
ANNUAL REPORT ON THE ENVIRONMENT

CHAPTER III

AIR

QUALITY

III. AIR QUALITY

A. ISSUES AND OVERVIEW

1. Introduction

We guarantee good air quality by monitoring the air for specific contaminants and taking action against those who cause the contamination level to exceed allowed limits. This is a federal-state-regional-local partnership. Fairfax County's major responsibilities involve conducting the monitoring of air quality and coordinating with regional organizations on plans intended to reduce air pollution and improve air quality. More recently, the county has also taken a leadership role beyond the limits of its traditional air quality partnership and has helped formulate and has subsequently adopted a program to reduce gases that may be the cause of global warming.

With regard to traditional air quality matters, EQAC notes that over the last several years, Fairfax County has demonstrated its commitment to being an active partner in improving the region's air quality. EQAC is pleased with the efforts taken by the Board of Supervisors and county staff to promote and encourage clean air initiatives and practices. Among the efforts deserving special notice are the following:

- Diesel retrofits: Following on significant prior year actions, 91 buses are in the process of being fitted with the catalyzed diesel particulate filters as needed to help reach attainment with the new PM 2.5 ambient air quality standard.
- Wind energy purchase: Fairfax County has agreed to purchase 10 percent of its electricity from renewable, non-carbon sources. The county makes this purchase with knowledge that it must pay a premium price for the electricity, but does so as part of its leadership promoting use of non-carbon energy nationwide.
- Air quality outreach: The county has been proactive in its efforts to inform county employees and residents about air quality programs and ways to reduce air pollution. The Office of Public Affairs and the Health Department have been working together to create public education materials about the dangers of ground-level ozone and particle pollution, and actions that county employees and county residents can take to promote cleaner and healthier air in this region. Materials they've developed for adults and children are being distributed in government offices, libraries, recreation centers, community meetings and at many outreach events such as the county fair, *Celebrate Fairfax*. In addition, articles on air quality have been distributed through internal county publications and external outreach, including NewsLink, Web sites, cable Channel 16 and homeowners associations. The county also has a notification program that involves the posting of Air Quality Action Day forecasts on Fairfax County Government Cable Television Channel 16 and the county Web site, as well as

sending e-mail notifications to all county employees. These messages include appropriate actions to take to reduce contributions to ozone formation. Some actions currently practiced by Fairfax County government when a Code Red Day for ozone is forecast include: the refueling of vehicles after sunset; the restriction on the use of non-essential motorized operating equipment; encouraging employees to telework and teleconference to participate in meetings; and the offering of free trips on the Fairfax Connector buses.

- **Alternative Fueled Vehicle Purchases:** The county favors purchase of low-emission hybrid drive vehicles when appropriate for replacement of vehicles being retired. The current county fleet has 99 hybrid-electric vehicles (56 Toyota Prius, one of which is a plug-in hybrid, and 43 Ford Escape sport utility vehicles). While these vehicles reduce the level of traditional pollutants controlled under the Clean Air Act, concerns have been raised by some regarding the extent to which these vehicles may have a large carbon footprint related to their manufacture.
- The county uses green building practices in all new buildings and renovation projects. In 2007, the county opened Fire Station No. 42 (the Crosspointe station) and is seeking certification under the Leadership in Energy and Environmental Design program for that building. The county also opened the Kate Hanley Family Shelter which has been certified under the Green Globes program.
- In addition the county has numerous tree preservation and planting efforts (see the Ecological Resources chapter of this report), all of which increase capture of greenhouse gases and reduce air conditioning costs when strategically placed to shade buildings.

The remainder of this section introduces some important topics to which the county either has responded or will have to respond.

a. Massachusetts v. EPA – Carbon Dioxide and Global Warming

The U.S. Supreme Court has concluded that CO₂ is an air pollutant and has ordered the U.S. Environmental Protection Agency to work with the U.S. Department of Energy to determine how to address this pollutant in mobile sources. Notably, the Supreme Court recognized that the USEPA could revisit whether CO₂ is a pollutant if it applies reasoning other than what it previously used.

b. Clean Air Interstate Rule – Help Reduce SO₂ and NO_x

On March 10, 2005 the U.S. Environmental Protection Agency issued the Clean Air Interstate Rule, which is expected to achieve the largest reduction in air pollution in more than a decade. CAIR requires 28 eastern states (including the states in the Metropolitan Washington region) to permanently cap emissions of sulfur dioxide and nitrogen oxides. This rule was put into place to address the fact that EPA has determined that upwind states are contributing significantly to nonattainment of

eight-hour ozone and fine particulate/PM_{2.5} standards in downwind states. Implementation of the rule should assist nonattainment areas in achieving the National Ambient Air Quality Standards. States covered by CAIR, including Virginia, must submit state implementation plans including control measures to reduce emissions of NO_x and SO₂. EPA is requiring that emissions reductions be implemented in two phases. The first phase of NO_x reductions start in 2009 (covering 2009 – 2014) and the first phase of SO₂ reductions start in 2010 (covering 2010 – 2014). The second phase of reductions for both NO_x and SO₂ starts in 2015. The emissions reductions requirements are based on controls that are known to be highly effective. When fully implemented, this rule is expected to reduce SO₂ emissions by over 70 percent and NO_x emissions by over 60 percent from 2003 levels.

Based on air quality modeling conducted by the Metropolitan Washington Council of Governments, Fairfax County expects a 20 percent reduction in NO_x, an important precursor in the formation of ozone. These reductions are an important part of the Washington region's portion of the Clean Air Act State Implementation Plan, a plan to reduce air pollution in our region. Actual reductions in the metropolitan area along with reductions of transported NO_x will be critical to attaining the federal standard during ozone season.

