Network Operations Subcommittee (Activities from the Charter)

- Network Operations
  - Oversee changes to IMPROVE monitoring operations and sample analysis
  - Conduct analyses to inform decisions on network changes
  - Help resolve issues resulting from loss of site operators, monitoring equipment, or site relocations
- QA/QC
  - Review all QA/QC documents
  - Ensure requirements of the QAPP are being met
- Contracting
  - Review and provide feedback to NPS on technical requirements of RFPs
- Documentation
  - Oversee update of Quality Management Plan (QMP) and QAPP (Quality Assurance Project Plan (QAPP)
  - Maintain policies concerning network operations including site selection and relocation

Network Operations Membership

- Joann Rice – Chair (EPA); rice.joann@epa.gov
- Jay Baker (WESTAR) – Outreach and Communications Chair
- Jenny Hand (CSU) – Data Analysis and Reporting Chair
- Rebekka Fine (CARB)
- Melinda Beaver (EPA)

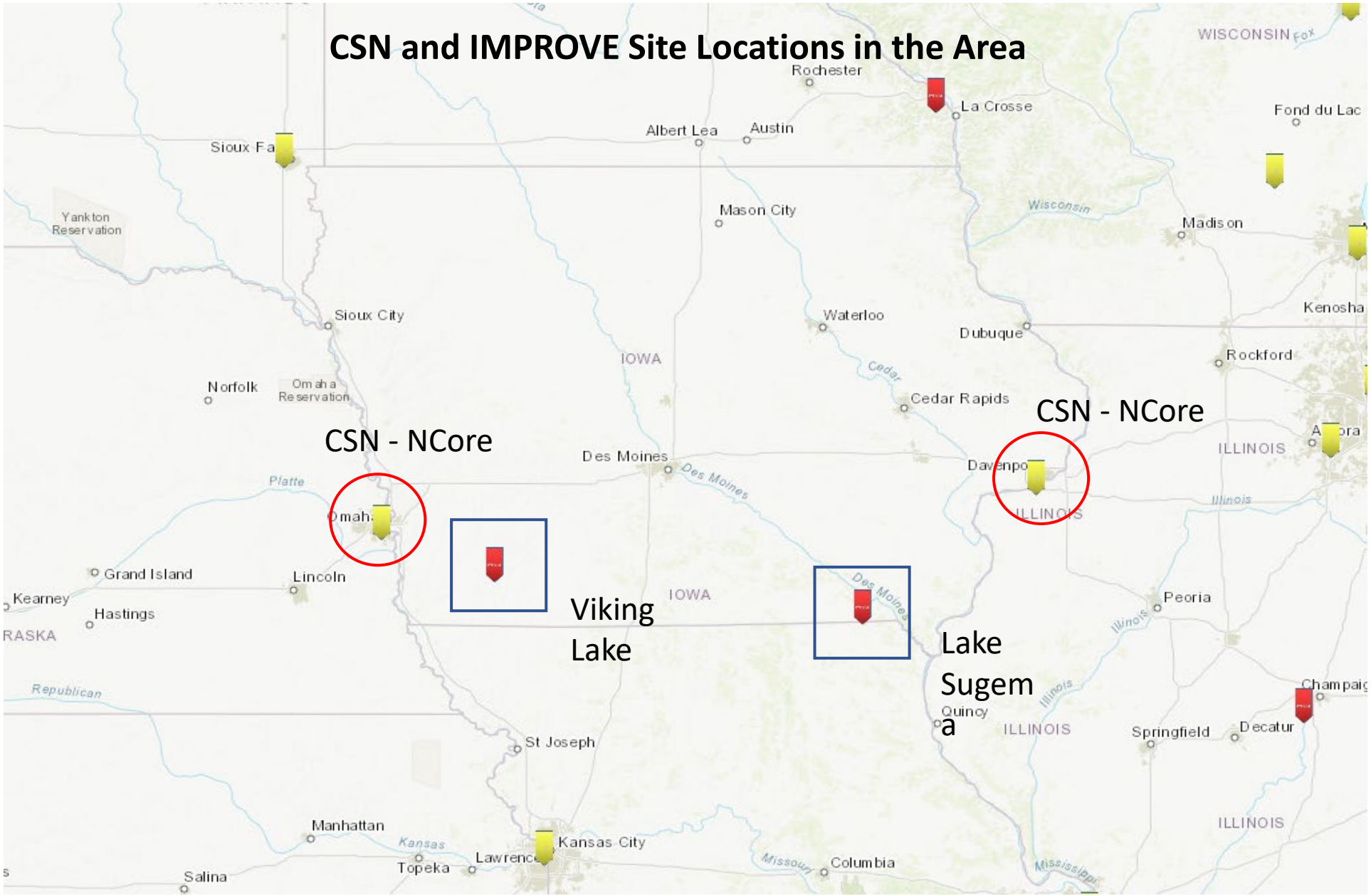
IMPROVE Protocol Sites Shut Down in Iowa

