



## Meeting Minutes

Valley AIRNow Air Quality Outreach Program  
Northern Shenandoah Valley Air Quality Improvement Task Force

November 7, 2007

9:30 – 10:30 AM

Winchester-Frederick County Economic Development Commission  
45 East Boscawen Street, Winchester VA 22601

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### Attendees

Moderator: Tiffany Tumer

Task Force Members: Tom Ballou (DEQ), Patrick Barker, Ken Jones, Bob Claytor, Gary Dove, Jim Giraytys, Dan Salkovitz (DEQ)

Meeting began at 9:26 am.

### 1. Guest Presentation: Virginia Department of Environmental Quality (VDEQ), Tom Ballou

- Slide 1 – State Air Quality Status Update

Mr. Ballou began by stating that VDEQ has been busy with several projects including an ozone and fine particulate SIP for Washington, D.C., as well as the development of a statewide regional haze SIP. He also reported that in June, VDEQ requested that the EPA re-designate Richmond and Hampton as ozone attainment areas. Patrick Barker (EDC) asked if either of these areas were Early Action Compact (EAC) areas. Mr. Ballou responded no, that neither Richmond nor Hampton was eligible for the EAC program at the time.

- Slide 2 – Air Quality Update - Topics

Mr. Ballou next moved to a more local perspective of the Northern Shenandoah Valley (NSV). In addition to the NSV 8-hour ozone standard, he mentioned that other items would be discussed as potential issues and/or challenges may exist for NSV in the near future. These topics included fine particulate matter (PM<sub>2.5</sub>), visibility improvement (not a direct impact to NSV but will affect our national parks), and climate change (a hot topic; Virginia has been at the back of the pack on this). Mr. Ballou emphasized how all of these topics are interrelated.

- Slide 3 – Ozone Early Action Compact

A brief history of NSV's Ozone Early Action Compact was provided next. Mr. Ballou stated that we opted in as a collective group to the EAC process in 2002 and developed an Early Action Plan in 2004. All milestones were met and all local and state controls were implemented. As a result, the program was very successful and air quality in the

area certainly improved. The final status report is due in December and EPA is asking that VDEQ certify the final 2007 ozone data. Consequently, EPA will make an announcement by April 2008 that the area is in attainment.

Mr. Giryatys suggested that NSV develop a *Lessons Learned* piece. Mr. Ballou agreed that this was a good idea. He also emphasized the need for Valley AIRNow to continue, particularly with other issues on the horizon such as the strengthening of the 8-hour ozone standard.

- Slide 4 – Measure of Success, Northern Shenandoah Ozone Trends

The blue bars on this slide denote the number of days that exceeded the 8-hour ozone average in NSV. Mr. Ballou pointed out the maximum value of 10 exceedance days in 1998 whereas only 3 exceedance days occurred in the area between 2003 and 2007. He stated that “clearly there is something going on in terms of reducing those number of days.” Mr. Ballou also pointed out the red line at the top of the graph—the design value. The design value is calculated by taking the three year average of the fourth highest 8-hour ozone exceedance. The design value shows a high of 90 ppb in 1999 to 73 ppb in 2007.

- Slide 5 – Eight-Hour Ozone Standard, Future Modeling Results

Mr. Ballou explained that the latest version of modeling that VDEQ has performed predicts a 12% reduction in ozone by 2009 in NSV. This reduction will continue to occur and actually get larger (21% reduction by 2018) due to the additional controls (i.e. utility, vehicle, other) that are scheduled to be implemented and produce additional emissions reductions.

Mr. Ballou also explained that this modeling predicts 72 ppb in 2009 but the NSV area is currently ahead of schedule at 73 ppb. The model further predicts an even lower value of 65 ppb in 2018.

- Slide 6 – Eight-Hour Ozone Standard, Emissions Reductions Programs

Next, Mr. Ballou addressed why we have seen recent improvements in ozone air quality. Some of the reasons for this include controls of power plants, NO<sub>x</sub>, motor vehicles, non-road engines, and local control programs (i.e. Early Action Compact areas). Mr. Claytor pointed out that the ultra low sulfur fuel program will contribute greatly as well.

- Slide 7 – Eight-Hour Ozone Standard, Local NSV Emission Reductions

The graph on this slide demonstrates the improvement in ozone air quality in NSV from 1999 to 2007. Mr. Ballou commented that we are seeing approximately a 20% reduction of both VOCs and NO<sub>x</sub>. He pointed out that Winchester is unique in that it lacks area utilities. If this was not the case and utilities were present, NSV would have seen even larger reductions of these pollutants.

- Slide 8 – Eight-Hour Ozone Standard, Power Plant NO<sub>x</sub> Reductions in VA

The graph on this slide demonstrates what we are seeing on a state level in terms of NO<sub>x</sub> reductions from all of our power plants. Mr. Ballou commented that from 2002 to 2006, Virginia has seen a decrease of nearly 100 tons of NO<sub>x</sub> per day.

