

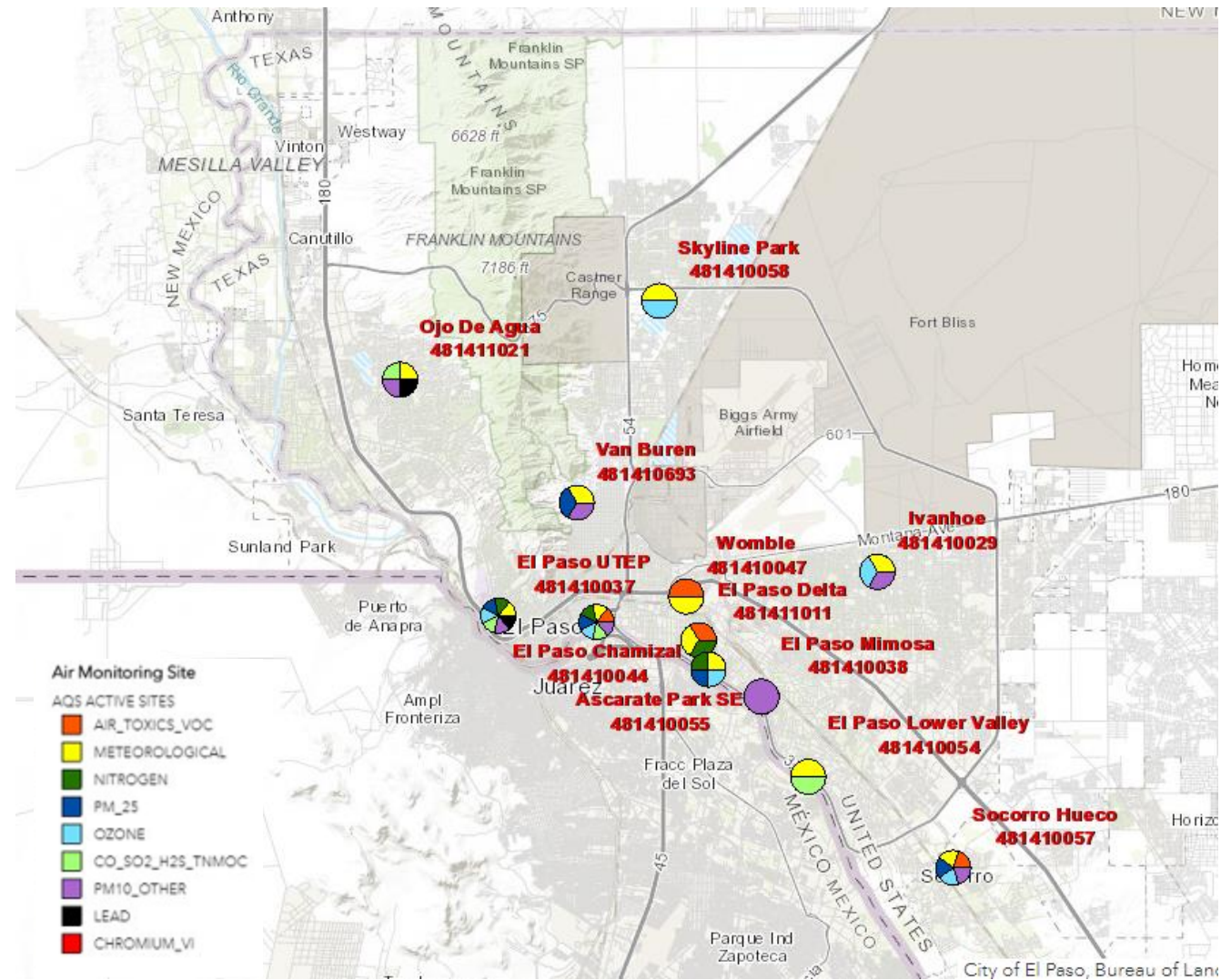


# Air Quality Report in the Paso del Norte October 15, 2020

Carlos Rincon, US EPA Region 6

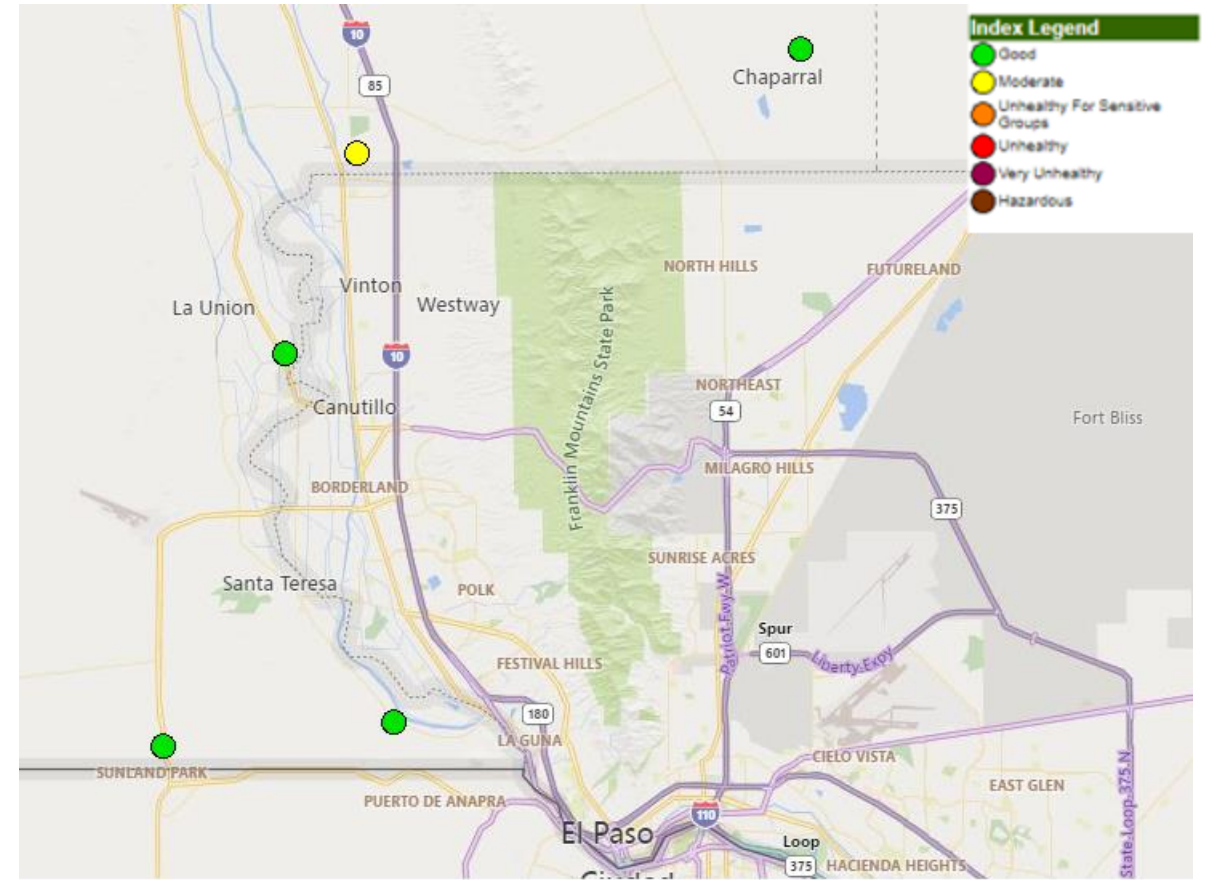
# TCEQ current air monitoring stations

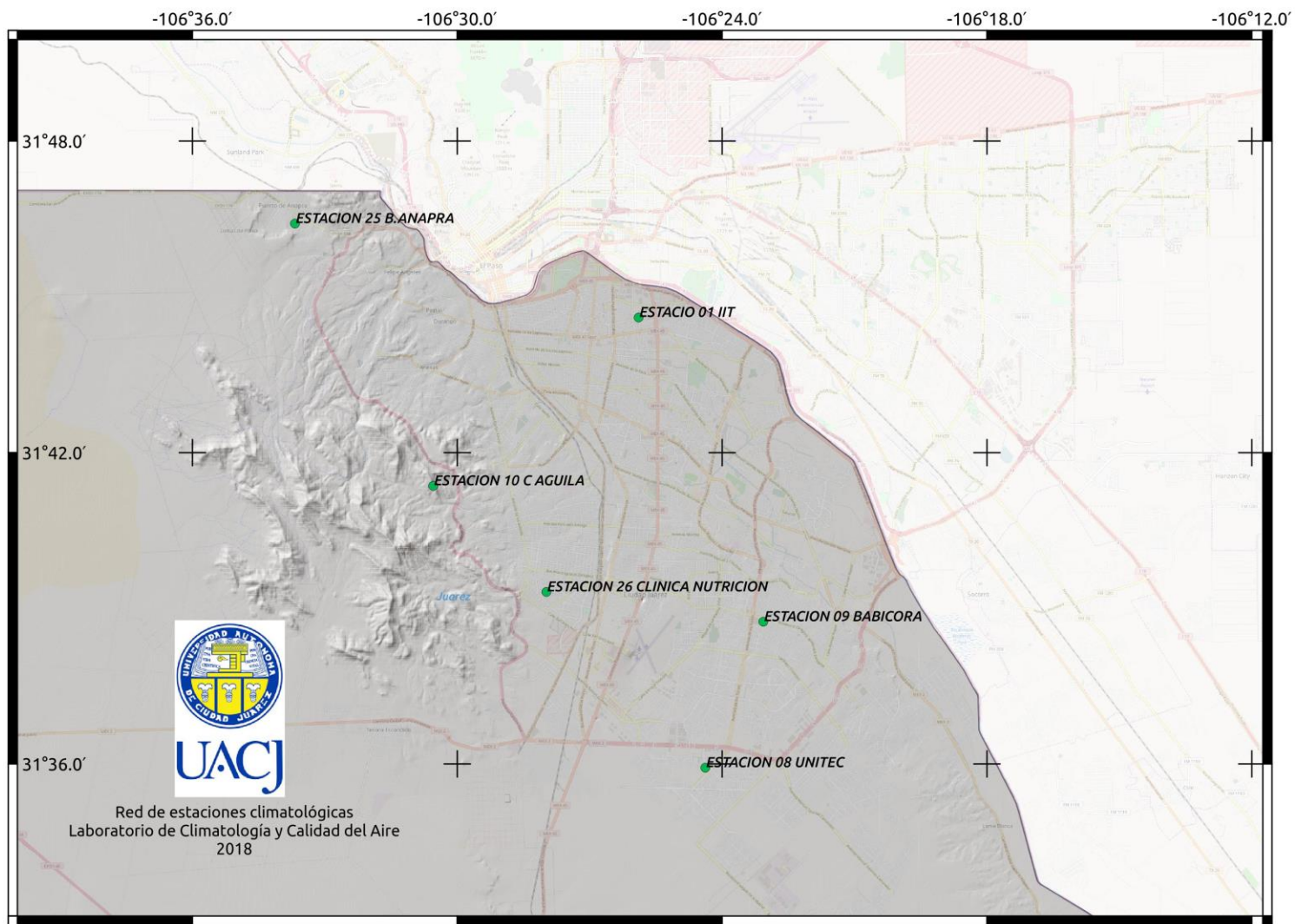
Estaciones actuales de calidad de aire de la TCEQ



NMED current air monitoring stations

Estaciones actuales de calidad de aire de NMED





### Estación 01 IIT:

Meteorología

Ozono

Monóxido de Carbono

Dióxido de Azufre

Dióxido de nitrógeno

Material Particulado (PM<sub>10</sub> y PM<sub>2.5</sub>)

### Station 01 IIT:

Meteorology

Ozone

Carbon Monoxide

Sulfur Dioxide

Nitrogen Dioxide

Particulate Matter (PM<sub>10</sub> & PM<sub>2.5</sub>)

Ciudad Juárez current air monitoring stations

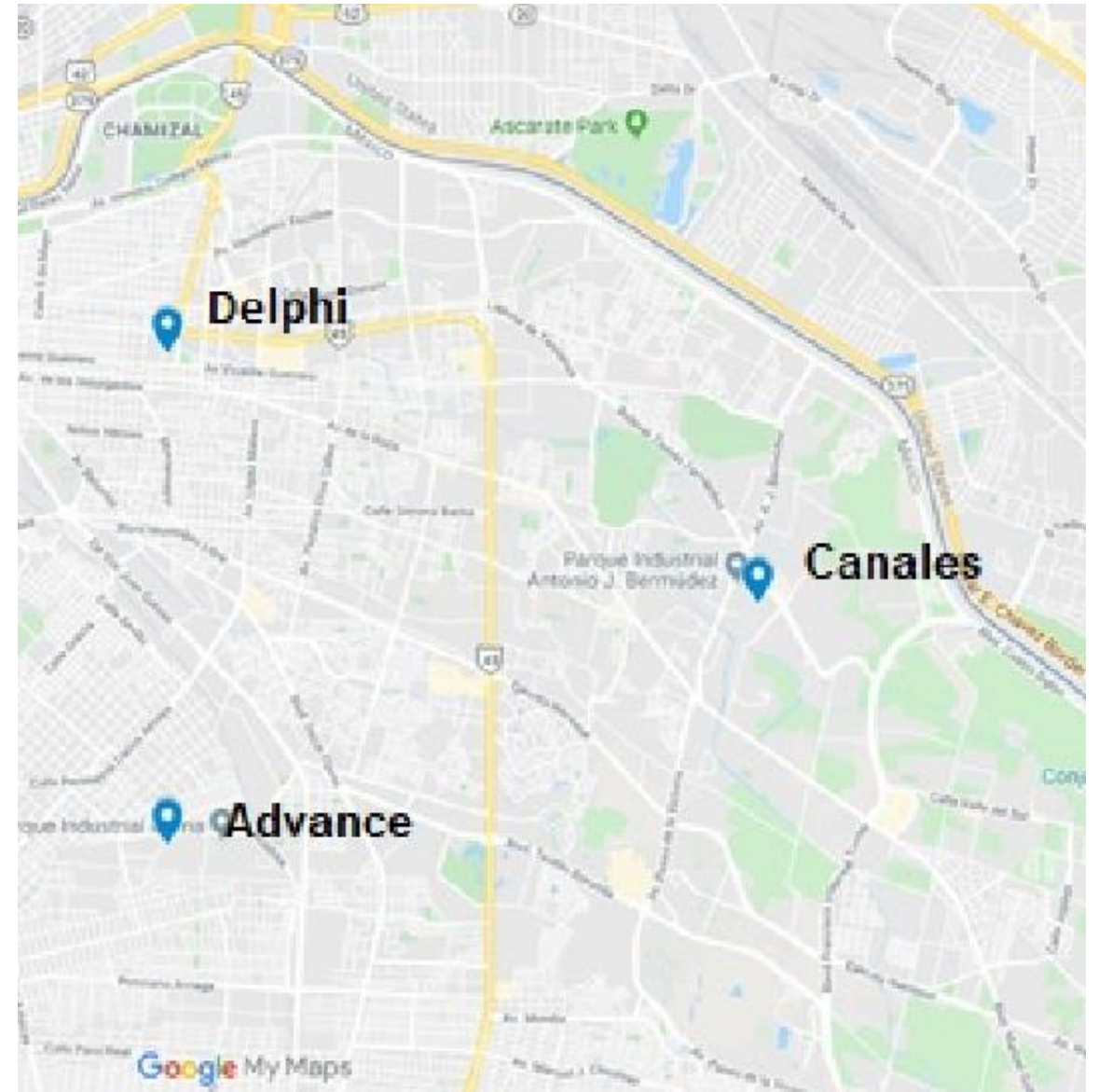
Estaciones actuales de monitoreo de calidad de aire en Ciudad Juárez

