

# Stay at Home Analysis

Analysis of Ambient Air Monitoring Data  
Collected March 26, 2020 – April 29, 2020  
Mecklenburg County, NC

August 11, 2020

MECKLENBURG COUNTY

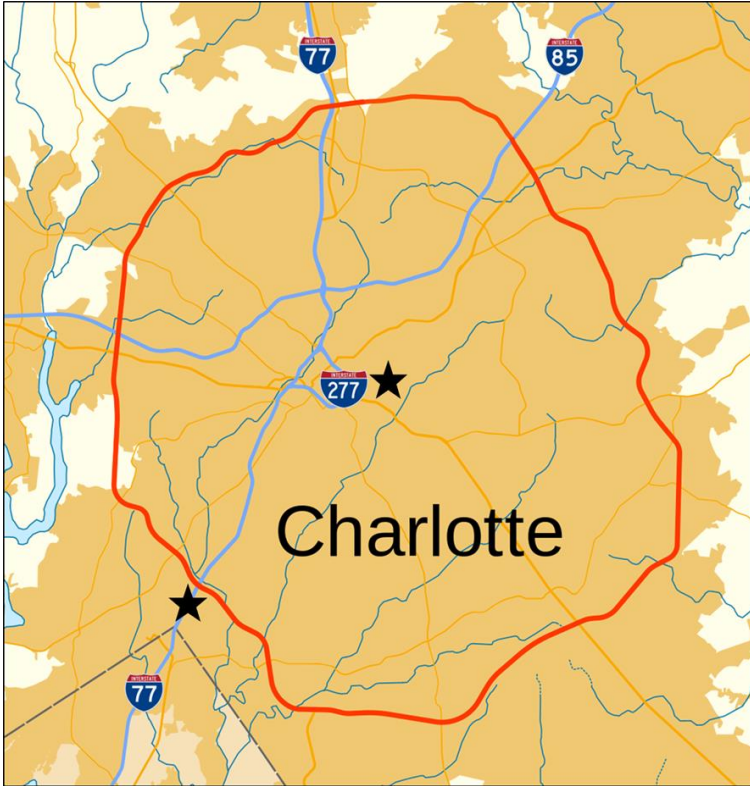
*AIR QUALITY*

# Purpose

Investigate whether measured concentrations of local air pollution show expected decreases during the time of reduced traffic.