This EPA action provides for the NO_x SIP Call cap and trade program to be replaced by the CAIR ozone-season NO_x trading program. The Virginia Department of Environmental Quality reports this regulation was approved by the State Air Pollution Control Board. The rule includes a voluntary public health set-aside to which affected plants can donate excess emission credits and thus speed attainment of federal air quality standards affecting the county. The proposed rule also has an efficient energy/renewable energy set-aside, which could allow the county to get emission credits for its wind energy purchase and energy efficiency programs in county buildings. These credits would then be retired, lowering the allowable emissions in the state. The state would also be able to use these control measures in the SIP, demonstrating further progress toward meeting the ozone standard.

This rule also includes revisions to the Acid Rain Program regulations streamlining the operation of the Acid Rain SO₂ cap and trade program. The effective date for the Acid Rain Program change is July 1, 2006. This EPA action provides for the NO_x SIP Call cap and trade program to be replaced by the CAIR ozone-season NO_x trading program.

One oft-voiced concern about this rule is that it allows trading of emission credits and, as a result, although emission will go down, they may not go down in our neighborhoods if the local power plant chose to purchase emission credits rather than make the reductions themselves. There are four large power plants (major sources under the Clean Air Act) within the Washington area and some of these cases those power plants have emitting considerable quantities of NO_x in this area

as a result of decisions to purchase emission reduction allowances outside of the Washington Metropolitan air shed.¹ A particular concern for the Washington area is the Potomac River Generating Plant in Alexandria. In the past, the plant produced NOx emissions well in excess of its state operating permit, although it has since come into compliance. In a recent joint federal-state settlement of an enforcement case against the owner of the plant, Mirant Mid-Atlantic agreed to annually eliminate nearly 29,000 tons of harmful NOx pollution generated by its four electricity generating plants in Maryland and Virginia. Although Mirant planned to meet this NOx reduction target by adding pollution controls at its Maryland plants, it has also taken steps to reduce NOx at the Potomac plant as well. Notably, to reduce NOx pollution at the Virginia plant, Mirant is employing pollution control that requires use of ammonia, which is stored on the site. The Commonwealth of Virginia, in consultation with the Department of Energy, is addressing particulate matter impacts from the Potomac River Generating Plant through a separate proceeding.

c. Planning for the New Eight-Hour Ozone and Particulate Matter Standards

EPA published final non-attainment designations for the eight-hour ozone standard in April 2004. The Metropolitan Washington area, which includes Fairfax County, was designated a moderate non-attainment area. EPA revoked the one-hour ozone standard on June 15, 2005 and the eight-hour ozone standard is now in force. The Metropolitan Washington region has now developed a new SIP showing how it will attain the eight-hour ozone standard by 2010. The Metropolitan Washington Air Quality Committee, the air quality planning group for the Washington region, along with its Technical Advisory Committee has been working on a plan for development of the eight-hour SIP and identification of additional emission control measures. On May 31, 2005, Virginia Governor Mark Warner, Maryland Governor Robert Ehrlich, Jr. and D.C. Mayor Anthony Williams signed a Memorandum of Understanding creating the **Interstate Air Quality Council**. The Council consists of six members: the secretaries of the environment and transportation from each of the three governments. The IAQC will provide overall guidance and streamline planning to ensure the states and the District meet their shared goals of improved air quality, including compliance with new federal standards for ozone and fine particulates, and efficient transportation. The IAQC will work in concert with the air quality and transportation committees of the Metropolitan Washington Council of Governments to achieve its goals. All of this serves to make the point that the advent of the eight-hour standard continues to leave little doubt that this new standard will inevitably make air quality management activities in the county considerably more difficult.

In December 2004, EPA designated the Metropolitan Washington region as a non-attainment area for fine particle pollution, also known as PM_{2.5}. The designation became effective on April 5, 2005. Nonattainment areas are required by early 2008

¹ Three of these plants are in Maryland (Morgantown, Chalk Point and Dickerson) and one is in Virginia (the Potomac River Generating Plant in Alexandria).

to submit a SIP to EPA defining the expected methods for reducing the fine particulate matter level in the air and emissions of PM_{2.5} precursors. MWAQC and TAC are in the final stages of completing this plan. It appears that the ongoing activities at the state, regional and local levels will result in attainment of the standard by 2010, much of which will be due to improvements in truck engine designs that have now entered the market and will be the major form of truck propulsion by 2009.

In 2005, the county once again had exceedances of the eight-hour ozone standard and there were more days with exceedant levels than in 2003 and 2004. In addition, exceedances of the one-hour ozone standard returned to the 2003 and 2004 level. As the county moves away from the one-hour standard and into the eight-hour standard, the direct implications of chronic nonattainment, especially of the eight-hour standard, will become a much more serious matter in the region. Fairfax County must continue to work with the MWAQC to develop control measures that can be implemented in the region to attain compliance with the ozone standard and, because of violations within the county, needs to expand its own technical staff in order to promote compliance.

d. Conformity Planning Requirements and Status

The purpose of the air quality conformity analysis is to assure that planning for transportation activities is consistent with air quality attainment/management targets. In non-attainment areas such as the metropolitan Washington area, the Constrained Long Range Plan for transportation and Transportation Improvement Program cannot be fully implemented if, collectively, the projects included in them result in emissions (of certain criteria pollutants) in excess of the limits established by the region's air quality plan, the state implementation plan.