Parámetros:

Meteorología

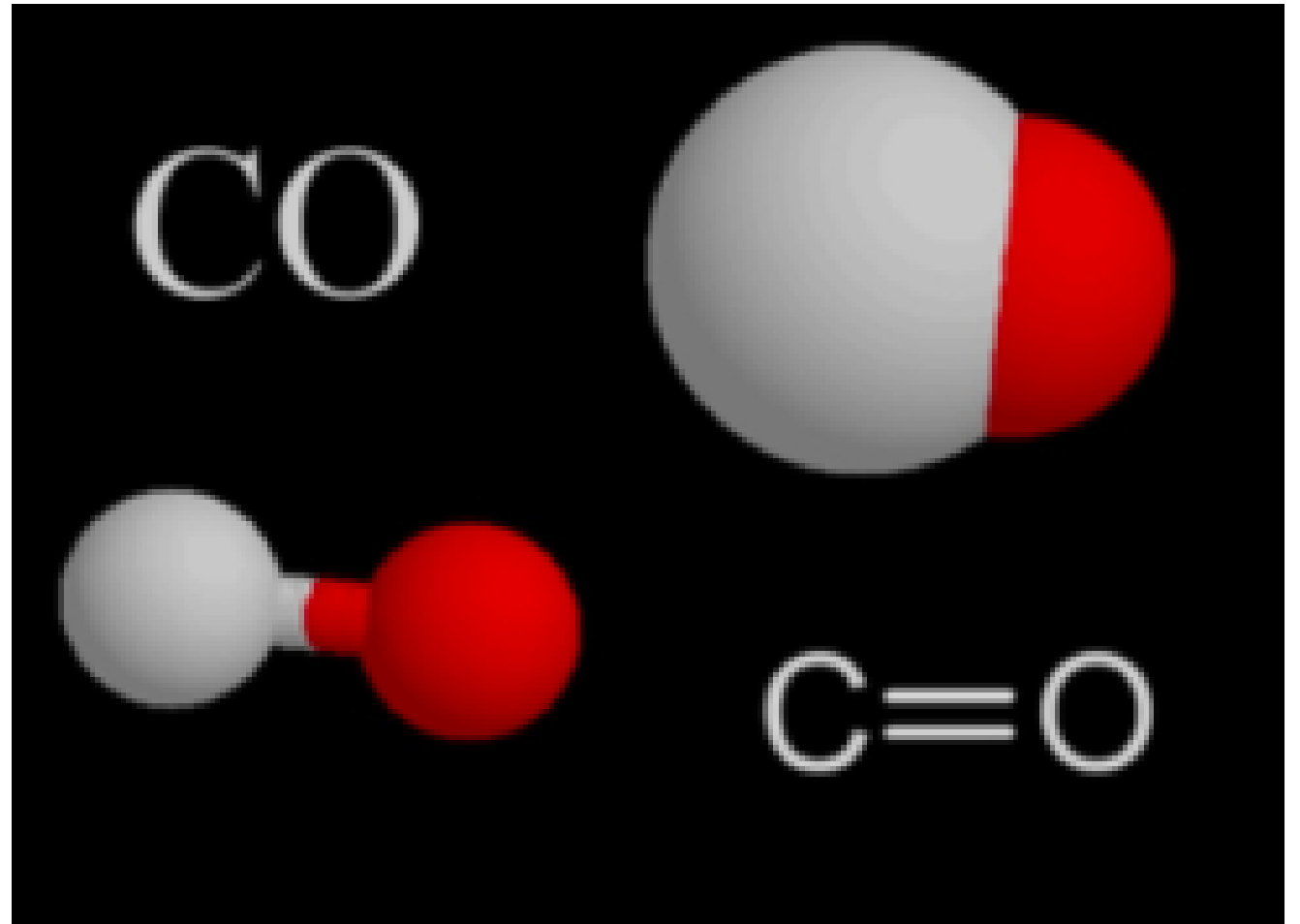
Ozono

Monóxido de Carbono

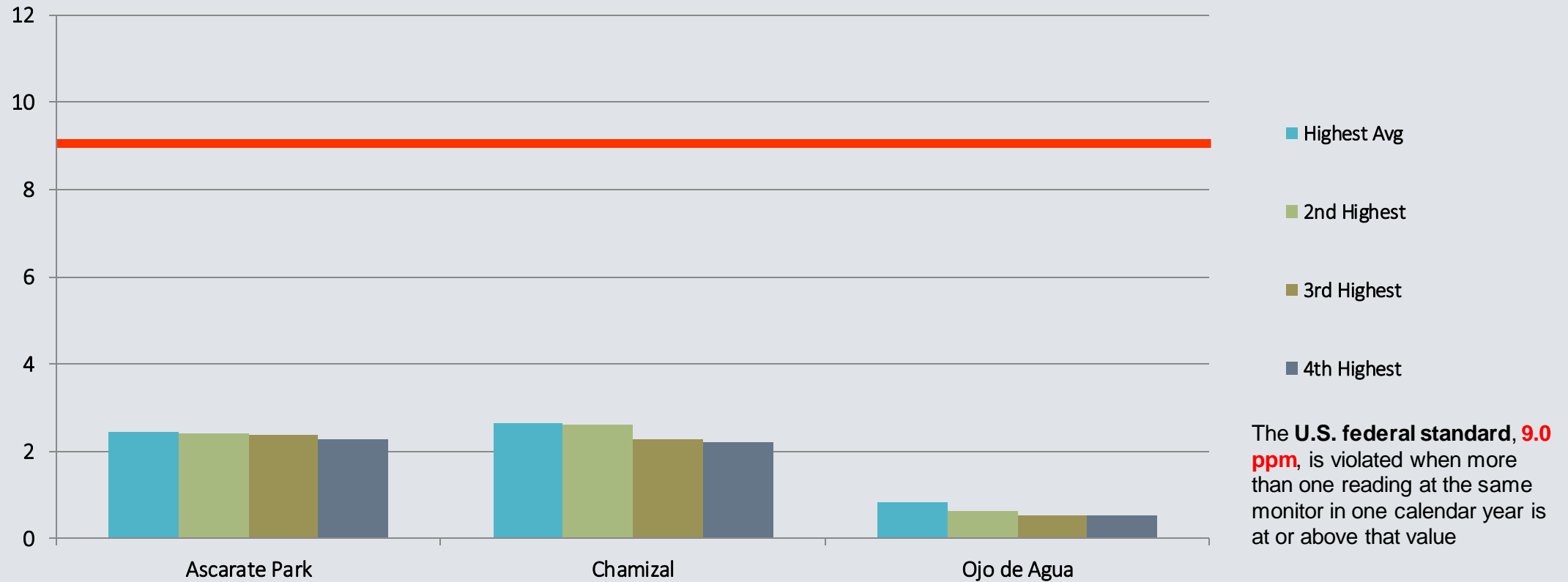


Carbon  
Monoxide

Monóxido de  
Carbono



# CO 8-Hr. Averages Four Highest Values (in ppm) at Each Monitor in El Paso January 1 – September 30, 2020

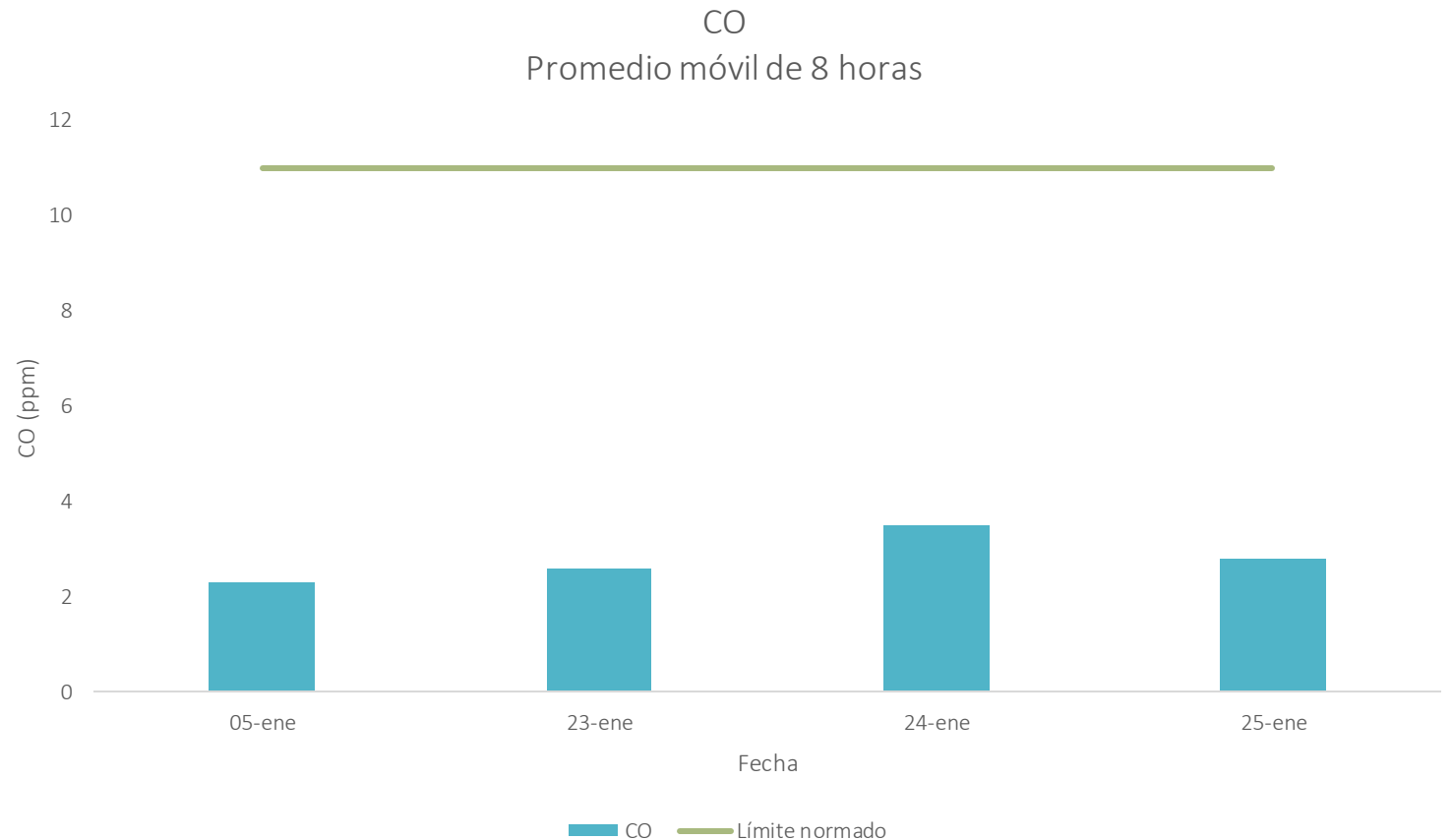


# Monóxido de carbono | Promedio móvil de 8 horas | 4 valores máximos (Ene-sep 2020)

## Carbon Monoxide | 8-hour rolling mean | 4 highest values (Jan-Sep 2020)

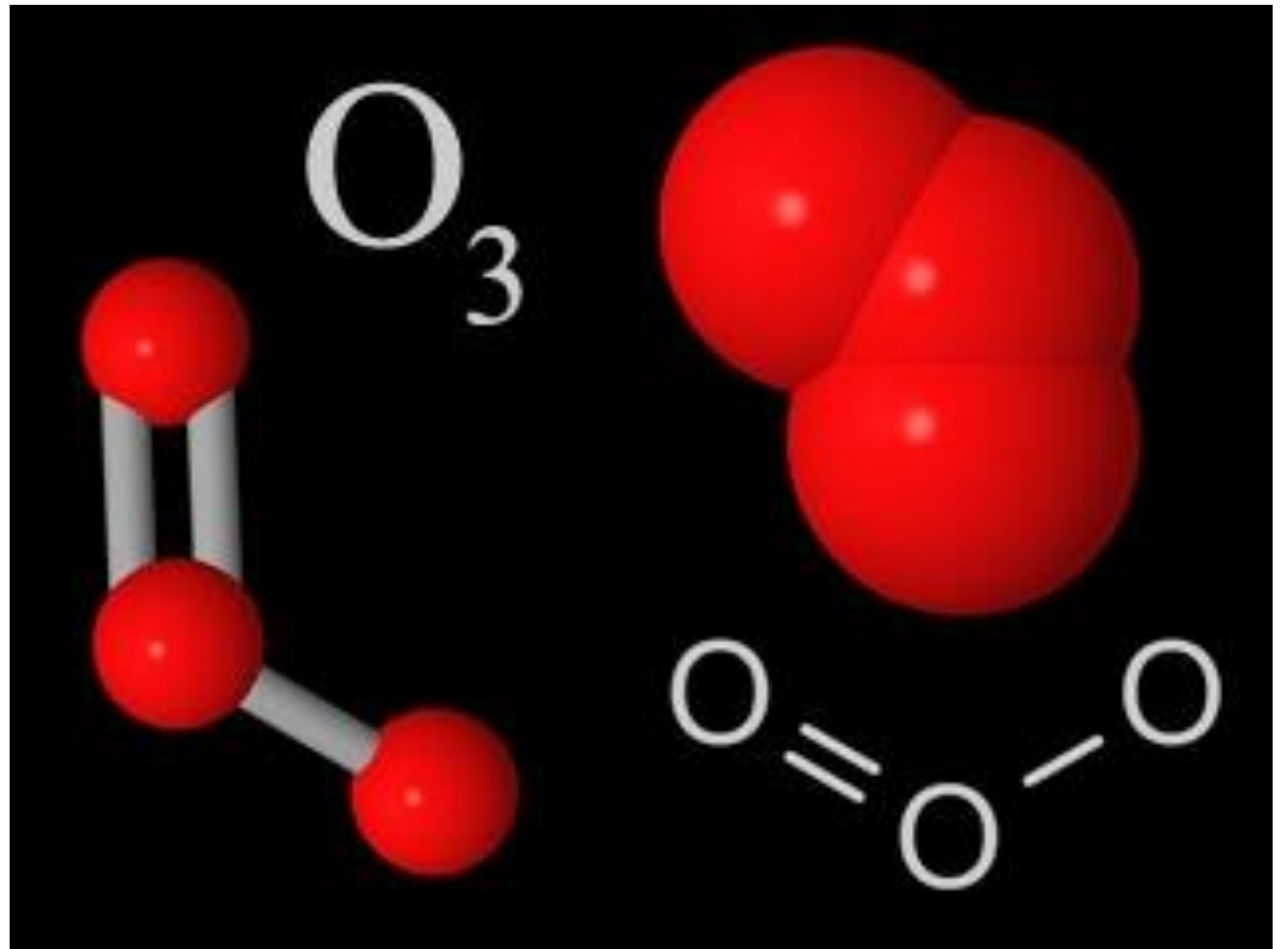
El límite máximo permisible en México para CO es de 11 ppm en promedios móviles de 8 horas.

The highest allowable limit in Mexico for CO is 11 ppm in 8-hour rolling average.



Ozone ( $O_3$ )

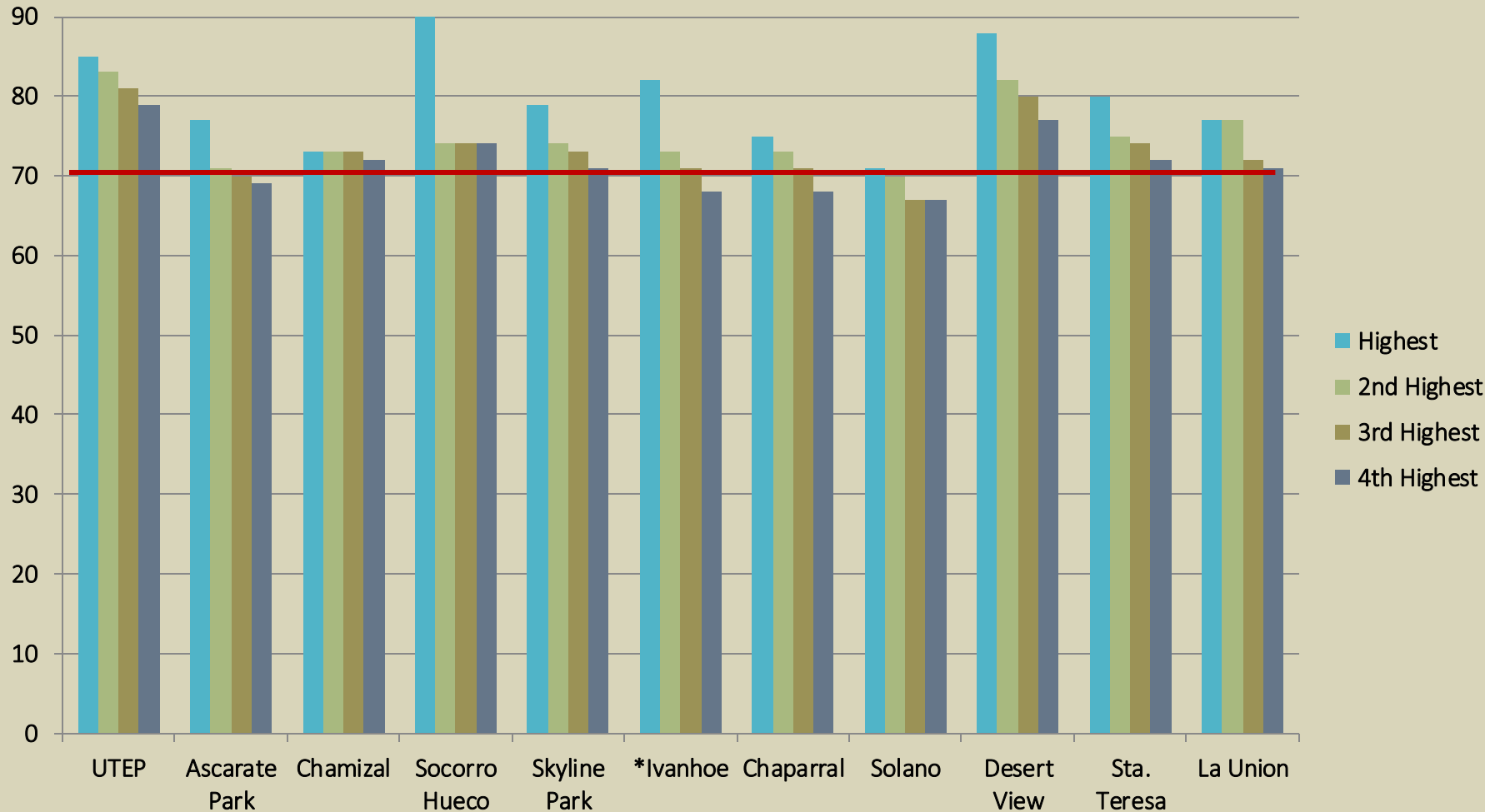
Ozono



