



AQMP Workshop

Update From North Carolina

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What is AQMP to North Carolina?

- **Defined AQMP as:
Air Quality Management Process**
- **Final product will be an outlined process by which future air quality plans will be developed and managed.**



Nature of Issues in North Carolina

Criteria Pollutants & Haze

- **Ozone**
 - 1 area still violating '97 standard
 - May have statewide issues with '08 standard
- **Fine Particulate Matter (PM_{2.5})**
 - 2 areas violating annual standard, close to attaining
 - All areas attaining new daily standard
- **Regional Haze**
 - 5 Class I areas; 1 coastal & 4 mountains



Nature of Issues in North Carolina Air Toxics

- **North Carolina's Air Toxics Program**
 - **“Risk-based” regulatory program**
 - **Limited funding for toxic air pollutant monitoring**
 - **Adopted by reference all of the GACTs**
 - **Mercury is one of the most significant toxics issues**



Nature of Issues in North Carolina Air Toxics

- **Mercury**
 - **Coal-fired power plants are main source of mercury emissions**
 - **CAMR was vacated**
 - **North Carolina's Clean Smokestacks Act will achieve significant co-benefit of mercury emission reductions**
 - **State mercury rules requires controls at all coal-fire power plants by 2018 or they must shutdown**



Nature of Issues in North Carolina Climate Change

- In 2005 the NC General Assembly established the Legislative Commission on Global Climate Change**
- NCDAQ formed the Climate Action Plan Advisory Group (CAPAG) to help provide technical analysis and support to the Commission**



Nature of Issues in North Carolina Climate Change

- **CAPAG**

- **Representatives from business, industry, public utilities, environmental groups, community organizations & governments**
- **5 workgroups formed tasked with developing & evaluating mitigation options**
 - **Residential, Commercial and Industrial**
 - **Energy Supply**
 - **Transportation and Land Use**
 - **Agriculture, Forestry and Waste**
 - **Cross Cutting Issues**



Nature of Issues in North Carolina Climate Change

- **CAPAG**
 - Developed 56 North Carolina specific recommended mitigation measures for controlling and reducing greenhouse gas emissions
 - NCDAQ staff presenting mitigation measures to the LCGCC for consideration
- **North Carolina Department of Environment and Natural Resources has joined The Climate Registry**
 - Working to encourage other NC industries/utilities to join



Nature of Issues in North Carolina

Energy Issues

- **North Carolina's General Assembly passed the Renewable Energy and Energy Efficiency Portfolio Standard to address future electrical generation**
 - **12.5% of NC public utilities sales after 2020 must come from renewable energy sources and energy conservation**
 - **Includes goals for solar energy, poultry and swine waste**



Nature of Issues in North Carolina Ecosystem Health

- **Main ecosystems at risk due to air pollution are aquatic ecosystems**
 - Acid deposition concerns in the mountain streams
 - Nitrogen deposition concerns in the eastern estuaries
 - Mercury deposition in the streams across the State
- **Control strategies implemented to reduce ozone and fine particulate matter will help to reduce deposition of NO_x, SO₂ and Mercury**



Nature of Issues in North Carolina

Growth Issues

- **Population**
 - Currently the 10th largest state by population
 - By 2030, NC projected to be the 7th largest
- **Motor Vehicles**
 - Expect ~2% increase per year in vehicle miles traveled
 - Significant source of NO_x emissions; the rate limiting precursor to ozone formation in the Southeast
 - Limited options for reducing automobile use



Nature of Issues in North Carolina Stakeholder Involvement

- **Learned through the Early Action Compact process that the more ownership the local officials have in the process more aware and receptive they are to control strategies**
- **Learned through regional haze plan development the importance of working with neighboring states**



Nature of Issues in North Carolina Stakeholder Involvement

- **Stakeholder Groups include:**
 - **Other NC agencies**
 - **Other State Air agencies**
 - **Federal agencies**
 - **Local Air Programs**
 - **Local agencies**
 - **Regulated community**
 - **Environmental Groups**
 - **General Public**



Implementing Air Quality Management

- **Rules Development**
 - **Must follow the Administrative Procedures Act**
 - **Environmental Management Commission adopts most regulations**
 - **19 member Commission appointed by the Governor, Senate Pro Tempore and Speaker of the House**
 - **Chosen to represent various interests such as medical profession, municipal/county government, agriculture, general public**



Implementing Air Quality Management

- **Rules Development**
 - Multi-step process which can take up to 2 years from concept to final adopted rule
 - Final rule goes to Rule Review Commission
 - If RRC receives 10 or more letters of objection, rule sent to legislature for review
 - Cannot predict what the legislature will do
 - Adds additional time before rule can become effective, may change the final rule



Other Planning Efforts Impacting Air Quality Management

- **Transportation Planner**
 - **MPOs' Long Range Transportation Plans updated at least every 4 years**
 - **State Transportation Improvement Program updated every 2 years**
- **Legislative Actions on Climate Change**
- **Watershed Planners**



Current Challenges

- **Addressing multi-pollutant concerns at the same time**
- **Multiple deadlines for various criteria pollutants/regional haze with different years to be assessed**
- **Rule making can take 18 - 24 months to complete**
- **Difficult to complete modeling demonstrations and adopt necessary rules in time to meet attainment dates**



Ideal World

- **Perform complete one-atmosphere modeling exercise every 6 – 8 years**
 - **Based on current emissions & meteorology at the time**
 - **Project out to numerous future years to see if/when additional control strategies may be needed**
 - **EPA accepts the current modeling exercise to address demonstrations that are required for revised NAAQS, haze, maintenance plans, etc.**



Questions

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