



Paso del Norte Air Quality Report

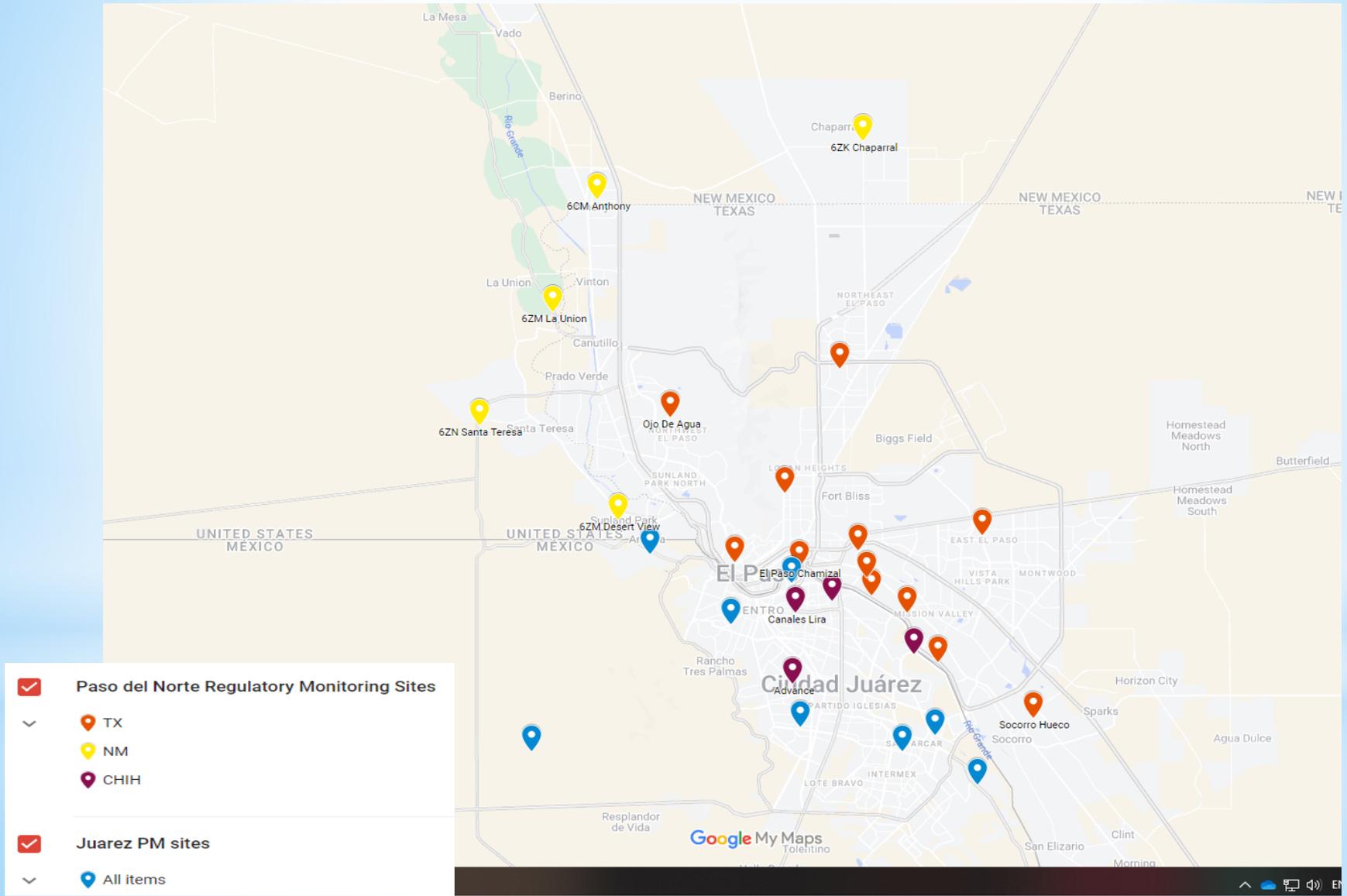
June 23, 2022

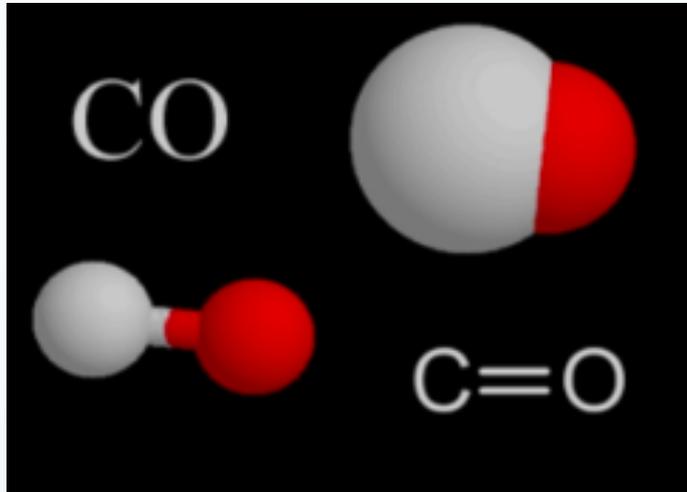
Carlos Rincon, US EPA Region 6

*Overview

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

* Paso del Norte Air Monitoring Stations

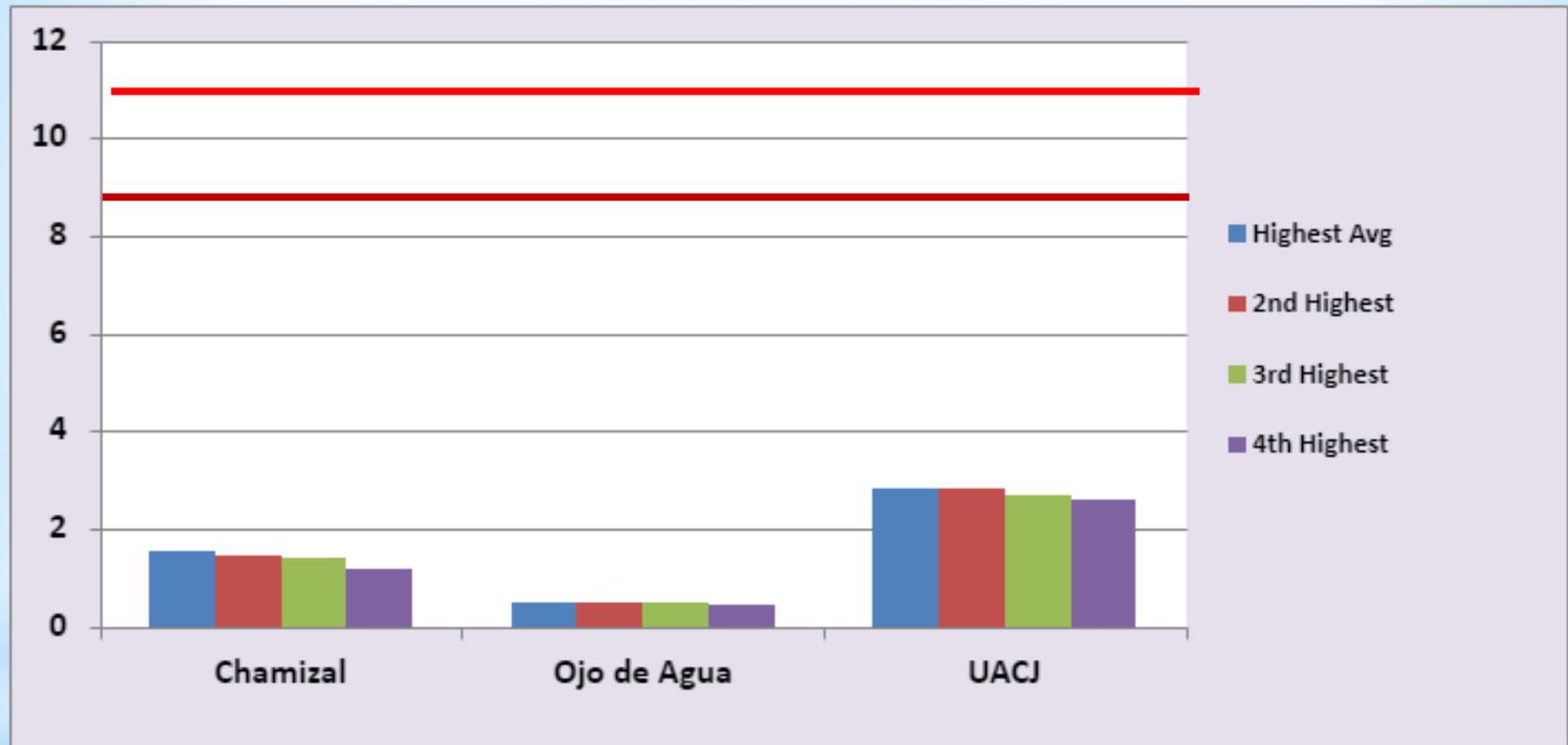




* Carbon monoxide (CO)
Monóxido de carbono

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

El Paso and Ciudad Juarez
(January - May 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**.