# Ozone 8-Hr. Averages (in ppb)

## Four Highest Values at Monitors in El Paso and Doña Ana County

### Jan. 1 – Sept. 30, 2020

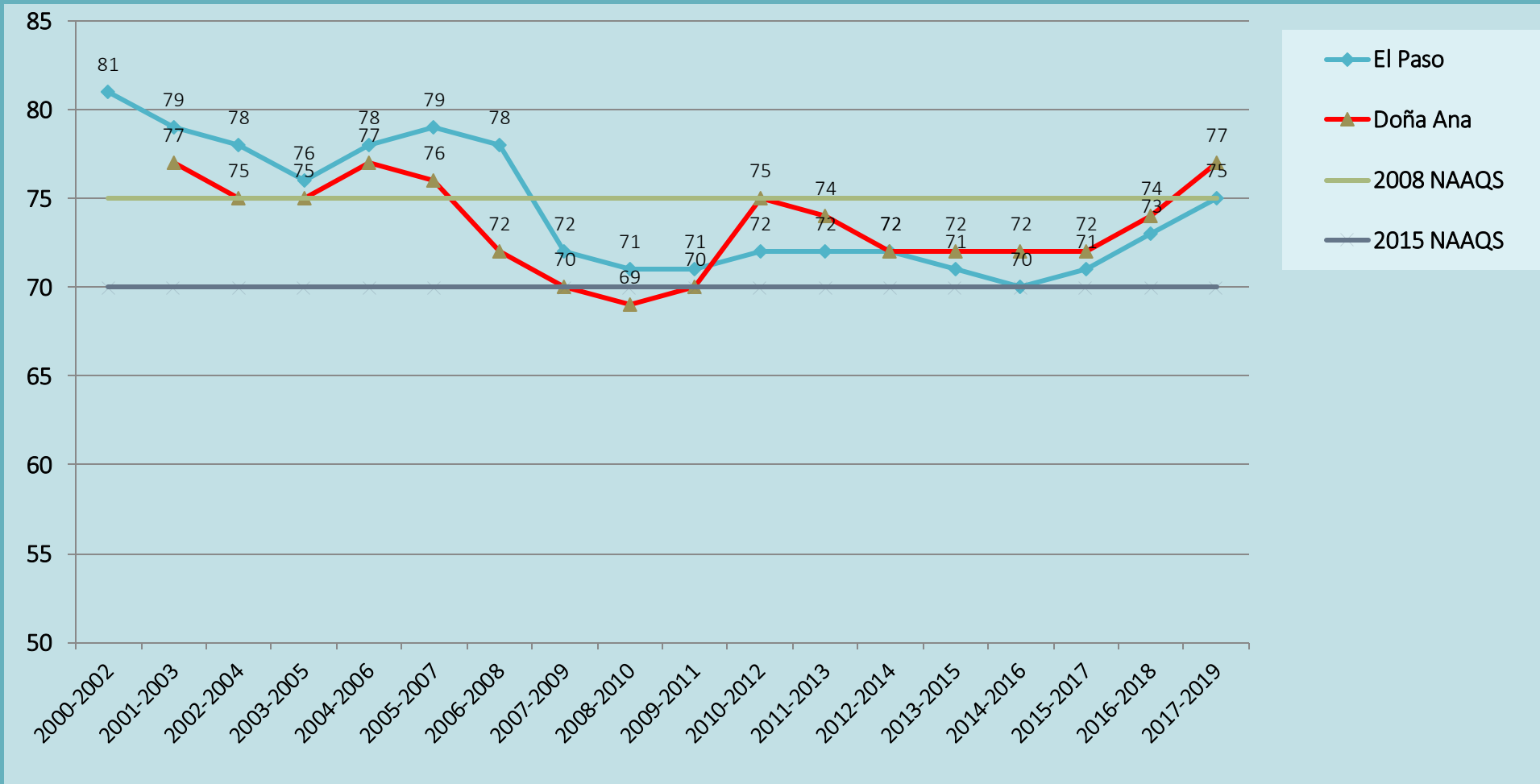


U.S. federal standard:  
70 ppb for the 3-year  
average of the fourth  
highest value.

# Ozone 8-Hr. Design Values El Paso and Doña Ana County only (highest value of all sites in each area, 2001 – 2019)

**Design Value:**  
3-year average, at  
each monitoring site,  
of the annual fourth  
highest 8-hour  
average ozone  
concentration

A U.S. community  
meets the federal  
standard if the design  
value at each site is at  
70 ppb or below.

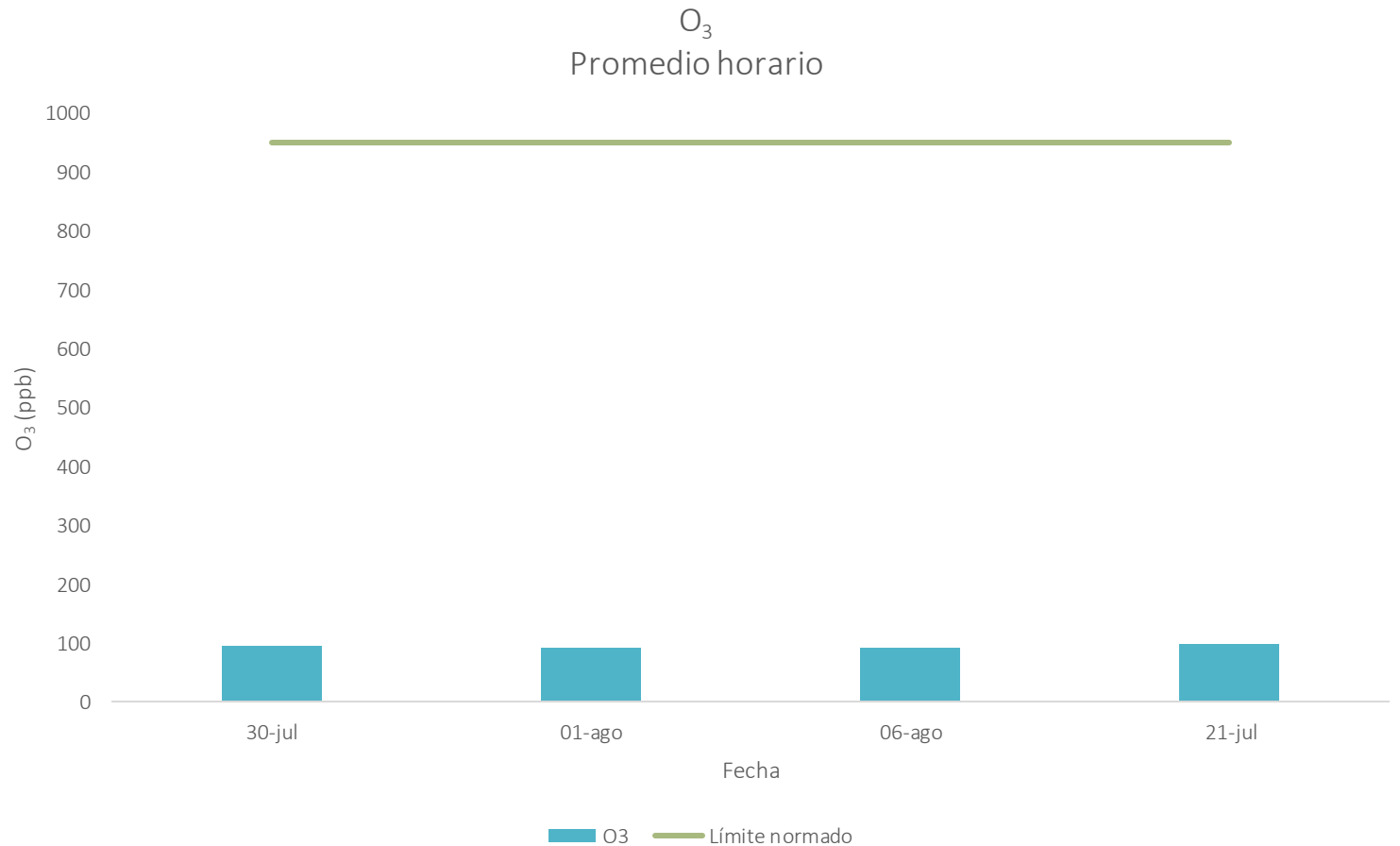


# Ozono | Promedios horarios | 4 valores maximos (ene-sep 2020)

## Ozone | Hourly mean | 4 highest values (Jan-Sep 2020)

El límite máximo permisible en México para O<sub>3</sub> es de 0.95 ppm (950 ppb) en promedios horarios.

