

Progress Report for the Eastern Panhandle Air Quality Program

October 9, 2009

The 2009 ozone season for the Eastern Panhandle has ended and was by far the most successful season since the Early Action Plan was implemented. The 2009 ozone season completed with no air quality action days forecasted or occurring. Prior to the implementation of the Early Action Plan, the Eastern Panhandle experienced four to six air quality alert days each season. That number has steadily reduced since 2006. Each year, 2006 through 2008, there was one ozone alert per year. This year there were none.

Listed below is a table comparing the past three ozone seasons and the number of Green (good air quality), Yellow (moderate air quality) and Orange (unhealthy for sensitive groups) days for each year.

Year	2007	2008	2009
Green	124	129	146
Yellow	23	23	7
Orange	1	1	0

The number of days when the air quality was moderate (Yellow) has also declined. These results are based on data provided by the West Virginia Department of Environmental Protection, Air Quality Division.

The program continued its air quality forecast service throughout the 2009 season.

Education and Outreach

The air quality program continued its most visible and important function of education and outreach to citizens, local schools and organizations.

- Earth Day event – Martinsburg War Memorial Park: This was a successful event at the start of the ozone season. The park had many environmentally focused vendors. Eight new subscribers were added to the ozone forecast email distribution service.

- Driver Education students: The program continues to make presentations to the fall and spring driver education classes in each of the three high schools: Jefferson, Washington and Hedgesville. Besides each student's new responsibilities as

related to driving, they also have new environmental responsibilities. Each presentation stresses these responsibilities and the environmental choices the new drivers will be making over their entire driving career. The presentations teach the students about the causes and affects of ozone pollution, how to identify situations where unnecessary pollution is being created, providing solutions for eliminating unnecessary pollution, keeping vehicles properly maintained and keeping tires properly inflated.

- Friends of the Opequon: An air quality presentation was made to this organization during a monthly meeting. One of the attendees of the presentation will send the program manager information on a home school coalition as a place for presentations.

- Eagle Intermediate School: Participated for the second year in the school's Discovery Camp. This is an annual 2-day event at the school. The program included an air quality presentation and art contest. The students were asked to draw a picture related to air quality issues based on the information presented to them. Each student received air quality brochures to take home and share with their parents.

Media Coverage

The program continues writing a monthly column for the Shepherdstown Chronicle. Over the years these columns have generated comments and phone calls from readers. Per the editor of the Chronicle, they regularly receive positive comments for the information provided in the columns. The 2009 topics included:

- Shepherdstown Chronicle column – May
 - “The Good, the Bad and the Ugly – Describing when ozone is good (up high), bad (nearby) and ugly (smog)
- Shepherdstown Chronicle column – June
 - “A Bad Air Day” – the affect ozone has on our health
- Shepherdstown Chronicle column – July
 - Frequently Asked Questions About Ozone – answers to major ozone issues
- Shepherdstown Chronicle column – August
 - Pitfalls to Long Term Ozone Pollution – the cumulative affects of ozone
- Shepherdstown Chronicle column – September
 - Greening Your Way To Cleaner Air – using landscaping techniques to reduce pollution

For the second consecutive year, the program was permitted to write a guest column for the Journal. The column appeared prior to Air Quality Awareness Week, sponsored by the National Weather Service. The title of the column was “Be Air Aware”.

The program was interviewed three times this year by the print media and once by a local NPR reporter. The interviews were by:

The Journal – related to Air Quality Awareness Week

The Journal – related to the 2009 American Lung Association, “State of the Air” report. Related to this interview, the program contacted Kevin Stewart of the American Lung Association (ALA) to discuss their report and get a better understanding of the differences in their report compared to information distributed by the EPA.

The Herald-Mail – related to the 2009 American Lung Association Report. Interviewed by Cecilia Mason of West Virginia NPR related to Air Quality Awareness Week. This interviewed aired as part of a larger air quality program on May 5, 2009.