- Slide 9 – New Ozone Standard Proposal

Mr. Ballou next moved from the recent air quality successes to the challenges that may be yet to come. He explained that EPA recently proposed a new eight-hour ozone standard. The EPA is required by the Clean Air Act to periodically look at the standard and review new scientific evidence to determine if the current standard is appropriate and protects human health (particularly sensitive groups).

In summary, this proposal states that the scientific evidence now available does not promote retention of the current 8-hour standard. Consequently, a change is on the horizon. The question is, according to Mr. Ballou, what is the change going to be? In the federal register notice, EPA proposed to reduce the standard somewhere between 70 and 75 ppb. However, EPA is also taking comments on retaining the current standard and even lowering it by as much as 60 ppb. So the impact on the NSV area, as well as the rest of the state, is uncertain as we do not know what the new standard will be. Virginia only has one monitor (Rockbridge County) that is currently below 70 ppb. So if the standard is lowered to 75 ppb, NSV is fine. If the standard is lowered even further to 70 ppb then NSV is back in the mix again.

EPA is expected to publish their final rule in June of 2008. At this time, VDEQ will again make recommendations to the EPA on which areas should and should not be considered non-attainment for ozone. Final determinations will be made in 2010 and it will take three years after that (2013) to develop air quality plans for those areas. Legal challenges to the new rule will likely result as well.

- Slide 10 – Fine Particulate Matter Standard

Historically, fine particulate matter has not been an issue in the Winchester area because it did not have a PM<sub>2.5</sub> monitor. However, a monitor was recently installed and is now operating in the same shelter as the ozone monitor.

Currently, there are two different fine particulate matter standards—an annual (15 micrograms per cubic meter) and a 24-hour standard (35 micrograms per cubic meter). Based on a question from Mr. Barker, Mr. Ballou commented that this data will be meaningless from a regulatory standpoint until at least three years worth of data is obtained. However, the nearby Berkeley County PM<sub>2.5</sub> data can be looked at to give the NSV area an idea of where it stands.

On a side note, Mr. Ballou also noted that the PM<sub>2.5</sub> annual standard is currently under litigation. He also pointed out that the EPA will soon be reviewing the current PM<sub>2.5</sub> standards again and a significant reduction to 12.3 micrograms/m<sup>3</sup> by 2018 is expected.

- Slide 11 – PM<sub>2.5</sub> Standards, Berkeley Co. WV Monitoring Trends

Mr. Ballou stated that by 2018 Berkeley County, West Virginia is expected to be in attainment with at least the current annual PM<sub>2.5</sub> standard at about 12 micrograms/m<sup>3</sup>. The 2009 numbers were unavailable at the time of this meeting.

The chart on Slide 11 displays Berkeley County's annual and 24-hour PM<sub>2.5</sub> values from 2003 to 2006. The red numbers denote the years in which the local annual and 24-hour

values exceeded the national standards. Mr. Ballou commented that it was worthwhile to note that last year's data was in the green. Although there isn't enough data to determine a trend, he stated there is hope that things are improving. However, it should be noted that the current annual PM<sub>2.5</sub> design value (15.8 micrograms/m<sup>3</sup>) for Berkeley County exceeds the national standard (15.0 micrograms/m<sup>3</sup>).

- Slide 12 – Emissions Reductions Predictions

This slide illustrates the reductions of select air pollutants that VDEQ expects to see within the next 10 years. Mr. Ballou stated that VDEQ anticipates significant reductions in NO<sub>x</sub>, VOCs, and SO<sub>2</sub>. The only increase that is expected is in direct fine particulate matter levels. The reason for this is that the control programs that are currently being implemented to reduce PM<sub>2.5</sub> and haze are secondary programs. These programs more directly address NO<sub>x</sub> and SO<sub>x</sub>.

- Slide 13 – Visibility Improvement Program

Mr. Ballou stated that another requirement by the Clean Air Act is to improve visibility in national parks, national wilderness areas, etc. In Virginia, there are two of these areas—Shenandoah National Park (in close proximity to NSV) and James River Face Wilderness.

The purpose of the visibility improvement program is to return to natural conditions by 2064 with SIPs every 10 years. VDEQ is currently in the process of developing its first 10 year SIP which addresses the 2018 milestone. In response to participant questions on which pollutants are associated with visibility issues, Mr. Ballou answered that sulfates are of primary concern, and to a lesser extent, nitrates. He also commented that our state should see significant SO<sub>2</sub> reductions by 2009/2010 which is good news for the NSV PM<sub>2.5</sub> monitor.