- Viking Lake (VILA1) and Lake Sugema (LASU2)
- State requested discontinuation 7/1/2023
- State Rationale
  - Lake Sugema on the same side (eastern) of the state as Iowa's NCore site in Davenport (CSN)
  - Viking Lake is on the same side (western) of the state as Nebraska's NCore site in Omaha (CSN)
  - Overlap in suite of analytes collected by both CSN and IMPROVE Protocols and regional proximity of CSN and IMPROVE
  - Will continue PM2.5 mass measurements at both sites

EPA's IMPROVE Protocol Sites Assessment in 2015

- Lake Sugema and Viking Lake was recommended for Defunding
- Both kept based on feedback from the state for background and transport information
- State feels that CSN at other two NCore sites would provide the needed information
- EPA Region 7 plans to approve through the annual monitoring network plan review

CSN and IMPROVE Site Locations in the Area



Plans for Coming Year

- Site shutdowns or possible moves
  - Frostburg (FRRE1) IMPROVE protocol site
    - Was shutting down at the end of 2023
    - Maryland Dept. of Environ. (MDE) has received a 1-year extension and continuing negotiations with landowner on a new lease
- Quality Management Plan (QMP) and Quality Assurance Project Plan (QAPP) updates are needed
  - QMPs and QAPPs are part of the quality system to manage the quality of monitoring information produced
  - The IMPROVE QMP is dated May 2002
  - The IMPROVE QAPP is dated March 2016
  - The IMPROVE QAPP (Section 6.1, Table 6.1) lists that the “Assessment of the Quality System” be done every 5 years

Plans for Coming Year

- QMP
  - Describes the quality system in terms of the organizational structure, functional responsibilities of management and staff, lines of authority, and required interfaces for those planning, implementing, assessing and reporting activities to support the objectives
  - Level of detail should be based on the scope of the program
  - EPA Requirements for Quality Management Plans. EPA QA/R–2. EPA/240/B–01/002. March 2001, Reissue May 2006.
- QAPP
  - A formal document describing, in sufficient detail, the quality system that must be implemented to ensure that the results of work performed will satisfy the stated objectives.
  - Level of detail is based on graded approach so that the level of detail varies according to the nature of the work being performed and the intended use of the data
    - The IMPROVE QAPP is a Level I QAPP
  - EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations. EPA QA/R–5. EPA/240/B–01/003. March 2001, Reissue May 2006.

http://www.epa.gov/quality/agency-wide-quality-system-documents

Graded Approach QMP/QAPP

Table 1. Ambient Air Monitoring Program QAPP/QMP categories

Categories	Programs	QAPP/QMP Comments	DQO
Category 1 Projects include EDOs that directly support rulemaking, enforcement, regulatory, or policy decisions. They also include research projects of significant national interest, such as those typically monitored by the Administrator. Category I projects require the most detailed and rigorous QA and QC for legal and scientific defensibility. Category I projects are typically stand-alone; that is, the results from such projects are sufficient to make the needed decision without input from other projects.	SLAMS PSD NCore IMPROVE CastNet	Most agencies implementing Ambient Air Monitoring Networks will have separate QMPs and QAPPs. However, a Region has the discretion to approve QMP/QAPP combination for small monitoring organizations (i.e., Tribes)	Formal DQOs
Category 2 Projects include EDOs that complement other projects in support of rulemaking, regulatory, or policy decisions. Such projects are of sufficient scope and substance that their results could be combined with those from other projects of similar scope to provide necessary information for decisions. Category II projects may also include certain high visibility projects as defined by EPA management	Speciation Trends Toxics Mon.	Most agencies implementing Ambient Air Monitoring Networks will have separate QMPs and QAPPs. However, a Region has the discretion to approve QMP/QAPP combination for small monitoring organizations (i.e., Tribes)	Formal DQOs for national objective, Flexible DQOs for localized objectives
Category 3 Projects include EDOs performed as interim steps in a larger group of operations. Such projects include those producing results that are used to evaluate and select options for interim decisions or to perform feasibility studies or preliminary assessments of unexplored areas for possible future work.	SPM One time Studies Local Scale Air Toxics Grants	EDOs of short duration. QMP and QAPP can be combined.	Flexible DQOs
Category 4 Projects involving EDOs to study basic phenomena or issues, including proof of concepts, screening for particular analytical species, etc. Such projects generally do not require extensive detailed QA/QC activities and documentation	Education/Outreach		Project Objectives or Goals