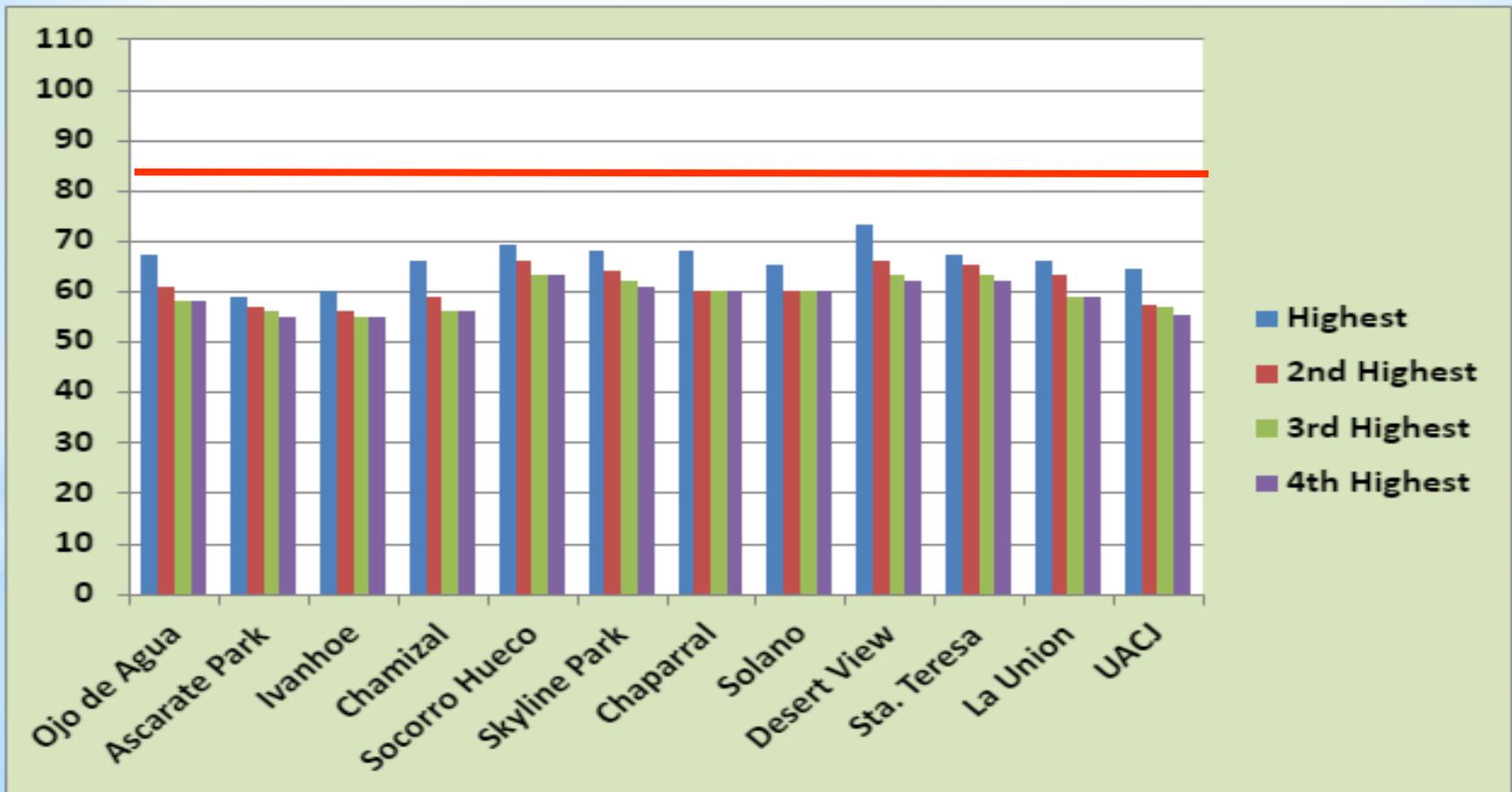


* Ozone (O_3)
Ozono

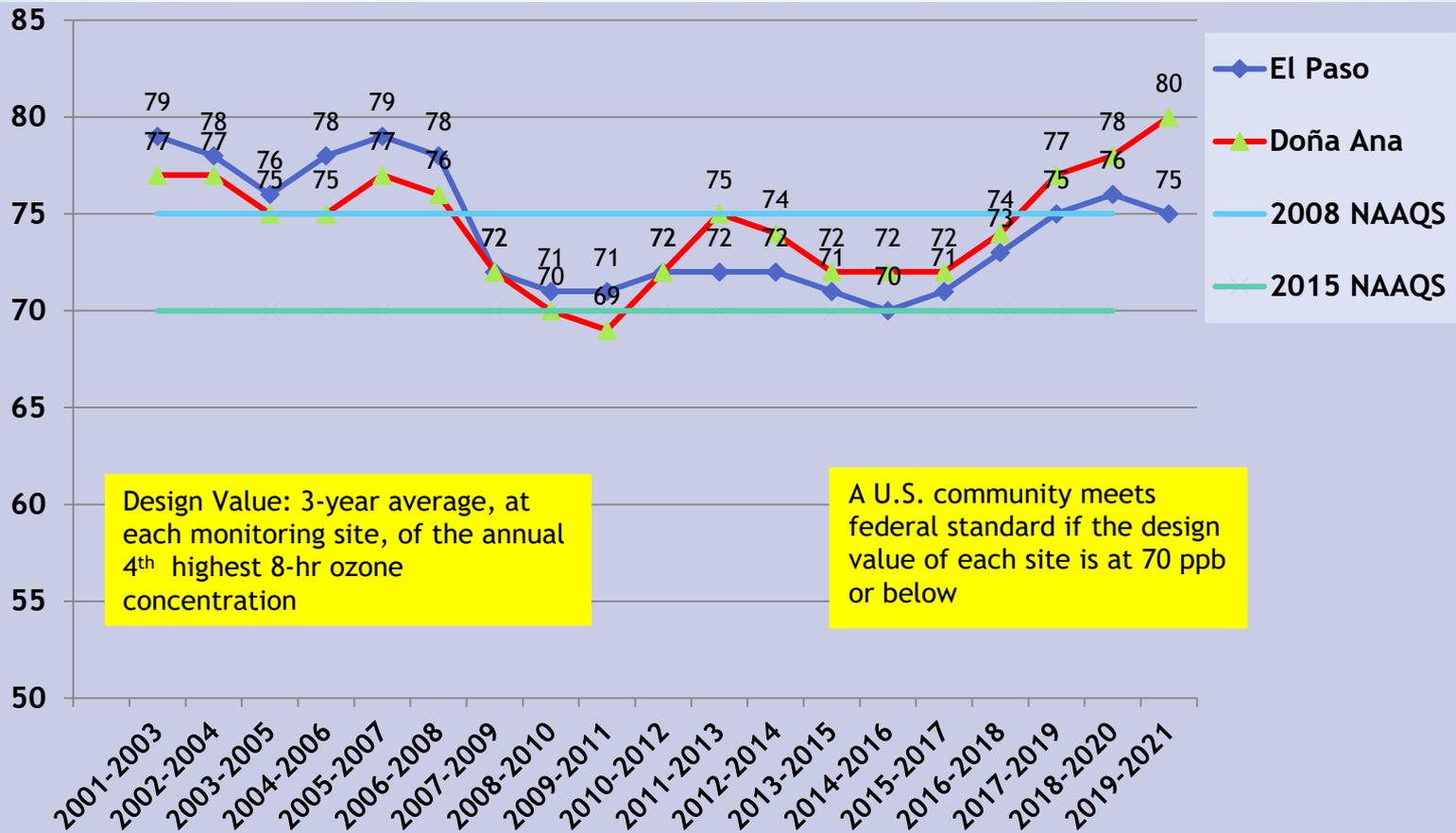
*Ozone 8-Hour Averages Highest Values at Monitors in the Paso del Norte (January - May 2022)

