

Regional Air Quality Meeting

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A State's Perspective on Current Air Monitoring Issues

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Wisconsin DNR

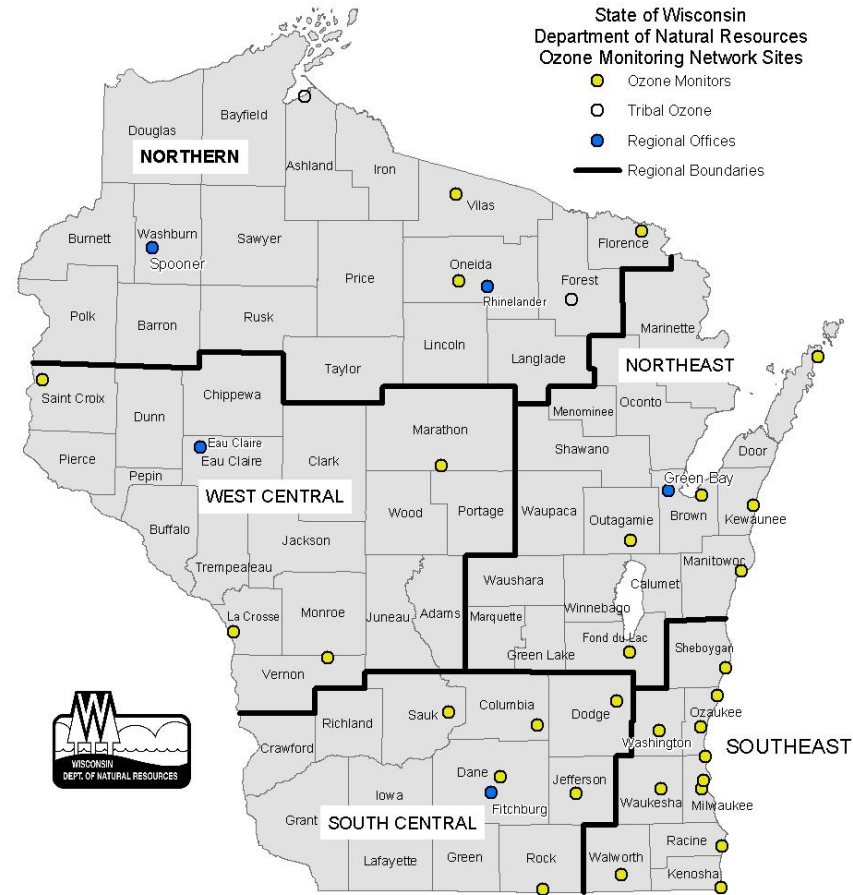
Air Monitoring Section Chief

Air Monitoring

- **Commend** US EPA for performing science-based revisions to the NAAQS and accompanying monitoring requirements
- **Goal:** Deliver high quality, complete monitoring data in a timely manner
- **Key Elements to Monitoring**
 - Well-trained staff/operators (chemists, engineers, scientists)
 - Equipment (new, maintenance, repair, replacement)
 - Regular training
 - On-going supplies and operational costs (property rental fees, electricity, phone, fencing, platforms, etc...)

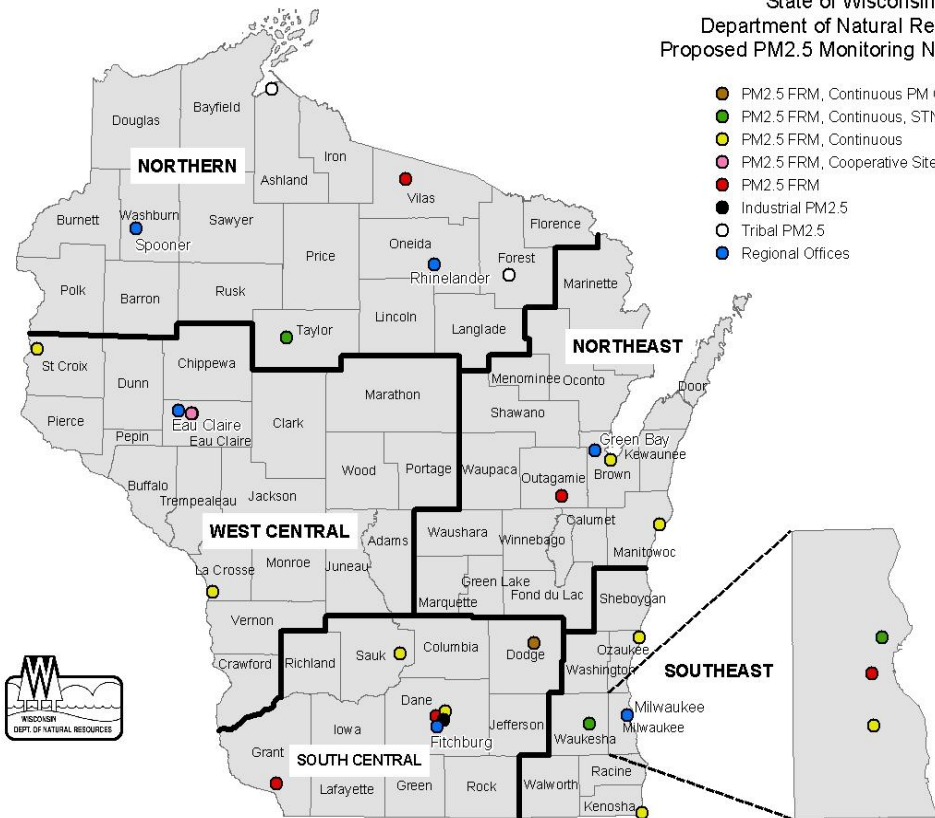
**State of Wisconsin
Department of Natural Resources
Ozone Monitoring Network Sites**