EPA United States Environmental Protection Agency

Quality Assurance Handbook for Air Pollution Measurement Systems

Volume II

Ambient Air Quality Monitoring Program

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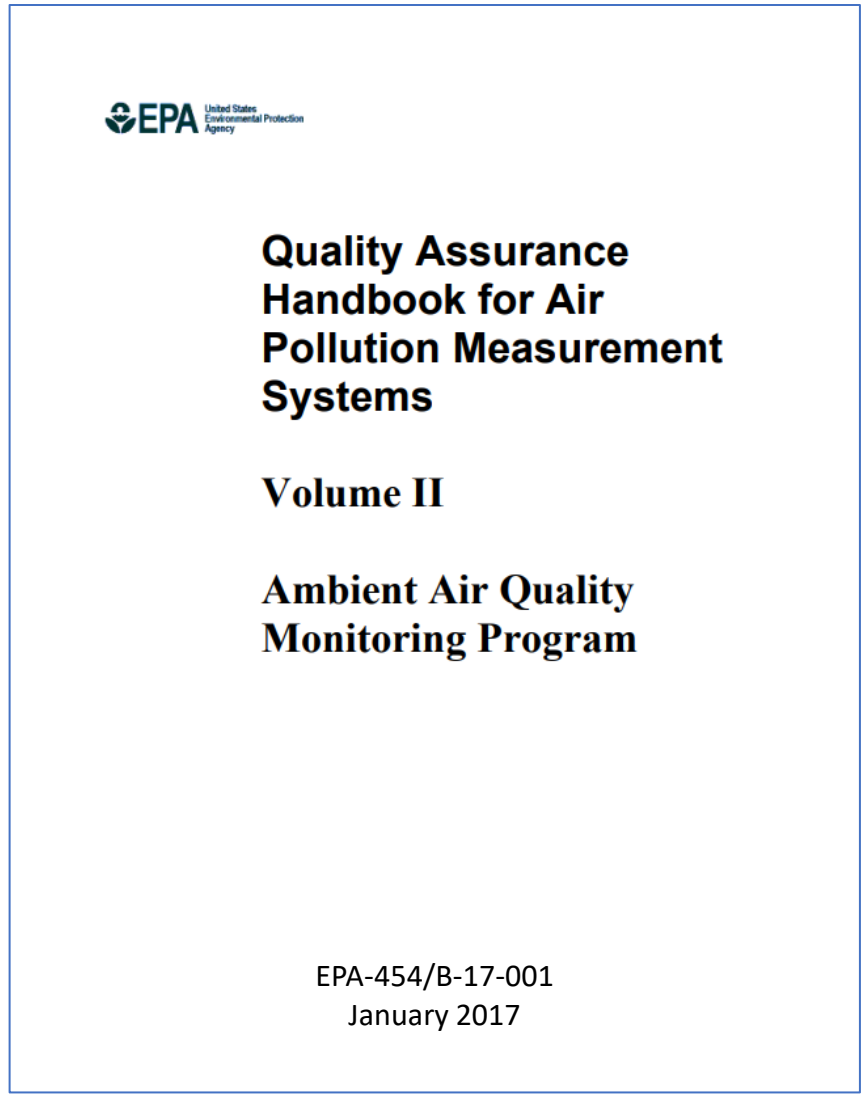
Graded Approach QAPP Elements

Table 2 QAPP Elements

QAPP Element		Category Applicability
A1	Title and Approval Sheet	I, II, III, IV
A2	Table of Contents	I, II, III
A3	Distribution List	I,
A4	Project/Task Organization	I, II, III
A5	Problem Definition/Background	I, II, III
A6	Project/Task Description	I, II, III, IV
A7	Quality Objectives and Criteria for Measurement Data	I, II, III, IV
A8	Special Training Requirements/Certification	I
A9	Documentation and Records	I, II, III
B1	Sample Process (Network) Design	I, II, III, IV
B2	Sampling Methods Requirements	I, II, III,
B3	Sample Handling and Custody Requirements	I, II, III
B4	Analytical Methods Requirements	I, II, III, IV
B5	Quality Control Requirements	I, II, III, IV
B6	Instrument/Equipment Testing, Inspection & Maintenance	I, II, III
B7	Instrument Calibration and Frequency	I, II, III
B8	Inspection/Acceptance Requirements for Supplies and Con.	I,
B9	Data Acquisition Requirements for Non-direct Measurements	I, II, III
B10	Data Management	I, II
C1	Assessments and Response Actions	I, II,
C2	Reports to Management	I, II,
D1	Data Review, Validation, and Verification Requirements	I, II, III
D2	Validation and Verification Methods	I, II
D3	Reconciliation and User Requirements	I, II,



IMPROVE Data - 2022 Second IMPROVE Algorithm

Non Rayleigh Mean of Haziest 20%