

South Carolina Perspective

School Air Toxics
Chicora Elementary School
North Charleston, SC

2009 National Ambient Air Monitoring Conference

Communication

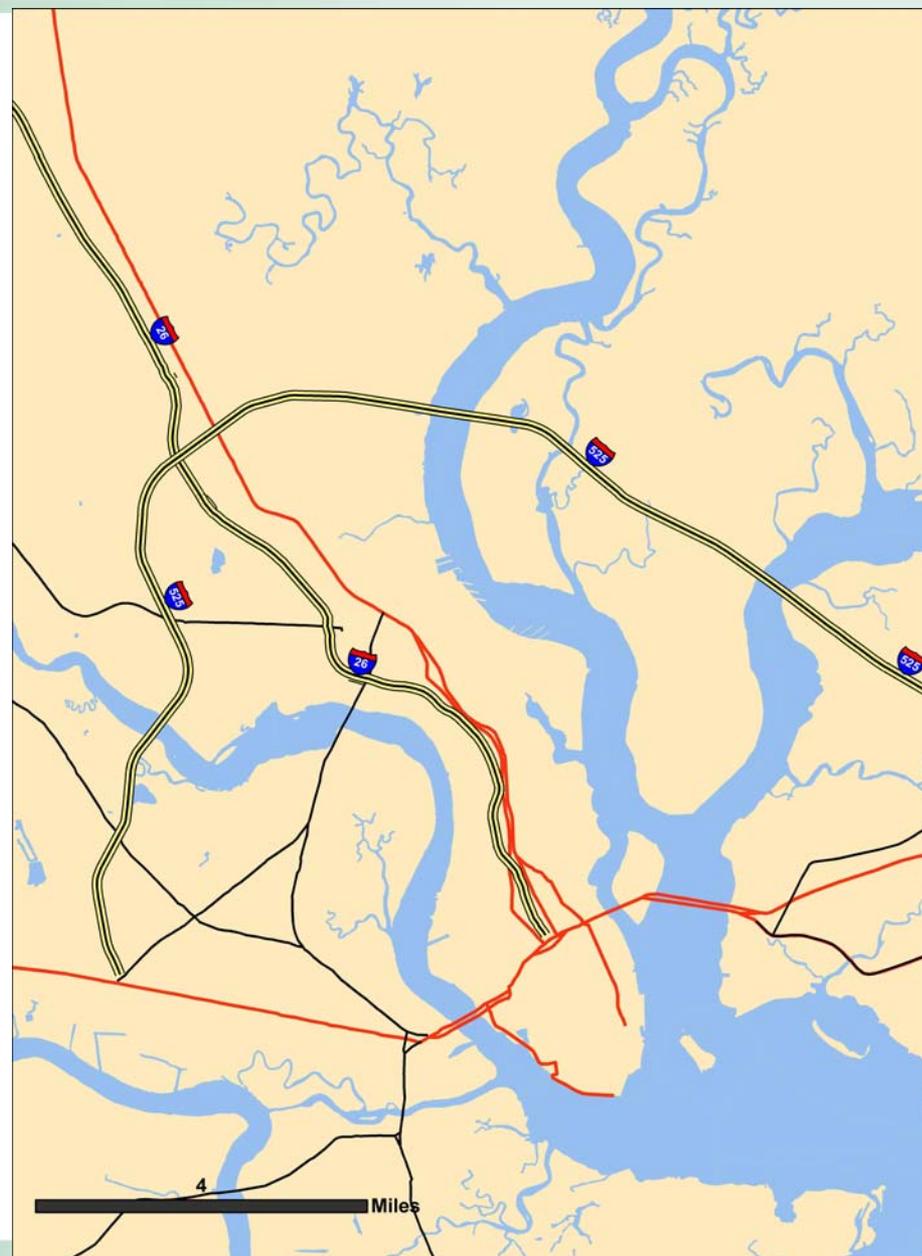
- **Response to inquiries**
 - Media - first media contact the Friday before..
 - Schools – Individual attention
- **Proactive contacts**
 - Communities – contact working group
 - Industry

Communication

- **Internal**
 - Evaluation of available data
 - EI, Modeling, Monitoring
 - Plan and message
 - Engage risk communication, Community Liaisons, media relations, Management...