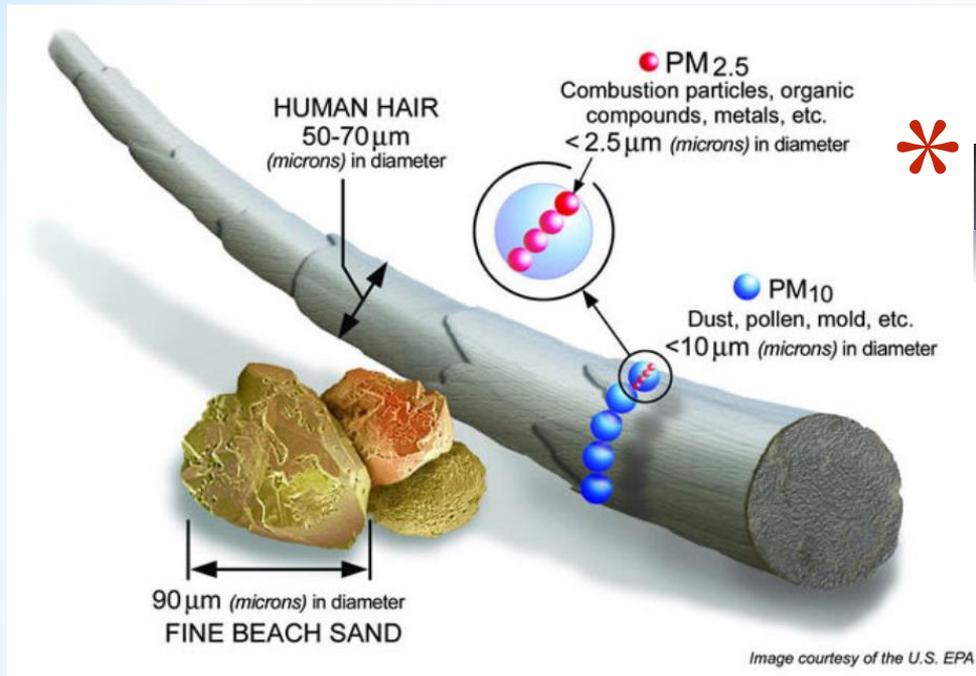
El límite máximo permisible en México para O₃ es de **70 ppb** ppm en promedios móviles de 8 horas.

U.S. federal standard:
70 ppb for the 3-year average of the 4th highest value



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



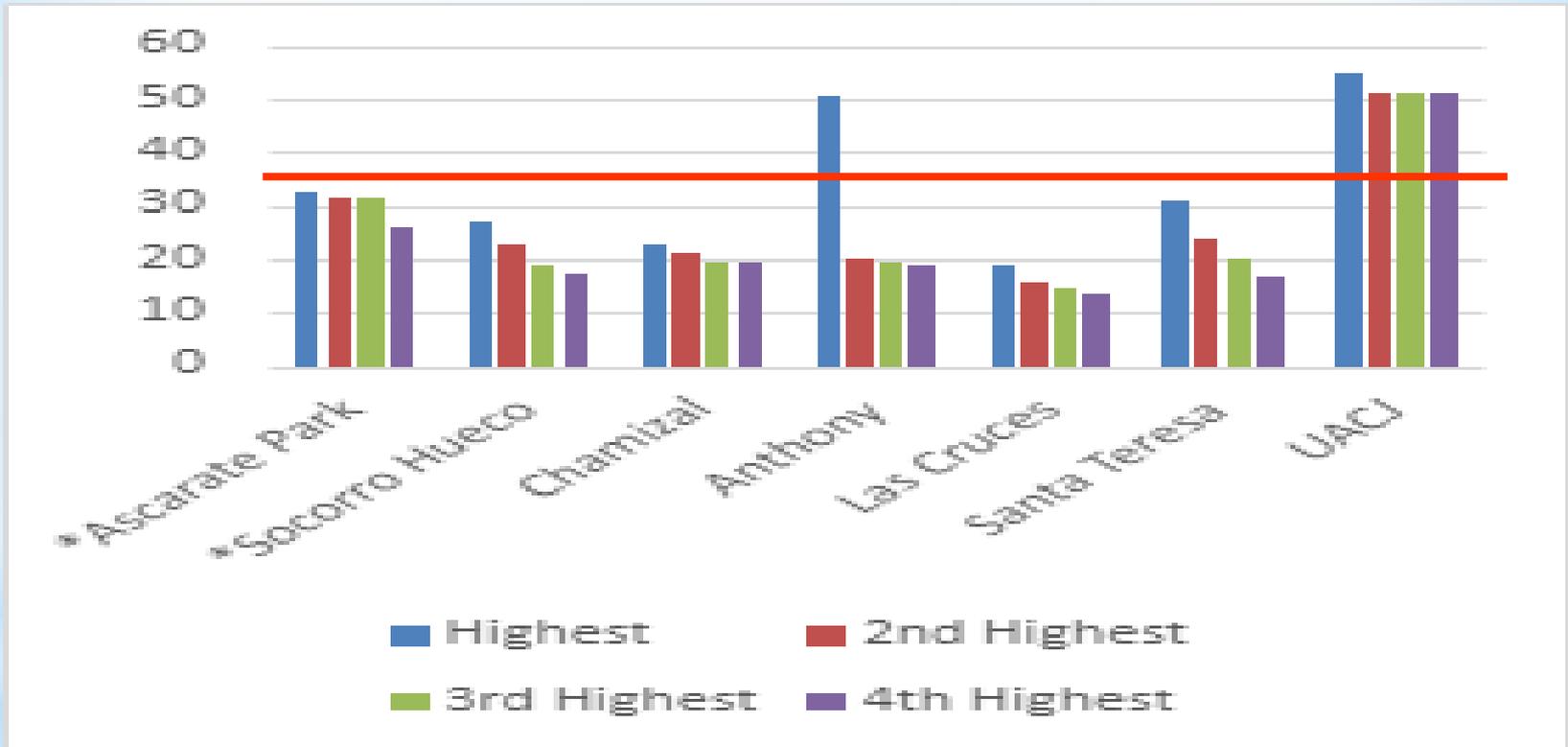


* PM 2.5

* PM 10

* Particulate Matter (pm) material particulado

* **PM_{2.5} - Four Highest 24-Hour Averages (µg/m³)
El Paso, Doña Ana County, and Ciudad Juarez
January - May 2022**