The highest allowable limit in Mexico for O<sub>3</sub> is 0.95 ppm (950 ppb) in hourly averages.

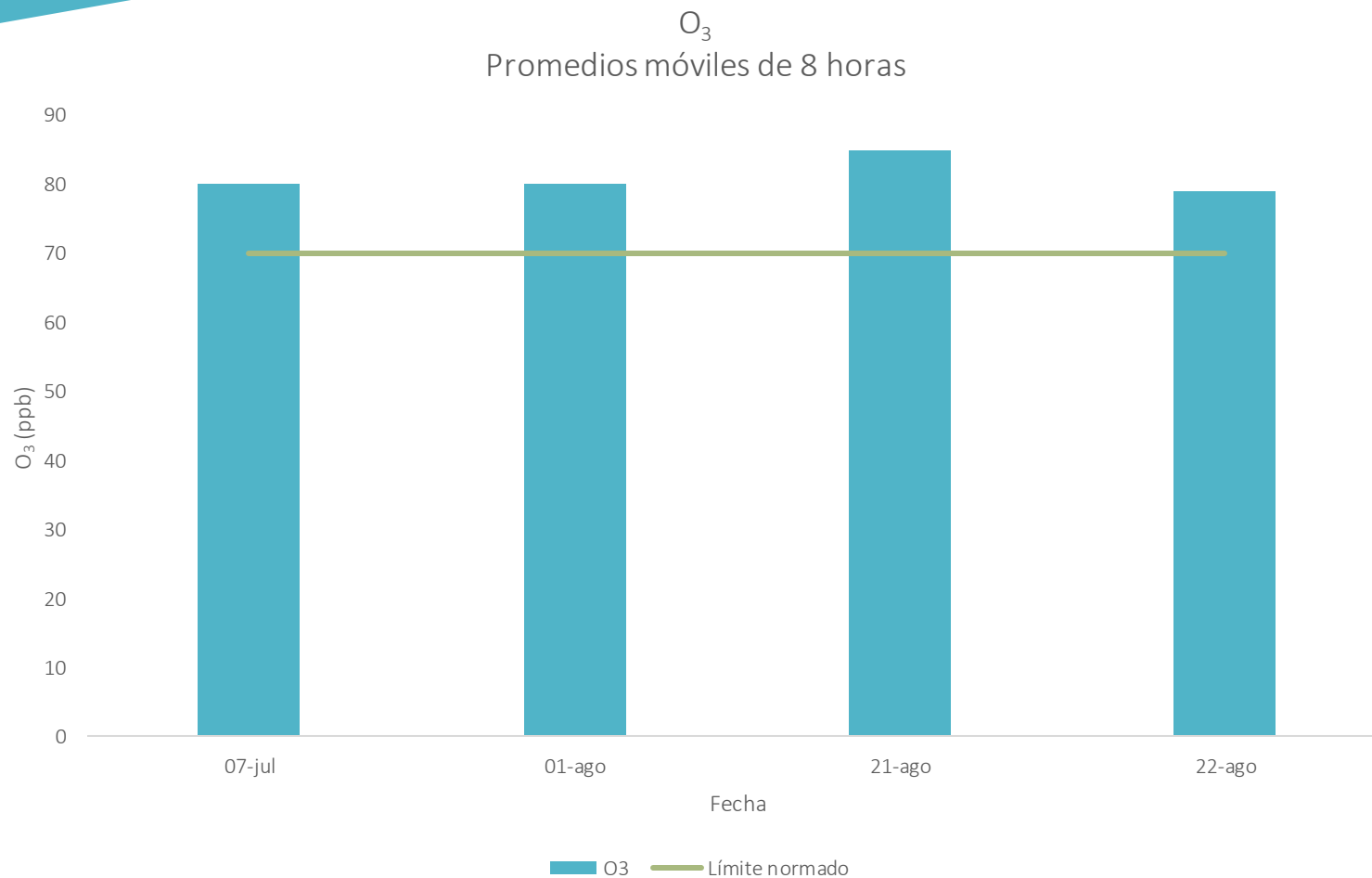


Ozono | Promedio móvil de 8 horas | 4 valores máximos (ene-sep 2020)

## Ozone | 8-hour rolling mean | 4 highest values (Jan-Sep 2020)

El límite máximo permisible en México para  $O_3$  es de 0.07 ppm (70 ppb) en promedios móviles de 8 horas.

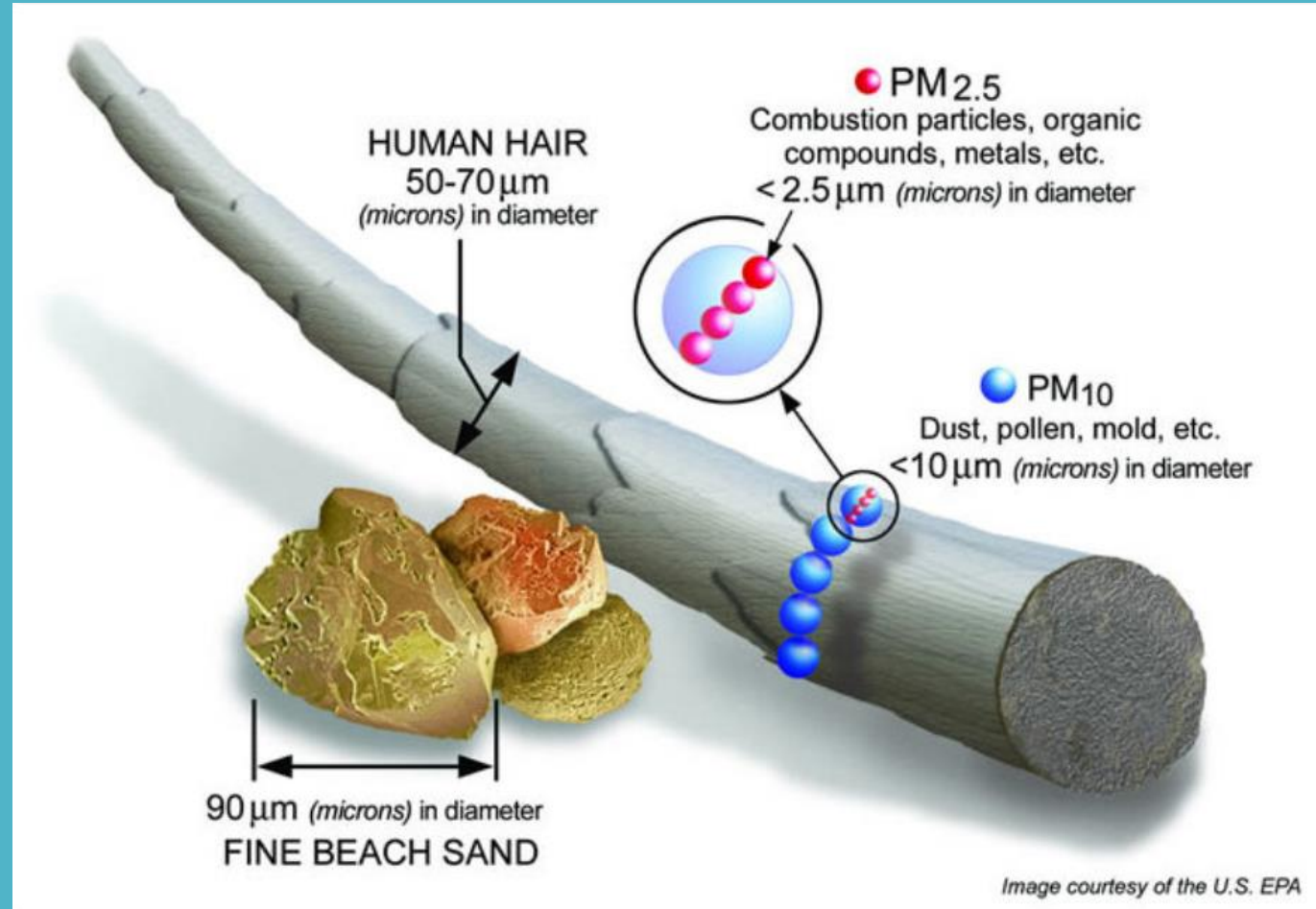
The highest allowable limit in Mexico for  $O_3$  is 0.07 ppm (70 ppb) in 8-hour rolling mean.