- Ozone Monitors
- Tribal Ozone
- Regional Offices
- Regional Boundaries



**State of Wisconsin
Department of Natural Resources
Proposed PM2.5 Monitoring Network S**

- PM2.5 FRM, Continuous PM Coarse, STN
- PM2.5 FRM, Continuous, STN
- PM2.5 FRM, Continuous
- PM2.5 FRM, Cooperative Site
- PM2.5 FRM
- Tribal PM2.5
- Regional Offices



Demands on the States

- Existing federal monitoring requirements
- New federal monitoring requirements
- State based – on-going & special projects
 - On-going support of tribal monitoring networks
 - Mercury & acid deposition monitoring networks
 - 2010 Focus on Energy - Public Health Benefits in Wisconsin from Biomass Energy Production
 - 2010 - Agricultural Fence-line Study near AFOs (ammonia and hydrogen sulfide)
 - 2009/10 - Mercury monitoring near facilities
 - 2008/9 - Winter Nitrate Study
 - Cooperative work with colleagues from UW System

Current Monitoring Issues

- Balancing Existing Federal Requirements with New Requirements (NO₂, SO₂, Pb, pending O₃) ---- Underfunded Mandates
- State-based monitoring needs
- States facing huge budget deficits resulting in furloughs, layoffs, reduced work schedules, etc...



5-Year Network Assessment

- Lack of sufficient resources
- Struggle to maintain high value, high quality air monitoring data
 - Rising operational costs
 - Equipment replacement costs
 - Increased reporting burdens
 - Fewer staff
 - Little, or no, opportunity to fill positions
 - Limited ability to reduce size of network in a meaningful manner (full site vs. a single instrument)
 - Increasing demands of monitoring requirements
- Resource shifts as recommended by EPA – not enough existing resources available to shift and make a difference – shifts will have implications
- The Public likes their monitoring sites and real-time data

Equipment Replacement Needs

- Equipment replacement needs are substantial & time sensitive
- Wisconsin's equipment replacement needs
 - \$715,000 to replace existing monitoring equipment at the end of its useful lifetime (assuming 10 years)
 - Based on EPA recommended replacement time frame of 7 years – the cost would be \$1.4 million to replace existing equipment
 - 85% of our PM_{2.5} FRMs are > 10 years in age
 - 50% of our TSP monitors are > 15 years in age
 - 100% of our PM_{2.5} speciation samplers are 7 years old
 - 70% of our ozone analyzers are > 7 years old
- This does not include costs to purchase new equipment to meet new mandates (e.g., NO₂, SO₂, Pb, O₃, CO, & PM)

Funding Issues

- The shift of PM2.5 funding from fully-federally funded to requiring state match will have significant impacts to state and locals
- State cash match requirement is said to be 40%
 - the reality is closer to 50%
 - Wisconsin cash match would have to be at least \$330,000
 - Implications will equate to
 - Further cuts in monitoring sites (important, required-sites possible)
 - Inability to set up new sites to meet new requirements
- Austerity Measures
 - Making a plan
 - 5-year Network Assessment
 - Annual Network Reviews
 - Strategic Planning
 - Leaner operations in Wisconsin
 - Already shut down some sites in recent years (FRM, Ozone)
 - Shut down Mayville and Milwaukee Haze Cams recently
 - Shut down the public Air Quality Hotline
 - Further shut downs & moves anticipated
 - The future will require fewer monitoring locations and more collocation of instrumentation, as well as spending to gain additional efficiencies

Funding Issues

- EPA must fully fund the existing and new monitoring requirements including staffing, equipment and operational costs.
 - Federal monitoring funding has been flat for about a decade
 - Insufficient funding to update and maintain existing network (equipment, trailers, operational costs)
 - Difficulty in filling needed positions, as noted by EPA in our 2009 Technical Systems Audit
 - New requirements alone will cost more than \$90 million dollars to implement nationally
 - EPA is proposing \$15 million nationally for new requirements
 - HUGE DISCONNECT = UNDERFUNDED MANDATE
 - e.g., Pb – funded one-time capital equipment costs but not on-going costs for staff and laboratory analysis
 - There is a critical need for on-going dollars to support equipment replacement, filling of critical staff positions, and training to meet new requirements
- LADCO states have requested to discuss the implications of the disconnects with Susan Hedman - Regional EPA Administrator



6/22/2004