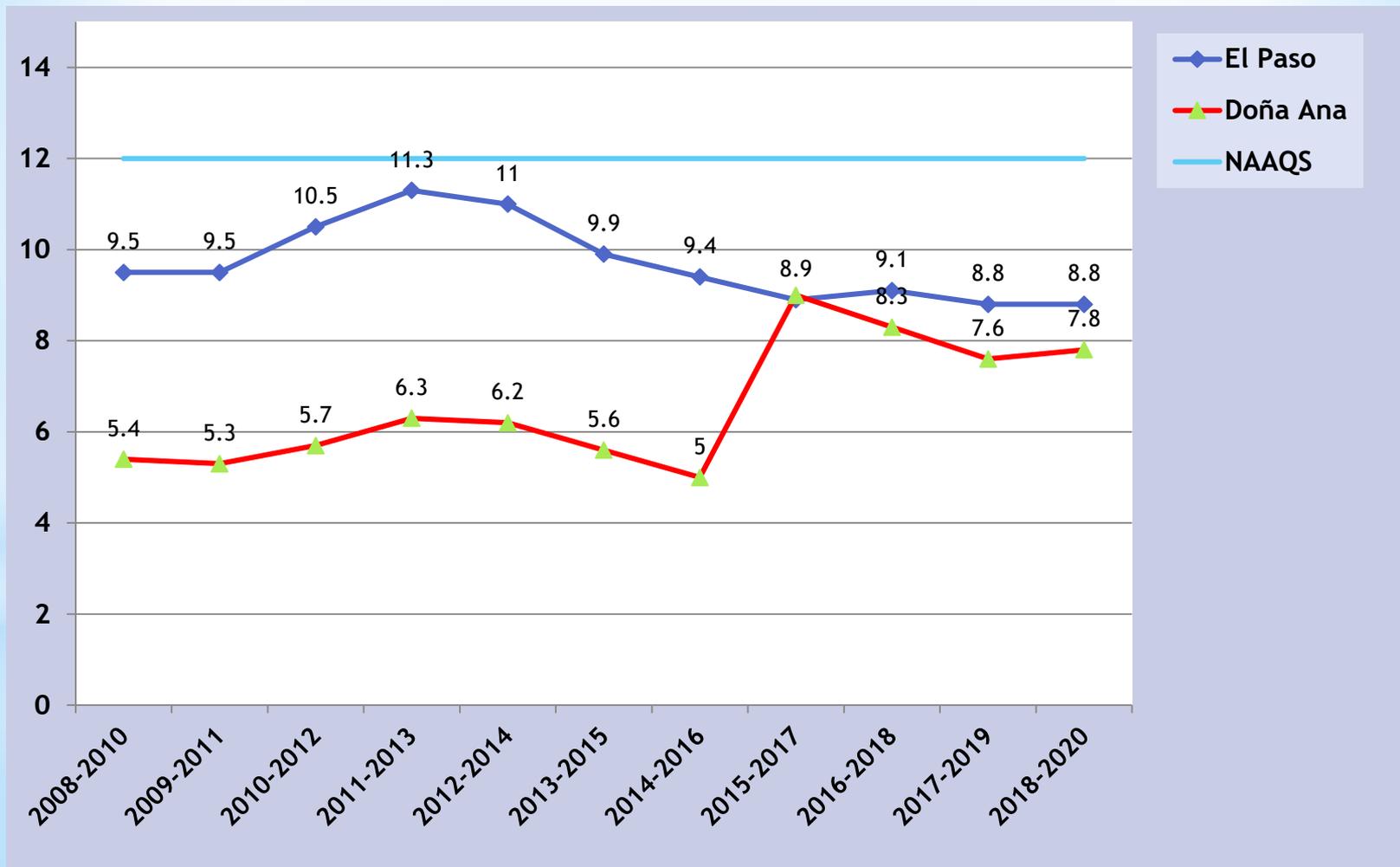


U. S. federal standards:
The standard for 24-hr averages, 35 ug/m³, is violated if it is exceeded by the average over any three-year period, of the annual 98th percentile