The Metropolitan Washington region was previously designated as a severe non-attainment area, under the one-hour ground level ozone standards. The region had to demonstrate attainment of the standards by November 2005. The region developed a plan to do this and established limits on emissions of volatile organic compounds and nitrogen oxides from the transportation (mobile) sector. The one-hour ground level ozone standard was revoked in June 2005 and replaced with a tougher, eight-hour ground level ozone standard. The region did demonstrate attainment of the one-hour ground level ozone standard by November 2005. The region is classified as a moderate non-attainment area under the new eight-hour standard and has until June 2010 to demonstrate attainment of the standard. The region is currently developing a new plan to demonstrate attainment, which will establish new limits of VOC and NO_x emissions from the transportation sector. The plan was completed and submitted to the state air agencies by the June 15, 2007 deadline. The region has continued to perform the conformity analysis on its CLRP and TIP. Per US EPA's conformity regulations, the emissions limits set in the one-hour ozone plan are being used to demonstrate conformity. Once new emissions limits are set by the eight-hour SIP, transportation plans and programs

will have to conform to these new limits. It is expected that the new limits on VOC and NOx emissions limits will be lower than those set under the one-hour plan.

Additionally, in December 2004, EPA designated the Metropolitan Washington region as nonattainment of the standards for another criteria pollutant, Particulate Matter (expressed as “PM_{2.5}”). The Metropolitan Washington region will have to demonstrate attainment of the PM_{2.5} standards by April 2010. The region’s SIP to attain the PM_{2.5} standards is due to the US EPA by April 2008. The designation as a PM_{2.5} non-attainment area had an immediate affect on transportation planning in the region in that it had a one-year grace period, starting April 5, 2005, in which to demonstrate the PM_{2.5} emissions from transportation sector would not be increasing in future years. If such a conformity demonstration were not completed by April 6, 2006, the CLRP and TIP would have lapsed. This would have halted further federal funding and approval of transportation improvement projects. The Transportation Planning Board, the designated Metropolitan Planning Organization for the region, working with the Metropolitan Washington Air Quality Committee and all three air agencies in this region, and following the U.S. EPA guidelines for conformity analysis, completed its PM_{2.5} conformity analysis in December 2005. This analysis was approved by the Federal Highway Administration and the Federal Transit Administration in February 2006.

The region has plans to develop a detailed plan to demonstrate attainment of the PM_{2.5} standards. This plan will establish new limits on the amount of PM_{2.5} emissions from transportation sector. Once this PM_{2.5} plan is finalized, the region will have to limit PM_{2.5} emissions from the projects in the CLRP and TIP to these new levels.

2. Air Quality Status in Northern Virginia

a. Hazardous Air Pollutants and Enforcement

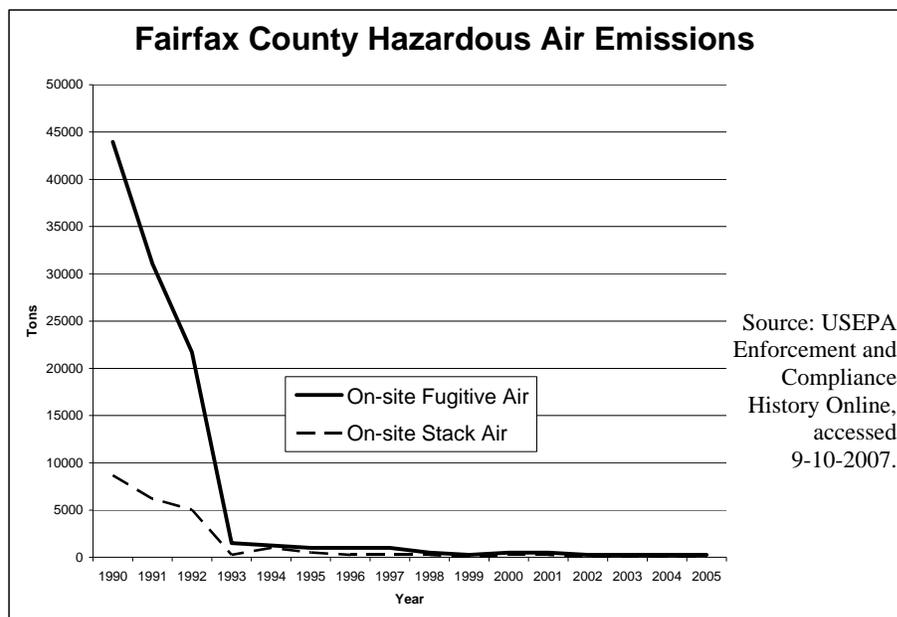
The United States Environmental Protection Agency tracks the emission of hazardous air pollutants from stationary sources, including sources in Fairfax County. Some of these emissions are discharged through smoke stacks and some emerge from the source without treatment and are designated as “fugitive” emissions. All are regulated under law. As of this report, six of the 78 Fairfax County pollution sources that have enforceable permits have violated the emission limits in their permits during 2006. These are:

- U.S. Army – Fort Belvoir (Nitrogen oxides, a precursor to smog)
- Upper Occoquan Sewage Authority (particulate matter, a precursor to smog)
- NEXTEL Communications Of The Mid Atlantic, Inc, (Nitrogen Oxides, Sulfur Dioxide)
- National Air & Space Museum (Nitrogen Oxide)
- Motiva Enterprises LLC, (volatile organic compounds, a precursor to smog)
- George Mason University, (Nitrogen oxides).

