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ANNUAL REPORT ON THE ENVIRONMENT

**CHAPTER II**

**AIR**

**QUALITY**

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## **II. AIR QUALITY**

### **A. ISSUES AND OVERVIEW**

#### **1. Introduction**

After more than three years of expressing increasingly focused concern about air quality management in Fairfax County, the past year saw a flurry of activity beginning in about July, 2002, principally generated by activities in the Office of the County Executive (“CE”) and the Environmental Coordinating Committee (“ECC”), and apparently largely in response to concerns expressed by the Environmental Quality Advisory Council (“EQAC”). EQAC is encouraged by this progress but we remain concerned about the timing and the focus of critical analysis associated with air quality management options and actions that may need to be taken immediately in Fairfax County. Even though the County is moving in the right direction, we are not yet sufficiently capable of addressing the issues that need to be addressed. More importantly, the County continues to allow and perhaps even support the atrophying of program capabilities in the Health Department that are vital to this whole effort.

During the past year, we have noted for the first time that the Annual Air Quality Report produced by the Health Department was not generated in a timely manner, complicating our efforts to generate this annual report. While we recognize and defer to the efforts of the County to establish their own approach to the management of air quality, we are concerned that the availability of existing expertise in this area has apparently eroded, particularly in the Health Department. This is inconsistent with our recommendation and basic suggestion that, at a minimum, the County needs to maintain expertise to understand trends and consequences associated with air quality management. While the approach of the County appears to be to focus on the relationship with the Washington Metropolitan Council of Governments (“MWCOCG” or “COG”) and planning activities associated with that relationship, EQAC remains extremely concerned that our ability to actually measure air quality progress in the County and understand the relationship between that progress and the atmospheric chemistry in the immediate area and in the region that contributes to that progress is actually decreasing. It is ironic that at the very time that the County has committed to substantially beefing up its efforts as they relate to air quality management, the existing expertise and institutional memory associated with health issues, past air quality trends, and the management of the air quality monitoring network in the Health Department is disappearing and is not being replaced.

**a. NO<sub>x</sub> SIP Call**

The so-called NO<sub>x</sub> SIP Call continues to move forward, consistent with our descriptions over the past three years in previous Annual Reports. The implementation dates apparently remain the same for this year as for last although we have not been able to absolutely verify that.<sup>1</sup> Expected net reductions as a result of this SIP Call are in the range of 60-70% and so the hope should be, as we have stated in the past, that we would see something in the neighborhood of a 20% reduction in NO<sub>x</sub> for Fairfax County as a result. These NO<sub>x</sub> reductions will be absolutely vital to our ability to demonstrate SIP-Planning that is acceptable to the Environmental Protection Agency (“EPA”). More important, actual reductions in the metropolitan area along with reductions of transported NO<sub>x</sub> will be critical to attaining the standard during the next three ozone seasons.

A primary concern that we have with the NO<sub>x</sub> SIP Call is that it allows trading of emission credits and, as a result, emission reductions on a point source basis cannot necessarily be predicted. There are four major power plants in the Washington area and it is our understanding that in some, if not all, of these cases those power plants are emitting considerable quantities of NO<sub>x</sub> in this area as a result of decisions to purchase emission reduction allowances outside of the Washington Metropolitan air shed.<sup>2</sup> A particular concern for the Washington area is the Potomac River Generating Plant in Alexandria. We are generally aware that concerns about this plant have apparently already been expressed, but we remain concerned that the situation appears to be unresolved.<sup>3</sup> While we do not possess detailed information on the Potomac River Generating Plant, we strongly suggest a close look be taken at the effects of that plant as they relate to the production of NO<sub>x</sub> in the Washington Metropolitan Area.

Although it should not theoretically have any direct impact on the overall effect of the NO<sub>x</sub> SIP call, the implications of New Source Review (“NSR”) reform are also of concern to us since those reforms may result in additional generation of NO<sub>x</sub> at some coal burning facilities in the future.<sup>4</sup>

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<sup>1</sup> The 2002 ARE referenced implementation dates of 2003 for Northern Virginia, as well as the Washington Metropolitan Area, and 2004 for the rest of Virginia.

<sup>2</sup> Three of these plants are in Maryland (Morgentown, Chalk Point, and Dickerson) and one is in Virginia (the Potomac River Generating Plant in Alexandria).

<sup>3</sup> The sharing of correspondence, concerns, or factual information on this issue is encouraged. We understand that options may be limited, but this is precisely the type of issue where coordination and communication are essential in first of all identifying a problem and secondly in dealing with it. At this stage of the game, any major source of emissions affecting the formation of ozone in the metropolitan area should be on the table for discussion, particularly if it resides in Northern Virginia.

