Moveable Monitoring Platform (MMP) Study: Eden Park – Wilmington, Delaware

# Eden Park Community Ambient Air Quality Study

Preliminary Data Evaluation

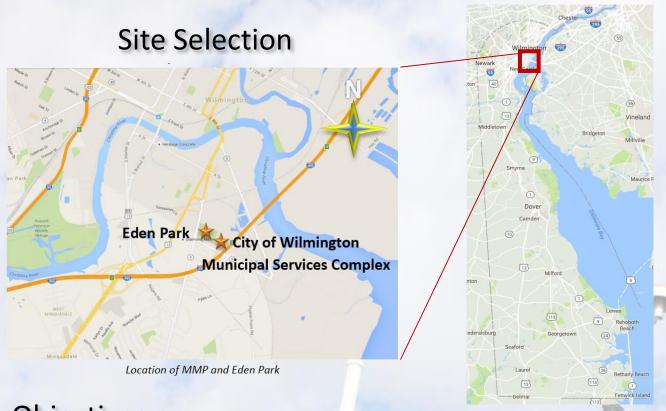




Presented by: DNREC Division of Air Quality



#### MMP Eden Park Study: Project Planning

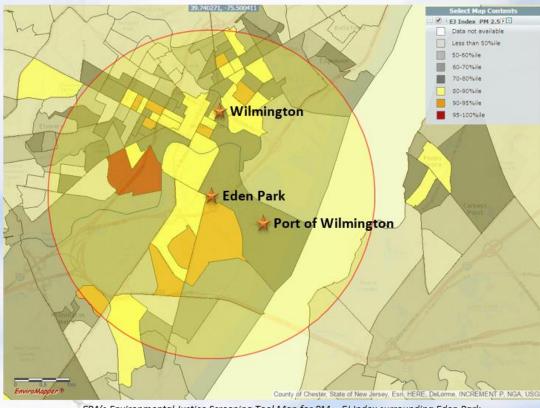


#### Objectives:

Primary Objective: Investigate local ambient air concentrations of certain pollutants to evaluate the local conditions

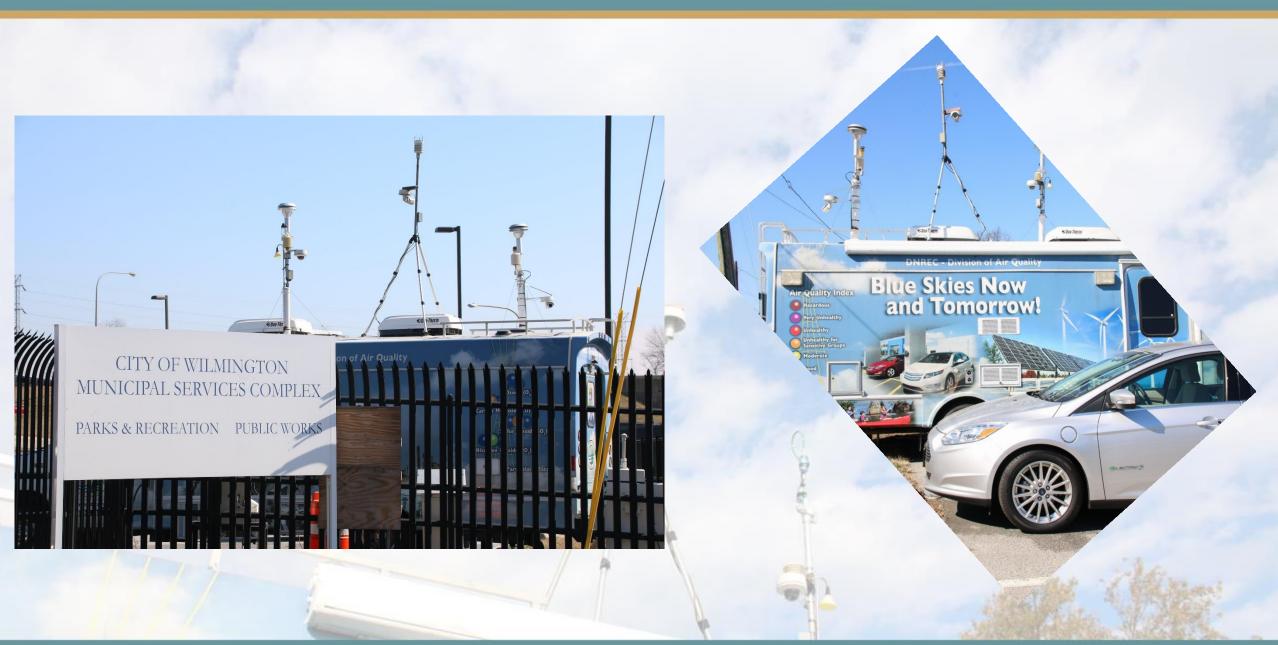
Secondary Objective: Determine if permanent monitoring sites are representative of local conditions or whether there is need for local monitoring