# Particulate Matter (pm) material particulado

PM 2.5

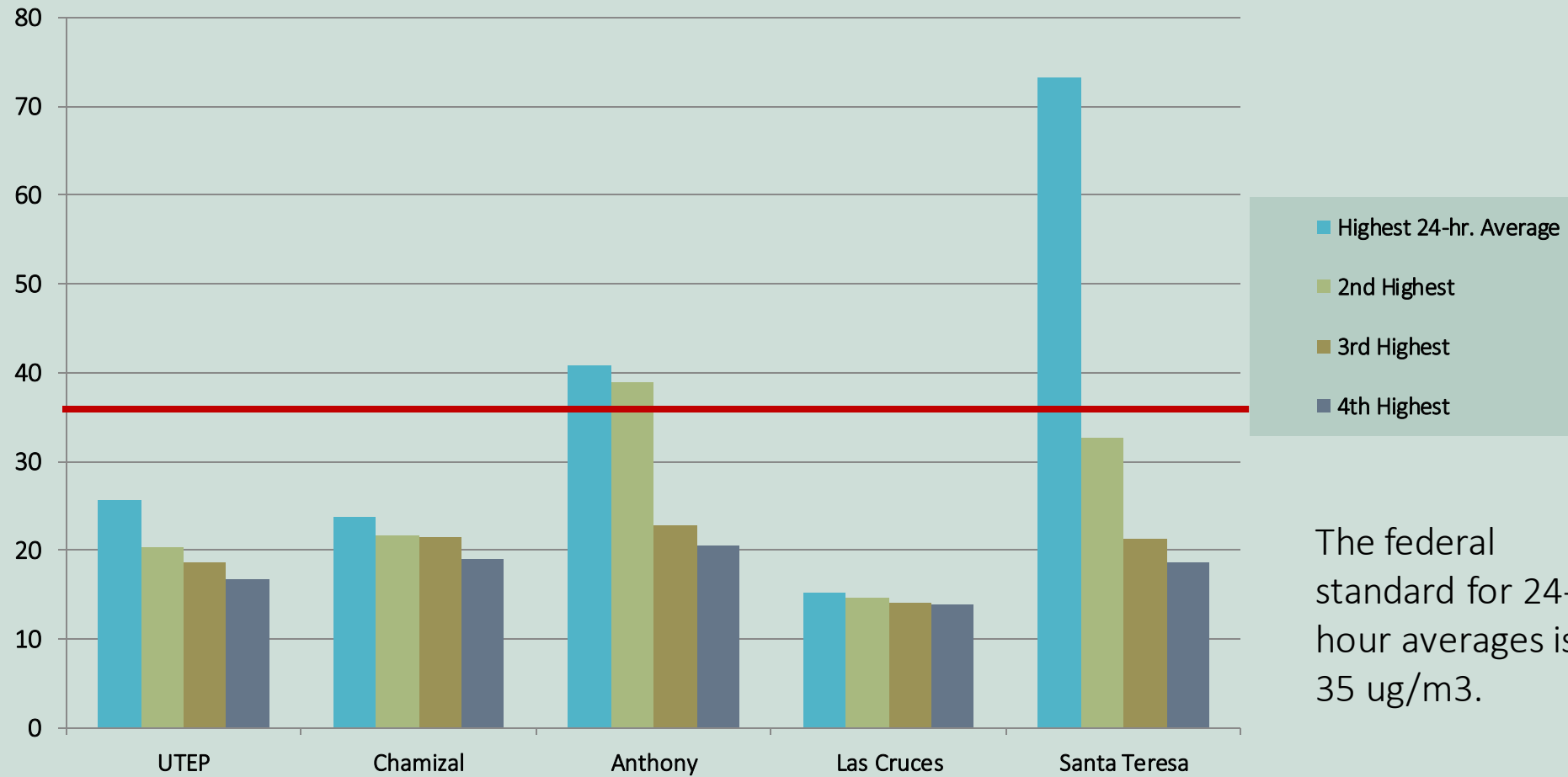
PM 10



# PM 2.5

## Four Highest Values at Monitors in El Paso and Doña Ana County

Jan. 1 – Sept. 30, 2020



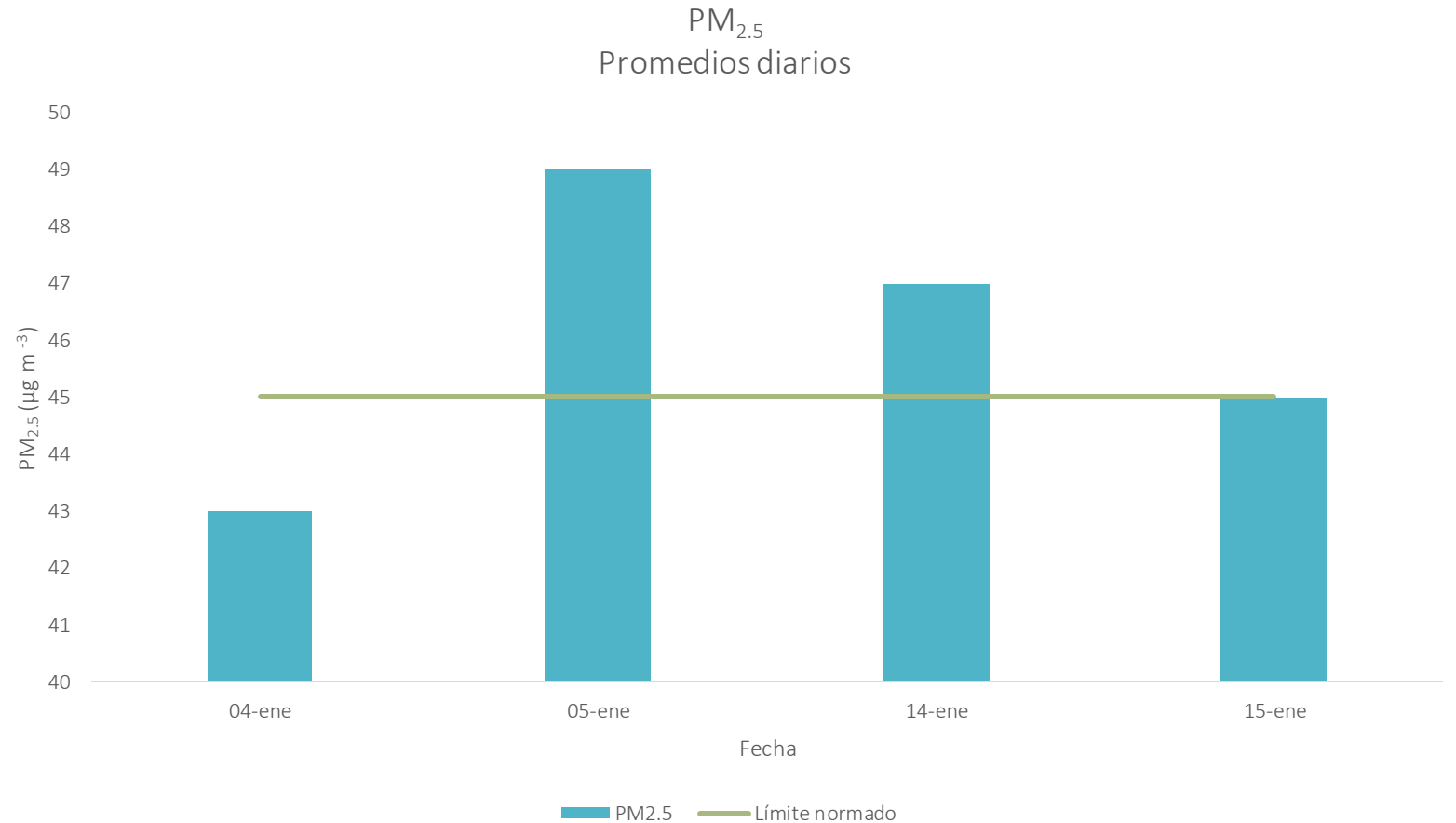
The federal standard for 24-hour averages is 35  $\mu\text{g}/\text{m}^3$ .

PM<sub>2.5</sub> | Promedios diarios | 4 valores máximos (ene-sep 2020)

PM<sub>2.5</sub> | Daily average | 4 highest values (Jan-Sep 2020)

El límite máximo permisible en México para PM<sub>2.5</sub> es de 45  $\mu\text{g m}^{-3}$  en promedios diarios.

The highest allowable limit in Mexico for PM<sub>2.5</sub> is 45  $\mu\text{g m}^{-3}$  in daily averages.

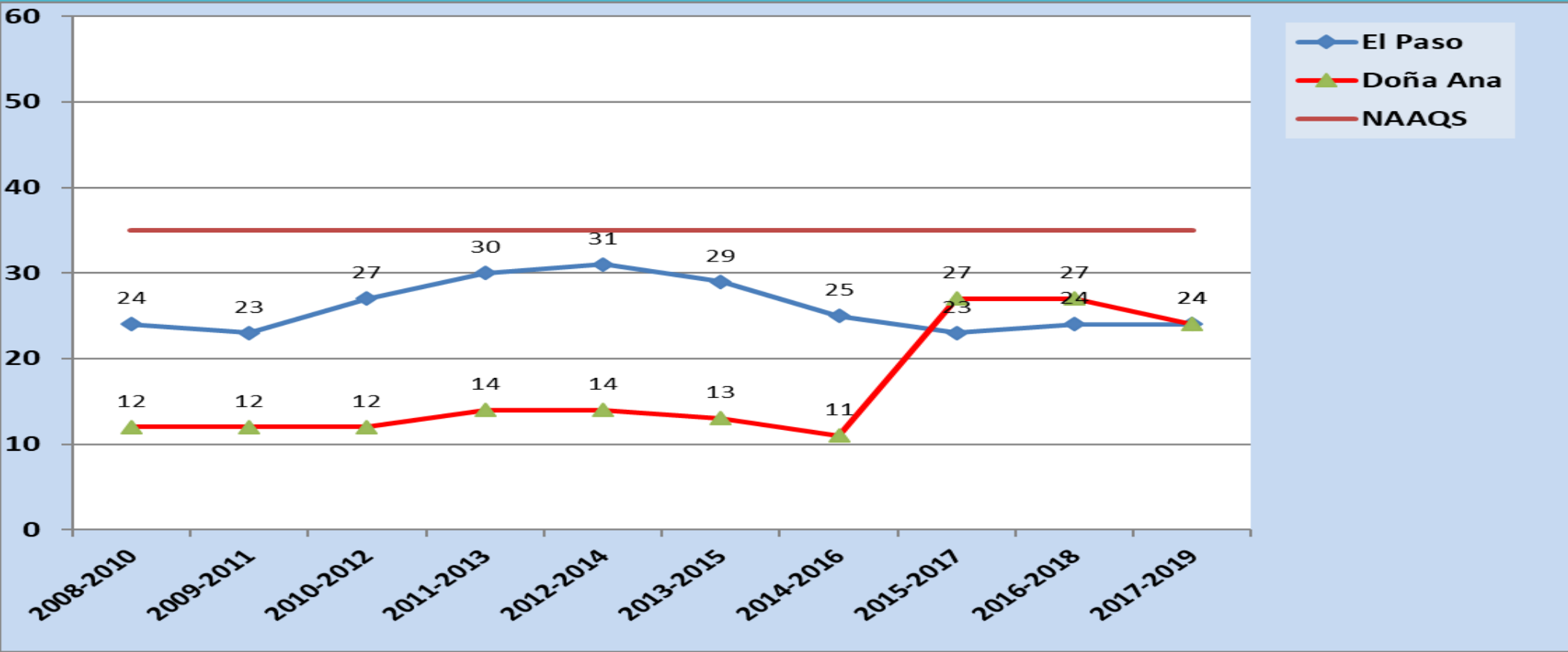


# PM<sub>2.5</sub> Compliance with U.S. Federal Standards El Paso and Doña Ana Counties

24-Hour Design Value

U.S. Standard

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

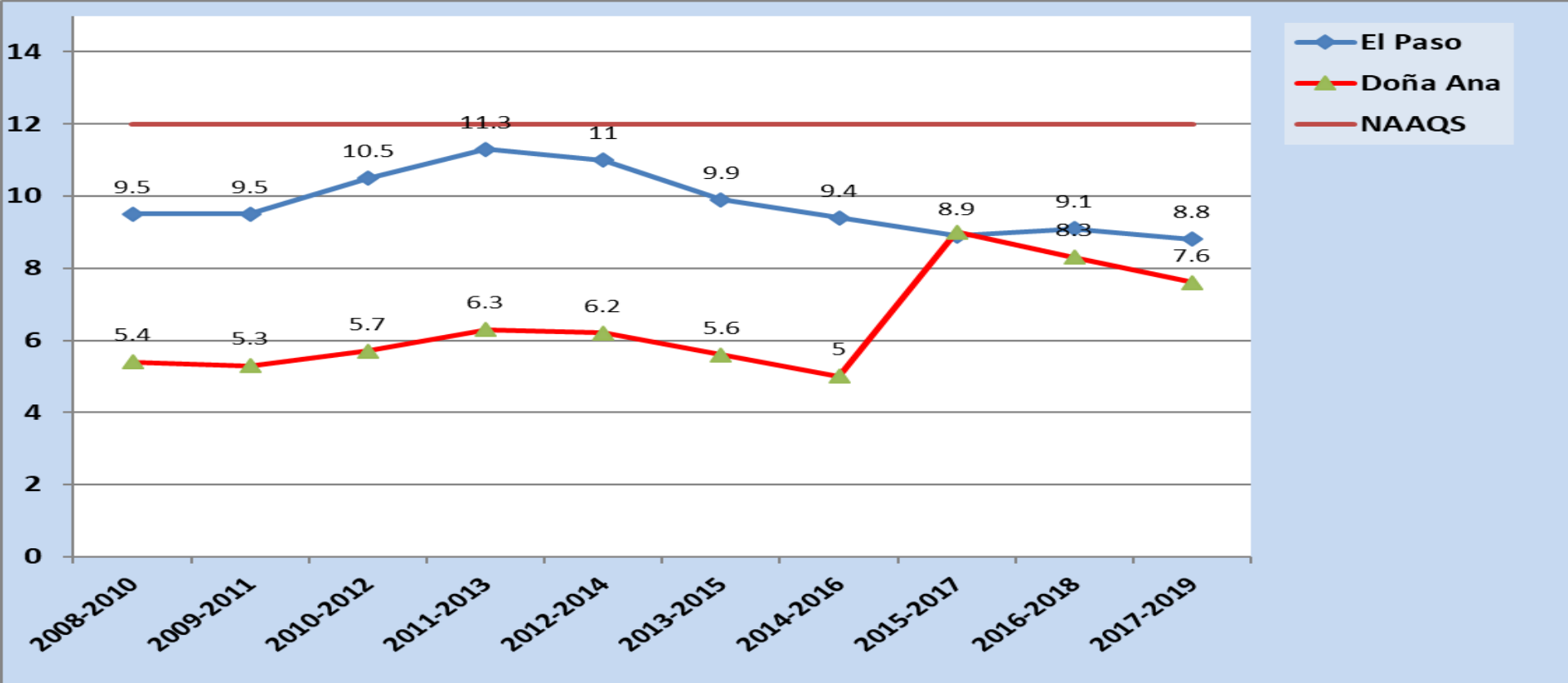


# PM<sub>2.5</sub> Compliance with U.S. Federal Standards El Paso and Doña Ana Counties

Annual Design Value

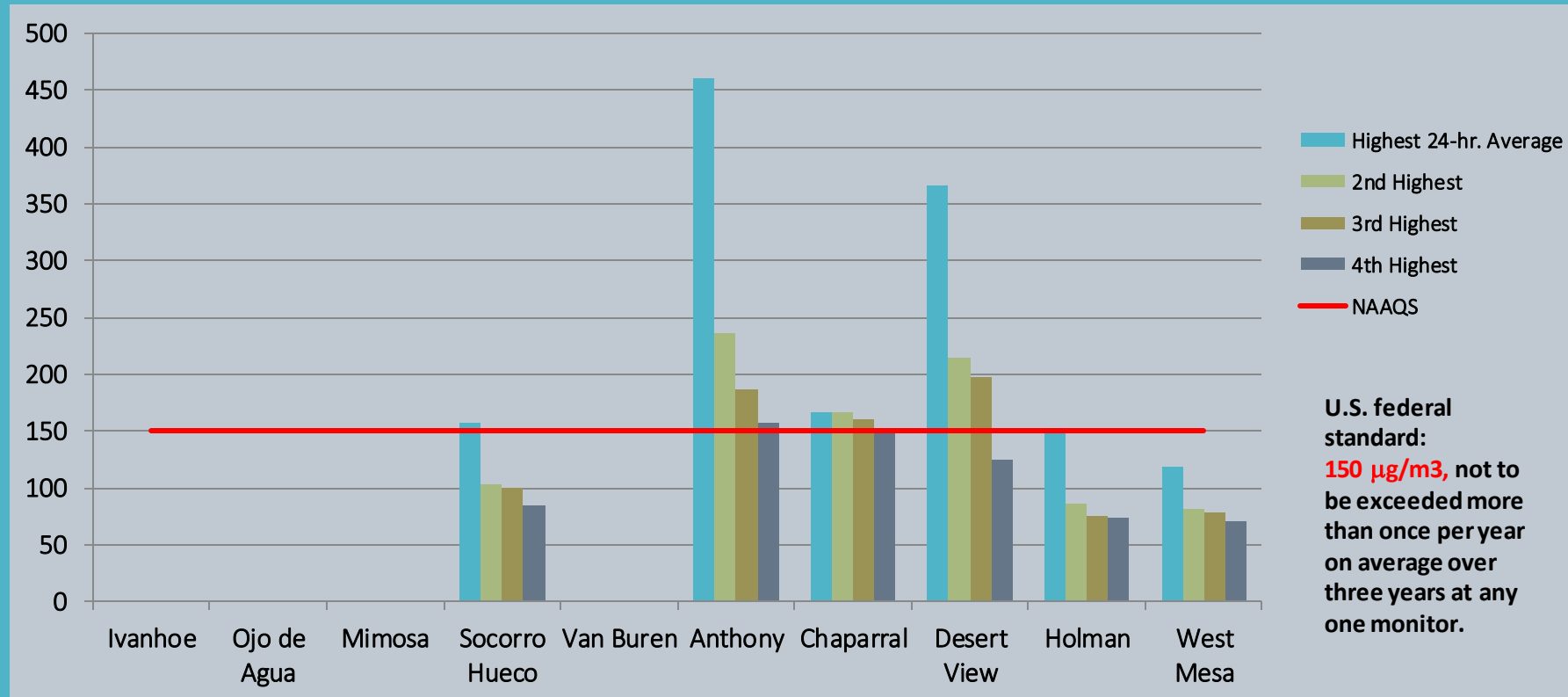
U.S. Standard

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



# PM 10

## Four Highest Values at Monitors in El Paso and Doña Ana County Jan. 1 – Sept. 30, 2020



PM<sub>10</sub>  
Compliance with U.S. Federal Standard for 24-Hour Design Value  
El Paso County and Doña Ana  
2017 - 2019

U.S. Standard

150 µg/m<sup>3</sup>

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Violation at any one monitor:

