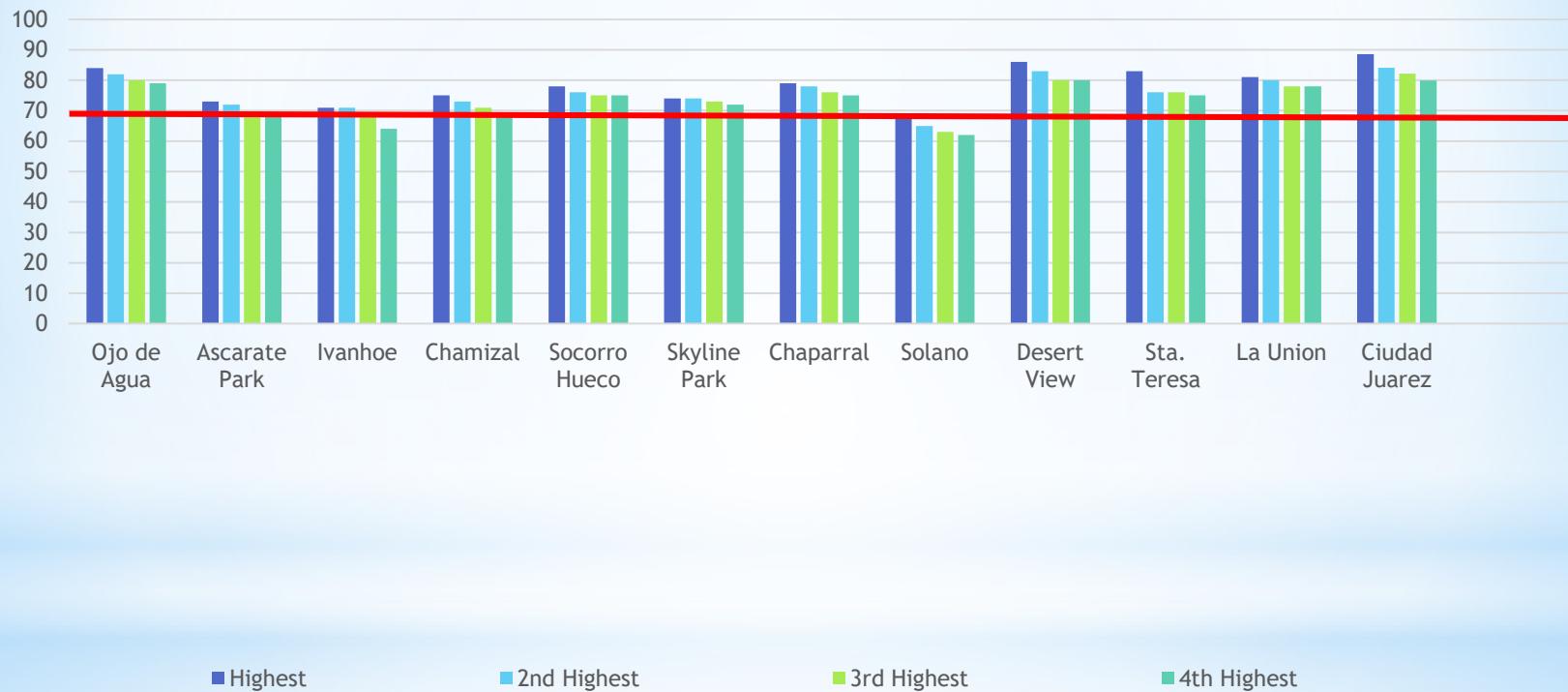


\*Ozone (O<sub>3</sub>)  
Ozono

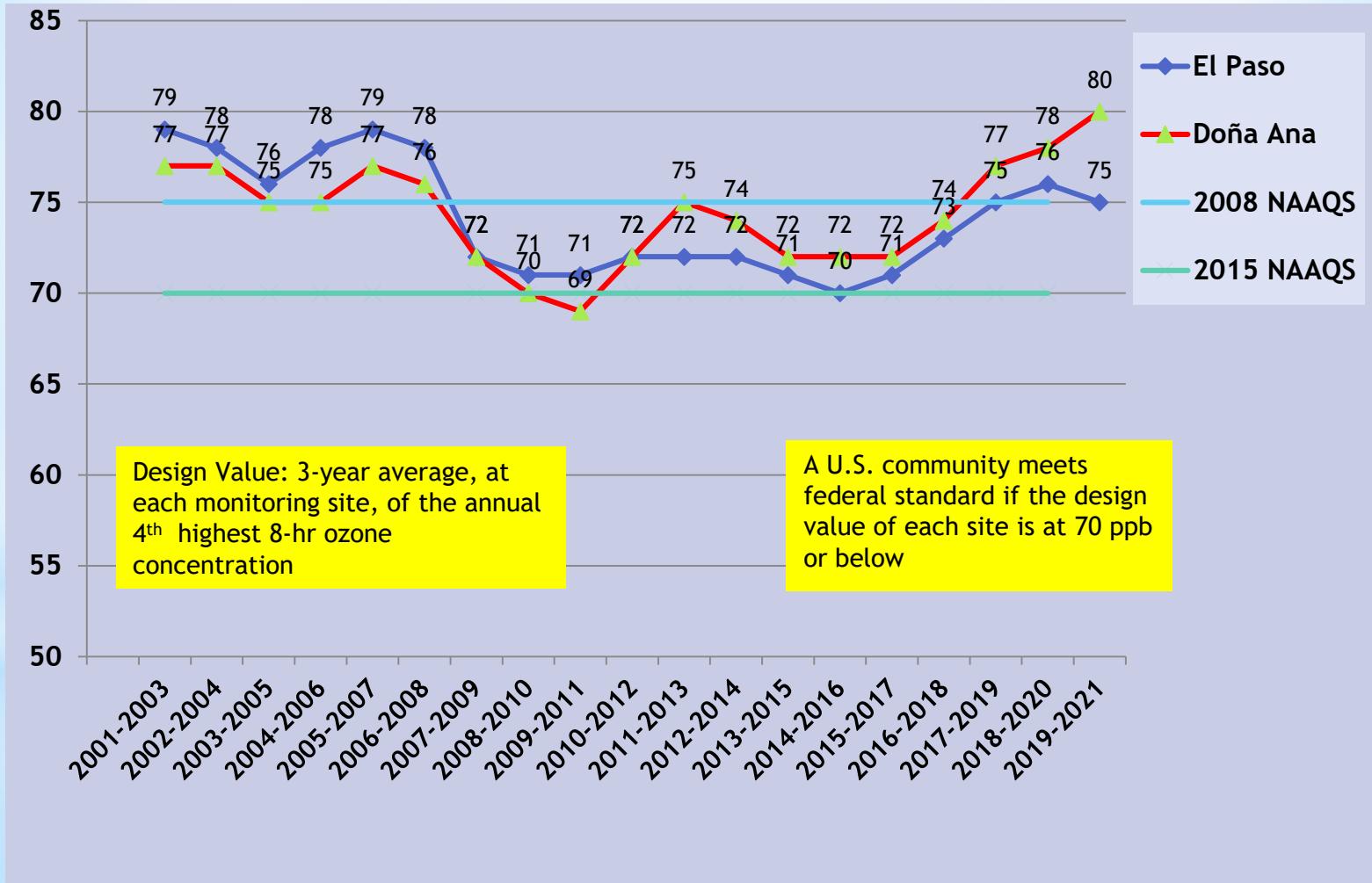
**\*Ozone 8-Hour Averages**  
**Highest Values at Monitors in the Paso del Norte**  
**(January - September 2022)**

