



ANNUAL REPORT 2018

Mecklenburg County Air Quality Commission

Email: AQC@MecklenburgCountyNC.gov

Website: www.mecknc.gov/LUESA/AirQuality/EducationandOutreach/Pages/AQC.aspx



A MESSAGE FROM THE CHAIR

Purpose

Article I of the Charter of the Mecklenburg County Air Quality Commission (AQC) provides that the AQC shall submit an annual written report as to its activities, programs, and progress to the Board of County Commissioners (BOCC). Pursuant to that Charter provision, the AQC submits this report to the BOCC.

Mecklenburg County Meets All Health-based Air Quality Standards

Monitoring Data from 2018 showed that air quality in Mecklenburg County continued to meet federal health-based standards for all criteria air pollutants. Mecklenburg County residents did not experience any days that were considered unhealthy for the general population and only saw five days when ozone concentrations were unhealthy for sensitive groups.

AQ Staff Continued Efforts to Reduce Air Pollution

To ensure local air quality continues to improve, in 2018 Mecklenburg County Air Quality staff pursued new initiatives to reduce local pollution sources, with the support of the AQC. These efforts included

Breathing Room – prioritizing pollution reduction strategies through a public input process

AeroGRADE – securing a \$1.6 million grant to electrify airport equipment

Compliance Assistance – enhancing services to assist local businesses

AQC Represents A Diverse Cross-section of County Residents

The AQC is a commission of diverse citizen volunteers from throughout the county. Our mission and duty is to promote the protection, preservation, and enhancement of the ambient air resources of Mecklenburg County. We look forward to continuing to work with BOCC, County staff, and County residents to achieve this mission.

Respectfully submitted,

Peter McGrath

AQC Chair

AIR QUALITY MONITORING DATA

2018 Compliance Data

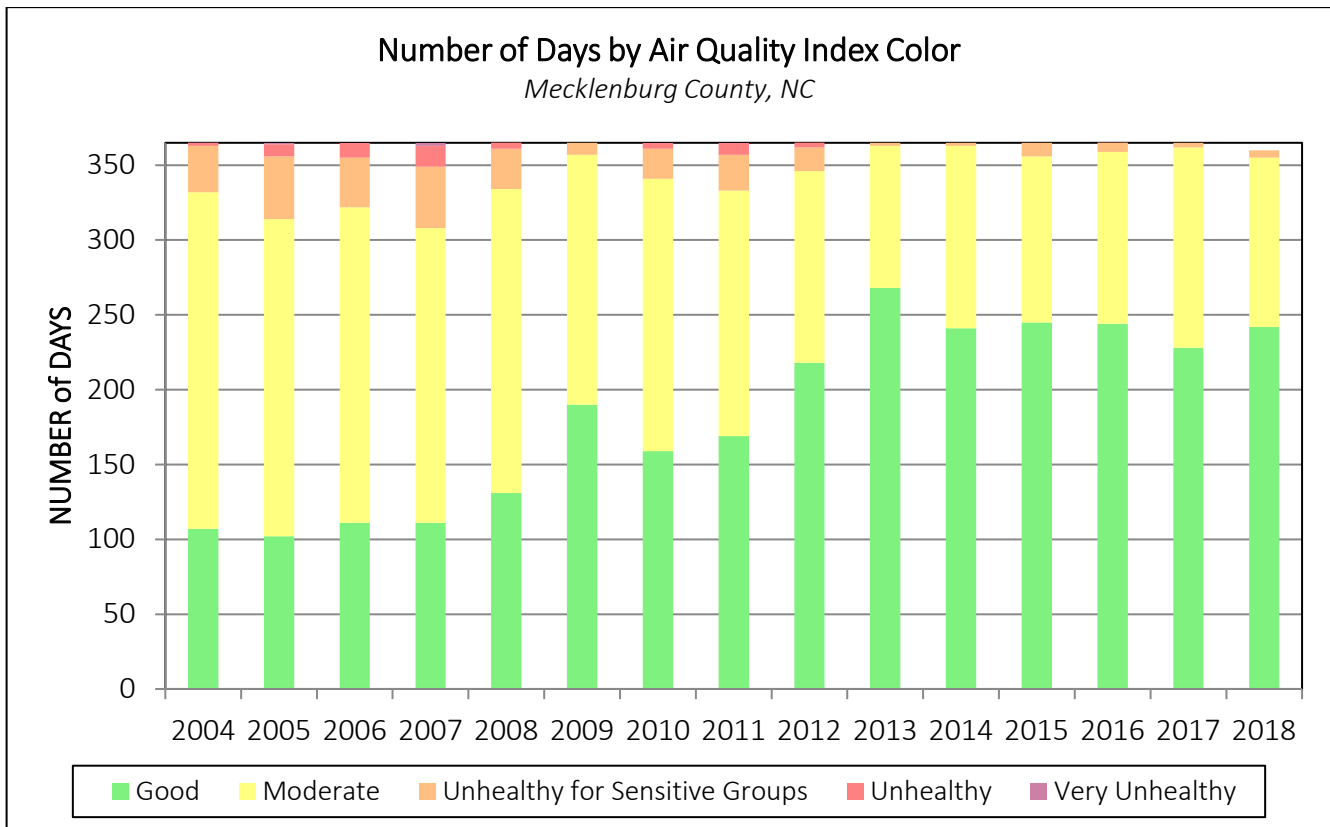
Criteria pollutants are measured using Mecklenburg County's state-of-the-science ambient air monitoring network, like the near-road monitoring station pictures to the right. This quality-controlled monitoring data is used to determine if our local air quality attains the federal health-based standards (i.e., NAAQS). Based on 2018 data, Mecklenburg County's Air Quality met, or was better than, all health-based air quality standards. A summary of all 2018 compliance values are included in the table below. Real-time air quality data is available at AirQuality.MeckNC.gov/Data.



