AQS Futures (Where is AQS Heading?)

AQS Conference August 22, 2012 Robert Coats

AQS Program Objectives



- Support EPA mission Protect human health and the environment
- Support the implementation of environmental laws and regulations
- Support both EPA and external (state, local, and tribal) stakeholders
- Data quality
- System usability (ergonomics, availability, integrity, and performance)
- Manage cost
- Transparency

New National Ambient Air Quality Standards



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• PM standard:

- Proposed June 14, 2012
 See: http://www.epa.gov/pm/actions.html
- Strengthen primary standard
- Establish secondary standard (visibility)
- Expect rule by end of 2012
- Analyze, plan, and budget: January September 2013
- Begin implementation: October 2013

Monitoring Program Initiatives



- Quality assurance (new QA transactions)
- Monitor metadata
- Changes to certification
- Computed parameters
- Integration with annual monitoring network plans

AQS and the Exchange Network



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- Phase 1 Submission: Complete!
- Phase 2 Flow version 3.0
 - New submission schema version
 - New QA assessments
 - Changes to monitor metadata
 - Publishing:
 - Allow AQS data to be retrieved by Exchange Network nodes
 - Formalize interface for data sharing
- Expect to continue support for current version
 2.2a for foreseeable future.

AQS Technology Modernization



• Technologies:

- Discoverer: Near end of lifecycle with Oracle
- Forms: Near end of lifecycle with Oracle
- Reports: Near end of lifecycle with Oracle
- Database: Server hardware at end of lifecycle with IBM

• Plans:

- Database Server: Move database to new Intel architecture server at EPA NCC (Q4 2012)
- Software: Begin looking at alternative technologies
 - Will establish workgroups involving stakeholders to formalize requirements
 - Cost will be significant selection factor

System Usability



- Update and consolidate AQS documentation and on-line help
- Migrate to agency-based access control
- User registration: Better integration between AQS and Exchange Network
- Dynamic AQS code tables on web (e.g. method codes) and web services
- Graphical output instead of text only for standard reports

System Usability (cont'd)



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- Better analytical, statistical, and mapping capabilities
- Investigate moving protocol information from sample measurement to monitor
- Optimizations for performance improvement
- Simplify AQS summaries

Data Quality



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- Review and update AQS data screening processes
- Review AQS data handling for its effect on data quality
- Improve numeric precision

Manage Cost



- Remove unused and/or obsolete functionality
- Investigate integration between ad-hoc tool (presently Discoverer) and standard reports (presently Oracle Reports) advanced analytical tool (SAS)
- Tighter integration between AQS and Data Mart



Questions and Feedback?