AQCSV and What It Means to You

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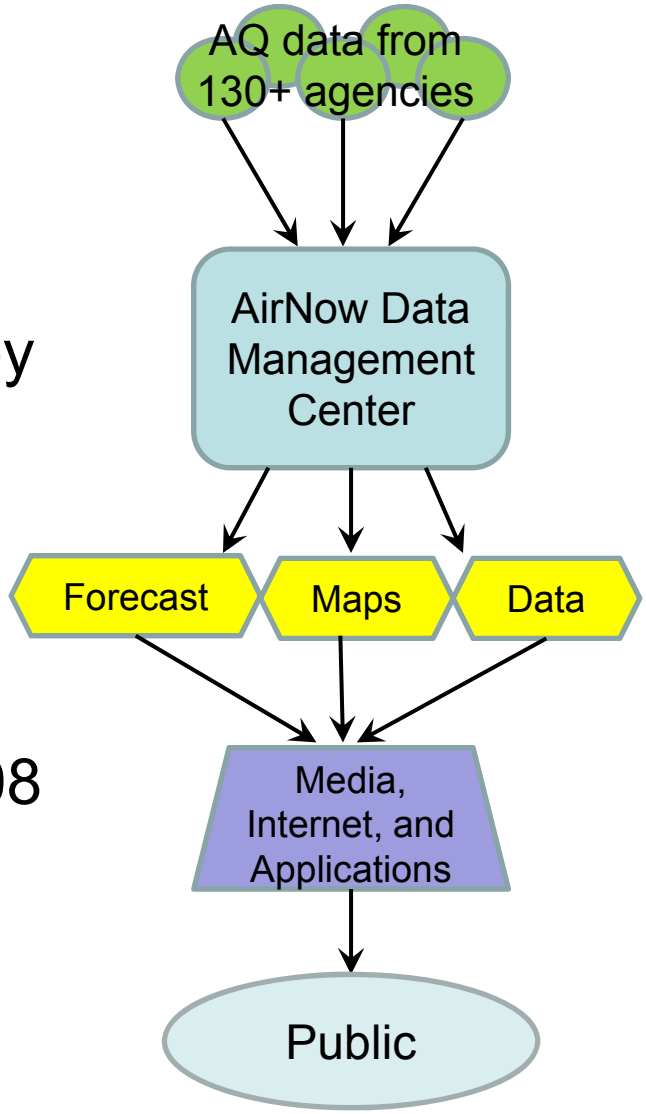
Outline

- AirNow Data Transfer
- Legacy OBS Format
- Data Delivery to EPA and AQCSV
- AQCSV
  - Motivation and Benefit
  - Example
  - New tool – AirNow-Tech 2.0
  - Current Status
  - Activities and Schedule
- Summary

AirNow Data Transfer

- AirNow program started in 1997
- Data transfer started with State Host Computers (SHC)
- Data transfer was (and still is) done by OBS files and contained ozone only
- $PM_{2.5}$ data delivery began in 2003
- Additional parameters were added in 2004
- AQDE Node was implemented in 2008
- Data are now available through AirNow-Tech and AirNow Gateway



Legacy OBS Format

- Legacy format for data ingest into AirNow
- Why are we phasing it out?
  - No native support for
    - Multiple parameter of occurrence (POC)
    - Mobile monitors
    - Three-dimensional data
  - Limited list of parameters
  - No sub-hourly data
  - Applied only to North America
  - Difficult to use in mobile apps
  - Difficult to decode and program