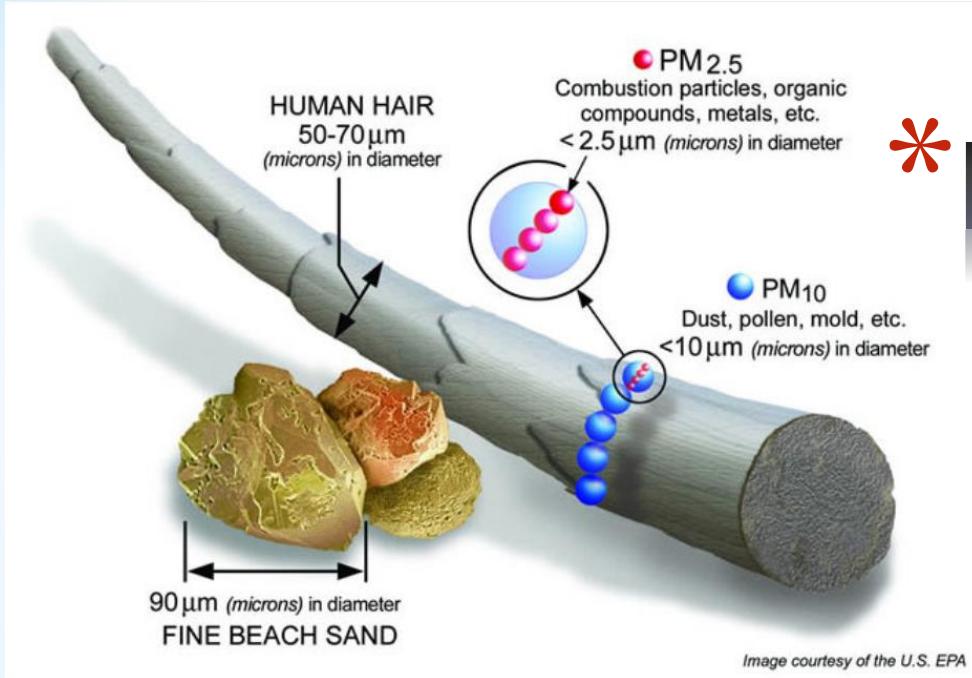
El límite máximo permisible en México para O<sub>3</sub> es de **70 ppb** ppm en promedios móviles de 8 horas.

U.S. federal standard:  
**70 ppb** for the 3-year average of the 4<sup>th</sup> highest value



\* Ozone 8-Hr. Design Values  
El Paso and Doña Ana County  
(highest value of all sites in each area, 2003 - 2021)



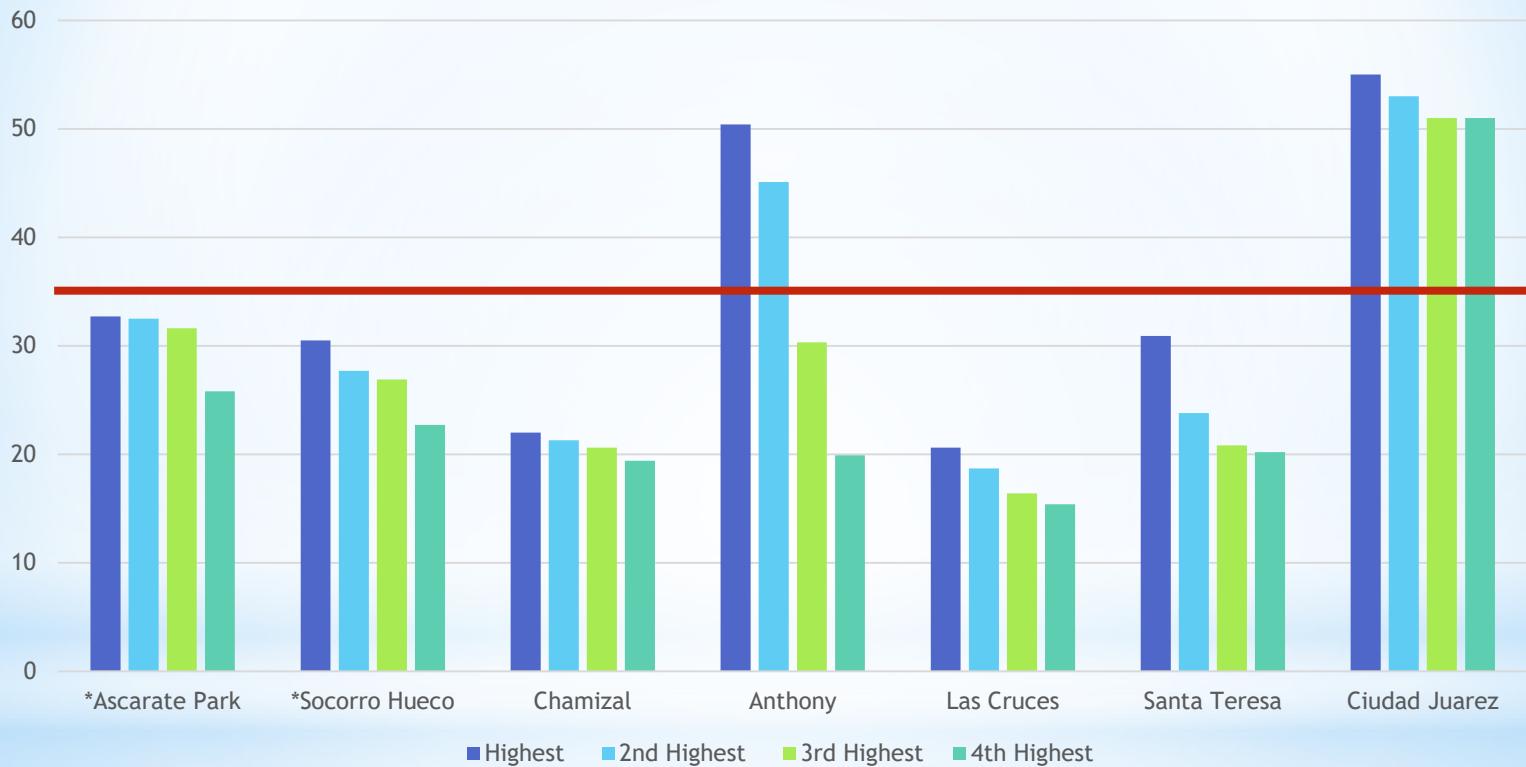


\*PM 2.5

\*PM 10

\*Particulate Matter (pm)  
material particulado

\* **PM<sub>2.5</sub> - Four Highest 24-Hour Averages ( $\mu\text{g}/\text{m}^3$ )**  
**El Paso, Doña Ana County, and Ciudad Juarez**  
**January - September 2022**

