

# Dallas

## Community Air Management Program

Monthly Data Summary  
June - August 2023

For Questions or Comments:

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# Sensor Data Information

- Disclaimer
- When using data from D-CAMP, please note the following:
- The data presented on this website are not validated or verified
- The data does not come from regulatory monitors. This data cannot be used to infer violations of the the National Ambient Air Quality Standards (NAAQS) or other regulatory violations
- This data should be used with discretion
- Data from regulatory monitors is available here:  
<https://www.tceq.texas.gov/airquality/monops>

## Data Guidance

<b>Low Level of Air Pollution</b>	O <sub>3</sub> less than 35 ppb NO <sub>2</sub> less 50 ppb PM <sub>10</sub> less than 75 µg/m <sup>3</sup> PM <sub>2.5</sub> less than 17 µg/m <sup>3</sup>
<b>Moderate Level of Air Pollution</b>	O <sub>3</sub> higher than 35 ppb and less than 70 ppb NO <sub>2</sub> higher 50 ppb and less than 100 ppb PM <sub>10</sub> higher than 75 µg/m <sup>3</sup> and less than 150 µg/m <sup>3</sup> PM <sub>2.5</sub> higher than 17 µg/m <sup>3</sup> and less than 35 µg/m <sup>3</sup>
<b>High Level of Air Pollution</b>	O <sub>3</sub> higher than 70 ppb NO <sub>2</sub> higher 100 ppb PM <sub>10</sub> higher than 150 µg/m <sup>3</sup> PM <sub>2.5</sub> less than 35 µg/m <sup>3</sup>

# Technical Information

## Sensors Used in the Network

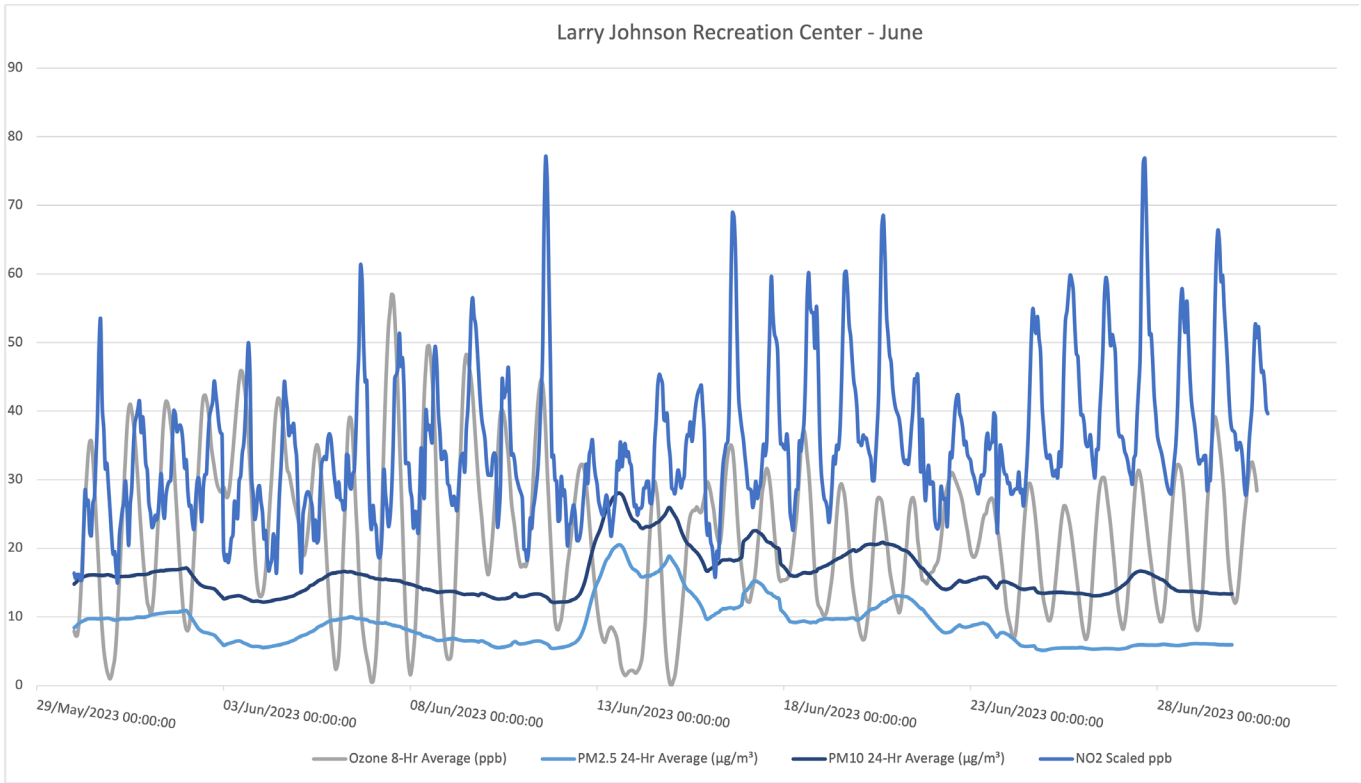
There are five AQMesh monitors currently operating in the network. These units use an optical light scattering sensor to measure particulates. They use electrochemical sensors to measure other pollutants. All AQMesh units measure particulate (PM), ozone (O<sub>3</sub>), and nitrogen dioxide NO<sub>2</sub>.

The AQMesh units also have sensors for ambient temperature, humidity, and barometric pressure. Extreme conditions of these factors can impact the accuracy of the sensors for all the measured pollutants. When the unit detects extreme conditions, it will cease to report one, or more, affected pollutants. Once it detects that the environmental conditions have returned to normal, reporting will resume.

## Sensor Accuracy

- A primary goal of D-CAMP is to provide the most accurate data possible with the available technology. To meet this goal, all the sensors used in the network undergo a period of co-location before they are placed in the field.
- co-location refers to the process of operating a regulatory grade reference monitor (FRM/FEM) and non-reference monitor (air sensor) at the same time and location under real-world conditions for a defined evaluation period. Collocating air sensors with regulatory monitors can help evaluate the accuracy of the sensors by comparison of the two data sets.
- At the end of the co-location period, the data is compared, and correction factors are calculated for each pollutant and each sensor.
- These correction factors have been applied to the data in this report.
- This co-location process provides a more accurate view of the air quality than some networks, such as the Purple Air network, that do not use this procedure.

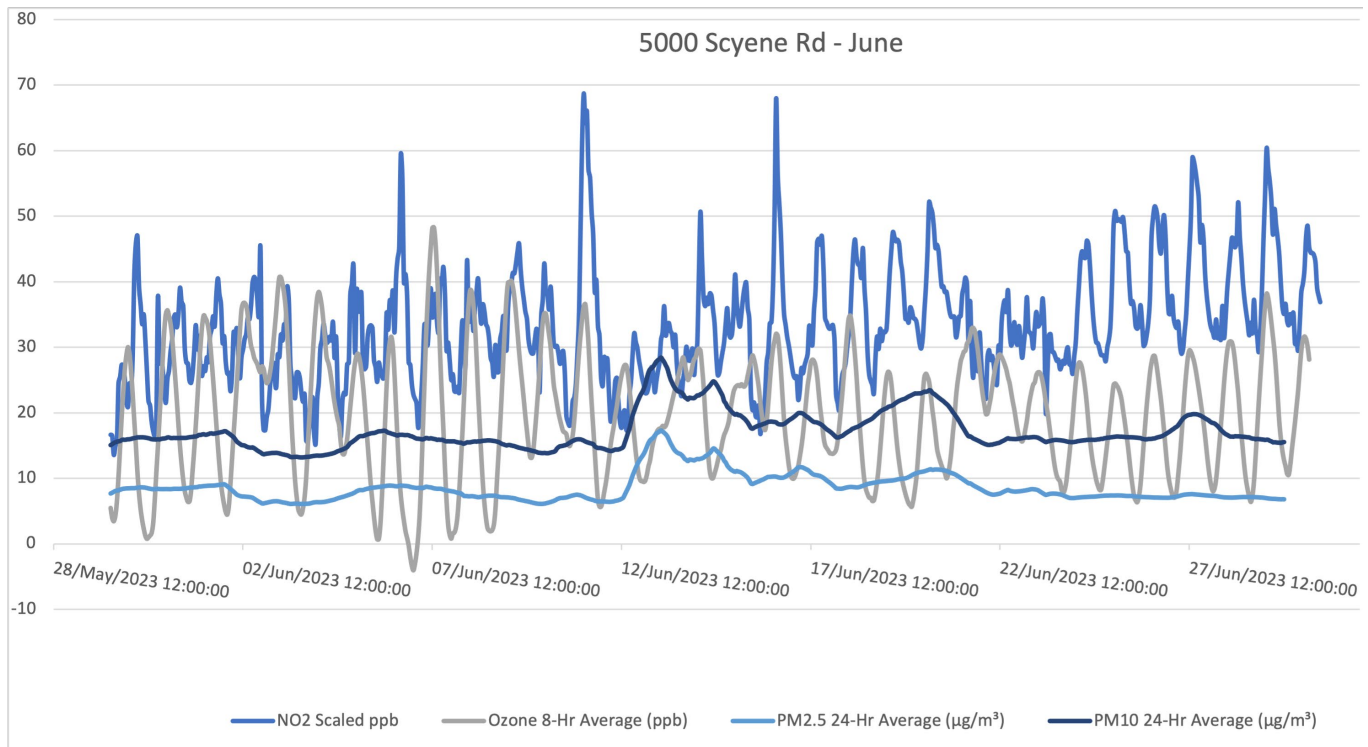
# Larry Johnson Recreation Center Data Summary June 2023



## Data Summary

Larry Johnson Recreation Center (June)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average (µg/m <sup>3</sup> )	PM <sub>10</sub> 24-Hr Average (µg/m <sup>3</sup> )
Average Concentration	35.5	21.9	9.0	16.2
Maximum Observed Concentration	77.1	57.0	20.5	28.4