Notably, all six of these firms are emitting pollutants that contribute to smog and which cause the metropolitan area to violate the national ozone standard. Unfortunately, the county has no means to enforce against these firms or to lend them technical assistance or otherwise work with them to reduce their pollution. In 1997, Fairfax County returned its enforcement of air pollution regulations to state control and eliminated most air pollution related positions. At this time, the county needs an additional technical staff person to work with violators and to conduct technical outreach to the other facilities that have the potential to pollute the air, many of which are minority-owned small businesses whose owners have little understanding of air pollution requirements and still less expertise with which to deal with them.

Despite these violations, EPA data show a low level of hazardous pollutants in Fairfax County. Figure III-1 displays the most recent information on hazardous air pollutant emissions within the county.

Figure III-1: Hazardous Air Emission Air Quality Trend



b. Ground-level Ozone

The Metropolitan Washington area, including Fairfax County, was classified as a severe non-attainment area for the one-hour ozone standard and a moderate non-attainment area for the eight-hour ozone standard during 2004. To obtain compliance with the eight-hour standard, the three year average of the fourth-highest daily maximum eight-hour average value at each monitoring site in a region

must not exceed 0.08 ppm. Ozone is a precursor to smog and can cause breathing problems for those sensitive to smog, especially those with asthma.

c. Ozone Exceedances in 2006

The U.S. Environmental Protection Agency evaluates compliance with ozone standards by examining the maximum level daily ozone levels at each monitoring site within the Washington metropolitan area. Because there can be unusual ozone levels that are beyond reasonable human control, EPA disregards the three highest days and examines the fourth-highest daily maximum levels at each monitor. It averages these levels for each monitor over three years to determine whether the area has attained the air quality required by the federal ozone ambient air quality standard. Attainment of the ozone standard in the Metropolitan Washington area will require each monitoring site in the region to have a three-year average equal to or less than 0.08 ppm.

Monitors in Fairfax County recorded violations of the eight-hour ozone standard on eleven days during the 2006 ozone season. The Washington region registered 21 days with violations of the eight-hour standard during the 2006 season.

Various studies have shown that much of the Washington Metropolitan area ozone problem originates west of the area and is beyond the control of Virginia, Maryland and the District of Columbia. The purpose of the U.S. EPA Clean Air Interstate Rule is to address these extra-state sources of pollution so that downwind areas can attain national ambient air quality standards. Without controls on those sources to the north and west, the region will not be able to meet the eight-hour ozone standard. Implementation of CAIR will help reduce ozone transport into the region, but staff will have to continue to work with EPA and regional planning groups to ensure that transport is controlled in any way possible. Unfortunately, since the 1996 reduction in force, the county's air program does not have sufficient staff to adequately participate in the many local, regional and state air programs with which the county has a standing duty to cooperate and support.

d. Air Quality Trends

The Metropolitan Washington Council of Governments analyzes monitors air quality data in the metropolitan region. In a recent news release (dated September 2007), COG states that the air quality in this region is improving. COG reports that ozone levels have decreased over the past decade, even on hot, dry summer days when ozone most often forms. In addition, air quality monitors throughout the region have measured lower concentrations of ozone and more monitors are now in compliance with the standard. COG stated that the metropolitan Washington region now has 45 percent fewer days of air pollution from ground level ozone since 2003 than it did in preceding years.

According to COG and the Fairfax County Health Department, in 2006 there were two one-hour ozone exceedances in the Metropolitan Washington Region, both in Fairfax County (Figure III-2). However, the eight-hour ozone standard is making it more difficult for the region to meet the federal standard (Figure III-3, Figure III-4 and Table III-1). This indicates that the county needs to expand its air quality planning and technical support efforts.