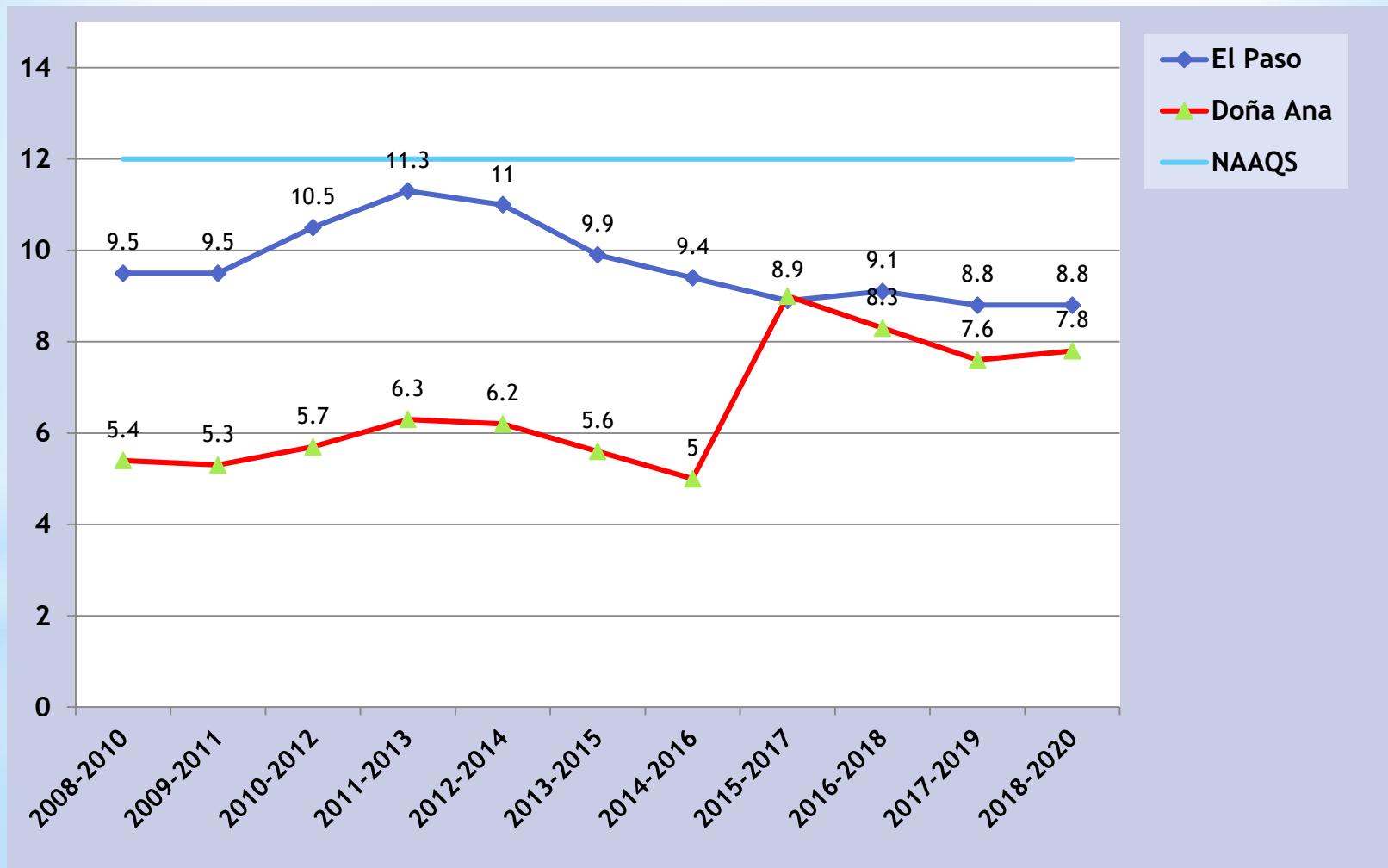


**U. S. federal standards:**  
The standard for 24-hr averages, 35  $\mu\text{g}/\text{m}^3$ , is violated if it is exceeded by the average over any three-year period, of the annual 98th percentile

