



# 2017 Annual Summary Report

## **Overview and Mission of the Agency**

In the 1940s, the City of Asheville established a “Smoke Abatement Program” to address the blanket of black smoke that engulfed the city during particularly stagnant weather conditions. The local air quality agency is an extension of that program. Originally, the agency served four counties, and from 1970 to 2000, the Agency served two counties (Buncombe and Haywood). In 2000, the Western North Carolina Regional Air Quality Agency (WNCRAQA) was re-formed through an interlocal agreement between Buncombe County and the City of Asheville. The purpose of this agreement was to establish, administer, and enforce a local air quality program for the City of Asheville and Buncombe County in accordance with the provisions of North Carolina General Statutes Section 143-215.112.

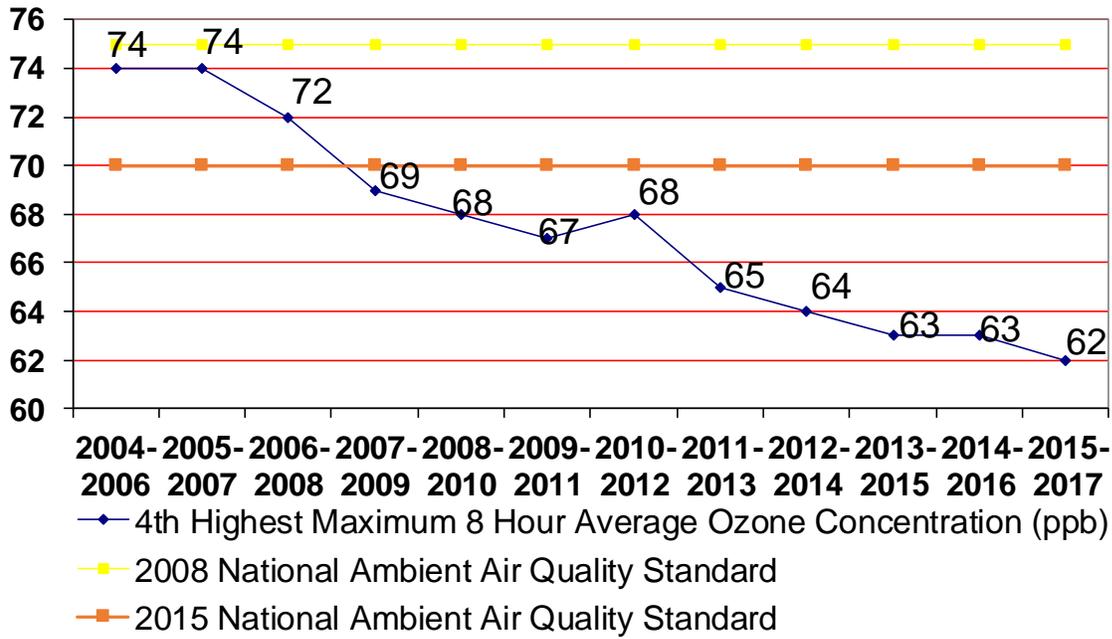
The mission of the Agency is to monitor and regulate the air quality of the City of Asheville and Buncombe County to safeguard public health and the environment, while preserving the quality of life and economic vitality of the area. The Agency is responsible for implementing and enforcing the provisions of the federal Clean Air Act and all additional state and local air quality regulations in Buncombe County. We operate an air pollution monitoring network that is used to determine whether our area is in compliance with the national ambient air quality standards (NAAQS). Our program ensures that industrial facilities, gas stations, dry cleaners, grading contractors, and asbestos removal activities comply with all applicable air quality regulations that are put in place to protect the public health and welfare. We enforce the open burning regulations and respond to air quality related complaints and emergencies, 24 hours a day, 7 days a week. We offer compliance assistance, education and outreach services, and we are available to do presentations on air quality at the request of schools, civic groups, and other community organizations. We also maintain an indoor air quality hotline for citizen inquiries and have partnered with other agencies to distribute free radon test kits.