<sup>4</sup> NSR notwithstanding, the NO<sub>x</sub> SIP Call mandates the achievement of fixed statewide NO<sub>x</sub> emissions budgets in Virginia by 2007. Even so, concern about this issue is apparently shared by the Metropolitan Washington Air Quality Committee (“MWAQC”), since the Chairman wrote a letter expressing concern on the subject to then Administrator Whitman in January of this year.

**b. Planning for the New Eight-Hour and Particulate Matter Standards**

Efforts of the EPA to develop an implementation strategy that meets the mandate of the Supreme Court upholding the new eight-hour ozone standard are ongoing. The focus of current SIP-Planning on attainment of the one-hour standard and the absorption of most the energies of the County and the COG on that subject, as we have stated before, is literally just the tip of the iceberg. All of this serves to make the point that the advent of the new 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.

A concern that we have not expressed before, but one that we also have, has to do with the Particulate Matter National Ambient Air Quality Standard (“PM NAAQS” or “NAAQS”). In August of 2003, EPA released a Staff Paper and Risk Assessment addressing the new PM<sub>2.5</sub> standard and establishing ranges, that if enacted, would clearly put the County into non-attainment of this NAAQS, as well as the ozone NAAQS.<sup>5</sup>

Meanwhile, as if to underscore all of this, the County in 2002 once again had exceedances of both the one-hour and the eight-hour standard<sup>6</sup>, in both cases substantially exceeding those in 2001. Admittedly, 2002 was a bad ozone season, but 2003, which should not have been a particularly bad season, saw violations similar to those in 2001.<sup>7</sup> As the County moves away from the one-hour standard and toward the eight-hour standard, the direct implications of chronic non-attainment, especially of the eight-hour standard, will become a much more serious matter in Fairfax County. How the County is preparing to address all of this is not yet clear to EQAC.

**c. Severe Area SIP Planning**

Although they theoretically still exist, the Phase II Attainment Plan activities have largely been overtaken by Severe Area SIP planning, which became necessary as a result of the Earth Justice Legal Defense Fund (Sierra Club) lawsuit. Conditional approval of the Metropolitan Washington Area SIP was granted by EPA on April 17, 2003. That conditional approval is dependent upon the completion of a series of activities and commitments, including the adoption of Virginia state regulations necessary to meet Clean Air Act (“CAA”) § 182(d) requirements for severe non-attainment areas, the revision and submission of an updated attainment

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<sup>5</sup> We have further concerns with the release on November 5, 2003 of an EPA proposed rule describing transportation conformity rule amendments for the new eight-hour ozone and PM<sub>2.5</sub> NAAQS. These concerns are discussed in the Conformity section, below, but they are also consistent with our previous observations and expressions of concern about the changing regulatory landscape that affects all of these issues and specifically whether the County has positioned itself to stay on top of all of this.

<sup>6</sup> Even though we are not yet required to meet the eight-hour standard in Fairfax County, we have monitored for “compliance” with the eight-hour standard for the past two years.

<sup>7</sup> The number of exceedances in 2003 (3) actually exceeded the number in 2001 (1). For details on the violations, see section 2 (c), below.

demonstration reflecting revised MOBILE6-based motor vehicle emissions budgets, the demonstration of 3% per year rate of progress (ROP) from 1999-2002 as well as from 2002-2005, the adoption of contingency measures for failure to make ROP during those periods and the submission of Reasonably Available Control Measures (RACMs). There are other requirements as well.

In developing this SIP, the Metropolitan Washington Air Quality Committee (“MWAQC”) has identified a series of control measures that they believe will allow us not only to demonstrate progress toward, but in fact to attain, the ozone NAAQS by November 15, 2005.<sup>8</sup> These control measures are dependent upon the successful completion of a series of regulatory activities, including the regulation of point sources (including transported NO<sub>x</sub>), area sources, mobile sources, consumer products, and a complex series of other reductions that experience tells us are bound to be resisted by certain manufacturers and others affected by the rules.<sup>9</sup> Timing is now super-critical for the development of these regulations and yet we have been told that in some cases we may not have the VOC reductions necessary to comply with the requirements of the Clean Air Act.<sup>10</sup>

We do understand that Fairfax County has stepped forward to make helpful suggestions that should result in further VOC reductions and we commend the County for their involvement in this exercise. We should note, however, that if the County had listened more intently to our recommendations beginning more than three years ago, they would be in a much better position than they are today to address these problems.