# $\text{PM}_{2.5}$ Compliance with U.S. Federal Standard El Paso and Doña Ana Counties

Annual Design Value

U.S. Standard: 12  $\mu\text{g}/\text{m}^3$

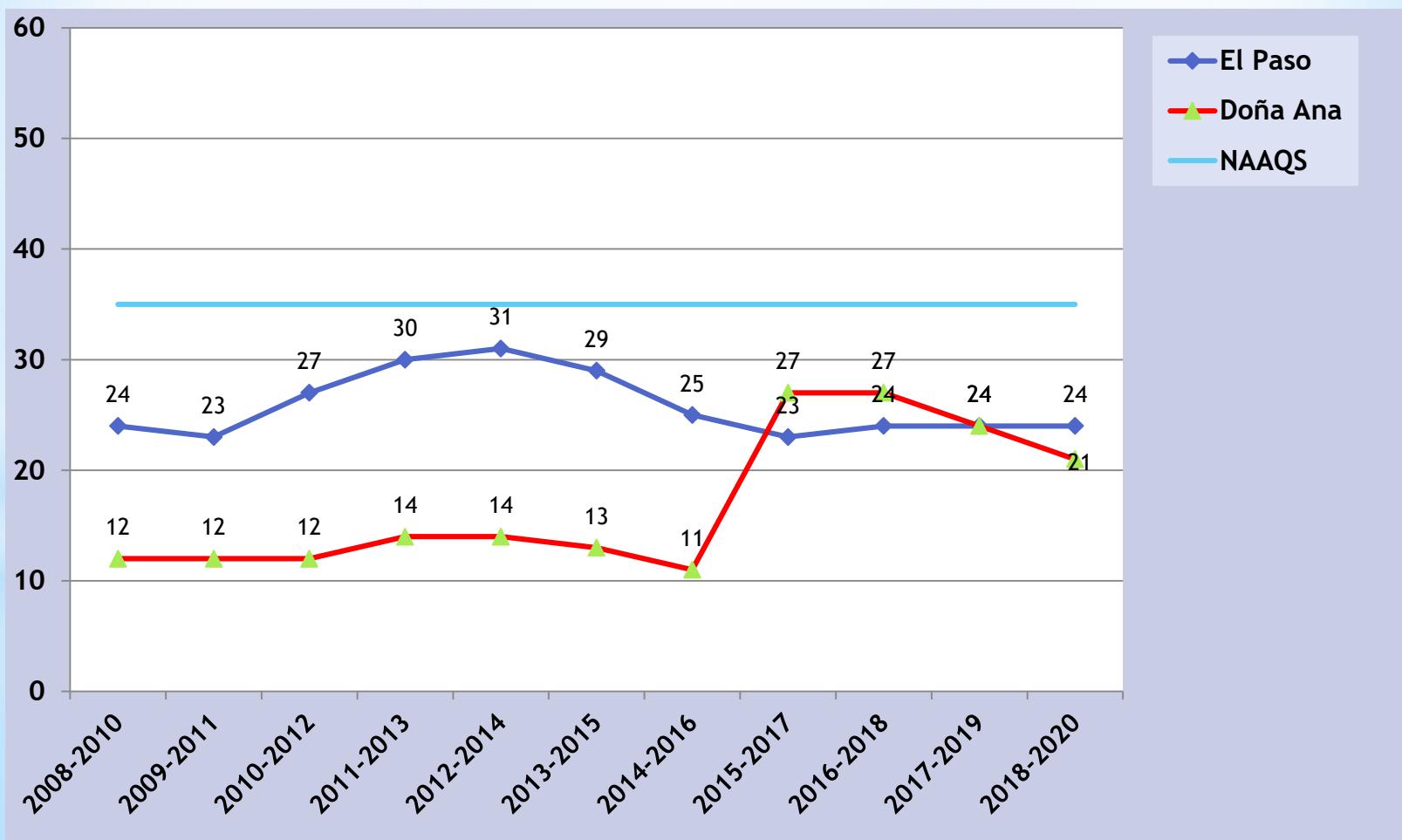


# PM<sub>2.5</sub> Compliance with U.S. Federal Standard El Paso and Doña Ana Counties

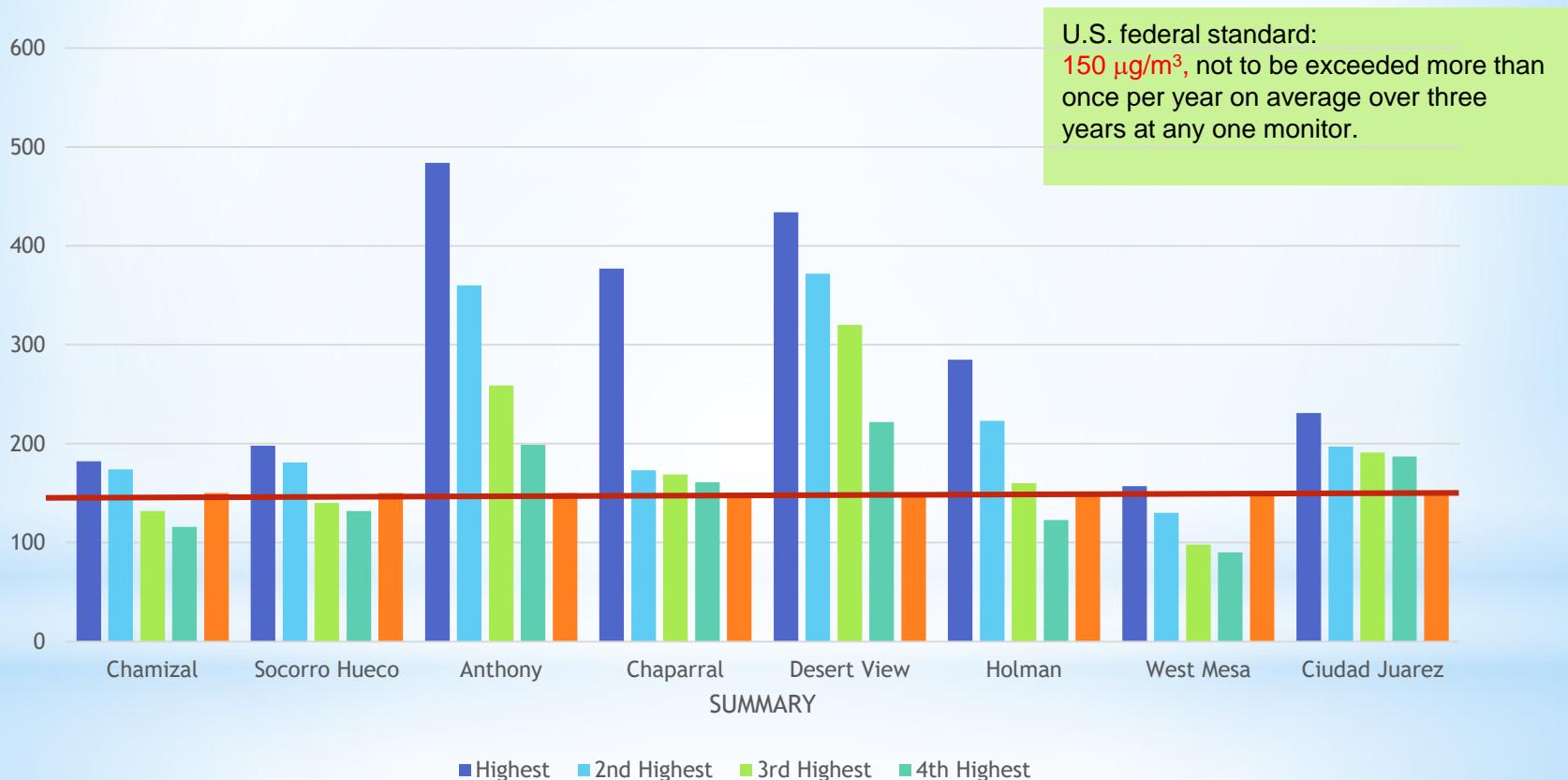
## 24-Hour Design Value

U.S. Standard

35 µg/m<sup>3</sup>



# PM10 Four Highest 24-Hour Averages ( $\mu\text{g}/\text{m}^3$ ) El Paso, Doña Ana County and Ciudad Juarez January - September 2022



# \*PM10 24-Hour Design Values El Paso and Doña Ana Counties 2008 - 2021

## Estimated Number of Exceedances



# Exceptional Events

## High-Wind Blowing Dust PM<sub>10</sub> Exceedances of NAAQS in Doña Ana County

Year	Events	Observed Exceedances	Concentrations ( $\mu\text{g}/\text{m}^3$ )	EPA Review Process
2021	15	31	157 - 769	Pre-early Engagement
2020	8	13	157- 504	Concurrence
2019	8	25	156-734	Concurrence
2018	7	18	158-326	Concurrence
2017	11	27	157-721	Concurrence
2016	11	28	162-689	Concurrence

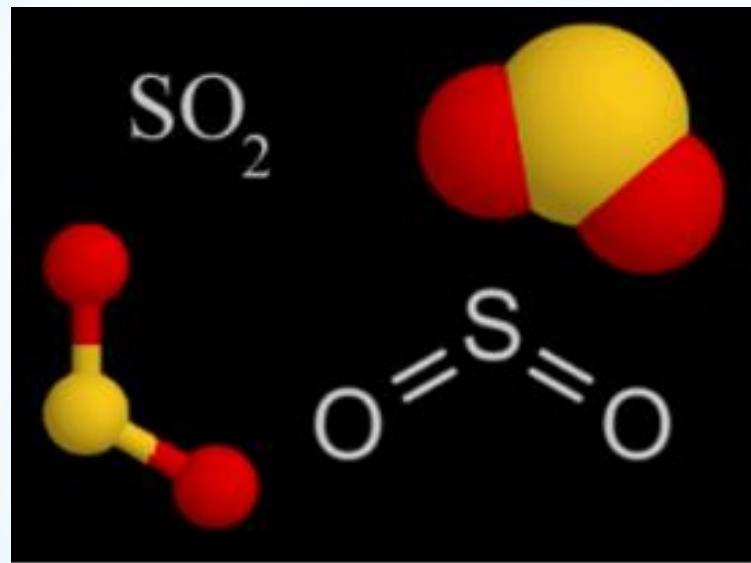
# Cumplimiento con los límites de exposición crónica | Media aritmética anual 2022

## Compliance with exposure limits | Annual arithmetic mean 2022

Parámetro Parameter	Límite de exposición crónica anual Annual exposure limit	Promedio trimestral Quarterly mean
PM <sub>2.5</sub>	10 µg m <sup>-3</sup>	40*
PM <sub>10</sub>	36 µg m <sup>-3</sup>	134*