The WNCRAQA is governed by a five-member board. Three members are appointed by the Buncombe County Commissioners, and two members are appointed by the Asheville City Council. The Agency is also served by an advisory committee made up of community members from a wide range of backgrounds.

## **Current Air Quality Monitoring Data – Ozone and Fine Particles**

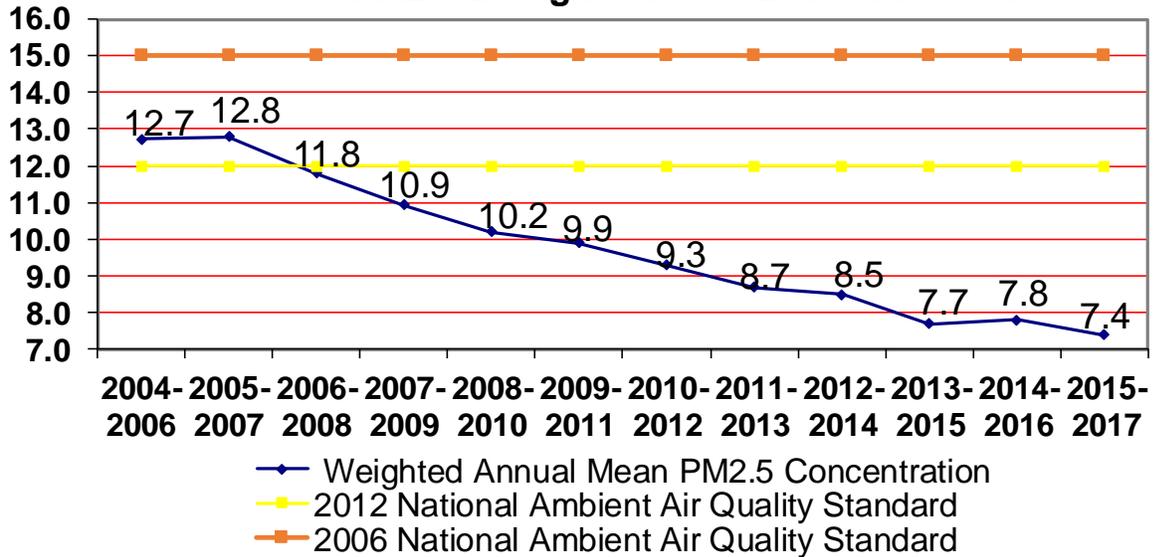
Our area is currently attaining the national ambient air quality standards (NAAQS) that are set by EPA to protect public health and the environment. Our most recent design value used to determine compliance with the national health-based standard for ground level ozone (average of the 4<sup>th</sup> highest 8-hour ozone concentration measured over 3 consecutive years) at our Bent Creek monitor here in Buncombe County is 62 parts per billion (ppb). EPA revised the national standard in 2015 from 75 ppb to 70 ppb to better protect public health.

### Ozone Design Values - Buncombe Co.



Our agency also operates a monitoring site for particulate matter (PM<sub>2.5</sub>). There are two NAAQS for PM<sub>2.5</sub>; the 98th percentile 24-hour average standard is 35 micrograms per cubic meter (µg/m<sup>3</sup>), and the weighted annual mean standard is 12 µg/m<sup>3</sup>. The 98th percentile 24-hour average at the Buncombe County monitoring site is 22.6 µg/m<sup>3</sup>, and the annual arithmetic mean is 7.4 µg/m<sup>3</sup>. Both of these figures are 3 year average design values for 2015, 2016, and 2017. These design values include data measured during the wildfires in 2016 where there were several days when the PM<sub>2.5</sub> levels were unhealthy. Below are trend data for the annual standard design value.

### PM2.5 Design Values - Buncombe Co.



On December 14, 2012, EPA revised the National Ambient Air Quality Standard for fine particles. The new standards went into effect in 2013. The 24-hour average standard was not revised; it continues to be 35 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). The weighted annual mean standard was revised from 15  $\mu\text{g}/\text{m}^3$  to 12  $\mu\text{g}/\text{m}^3$ .