- If the average annual # of estimated exceedances over three years is >1
- 

Socorro Hueco	2019	0	<u>Estimated</u>	Exceedances
	2018	0	“	“
	2017	0	“	“
Desert View	2019	7	<u>Estimated</u>	Exceedances
	2018	5	“	“
	2017	1	“	“

# Exceptional Events

- NMED 2016 & 2017 Demonstrations received EPA concurrence for PM<sub>10</sub> 24-Hour averages exceeding the NAAQS of 150 µg/m<sup>3</sup>

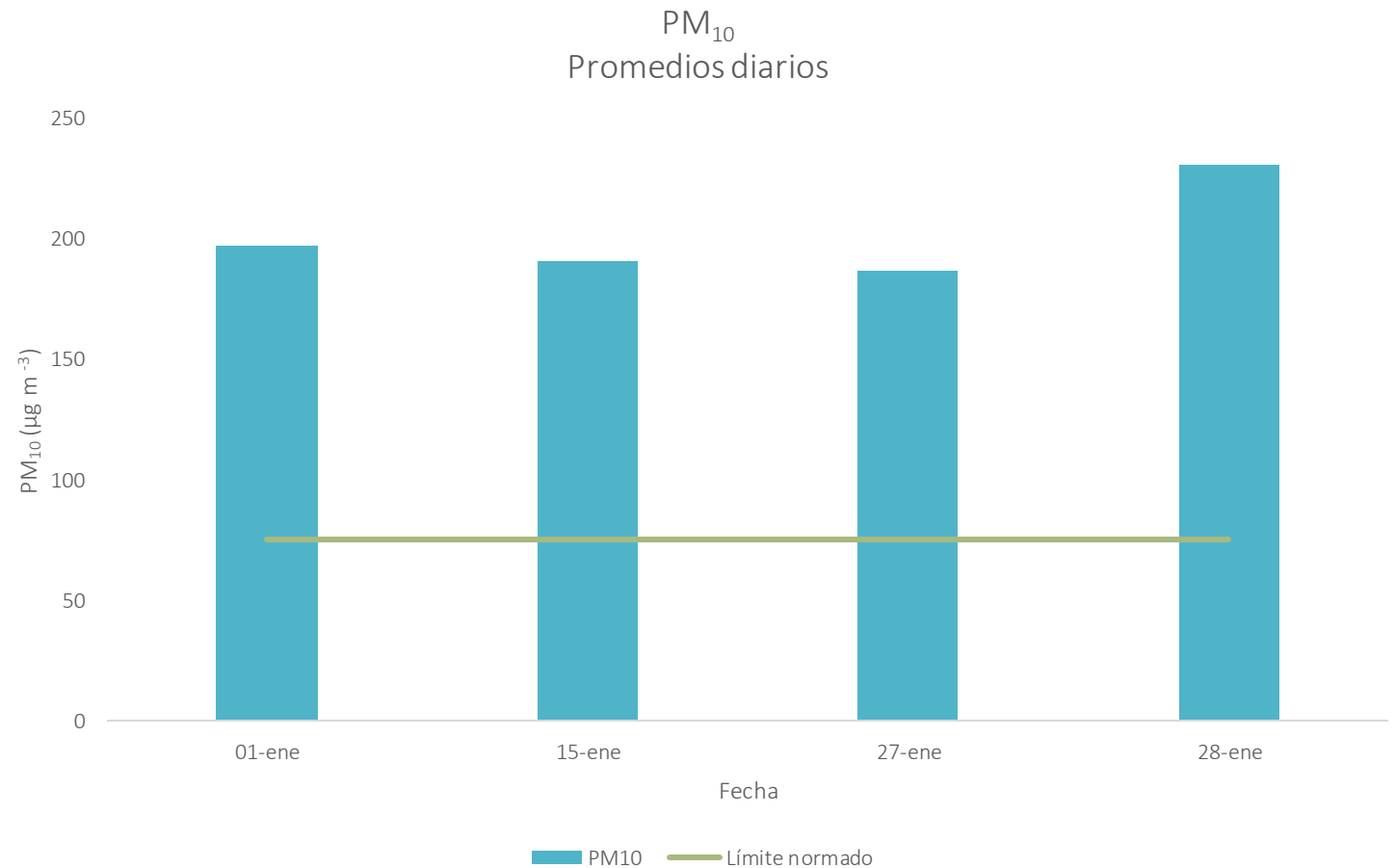
Year	Events	Observed Exceedances	Concentrations (µg/m <sup>3</sup> )	EPA Review Process
2019	8	25	156-734	Preliminary Engagement
2018	7	18	158-326	Submitting to EPA for Review
2017	11	27	157-721	Concurrence
2016	11	28	162-689	Concurrence

PM<sub>10</sub> | Promedios diarios | 4 valores máximos (ene-sep 2020)

PM<sub>10</sub> | Daily averages | 4 highest values (Jan-Sep 2020)

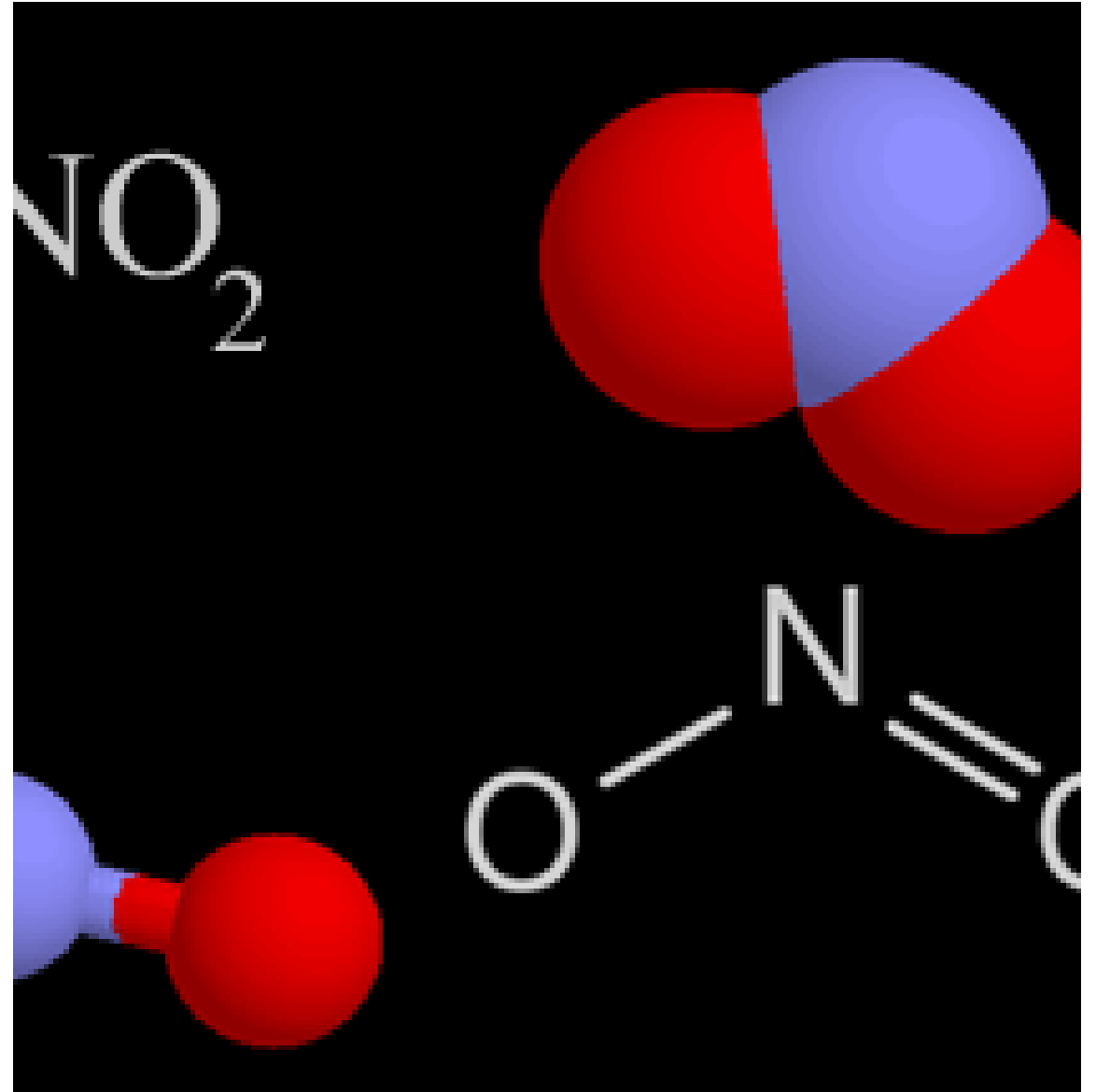
El límite máximo permisible en México para PM<sub>10</sub> es de 75  $\mu\text{g m}^{-3}$  en promedios diarios.

The highest allowable limit in Mexico for PM<sub>10</sub> is 75  $\mu\text{g m}^{-3}$  in daily averages.



Nitrogen  
Dioxide

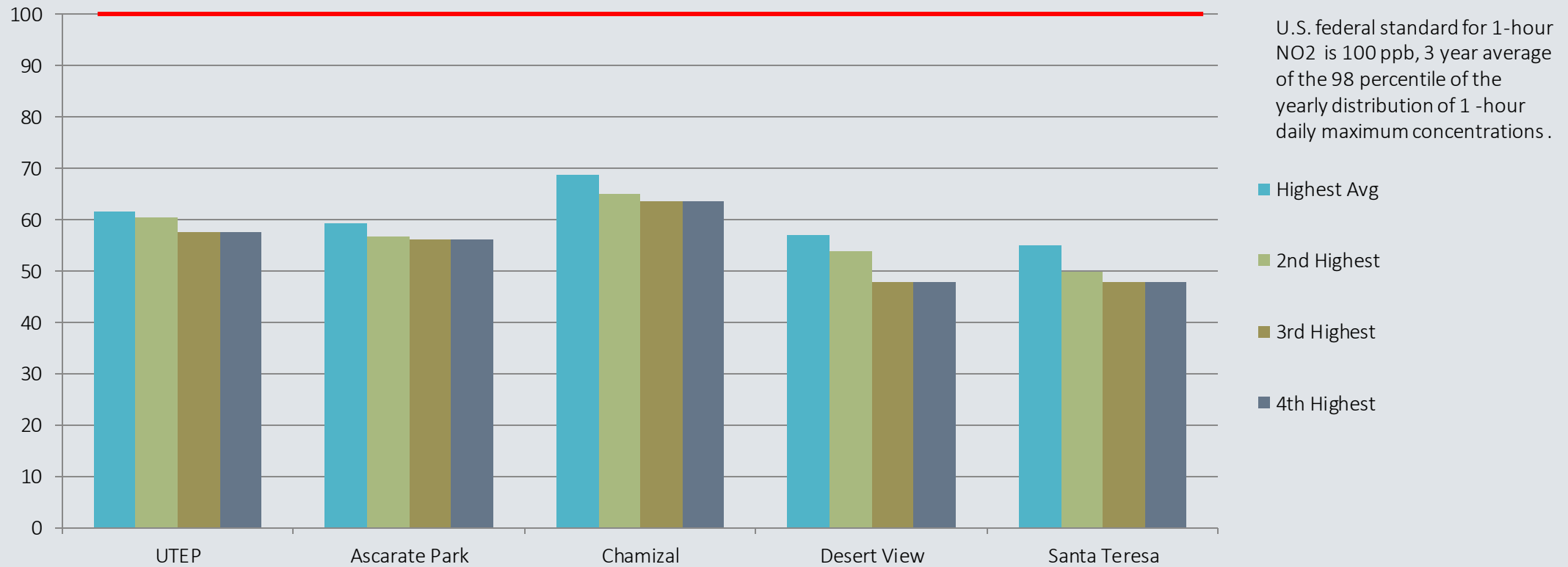
Dióxido de  
Nitrógeno



# NO2

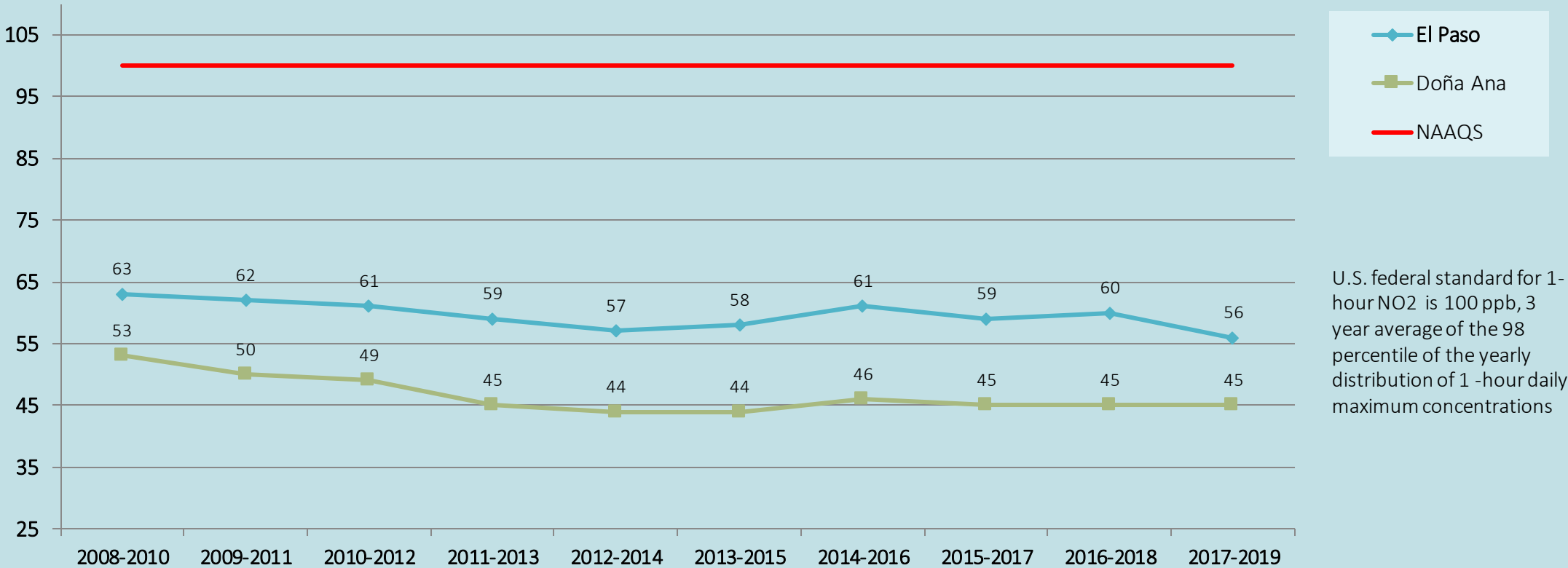
## Four Highest Values at Monitors in El Paso and Doña Ana County