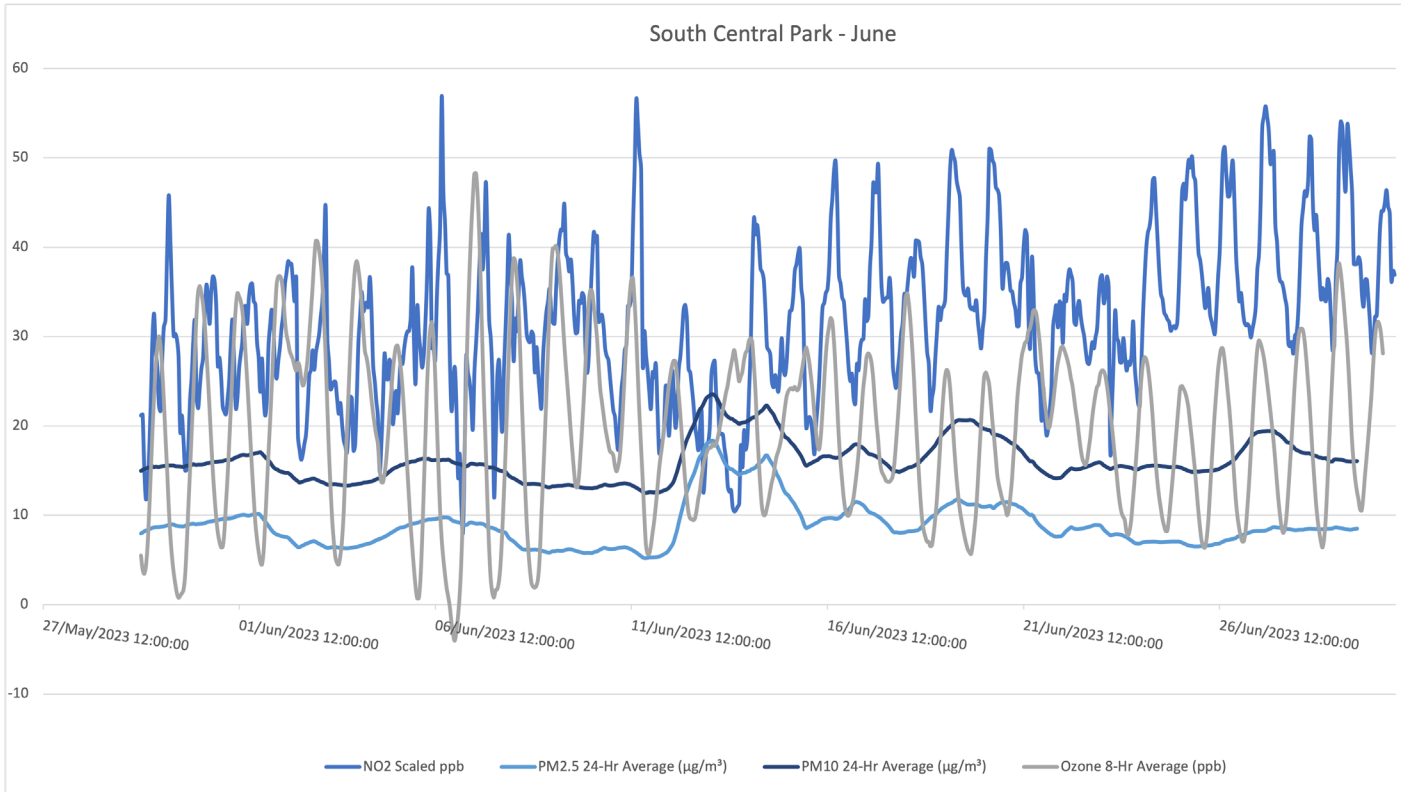
# 5000 Scyene Rd (Mill Creek Batch Plant) Data Summary June 2023



## Data Summary

5000 Scyene Rd (Batch Plant) (June)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average (µg/m <sup>3</sup> )	PM <sub>10</sub> 24-Hr Average (µg/m <sup>3</sup> )
Average Concentration	33.6	21.9	8.6	17.2
Maximum Observed Concentration	68.7	57.9	17.3	28.4

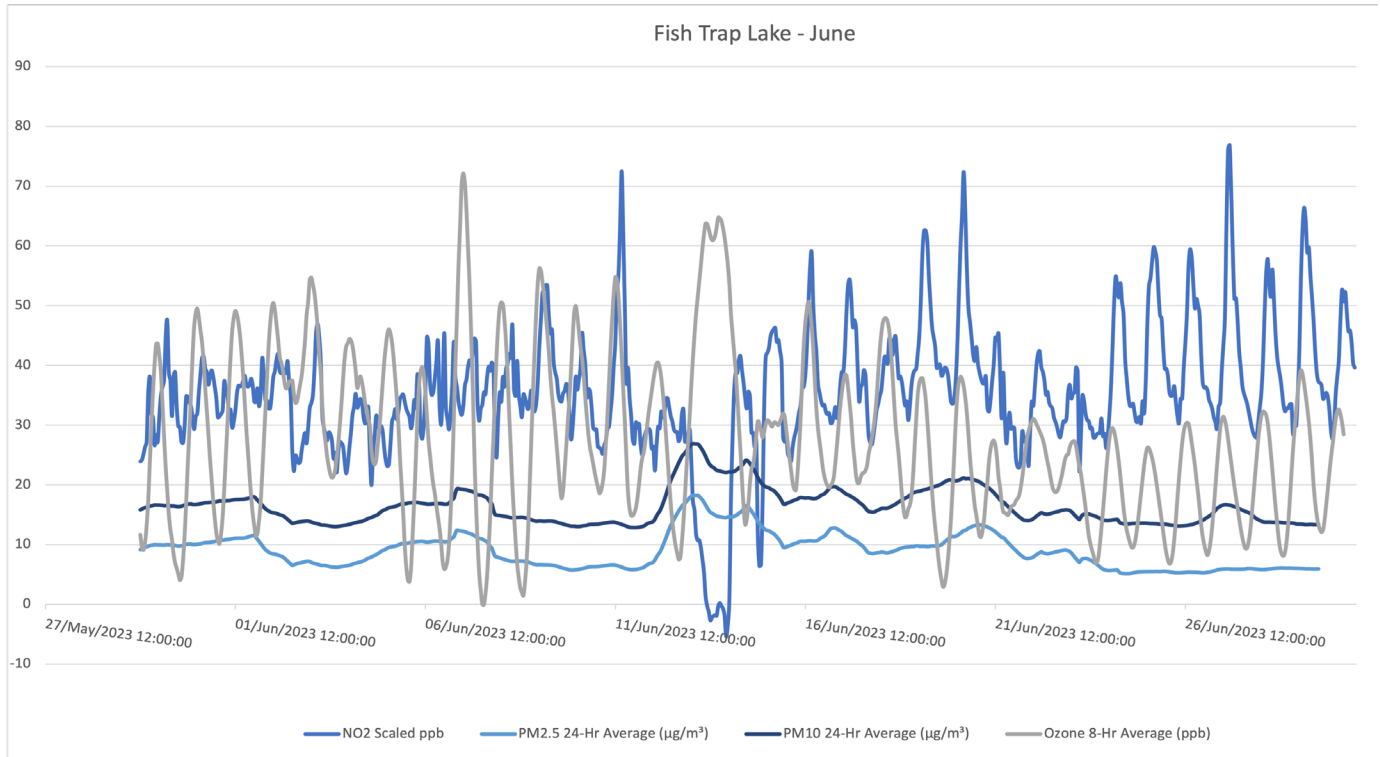
# South Central Park (Joppa Neighborhood) Data Summary June 2023



## Data Summary

South Central Park (Joppa Neighborhood) (June)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average (µg/m <sup>3</sup> )	PM <sub>10</sub> 24-Hr Average (µg/m <sup>3</sup> )
Average Concentration	32.1	20.1	8.9	16.2
Maximum Observed Concentration	56.9	48.3	18.4	23.5