Miscellaneous

- Attended the West Virginia Environmental Academy meeting in Charleston, WV.
- Submitted a CARE grant to address particulate matter pollution in the Eastern Panhandle. This grant was not awarded.
- Researched eligibility for federal grant 66.113. This grant is for organizations that actually perform monitoring and analysis of air quality data, similar to what the WV DEP does. To be eligible for this grant, the air quality program would need a staff of 8 to 12 individuals to perform the necessary work. Spoke with Fred Durham of the WV DEP and an individual from the EPA to clarify the work load and qualifications. Allegheny County, PA is one of the few counties in the nation operating at this level; this is usually a state function. Their involvement is due to their heavy industrial areas. The Eastern Panhandle does not have industrial sites.
- Participated in a FOCUS grant to create paths/trails in Berkeley Co.
- Spoke at length with Kevin Stewart of the American Lung Assoc., discussing their annual report and discrepancies with the EPA’s standards for measuring air quality. The ALA has higher standards than the EPA in their report.
- Received a call from a local citizen RE: school buses idling at the Hedgesville Burger King and polluting the air. Contacted the Transportation Dept. of the school board RE: their idling policy and sent them a letter documenting the conversation I had with the local citizen. Offered to make an air quality presentation to his group.
- Sent a letter to City Hospital requesting any information they had related to hospital/ emergency room visits for respiratory related illnesses (asthma, bronchitis, COPD, emphysema, etc.). Offered to make an air quality presentation to this group.
- Contacted Jefferson County Chamber of Commerce to place air quality brochures in the July newsletter.
- Toured the Essroc facility.

EPA Program and Standard Changes

Ozone

The EPA has announced they are reconsidering the 2008 national smog standards to ensure they are scientifically sound and protective of human health. When the standard was changed from 80 ppb to 75 ppb, there were many organizations, including the EPA's independent Clean Air Scientific Advisory Committee (CASAC), advocating lower standards, some for reducing the standard to as low as 60 ppb. The CASAC proposed a standard between 60 and 70 ppb. The implication at the time was that the standard of 75 ppb was chosen more for political reasons than for health related reasons.

The EPA will propose any revisions to the ozone standards by December 2009 and will issue a final decision by August 2010.

The Eastern Panhandle was designated as an attainment area based on the old standards of 80 ppb. When the air quality program started, the Eastern Panhandle's monitored ozone reading was 86 ppb. The Eastern Panhandle's monitored readings at the time of attainment were 75 ppb, the same as the new standard. The EPA's attainment status should be maintained at least through August of 2010.

Particulate Matter (PM 2.5)

The EPA is proposing to determine that the West Virginia portions of three non-attainment areas for the 1997 fine particulate (PM_{2.5}) National Ambient Air Quality Standards (NAAQS) have clean data for the 1997 PM_{2.5} NAAQS. Berkeley County is one of those three areas. This proposed determination is based upon quality assured, quality controlled and certified ambient air monitoring data that show that these areas have monitored attainment of the 1997 PM_{2.5} NAAQS based on 2006-2008 data.

In addition quality controlled and quality assured monitoring data for 2009 that are available in the EPA Air Quality System (AQS) database, but not yet certified, show these areas continue to have clean data as measured against the 1997 PM 2.5 NAAQS. The current annual monitored average for Berkeley County is 14.9 micrograms per cubic meter. The annual standard is 15. At the time Berkeley County was designated to be non-attainment; the reading was 15.8 micrograms per cubic meter.

If the EPA makes this proposed determination final, the requirements for Berkeley County to submit an attainment demonstration, associated reasonable measures, a reasonable further progress plan, contingency measures and other planning State Implementation Plans (SIPs) related to attainment of the standard shall be suspended as long as the area continues to meet the 1997 PM 2.5 NAAQS.

Attached is a copy of a letter I wrote to the EPA. A similar letter was sent to the EPA by the director of the Air Quality Division of the WV DEP.

This is similar to the Early Action Plan option provided to the Berkeley/Jefferson Counties as related to ozone pollution. Sanctions and/or official actions would be on hold until a time when the monitored readings were again in violation of standards. The EPA has not issued any recent press releases related to changes in the PM2.5 standards as compared to the possible ozone standards changes.

