

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

# Eden Park Community Ambient Air Quality Study *Preliminary Data Evaluation*

Presented by: Ali Mirzakhaili



MMP Eden Park Study: Project Planning

### Site Selection



### Community Concerns *Fugitive Dust*



### 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

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



### MMP Eden Park Study: Equipment Pictures

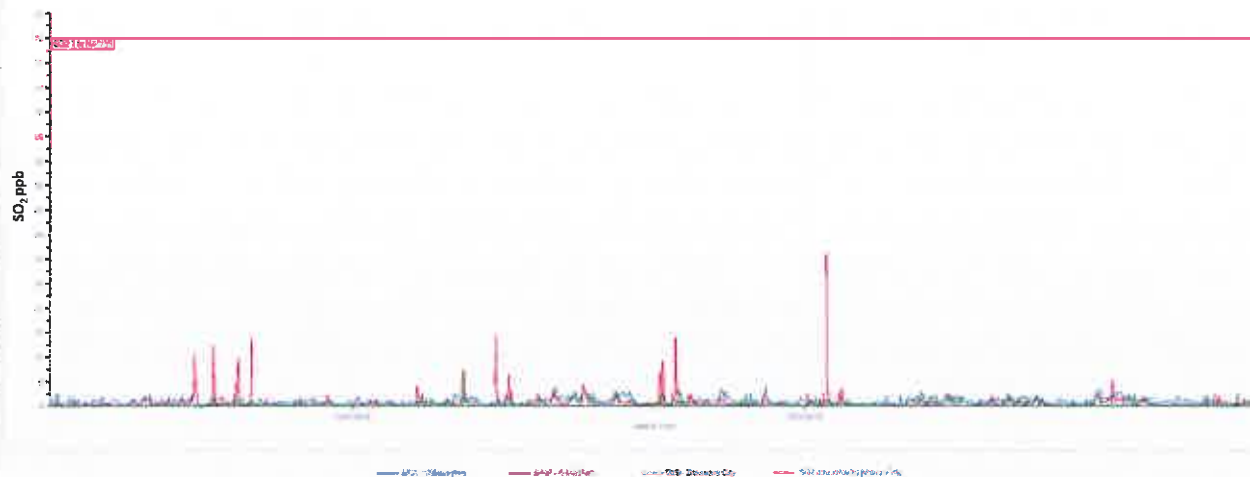