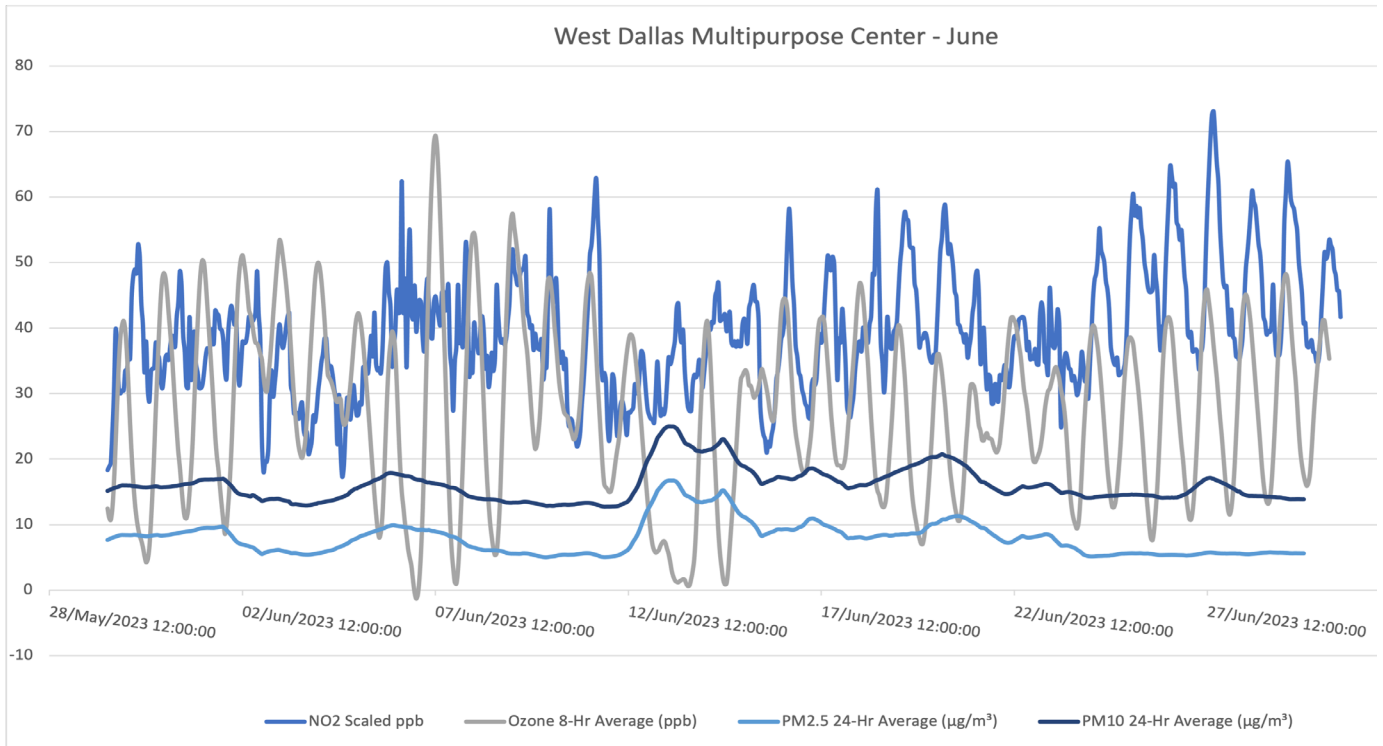
# Fish Trap Lake Data Summary June 2023



## Data Summary

Fish Trap Lake (June)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )	PM <sub>10</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )
Average Concentration	35.7	26.2	9.0	16.4
Maximum Observed Concentration	76.9	72.1	28.0	26.9

# West Dallas Multipurpose Center Data Summary June 2023



## Data Summary

West Dallas Multipurpose Center (June)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average (µg/m <sup>3</sup> )	PM <sub>10</sub> 24-Hr Average (µg/m <sup>3</sup> )
Average Concentration	39.4	27.5	8.0	16.1
Maximum Observed Concentration	73.1	69.4	16.7	25.0



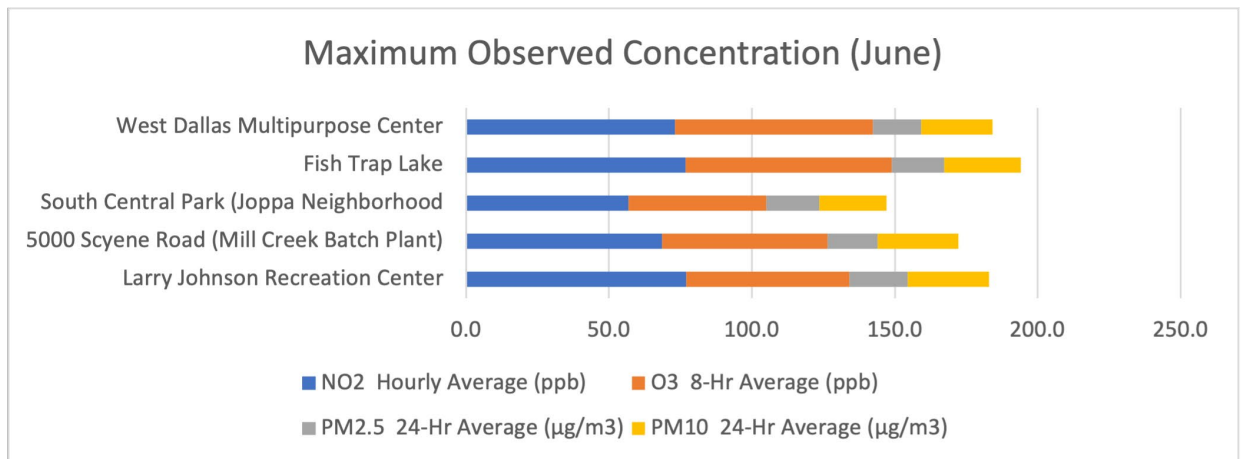
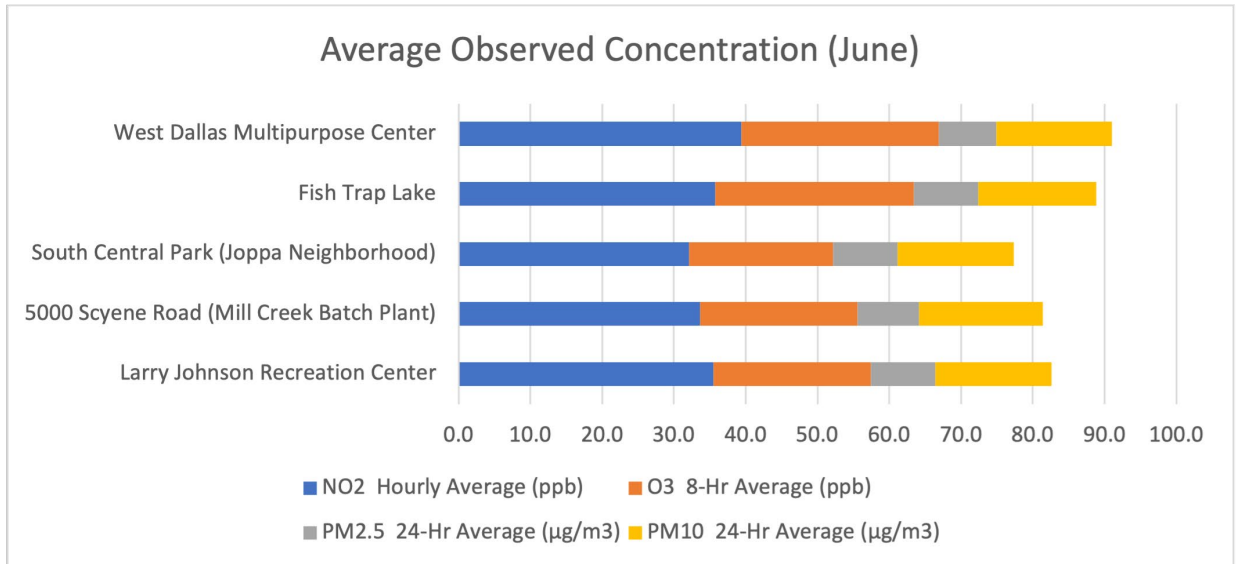
# Data Summary

## June 2023

June Average Observed Concentration				
	NO <sub>2</sub> Hourly Average	O <sub>3</sub> 8-Hr Average	PM <sub>2.5</sub> 24-Hr Average	PM <sub>10</sub> 24-Hr Average
Location	(ppb)	(ppb)	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )
Larry Johnson Recreation Center	35.5	21.9	9.0	16.2
5000 Scyene Road (Mill Creek Batch Plant)	33.6	21.9	8.6	17.2
South Central Park (Joppa Neighborhood)	32.1	20.1	8.9	16.2
Fish Trap Lake	35.7	27.7	9.0	16.4
West Dallas Multipurpose Center	39.4	27.5	8.0	16.1
June Maximum Observed Concentration				
	NO <sub>2</sub> Hourly Average	O <sub>3</sub> 8-Hr Average	PM <sub>2.5</sub> 24-Hr Average	PM <sub>10</sub> 24-Hr Average
Location	(ppb)	(ppb)	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )
Larry Johnson Recreation Center	77.1	57.0	20.5	28.4
5000 Scyene Road (Mill Creek Batch Plant)	68.7	57.9	17.3	28.4
South Central Park (Joppa Neighborhood)	56.9	48.3	18.4	23.5
Fish Trap Lake	76.9	72.1	18.2	26.9
West Dallas Multipurpose Center	73.1	69.4	16.7	25.0