## Community Concerns Fugitive Dust



EPA's Environmental Justice Screening Tool Map for PM<sub>2.5</sub> EJ Index surrounding Eden Park
Circle marks a 3 mile radius surrounding the community (Locations are approximate)

#### MMP Eden Park Study: Equipment Pictures



#### MMP Eden Park Study: Compass Quadrant Views from Roof of MMP





#### MMP Eden Park Study: Equipment Setup Pictures









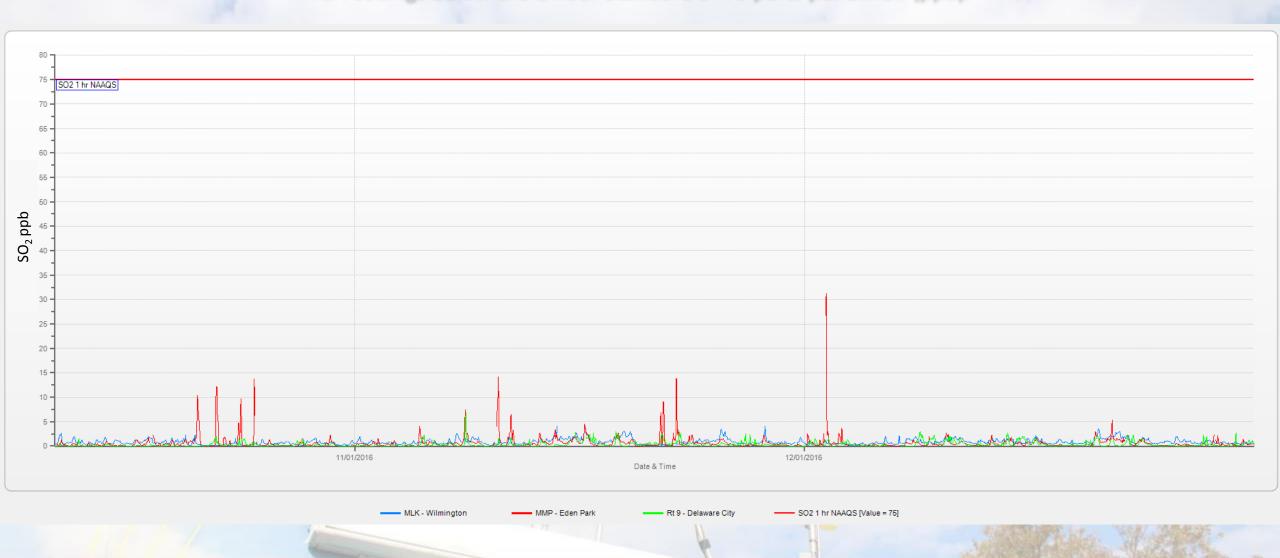
#### MMP Eden Park Study: Equipment Picture Updates