## Notes:

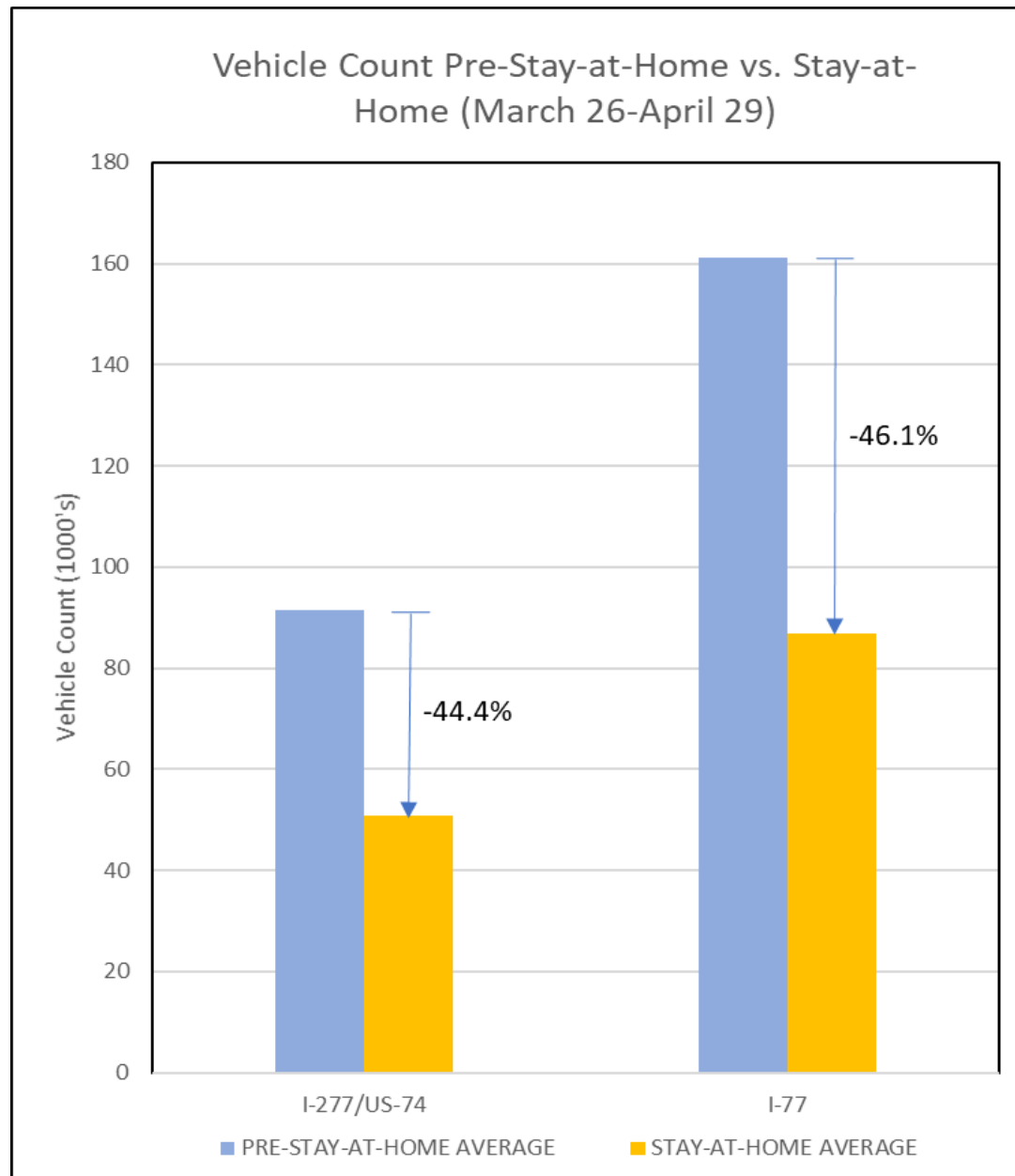
- Full technical analysis presented to the Air Quality Commission and feedback incorporated into the final analysis.
- Data provided to Dr. Brian Magi, UNC-Charlotte, for instructional purposes.



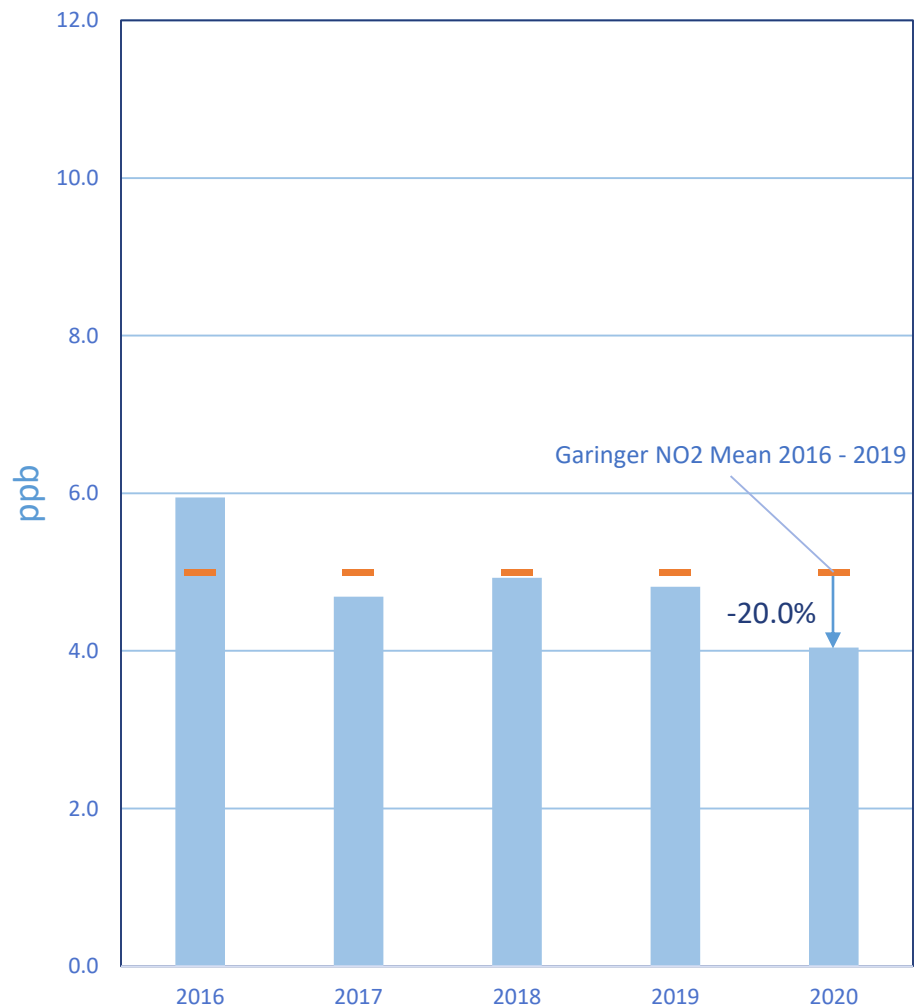
Vehicle Count @ Continuous Count Stations