#### **d. Conformity Planning Requirements and Status**

The purpose of conformity is to assure that planning for transportation activities is consistent with air quality management goals. In non-attainment areas such as the Metropolitan Washington Area, transportation planning cannot be allowed to proceed if: (1) it contributes to the creation of new air quality violations; (2) it contributes to the worsening of existing air quality violations; or (3) it delays the attainment of ambient air quality standards. When EPA reclassified the Washington Metropolitan area to “severe” non-attainment status for ozone on January 24, 2003, that determination overtook the conformity planning activities that had until then been associated with Phase II Attainment Planning.

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<sup>8</sup> The details of this SIP, such as they are can be reviewed on the COG Web site at [www.mwcog.org/environment/air](http://www.mwcog.org/environment/air).

<sup>9</sup> As they are structured at the writing of this report, these requirements are broken into four categories, including point source measures, area source measures, on-road measures and non-road measures, with all categories addressing the production of both NO<sub>x</sub> and VOCs.

<sup>10</sup> There are several examples that could be cited here. EQAC is particularly concerned about the assumptions associated with the NO<sub>x</sub> RACT and Regional NO<sub>x</sub> Transport reductions (280 tons/day in 2005), the various Ozone Transport Commission (“OTC”) rule reductions, the issue of open burning and whether it can be regulated and the mobile source reductions (for which numbers have not even yet been established!) Readers interested in this issue are encouraged to visit the COG Web site and make note of these evolving nature of the measures that have been identified.

Our conformity status has now been subsumed in the Severe Area SIP planning exercise mandating that all of the requirements of the conditional approval be met by April 17, 2004. As discussed above, those requirements include the submission of all severe non-attainment area SIP requirements missing from the 2005 attainment demonstration as well as the necessary amendments to the 1996-1999 rate of progress (“ROP”) Plan that EPA conditionally approved on April 17, 2003 (68 FR 19106). We understand that the state of Virginia has committed to fulfill all of the requirements of the conditionally approved SIP by the April 17, 2004 deadline, including revising the attainment demonstration motor vehicle emissions budgets using the EPA MOBILE6 Model. The State of Virginia has also submitted revisions to the SIP containing new MOBILE6-based 2005 attainment motor vehicle emissions budgets on August 19, 2003 and has also submitted ROP Plans for 2002 and 2005, and EPA is currently taking comments on the adequacy of all of these budgets. Nevertheless, consistent with our comments above, we remain extremely concerned about all of the inter-dependent activities that these planning assumptions are built on.

As if to complicate this situation further, the EPA has just proposed a rule to amend the transportation conformity rule to include criteria and procedures for the new eight-hour ozone and fine particulate matter (PM<sub>2.5</sub>) NAAQS. This proposal provides guidance for the application of conformity in areas that will be designated as non-attainment for these two standards and as things stand now, we can expect that Fairfax County will be in non-compliance for both standards.

## **2. Air Quality Status in Northern Virginia**

### **a. Ground-level Ozone**

The Metropolitan Washington, D.C. area, including Fairfax County, is currently classified as a severe non-attainment area for ozone. For all other Federal Air Quality standards, the area remains in attainment. With respect to PM<sub>2.5</sub>, the existing primary standard is set at 15 µg/m<sup>3</sup> and, although compliance with the standard is not yet required, we exceeded the standard in 2002 and came very close to exceeding it in 2001.

### **b. Ozone Exceedances in 2001**

Attainment of the ozone standard in the Metropolitan Washington, D.C. area will require three years with no ozone exceedances. An exceedant day (for the one-hour standard) occurs when an ozone-monitoring site exceeds the NAAQS of 0.12 ppm for at least one hour. In 2002 there were eight ozone exceedant days of the one-hour standard in the metropolitan air quality region and five exceedant days in

Fairfax County.<sup>11</sup> On the five days of exceedances in Fairfax, there were a total of 11 monitors that showed those exceedances in five different locations.<sup>12</sup>

With respect to the eight-hour standard, the County Health Department has shared preliminary data with us reflecting 230 monitored violations over a total of 38 days during the 2002 ozone season. Although we've not seen any data, we've been told that there were 19 violations of the eight-hour standard in Fairfax County during 2002. The State of Virginia, on the other hand, reflects 73 violations in Fairfax County at the same five monitors as for the one-hour standard.

Obviously, no matter what we conclude regarding compliance with the one-hour standard (and the only conclusion is that we remain woefully out of compliance), the situation for the eight-hour standard, which will be the new standard at the end of next year, is disastrous. Any way you cut it, the picture is anything but pretty.

