

RWIS & Air Quality

Reno, Nevada
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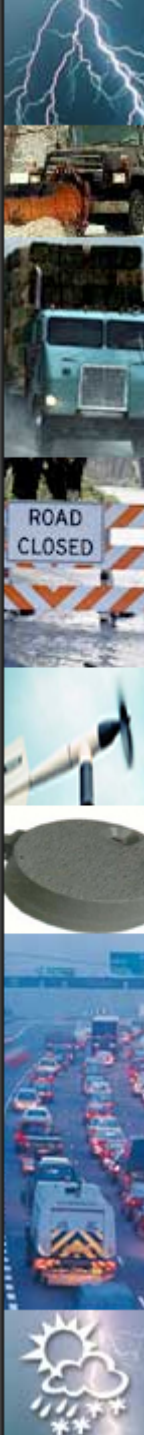
Overview

- Background Information
 - Air Quality and Highways
 - Problem Statement
 - Data Needs
- Overlapping Interests - An Opportunity to Collaborate?
- Contact Information



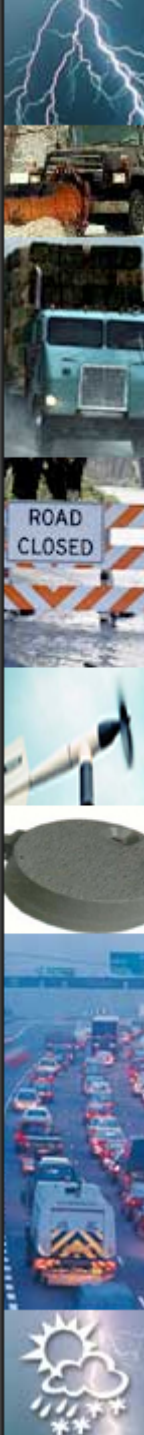
Key Question to be Explored

- How do highways & vehicles impact air quality?
 - Congestion
 - Poorly maintained, malfunctioning, heavy emitting vehicles