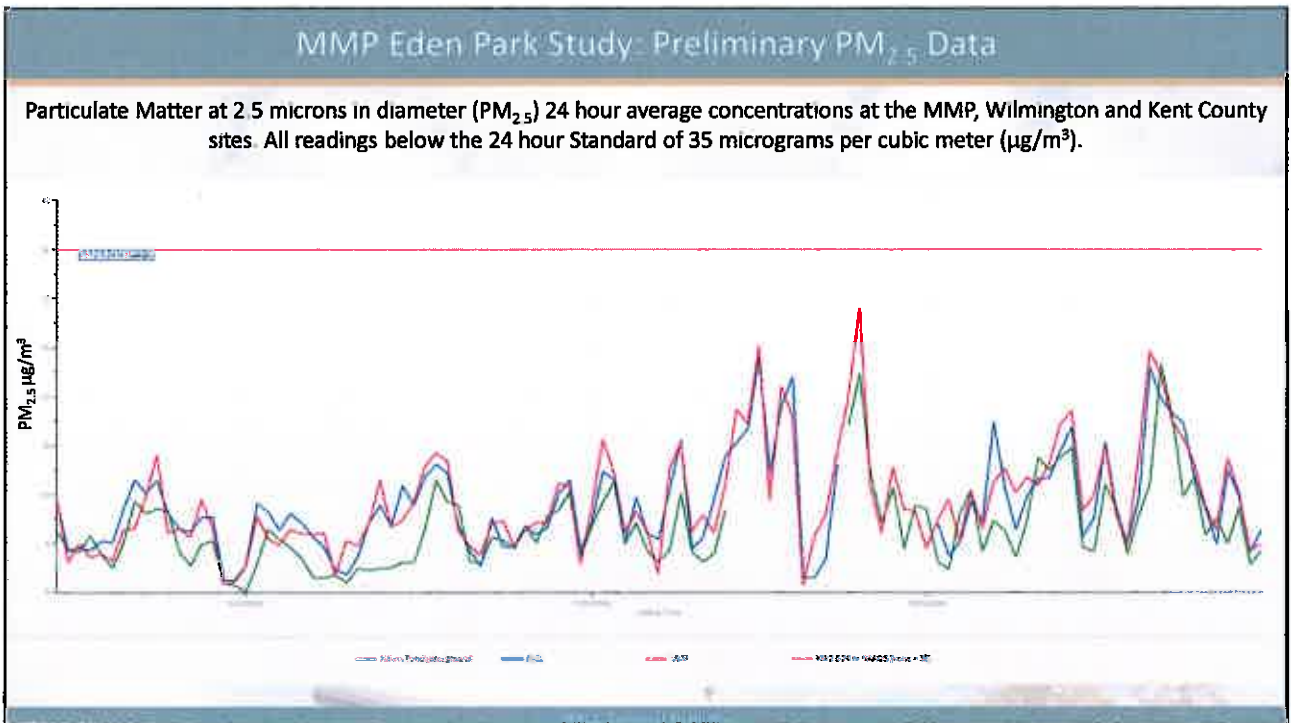
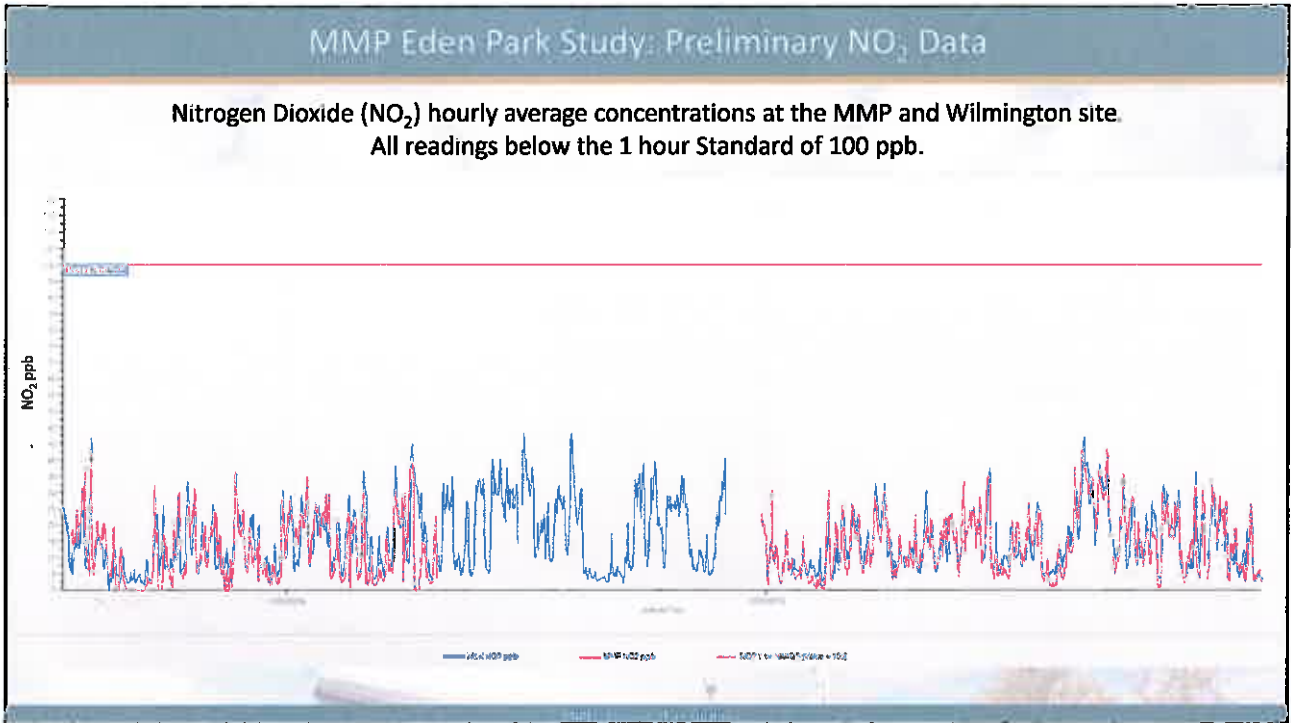
### MMP Eden Park Study: Equipment Picture Updates



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

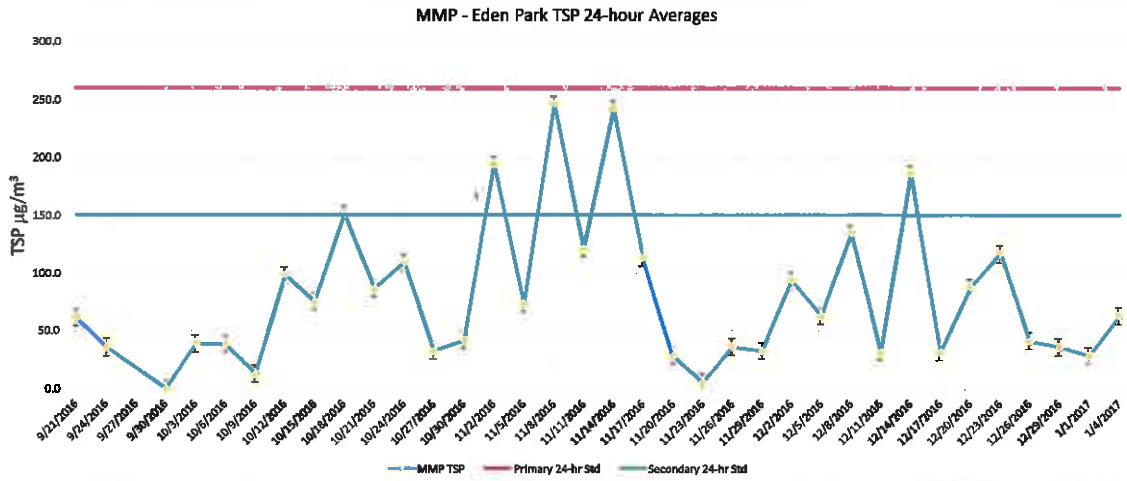
Sulfur Dioxide (SO<sub>2</sub>) hourly average concentrations at the MMP and permanent sites in Wilmington and Delaware City. All readings below the 1 hour Standard of 75 parts per billion (ppb).