- Slide 14 – Visibility Improvement Program, Predicted Improvement – Shenandoah

Mr. Ballou explained that haze is measured using a unit called a deciview (similar to the noise unit of measure, decibel). The higher the deciview number is, the more visibility impairment there is in the atmosphere. The goal is to get the pink trend line (which represents milestones, where we should be at a given point in time) on the graph to reach the green horizontal line, which represents natural conditions. The blue trend line is VDEQ's prediction on where Shenandoah National Park will be in comparison with the pink milestone trend line. From the graph, you can see that VDEQ predicts the park to be well below the pink trend line at 2018 due to reductions in SO<sub>2</sub>.

- Slide 15 – Climate Change Initiatives

The governor recently released a statewide energy plan to reduce energy growth by 40% and greenhouse gas emissions by 30% by 2025. Another objective of the energy plan is to increase in-state energy production (e.g. green energy or other energy source) by 20% during the same time frame.

Mr. Ballou also reported that Virginia joined the Climate Registry, a program which industries may be interested in. The registry is an effort to develop a common,

consistent way of calculating and reporting both greenhouse gas emissions and reductions within those emissions. VDEQ is currently looking for industrial and governmental partners (membership fee required). 35 states are currently signed up for this registry. A secondary goal of the Climate Registry is to create a model for a future federal registry coordinated by the EPA. For more information, visit <http://www.theclimateregistry.org/>.

- Slide 16 – NSV Air Quality Update, Summary

In summary, Mr. Ballou stated that the NSV area has made a great deal of progress in regard to ozone and has certainly met its EAP objectives. Unfortunately, the federal standard is scheduled to be lowered which may pose some problems in the near future. He also reported that visibility has improved and NSV's PM<sub>2.5</sub> status will remain uncertain until there exists sufficient data. Mr. Ballou speculated that all three of these issues (ozone, visibility, PM<sub>2.5</sub>) will continue to improve in the future throughout the state.

Most importantly, Mr. Ballou emphasized that now is not the time to stop the NSV EAP program in lieu of the pending new ozone standard. If continued, VDEQ can point to the EAP program when the next round of ozone discussions with EPA rolls around.

Mr. Barker inquired into the Roanoke PM<sub>2.5</sub> monitor. Mr. Salkovitz responded that it is close, but the Roanoke monitor is currently in attainment with the federal annual fine particulate standard. Traditionally, Roanoke PM<sub>2.5</sub> numbers have been on the high side.

## **2. Guest Presentation: EDC Recommendations**

Mr. Barker explained that the Winchester-Frederick County EDC desired input from the AQITF Task Force on the continued maintenance of the EAP to include in its formal recommendation to the City Council and County Board of Supervisors. The EDC brainstormed four potential options:

- a) Continue program at current level, including contract with JMU at current level until 2012.
- b) Continue program, including contract with JMU at reduced level (only programs identified as valuable) until 2012.
- c) Continue program at reduced level until 2012 and absorb functions into EDC or other city/county department.
- d) Cease all activities as soon as attainment status received.

Discussion regarding the continuation of the EAP within the Task Force followed. The general consensus was that the program should be carried on in some way. Ms. Tumer agreed to discuss with JMU to determine if its contract could be reduced and provide EDC with an answer over the next several days.

## **3. Valley AIRNow Presentation**

### ➤ *Past Events*

- Idle reduction sign recruitment. Ms. Tumer reported that she continues to recruit new partners for the idle reduction sign initiative.
- Oldies 95.3 radio interview. September 12, 2007.
- Healthy Air Zone signage PR campaign. September 14.
- WINC-FM radio interview. Ms. Tumer was interviewed by WINC-FM on September 17<sup>th</sup> regarding the clean air art contest.
- Shenandoah Valley Natural Systems Symposium. October 15 – 16, 2007.
- Art contest press release. November 1.

➤ *Outreach Output*

- Chamber of Commerce Business Agenda. EDC Update: “Area industries work to maintain good air quality” September edition and Valley AIRNow clean air art contest announcement (November edition).
- Clean air art contest. The following materials were created for the art contest including a flyer, press release, and website ([www.valleyairnow.com/idlreduction.htm](http://www.valleyairnow.com/idlreduction.htm)). The flyer was distributed personally to area day care centers, schools, etc.
- Idle reduction initiative. Flying J Travel Plaza agreed to display two signs at its Winchester location.

➤ *Art Contest*

Ms. Tumer stated she was overwhelmed by the willingness of AIRCorps members and other businesses to support the clean air art contest. The following businesses verbally committed to donate approximately \$1,500 in prizes: Executive Protection Systems, Northern Virginia Petroleum Association, NetTech Center of Winchester, and Wal-Mart (Winchester location). Additionally, Shenandoah University’s Organization of Arts Management students agreed to judge the contest submissions. An awards ceremony for the contest winners would be coordinated following the judging.

➤ *Upcoming Events*

- a. Next Task Force meeting: TBD
- b. North American Association for Environmental Education conference: November 14-17, Virginia Beach
- c. Clean air art contest: submission deadline, November 30
- d. EPA semi-annual status report: December 31

Meeting adjourned at 10:47 am.