Jan. 1 – Sept. 30, 2020



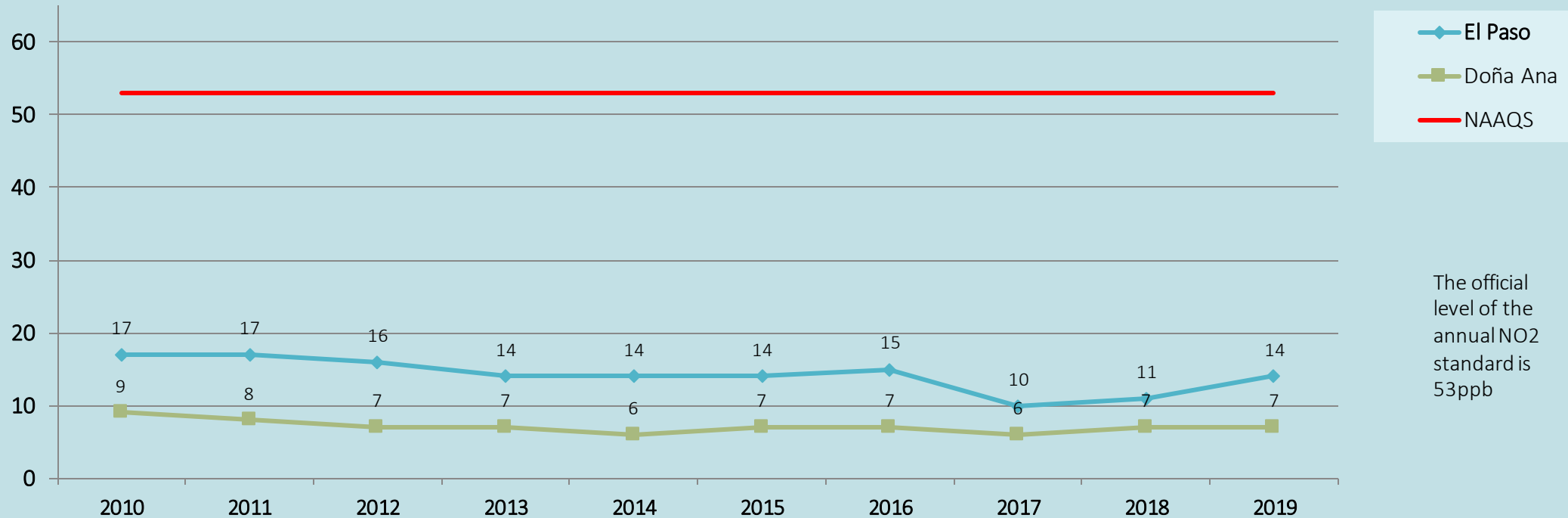
# NO2

## Design Value Trend for El Paso and Doña Ana County 2008-2019



U.S. federal standard for 1-hour NO2 is 100 ppb, 3 year average of the 98 percentile of the yearly distribution of 1-hour daily maximum concentrations

# Nitrogen Dioxide (NO<sub>2</sub>) Annual Mean Design Value



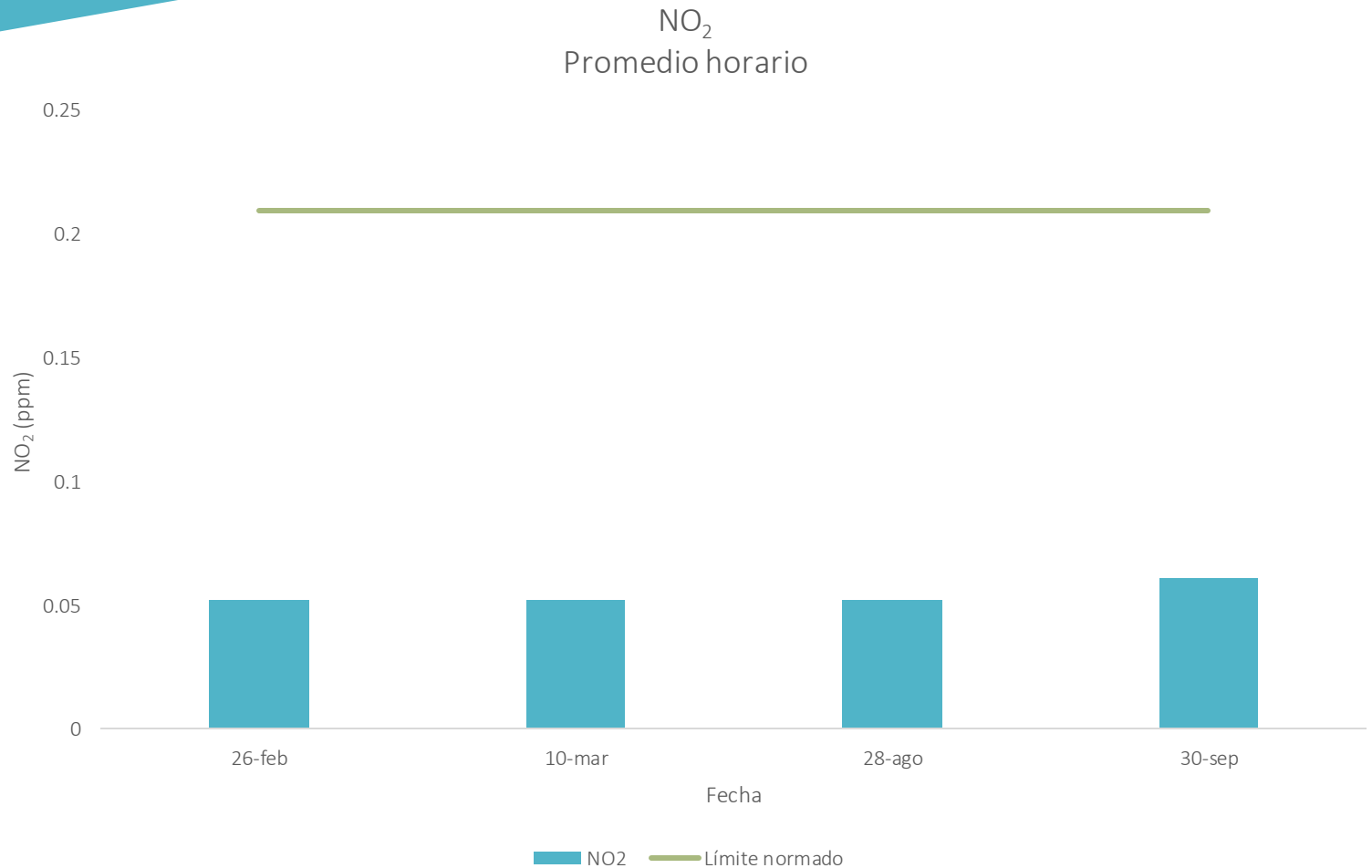
The official level of the annual NO<sub>2</sub> standard is 53ppb

# Dióxido de nitrógeno | Promedios horarios | 4 valores máximos (ene-sep 2020)

## Nitrogen dioxide | Hourly average | 4 highest values (Jan-Sep 2020)

El límite máximo permisible en México para  $\text{NO}_2$  es de 0.21 ppm en promedios horarios.

The highest allowable limit in Mexico for  $\text{NO}_2$  is 0.21 ppm in hourly averages.



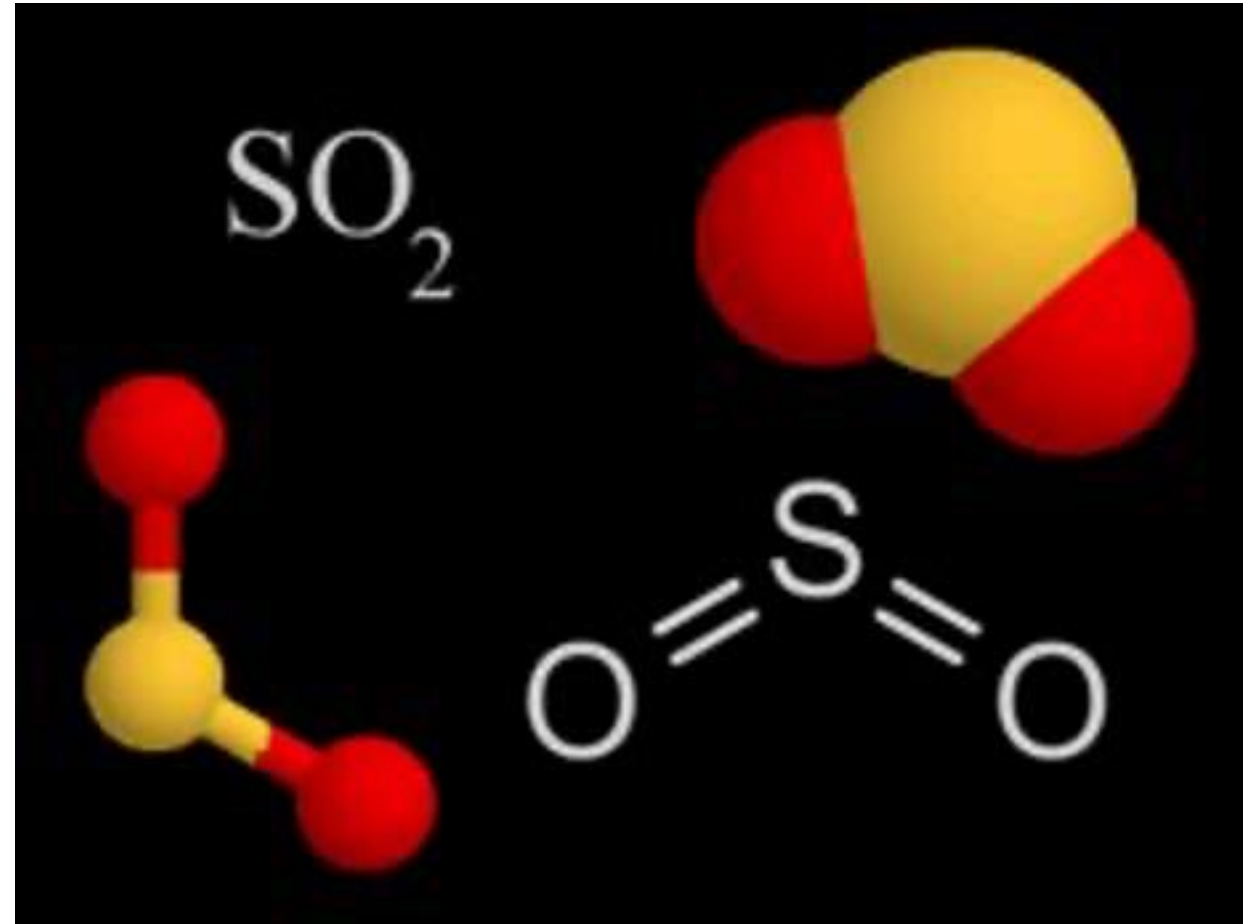
## Cumplimiento con los límites de exposición crónica | Media aritmética anual 2019

## Compliance with chronic exposure limits | Annual arithmetical mean 2019

Parámetro Parameter	Límite de exposición crónica Chronical exposure limit	Promedio anual 2019 Annual mean 2019
PM <sub>2.5</sub>	12 µg m <sup>-3</sup>	10.9 µg m <sup>-3</sup>
PM <sub>10</sub>	40 µg m <sup>-3</sup>	48.2 µg m <sup>-3</sup>

Sulfur dioxide  
(SO<sub>2</sub>)

Dióxido de  
azufre

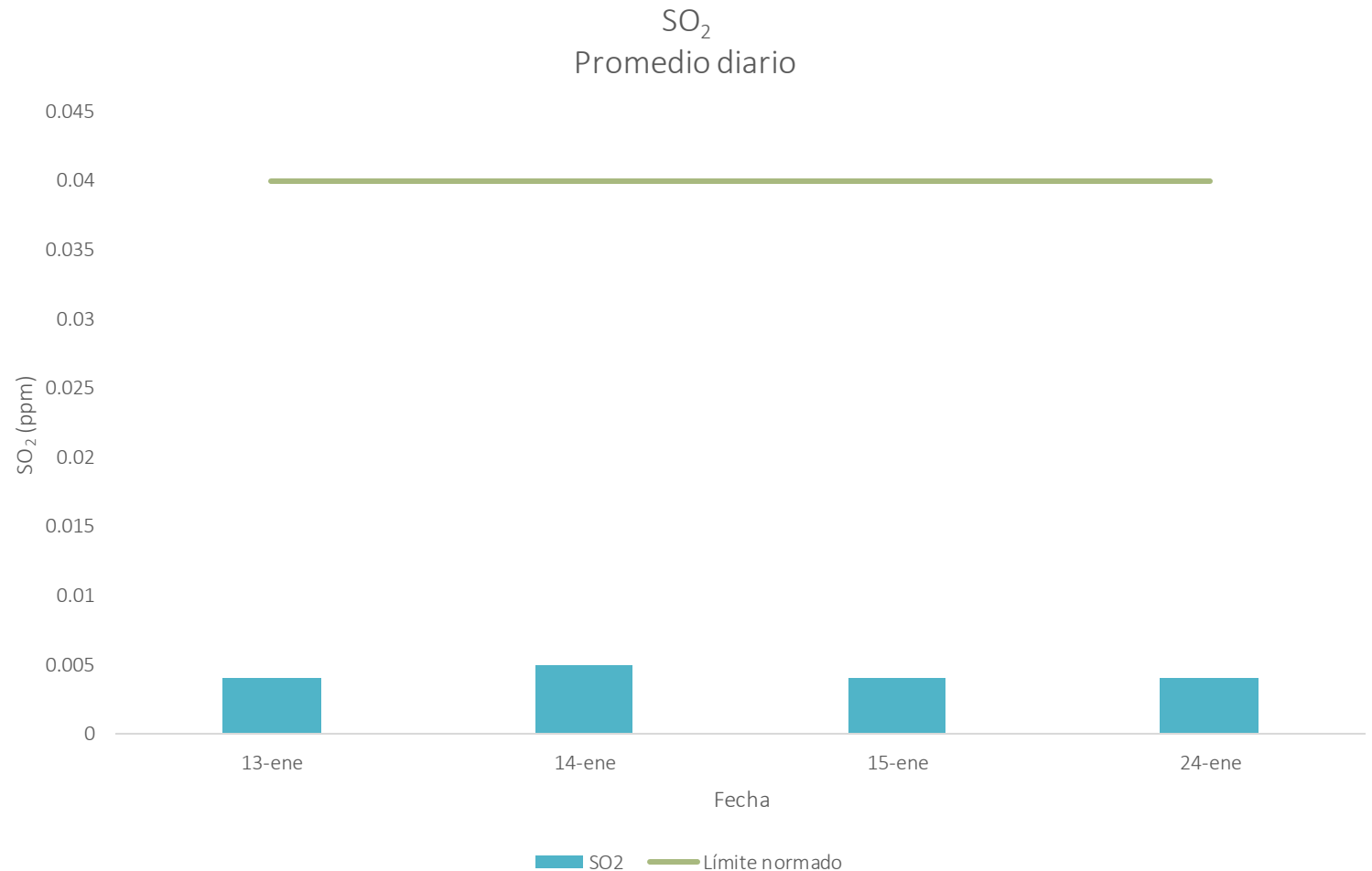


# Dióxido de azufre | Promedios diarios | 4 valores máximos (ene-sep 2020)

## Sulfur dioxide | Daily average | 4 highest values (Jan-Sep 2020)

El límite máximo permisible en México para  $\text{SO}_2$  es de 0.04 ppm en promedios diarios.