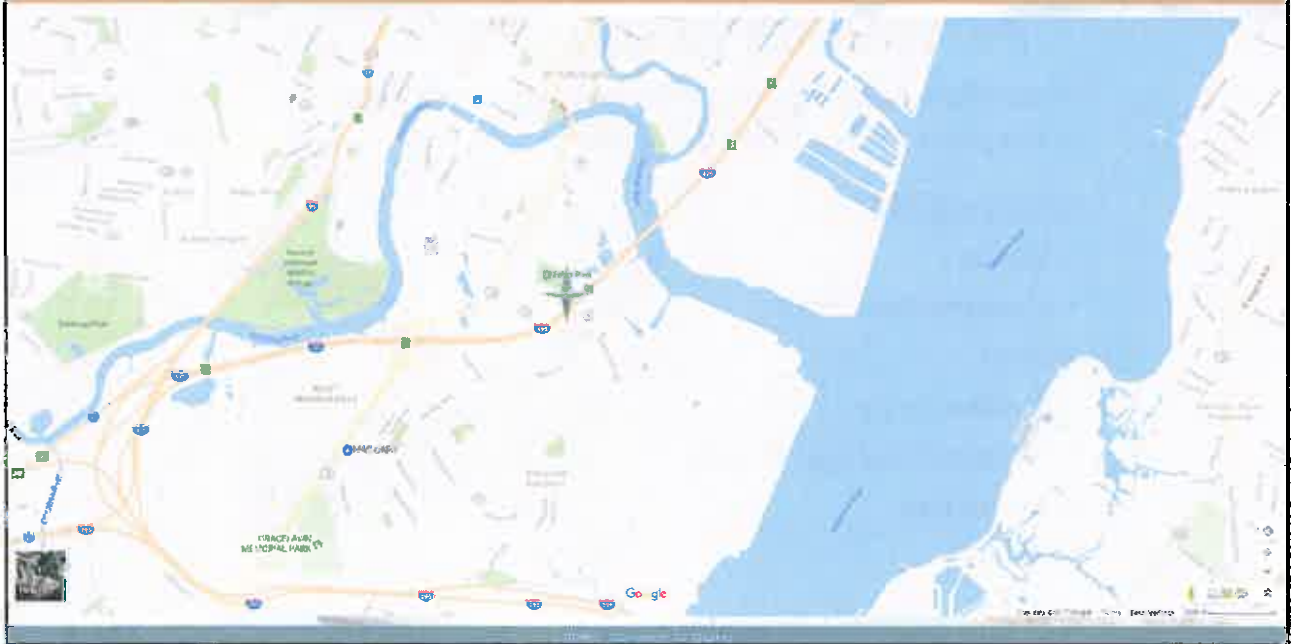


### MMP Eden Park Study: Preliminary TSP Data

**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:

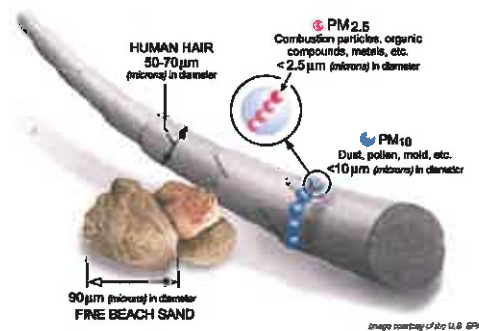
- TSP levels have met or exceeded the State Secondary standard 5 times.
- Other criteria pollutant values are consistent with sites in urban environments and values are below their respective standards.

## Particulate Matter Pollution

Particulate matter (PM) pollution may be an issue in other parts of the Route 9 Corridor

### Sources of PM

- Roads
- Construction Sites
- Fires
- Smokestacks
- Automobiles and Trucks
- Industries
- Fields



DNREC: Division of Air Quality

## Public Health and Welfare Effects of PM

### Health Effects

- Increased respiratory problems, such as irritation of the airways, coughing or difficulty breathing
- Aggravated asthma
- Premature death in people with heart or lung disease
- Nonfatal heart attacks and irregular heartbeat

### Welfare Effects

- Nuisance
- Soiling of building materials and other property

DNREC: Division of Air Quality

## PM Advance

- 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 public health and welfare
- Inform community groups about grant opportunities
- Focus on voluntary methods



DNREC: Division of Air Quality

## 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

**DAQ will be identifying stakeholders as projects arise**

DNREC: Division of Air Quality

## Contact Information

**Renaë Held**

**[renae.held@state.de.us](mailto:renae.held@state.de.us)**

**302-739-9402**

DNREC: Division of Air Quality