### **c. Air Quality Trends in Fairfax County**

Although many believe that air quality in Fairfax County is improving, the best that can be said is that the pattern of ongoing violations of the one-hour ozone standard has continued at more or less the same level since 1994. The pattern of violations worsened considerably in 2002 and in fact ended up being as bad as, or worse than, anything we've seen since 1993. The same was generally true for the whole metropolitan area. In 2003, the County reported three exceedances at two different sites, which is serious cause for concern given what many considered to be a much easier ozone season. Again, the state data disclose other violations at other monitors not accounted for by the County. In 2002, there were 12 Code Red days (Unhealthy for all citizens) and three Code Orange days (unhealthy for sensitive groups). To summarize, 2001 data showed a reversal of the downward trend in unhealthful days for the first time in several years, and 2002 saw a dramatic worsening in that trend. 2003 appears to have been more or less a replay of 2001, only worse. If we look at the eight-hour standard, the situation is much worse. All

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<sup>11</sup> Notably, there appears to be some disagreement on the actual number of exceedant days, based on the apparent position of the County that they do not have to count ozone violations at the Franconia monitor, which is operated by the state of Virginia. On the other hand, if one makes reference to the Virginia data, it discloses other violations at McLean, Chantilly and Annandale as well. I would be interesting to see what the position of the EPA is on this issue, based on the requirements of the CAA. One wonders whether the struggle within Fairfax County over the funding and maintenance of the monitoring system might in some way be related to the notion that if we don't know about violations (i.e., monitor them) they can't possibly be of concern to us.

<sup>12</sup> We are unable to provide references to the actual data this year, since it has yet not been made available "officially". If you discount the Franconia station, as the County apparently does, there were four days of violations with a total of 7 monitored incidents at four different locations. We are unable to cross-reference the state data in a consistent manner, since that data is aggregated by monitoring site without reference to dates. We do know that the state reflected 11 violations at five sites, only one of which overlapped with the County (Mount Vernon). It would therefore appear that if you combined the entire state data set with that of the County, there would be several more violations than in either case alone.

of this gives little cause for comfort in the face of the sanguine attitude of the County that all will be well by November 15, 2005.<sup>13</sup>

<b>Table II-1 Regional Ozone Exceedances, 2002</b>		
<b>Date</b>	<b>Location</b>	<b>Maximum One-Hour Ozone (ppm)</b>
June 10	McMillan, DC	0.125
June 11	McMillan, DC	0.126
June 12	McMillan, DC	0.151
	River Terrace, DC	0.140
	Takoma School, DC	0.138
	Alexandria City, VA	0.143
	Arlington, VA	0.150
	Franconia, VA*	0.126
July 2	McMillan, DC	0.143
	River Terrace, DC	0.151
	Alexandria City, VA	0.145
	Arlington, VA	0.151
	Franconia, VA*	0.137
	Mason Gov't. Center, VA*	0.139
	Mount Vernon, VA*	0.145
August 2	McMillan, DC	0.125
	Alexandria City, VA	0.127
	Cub Run, VA*	0.149
	Franconia, VA*	0.129
	Lewinsville, VA*	0.131
	Mason Gov't. Center, VA*	0.137
August 3	McMillan, DC	0.126
August 12	Arlington, VA	0.131
	Mount Vernon, VA*	0.130
August 13	Greenbelt, MD	0.132
	Franconia, VA*	0.148
	Mount Vernon, VA*	0.153
	Stafford, VA	0.149
September 10	Ashburn, VA	0.132
	Long Park, VA	0.129