PM_{2.5} Compliance with U.S. Federal Standard El Paso and Doña Ana Counties

Annual Design Value

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

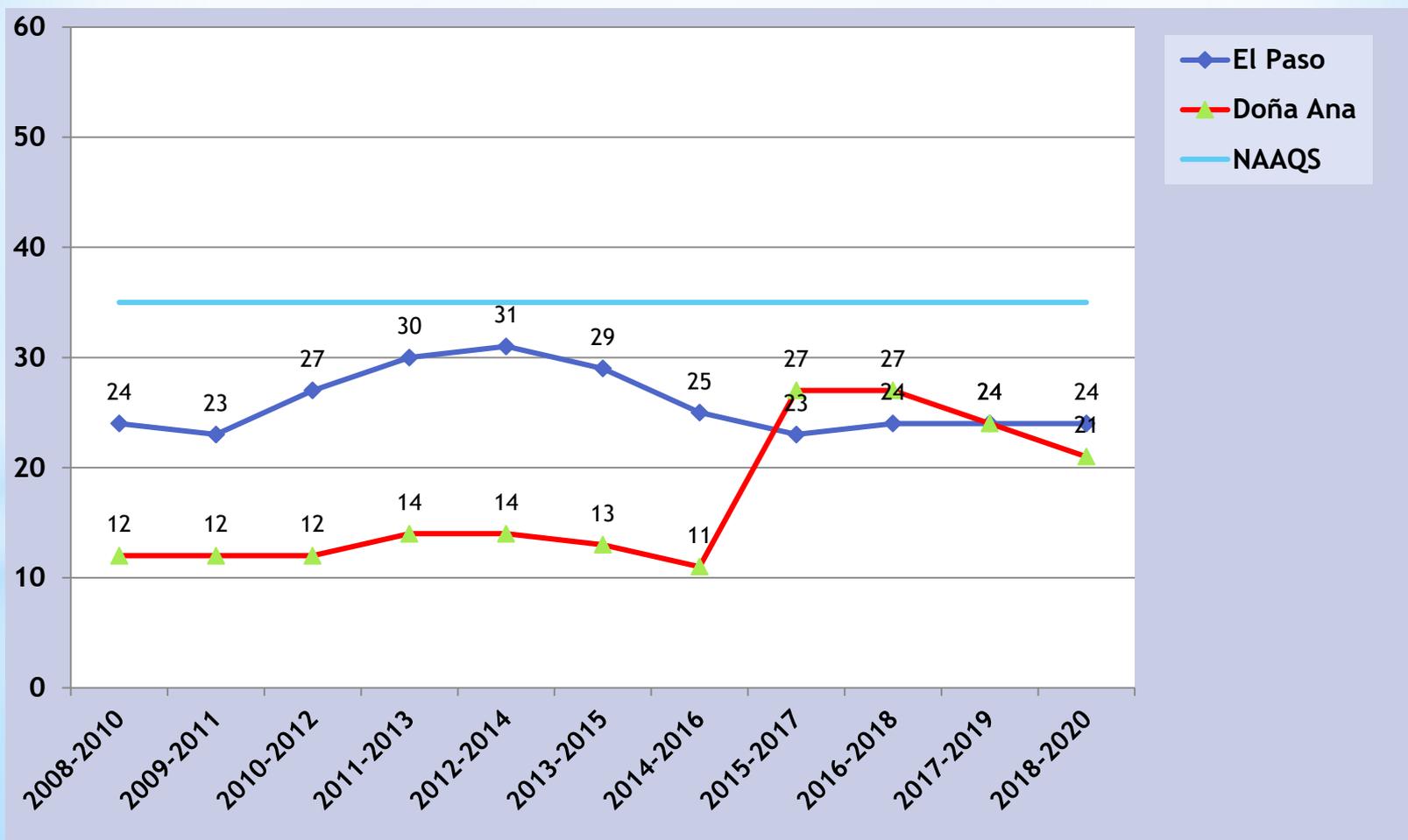


PM2.5 Compliance with U.S. Federal Standard El Paso and Doña Ana Counties

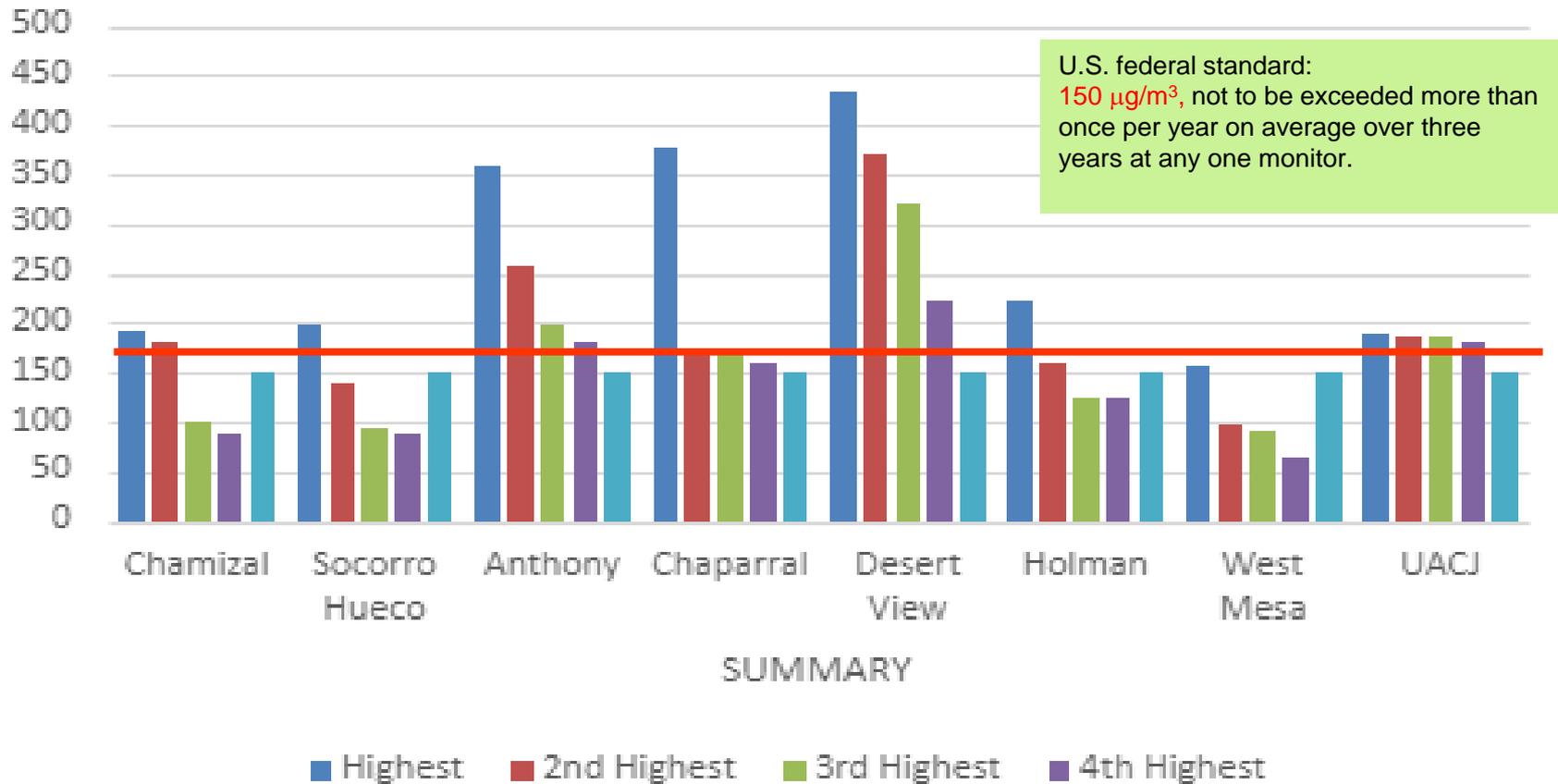
24-Hour Design Value

U.S. Standard

35 $\mu\text{g}/\text{m}^3$

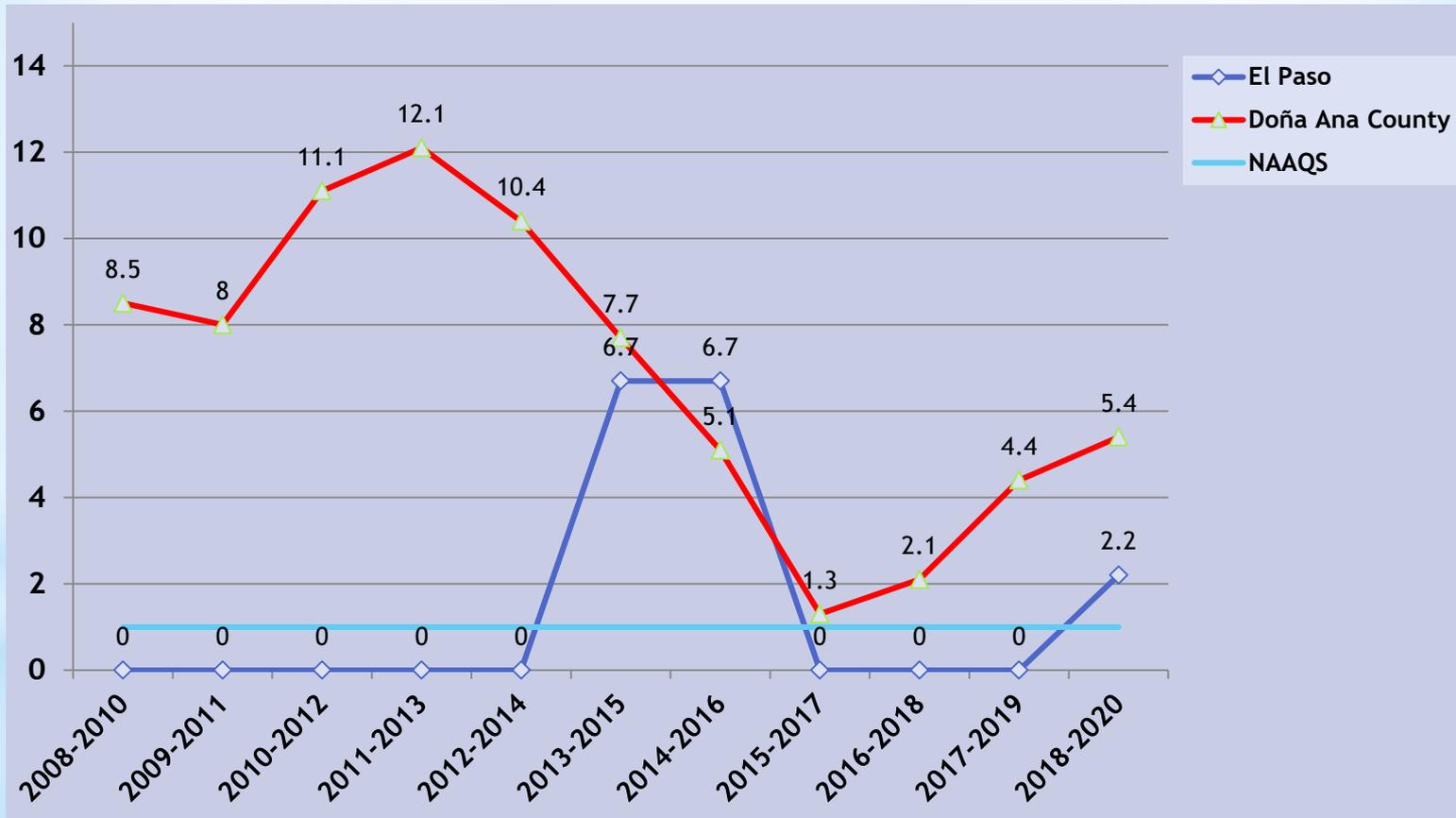


PM10 Four Highest 24-Hour Averages ($\mu\text{g}/\text{m}^3$) El Paso, Doña Ana County and Ciudad Juarez January - May 2022



*PM10 24-Hour Design Values El Paso and Doña Ana Counties 2008 - 2020

Estimated Number of Exceedances



Exceptional Events

High-Wind Blowing Dust PM₁₀ Exceedances of NAAQS in Doña Ana County

Year	Events	Observed Exceedances	Concentrations (µg/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

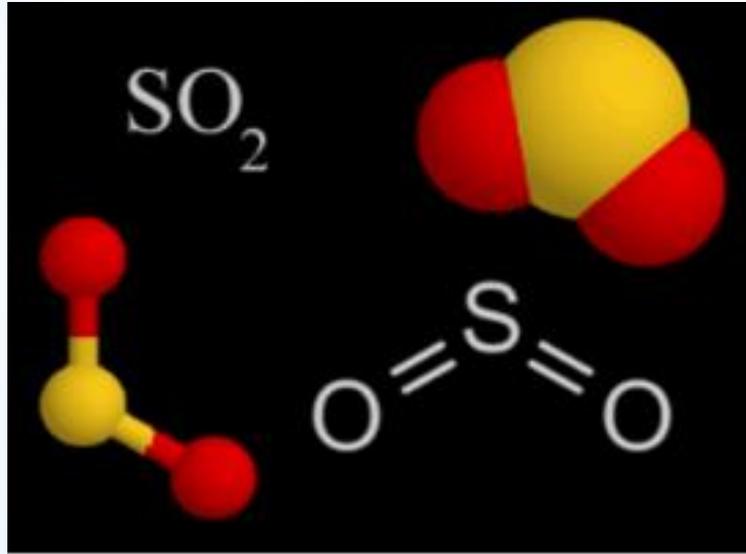
Cumplimiento con los límites de exposición crónica | Media aritmética anual 2022

Compliance with exposure limits | Annual arithmetic mean 2022

Parámetro Parameter	Límite de exposición crónica anual Annual exposure limit	Promedio trimestral Quarterly mean
PM _{2.5}	10 µg m ⁻³	33*
PM ₁₀	36 µg m ⁻³	140*

