



# 2011 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.

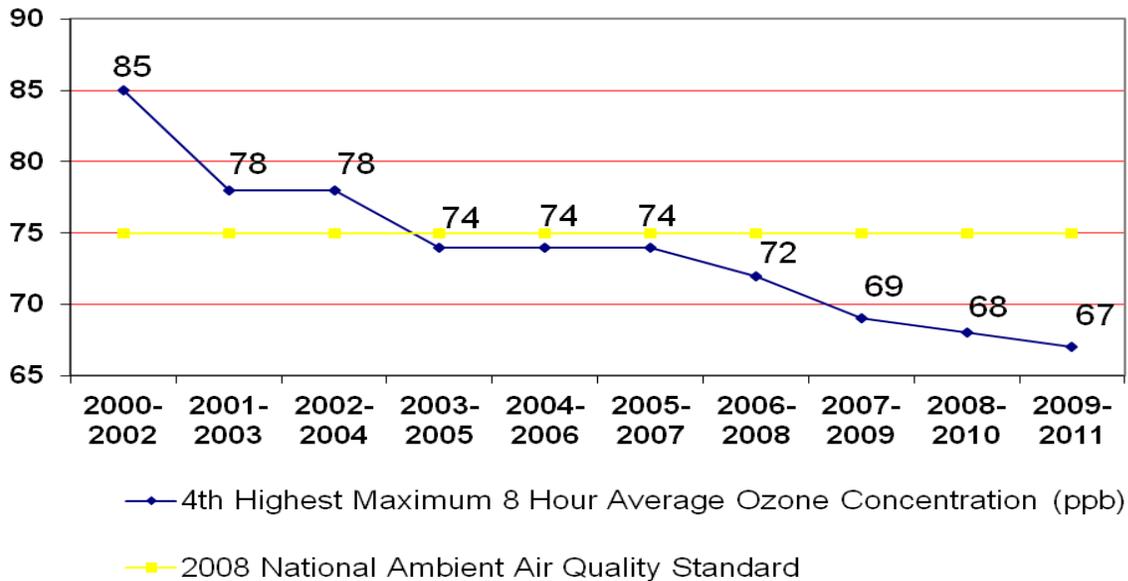
The mission of the Agency is to monitor and regulate the air quality of the City of Asheville and Buncombe County to safeguard public health and the environment, while preserving the quality of life and economic vitality of the area. The Agency is responsible for implementing and enforcing the provisions 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**

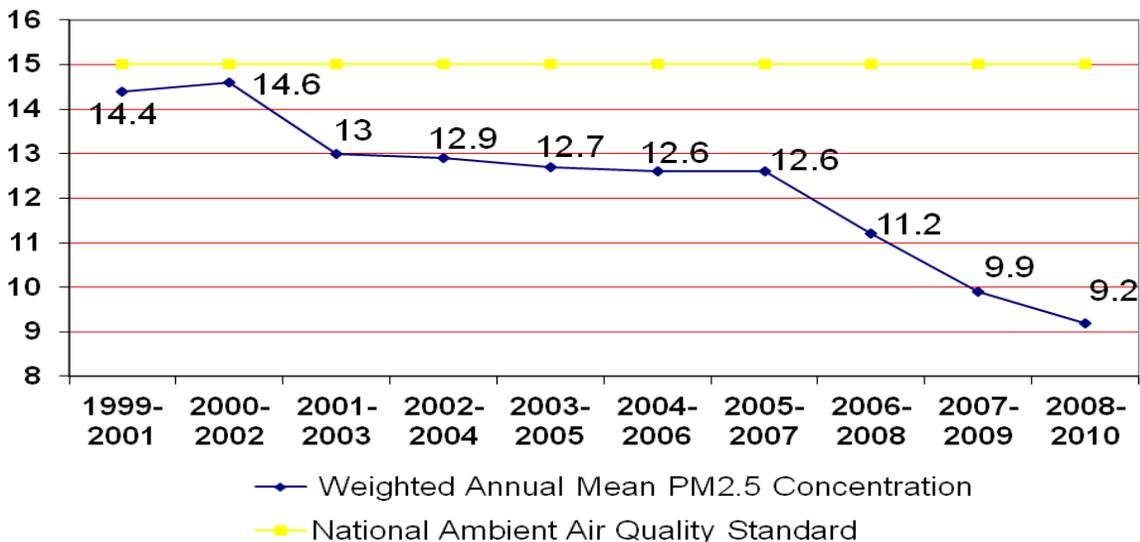
Our area is currently attaining the national ambient air quality standards (NAAQS) that are set by EPA to protect public health and the environment. Our most recent design value used to determine compliance with the national health-based standard for ozone (average of the 4<sup>th</sup> highest 8-hour ozone concentration measured over 3 consecutive years) at our Bent Creek monitor here in Buncombe County is 67 parts per billion (ppb). While we are in compliance with the current standard of 75 ppb, EPA has recently proposed to lower the national standard to somewhere between 60 and 70 ppb to better protect public health. In September of 2011, EPA withdrew the proposal to lower the standard and indicated that a review was ongoing and the standard would be reconsidered in 2013.