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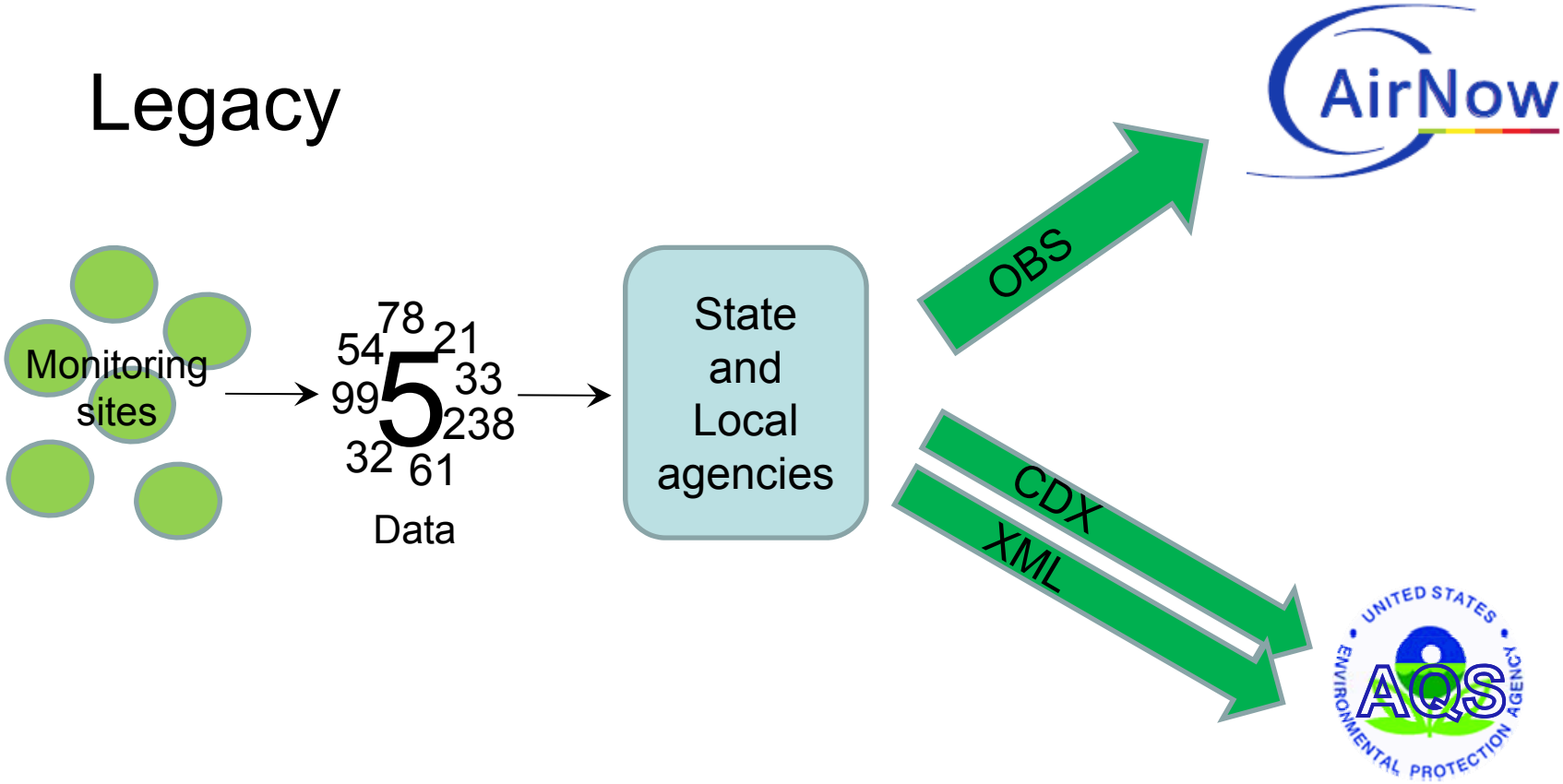