# Data Summary

## June 2023



# Notes

## June 2023

### Larry Johnson Recreation Center *(Page 4)*

- NO2 : moderate
- O3 : moderate
- PM-2.5 : moderate
- PM-10 : low

### 5000 Scyene Road *(Page 5)*

- NO2 : moderate
- O3 : moderate
- PM-2.5 : moderate
- PM-10 : low

### South Central Park *(Page 6)*

- NO2 : moderate
- O3 : moderate
- PM-2.5 : moderate
- PM-10 : low

### Fish Trap Lake *(Page 7)*

- NO2 : moderate
- O3 : high
- PM-2.5 : moderate
- PM-10 : low

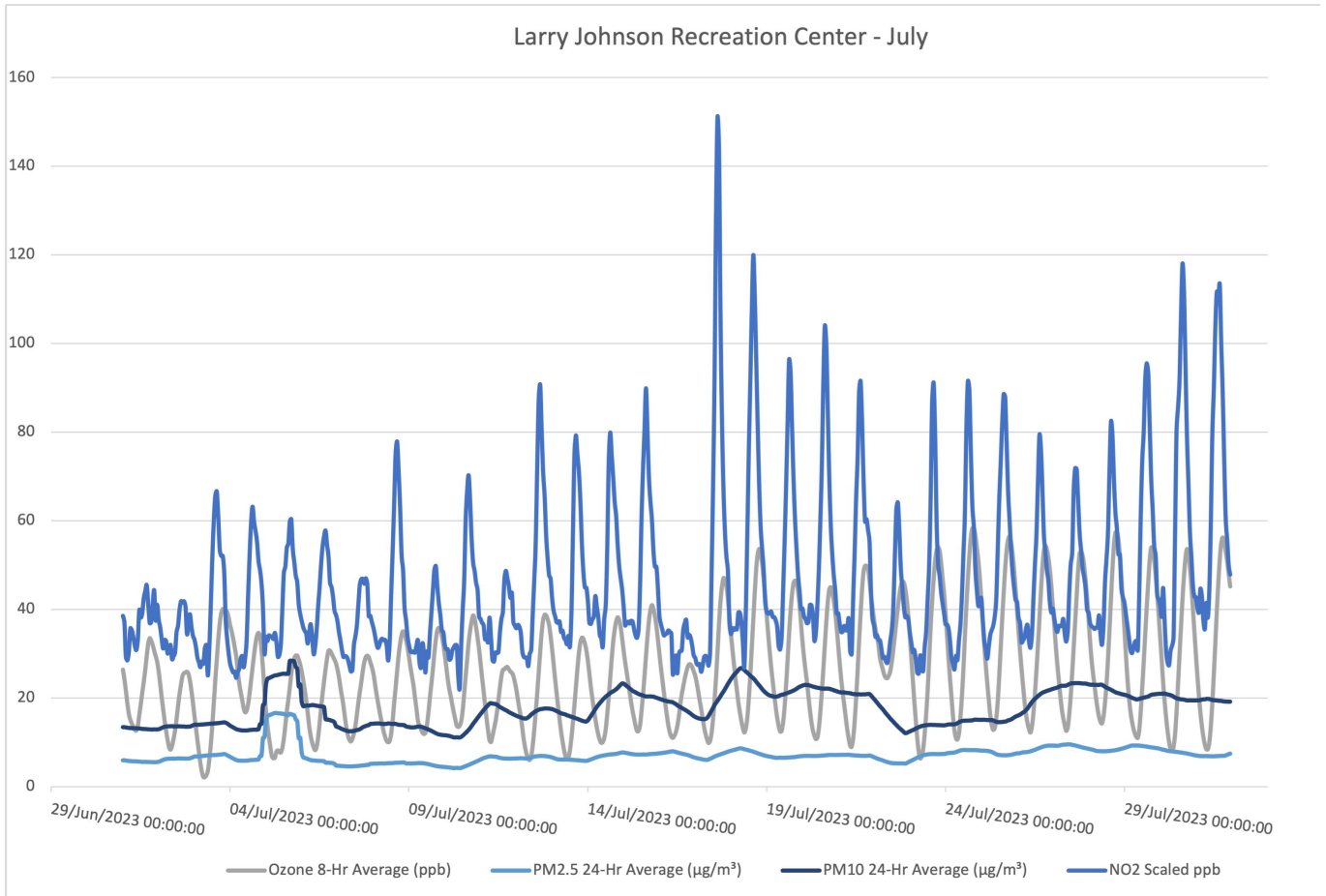
### West Dallas *(Page 8)*

- NO2 : moderate
- O3 : moderate
- PM-2.5 : low
- PM-10 : low

- Notes:

- High NO2 values appeared to be an error due to extreme heat (and/or humidity) during summer having an impact on the electro chemical sensor, especially when temperatures were near 100F or above
- There were 50 Ozone Exceedance Days for the Season. This is DFW region-wide

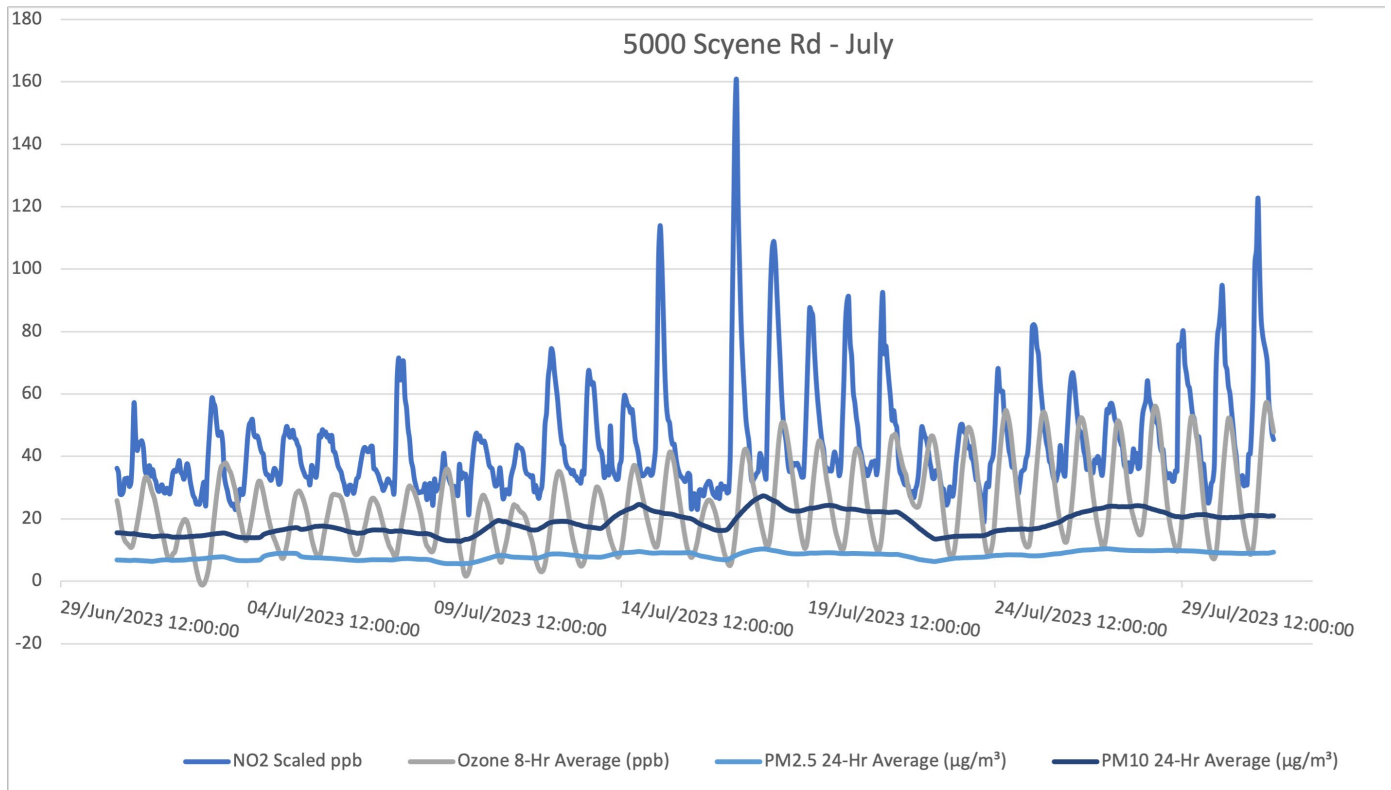
# Larry Johnson Recreation Center Data Summary July 2023



## Data Summary

Larry Johnson Recreation Center (July)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )	PM <sub>10</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )
Average Concentration	46.1	26.2	7.1	17.7
Maximum Observed Concentration	151.1	58.4	16.7	28.4

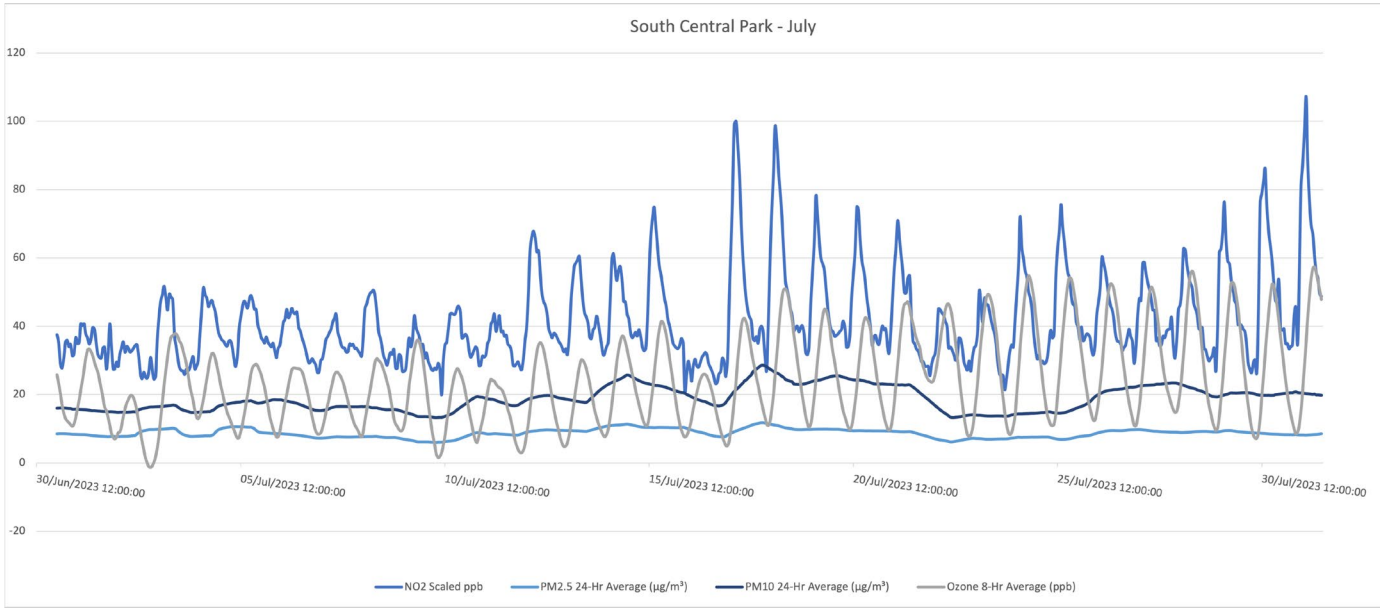
# 5000 Scyene Rd (Mill Creek Batch Plant) Data Summary July 2023



## Data Summary

5000 Scyene Rd (Batch Plant) (July)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )	PM <sub>10</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )
Average Concentration	43.8	25.9	8.1	18.7
Maximum Observed Concentration	160.3	56.8	10.3	27.4