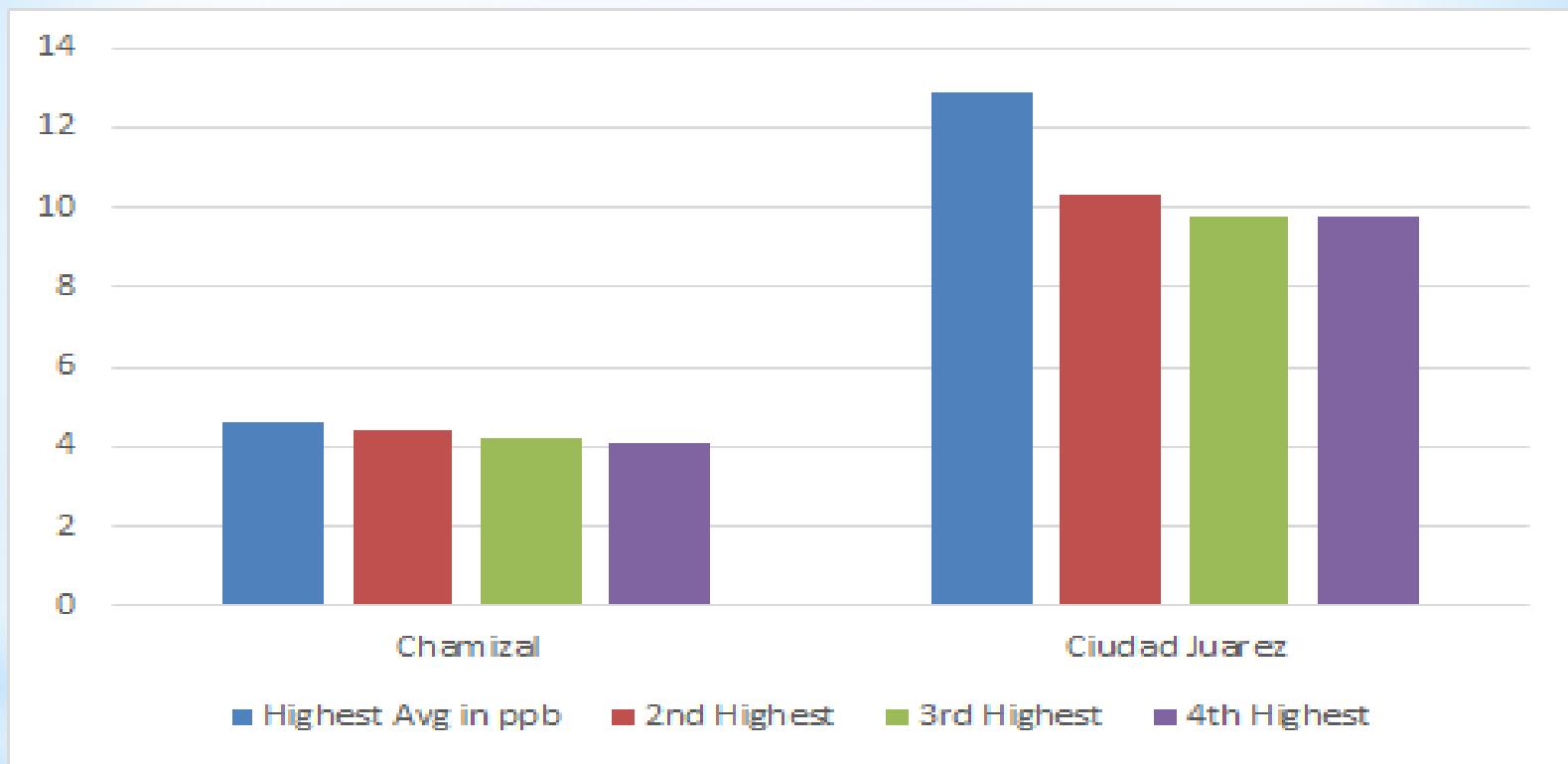
\*Se evalúa sólo el primer trimestre del año

\*\*Dentro de esta información se consideran los eventos de tolvaneras



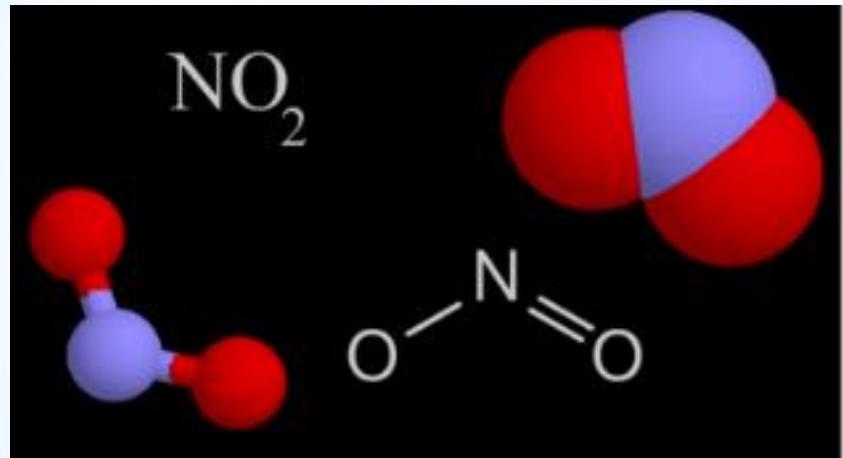
\***Dióxido de azufre  
Sulfur Dioxide  $\text{SO}_2$**

**SO<sub>2</sub>**  
**Four Highest 1-Hour Averages**  
**El Paso and Ciudad Juarez**  
**(January - September 2022)**



U.S. federal standard:  
76 ppb 99th percentile of 1-hour daily maximum concentrations, averaged over 3 years

The highest allowable limit in Mexico for SO<sub>2</sub> is 75 ppb in 1-hour average.