### 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 annual arithmetic mean standard is 15 µg/m<sup>3</sup>. The 2011 data is not yet final and as such, the most recent 3 year design value available for comparison with the standards is for the period from 2008-2010. The 98th percentile 24-hour average at the Buncombe County monitoring site is 20 µg/m<sup>3</sup>, and the annual arithmetic mean is 9.2 µg/m<sup>3</sup>. Below are trend data for the annual standard design value.

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



## **Air Quality is Improving due to Emissions Reductions from Vehicles and Power Plants**

The most exciting and 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 requires NC power plants to reduce total emissions of sulfur dioxide and nitrogen oxides by approximately 70%. Sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) 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 is requiring emissions reductions at power plants in other states that will have 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 your air is, and what associated health effects might be a concern for you. Here in Buncombe County, the air quality index is based on the two pollutants that we monitor: ozone and fine particles.

<b>Data for 2011</b>	<b>Number of Days the AQI was:</b>			
<b>Number of Days with an AQI</b>	<b>Good</b>	<b>Moderate</b>	<b>Unhealthy for Sensitive Groups</b>	<b>Unhealthy</b>
364	310	54	0	0

## **2011 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 2011.

- WNCRAQA completed final reports, a public service announcement (PSA) with Buncombe County TV (BCTV), and presented certificates of appreciation to participants in our fire engine retrofit project. This was a stimulus grant funded project with monies obtained from the NC Department of Environment and Natural Resources to retrofit 20 City of Asheville and Buncombe County fire trucks with air pollution control devices that will decrease emissions of particulate matter, carbon monoxide, and hydrocarbons by approximately 20, 41, and 66% per year, respectively. Total emissions reductions are expected to be between 1 and 2 tons per year. The PSA was aired on BCTV and is also available on their website and the WNCRAQA website at: <http://www.wncairquality.org/videos.htm>.
- The Agency continued working on a campaign to encourage the reduction of engine idling by parents waiting to pick up their children at local schools. Signs stating “Turn off your engine – breathe better – save money” were distributed to the City of Asheville Schools in 2010. Buncombe County Schools received and put up signs in 2009.
- WNCRAQA continued working on an initiative to educate citizens who heat with wood about the benefits of newer stoves that meet EPA emission limits. A PSA was produced and aired by Buncombe County TV in 2010 to let citizens in the area know that federal tax credits could be used to offset the cost of upgrading to cleaner and safer equipment. Federal tax credits were available for stoves meeting minimum efficiency requirements installed at a primary residence in 2010. In 2011, a reduced tax credit was available, so Agency staff worked with Buncombe County TV to update the PSA with that information. BCTV aired the PSA again; it is also available on the BCTV website and on the WNCRAQA website at: <http://www.wncairquality.org/videos.htm>.
- We participated in the judging process and helped with the awards ceremony for the NC Division of Air Quality’s Air Quality IQ contest in area middle schools. The Agency had an air quality booth and distributed information at a local health fair, the Buncombe County Soil and Water Conservation Field Days, and helped out with the Clean Air Campaign’s annual Bele Chere festival booth, the Clean Vehicle Coalition’s entry in the Holiday parade, and electric vehicle test drive event.
- Outreach with the regulated community was conducted with area gas stations, auto body shops, certain metal fabrication companies, and electroplating companies that are subject to new federal air pollution requirements.
- The Agency partnered with the NC Radon Program to distribute free radon test kits during radon awareness month in January.
- Agency staff continued to serve on the City’s SACEE committee, the County’s Environmental Advisory Board, and the French Broad River MPO’s Technical Coordinating Committee. The agency is an active member of Land-of-Sky Regional Council’s Clean Air Campaign and Clean Vehicles Coalition.