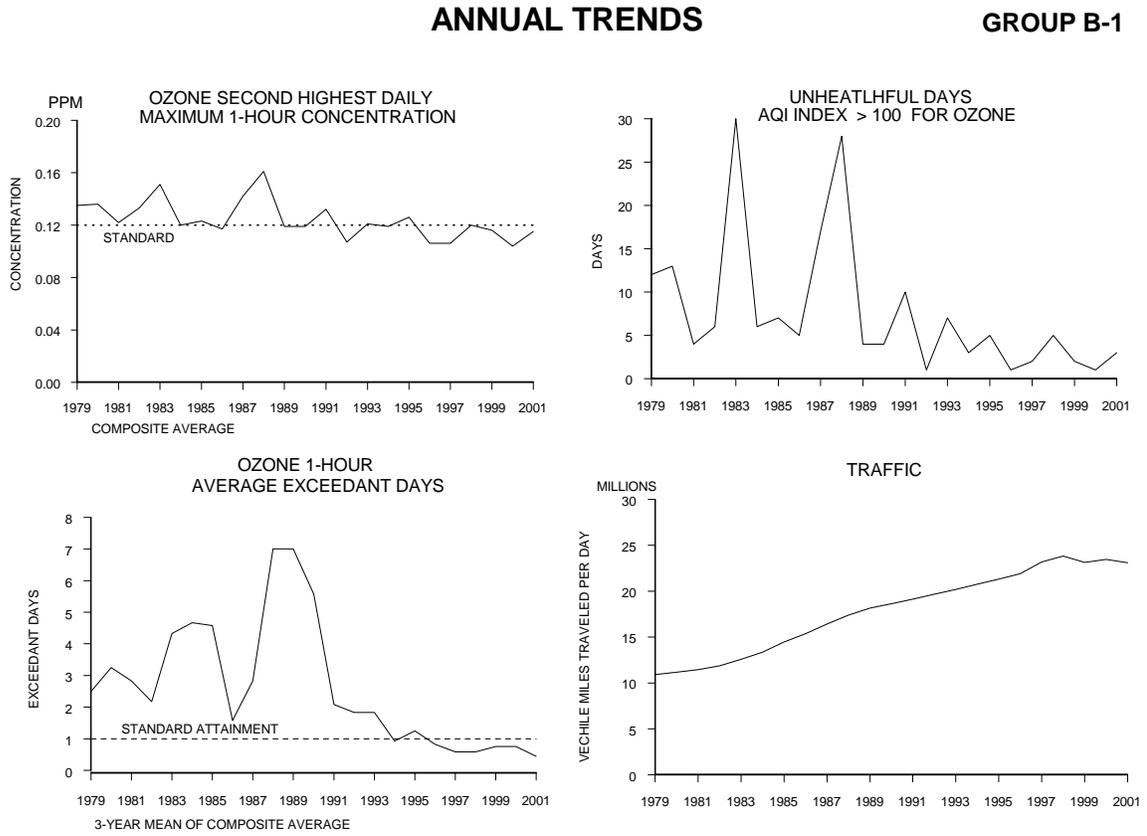
\*Fairfax County Monitoring Station  
Source: Fairfax County Department of Health

<sup>13</sup> The Trend Analysis Charts that we've included with this Annual Report are the same as we included last year, since, as mentioned before, the Health Department has not been able to update this information in 2003.

<b>Table II-2 Regional Ozone Exceedances, 2002, Eight Hour Average</b>		
<b>Date</b>	<b>Number of Stations that Exceeded the Standard</b>	<b>Maximum Value in the Metropolitan Statistical Area; Maximum 8-Hour Ozone (ppm)</b>
June 5	1	0.091
June 10	13	0.109
June 11	13	0.100
June 21	2	0.094
June 22	4	0.108
June 24	12	0.111
June 25	13	0.120
June 30	1	0.087
July 1	7	0.100
July 2	15	0.134
July 3	7	0.102
July 4	2	0.089
July 8	3	0.094
July 9	8	0.099
July 12	5	0.095
July 16	3	0.091
July 17	1	0.100
July 18	12	0.100
July 19	2	0.092