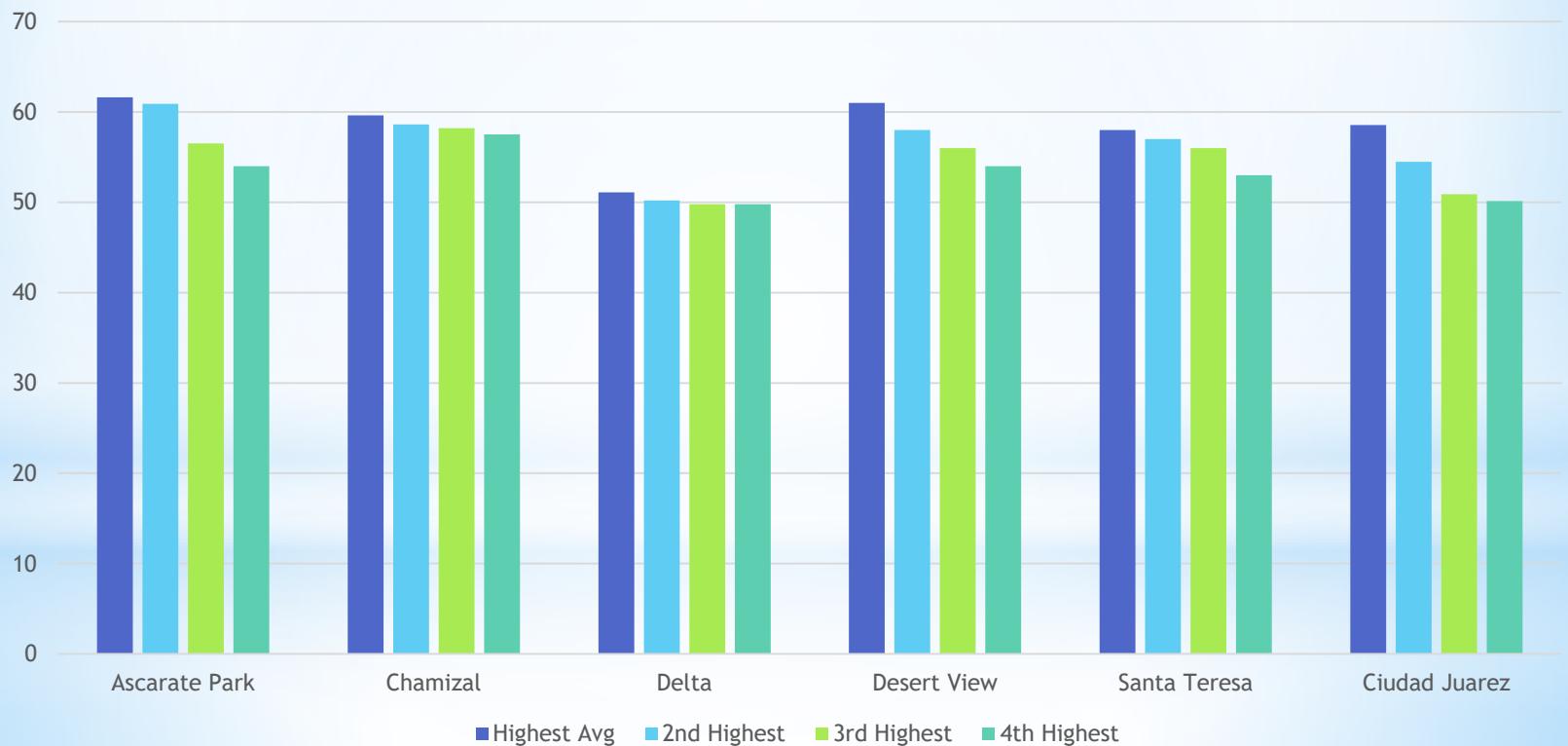


\***Dióxido de nitrogéno**  
**Nitrogen Dioxide NO<sub>2</sub>**

**NO<sub>2</sub>**  
**Four Highest 1-Hour Averages (ppb)**  
**El Paso del Norte**  
**(January - September 2022)**

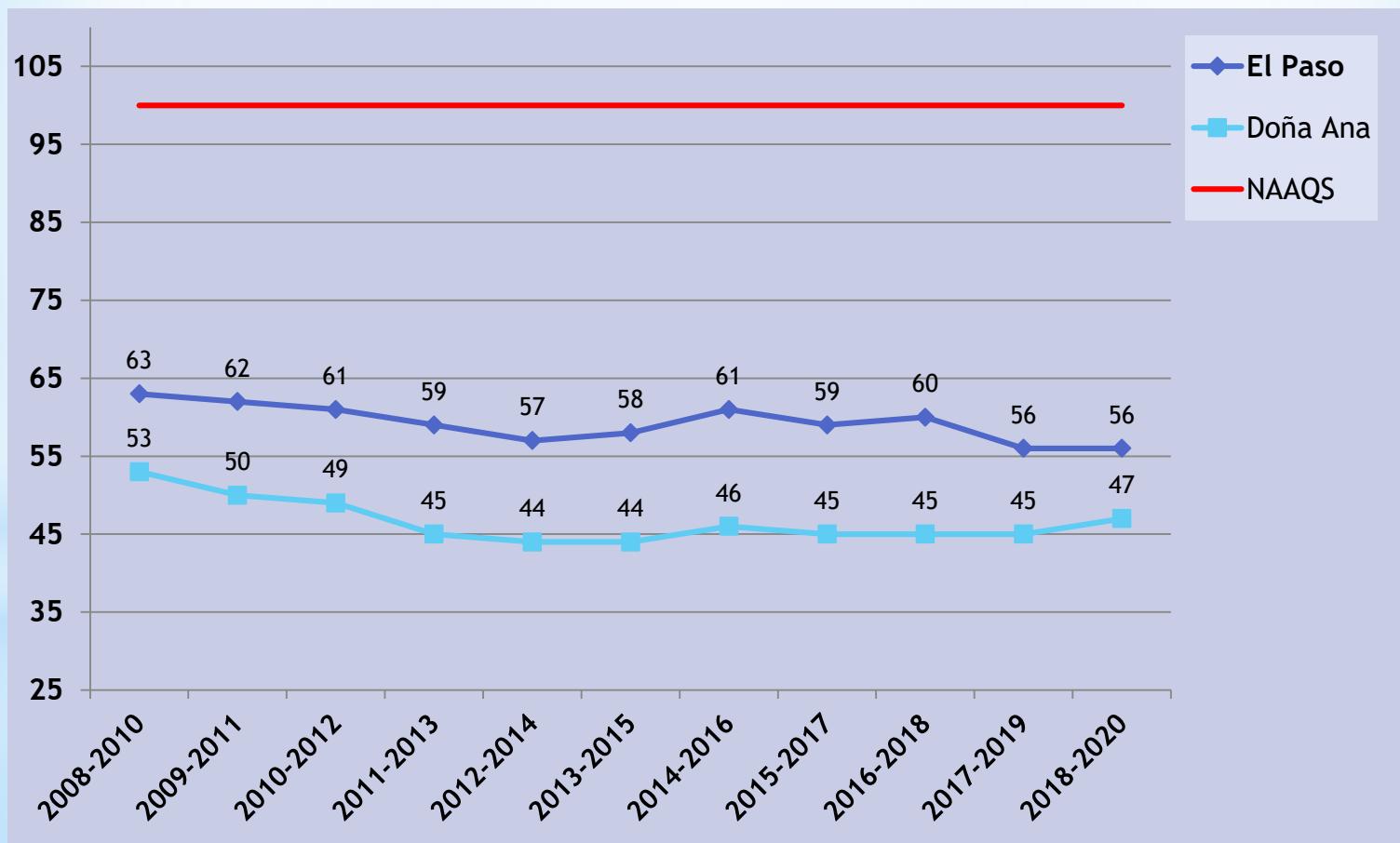
U.S. federal standard:  
100 ppb 98th percentile of 1-hour daily maximum  
concentrations, averaged over 3 years

The highest allowable limit in Mexico  
for NO<sub>2</sub> is 210 ppb in hourly averages.