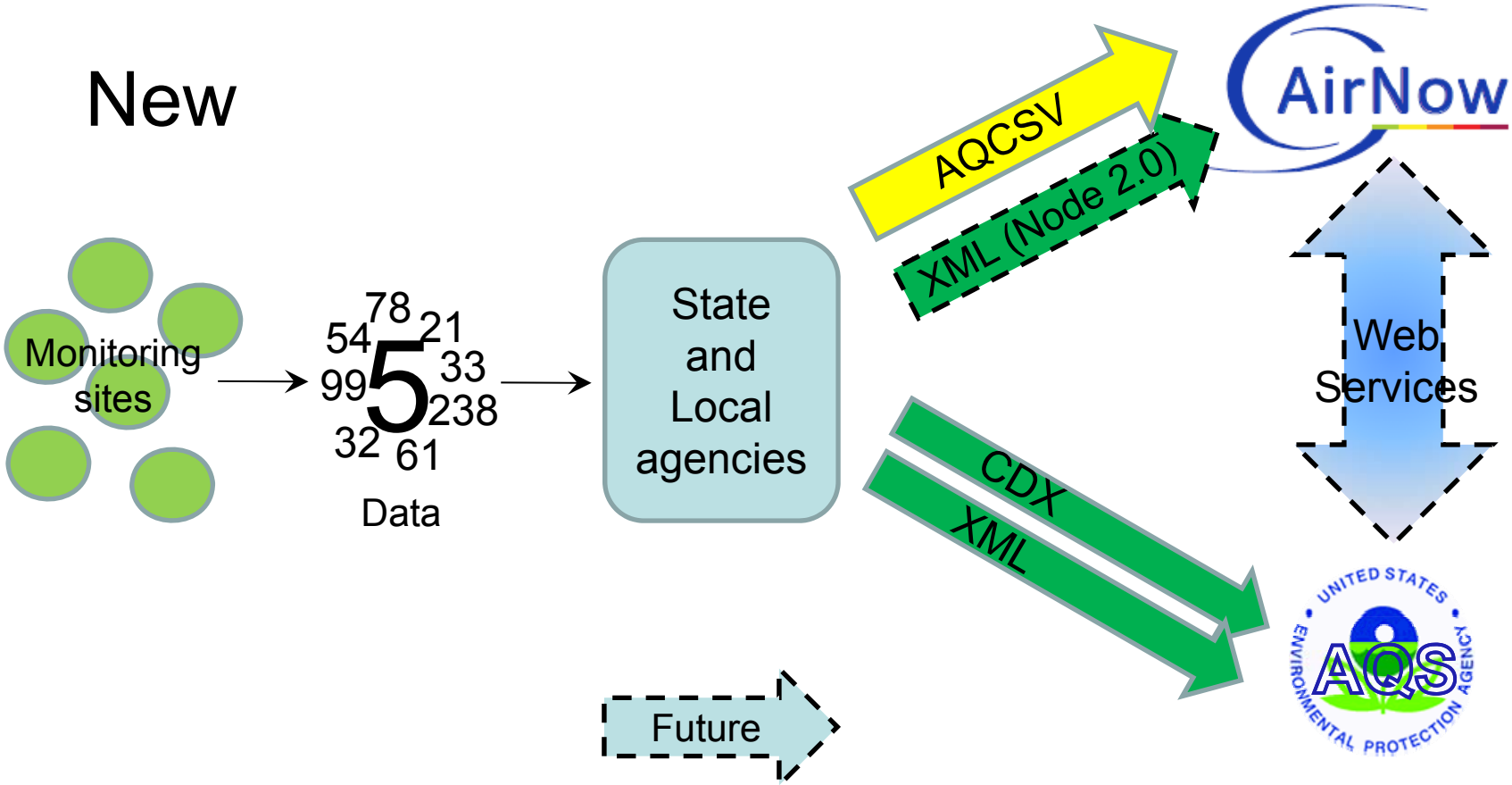
Data Delivery to EPA and AQCSV

