

AIR QUALITY ACCOMPLISHMENTS 2012

- North Carolina in 2012 recorded the second-lowest annual ozone levels since the state began monitoring air quality in the early 1970s. Statewide, ozone levels exceeded the standard of 0.075 ppm (adopted by EPA in 2008) on 16 days -- compared to about 40 days per year on average over the previous 10 years. The lowest year on record was six days in 2009, when weather conditions were more favorable for air quality. Overall, ozone levels continue to decline in the state due to ongoing implementation of various emissions control programs, resulting in improved air quality and better protection of public health. (Chart attached.)
- DAQ completed a study in 2012 that documented a large reduction in mercury emissions from coal-fired power plants over the past decade. Mercury emissions from power plants declined by more than 70 percent over the period as a co-benefit from controls that power plants installed to comply with caps the legislature set on ozone- and particle-forming emissions in the Clean Smokestacks Act of 2002. Those caps required the state's 14 coal-fired power plants to reduce their nitrogen oxide (NOx) and sulfur dioxide (SO₂) emissions by about three-fourths. Power companies achieved those cuts by installing \$2.9 billion worth of scrubbers and other equipment aimed at reducing NOx and SO₂ emissions, which are the primary contributors to ozone, haze, particle pollution, acid precipitation and other air quality problems.

http://www.ncair.org/news/pr/2012/mercury_07132012.shtml

http://www.ncair.org/news/leg/Mercury_Report_7-1-12.pdf

- DAQ has developed a comprehensive listing of air quality permits that it plans to post on its website by the end of 2012. The listing will enable citizens to view by computer the current copies of all air quality permits in the state without having to visit DENR offices.

<http://www.ncair.org/permits/>

- DAQ and DENR awarded \$242,104 in federal grants for projects to reduce air pollution from diesel equipment in October. DAQ administered the distribution of these funds by offering grants for the replacement of an off-road truck, replacement of a sanitation truck with a new compressed natural gas sanitation truck, retrofitting of shuttle buses with diesel particulate filters, replacement of diesel lawn mower equipment with new propane fueled lawn equipment, repowering fishing vessels, and offering Auxiliary Power Unit/ Idle Reduction Device Rebates to long-haul truckers with sleeper berths. Grant funds were provided from the U.S. Environmental Protection Agency and the Diesel Emissions Reduction Act of 2012.

<http://daq.state.nc.us/motor/DERG/>

- DAQ continued to work with North Carolina companies to increase energy efficiency at manufacturing facilities. Staff members from DAQ, North Carolina State University and waste reduction partners are conducting free to low-cost energy assessments to identify ways plants can reduce electricity and fuel usage, saving them money and reducing their emissions to the atmosphere. Assessments have been completed at 25 plants, with total annual savings of more than \$2.2 million and nitrogen oxide emissions reductions of about 30 tons per year.

[http://www.ncair.org/monitor/eminv/gcc/Boiler Workshops Flyer with Registration.pdf](http://www.ncair.org/monitor/eminv/gcc/Boiler_Workshops_Flyer_with_Registration.pdf)

- DAQ worked with the Department of Environment & Natural Resources in quantifying the agency's carbon footprint and identifying options for reducing energy consumption by its buildings and motor vehicles.

http://portal.ncdenr.org/c/document_library/get_file?uuid=bda33512-313a-4a38-987b-92efde1d5bc2&groupId=14

- DAQ continues to conduct air quality modeling and develop plans for bringing areas into compliance with the federal ozone and particle pollution standards. Monitoring shows that most of the state's metro areas have achieved compliance with the 0.075 parts per million (ppm) ozone standard that EPA adopted in 2008. The Charlotte metropolitan area is still exceeding the 2008 ozone standard, but has demonstrated compliance with the older 1997 standard. In addition, the entire state is now meeting the fine particle standard (PM 2.5).

http://www.ncair.org/news/pr/2012/Federal_Ozone_Designations_05032012.shtml

<http://daq.state.nc.us/planning/attainment.shtml>

- DAQ continued its air quality forecasting program for six metro areas across the state: Asheville, Charlotte, Fayetteville, Hickory, the Triangle and Rocky Mount. DAQ also worked closely with Forsyth County Environmental Affairs Department, which handles air forecasts for the Triad metro area. Forecasts are issued for ozone in all seven areas from May through September, and for particle pollution year-round in all of metro areas except Rocky Mount (which lacks a PM monitor). DAQ also issued numerous special particle pollution forecasts for areas affected by smoke from a large wildfire in the Croatan National Forest in June.

<http://xapps.enr.state.nc.us/aq/ForecastCenter>

- DAQ, the State Energy Office and the N.C. Utilities Commission Public Staff organized a two-day workshop to coordinate in areas of common interest and collaborate on energy efficiency and renewable energy projects that help meet the state's air quality and power generation goals.

- DAQ and other DENR agencies hosted a “House of Mystery” exhibit at the 2012 State Fair in Raleigh that reached more than 50,000 visitors during the 10-day event in October. The interactive exhibit featured attractions from the Divisions of Air Quality, Water Quality, Water Resources and the Museum of Natural Science. The DAQ exhibit focused on educating people about the causes of air pollution and actions they can take to improve air quality.

<http://www.facebook.com/ncdenr>

- DAQ worked with the Utilities Commission to submit the annual progress report on the Clean Smokestacks Act in June. The act requires North Carolina’s coal-fired power plants to reduce their ozone, haze and particle-forming emissions by three-fourths by 2013.

http://www.ncair.org/news/leg/2012_Clean_Smokestacks_Act_Report.pdf

- Visibility is improving across the state due to reductions in haze-forming emissions from coal-fired power plants under the N.C. Clean Smokestacks Act of 2002. DAQ continues to monitor progress in achieving the state’s goals in reducing haze through its involvement in VISTAS, Visibility Improvement State and Tribal Association of the Southeast, a regional effort to improve visibility in pristine natural (Class I) areas.
- In the spring of 2012, DAQ staff taught more than 300 students about the air we breathe in classroom workshops. Students ranging from 2nd grade to high school learned from hands-on activities about the properties of air, the health effects and causes of air pollution, and how we can keep the air clean. One high school class from Guilford County visited DAQ’s new Green Square headquarters to tour the energy-efficient building and learn about energy and air quality. In March 2012, DAQ staff presented a workshop to equip K-12 teachers with activities and knowledge for educating students about air quality.