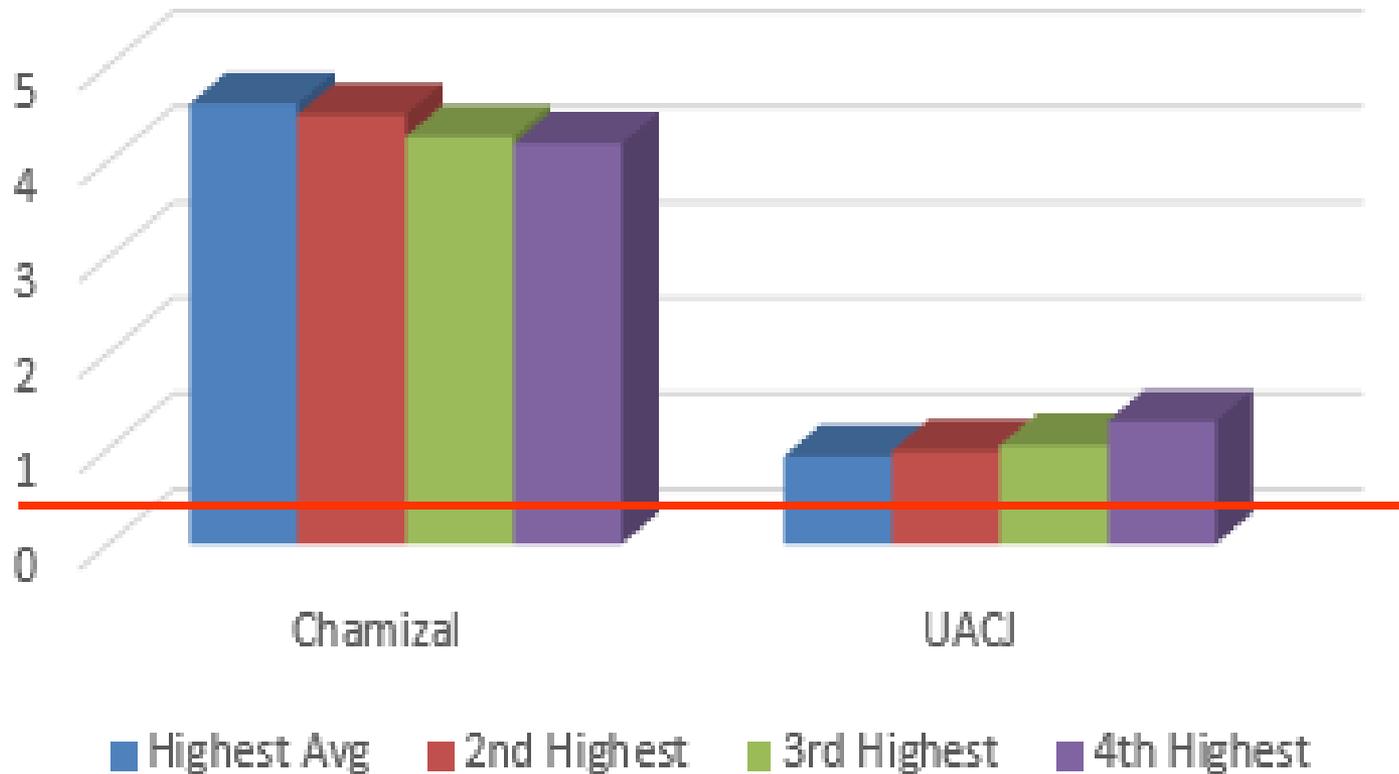
*Se evalúa sólo el primer trimestre del año

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



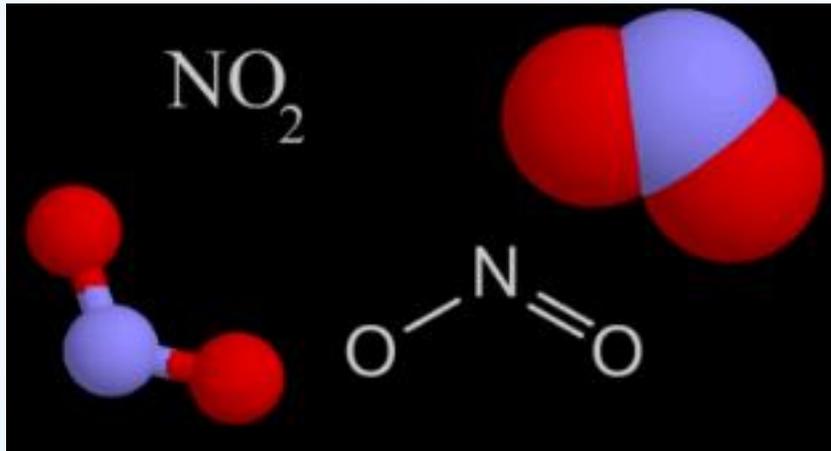
* Dióxido de azufre
Sulfur Dioxide SO_2

SO₂
Four Highest 1-Hour Averages
El Paso and UACJ
(January - May 2022)



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

The highest allowable limit in Mexico
for SO₂ is **0.04 ppm** in daily averages.



* Dióxido de nitrógeno
Nitrogen Dioxide NO₂

NO₂ Four Highest 1-Hour Averages (ppb) El Paso del Norte (January - May 2022)

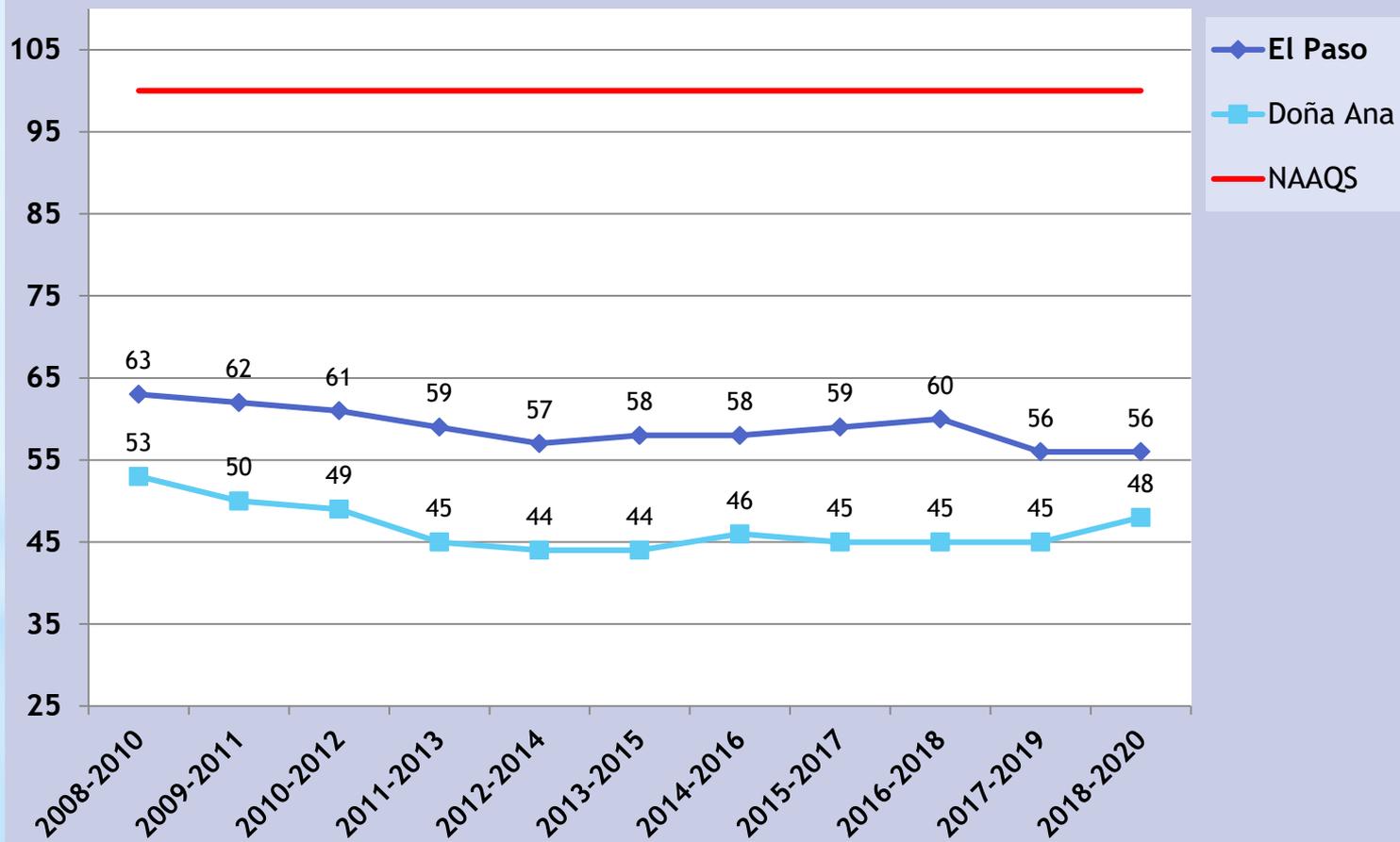


U.S. federal standard:
100 ppb 98th percentile of 1-hour daily
maximum concentrations, averaged over 3 years

The highest allowable limit in Mexico for
NO₂ is 210 ppb in hourly averages.

