

# Regional Air Quality Meeting

## October 26, 2010

### A State's Perspective on Current Air Monitoring Issues

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Wisconsin DNR

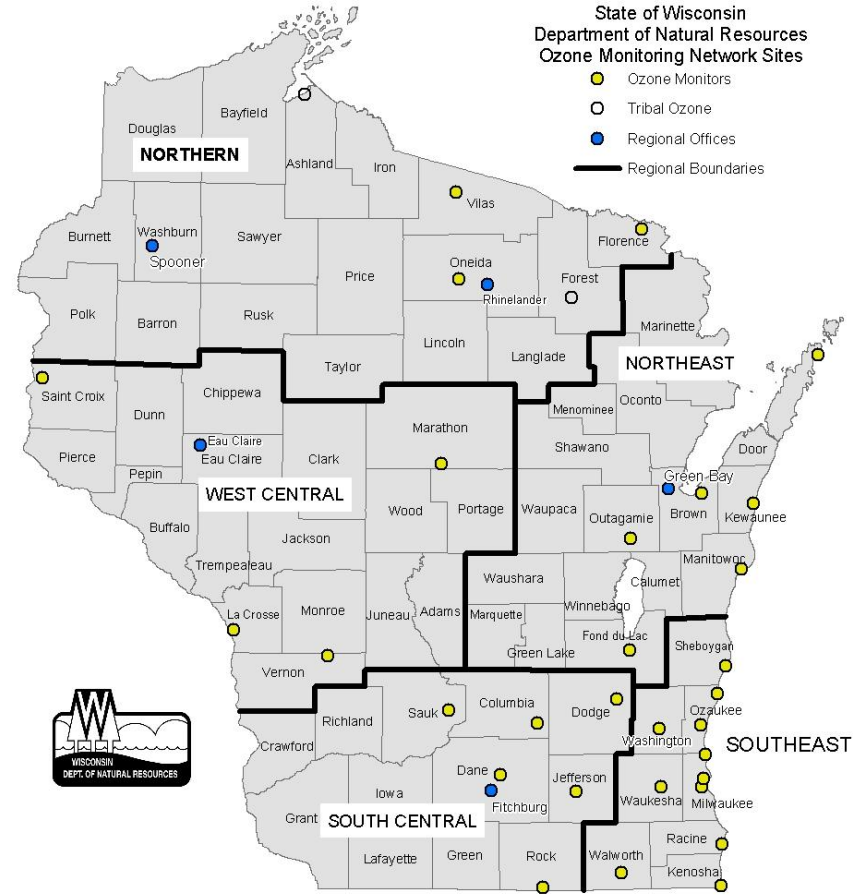
Air Monitoring Section Chief

# 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...)

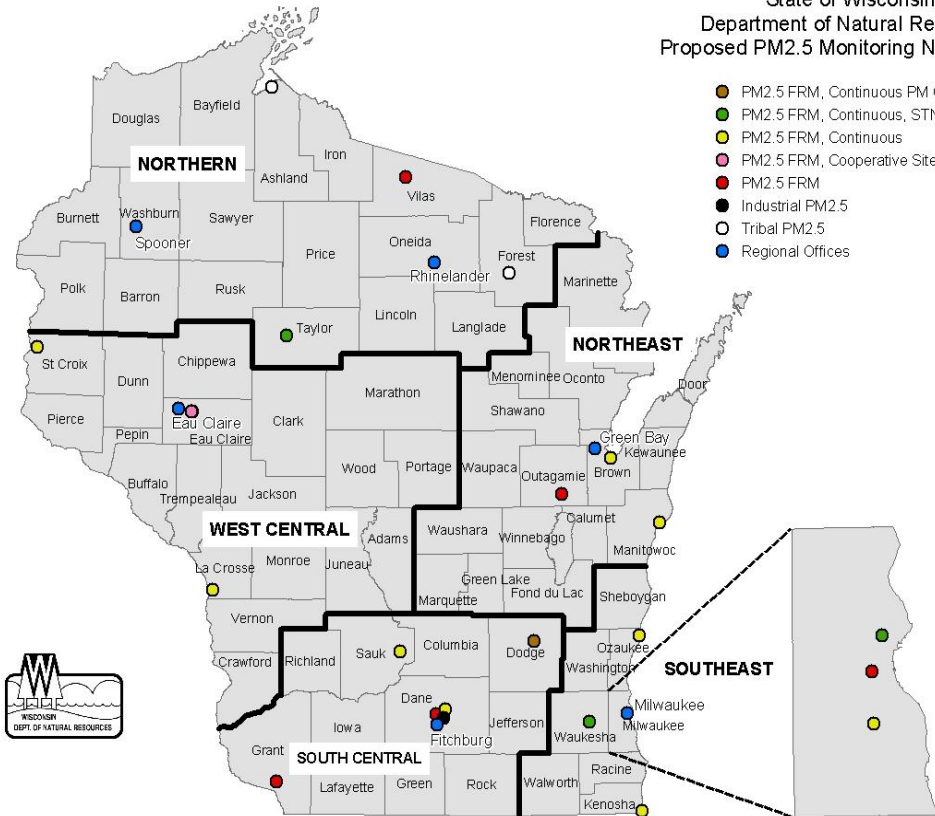
**State of Wisconsin  
Department of Natural Resources  
Ozone Monitoring Network Sites**

- 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 (NO<sub>2</sub>, SO<sub>2</sub>, Pb, pending O<sub>3</sub>) ---- 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<sub>2.5</sub> FRMs are > 10 years in age
  - 50% of our TSP monitors are > 15 years in age
  - 100% of our PM<sub>2.5</sub> 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., NO<sub>2</sub>, SO<sub>2</sub>, Pb, O<sub>3</sub>, 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