

Local Air Quality Update 2016

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*Western North Carolina Regional Air Quality
Agency*

WESTERN NORTH CAROLINA REGIONAL AIR QUALITY AGENCY

Mission of the WNC Regional Air Quality Agency

The Western North Carolina Regional Air Quality Agency monitors and regulates Buncombe County's air quality to safeguard public health and the environment, while preserving the quality of life and economic vitality of the area.

What does the WNC Regional Air Quality Agency do?

- Responsible for implementing federal, state, and local air quality regulations
 - Permitting of industrial and area sources
 - Compliance and Enforcement
 - Asbestos Removal and Open Burning
- Monitor Air Quality for compliance with National Standards
- Education and Outreach
 - Pollution Prevention Projects and Outreach
 - Indoor Air Quality Hotline
 - Website – www.wncairquality.org, social media

Air Pollution in WNC

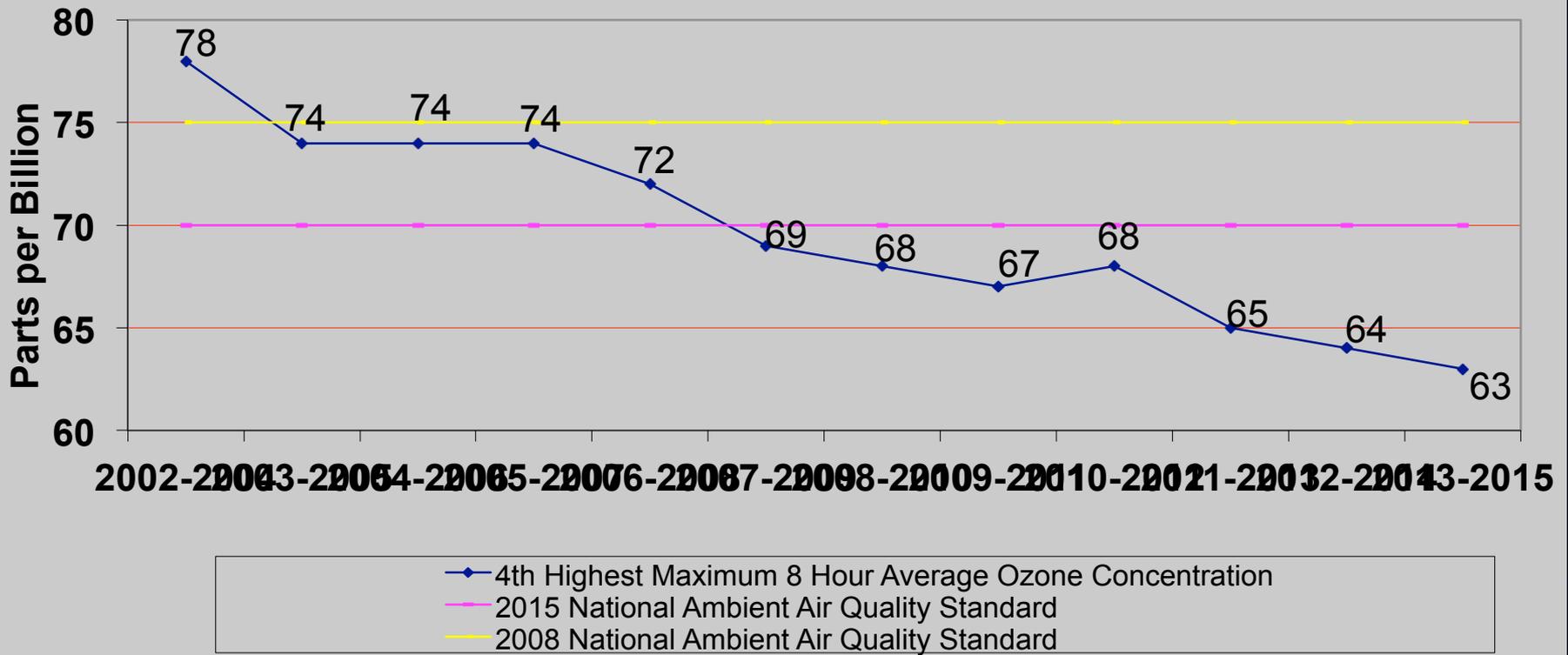
- Temperature Inversions
 - Trap air pollution near surface, rather than dispersing it
- “Bowl” Effect associated with topography
- Any locally-generated pollution exacerbates the problem

Air Pollution in WNC

- Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) react with heat and sunlight to make ozone
 - Ozone formation depends mostly on NO_x
 - NO_x is emitted by cars, trucks, Duke Energy Progress Skyland Plant
- Most Particulate Matter (PM_{2.5}) forms as a result of chemical reactions involving sulfur dioxide and nitrogen oxides that are emitted from power plants, industries and automobiles. Also results from open burning, road dust, land clearing, etc.
 - Very small particles, less than 2.5 microns
 - Causes haze (reduced visibility)
- Health effects-heart and respiratory illness
- Dependent on weather and geography