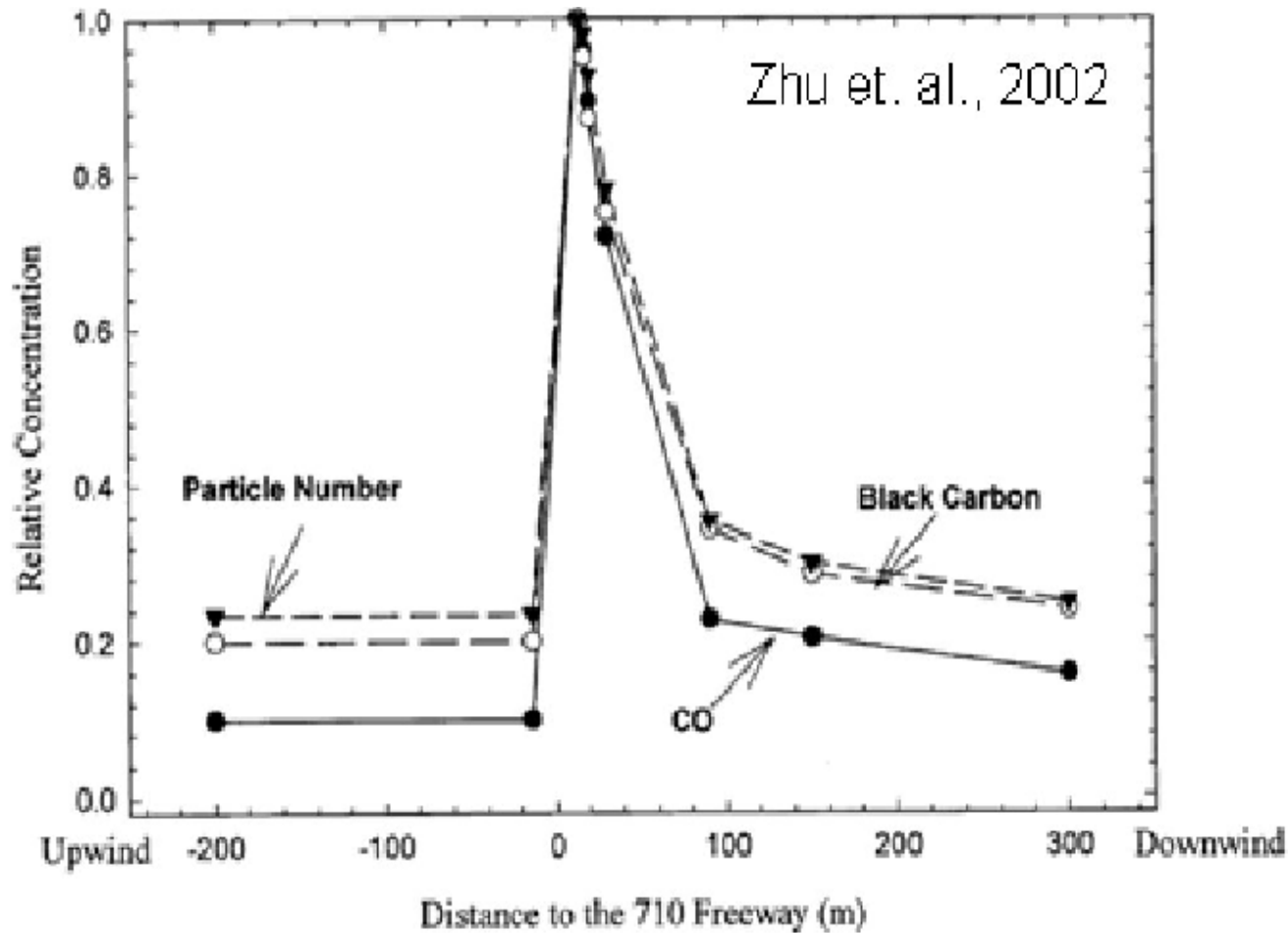


Key Question... Another Way

- Is the pollution *uniformly* distributed within the impacted area or zone of influence?
- Does the pollution *vary* within this zone?



Zone of Influence



Problem Statement

- Determine vehicles' contributions to ambient air concentrations by comparing traffic and ambient concentration measured by instruments in the "near roadway" environment
 - What data is needed for air quality impact analysis - meteorological, air quality, traffic?
 - How can the data be used to assist in mitigating project impacts by correlating traffic and air quality

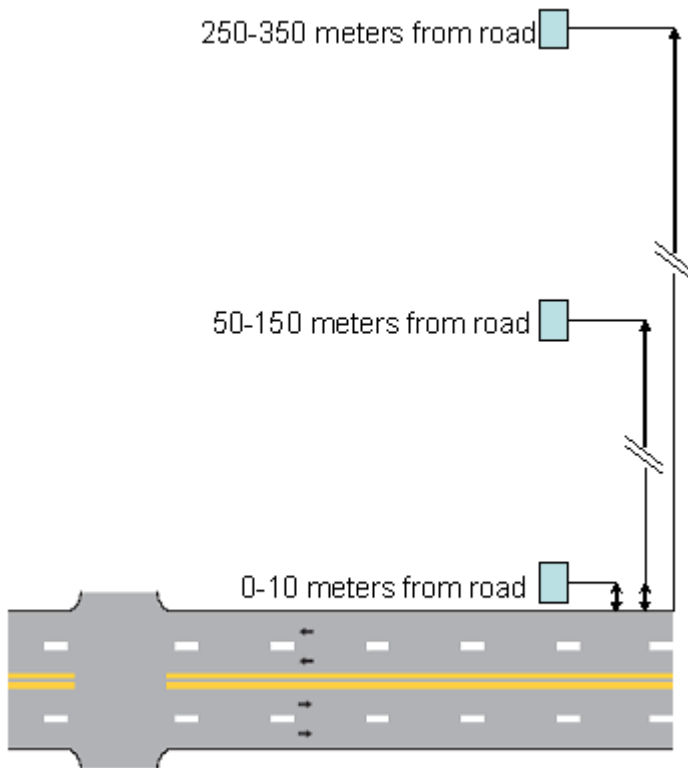


Data Needs

- Air Quality Data Collection interested in carbon monoxide, particulate matter, other pollutants, and meteorological variables
- Air quality instruments should be sited within zone of influence to more accurately understand road/traffic influence
- Data collected continuously, hourly, or over other time intervals



