

Ambient Air Toxics Monitoring Program Overview

Nealson Watkins

EPA - OAR - OAQPS

Air Quality Assessment Division

Ambient Air Monitoring Group

2022 NAAMC

Overview Topics



- What are our objectives?
- Air Toxics Strategy
- National Air Toxics Trends Stations (NATTS)
- National Contract Laboratory
- Toxics Methods Development
- Program Trajectory

Ambient Air Toxics Monitoring Objectives



The ambient monitoring of Hazardous Air Pollutants (HAPs), a.k.a. “air toxics” is carried out for three primary purposes:

1. Understanding Trends – providing a basic measure of air quality differences across cities or regions over time.
2. Exposure Assessments – providing data that can serve to support exposure assessments; understanding relationships.
3. Model evaluation – providing data that can be used to ground truth air quality models used for exposure assessments, development of emission control strategies, source-receptor analyses, and other assessments.

Additional goals that now have increased need or priority:

- Characterize ambient concentrations within communities.
 - Increased geographic diversity of data.
 - Support analytical assessments.
- ❖ Accomplished through the National Air Toxics Trends Stations (NATTS), Community Scale Air Toxics Monitoring (CSATAM) grants, the Urban Air Toxics Monitoring Program (UATMP), and through SLT monitoring initiatives.

Air Toxics Strategy



- In 2020, OAQPS rolled out an internal strategy that intended to improve coordination with Agency partners to address issues, renew commitment to sound science and data, and create a more systematic approach to identify potential air toxics issues and solutions.
 - Communication, Coordination, & Collaboration
- The Strategy created three teams in OAQPS:
 - Air Toxics Evaluations and Screening Team
 - Air Toxics Data Analytics Team
 - Air Toxics Management and Mitigation Team
- OAQPS has taken other actions under the strategy:
 - Improving risk communications that are coordinated across the Agency;
 - Improved communications regarding rulemakings;
 - Outreach with communities, including the Air Toxics Screening Tool;
 - Divisional teams & improved inter-disciplinary communication and coordination.
- Strategy concepts have been infused into overarching EPA Strategic Plan development (<https://www.epa.gov/planandbudget/strategicplan>).

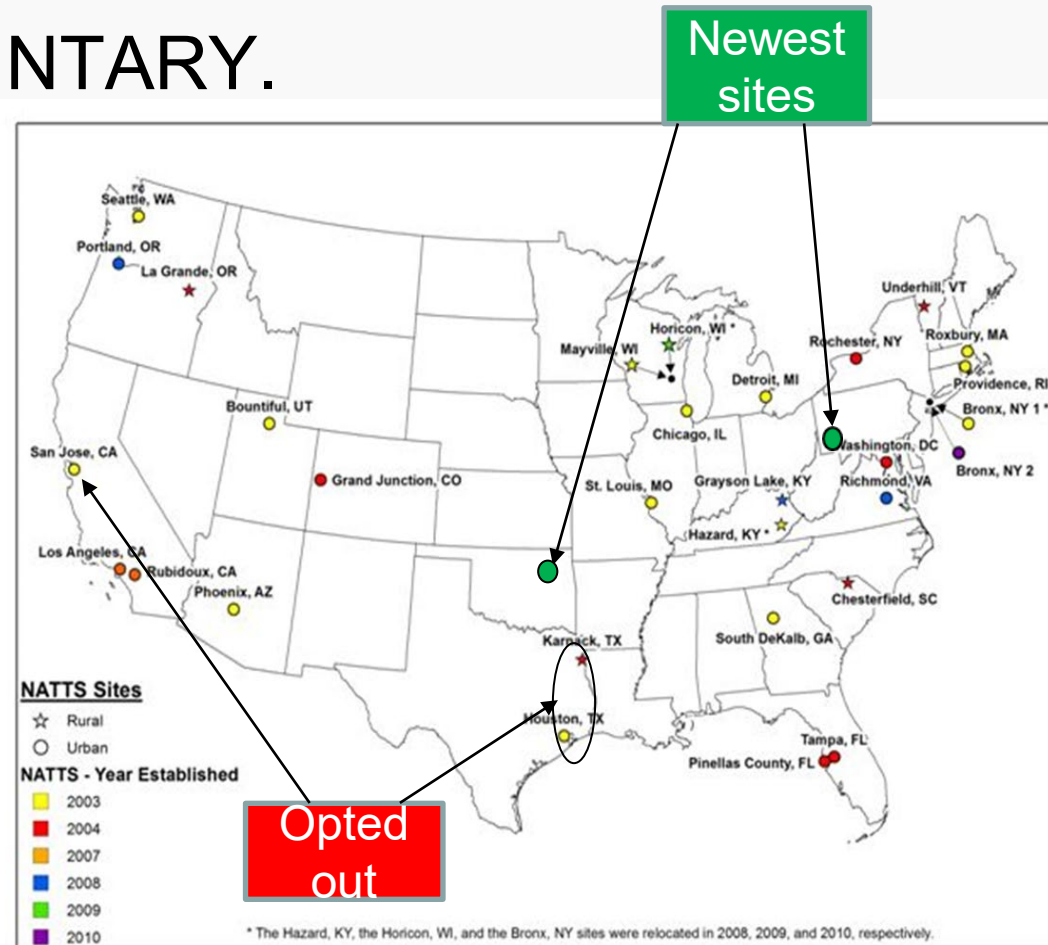


NATTS



The National Air Toxics Trends Stations (NATTS) network now stands at 26 sites (August 2022).

- Participation is **VOLUNTARY**.
- Requires measurement of 19 “Tier 1” compounds.
- User choice of lab support services.
- Funded by STAG 103 appropriations.



NATTS (cont.)



- NATTS participants currently receive \$162k per year.
 - 2022 saw a one-time budget increase.
 - Inflation Reduction Act could mean more funds for NATTS at least through 2031.
- EPA is open to increase participation.
 - Will look at modeled risk to determine areas where monitoring might be most valuable.
 - Will look at existing data to inform potential reduction of spatial gaps that improves modeling (including boundary conditions, regional background, rural vs. urban, etc.).
 - If you think your agency might be interested, alert your region and OAQPS know!



National Contract Laboratory



- EPA maintains a national contract laboratory to support NATTS, UATMP, and SLT and EPA special studies.
 - NATTS participants are not required to use the contract lab.
 - UATMP is a program specifically to allow SLTs to use the contract lab on a routine basis.
 - Orders for support come to OAQPS annually for UATMP and special studies, covered by STAG 105 holdbacks.
 - Short notice studies or needs are coordinated through EPA Regions to OAQPS.
 - ERG just was awarded the contract as the national contract lab for the coming 5 years.



Toxics Methods Development



- Continued evaluation of TO-15/A, particularly for EtO
 - “Cannister effect” and cleaning
 - EtO sensitivities
- Evaluation of continuous analyzers
 - EtO
 - Formaldehyde
 - Multi-compound platforms
- Sorbent measurements
 - Find and improve understanding of uptake rates for a suite of compounds
 - Explore substrate options



Program Trajectory



- Air toxics are getting increased attention:
 - General risk awareness (EJ screen, Air Toxics Screening tool, outside analyses)
 - Emerging issues (EtO, PFAS, etc.)
 - Environmental Justice
 - Source rule work
- Influences on program trajectory
 - Directives (Administration, Congressional, Agency priorities such as GAO recommended modernization)
 - Funding (maintenance vs. growth, plus research)
 - Capability (methods, human resources, institutional knowledge and experience, etc.)
- EPA will look to collaborate with SLTs and other stakeholders to focus resources in areas of need and for maximum benefit.





Questions?