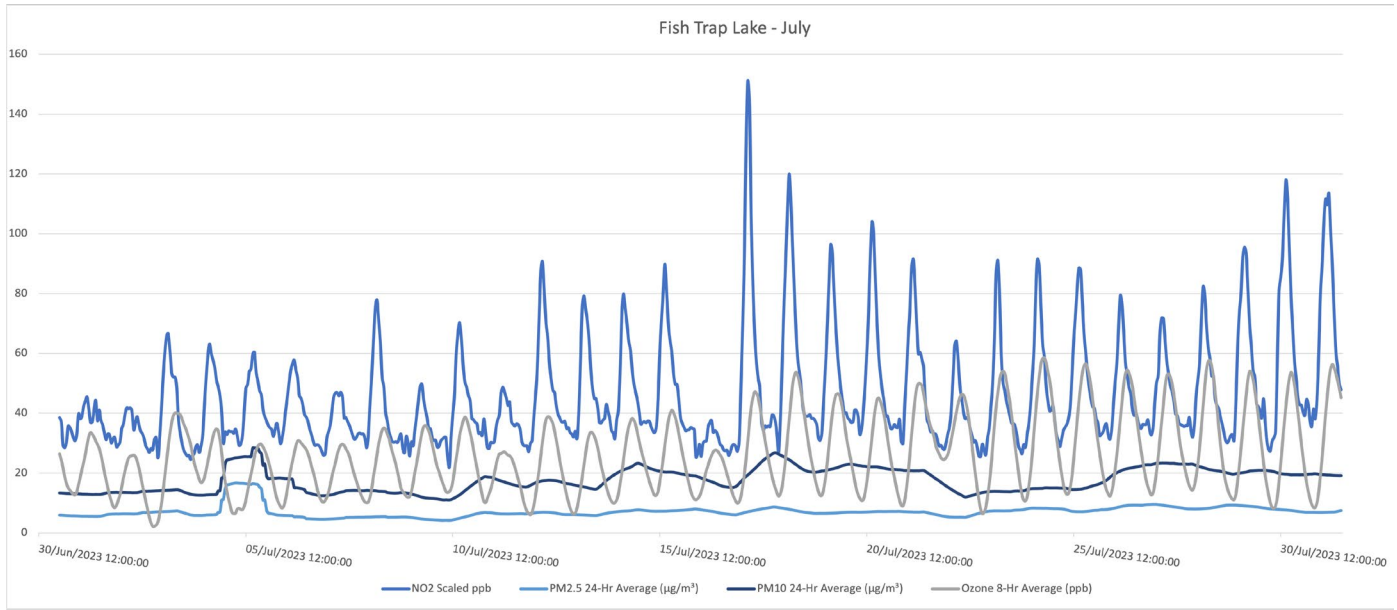
# South Central Park (Joppa Neighborhood) Data Summary July 2023



## Data Summary

South Central Park (Joppa Neighborhood) (July)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )	PM <sub>10</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )
Average Concentration	41.6	24.1	8.7	18.8
Maximum Observed Concentration	107.1	57.4	11.8	28.6

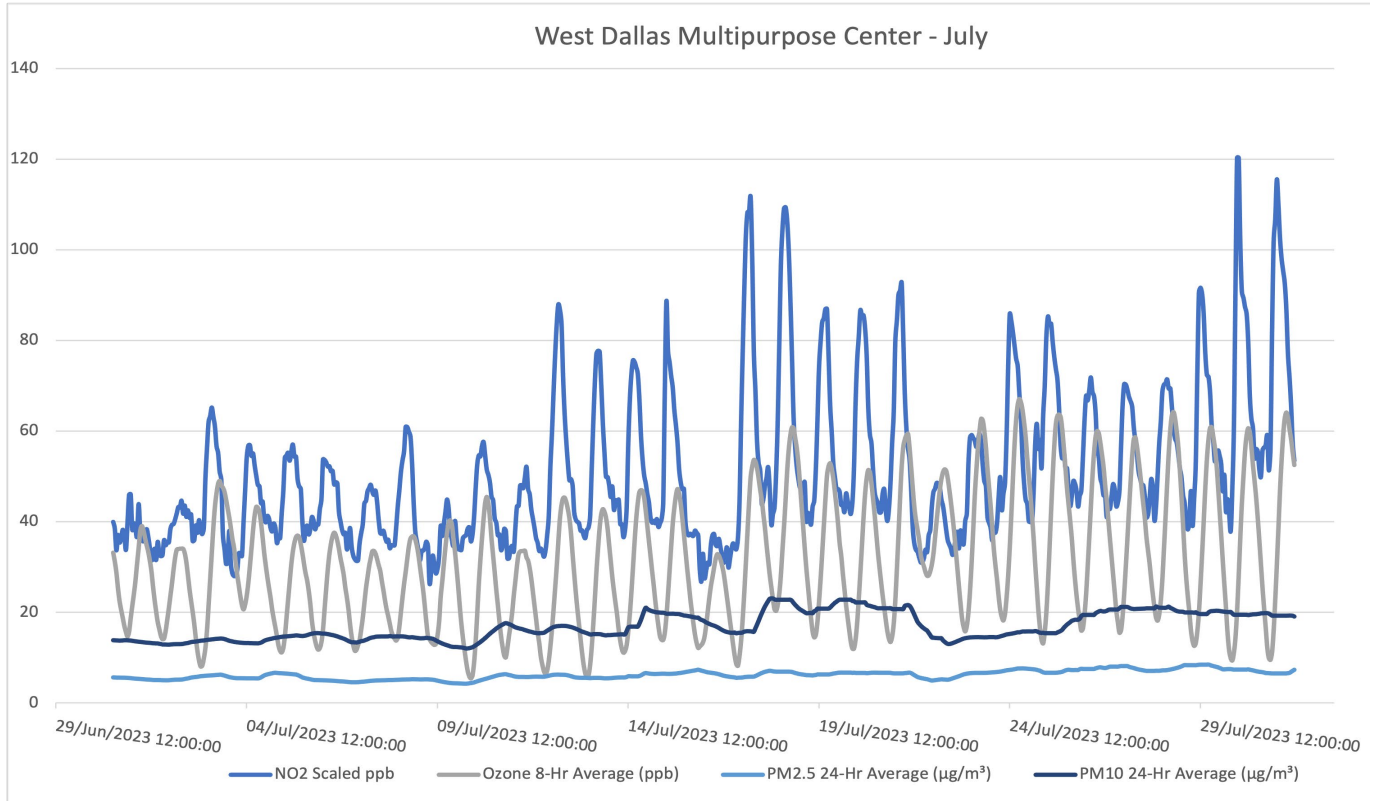
# Fish Trap Lake Data Summary July 2023



## Data Summary

Fish Trap Lake (July)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average (µg/m <sup>3</sup> )	PM <sub>10</sub> 24-Hr Average (µg/m <sup>3</sup> )
Average Concentration	46.1	27.3	7.1	17.7
Maximum Observed Concentration	151.1	58.4	16.7	28.4

# West Dallas Multipurpose Center Data Summary July 2023



## Data Summary

West Dallas Multipurpose Center (July)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average (µg/m <sup>3</sup> )	PM <sub>10</sub> 24-Hr Average (µg/m <sup>3</sup> )
Average Concentration	51.0	31.3	6.2	16.9
Maximum Observed Concentration	120.3	67.1	8.5	23.1



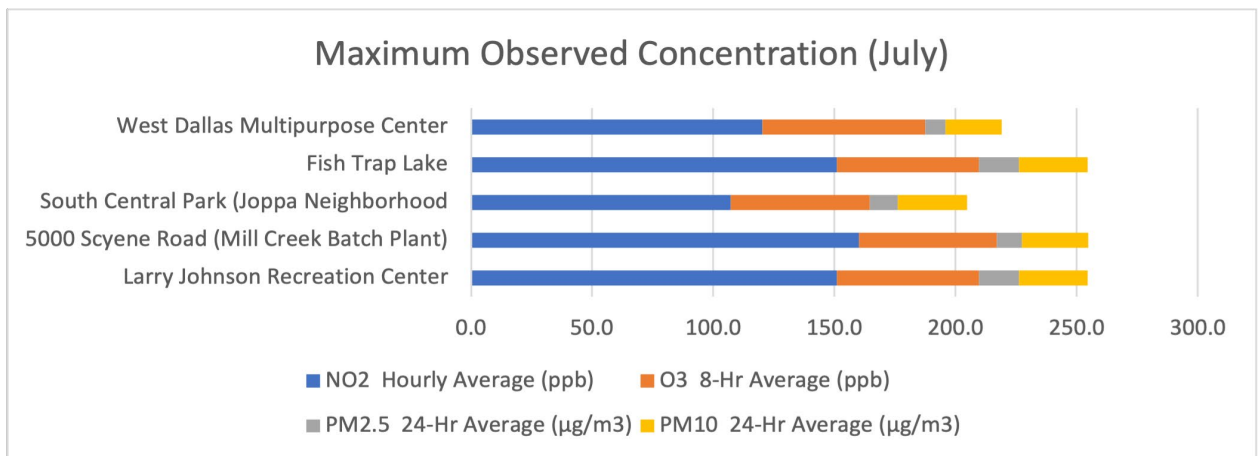
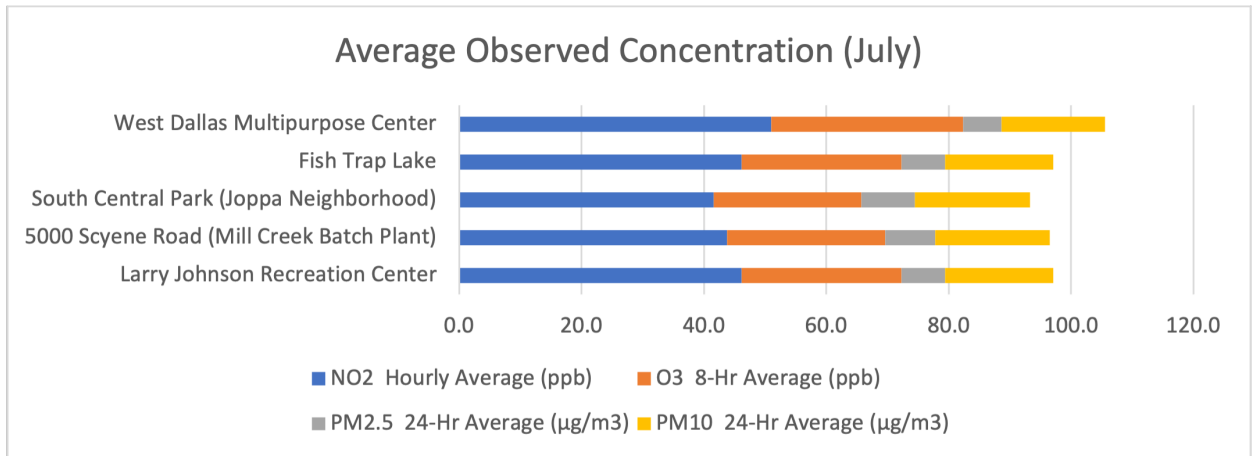
# Data Summary