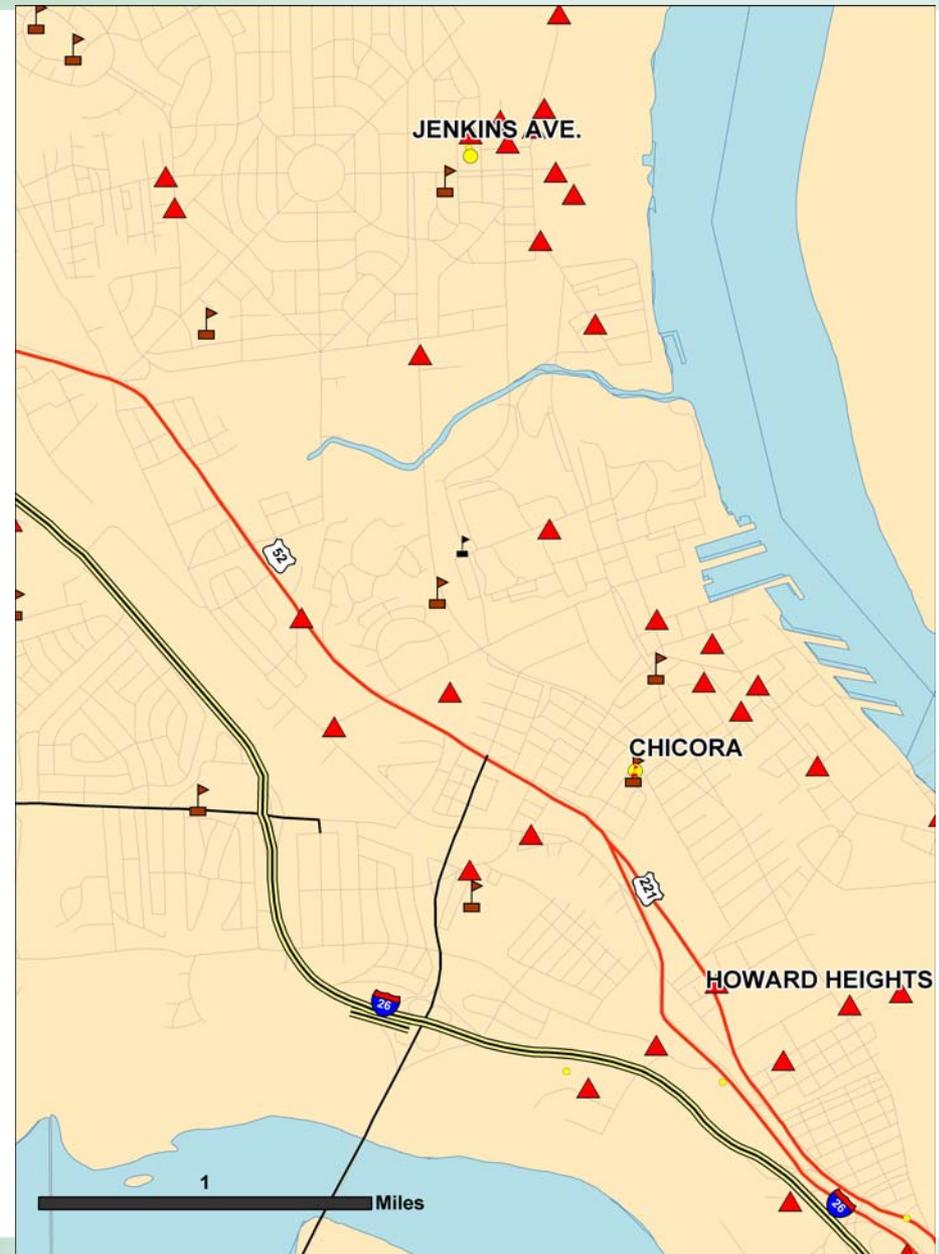
Charleston Neck

- Coastal
- Industrial
- Former Navy Base
- Residential Areas
- Municipal Incinerator
- New Port
- Environmental Justice Area