- The Agency continued its popular air quality awards with permitted facilities to recognize those that implement voluntary measures to reduce emissions. In conjunction with this, the Agency continued its efforts as an EPA ENERGY STAR Low Carbon IT Campaign ally by promoting the use of power management tools on computers to save energy and money, and to reduce emissions of greenhouse gases and other air pollutants.

**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 2011 Environmental Management Commission Report Parameters**

REPORT ITEM	SUB-ITEM	CY 2011
Number of Staff in Each Program Area (In Person-Years)		
	<i>Permitting</i>	1.5
	<i>Inspections</i>	2.75
	<i>Enforcement</i>	1.25
	<i>Monitoring</i>	1.5
	<i>Clerical</i>	0.5
	<i>Administrative</i>	1.5
Number of Facilities, By Category		
	<i>Title V</i>	7
	<i>Synthetic Minor</i>	9
	<i>Small</i>	56
	<i>Stage I Vapor Recovery</i>	150
	<i>Dry Cleaners</i>	7
Number of Operating Permits Issued, By Category		
	<i>Title V</i>	2
	<i>Synthetic Minor</i>	0
	<i>Small</i>	4
Number of Construction or Modification Permits Issued, By Category		
	<i>Title V</i>	3
	<i>Synthetic Minor</i>	3
	<i>Small</i>	14
Average Time to Process Each Permit, By Category		
	<i>Initial Title V</i>	6 months
	<i>Synthetic Minor</i>	1 month
	<i>Small</i>	1 month
	<i>Construction</i>	1.5 month
Have emissions inventories been reported to EPA?		Yes

REPORT ITEM	SUB-ITEM	CY 2011
How many stack tests were observed?		1
How many stack test protocols and reports were received, reviewed, and approved?		1
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>	0
	<i>PM</i>	2
Number of Inspections Performed at Each Source Category		
	<i>Title V</i>	7
	<i>Synthetic Minor</i>	8
	<i>Small</i>	19
	<i>Stage I Vapor Recovery</i>	150
	<i>Dry Cleaners</i>	7
Number of Full Compliance Evaluations		
	<i>Title V</i>	7
	<i>Synthetic Minor</i>	8
	<i>Small</i>	19
	<i>Stage I</i>	150
	<i>Dry Cleaners</i>	7
Asbestos Permitting and Inspection Program		
	<i>NESHAP Permits</i>	172
	<i>Local Permits</i>	208
	<i>NESHAP Inspections</i>	213
	<i>Local Inspections</i>	166
	<i>City of Asheville Permit Reviews</i>	587
	<i>Buncombe County Permit Reviews</i>	279

REPORT ITEM	SUB-ITEM	CY 2011
Number of Staff Available to Perform Compliance Evaluations		
	<i>Industrial</i>	3
	<i>Asbestos</i>	2
	<i>Indoor Air Quality (IAQ)</i>	2
	<i>Open Burning, Dust, Odor</i>	7
Number of Violations Found During Inspections		7
Number of Complaints Received		
	<i>Industry</i>	11
	<i>Asbestos</i>	6
	<i>Dust, Odor, IAQ</i>	12
	<i>Open Burning</i>	64
	<i>Stage I Vapor Recovery</i>	0
Number of Complaints Investigated		
	<i>Industry</i>	11
	<i>Asbestos</i>	6
	<i>Dust, Odor, IAQ</i>	12
	<i>Open Burning</i>	64
	<i>Stage I Vapor Recovery</i>	0
Number of NOVs, by Type		
	<i>Industry – Emissions</i>	2
	<i>Industry - Procedural</i>	6
	<i>Asbestos</i>	2
	<i>Dry Cleaners</i>	1
	<i>112(r) Program</i>	0
	<i>Open Burning</i>	24
	<i>Stage I Vapor Recovery</i>	3
Number of Enforcement Cases Processed		38
Number of SOCs Issued		0
Number of Penalties Assessed		20
Total Amount of Penalties Assessed		\$56,931.25
Total Amount of Penalties Collected <sup>1</sup>		\$46,400.93
Number of HPVs Reported to EPA		0 HPVs, 1 FRV
Was compliance status of the facilities updated in AFS on a regular basis? How often?		Yes, Bi-Monthly

<sup>1</sup> The Agency submits 85% of all collected penalties to the local school system.

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