Figure III-2: Air Quality Trends in Relation to a One-Hour Ozone Standard

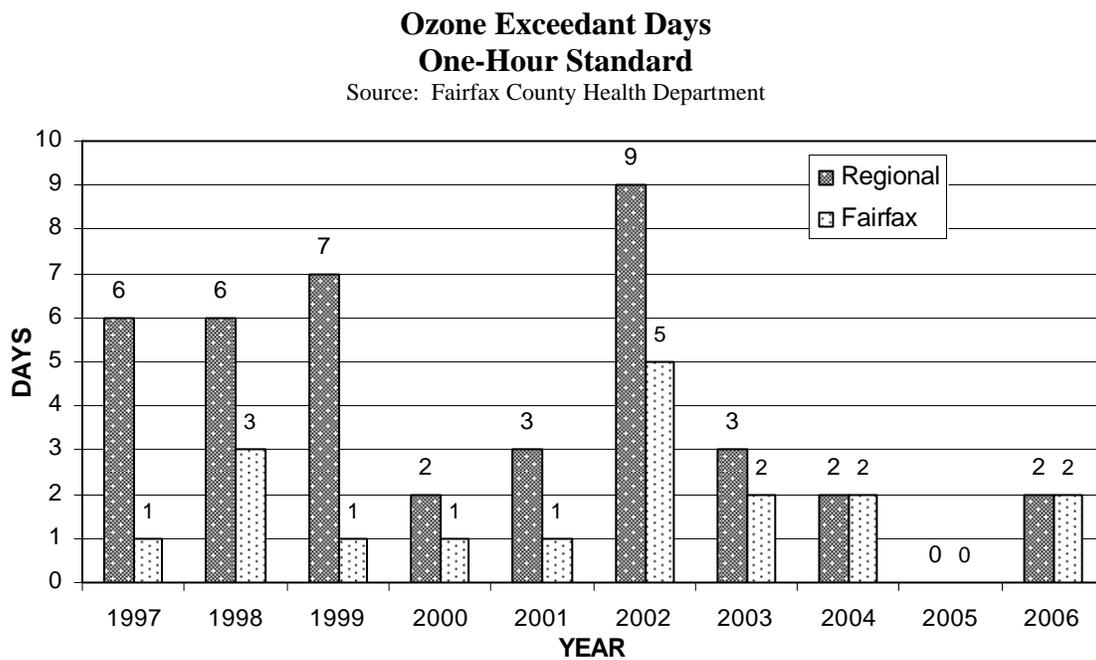
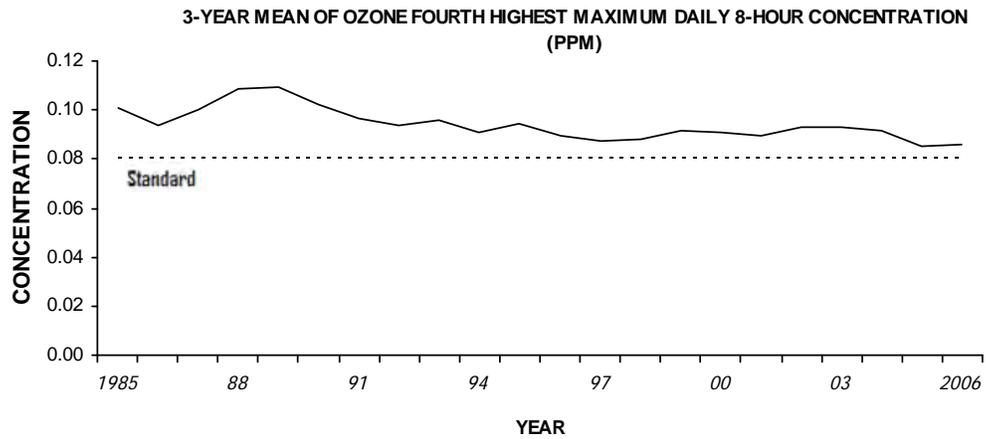
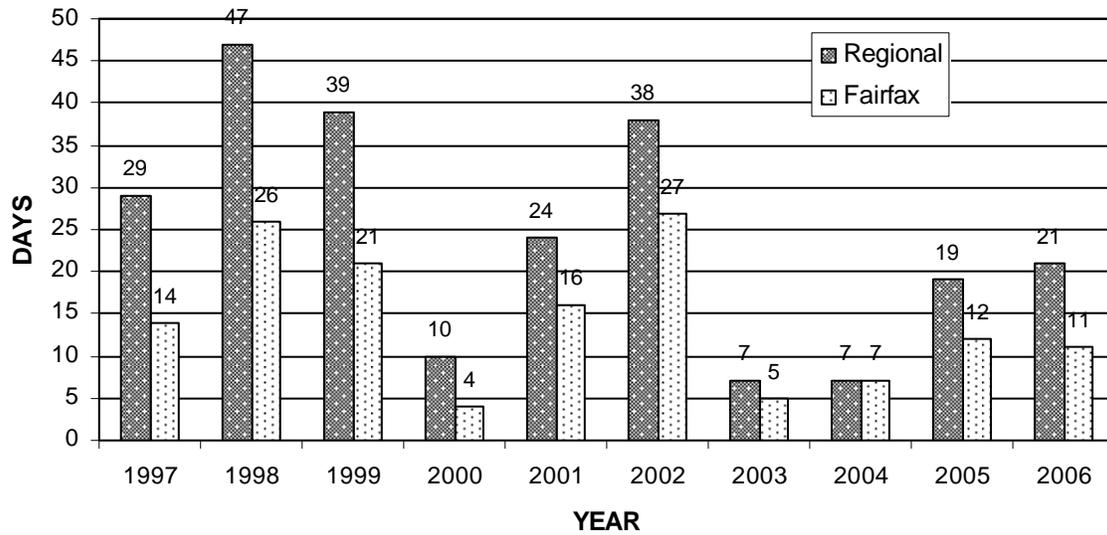