Legacy



Data Delivery to EPA and AQCSV



AQCSV – Motivation and Benefits

- Supports
  - AQS standards (parameter codes, POC)
  - Any AQS parameter
  - Speciated/lab data
  - Mobile monitor data
  - Sub-hourly data
- Allows for
  - Submitting more data into AirNow
  - Backfill of AQS data into AirNow when available
  - Editing in AirNow-Tech 2.0
  - Easy encoding and parsing of data
  - Support of international data exchange

AQCSV – Example

- ISO Standards
  - Country codes (840 = USA)
  - Date and time
- AQS-Based
  - Parameter codes
  - Unit codes
  - POC codes
- Support for
  - AQS qualifier codes
  - Location information
    - Latitude and longitude
    - Elevation and GIS data
  - Method codes
  - Measurement performance characteristics
    - Value and uncertainty

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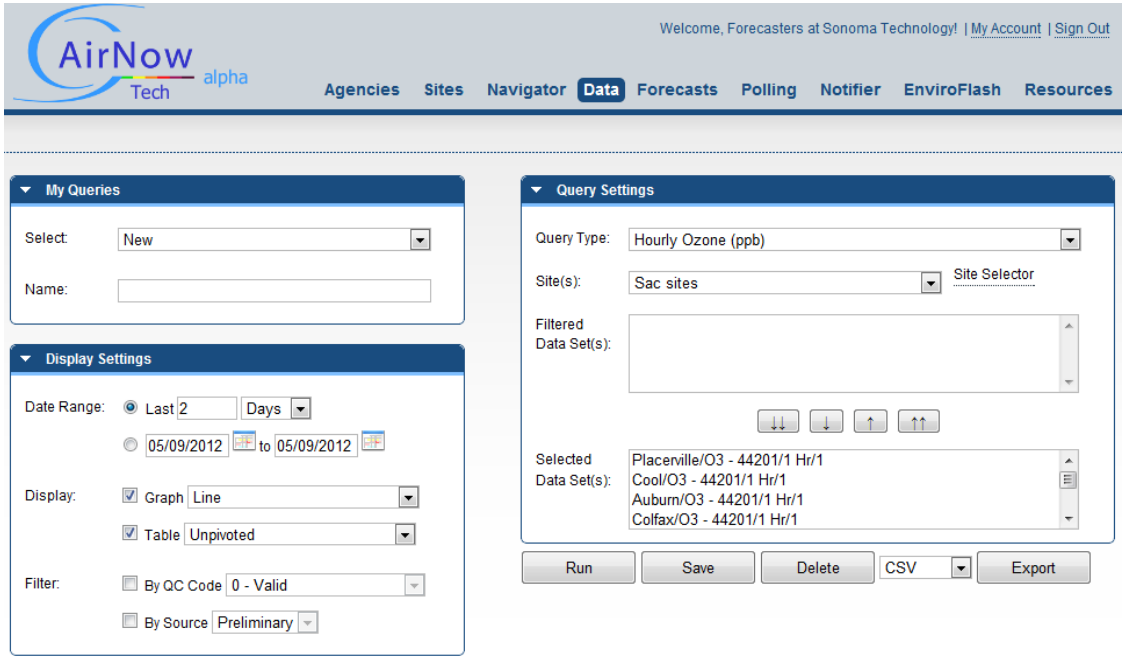
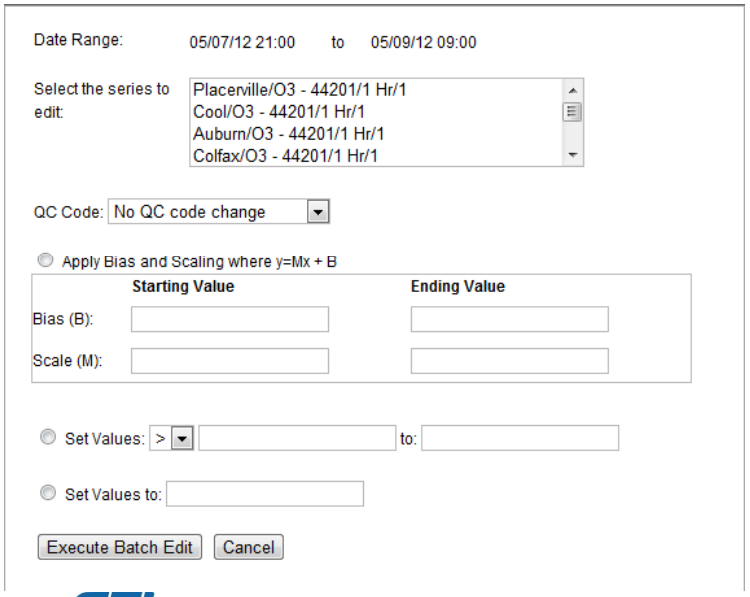
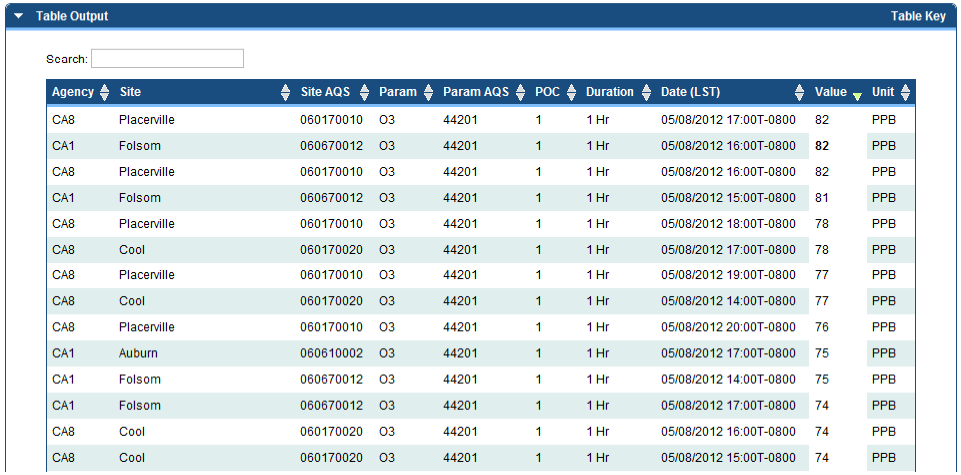
AQCSV and AirNow-Tech 2.0