Pollutant	Averaging Time	Mecklenburg Compliance Value (2018)	Health-based Standard (NAAQS)	% below (better than) NAAQS
Ozone (O ₃)	8-hour	70 ppb	70 ppb	0.0%
Particulate Matter (PM _{2.5})	24-hour	18 µg/m ³	35 µg/m ³	49%
	Annual	8.8 µg/m ³	12 µg/m ³	27%
Particulate Matter (PM ₁₀)	24-hour	64 µg/m ³	150 µg/m ³	57%
Carbon Monoxide (CO)	8-hour	1.3 ppm	9 ppm	77%
	1-hour	1.9 ppm	35 ppm	95%
Sulfur Dioxide (SO ₂)	1-hour	4 ppb	75 ppb	95%
	3-hour	0.002 ppm	0.5 ppm	99%
Nitrogen Dioxide (NO ₂)	1-hour	38 ppb	100 ppb	62%
	Annual	10 ppb	53 ppb	81%

Air Quality Trends

Air Quality has improved in Mecklenburg County over the past decade. The number of “Good” Air Quality days have more than doubled in the last 15 years from 107 in 2004 to 242 in 2018, as shown in the chart below.



The improvement in Mecklenburg County’s air quality is due in part to strict state and federal requirements for industrial facilities and motor vehicles. In addition to regulatory measures, innovative local programs like Grants to Replace Aging Diesel Engines (GRADE) and clean commuting challenges have reduced pollution by encouraging voluntary actions by businesses and citizens.

ACTIONS BY THE AIR QUALITY COMMISSION

Opened Public Comment Opportunities for Air Quality Permits

Article (d) of the Air Quality Commission (AQC) Charter provides that the AQC shall “conduct public hearings and review and advise on air program actions, pursuant to the local air pollution control ordinance.” The Mecklenburg County Air Pollution Control Ordinance (MCAPCO), Regulation 1.5213 – “Action on Application; Issuance of Permit,” provides that Air Quality permit application approvals are placed on the agenda of the AQC, initiating the specified public comment period. Inclusion on the AQC agenda does not imply or infer any action or opinion by the AQC or its members regarding any permit. In 2018, the AQC initiated public notices for the following permit actions:

PERMIT TYPE	NUMBER
Industrial Sources	54
Gasoline Dispensing Facilities	11

Endorsed the FY2019 Air Quality Budget

In February, AQC members voted to endorse the FY19 budget for Mecklenburg County Air Quality (MCAQ). The budget was similar to previous years, however MCAQ is starting to see the impact in fee revenue due to total loss of the non-attainment fee (mostly from Industrial and Gasoline Dispensing Volatile Organic Compound emitting facilities).

Developed Content for the 2018 State of the Environment Report

At the March meeting, the AQC members engaged in an exercise, shown below, where they were asked to respond to two questions individually, then working together to find consensus on a single, unified response from the AQC.