Figure III-3: Air Quality Trends in Relation to an Eight-Hour Ozone Standard

**Ozone Exceedant Days
Eight-Hour Standard**

Source: Fairfax County Health Department



**Figure III-3: Air Quality Trends in Relation to an Eight-Hour Ozone Standard
(continued)**

Source: Fairfax County Health Department/Fairfax County Monitoring Sites, VDOT

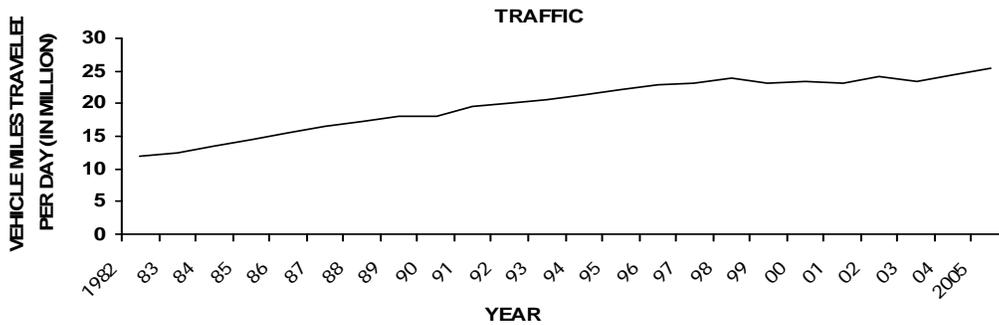
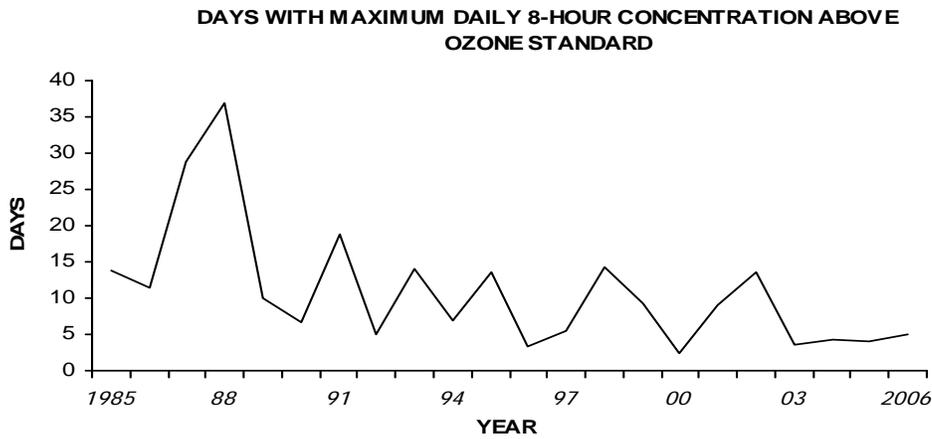
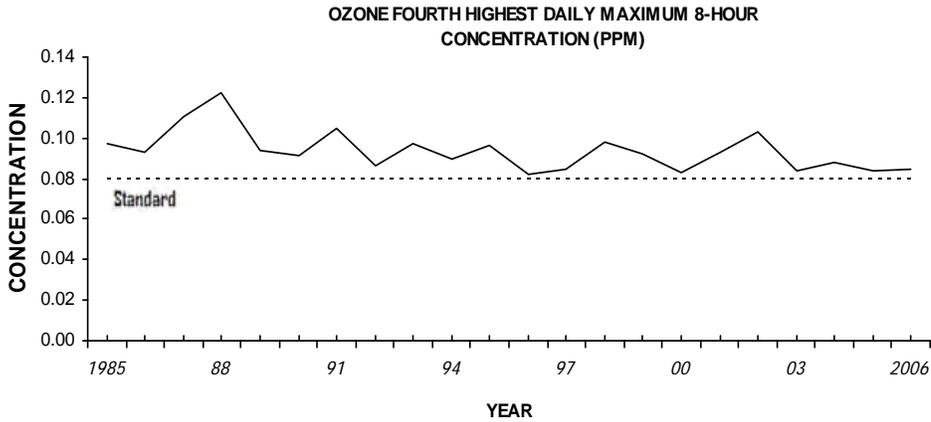


Table III-1: Regional Eight Hour Ozone Exceedances, 2006

Date	Number of Stations that Exceeded the Standard	Maximum Values in the Metropolitan Statistical Area; Maximum Eight-Hour Ozone (ppm)
5/29/2006	3	0.088
5/30/2006	12	0.102
5/31/2006	10	0.102
6/1/2006	5	0.098
6/17/2006	2	0.091
6/18/2006	2	0.090
6/21/2006	1	0.091
7/11/2006	1	0.086
7/17/2006	10	0.116
7/18/2006	8	0.125
7/19/2006	6	0.100
7/31/2006	1	0.086
8/1/2006	2	0.100
8/6/2006	1	0.088
8/16/2006	1	0.085
8/17/2006	1	0.086
8/18/2006	1	0.086
8/23/2006	6	0.090
8/24/2006	2	0.086
8/25/2006	7	0.087
8/26/2006	1	0.090

Source: Metropolitan Washington Council of Governments.

B. MAJOR PUBLIC AGENCY RESPONSIBILITIES

1. Introduction

Although compliance with National Ambient Air Standards and resulting air quality management responsibilities is a function of federal law, in Fairfax County these responsibilities have been split between the commonwealth of Virginia and the regional metropolitan planning organization, on which Fairfax County holds a seat and which the county staff is required to support. MPOs are set up under the Clean Air Act in metropolitan areas with populations in excess of 50,000. In more difficult situations, MPOs are multi-jurisdictional, as is the case in the Washington MPO. Members of MPOs are appointed by the governors and mayors of affected jurisdictions to represent areas included in the MPO. The MPO works with state departments of transportation and transit providers in identifying transportation needs and priorities. They make transportation investment decisions for the metropolitan area and, by default, for the individual regions encompassed within the MPO.

2. Commonwealth of Virginia

a. Virginia State Air Pollution Control Board

This board is authorized to propose policies and procedures for air quality regulatory programs, including emissions standards for landfills and vehicles.

b. Department of Environmental Quality

This department is responsible for establishing or adopting standards for air quality, air quality monitoring and vehicular inspection and maintenance programs. Prior to 1996, Fairfax County held responsibility for enforcement of these state and federal requirements. Thereafter, upon Fairfax County's rejection of this role, DEQ has the default enforcement responsibility.

c. Virginia Department of Transportation

This department is responsible for planning, developing, delivering and maintaining transportation for the traveling public.