New AirNow-Tech takes advantage of expanded information available through AQCSV files







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CA8	Placerville	060170010	O3	44201	1	1 Hr	05/08/2012 18:00T-0800	78	PPB
CA8	Cool	060170020	O3	44201	1	1 Hr	05/08/2012 17:00T-0800	78	PPB
CA8	Placerville	060170010	O3	44201	1	1 Hr	05/08/2012 19:00T-0800	77	PPB
CA8	Cool	060170020	O3	44201	1	1 Hr	05/08/2012 14:00T-0800	77	PPB
CA8	Placerville	060170010	O3	44201	1	1 Hr	05/08/2012 20:00T-0800	76	PPB
CA1	Auburn	060610002	O3	44201	1	1 Hr	05/08/2012 17:00T-0800	75	PPB
CA1	Folsom	060670012	O3	44201	1	1 Hr	05/08/2012 14:00T-0800	75	PPB
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CA8	Cool	060170020	O3	44201	1	1 Hr	05/08/2012 16:00T-0800	74	PPB
CA8	Cool	060170020	O3	44201	1	1 Hr	05/08/2012 15:00T-0800	74	PPB

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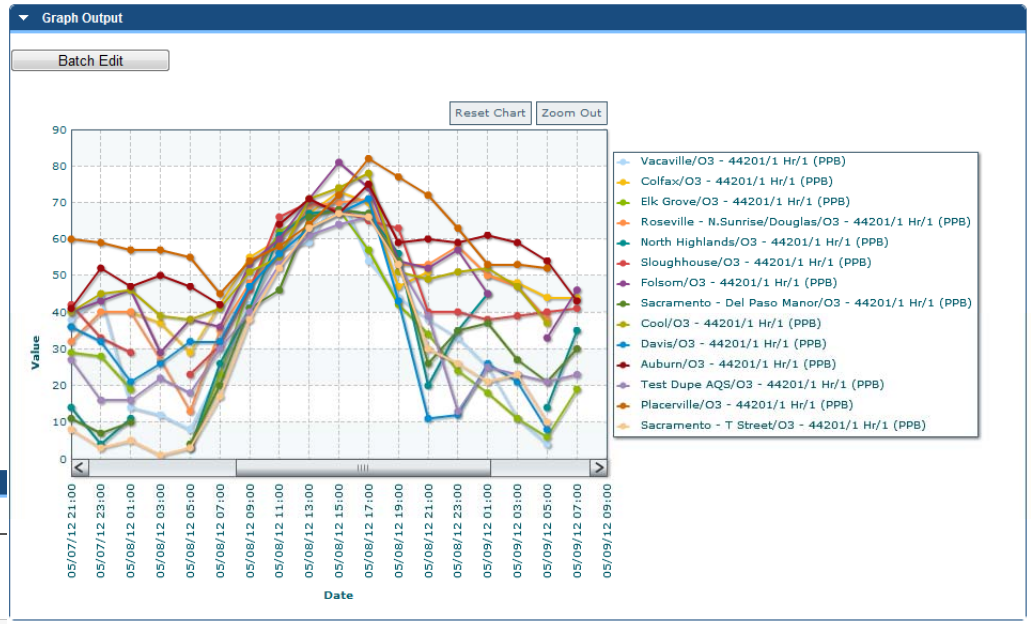
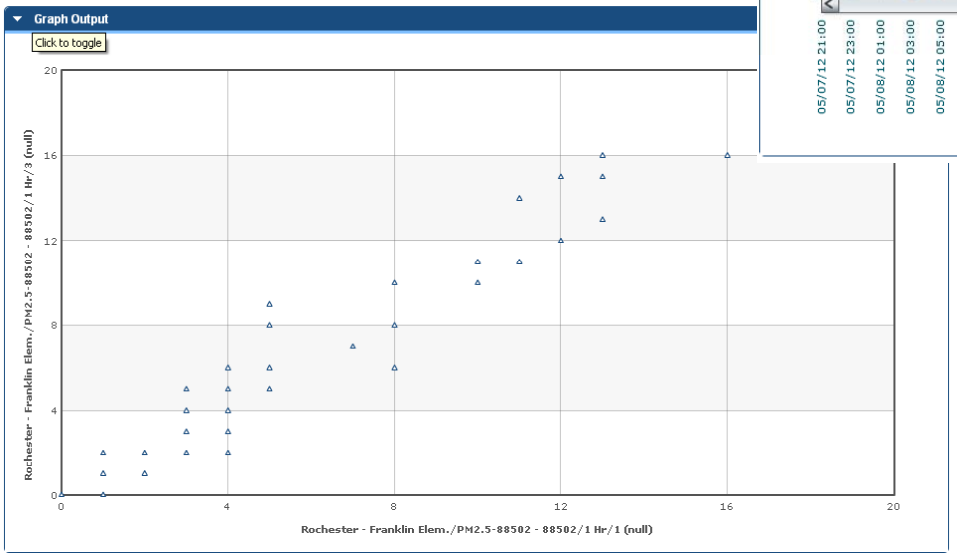
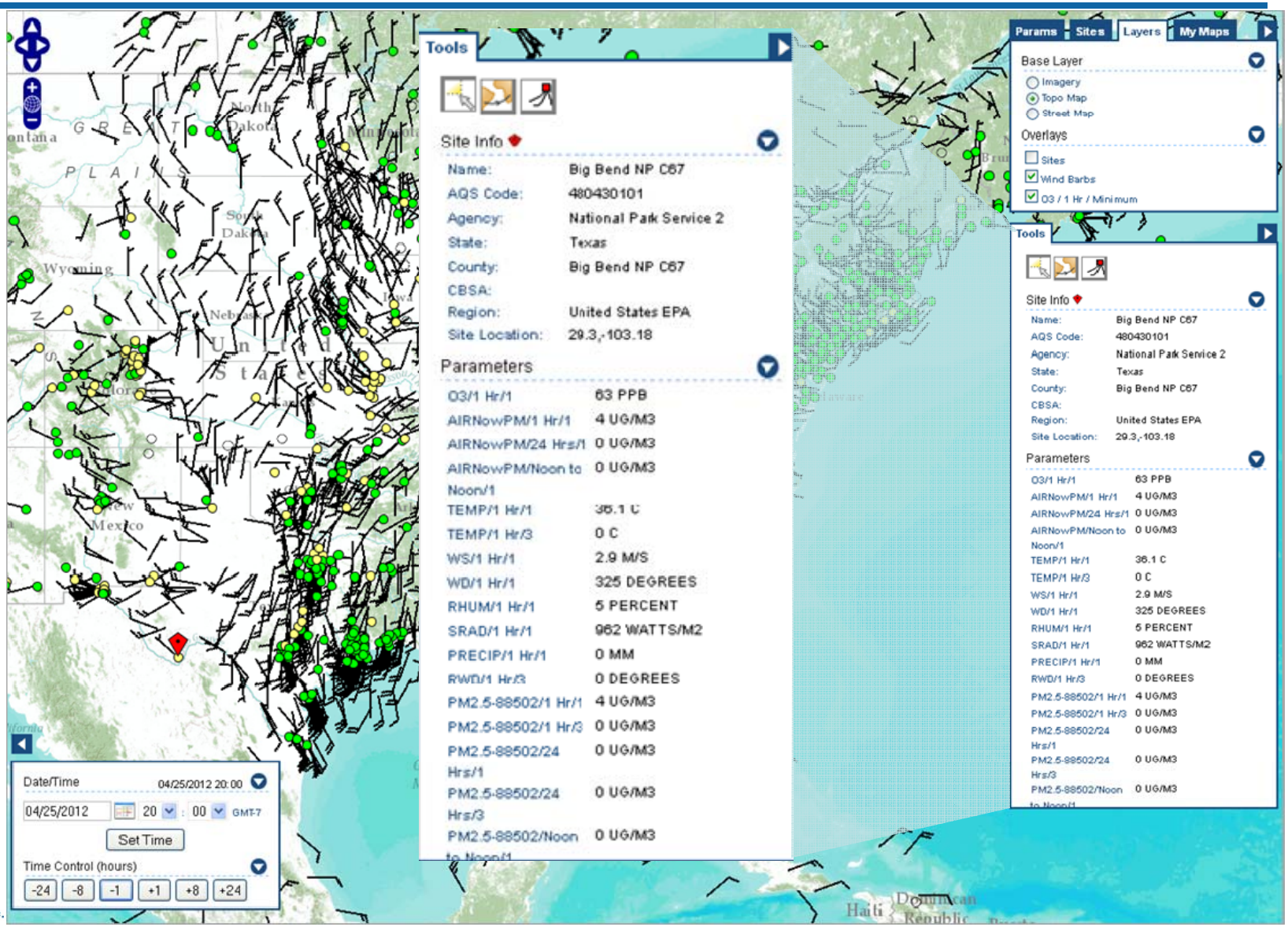
AQCSV and AirNow-Tech 2.0