## July 2023

July Average Observed Concentration				
	NO <sub>2</sub> Hourly Average	O <sub>3</sub> 8-Hr Average	PM <sub>2.5</sub> 24-Hr Average	PM <sub>10</sub> 24-Hr Average
Location	(ppb)	(ppb)	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )
Larry Johnson Recreation Center	46.1	26.2	7.1	17.7
5000 Scyene Road (Mill Creek Batch Plant)	43.8	25.9	8.1	18.7
South Central Park (Joppa Neighborhood)	41.6	24.1	8.7	18.8
Fish Trap Lake	46.1	26.2	7.1	17.7
West Dallas Multipurpose Center	51.0	31.3	6.2	16.9
July Maximum Observed Concentration				
	NO <sub>2</sub> Hourly Average	O <sub>3</sub> 8-Hr Average	PM <sub>2.5</sub> 24-Hr Average	PM <sub>10</sub> 24-Hr Average
Location	(ppb)	(ppb)	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )
Larry Johnson Recreation Center	151.1	58.4	16.7	28.4
5000 Scyene Road (Mill Creek Batch Plant)	160.3	56.8	10.3	27.4
South Central Park (Joppa Neighborhood)	107.1	57.4	11.8	28.6
Fish Trap Lake	151.1	58.4	16.7	28.4
West Dallas Multipurpose Center	120.3	67.1	8.5	23.1

# Data Summary

## July 2023



# Notes

## July 2023

### Larry Johnson Recreation Center *(Page 12)*

- NO<sub>2</sub> : high
- O<sub>3</sub> : moderate
- PM-2.5 : low
- PM-10 : low

### 5000 Scyene Road *(Page 13)*

- NO<sub>2</sub> : high
- O<sub>3</sub> : moderate
- PM-2.5 : low
- PM-10 : low

### South Central Park *(Page 14)*

- NO<sub>2</sub> : high
- O<sub>3</sub> : moderate
- PM-2.5 : low
- PM-10 : low

### Fish Trap Lake *(Page 15)*

- NO<sub>2</sub> : high
- O<sub>3</sub> : moderate
- PM-2.5 : low
- PM-10 : low

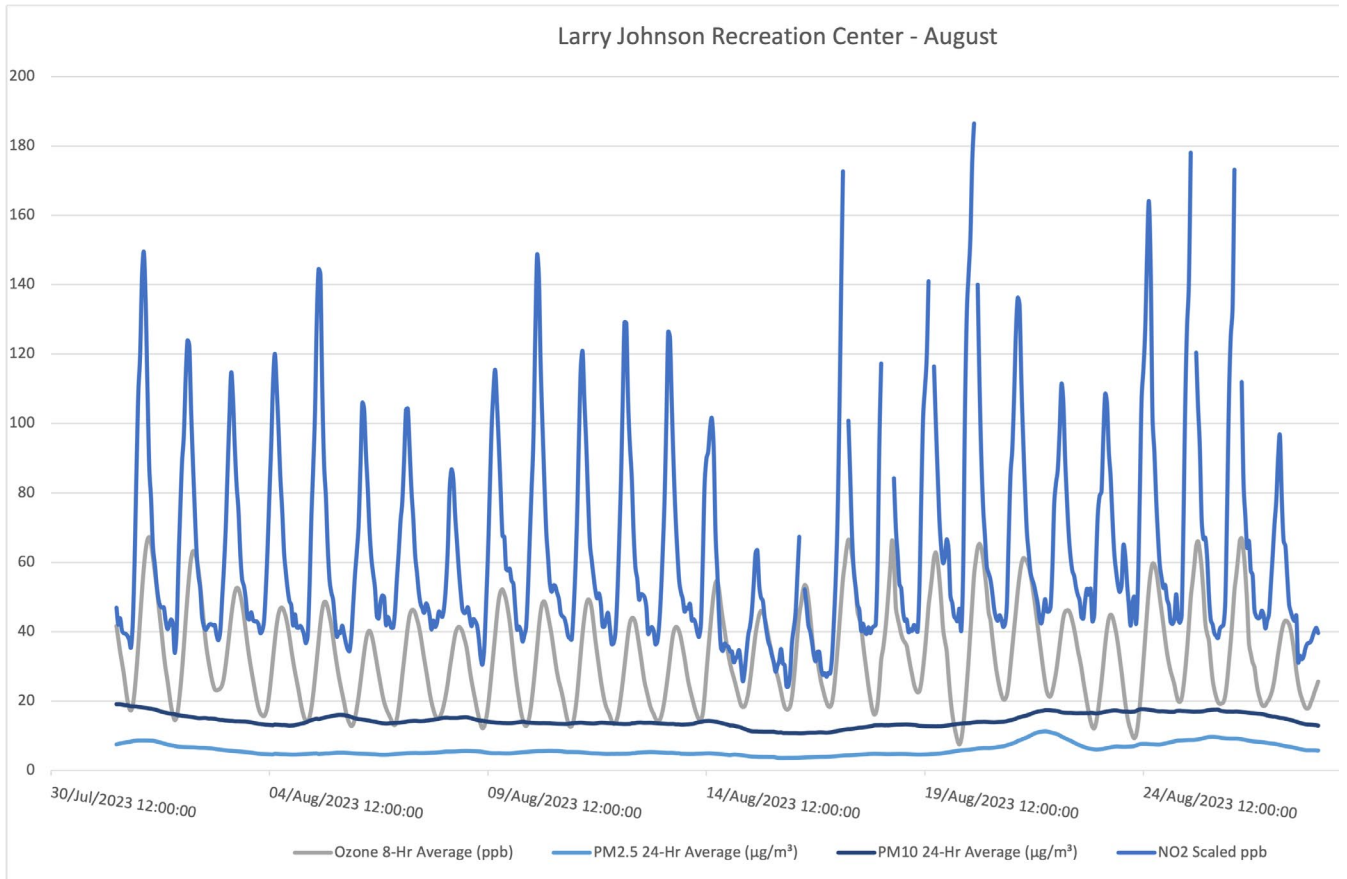
### West Dallas *(Page 16)*

- NO<sub>2</sub> : high
- O<sub>3</sub> : moderate
- PM-2.5 : low
- PM-10 : low

- Notes:

- High NO<sub>2</sub> values appeared to be an error due to extreme heat (and/or humidity) during summer having an impact on the electro chemical sensor, especially when temperatures were near 100F or above
- There were 50 Ozone Exceedance Days for the Season. This is DFW region-wide

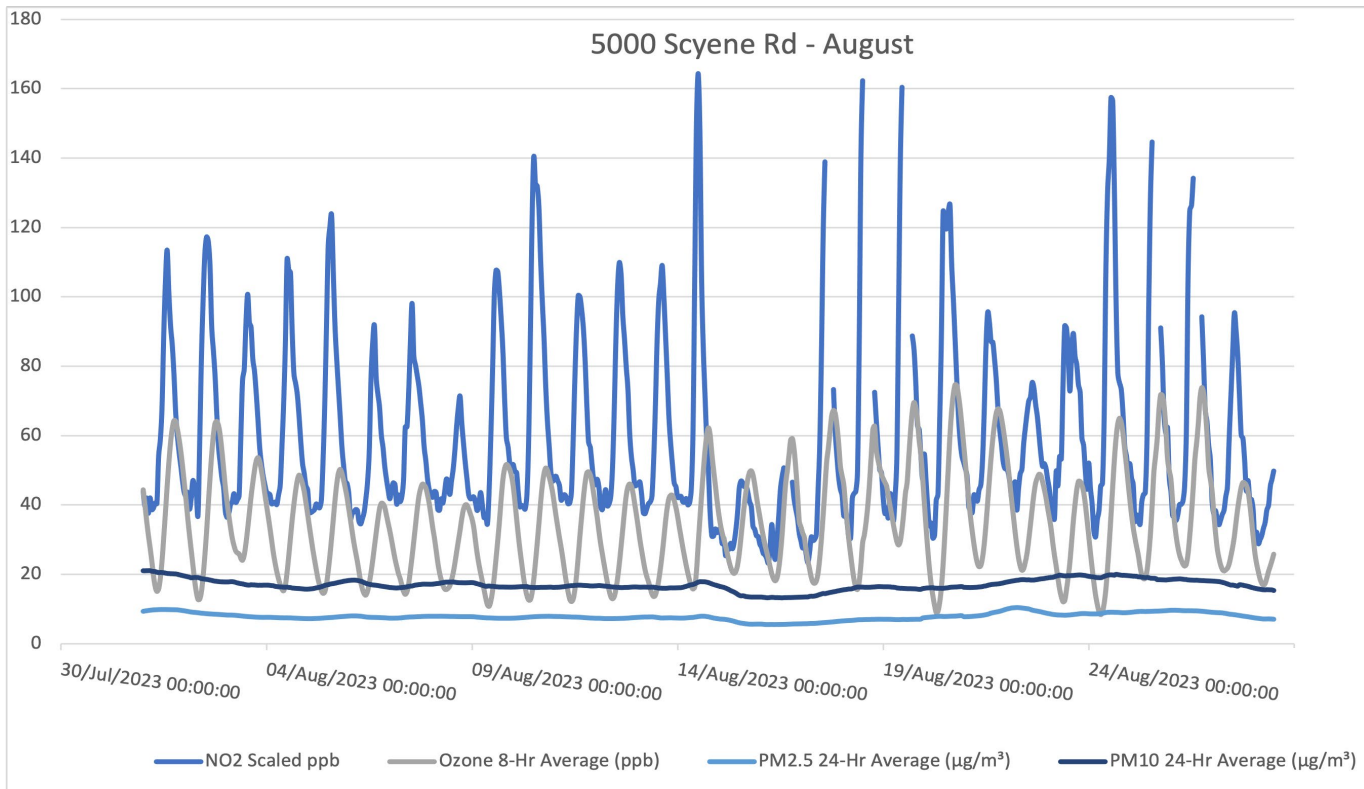
# Larry Johnson Recreation Center Data Summary August 2023