3. Region – The Metropolitan Washington Council of Governments, the Metropolitan Washington Air Quality Committee and the National Capital Region Transportation Planning Board

COG is the Metropolitan Washington regional planning group that works toward solutions to regional problems related to air and water quality, transportation and housing. COG also manages other programs such as those responsible for forecasting demographic changes. The MWAQC, which is a part of COG, is responsible for all air

quality planning in the Metropolitan Statistical Area identified under Section 174 of the Clean Air Act. The authority of MWAQC is derived from the certifications made by the Governors of Virginia and Maryland and the Mayor of the District of Columbia. MWAQC was established to conduct interstate air quality attainment and maintenance planning for the Metropolitan Washington region. Members are appointed and Fairfax County currently has three members of the Board of Supervisors on the committee. The Transportation Planning Board serves as the designated MPO for the Washington region and is responsible for regional transportation planning and conformity. The TPB is staffed by the Department of Transportation Planning, which is part of COG. Members of the TPB are appointed, and Fairfax County currently has two members of the Board of Supervisors sitting on the TPB. TPB and MWAQC work together on air quality and transportation issues. COG is also responsible for issuing air quality indices on a weekly basis.

a. MWAQC Technical Advisory Committee

This committee was established to advise and assist MWAQC in planning for and maintaining the region's air quality. Members review technical issues and documents before they are submitted to MWAQC for review and approval.

b. Interstate Air Quality Council

On May 31, 2005, Virginia Governor Mark Warner, Maryland Governor Robert Ehrlich, Jr. and D.C. Mayor Anthony Williams signed a Memorandum of Understanding creating the Interstate Air Quality Council. The council consists of six members: the secretaries of the environment and transportation from each of the three governments. The IAQC provides overall guidance and streamlined planning to ensure the states and the District meet their shared goals of improved air quality, including compliance with new federal standards for ozone and fine particulates, and efficient transportation. The IAQC works in concert with the air quality and transportation committees of COG to achieve its goals.

c. Forecasting Subcommittee

This subcommittee considers how to monitor and report the new eight-hour ozone standard and how to devise guidelines for issuing health alerts during the ozone season.

d. Attainment Subcommittee

This subcommittee considers evidence for the case that the Washington non-attainment area can attain the eight-hour ozone standard with the control measures already adopted.

e. Conformity Subcommittee

This subcommittee reviews Air Quality Conformity Determinations prepared by the TPB to ensure that regional transportation plans are consistent with plans to improve air quality. This includes verifying that estimated emissions from mobile sources, such as cars, trucks and buses, do not exceed the mobile budget, a cap on regional mobile emissions contained in the region's air quality plan.

f. Air Quality Public Advisory Committee

This committee has been established to provide a vehicle to brief residents on actions pending before MWAQC. This committee functions as an important source of feedback from the public on air quality concerns in the metropolitan area.

g. Control Measures Workgroup

This workgroup was established to research control measures and develop a plan of emission reducing control measures for the region to implement in an effort to reach attainment for ozone. With the recent designation of PM_{2.5} nonattainment, this group will add emission-reducing control measures for attainment of this standard to its duties.

4. County of Fairfax

a. Department of Health, Division of Environmental Health, Air Quality Module

The county's Air Quality Section sits within the Department of Health's Environmental Health Division. Due to the 1997 budget (July 1996-June 1997), the section suffered a massive Reduction in Force that has now translated into a skeleton staff unable to meet all existing needs. The staff went from 12 members down to five. The enforcement section was completely eliminated along with the meteorologist position. Regulatory enforcement activities on facilities reverted back to DEQ. In addition, the Air Quality Section had an Air Quality Planner position that had been transferred to the Department of Planning & Zoning in 1982. The RIF completely eliminated this position as well. The section currently has five staff (three technical field inspectors, one data analyst and one program manager) to operate the air program in a county that is larger than seven other states.

This division is authorized by the Fairfax County Code, Chapter 103, in cooperation with federal and state agencies, to conduct an air monitoring program. In the past, this division has provided consultative services to those requesting assistance in indoor air quality issues and other air quality-related matters. If there is a substantial threat to public health, on-site investigations are provided concerning indoor air quality and exposure to toxic substances in non-occupational, indoor environments. A representative from the Health Department now sits as a member of the MWAQC Technical Advisory Committee and functions as a conduit to

communicate with the county on air quality issues of concern to MWAQC. At the present time, the Air Quality Program Manager represents Fairfax County on this committee.

During a time of growing regulatory mandates and the need to coordinate and manage the increasingly complex body of information relevant to air quality planning in Fairfax County, EQAC notes that an Air Quality Program Manager position, alone, is not sufficient to ensure adequate county participation on these planning functions. EQAC also notes the need for greater technical support to county businesses and to the public with regard to both Clean Air Act responsibilities and to energy and climate change agendas being adopted by the commonwealth and the county.

The Air Quality Section continues its monitoring network in the county measuring levels of criteria pollutants in an effort to measure compliance with the National Ambient Air Quality Standards. All of the monitoring data obtained from these sites goes into the National Air Quality Database.

b. Department of Transportation

This agency is responsible for the planning and the coordination of improvements that reduce both congestion and the vehicle miles traveled.

C. PROGRAMS, PROJECTS AND ANALYSES

1. Regional Air Quality Planning

The county's Air Quality Program Manager continues to work closely with the Director of Environmental Health and the Fairfax County Environmental Coordinator to manage air quality efforts on behalf of the county. In light of new regulations for particulate matter, the continuing failure to attain the national ozone standard and the growing demand for assistance regarding the relationship between energy use and greenhouse gases, EQAC notes the need for additional technical staff support within the Air Quality Program.

D. CONCLUSIONS AND OBSERVATIONS

1. EQAC recognizes the increasing responsibilities associated with a growing set of regulatory mandates, continuing failure to attain national ozone and particulate matter standards and growing activities associated with greenhouse gases. EQAC also recognizes that the county now has need of some of the expertise it lost in 1996, specifically with regard to technical compliance assistance staff and a meteorologist.