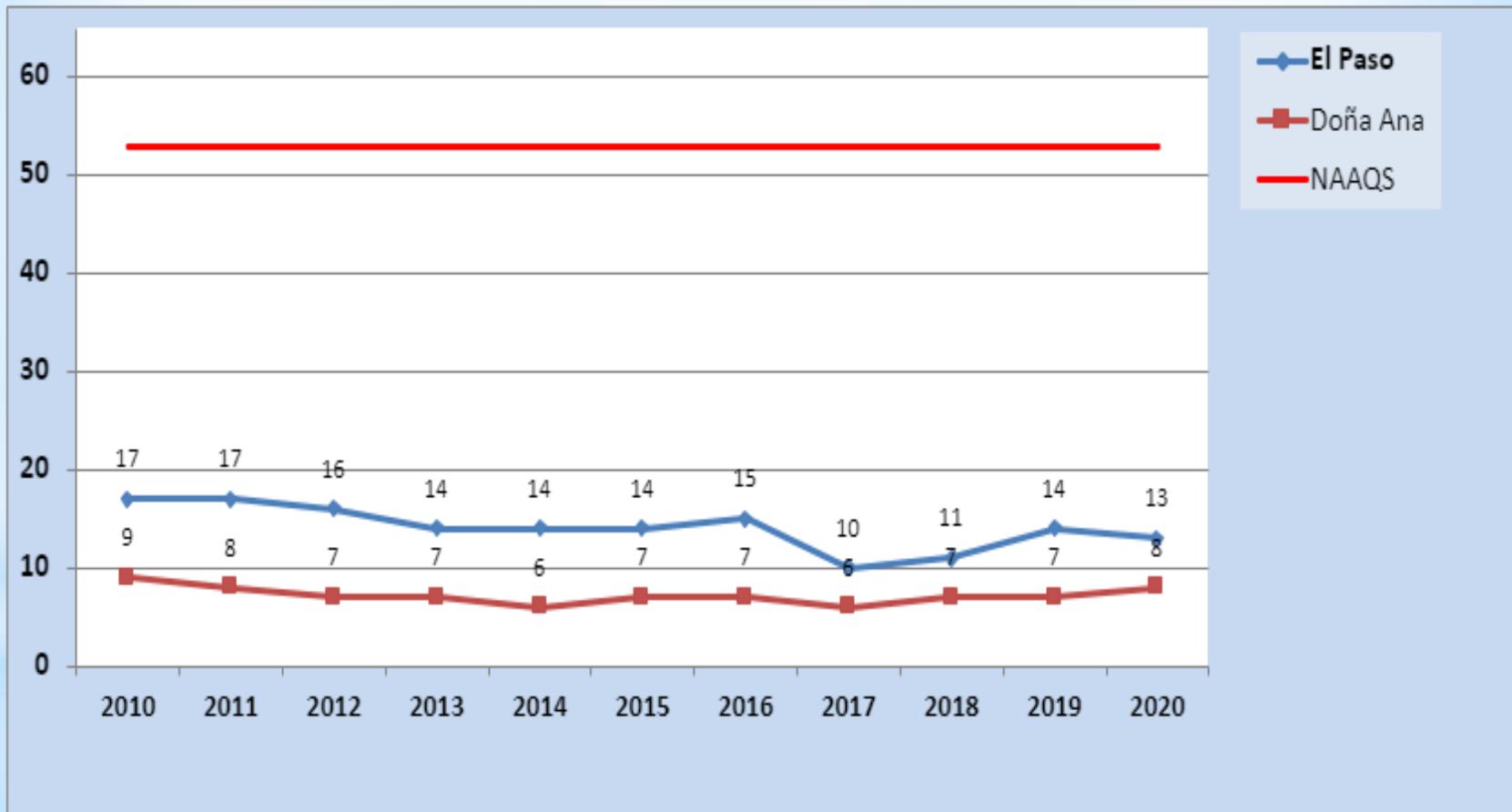
## $\text{NO}_2$ Design Values 1-Hour Averages (ppb) El Paso & Doña Ana Counties

The 1-hour NO<sub>2</sub> NAAQS (100 ppb) is the 3-year average of the annual 98th percentile of the daily maximum 1-hour average concentrations.



## **NO<sub>2</sub>** Design Values Annual Mean (ppb) El Paso & Doña Ana Counties

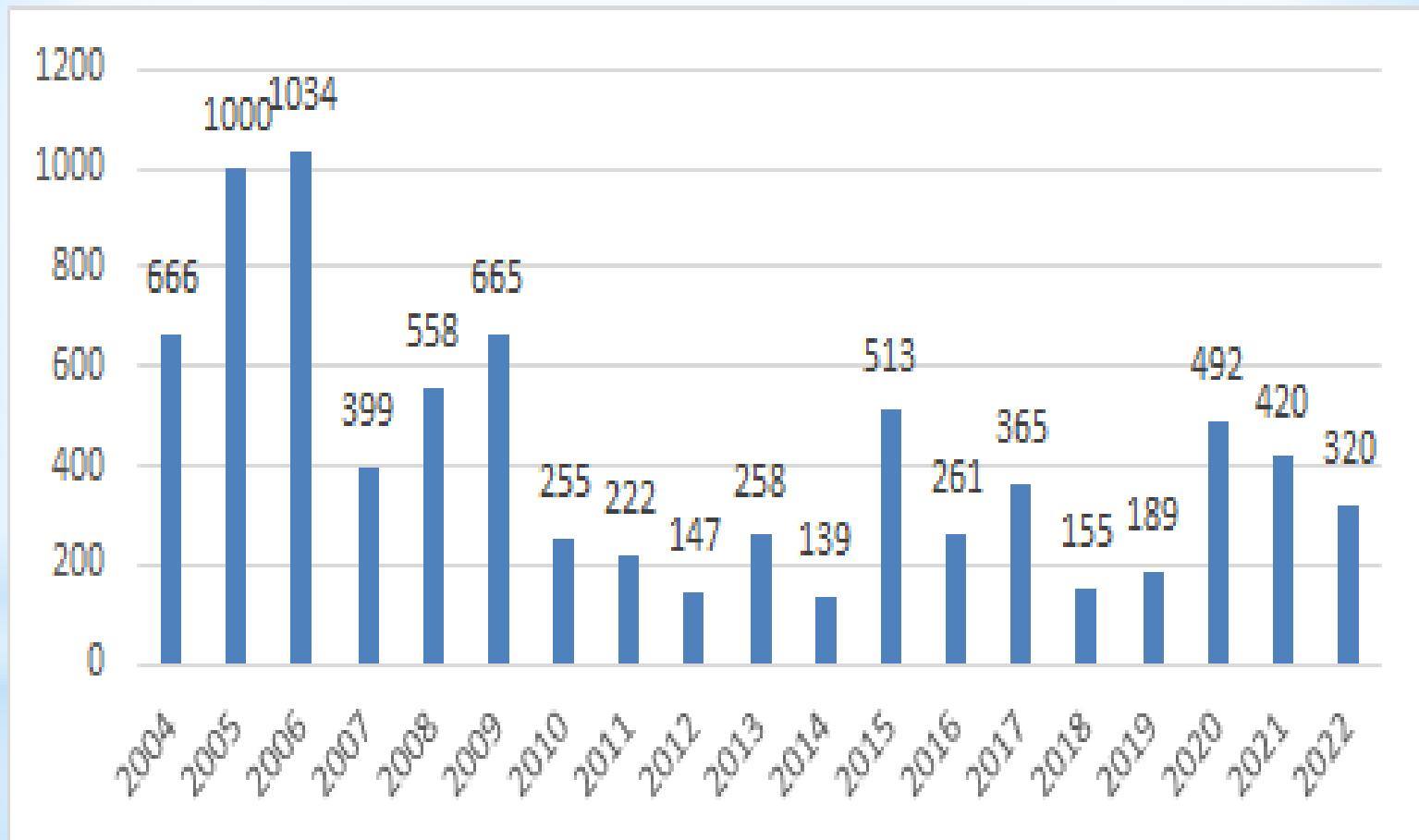
The annual NO<sub>2</sub> NAAQS (53 ppb) is the annual average concentration, averaged over three years.