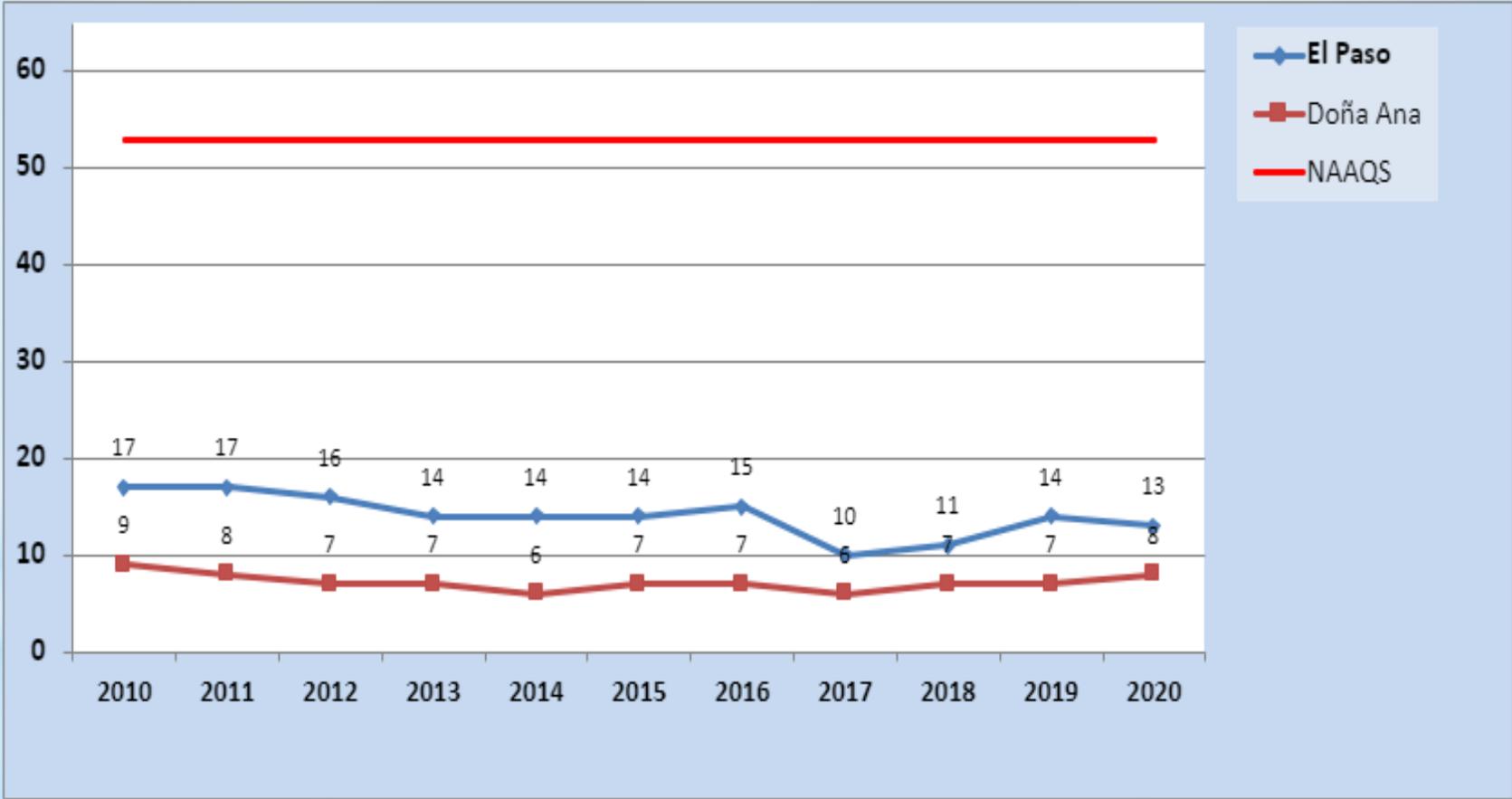
NO₂ Design Values 1-Hour Averages (ppb) El Paso & Doña Ana Counties

The 1-hour NO₂ NAAQS (100 ppb) is the 3-year average of the annual 98th percentile of the daily maximum 1-hour average concentrations.



NO₂ Design Values Annual Mean (ppb) El Paso & Doña Ana Counties

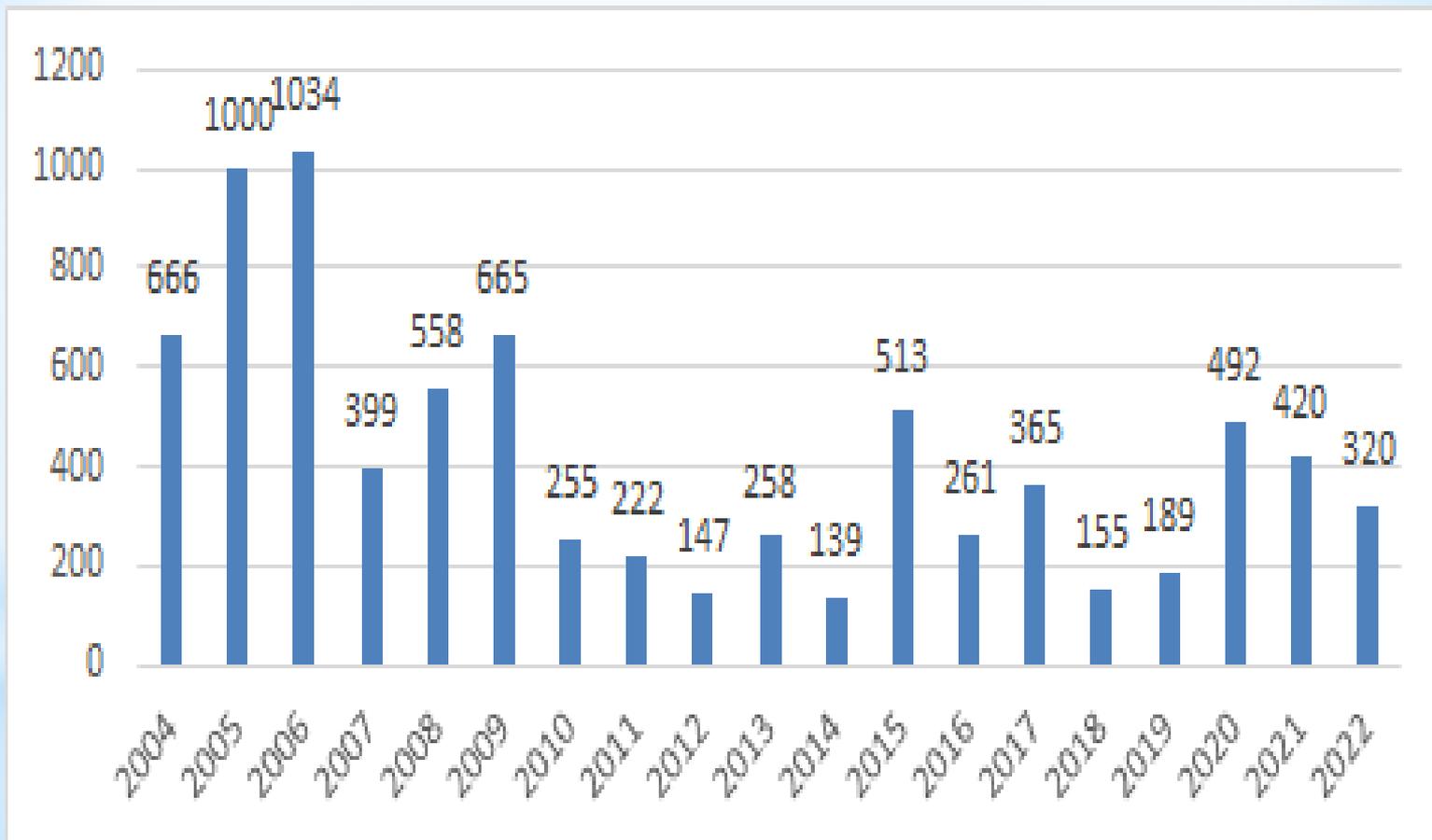
The annual NO₂ NAAQS (53 ppb) is the annual average concentration, averaged over three years.