#### MMP Eden Park Study: Preliminary SO<sub>2</sub> Data

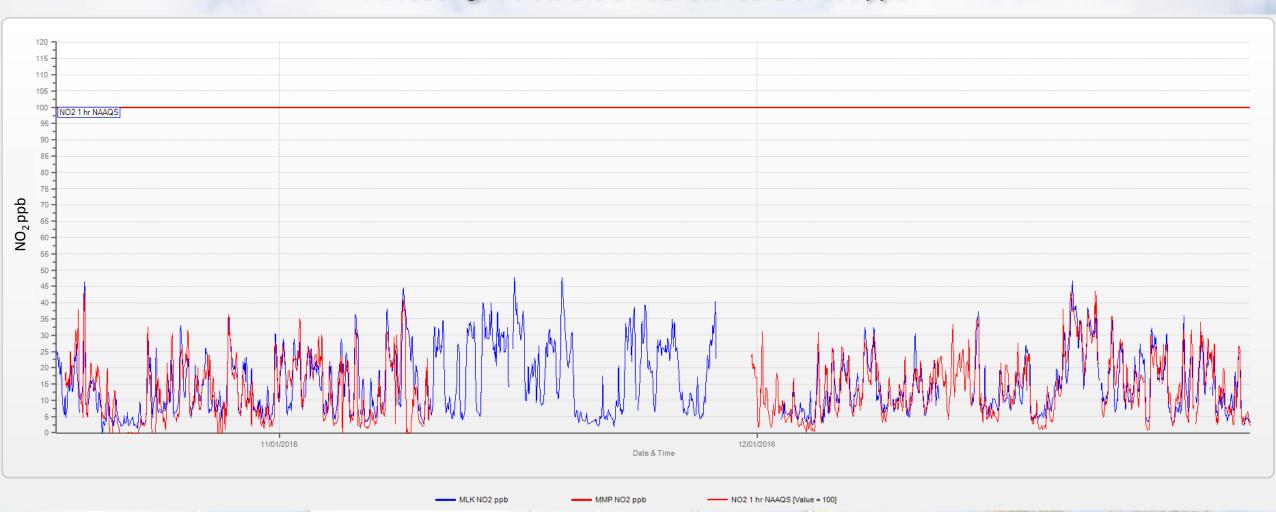
Sulfur Dioxide (SO<sub>2</sub>) hourly average concentrations at the MMP and permanent sites in Wilmington and Delaware City.

All readings below the 1 hour Standard of 75 parts per billion (ppb).



#### MMP Eden Park Study: Preliminary NO<sub>2</sub> Data

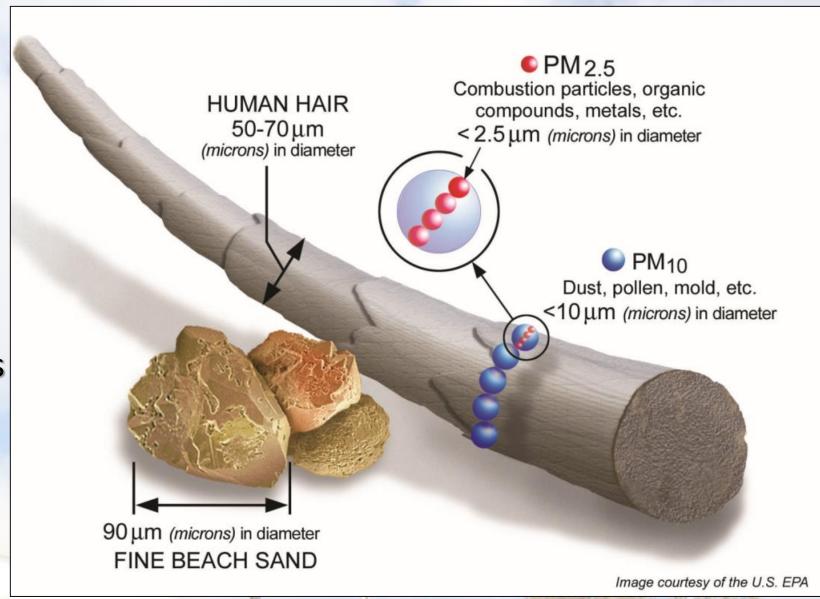
Nitrogen Dioxide (NO<sub>2</sub>) hourly average concentrations at the MMP and Wilmington site. All readings below the 1 hour Standard of 100 ppb.