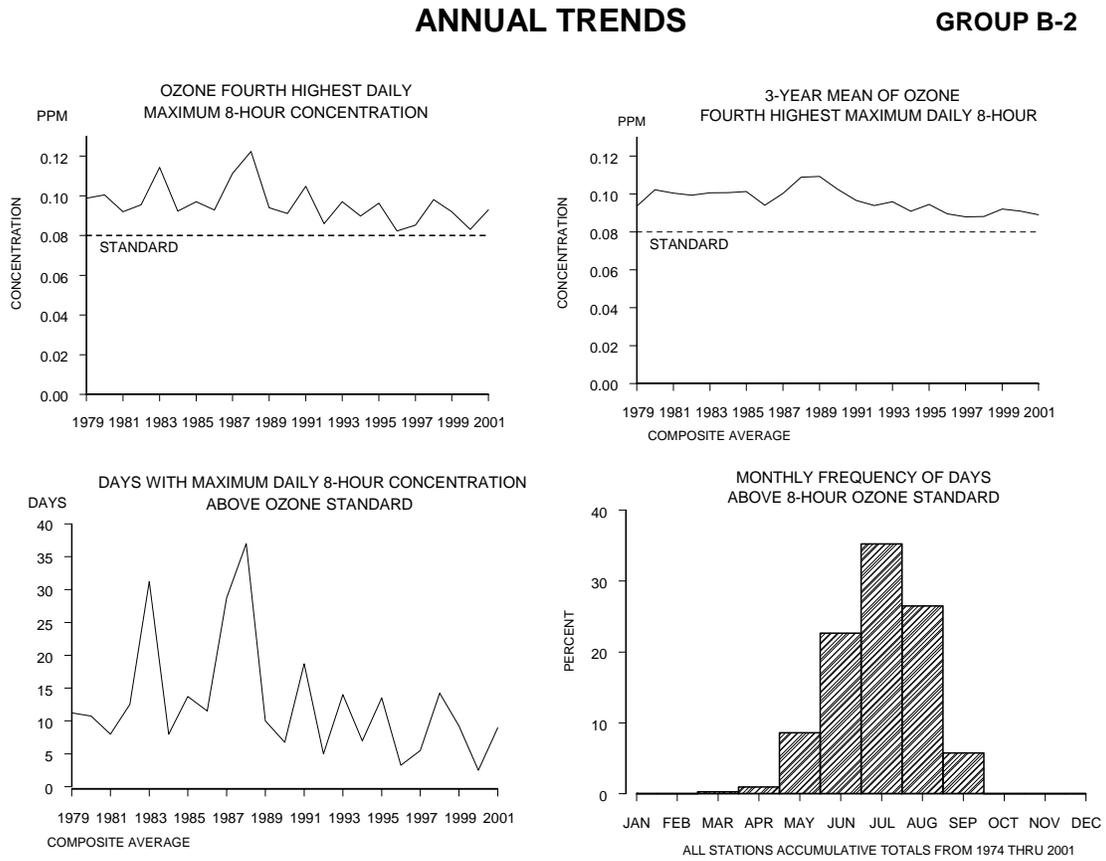
Source: Fairfax County Department of Health

**Figure II-1: Air Quality Trends in Relation to a One-Hour Ozone Standard**



Source: Fairfax County Department of Health

**Figure II-2: Air Quality Trends in Relation to an Eight-Hour Ozone Standard**



Source: Fairfax County Department of Health

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## **B. MAJOR PUBLIC AGENCY RESPONSIBILITIES**

### **1. Introduction**

Although compliance with National Ambient Air Standards (“NAAQS”) and resulting air quality management responsibilities is a function of Federal law, in Fairfax County we have a bifurcated situation where these responsibilities have been split between the State of Virginia and the regional metropolitan planning organization (MPO). MPOs are set up under the CAA 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 standards for air quality monitoring and vehicular inspection and maintenance programs.

### **3. Region – The National Capital Region Transportation Planning Board (TPB), the Metropolitan Washington Council of Governments (COG), and the Metropolitan Washington Air Quality Committee (MWAQC)**

The TPB serves as the designated MPO for the Washington region. 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. The TPB’s activities are coordinated through COG with the MWAQC, which is the designated entity responsible for air quality planning in the Metropolitan Statistical Area identified under Section 174 of the CAA. Although the MWAQC is technically a different body than the TPB, the members of each body are virtually identical. Other programs, such as those responsible for forecasting demographic changes, are also managed by COG. In this way, COG works toward solutions to regional problems related to air and water quality, transportation, and housing. COG is also responsible for issuing air quality indices on a weekly basis.

**a. MWAQC Technical Advisory Committee**

This Committee reviews technical issues and documents before they are submitted to MWAQC for review and approval.

**b. 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.

**c. Attainment Subcommittee**

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

**d. Conformity Subcommittee**

This Subcommittee reviews projects which will contribute to transportation demands, including help in determining if a project will contribute emissions which exceed the region's target volatile organic compounds (VOCs) and nitrogen oxides (NOx).

In the past year, the TPB, which is the designated MPO for the region, has also been actively involved in addressing the conformity issue. The Air Quality Conformity Determination, which was released in October, 2000, is a key document related to conformity analysis that has been produced by the TPB. It is also the TPB that has convened the task force that is attempting to resolve the NOx shortfall that currently plagues the region as well as Fairfax County.

**e. Air Quality Public Advisory Committee**

This Committee has been set up to provide a vehicle to brief citizens 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.

**4. County of Fairfax**

**a. Department of Health, Division of Environmental Health, Community Health and Safety Module**

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 supposed to be provided concerning indoor air quality and exposure to toxic substances in non-occupational, indoor environments. This Division also represents the County in its interactions with MWAQC. A representative from the Health Department should sit as a member of the MWAQC Technical Advisory Committee and function as a conduit to communicate with the County on air quality issues of concern to MWAQC. Based on staff losses over the past year, we do not believe staff support is currently available in the Health Department to support these activities.