MECKLENBURG COUNTY

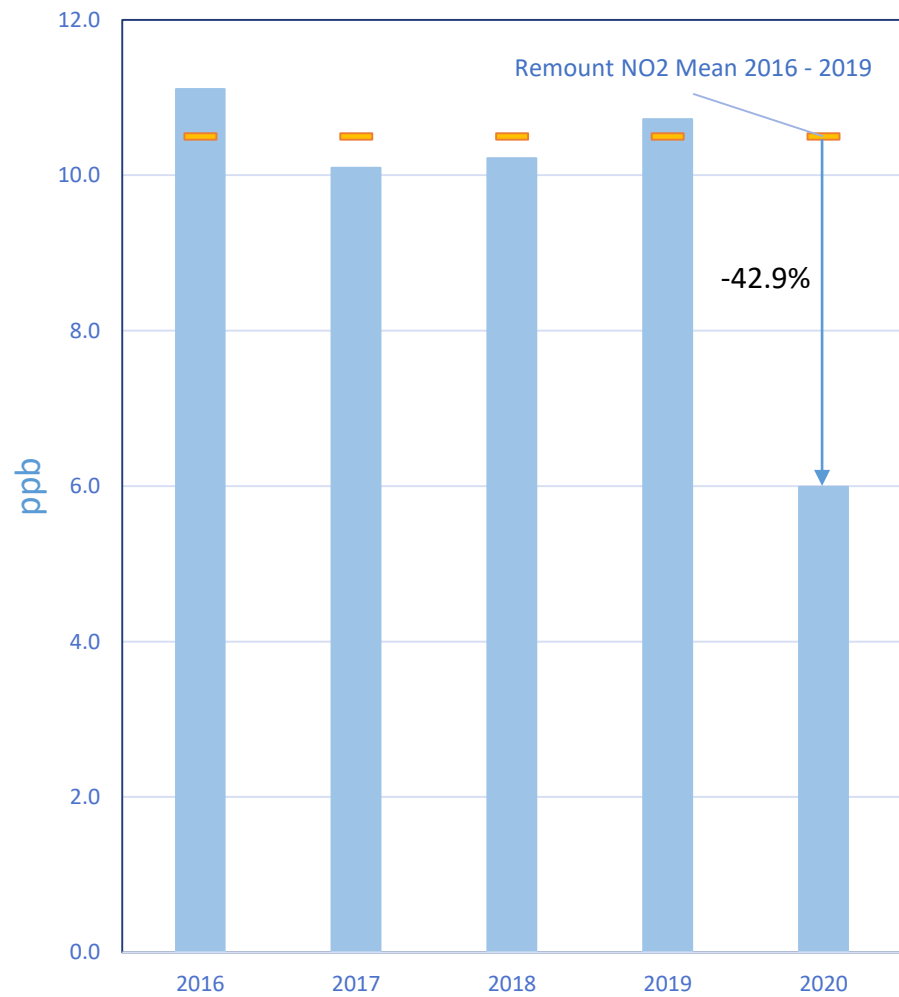
*AIR QUALITY*



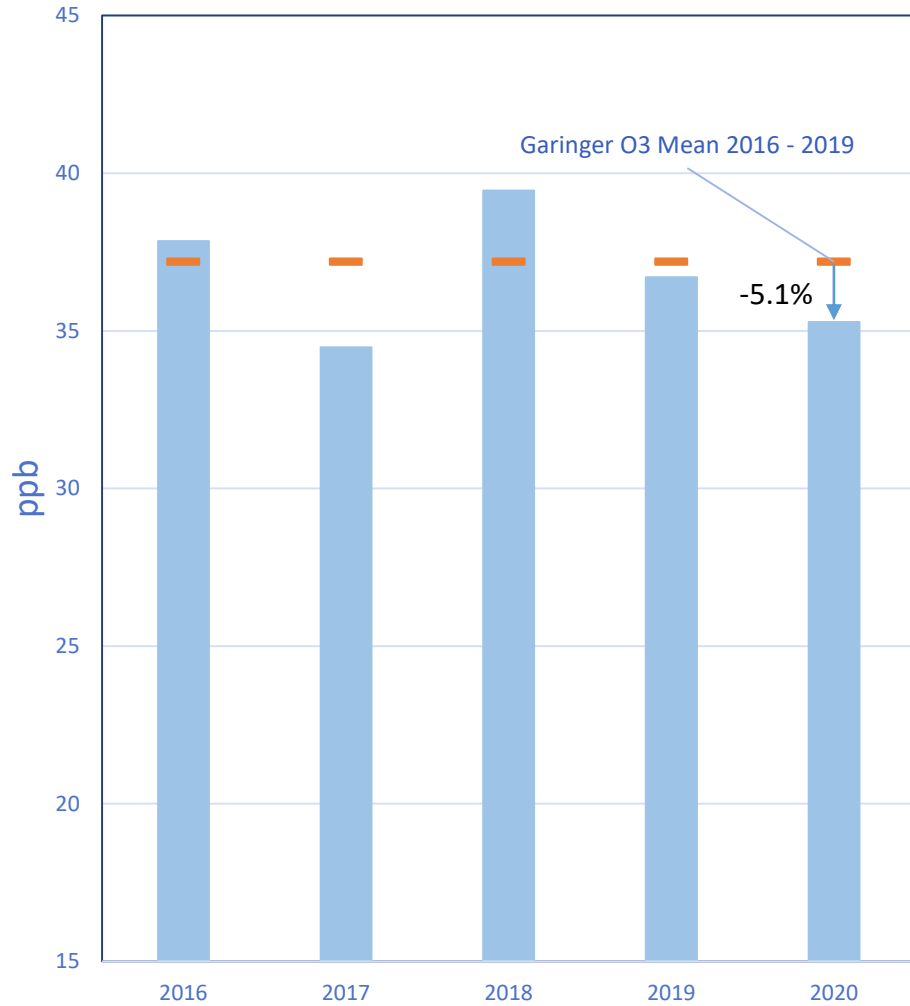
Garinger NO2 Mean Hourly Concentration  