## Data Summary

Larry Johnson Recreation Center (Aug)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )	PM <sub>10</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )
Average Concentration	63.2	33.1	6.0	14.5
Maximum Observed Concentration	186.4	67.2	11.4	19.1

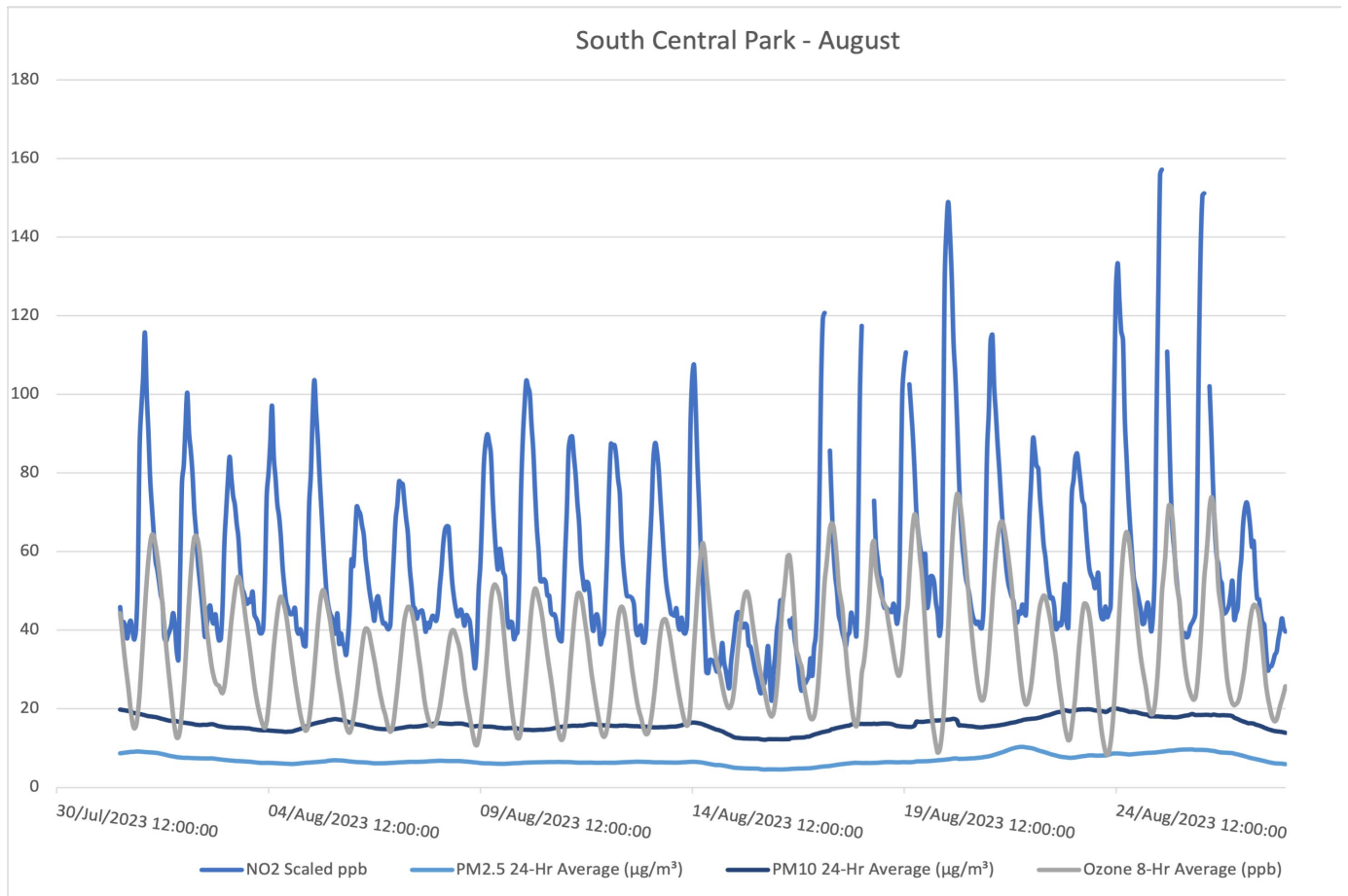
# 5000 Scyene Rd (Mill Creek Batch Plant) Data Summary August 2023



## Data Summary

5000 Scyene Rd (Batch Plant) (Aug)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average (µg/m <sup>3</sup> )	PM <sub>10</sub> 24-Hr Average (µg/m <sup>3</sup> )
Average Concentration	59.5	31.4	7.9	16.9
Maximum Observed Concentration	164.4	64.0	10.4	21.0

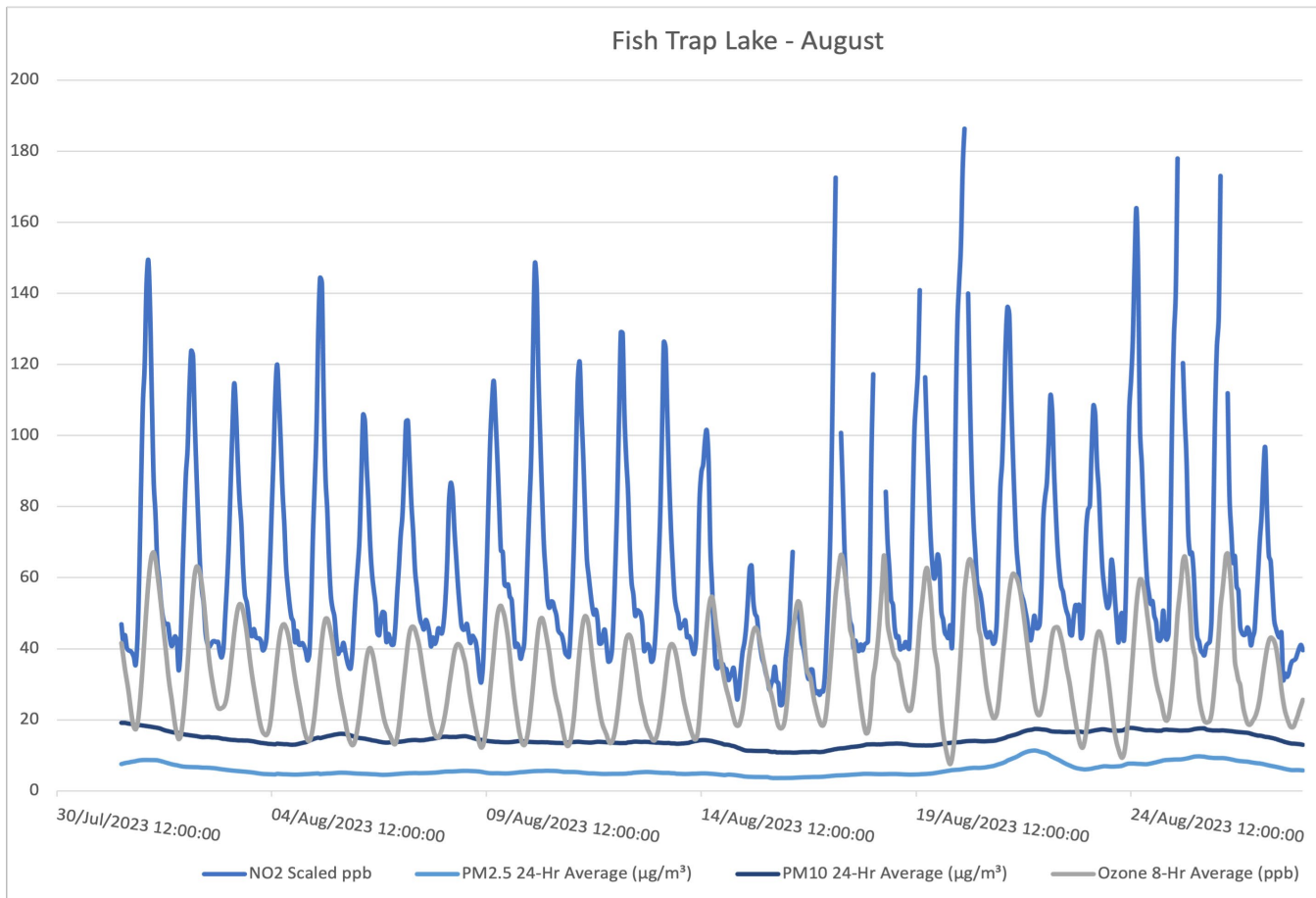
# South Central Park (Joppa Neighborhood) Data Summary August 2023



## Data Summary

South Central Park (Joppa Neighborhood) (Aug)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average (µg/m <sup>3</sup> )	PM <sub>10</sub> 24-Hr Average (µg/m <sup>3</sup> )
Average Concentration	57.6	34.8	6.9	16.1
Maximum Observed Concentration	157.2	74.7	10.3	20.1