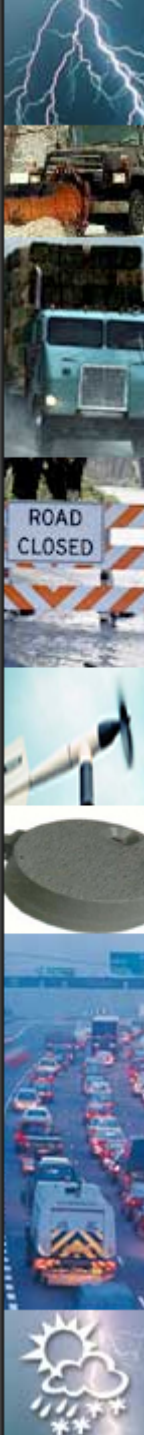
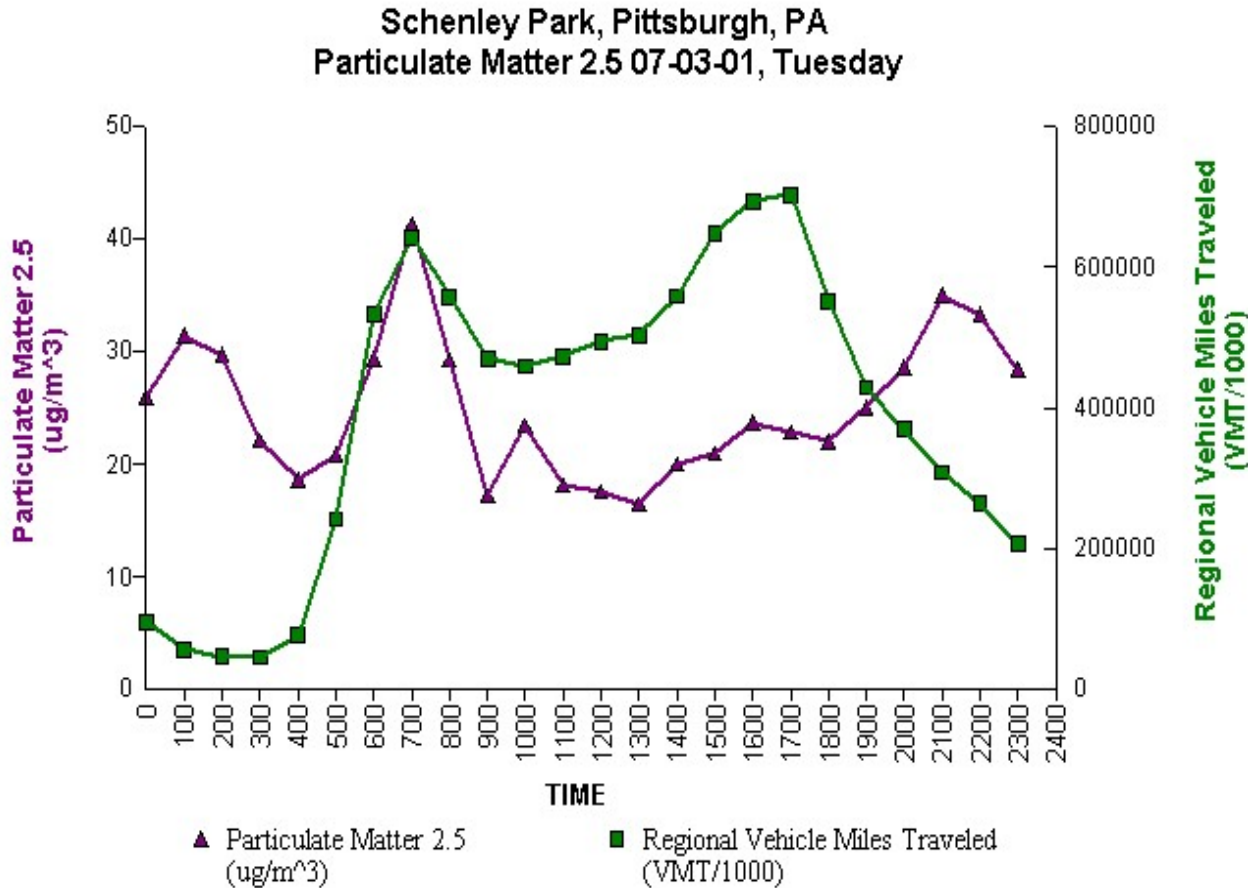
Sensor Configuration



- Requirements for siting instruments similar for RWIS and air quality
- Logistics
 - ROW permits
 - Power
 - Communications
 - Security
- Access for service



Better Understand Relationships



Contact Information

- For additional information, discussion of options, or status of FHWA-EPA Near Road Study:
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