March 26 - April 29



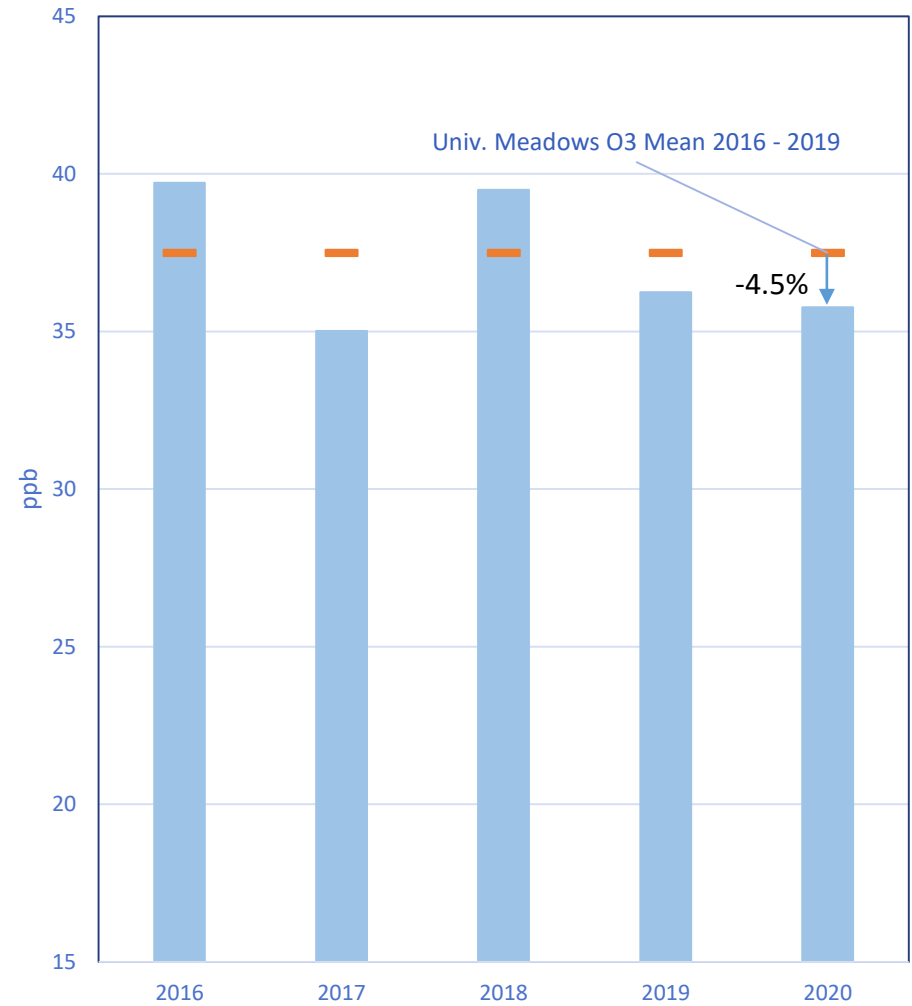
Remount NO2 Mean Hourly Concentration  
March 26 - April 29