As a department, where do our environmental operations excel beyond other communities?

GRADE (Grants to Replace Aging Diesel Engines) is an innovative, nationally recognized grant program that has reduced ozone-forming air pollution while bringing \$6.6 million in state and federal grant funding to the Mecklenburg County region. Mecklenburg County Air Quality

executes this cutting-edge regional program to reduce air pollution from diesel vehicles while also operating a state-of-the-science air monitoring network and a regulatory permitting program focused on compliance and customer service.

As a community, where do we need to focus more attention and/or resources to preserve and enhance our environment?

Additional resources should be focused on education and engagement within the community about how air quality is impacted by the following choices: Land Use, Transit options, Commute Behavior, and Energy Use.

Supported Revisions to the Mecklenburg County Air Pollution Control Ordinance

In August, AQC members were provided an overview of proposed revisions to the MCAPCO to incorporate necessary changes to state rules. This adoption consisted mostly of state rules adopted by reference to incorporate rules revised through a Periodic Review of Existing rules process. Most of the rule revisions were not substantive, however two rules had more significant changes:

- MCAPCO 2.0405 - “Ozone” which adopted the 2015 health-based standard.
- MCAPCO 1.5521 – “Public Participation” which allowed notice of some major source permit actions to be posted on the Mecklenburg County Air Quality website.

AQC members voted unanimously to recommend the BOCC adopt the revisions to MCAPCO. Chair Peter McGrath, shown below, represented the AQC at the December 18, 2018 BOCC meeting where the MCAPCO revisions were approved after a Public Hearing.



STAFF BRIEFINGS RECEIVED

Breathing Room

Throughout 2018, staff provided the AQC with regular updates on the Charlotte region's "Breathing Room" initiative, which is designed take proactive steps to reduce ozone-forming air pollution. In 2017, the AQC helped jumpstart Breathing Room by reviewing existing stakeholder-developed plans that align with air quality and identifying strategies that will reduce local air pollution. Building on the AQC input, in 2018 Air Quality staff solicited input on how to prioritize these strategies from over 450 stakeholders ranging from middle and high school youth, to elected officials and city planners, to business leaders and manufacturing workers. This stakeholder input will be used to create the region's Path Forward, which will be implemented in 2019.

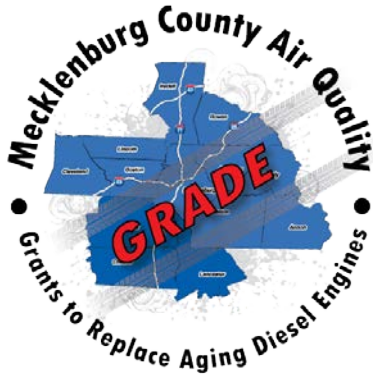
MCAQ is leading the Breathing Room initiative in partnership with the North Carolina Division of Air Quality and U.S. Environmental Protection Agency's Advance Program. More information about Breathing Room is available on MCAQ's website: AirQuality.MeckNC.gov/BreathingRoom



Grants to Replace Aging Diesel Engines (GRADE)

At the October meeting, AQ staff announced that MCAQ was selected by the U.S. Environmental Protection Agency (EPA) to receive \$1.6 million in Diesel Emission Reduction Act (DERA) funding to support *AeroGRADE* (Airport Grants to Replace Aging Diesel Engines). The funding will be used to convert up to 120 pieces of ground support equipment from diesel to electric models at Charlotte Douglas International Airport. The award also includes provisions to fund two diesel-to-electric

demonstration projects focused on goods movement equipment. The funding for this project will focus on ground equipment electrification projects at the Airport. This is the single largest award MCAQ has ever received to support GRADE.



Staff also briefed AQC members on the results of the September 2018 GRADE Selection Committee meeting. AQC Chair Peter McGrath participated on the GRADE Selection Committee. In total, 13 projects were selected to receive grants totaling \$500,000. These projects were projected to reduce over 50 tons of ozone-forming NO_x reduction with a cost effectiveness of just under \$10,000.

Staff Comments on the Charlotte Unified Development Ordinance

In November, AQC members were briefed on AQ staff comments to the City of Charlotte on the Unified Development Ordinance. Staff comments focused on how land use can support reduced air pollution in the Charlotte region by providing better access to cleaner forms of transportation, supporting public transit use, and encouraging environments that engage pedestrians. Earlier in 2018, two representatives from the Charlotte-Mecklenburg Planning Department gave a presentation about the City's effort to update their Land Use Policy (Place Types) and Zoning/Development ordinances (UDO). The AQC members elected not to create a UDO Subcommittee for providing comments to the UDO, but reviewed MCAQ's comments instead.