#### MMP Eden Park Study: Particulate Matter Background

#### Sources of PM

- Roads
- Construction Sites
- Fires
- Smokestacks
- Automobiles and Trucks
- Industries
- Agricultural Activities



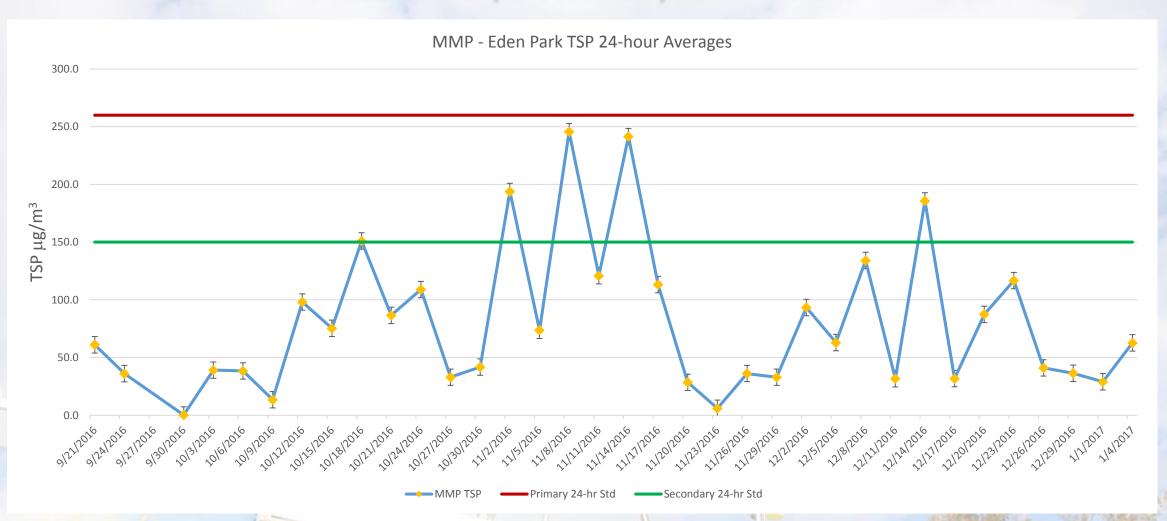
#### MMP Eden Park Study: Preliminary PM<sub>2.5</sub> Data

Particulate Matter at 2.5 microns in diameter (PM<sub>2.5</sub>) 24 hour average concentrations at the MMP, Wilmington and Kent County sites. All readings below the 24 hour Standard of 35 micrograms per cubic meter ( $\mu$ g/m³).