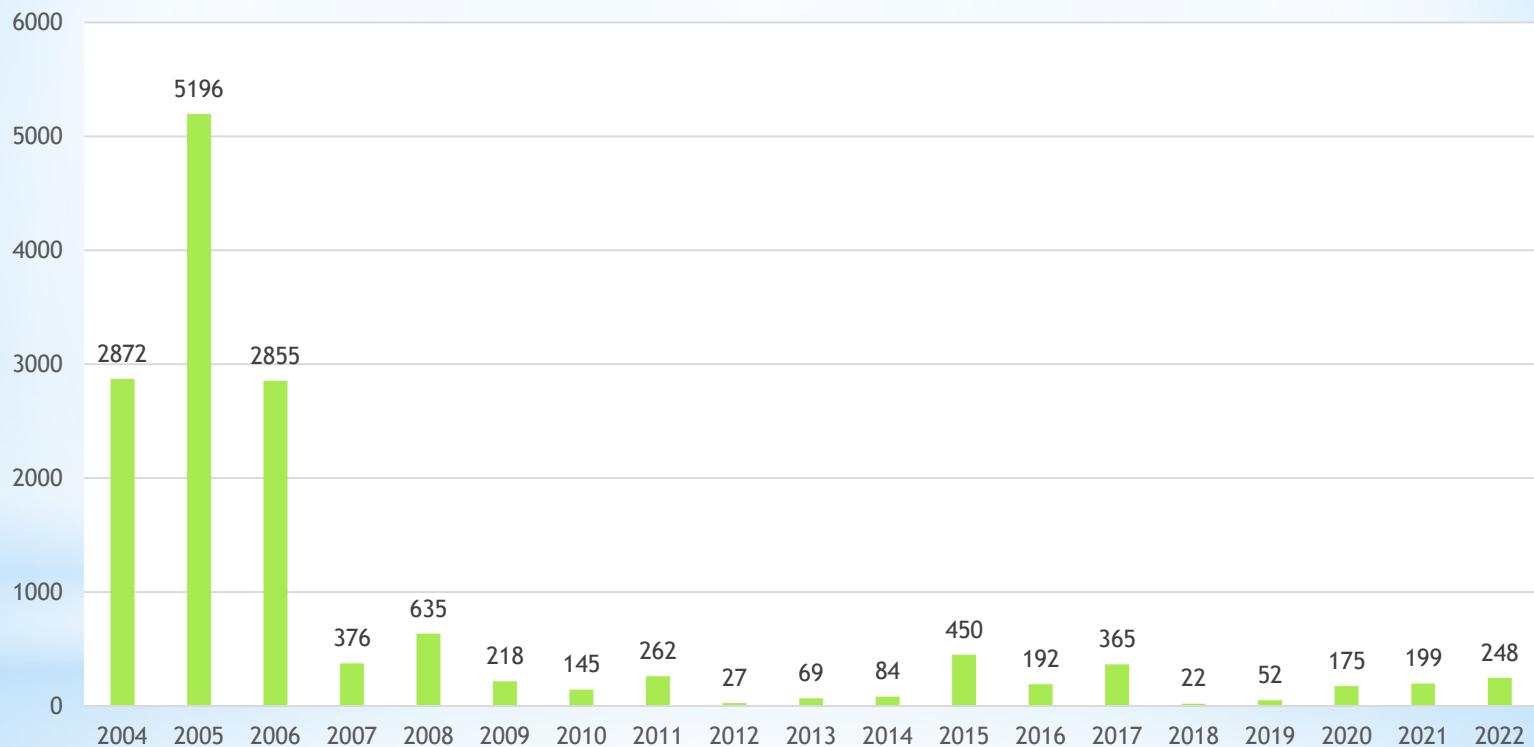


\***Hydrogen Sulfide (H<sub>2</sub>S)**  
**Sulfuro de hidrógeno**

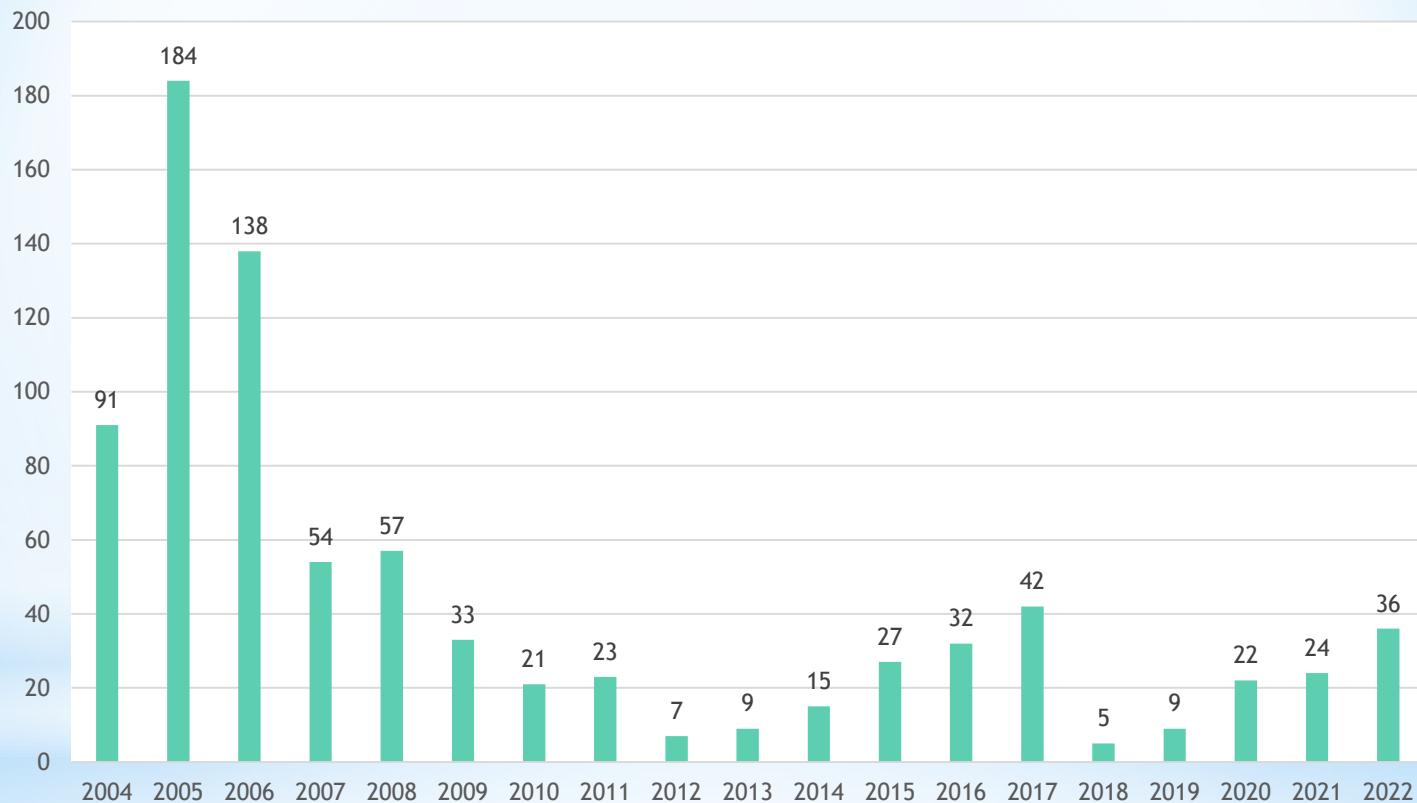
**Hydrogen Sulfide - 30-Minute Averages  
Highest Value (in ppb) Each Year  
at El Paso “Lower Valley” Monitor  
(2004-2022)**



**Hydrogen Sulfide - 30-Minute Averages  
Number of Exceedances (in ppb) Each Year  
at El Paso "Lower Valley" Monitor  
(2004-2022)**



**Hydrogen Sulfide**  
**Number of Days with 30-Minute Exceedances**  
**at El Paso “Lower Valley” Monitor**  
**(2004-2022)**



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- frida.toquinto@uacj.mx



\*Questions?  
¿Preguntas?



\*Thank you!  
Gracias!