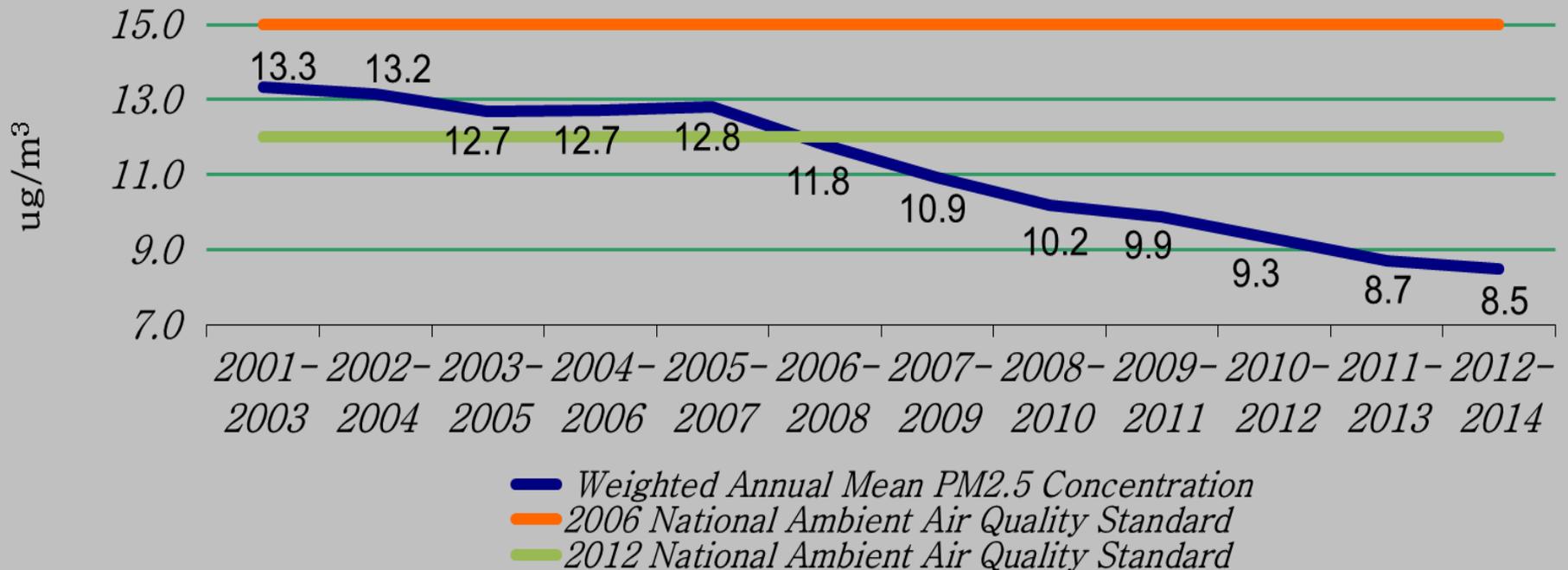
Ozone Design Values in Buncombe County

Ozone Design Values - Buncombe Co.



Fine Particulate Matter Levels in Buncombe Co.

PM_{2.5} Design Values - Weighted Annual Mean Concentration
Averaged over 3 Year Period - Buncombe County



Air Quality Index for Buncombe County

		Number of Days the AQI was:			
Year	Number of Days with an AQI	Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy
2015	363	329	34	0	0
2014	365	311	54	0	0
2013	365	319	46	0	0
2012	365	301	62	2	0
2011	364	310	54	0	0

What's New

- Our offices have moved to downtown Asheville.
 - Demolition, Renovation, and Asbestos Removal Permit Office is at the County Building Permit office, 30 Valley Street. 828-250-6776
 - Main office is in Lexington Station, 125 S. Lexington Avenue, Suite 101. Entrance is at the corner of Hilliard and Church Street. 828-250-6777

EPA-New Ground Level Ozone Standard-2015

- 70 parts per billion (ppb).
- Designations likely will be based on 2013-2015 or preliminary 2014-2016 air quality data. All of NC expected to be in attainment.
- States recommend designations by October 2016.
- EPA makes attainment/nonattainment designations by October 2017.
- Monitoring season (for some states-NC) extended from April-October to March-October.
- Buncombe Co 2013-2015 design value = 63 ppb

National Ambient Air Quality Standards

SO₂ Air Quality Management Cycle

ESTABLISH GOALS

- Using science to set SO₂ standards to protect public health
- New one hour standard was issued in 2010.

EVALUATE RESULTS

- Check modeling and monitoring to measure results.

WHAT REDUCTIONS ARE NECESSARY?

IMPLEMENT

- Controls and limits are placed on sources.
- Compliance & Enforcement will be used if limits are not reached.