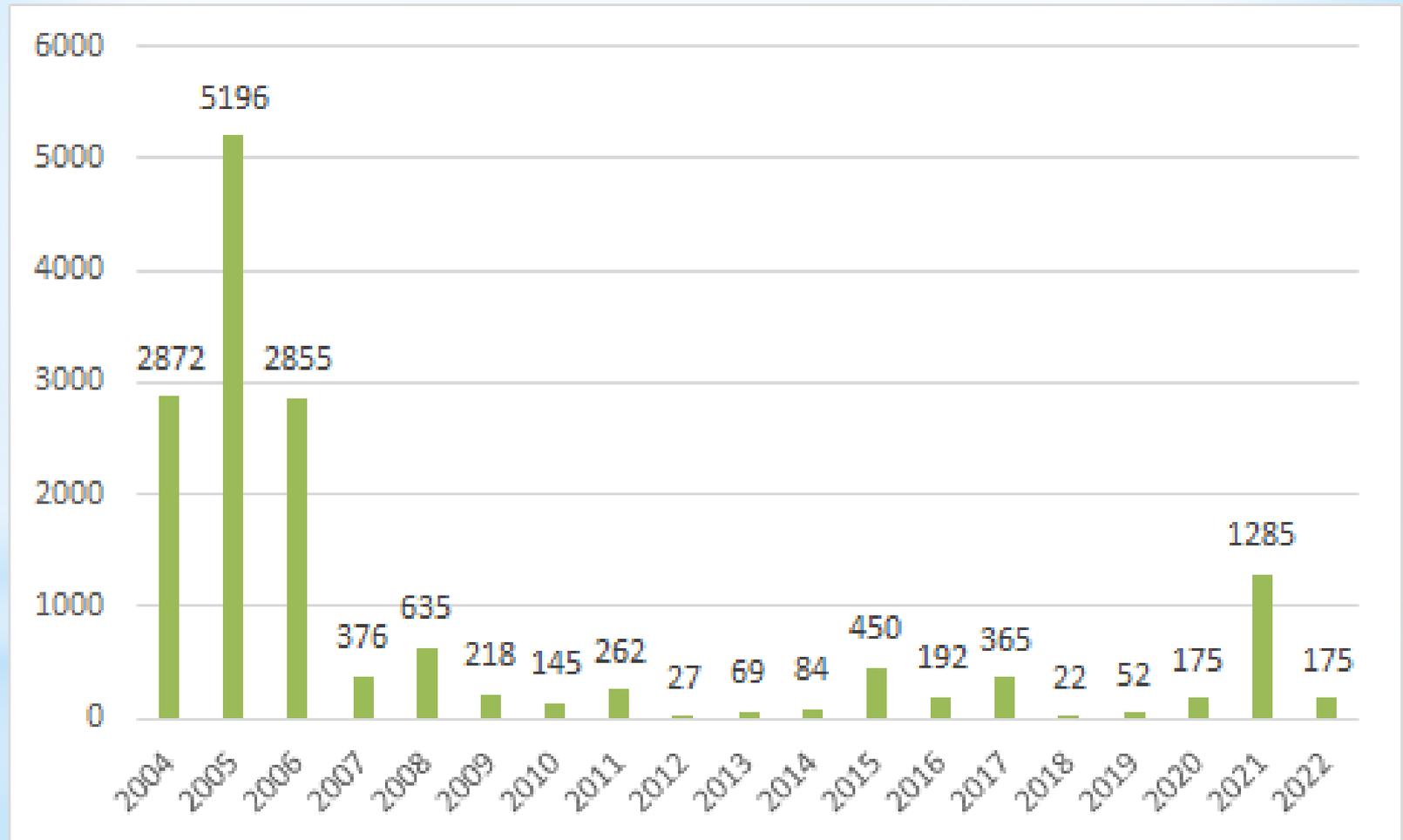


* Hydrogen Sulfide (H_2S)
Sulfuro de hidrógeno

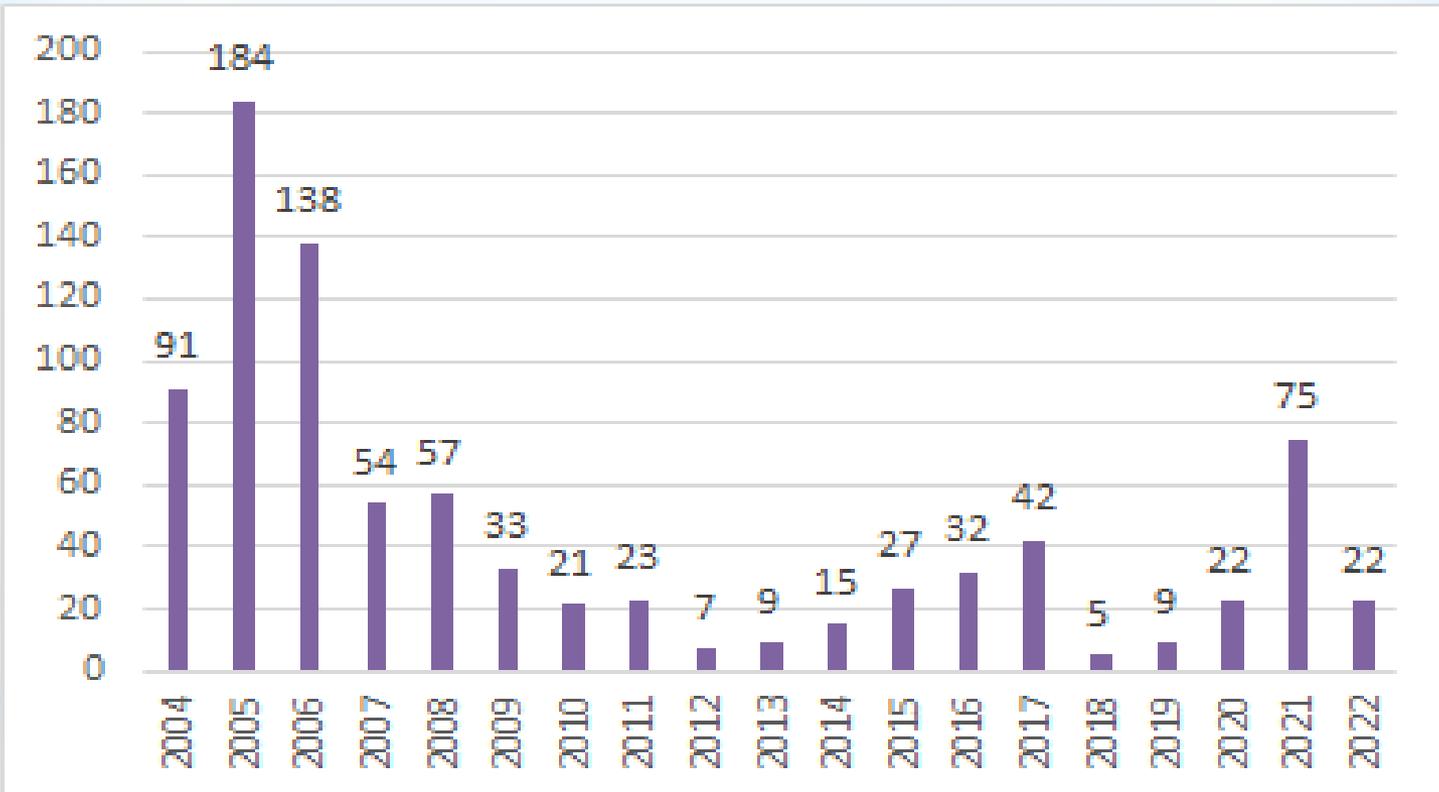
**Hydrogen Sulfide - 30-Minute Averages
Highest Value (in ppb) Each Year
at “Lower Valley” Monitor
(2004-2022)**



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



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



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* Questions?
¿Preguntas?



*Thank you!
Gracias!