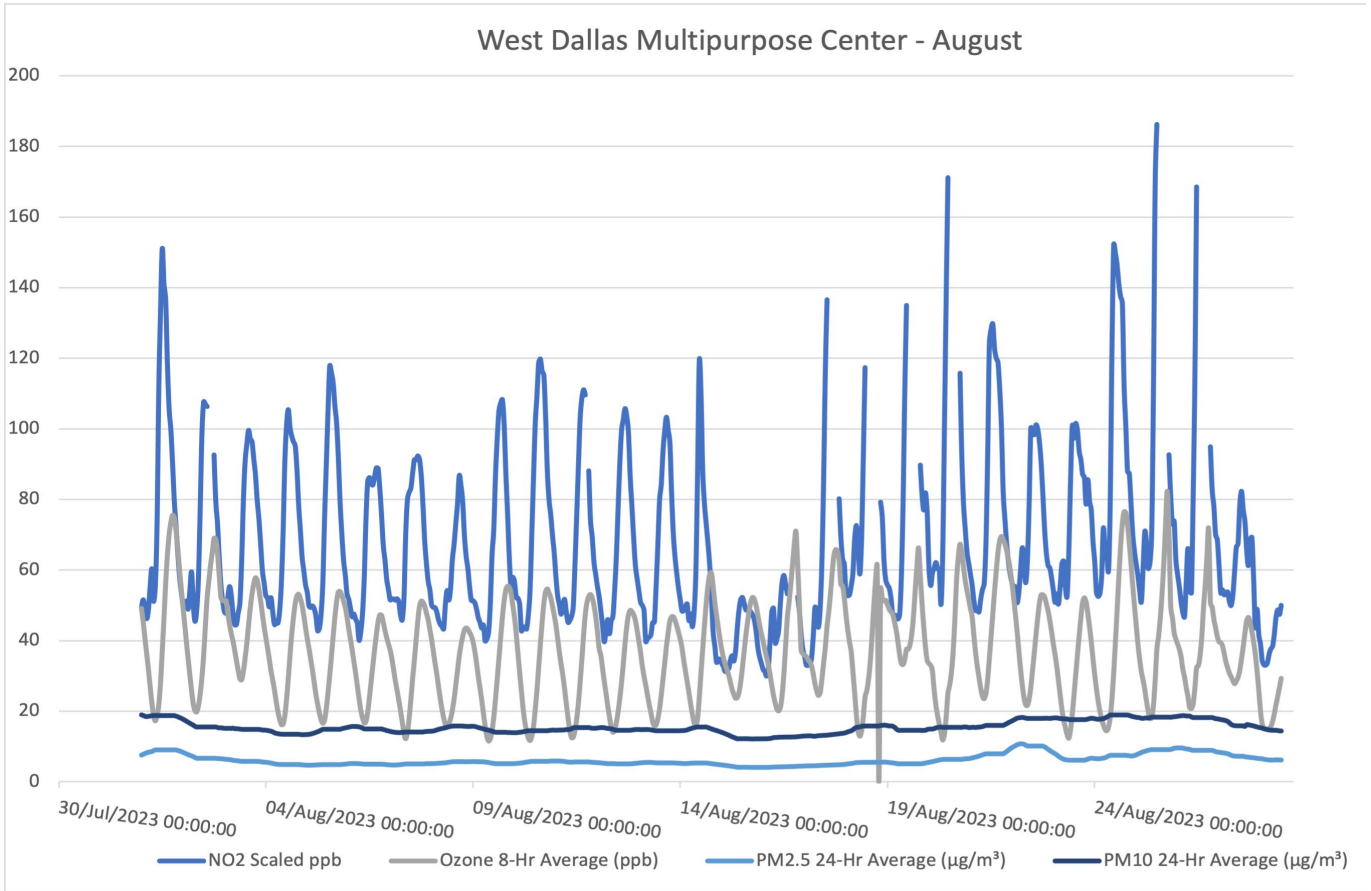
# Fish Trap Lake Data Summary August 2023



## Data Summary

Fish Trap Lake (August)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )	PM <sub>10</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )
Average Concentration	63.2	33.1	6.0	14.5
Maximum Observed Concentration	186.4	67.2	11.4	19.1

# West Dallas Multipurpose Center Data Summary August 2023



## Data Summary

West Dallas Multipurpose Center (Aug)	NO <sub>2</sub> Hourly Average (ppb)	O <sub>3</sub> 8-Hr Average (ppb)	PM <sub>2.5</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )	PM <sub>10</sub> 24-Hr Average ( $\mu\text{g}/\text{m}^3$ )
Average Concentration	67.9	37.2	6.1	15.4
Maximum Observed Concentration	186.3	82.3	10.7	18.9



# Data Summary

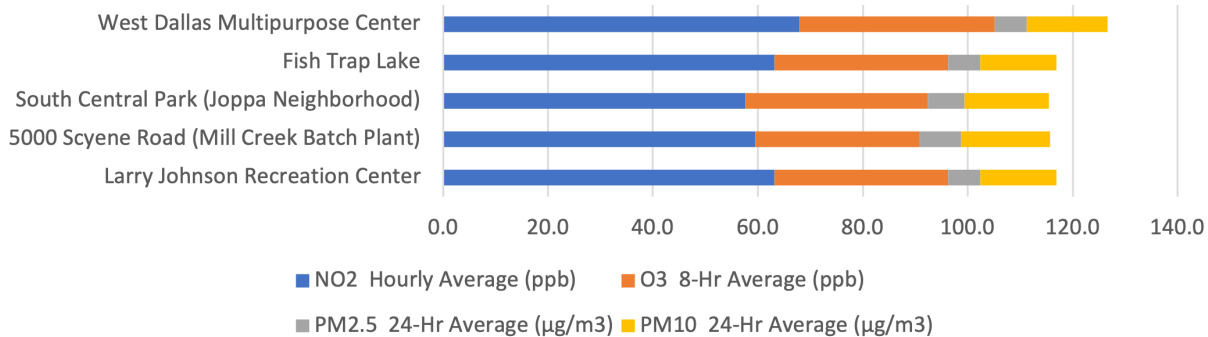
## August 2023

August Average Observed Concentration				
	NO <sub>2</sub> Hourly Average	O <sub>3</sub> 8-Hr Average	PM <sub>2.5</sub> 24-Hr Average	PM <sub>10</sub> 24-Hr Average
Location	(ppb)	(ppb)	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )
Larry Johnson Recreation Center	63.2	33.1	6.0	14.5
5000 Scyene Road (Mill Creek Batch Plant)	59.5	31.4	7.9	16.9
South Central Park (Joppa Neighborhood)	57.6	34.8	6.9	16.1
Fish Trap Lake	63.2	33.1	6.0	14.5
West Dallas Multipurpose Center	67.9	37.2	6.1	15.4
August Maximum Observed Concentration				
	NO <sub>2</sub> Hourly Average	O <sub>3</sub> 8-Hr Average	PM <sub>2.5</sub> 24-Hr Average	PM <sub>10</sub> 24-Hr Average
Location	(ppb)	(ppb)	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )
Larry Johnson Recreation Center	186.4	67.2	11.4	19.1
5000 Scyene Road (Mill Creek Batch Plant)	164.4	64.0	10.4	21.0
South Central Park (Joppa Neighborhood)	157.2	74.7	10.3	20.1
Fish Trap Lake	186.4	67.2	11.4	19.1
West Dallas Multipurpose Center	186.3	82.3	10.7	18.9

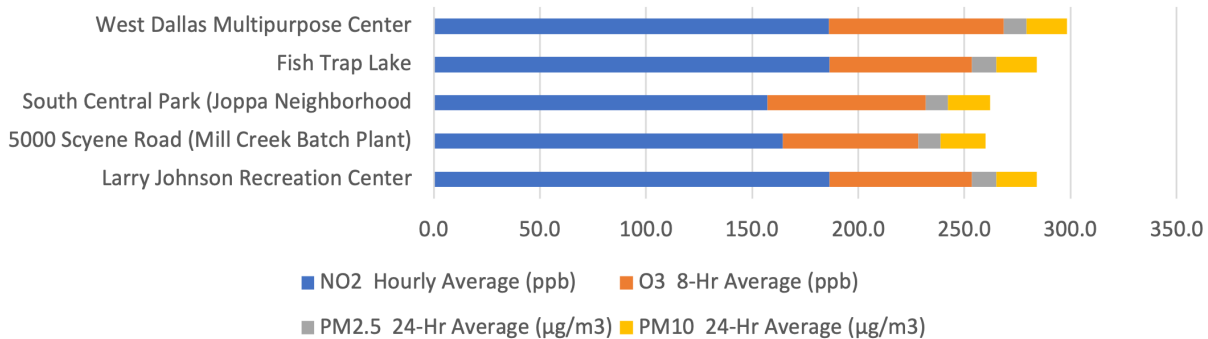
# Data Summary

## August 2023

### Average Observed Concentration (Aug)



### Maximum Observed Concentration (Aug)



# Notes

## August 2023

### Larry Johnson Recreation Center *(Page 20)*

- NO2 : high
- O3 : moderate
- PM-2.5 : low
- PM-10 : low

### 5000 Scyene Road *(Page 21)*

- NO2 : high
- O3 : moderate
- PM-2.5 : low
- PM-10 : low

### South Central Park *(Page 22)*

- NO2 : high
- O3 : high
- PM-2.5 : low
- PM-10 : low

### Fish Trap Lake *(Page 23)*

- NO2 : high
- O3 : moderate
- PM-2.5 : low
- PM-10 : low

### West Dallas *(Page 24)*

- NO2 : high
- O3 : high
- PM-2.5 : low
- PM-10 : low

- Notes:
  - High NO2 values appeared to be an error due to extreme heat (and/or humidity) during summer having an impact on the electro chemical sensor, especially when temperatures were near 100F or above
  - There were 50 Ozone Exceedance Days for the Season. This is DFW region-wide