The highest allowable limit in Mexico for  $\text{SO}_2$  is 0.04 ppm in daily averages.

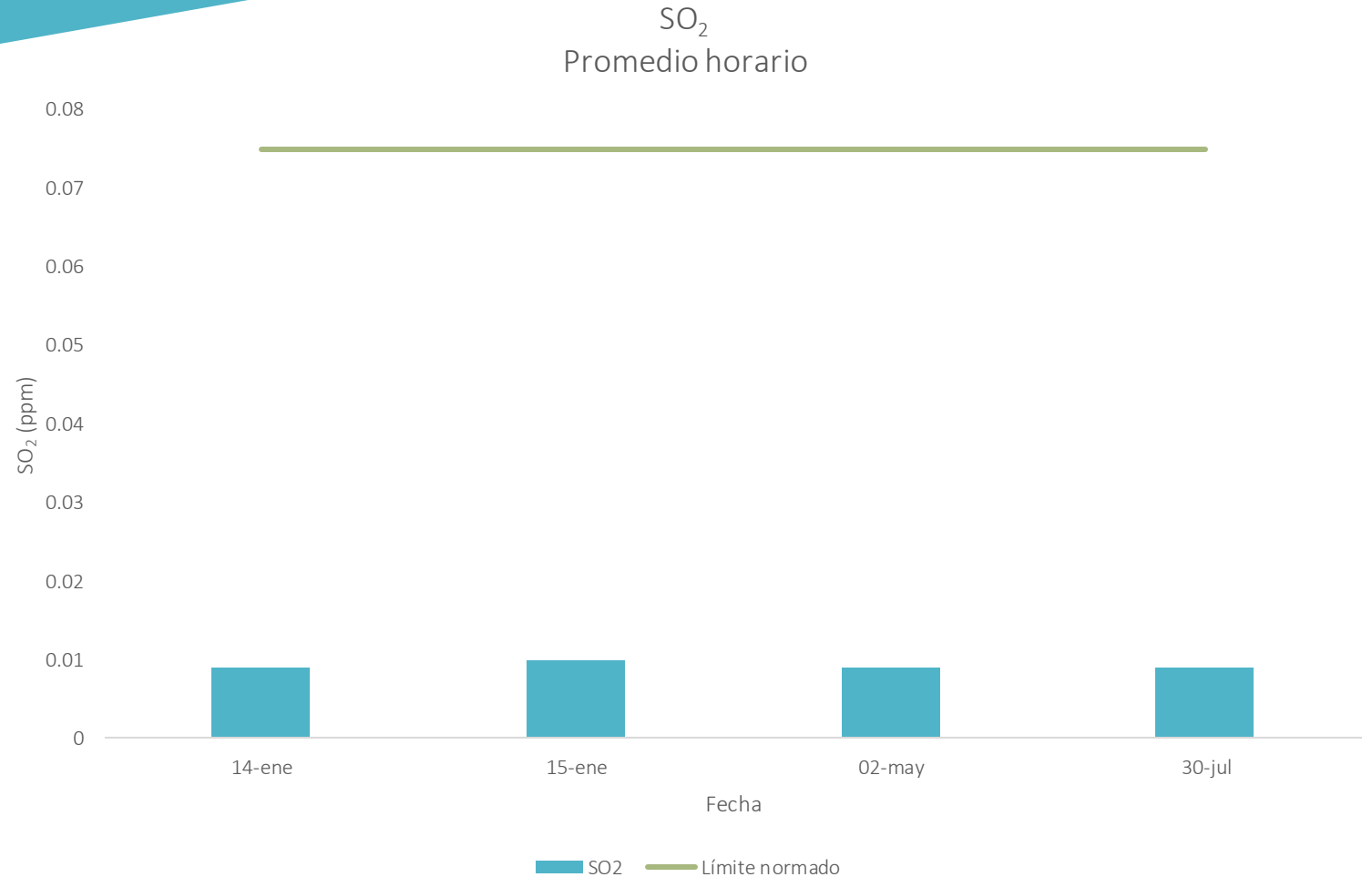


# Dióxido de azufre | Promedios horarios | 4 valores máximos (ene-sep 2020)

## Sulfur dioxide | Hourly average | 4 highest values (Jan-Sep 2020)

El límite máximo permisible en México para  $\text{SO}_2$  es de 0.075 ppm en promedios horarios.

The highest allowable limit in Mexico for  $\text{SO}_2$  is 0.075 ppm in hourly averages.



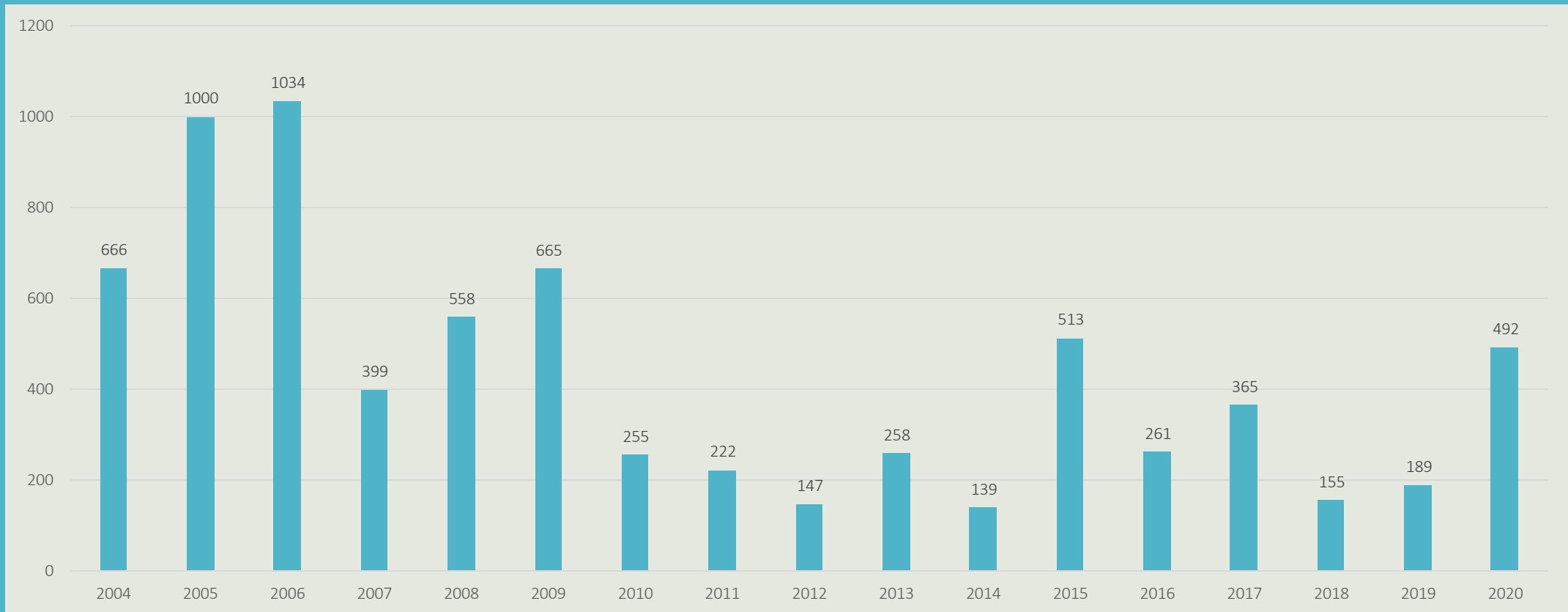
Hydrogen  
Sulfide (H<sub>2</sub>S)

Sulfuro de  
hidrógeno



# Hydrogen Sulfide – 30-Minute Averages

Jan. 1 – Sept. 30, 2020  
Highest Value (in ppb) Each Year  
at “Lower Valley” Monitor  
(2004-2020)

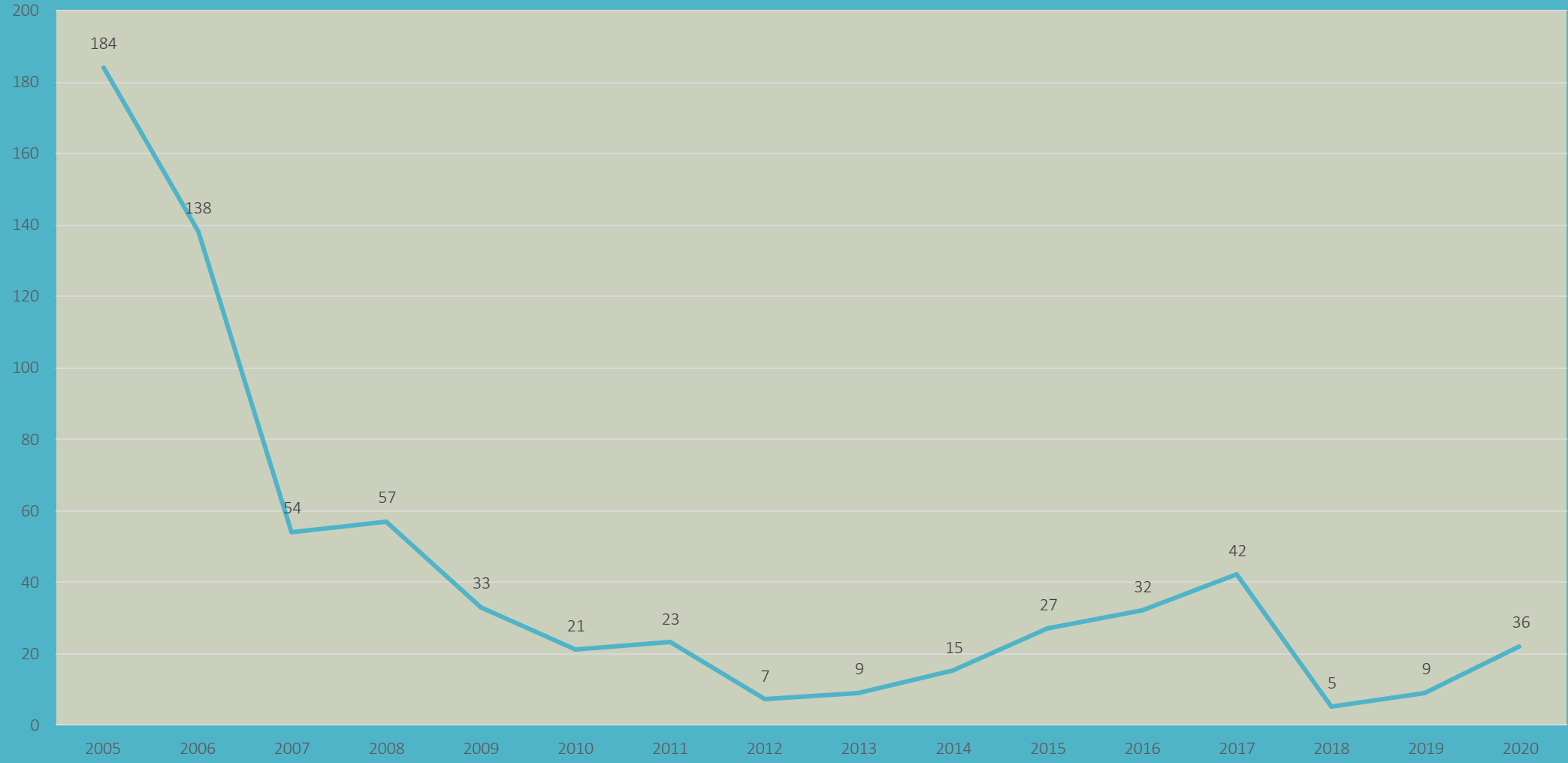


# Hydrogen Sulfide – 30-Minute Averages

Jan. 1 – Sept. 30, 2020  
Number of Exceedances (in ppb) Each Year  
at “Lower Valley” Monitor  
(2004-2020)



Hydrogen Sulfide  
Jan. 1 – Sept. 30, 2020  
Number of Days with 30-Minute Exceedances  
at “Lower Valley” Monitor,  
(2004-2020)



NMED

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TCEQ

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■ [frida.toquinto@uacj.mx](mailto:frida.toquinto@uacj.mx)



Questions?  
¿Preguntas?



Thank you!  
¡Gracias!