HOW TO ACHIEVE

- EPA is required to designate areas for attainment with standard.
- Attainment designations in areas without monitoring were originally deferred.
- 2013 lawsuit filed to require EPA to designate all areas.
- 2015 Consent Decree signed by Sierra Club and EPA establishing timeline for designations.
- Modeling or monitoring will be used to determine designations. This decision is due by Jan 2016.
- State Implementation Plans are written to establish pathway to attaining standard for areas in non-attainment.

Revised Sulfur Dioxide (SO₂) Standard

- EPA issued the new SO₂ standard in 2010
 - Air Quality Designations in Areas with Monitors was due August 5, 2013
 - Air Quality Designations for Areas without Monitors was deferred
 - Sierra Club and Natural Resources Defense Council Lawsuit filed - August 25, 2013 to force EPA to establish designations everywhere.
 - EPA Proposed the Data Requirements Rule for the 1-Hour SO₂ Standard – May 13, 2014 to address areas that were deferred (final rule was issued August 2015).

Revised Sulfur Dioxide (SO₂) Standard

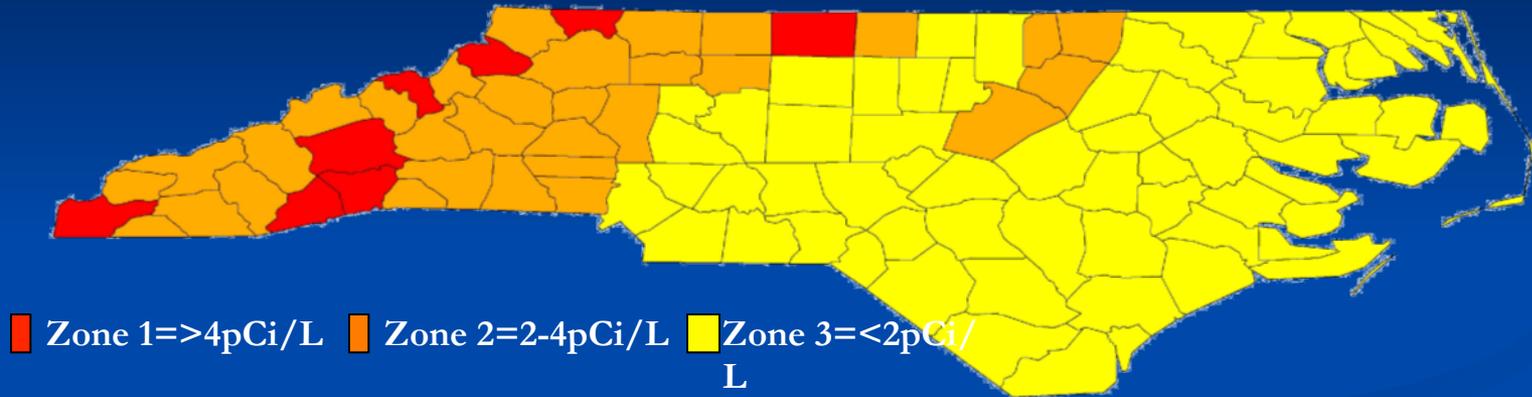
- Consent Decree reached to settle litigation. Sierra Club, NRDC and EPA agree to timeline – March 2, 2015.
 - Designations to be issued in 3 phases:
 - Areas with monitors exceeding standard or very large sources emitting over 16,000 tons of SO₂ not retiring-July 2, 2016 (This does not include the Duke Asheville plant)
 - Areas where monitors not operational by January 2017 (modeling data) - December 31, 2017
 - All remaining undesignated areas (3 years of monitoring data). -December 31, 2020

Revised Sulfur Dioxide (SO₂) Standard

- EPA's Data Requirements Rule-Details the requirements for states to provide data to the EPA
 - State and local agencies must submit a list of areas that have large SO₂ sources (annual emissions > 2,000 tons) to EPA by January 15, 2016. List must indicate whether air quality modeling or monitoring will be used to characterize air quality.
 - If modeling is used, modeling must be submitted to EPA by January 13, 2017. (December 2017)
 - If monitoring is used, monitors must be operational by January 1, 2017. (December 2020)

Radon Awareness

Average Radon Levels by County



- Since 2006, WNCRAQA has partnered with the Buncombe County Cooperative Extension Service and the NC Radon Program to give away over 2,000 radon test kits to citizens of Buncombe County.
- Radon is the second leading cause of lung cancer in the U.S. and Buncombe County has some of the highest radon levels in NC.

What Can You Do?

■ **Conserve Electricity**

- Use power management on your monitor and computer to reduce energy consumption
- Buy energy efficient light bulbs and turn off the lights when not in use
- Insulate your home

■ **Drive Less**

- Carpool
- Combine trips
- Don't idle your vehicle – Turn off your engine

■ **Buy More Fuel Efficient Vehicles**

■ **Participate in NC Green Power**

- Choose to pay \$4/month to purchase 100 kilowatts-hours of renewable energy – sign up on your electric bill

■ **Know the Air Quality Forecast**

For More Information...

WNC Regional Air Quality Agency

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www.wncairquality.org

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