Compliance Assistance for Permitted Industrial Sources

At the June meeting, AQC members were briefed on MCAQ's spring compliance workshop that was held on the morning of May 22 at Suttle Avenue. The workshop focused on building an environmental compliance system and included Davy Conners from the NCDEQ Environmental Stewardship Initiative and Darren Steinhilber from Mecklenburg County Solid Waste as guest speakers.

In November, AQC members were briefed on the Annual Air Quality forum that was held on November 8. Fifty-two people attended the event representing 36 stationary facilities. This year's forum featured a keynote address and welcome by Peter McGrath, AQC Chairperson.

Annual Air Monitoring Network Plan

In May, AQC members were provided a summary of the 2018-2019 Annual Monitoring Network Plan. The plan provides details regarding the sites and air monitors operating in Mecklenburg County. Some of the information highlighted from the 2018-2019 Annual Monitoring Network Plan included:

- Network configuration is unchanged; Mecklenburg County will operate four monitoring sites (Garinger, shown at right, Montclaire, Remount, and University Meadows)
- Integration of Continuous Particulate Matter (PM) Monitoring Methods
- Two waivers were submitted within the plan for Ceilometer location and an additional near-road site
- Photochemical Assessment Monitoring Station (PAMS) monitoring plan



EPA Compliance and Enforcement Activities Audit Results

At the June meeting, staff reviewed the results of two 2017 EPA oversight audits of MCAQ's Permitting and Enforcement program. These are routine audits conducted by EPA under their State Review Framework and Inspection Oversight Programs. The AQC learned more about MCAQ responsibilities and interaction with EPA through the presentation. Audit results were positive with EPA finding that MCAQ met expectations and conducted inspections in a professional, accurate, and thorough manner.

Odor Investigation Research

At the September meeting, MCAQ staff provided a briefing on a project that involved researching best practices for odor evaluation and improved procedures/methods for investigating citizen odor complaints. As a result of the research project, MCAQ adopted the 5-point scale for use in its odor

investigations. AQC members got to “calibrate” their noses using the set of five n-butanol odor intensity standards.

Other Briefings Received:

- Changes to the Federal New Source Review Permitting Program
- US EPA Region 4 Air Directors and Grants Meeting Update
- Back to Basics Memo (Back-to-Basics Process for Reviewing National Ambient Air Quality Standards Memorandum)
- Hurricane Florence Preparation and Impacts
- Volkswagen Funding Outreach Plan
- MCAQ 2020-2022 Strategic Plan
- Update from Metro 4 SESARM Regional Air Directors Meeting

AQC 2018 MEMBERSHIP



Mr. Peter McGrath (Chair)
Sector: Attorney
BOCC District: 4
AQC Tenure: 11 years



Mr. Marcus Hackler (Vice Chair)
Sector: Industry
BOCC District: 1
AQC Tenure: 4 years



Mr. Jeff Baker
Sector: Public
BOCC District: 6
AQC Tenure: 3 years



Mr. Terry Lansdell
Sector: Transportation
BOCC District: 5
AQC Tenure: 7 years



Dr. Aaron Levy
Sector: Health Professional
BOCC District: 5
AQC Tenure: 2 years



Dr. Brian Magi
Sector: Scientist
BOCC District: 3
AQC Tenure: 2 years



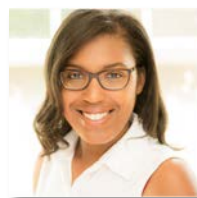
Mr. Gordon Miller
Sector: Public
BOCC District: 7
AQC Tenure: 13 years



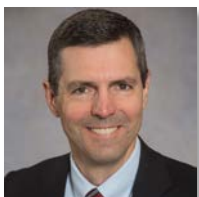
Ms. Rosa Mustafa
Sector: Environmental
BOCC District: 2
AQC Tenure: 1 year



Ms. Fern Paterson
Sector: Public
BOCC District: 4
AQC Tenure: 6 years



Ms. DeAndrea Salvador
Sector: Public
BOCC District: 2
AQC Tenure: 4 years



Mr. James Watts
Sector: Engineer
BOCC District: 6
AQC Tenure: 5 years