New AirNow-Tech takes advantage of expanded information available through AQCSV files





AQCSV and AirNow-Tech 2.0



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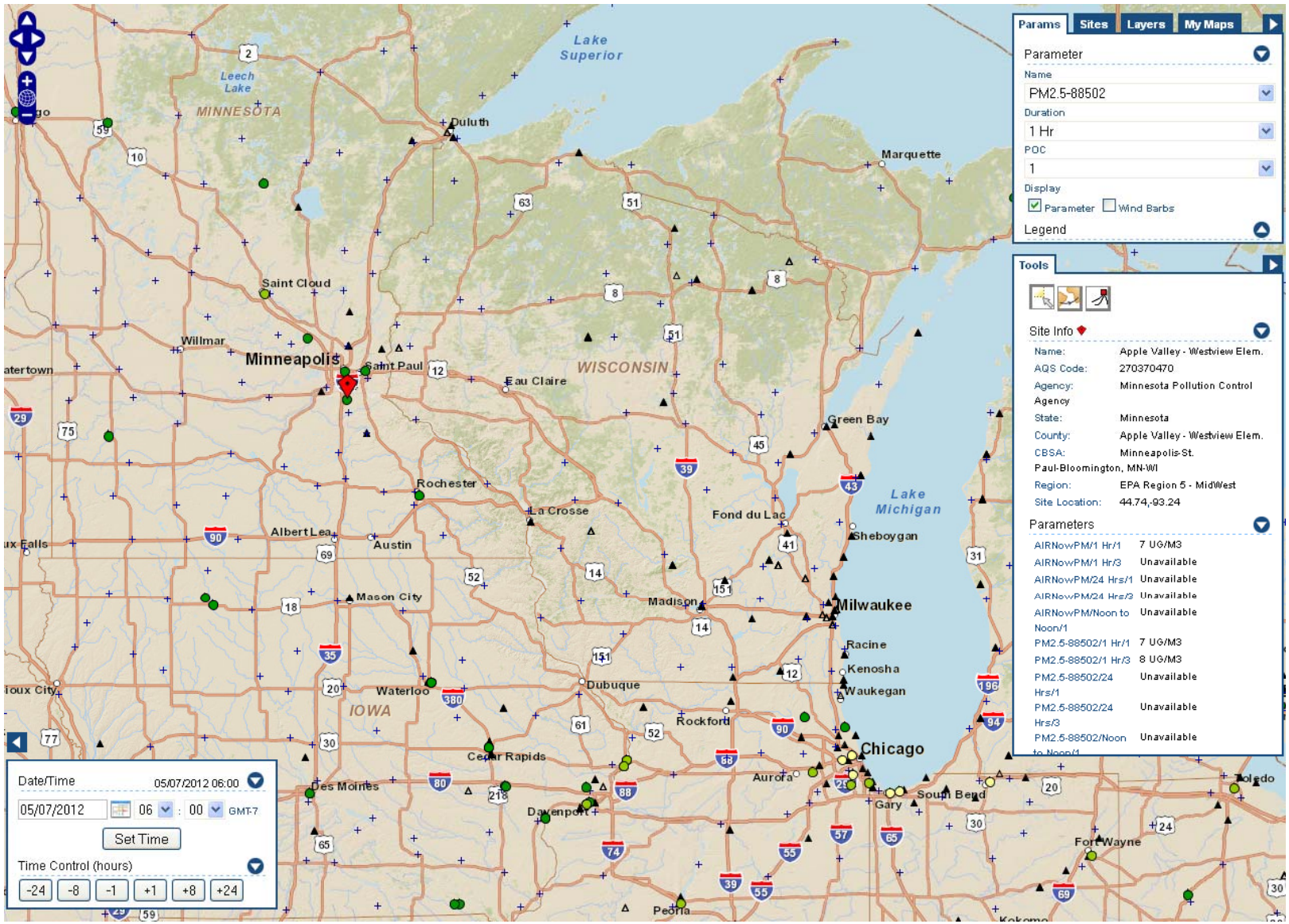
AQCSV and AirNow-Tech 2.0



AQCSV – Current Status

- Agencies currently delivering data via AQCSV
  - Arizona Dept. of Environmental Quality (AZ1)
  - Connecticut Dept. of Energy and Environmental Protection (CT1)
  - Maine Dept. of Environmental Protection (ME1)
  - Mendocino County AQMD (MEN)
  - Minnesota Pollution Control Agency (MN1)
  - Northern Sierra AQMD (NOS)
  - Sacramento Metropolitan AQMD (CA1)
  - San Francisco Bay Area AQMD (CA2)
- Agencies currently testing AQCSV data files
  - California Air Resources Board (CA8)
  - New Hampshire Dept. of Environmental Services (NH1)
  - Oregon Dept. of Environmental Quality (OR1)
  - Texas Commission on Environmental Quality (TX1)

AQCSV – Activities and Schedule

- Continue to work with vendors on AQCSV outreach
- Provide technical support to agencies
- Set up testing module
- OBS format will be supported through December 2012
- Target is to phase out OBS format entirely by Q1 2013

Summary

- Legacy OBS format is obsolete
- More agencies are testing and switching to AQCSV
- We encourage agencies to convert by end of 2012
- Agencies with AQCSV submittal to AirNow can take full advantage of new visualization and data editing tools in AirNow-Tech 2.0