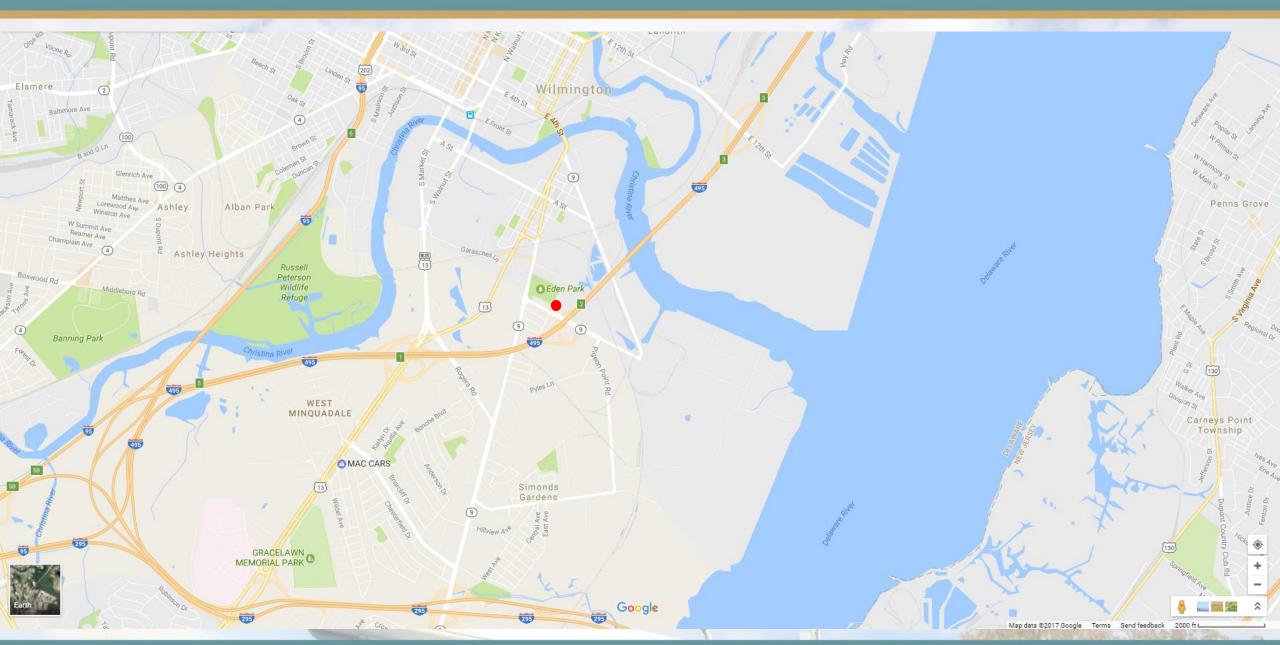


#### MMP Eden Park Study: Preliminary TSP Data

MMP 24 hour average Total Suspended Particulate (TSP) concentrations. Delaware Primary and Secondary Standards shown.



#### MMP Eden Park Study: Map

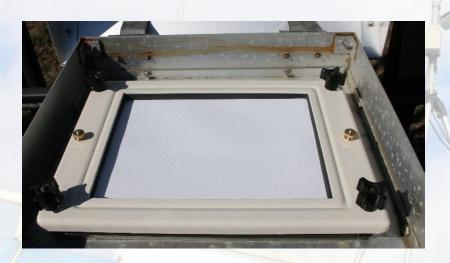


#### MMP Eden Park Study: Summary

Data collection and evaluation is currently on going since September 2016

#### Preliminary data evaluation indicates the following:

- TSP levels have met or exceeded the State Secondary standard 5 times.
- Other criteria pollutant values are consistent with sites in urban environments and values are below their respective standards.







- A collaboration between EPA and state air quality agencies to reduce PM pollution
- Proactive program helps states that meet the EPA PM standards continue to improve air quality
- Mission of Delaware PM Advance: Work together with communities and industry to reduce particulate matter emissions and protect the public
- Inform community groups about grant opportunities
- Focus on voluntary methods

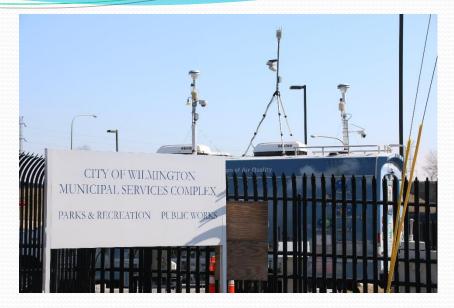


### **Current PM Advance Projects**

- Monitoring Particulate Matter in Eden Park Using the Moveable Monitoring Platform (MMP)
- DAQ's Participation in Route 9 Corridor Master Plan
- Diesel School Bus Replacement

## Future Projects/Activities

- Use MMP to identify new areas where we can work with local communities to find solutions to particulate matter problems (after Eden Park study is completed)
- Develop web page for PM Advance Program late March
- Seek public input on proposed PM Advance projects and activities – through website
- Diesel Emission Reduction Program



# **Contact Information**

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DNREC: Division of Air Quality

# Complaints and More Information

#### Complaint line numbers:

Toll Free: 1-800-662-8802, Local: 1-302-739-9401, #367 for Verizon Wireless customers





Division of Air Quality Website: http://www.dnrec.delaware.gov/Air/Pages/Default.aspx

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