Energy Assessment Kit

After four ozone seasons of outreach and education to various organizations within the Eastern Panhandle, it has been difficult to find new groups who have not been addressed. Attempts to revisit organizations who have heard the presentation have not been successful. To address new businesses, local governments, organizations and individuals, an Energy Assessment Kit is being developed. It is estimated that 30% of all energy generated in the United States is wasted. The assessment kit is aimed at reducing that wasted energy in the Eastern Panhandle.

The focus of this kit is reducing energy used by a business, an organization or an individual. By reducing energy being used, (electricity, gasoline, fuel oil, etc.), reduced levels of ground level ozone pollution will be one of the main beneficiaries of the kit.

Kit Contents:

- Instructions on how to use the assessment kit
- Text description of the various steps to complete the assessment
- Checklist for beginning the project
- Assessment forms
 - Doors
 - Insulation
 - Lighting/Electric
 - Plumbing
 - Windows
 - Individual meter spreadsheet
 - Multiple meter spreadsheet
 - Sample spreadsheets
- Energy management – an ongoing issue
- Resources for more information

The kit will create an awareness of the problem, explain how reducing energy usage can be approached in a manageable manner and provide a plan for assessing energy usage, identify problem areas and instruct how to reduce energy usage. A complete energy assessment can be a daunting task for any organization. The kit will get an organization started and show them how to complete the task in phases that are manageable and still result in reduced energy usage.

This kit will be presented to Jefferson and Berkeley Counties, each municipality and every school in the two counties. The air quality program will assist anyone interested in completing the kit to assess and reduce their energy usage.

The kit will be applicable to both large and small business. The program will contact local businesses to determine their interest in using the kit and will provide guidance to complete their assessment. These kits are also relevant to home owners wishing to reduce their energy usage.

This kit and the effort to complete the energy assessment fit into the EPA's program for energy reduction. The direct benefit for the Eastern Panhandle is a reduction in pollutants. The kit will:

- Reduce fossil fuel emissions in a manner that is environmentally sustainable
- Reduce total energy use of participants
- Improve energy efficiency in buildings and transportation

Each of the above reduces pollutants that form ground level ozone.

For most organizations, businesses or individuals, the primary benefit of completing the assessment and implementing recommended changes will be financial. Most organizations can realize a 10% reduction in energy consumption and energy expense by implementing simple procedural changes. Reductions up to 20% can be realized with moderate expenses for new equipment or supplies. Financial savings achieved by these practices will translate into cleaner for our region.

From May 2008 through the present, the air quality program manager has implemented many of the ideas included in the assessment kit. He has seen a 10% annual reduction in his electric bills. Much of this came from simply turning off unneeded lights and appliances and not heating unused space in the winter. Since June 2009, the program manager has reduced the usage of overhead lighting in his office by about 95%.

How many offices could turn off their lights and still function efficiently? What office machines are left on continuously that can be turned on and off only when needed? Are there storage areas with lights on? What lights can be replaced with more efficient bulbs? Are there more energy efficient materials that can be used on a renovation project than currently planned, such as windows? The assessment kits will get people thinking about these and other issues that can be resolved to reduce energy.

This project can become normal operating procedures as people get used to new energy policies and behaviors. The assessments are not designed to be a one time effort, but are designed to become recurring events in an organization. Annual reviews are recommended. Improvements can always be made.

A limited number of folders will be available. All assessment kit contents will be available on the Clean Air Connection website.

Summary

The efforts of the local air quality program in support of state and federal programs and regulations have resulted in cleaner air for the Eastern Panhandle. With continuing awareness, education and participation local citizens and organizations have contributed to this success.

It is very likely the EPA will establish new standards for ozone pollution in 2010. By continuing to work within the Eastern Panhandle and participating in the I-81 Corridor Coalition, local and regional contributions to cleaning the air will make it possible to continue reducing local ground level ozone pollution.

The Energy Assessment kit is another step in creating an awareness of local air quality issues, offering a solution to the problem and saving money for anyone who participates in the assessment. The kit will broaden participation in the air quality program throughout the community.