### Air Quality has Improved due to Emissions Reductions from Vehicles and Power Plants

The most significant emissions reduction project affecting the City of Asheville and Buncombe County during the last few years has been the installation and operation of the flue gas desulphurization (FGD) units, or scrubbers, and selective catalytic reduction (SCR) systems in accordance with the NC Clean Smokestacks Act of 2002, including those installed at the Progress Energy plant in Skyland. The NC Clean Smokestacks Act required NC power plants to reduce total emissions of sulfur dioxide and nitrogen oxides by approximately 70%. Sulfur dioxide ( $\text{SO}_2$ ) and nitrogen oxides ( $\text{NO}_x$ ) contribute to fine particle pollution, acid deposition, and the regional haze that obscures our mountain vistas in the summer time. Nitrogen oxides also contribute to ozone formation. The EPA has required emissions reductions at power plants in other states that is also having a positive impact on our air quality here in WNC. EPA has also required cleaner gasoline, diesel fuel, and lower emission rates for cars and trucks in recent years. While all of these actions have resulted in improved air quality, the most recent scientific studies continue to show health effects at lower levels of pollution and as a result, the standards that we are required to meet continue to be adjusted downward, meaning more work is needed to continue to improve our air quality in order to protect public health and the environment.



The AQI is an index for reporting daily air quality. It tells you how clean or polluted the air is, and what associated health effects might be of concern. Here in Buncombe County, the air quality index is based on the two pollutants that we monitor: ozone and fine particles.

Data for 2017	Number of Days the AQI was:			
Number of Days with an AQI	Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy
365	325	40	0	0

**Source of ozone, fine particle and AQI data:** U.S. EPA AirData <http://www.epa.gov/airdata>. AirData reports are produced from a direct query of the AQS Data Mart. The data represent the best and most recent information available to EPA from state and local agencies.

**2017 Education and Outreach and Voluntary Program Initiatives**

In addition to our core duties including the implementation of our monitoring, permitting, and enforcement programs, below is a list of voluntary initiatives and education and outreach activities that were accomplished in 2017.

- WNCRAQA participated in the judging process for the NC Division of Air Quality’s Air Quality IQ contest in area middle schools.
- Staff also participated in the annual “Ozone Kickoff,” a media event sponsored by the Land of Sky Regional Council’s Clean Air Campaign to raise awareness about ground level ozone pollution.
- The WNCRAQA is committed to encouraging reductions in air pollution by encouraging reductions in vehicle miles traveled and cleaner transportation alternatives. We are a member of the local Clean Vehicles Coalition (CVC) that is administered by the Land of Sky Regional Council of Governments. On July 26, 2012, the local CVC was designated by the US Department of Energy as an official Clean Cities program for the five county area surrounding Asheville including Buncombe, Henderson, Haywood, Madison and Transylvania counties. In October of 2012, the WNCRAQA signed a Memorandum of Understanding expressing our support for the goals of the CVC and Clean Cities Program. Staff is currently serving on a committee that approves grant funding for the NC DAQ’s diesel emissions reduction grant program.
- Outreach with the regulated community in NC was conducted through staff participation in federal sewage sludge incinerator operator training.

- The Agency partnered with the NC Radon Program and Buncombe County Environmental Health to promote the annual distribution of free radon test kits during radon awareness month in January.
- WNCRAQA started Facebook and Twitter accounts in 2013. We are working to increase our social media presence and see it as a valuable tool to increase awareness of air quality issues in our area. Please like us on Facebook <https://www.facebook.com/WesternNCRegionalAirQualityAgency> and follow us on Twitter <https://twitter.com/WNCAirQuality!>
- The Agency continued its popular air quality awards with permitted facilities to recognize those that implement voluntary measures to reduce emissions. In recent years, our citizen's advisory committee has assisted this effort by developing more structured guidelines and expanding the awards program to include a broader range of businesses and organizations in the local community.