During a time of increasing responsibility to coordinate and manage the increasingly complex body of information relevant to air quality planning in Fairfax County, it is indeed ironic that County staffing for these activities has decreased almost in proportion to the need. During the 1980s, Fairfax County maintained a fully staffed air quality management operation, and into the 90s much of that capability remained until the 1996-1997 time-frame. Even in the face of acknowledged concern over degraded air quality, our County air quality capability has been systematically reduced to the point where the only function that can even be minimally fulfilled is monitoring. It would appear that there is some support in the County to reduce the monitoring activities, and as things stand now, we are extremely concerned about the capability of the County to carry out its obligations to maintain even existing monitoring responsibilities.

**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**

Having failed to attain the federal NAAQS for ozone again in 2002, the County continues to sail uncharted waters in its air quality planning adventures. In response to our recommendation last year that the County establish air quality planning capabilities in the Health Department, the decision was made to identify staff responsibilities in the Office of the County Executive to coordinate air quality efforts on behalf of the County. Those efforts are evolving and EQAC is involved, in a limited way, in reviewing and advising with respect to those activities. We are not convinced that the approach to the complex issue of air quality management in the metropolitan area will succeed and a better approach, in our view, would have been to hire a full-time planner in the Health Department, as we recommended last year. For the moment, we will defer to the decision of the County and do everything we can to try to cooperate with the County in their efforts to identify short-term strategies that can result in compliance with the ozone NAAQS. Meanwhile, we underscore our observations over the past three years that the complex nature of regional air quality planning needs is

such that the County needs independent, timely, and expert advice that is based on the authority of the agency responsible for this issue in Fairfax County, which, at the present time, is the Health Department.

As we indicated was likely to occur last year, Conformity Planning and the Phase II planning activities have all been subsumed by the Severe Area SIP Planning exercise. While we appreciate the focus of the County Executive's Office in more proactive involvement with COG in coordinating regional planning, we continue to believe that the County needs to have a more independent basis for assessing its own air quality planning needs. We continue to strongly advocate that the County needs professional expertise to understand the complex relationship between its own circumstances and planning requirements in order to be most effective in addressing air quality management needs in Fairfax County. We continue to be concerned, especially this year, about the need to tighten the links between planning and air quality management in the short term.

## **D. LEGISLATIVE UPDATE**

### **1. Summary of Air Quality Laws Enacted by the Virginia General Assembly**

Given the excessive amount of time that it took to plan for and prepare the Annual Report this year, we were not able to undertake a detailed review of legislation in the 2003 General Assembly bearing directly on the subject of air quality.

## **E. CONCLUSIONS AND OBSERVATIONS**

1. In August of 2002, at the request of the Deputy County Executive, EQAC provided a summary of our concerns regarding air quality management needs in Fairfax County that included recommended staffing needs and related job description(s). We concluded our observations at that time by stating that "...planning capability will mean nothing unless the results of that capability can be adequately integrated into County activities." In November, at about the time that we released our last Annual Report recommending the hiring of a full-time air quality planner, the County embraced a two-track approach to air quality management that culminated in a series of announcements at the February 12, 2003 ECC/EQAC meeting dealing with air quality management. Since that time, EQAC interaction with the County has occurred principally through our interactions with the ECC and for the most part has been focused on long-term issues associated with the management of land-use/transportation issues associated with the Comprehensive Plan. This seems primarily to have been an outgrowth of our concerns about the possible relevance in Fairfax County of the concept of "Smart Growth". Meanwhile the County has developed its own approach to air quality, following discussions with MWAQC, that are focused on the development

of an Air Quality Subcommittee designed to develop recommendations for the ECC on local and regional air quality issues.

2. We seem to be at an interesting point with respect to air quality management in Fairfax County. It is laudable that the County is now focused on the issue of air quality management and that the management in the Office of the County Executive has supported efforts at lower levels to coordinate and interact on a more regular basis with COG and others involved in regional planning. We are especially pleased that the County has come forward with SIP (VOC) reduction ideas, particularly in the context of ozone action day events. These efforts also seem to be paying some dividends in terms of helping develop a severe area SIP that may be more acceptable to the EPA. The pattern of ongoing violations, however, discloses a problem that requires reductions that must have immediate impacts on the actual attainment of the standard in the very near future and it is not clear, based on our analysis of the severe area SIP and the other activities that are presently under way, how the County or, in fact, the region intends to address that problem. As indicated above, we are further concerned about the loss of key support in the Health Department to support these activities just when they are needed most.
3. Based on the discussions that have occurred between EQAC, the ECC and the Planning Commission, we understand 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. We will continue to interact in that venue to try to constructively address the issues that have been discussed there. Meanwhile, until we feel more comfortable with the approach of the County in sidestepping our recommendations on full-time air quality planning capability, we welcome the opportunity to be as interactive as possible with the Air Quality Subcommittee and its activities. We have watched those activities to the extent that we have been allowed to as they have evolved and have several concerns and observations regarding that process.