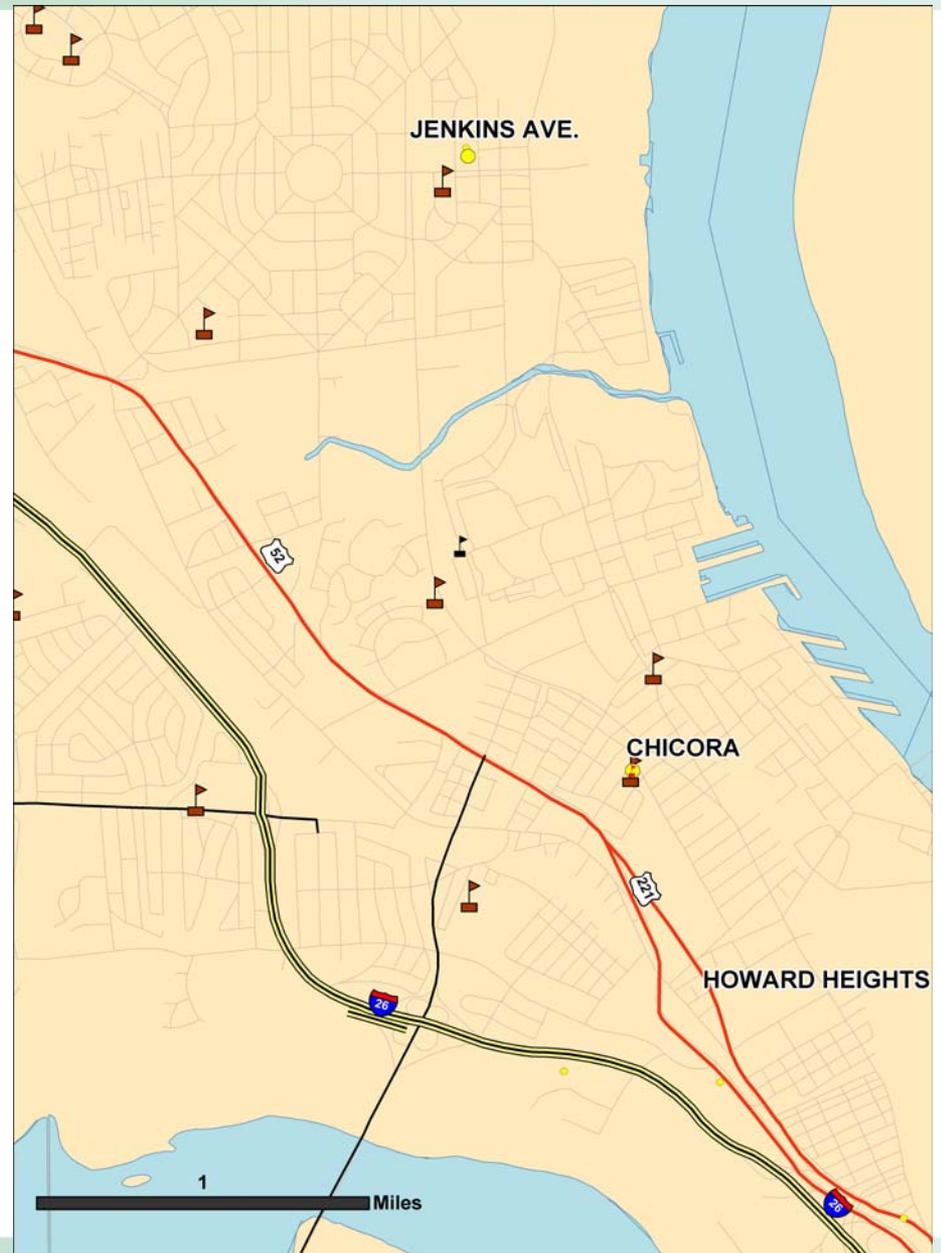
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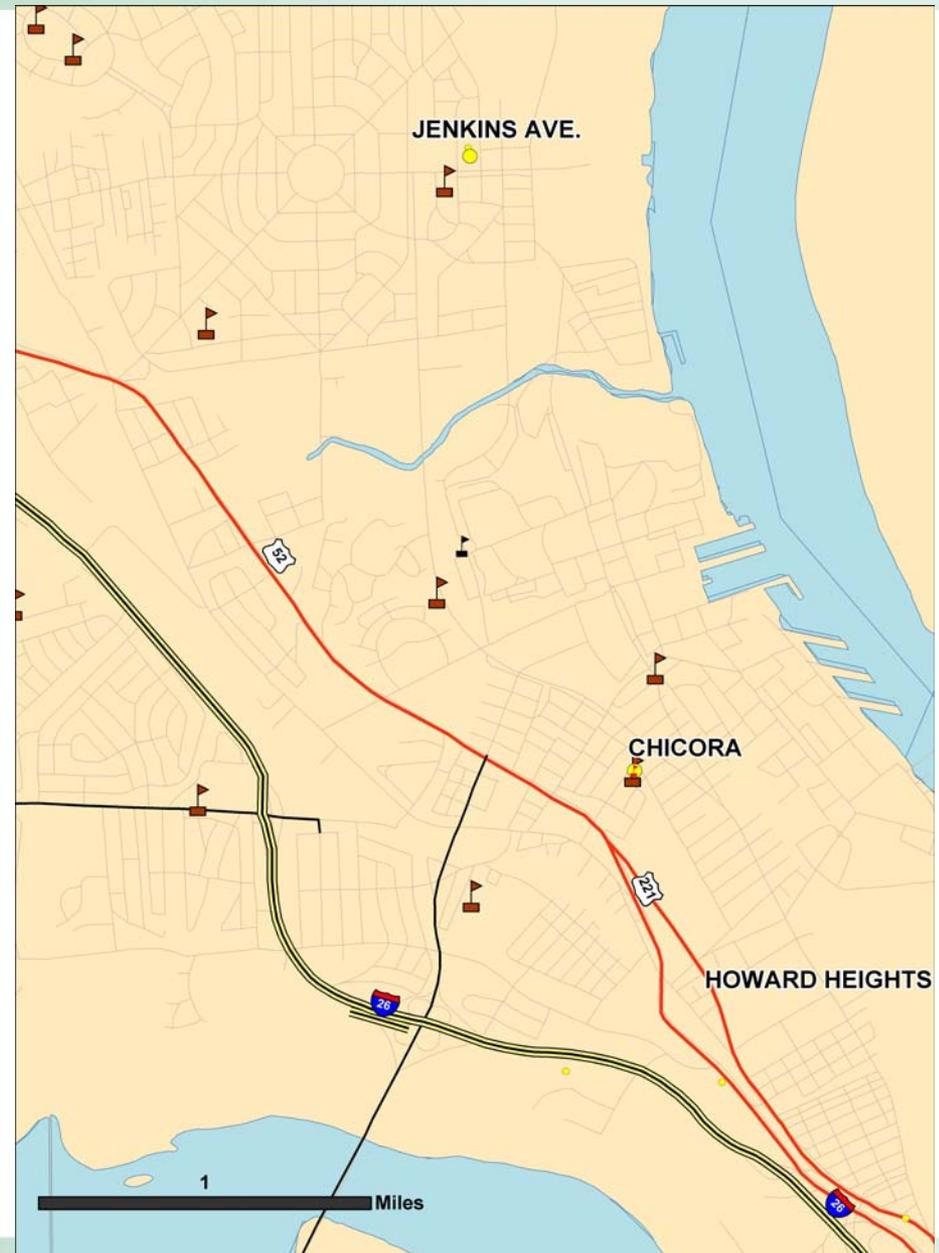
- **Strong Community Identities**
- **Organized**
- **Good Relationship**
- **Familiarity with air quality issues**



