Kristen Benedict

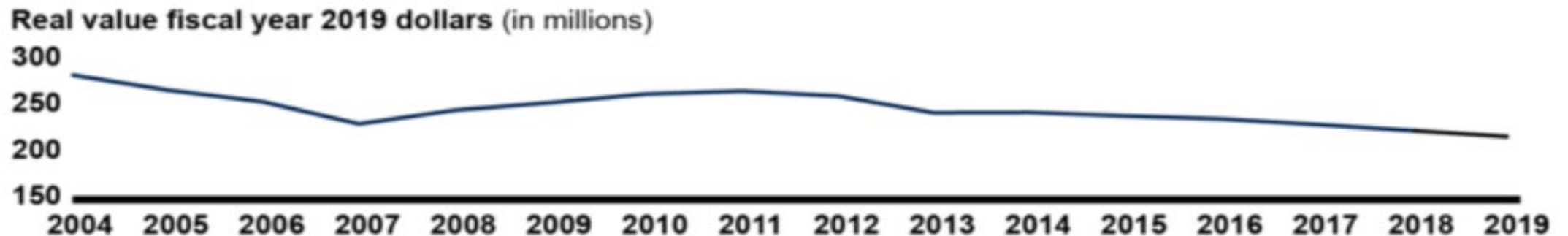Ambient Air Monitoring Group Leader

08.22.2022

March 11, 2020

Ambient Air Monitoring – A Mission Essential Function

- During an emergency or Continuity of Operations Plan (COOP), ambient air monitoring programs are a mission essential function and should continue unless state, local, or tribal (SLT) directives prohibit their operation
    - Memo: "Ambient Air Monitoring Programs Continuity of Operations Associated with the COVID-19 Response" (March 18, 2020)
- However, we recognize that the COVID-19 response is straining many air monitoring agency resources and, in some cases, may limit access to monitoring sites
- In response to questions from SLT agencies concerning monitoring priorities during COVID-19, we provided input to consider when balancing mission essential functions of ambient air monitoring with local orders and the health and safety of employees
    - Memo: "EPA Input on Ambient Air Monitoring Priorities in the Absence of Monitoring Agency Priorities During the COVID-19 Response" (March 30, 2020)
- Developed responses to questions from EPA Regions - including questions concerning QA/QC requirements

November 2020

- GAO report titled *Air Pollution: Opportunities to Better Sustain and Modernize the National Air Quality Monitoring System* (GAO-21-38)

    - The ambient air quality monitoring system is a national asset that provides standardized information for implementing the Clean Air Act and protecting public health.

    - The Environmental Protection Agency (EPA) and state and local agencies cooperatively manage the system, with each playing different roles in design, operation, oversight, and funding. For example, EPA establishes minimum requirements for the system, and state and local agencies operate the monitors and report data to EPA.

    - Challenges identified in both sustaining and modernizing the network

Annual Inflation-Adjusted EPA Funding for State and Local Air Quality Management Grants

Real value fiscal year 2019 dollars (in millions)

Source: GAO analysis of Environmental Protection Agency and U.S. Department of Commerce, Bureau of Economic Analysis, data. | GAO-21-38

November 2020

- **Recommendation 1**
  - "…EPA's Office of Air and Radiation, in consultation with state and local agencies, should **develop, make public, and implement an asset management framework** for consistently sustaining the national ambient air quality monitoring system. Such a framework could be designed for success by considering the key characteristics of effective asset management described in our report, such **as identifying the resources needed to sustain the monitoring system, using quality data to manage infrastructure risks, and targeting resources toward assets that provide the greatest value**."

- **Recommendation 2**
  - "…EPA's Office of Air and Radiation, in consultation with state and local agencies and other relevant federal agencies, should **develop and make public an air quality monitoring modernization plan** to better meet the additional information needs of air quality managers, researchers, and the public. Such a plan could address the ongoing challenges in modernizing the national ambient air quality monitoring system by considering leading practices, including establishing priorities and roles, assessing risks to success, identifying the resources needed to achieve goals, and measuring and evaluating progress."
  - Examples of modernization were not just technology based, and included:
    - Increasing local-scale, real-time air quality data availability
    - Increasing air toxics monitoring capabilities and coverages
    - Addressing persistent and complex pollution (e.g., wildfires)
    - Evaluate increased use of low-cost sensors and satellite data

Our journey continues...

March 2021

American Rescue Plan (ARP)

- EPA received a supplemental FY 2021 appropriation of $100 million from the ARP to address health outcome disparities from pollution and the COVID-19 pandemic.
- EPA's appropriation was split into two $50 million line items – one dedicated to support environmental justice (EJ) priorities, and the other dedicated to enhance air quality monitoring

American Rescue Plan - Continued

EPA is making $50 million in **one-time** American Rescue Plan (ARP) funding available to **enhance ambient air quality monitoring in communities** across the United States. (https://www.epa.gov/arp)

1. Grant Competition for Community Monitoring ($20M)

    – EPA launched a $20 million grant competition that called for proposals from nonprofit community-based organizations, state, Tribal and local air agencies -- individually or in partnerships -- to conduct monitoring of pollutants of greatest concern in communities with health outcome disparities.

2. Direct Awards to Air Agencies for Continuous PM2.5 Monitoring and Other Common Air Pollutants ($22.5M)

    – EPA is in the process of awarding $22.5 million to state, Tribal or local air agencies for enhanced monitoring of $PM_{2.5}$ and five other air pollutants regulated by the National Ambient Air Quality Standards under the Clean Air Act.

3. Enhanced Regional Capacity for Short-term Community Monitoring Needs ($5M)

4. Administrative Support ($2.5M)

American Rescue Plan - Continued

- ## Grant Competition ($20M)
  - Over 200 eligible applications

- ## Direct Awards ($22.5M)
  - Equipment needs across existing national criteria pollutant networks

IMPORTANT DATES	
December 13, 2021	RFA OPENS
January 11, 2022	INFORMATION SESSION
February 25, 2022	OPTIONAL INTENT TO APPLY
March 18, 2022	LAST DAY TO SUBMIT QUESTIONS
March 25, 2022	RFA CLOSES – APPLICATIONS DUE
August-September 2022	ANTICIPATED NOTIFICATION OF SELECTION
October-November 2022	ANTICIPATED AWARD

Public Announcement anticipated November 2022
(https://www.epa.gov/arp)

Our journey continues...

August 2022

- **National Ambient Air Monitoring Conference**
- American Rescue Plan for Ambient Air Monitoring
- Government Accountability Office (GAO) Report Response (Asset Management & Modernization)
- PM NAAQS Reconsideration and Ambient Air Monitoring
  - FRM/FEM comparability
  - $PM_{2.5}$ network design and relationship to environmental justice
  - Additional technical topics
- Air Toxics Monitoring
  - EtO, NATTS
- Quality Assurance Activities/Programs
- Ozone Absorption Cross Section Change
- …and MORE!

Where are we going?

- **Maintaining and modernizing the existing network and meeting regulatory requirements**

- **Congressional Bills – Inflation Reduction Act?**

- **Use of non-regulatory data (e.g. satellites and sensors)**

- **Increased desire for local and community monitoring (including air toxics)**

- **Increased use and analysis of SLT and EPA data**

- **Real-time information**

- **Increased attention on annual monitoring network plans and five-year assessments**

- **Quality Assurance**