In general, we have a basic concern that the approach of the County is too lockstep and ponderous and risks being too late in identifying activities and efforts that may truly be able to make a difference. In this respect, we would draw the attention of those who read this report to our previous annual reports discussing the need for capability at both higher and lower levels in the system to recognize and communicate about the long term nature of the air quality problems and the identification of real options for assisting in solving those problems. This will inevitably involve some thinking out of the box that is not likely to occur in the context of Air Quality Subcommittee activities, we fear. Some of the issues that we have identified in this report reflect our limited perspective on issues that might be of concern in this context. Those issues include: (1) the concern by many people that the COG mechanism is running into some problems and may need to be modified; (2) the reality that the eight-hour standard is coming and that we will need to identify a position to address that reality very soon; (3) PM<sub>2.5</sub> is coming and the impacts of both PM<sub>2.5</sub> and the eight-hour standard on conformity need to be considered now. If this is happening, it would be welcomed news but it would be unfortunate news in the sense that if it is happening we should

know about it now; (4) the NO<sub>x</sub> SIP call aside, it appears that, based on information we have received in the recent past, that we have our own NO<sub>x</sub> problems in the immediate area. Again, it may be that someone in the County is already aware of this and is acting on it, but as was just observed in the previous point, if that is the case we should have heard about it.

The general nature of our observations here is that while we appreciate the fact that the County wishes to take hold of this problem and deal with it, we still have reason to believe that, for one reason or another, the County is not seeing the whole picture and critical information and analysis is not occurring. More importantly, the essence of this critical information and analysis is not getting into the hands of the Board of Supervisors, nor as far as we can tell, is it getting into the hands of the County Executive, either.

## **F. RECOMMENDATIONS**

1. We recommend full funding for staff in the Health Department supporting air quality management activities in the County. With respect to air quality management, our weakness has become our institutional capability to track air quality trends and help set the stage to understand where local controls are most needed. Health Department staff are now so busy addressing other issues that they can no longer provide sufficient assistance with air quality matters. We are very concerned that our monitoring capability risks becoming compromised, and we have now heard concerns expressed about that both at the state and regional levels. We strongly support maintenance, including replacement of expertise in the County Health Department so that they can provide appropriate coordination and support for the activities for the Air Quality Subcommittee. The emphasis here, initially, needs to be on the ability to restore historic perspective on trends and atmospheric science associated with the formation of ozone. The maintenance and management of the monitoring network is critical to this exercise, and the Health Department should be in a position to provide support and management so that, if necessary, the monitoring network can be expanded. Finally, we continue to believe that Air Quality Planning capability is necessary in the Health Department.
2. We continue to be concerned about coordination and integration of critical analysis and conclusions about air quality management in the County. We recognize that the County has rejected our suggested approach to staffing up for air quality management and planning purposes and have decided to pursue their own path on this subject. We are eager to interact with the County in whatever way we can to be most helpful and will remain available to do whenever possible. Until we see how things play out over the next two years, we will focus our recommendations on staffing levels in the Health Department. Meanwhile, we recommend close coordination and communication between EQAC and the County on immediate activities necessary to comply with the ozone standard in 2004 and on into the future.

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## LIST OF REFERENCES

2002 Annual Air Quality Report, Fairfax County Health Department, Community Health and Safety Section, Division of Environmental Health (report not officially released as of the writing of the Air Chapter of the ARE. Early draft received in October 2003 and data corrected as necessary).

Agency Responses to the Environmental Quality Advisory Council Recommendations Contained within the 2002 Annual Report on the Environment, (memorandum from the County Executive to the Board of Supervisors dated March 27, 2003).

Information for the 2002 EQAC Annual Report, (memorandum from the Acting Director, Department of Health to the Director, Department of Planning and Zoning dated June 12, 2003).

2003 Annual Report on the Environment – Regional Comments, (memorandum from the Deputy Regional Director of the Northern Virginia Regional Office to the Department of Planning and Zoning, Fairfax County, referencing information and contacts for the State of Virginia).

Virginia DEQ Web site, [www.deq.state.va.us/ozone/](http://www.deq.state.va.us/ozone/) (information on ozone exceedances, including history).

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, (draft SIP with other relevant information available at the MWCOC Web site ([www.mwcog.org/environment/air/](http://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.