

Air Toxics Ambient Monitoring

National Air Monitoring Conference

Air Toxics Session I

November 4, 2009

Michael Jones

Agenda

- Air Toxics Overview
- Monitoring Program History
- Program Structure
- Session Overview

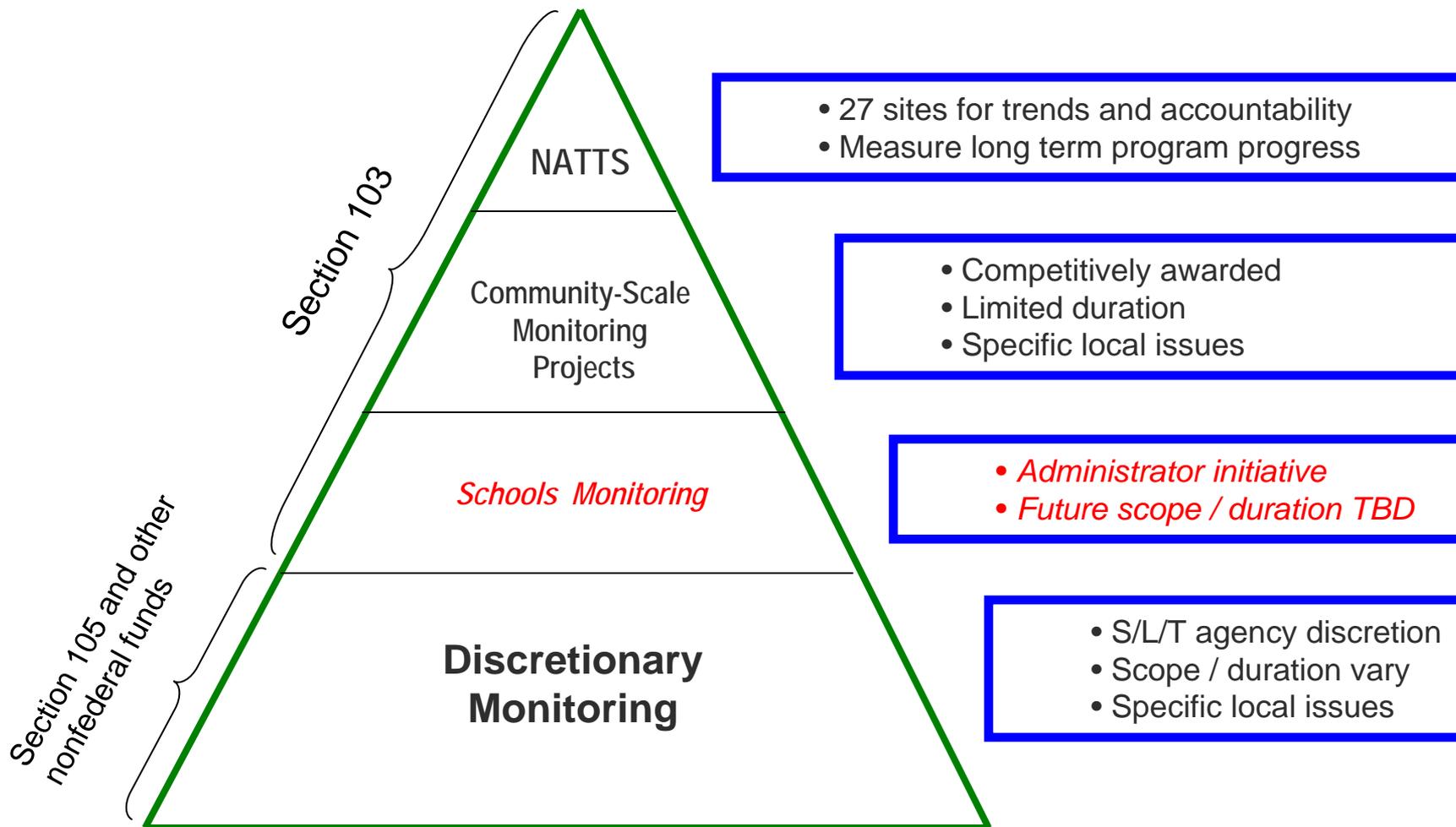
Air Toxics Overview

- Air Toxics (a.k.a. Hazardous Air Pollutants or HAPs)
 - Adverse health effects
 - Pathway
 - Occurrence
- Ambient Air Monitoring

Program History

- Pre-1999
- 1999-2002
 - Compile and assess quality / utility of existing data and sampling and analysis methodology
 - Conduct initial data analyses and ten city pilot study
 - Develop air toxics monitoring strategy
- 2003 to date: implement air toxics monitoring strategy
 - Establish the trends network and associated program support, community-scale monitoring projects, continued discretionary monitoring

Program Structure



National Air Toxics Trends Station (NATTS) Network

- Long term operation
- Principle objective: assess trends, program accountability
- Currently 27 sites (20 urban, 7 rural) across the U.S.
 - Thirteen sites established in 2003, ten sites in 2004, and two sites each in 2007 and 2008
 - Additional sites not currently planned
- Pollutants monitored: 104 HAPs (VOCs, carbonyls, PM10 metals, hexavalent chromium, PAHs/SVOCs)
- Established protocols (<http://www.epa.gov/ttn/amtic/airtox.html>)

NATTS Network Assessment: 2010

- Planning team to define scope / objectives
 - Total number and urban vs. rural, locations, etc.
 - Data quality / performance
 - Corrections / adjustments ?
- Review all available information
 - Data in AQS
 - QA
- Target completion by end of 2010

Community-Scale Air Toxics Ambient Monitoring

- Principle objective - assist state, local and tribal communities in
 - Identifying and profiling air toxics sources
 - Characterizing the degree and extent of local-scale air toxics problems
- Competitively awarded grants / cooperative agreements
 - Grant competition centrally managed (Program Office)
 - Awards and post-award oversight by Regional Offices
 - Intended to be 2-3 years duration
- Three competitions to date: 03/04, 05/06, 07/08
- ~ \$18M awarded to 53 projects
- Over a third of the projects have been completed
 - <http://www.epa.gov/ttn/amtic/local.html>
- Many project completions imminent – most anticipated during the coming year

Session Overview

8:00am – 10:00am

Nat'l Air Toxics Ambient Monitoring Pgm Overview

Michael Jones, EPA/OAQPS

Ambient Air Acrolein Measurement via TO-15

David Shelow, EPA/OAQPS

Passive Canister Sampling Challenges

Dave Dayton, ERG

National Air Toxics Trends Station (NATTS) Quality Assurance Three-Year Assessment, 2005-2007

Dennis Mikel, EPA/OAQPS

National Air Toxics Trends Station (NATTS) Data Characterization, 2004-2007

Regi Oommen, ERG

10:30am – 12:00pm

Method Detection Limit (MDL) Development and Standardization

Julie Swift, ERG

USEPA Region 5 Interlab Comparability Pgm

Motria Caudill, EPA Region 5

NYSDEC Experience with the Synspec BTEX Instrument

Paul Sierzenga, NYS DEC

City of Houston's Mobile Ambient Air Monitoring Lab

James Rhubottom, Jr., City of Houston DHHS