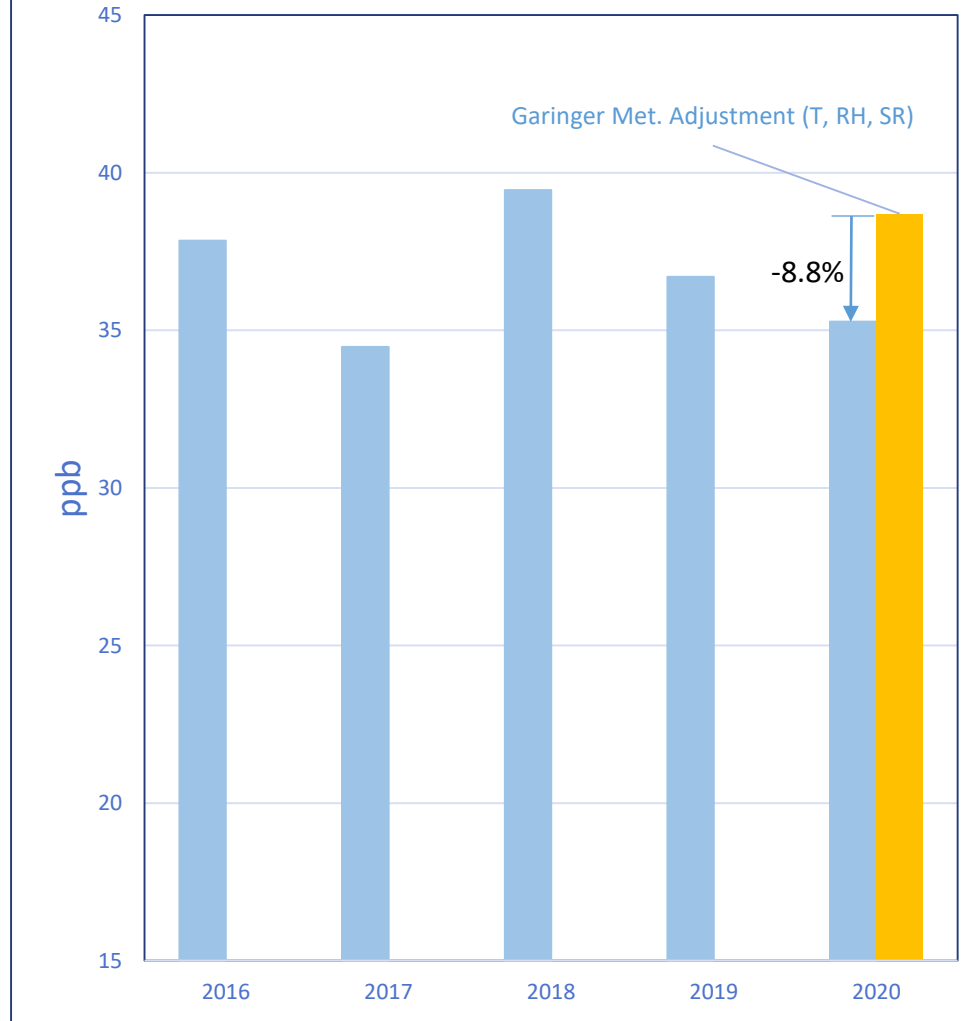
Garinger O3 Mean Hourly Concentration  
March 26 - April 29