2. EQAC lauds the county for focusing on air quality management and working with COG and others involved in regional planning, but notes that the county has a greater role to play and cannot meet that responsibility without additional technical staff. EQAC continues to note with gratification the county's SIP (VOC and NOx) emission reduction strategies for both short-term ozone action days and long-term ongoing initiatives, although EQAC again notes that county outreach is severely limited from lack of technical support to local facilities. The pattern of ongoing violations identified above discloses the need for local compliance assistance if the area is to reach attainment of the standard. Although it is recognized that regional planning has attempted to develop control strategies to address this problem, they have not provided compliance assistance to local violators, nor has the commonwealth initiated either informal or formal enforcement against local violators. Thus, county action to reach out to these violators, all of whom are sophisticated enterprises, is needed if we are to reach ozone attainment. Further, to maintain such attainment, the air quality management staff feels, and EQAC agrees, that the county needs a continuing technical outreach capability it does not now have.
3. Based on the discussions that have occurred among EQAC, the ECC and the Planning Commission, EQAC understands the problems and concerns and even the limitations associated with the long-range nature of land use planning as it relates to transportation and air quality. EQAC will continue to interact in that venue to try to constructively address the issues that have been discussed there. Meanwhile, EQAC continues to welcome the opportunity to be as interactive as possible with the Air Quality Subcommittee and its activities.

E. COMMENTS

EQAC offers two new recommendations and reiterates and updates its previous recommendations as presented in the 2006 Annual Report on the Environment:

1. County staff should continue to participate in the regional planning efforts through the Metropolitan Washington Council of Governments in identifying both quantifiable and qualifiable emission reduction measures and strategies to reduce air pollutants so that the Clean Air Act standards can be attained. EQAC continues to recommend close coordination and communication between EQAC and the county on strategies and activities necessary to comply with the ozone and fine particle standard.
2. EQAC is pleased with the work of the county's Air Quality Subcommittee that included a variety of air quality management strategies as shown in the interim report and Clean Air Café menu that was presented to the Board of Supervisors' Environmental Committee. EQAC recognizes that a significant number of projects that are shown in the report and menu have been funded and implemented. EQAC commends the board on its strong support for air quality and recommends that the board continue to fund air quality projects and initiatives that are shown in the county's Environmental Improvement Program.

3. EQAC is also pleased to see the air quality outreach effort that the county has started. By getting the word out to people we can obtain voluntary actions and efforts to help improve the region's air quality. EQAC recognizes that this outreach effort would not be possible if it were not for the board's strong support in funding air quality monitoring equipment replacement and outreach and education efforts in FY 2005 through FY 2007. EQAC commends the board for this effort and recommends that the board continue to fund the air quality outreach program. The Air Quality Subcommittee should continue promoting clean air education programs and initiatives and find ways to expand their audience.

F. RECOMMENDATIONS

1. EQAC recommends that the county add one supervisory staff position to provide needed compliance assistance, program coordination and public outreach in order to help eliminate ozone-related air pollution violations occurring within the county, in order to reach full compliance with PM 2.5 ambient air quality standards and in order to ensure adequate participation in regional planning activities. A supervisory staff position would support: the review of environmental impacts for projects and actions; extension of necessary support to address Board Matters related to Air Quality and the environment; participation in regional planning efforts through the Metropolitan Washington Council of Governments; legislative reviews; program coordination; and expanded outreach efforts to businesses and schools.

LIST OF REFERENCES

2005 Ozone Data Information, Fairfax County Health Department, Air Quality Section, Division of Environmental Health

Agency Responses to the Environmental Quality Advisory Council Recommendations Contained within the 2005 Annual Report on the Environment

Air Pollution Has Declined Significantly Since 2003; Metropolitan Washington Council of Governments News Release dated September 27, 2006

Clean Air Interstate Rule, www.epa.gov/air/interstateairquality/index.html.

Federal Register, Part II, 40 CFR Parts 51, 72 et al, Environmental Protection Agency dated May 12, 2005.

Virginia, Maryland and the District of Columbia Partner to Improve Air Quality, Office of the Governor News Release dated May 31, 2005.

Regional Summit, Interstate Air Quality Council Memorandum, dated May 31, 2005.

Fine Particle Standards, Air Quality Conformity Assessment, Metropolitan Washington Council of Governments dated June 8, 2005.

Transportation Conformity Rule Amendments for PM_{2.5} Standard,
www.epa.gov/otaq/stateresources/transconf/index.htm

Virginia DEQ Web site, www.deq.state.va.us/ozone/

Declaration on Air Quality Leadership, (memorandum from the County Executive to senior management team dated February 12, 2003).

Implementation of Available Ozone Action Best Practices, (memorandum from the County Executive to senior management team dated July 21, 2003, describing the background and objectives for the Air Quality Sub-Committee and attaching its Charter).

State Implementation Plan (“SIP” or “Severe Area SIP”) to Improve Air Quality in Washington, DC – MD – VA Region, (final SIP and appendices available at the MWCOG Web site (www.mwcog.org/environment/air/)).

Air Quality Management/Fairfax County, (memorandum from the Environmental Quality Advisory Council to the Deputy County Executive dated August 28, 2002).

Correspondence dated November 15, 2002, from the Deputy County Executive to EQAC describing the intentions of the county with respect to air quality in response to the August 28, 2002, memorandum from EQAC.

Fairfax County Web site: <http://www.fairfaxcounty.gov/airquality>

USEPA Enforcement and Compliance History Online (ECHO) <http://www.epa-echo.gov/echo/>