**Attached is a table of the parameters that the WNCRAQA reports to the NC Environmental Management Commission on a biennial basis.**

# **WNC Regional Air Quality Agency 2017 Environmental Management Commission Report Parameters**

REPORT ITEM	SUB-ITEM	CY 2017
Number of Staff in Each Program Area (In Person-Years)		
	<i>Permitting</i>	1.25
	<i>Inspections</i>	2.00
	<i>Enforcement</i>	0.25
	<i>Monitoring</i>	1.25
	<i>Clerical</i>	0.25
	<i>Administrative</i>	1.0
Number of Facilities, By Category		
	<i>Title V</i>	7
	<i>Synthetic Minor</i>	10
	<i>Small</i>	55
	<i>Stage I Vapor Recovery</i>	150
	<i>Dry Cleaners</i>	7
Number of Operating Permits Issued, By Category		
	<i>Title V</i>	1
	<i>Synthetic Minor</i>	2
	<i>Small</i>	7
Number of Construction or Modification Permits Issued, By Category		
	<i>Title V</i>	1
	<i>Synthetic Minor</i>	4
	<i>Small</i>	7
Average Time to Process Each Permit, By Category		
	<i>Initial Title V</i>	7 months
	<i>Synthetic Minor</i>	1.5 month
	<i>Small</i>	1.5 month
	<i>Construction</i>	1.5 month
Have emissions inventories been reported to EPA?		Yes

REPORT ITEM	SUB-ITEM	CY 2017
How many stack tests were observed?		1
How many stack test protocols and reports were received, reviewed, and approved?		7
List Number of CEMs, By Type		
	<i>CO</i>	1
	<i>CO<sub>2</sub></i>	2
	<i>NO<sub>x</sub></i>	2
	<i>O<sub>2</sub></i>	1
	<i>Opacity</i>	2
	<i>SO<sub>2</sub></i>	2
	<i>Mercury</i>	2
	<i>PM</i>	2
Number of Inspections Performed at Each Source Category		
	<i>Title V</i>	6
	<i>Synthetic Minor</i>	9
	<i>Small</i>	9
	<i>Stage I Vapor Recovery</i>	150
	<i>Dry Cleaners</i>	7
Number of Full Compliance Evaluations		
	<i>Title V</i>	6
	<i>Synthetic Minor</i>	9
	<i>Small</i>	9
	<i>Stage I</i>	150
	<i>Dry Cleaners</i>	7
Asbestos Permitting Program		
	<i>NESHAP Permits</i>	156
	<i>Local Permits</i>	256
	<i>City of Asheville Permit Reviews</i>	226
	<i>Buncombe County Permit Reviews</i>	234

REPORT ITEM	SUB-ITEM	CY 2017
Number of Staff Available to Perform Compliance Evaluations		
	<i>Industrial</i>	5
	<i>Asbestos</i>	2
	<i>Indoor Air Quality (IAQ)</i>	2
	<i>Open Burning, Dust, Odor</i>	6
Number of Violations Found During Inspections		7
Number of Complaints Received		
	<i>Industry</i>	6
	<i>Asbestos</i>	0
	<i>Dust, Odor, IAQ</i>	5
	<i>Open Burning</i>	25
	<i>Stage I Vapor Recovery</i>	0
Number of Complaints Investigated		
	<i>Industry</i>	6
	<i>Asbestos</i>	0
	<i>Dust, Odor, IAQ</i>	5
	<i>Open Burning</i>	25
	<i>Stage I Vapor Recovery</i>	0
Number of NOVs, by Type		
	<i>Industry – Emissions</i>	0
	<i>Industry - Procedural</i>	4
	<i>Asbestos</i>	2
	<i>Dry Cleaners</i>	0
	<i>112(r) Program</i>	2
	<i>Open Burning</i>	3
	<i>Stage I Vapor Recovery</i>	7
Number of Enforcement Cases Processed		18
Number of SOCs Issued		0
Number of Penalties Assessed		6
Total Amount of Penalties Assessed		\$25,531.00
Total Amount of Penalties Collected <sup>i</sup>		\$1,531.00
Number of FRVs and HPVs Reported to EPA		1 FRV
Was compliance status of the facilities updated in AFS on a regular basis? How often?		Yes, Bi-Monthly

The Agency submits 100% of all collected penalties to the local school system.

---