Charleston Neck

‘Smokestack Effect’

12 schools in top 5th percentile within 4 km of Chicora Elementary



Monitoring and Communication

- School and School District
- Local Industry

Monitoring

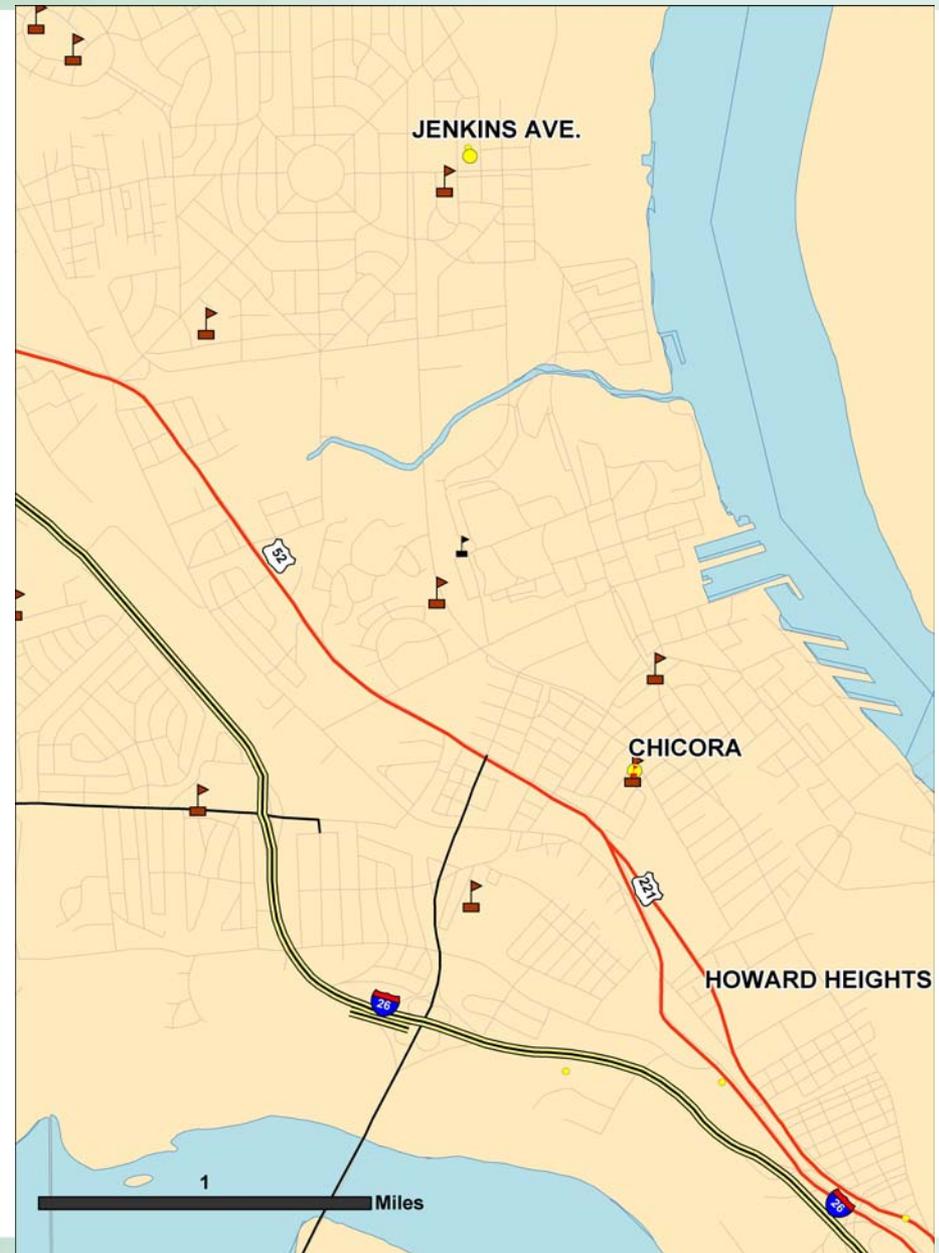
- March 3 – SC not on EPA list
- March 5 – Request
- March 6 – Draft Plan

- March 16 – Pick a school..