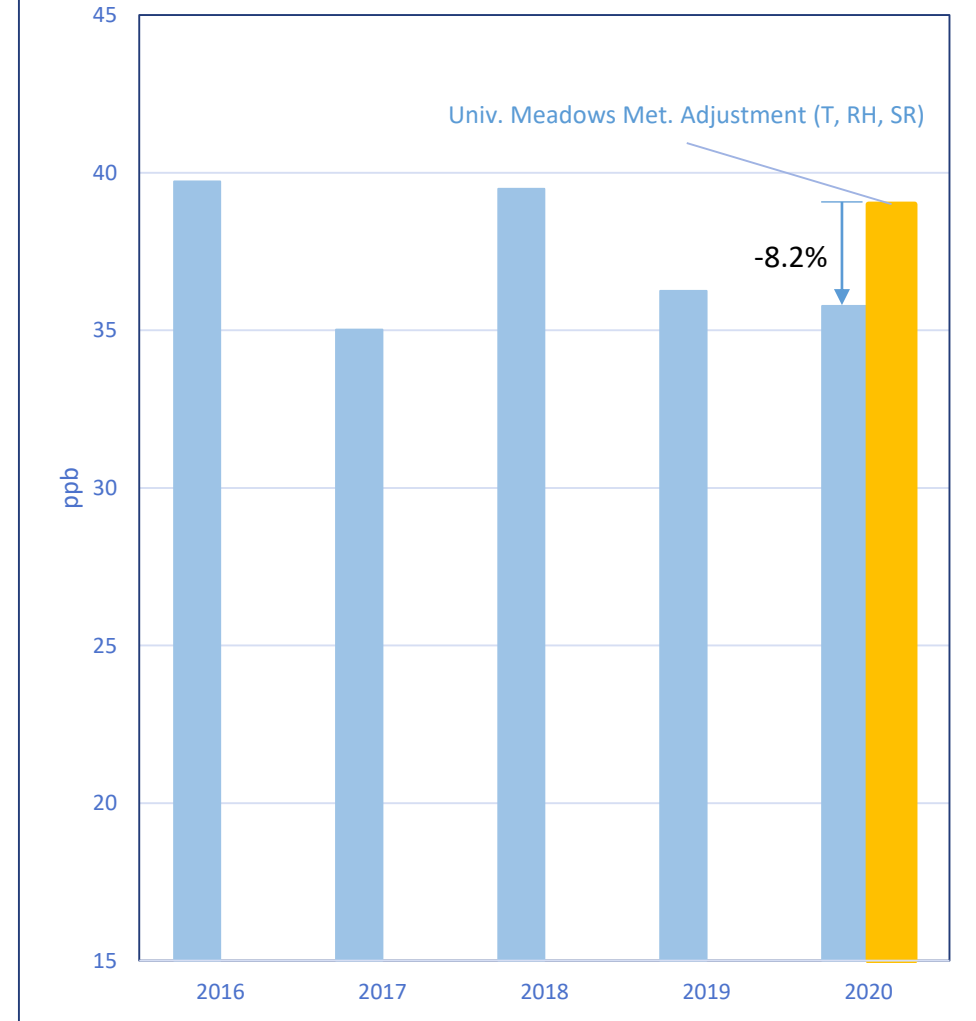
Univ. Meadows O3 Mean Hourly Concentrations  
March 26 - April 29



Garinger O3 Mean Hourly Concentration  
March 26 - April 29



Univ. Meadows O3 Mean Hourly Concentrations  
March 26 - April 29



# Summary of Results

Stay at Home Analysis, March 26 – April 29

- Concentrations of PM<sub>2.5</sub>, CO, NO<sub>2</sub> and O<sub>3</sub> were lower
- Traffic on I-77 and I-277/74 declined by approximately 40%
- Near-road monitoring site concentrations exhibited greater declines than the area-wide monitoring site for PM<sub>2.5</sub>, CO, and NO<sub>2</sub>.
- Ozone concentrations were lower than meteorologically predicted.