- March 31 – Chicora Elementary listed

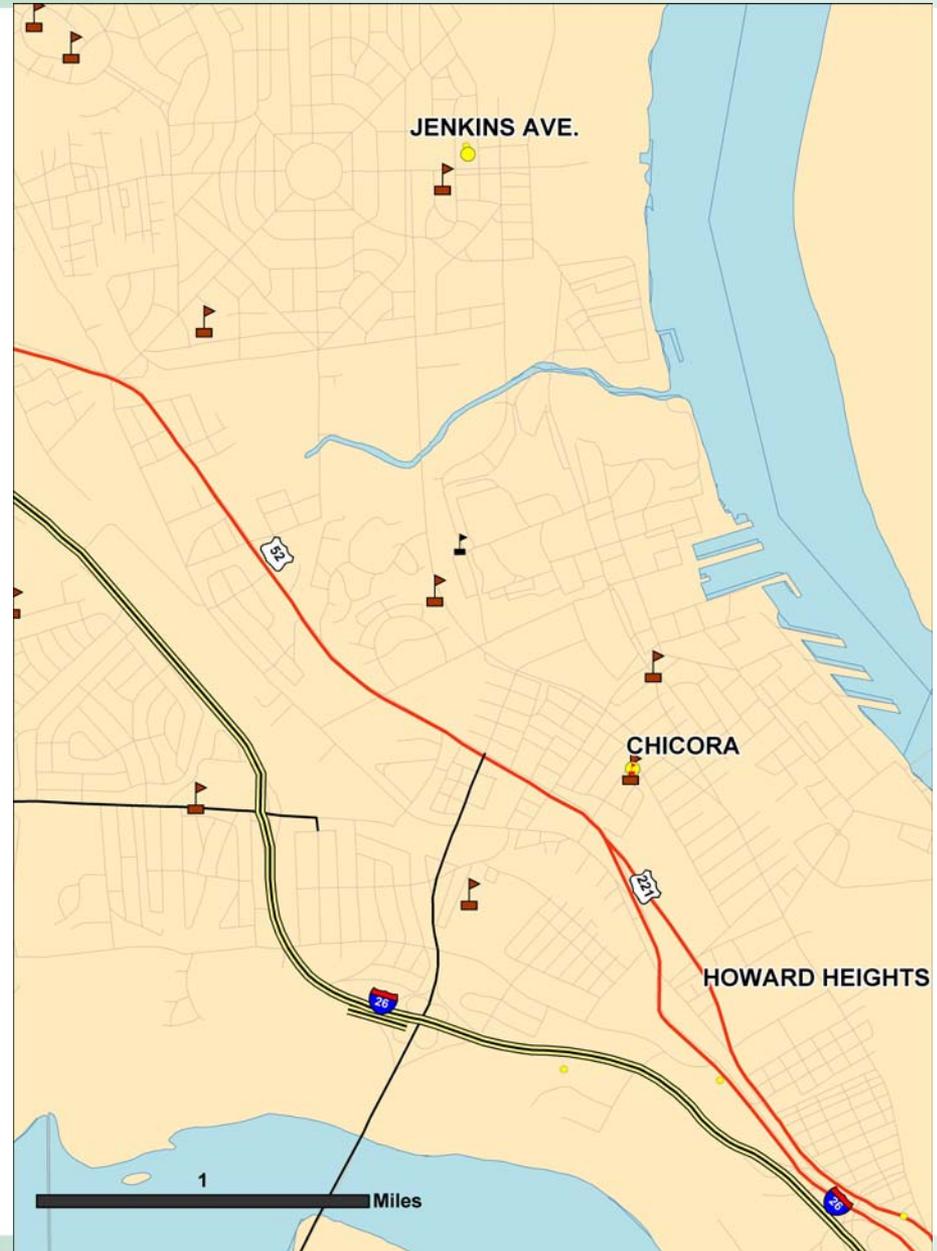
Proposed plan

- Existing site
- Available equipment
- NATTS methods



SAT plan

- **School site**
- **Provided equipment**
- **SAT project methods**

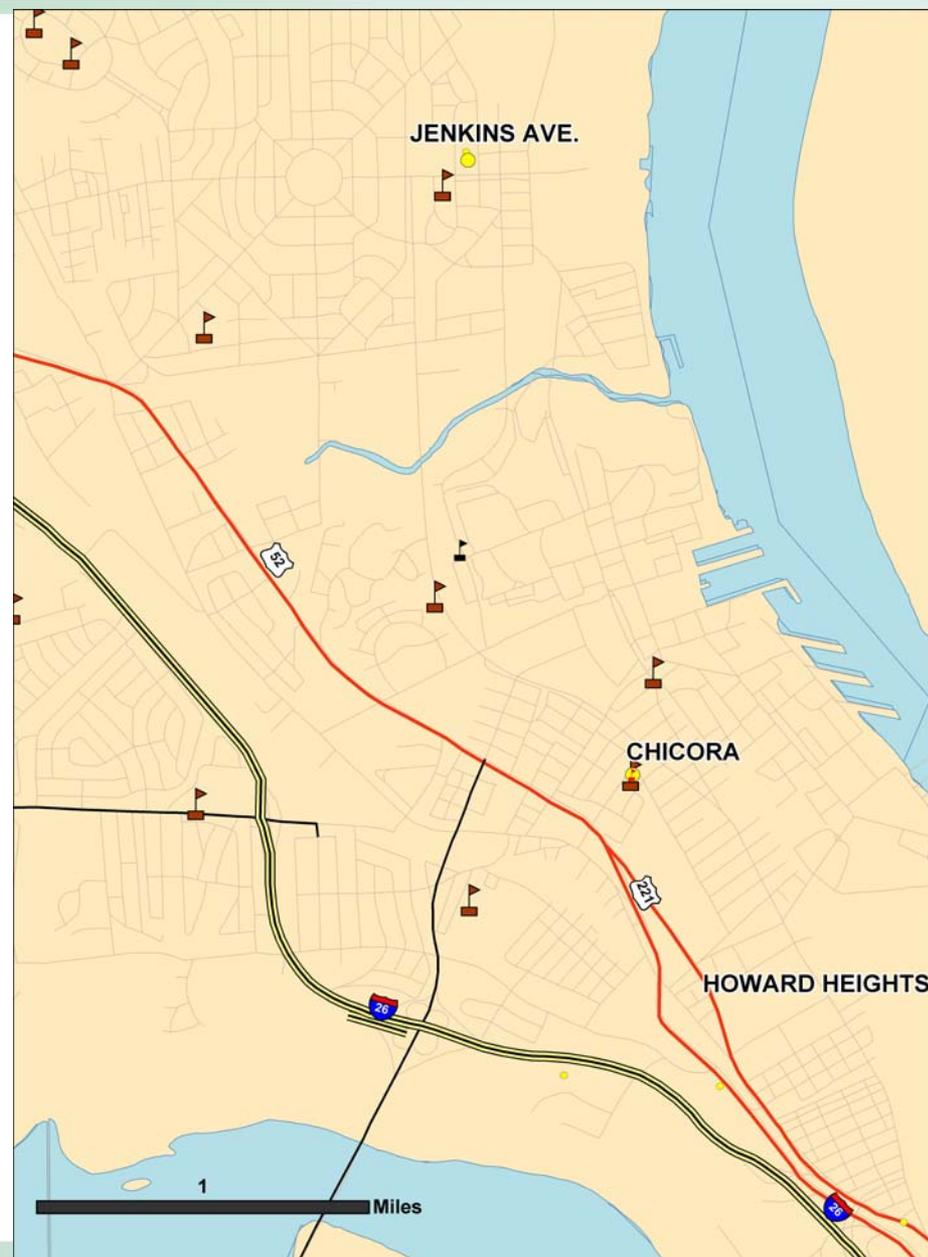


Final plan

- **Chicora Elementary**
 - SAT PM₁₀ Metals, Cr⁺⁶, VOCs, Carbonyls
 - High Volume PM₁₀ Metals

- **Jenkins Avenue**
 - High Volume PM₁₀ Metals
 - Carbonyls
 - Cr⁺⁶
 - VOCs

- **Howard Heights**
 - High Volume PM₁₀ Metals



Final plan

First samples July 18

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Communication

First samples July 18

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- **School and School District**

- **Local Industry group**

- **Community**

- **Business Community**

SAT Monitoring

- Unfamiliar equipment
 - Follow up training
- Carbonyl ozone scrubber and humidity
 - Confirm, retry, and network wide fix
- Battery powered samplers
 - Don't trust 'em
- VOC Timer problems
 - See above
- Anomalous Data

SAT Monitoring

Anomalous Data-VOCs

- HUGE spike in MeCl_2 along with Acrolein, Toluene, Styrene, etc
- Decreased over several samples
- Not WD related
- Not seen at Jenkins

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Investigation

- **Check with School and Industry Group**
- **Block by block source search**

Communication

- **OAQPS and ERG**
- **Stakeholder heads-up**

SAT Monitoring

Anomalous Data-VOCs

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Investigation

- Collocated sampling
 - Away from SAT
 - Without timer
 - With AVOCS
 - Inside sampler box
 - ...

Monitoring Status

SAT – Not Done Yet

- One or two more sample events
- VOCs...

DHEC – (Mostly) Done

- Collected sufficient samples to meet our objectives
- VOCs...

Lessons and Reminders

All projects are local

Design

Augment to meet your objectives

If you can, collocate with your own

Build in quick turnaround (and response)

Keep communication in mind

Build capacity

Lessons and Reminders

All projects are local

Equipment

Stick with proven/known or do significant field trial before you start

If new to the field, train to excess

Change cautiously

Still don't like batteries...

Next

Only one step in a progression

VOCs

Reporting

Communication

Port monitoring

...