

Fourth Annual  
Windsor – Essex County  
**Air Quality Action Plan**  
Report Card



*CEA Smogfest, May 2003*



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## Introduction

On July 28, 1998, the Citizens Environment Alliance (CEA) proposed an anti-smog action plan for the City of Windsor and its departments. Although City Council did not adopt the plan, it was referred to City administration for review and comment. Almost two years later, the Windsor Essex County Air Quality Committee (WECAQC) revised and approved a similar plan, Components and Recommendations for a Successful Air Quality Action Plan. In May 2000, Windsor City Council and Essex County Council unanimously passed this plan in what they described as an effort to mitigate this region's poor air quality. This Plan, known as the *Air Quality Action Plan* and/or the *Smog Action Plan*, is difficult to find on the City of Windsor website, but it is available at <http://www.city.windsor.on.ca/clerks/Air%20Quality/Air%20Quality%20Research.pdf>.

In October 2000 the CEA published *Air Quality Action Plan Report Card 2000* summarizing the commitments made by City Council, evaluating progress and grading the City's efforts in implementing its Air Quality Action Plan. We used the *Air Quality Action Plan* structure, which outlines both emergency measures and long term air quality strategies, condensing some sections to avoid redundancy. In thirty categories, the City of Windsor garnered eighteen "F"s and seven "D"s.

In our *Air Quality Action Plan Report Card 2000* Essex County was excluded, as the Essex County Air Quality Action Plan is limited to the properties of the Corporation of the County of Essex. This Report Card, like our *Windsor – Essex County Air Quality Action Plan Report Card 2002*, will focus on the City of Windsor, evaluating the County when it is relevant. During the last twelve months, the City and the County have, again, made no significant progress on implementing their air quality plan. In thirty categories, they garnered 18 "F"s in addition to 9 "D"s, 1 "C" and 2 "C+"s.

Recent trends show that smog in Windsor and Essex County is bad and getting worse. In April 2002, the Clean Air section of Environment Canada's website stated, "*The summer smog capital of Canada is Windsor, and it averages more than 30 smog advisory days a year.*" The causes include poor land use planning (urban sprawl), truck and automobile emissions (worsened by our position along the *NAFTA Superhighway*), heavy industrialization on both sides of the border and hot and sunny summers. More information on smog is available in appendix A.

A new addition to this year's report can be found in appendix B. The appendix cites the human health and economic impacts of air pollution (smog) in Essex County.

Failure to achieve significant progress on air quality issues in this region reaches beyond local governments. The province of Ontario, which is responsible for things like permit approvals, monitoring and enforcement, has curtailed the Ministry of Environment's ability to address these issues, especially in Windsor. Similarly absent is the federal government, which is responsible for addressing transboundary air quality issues. There are, however, many locally based reasons for continued failure. If local governments truly wish to ameliorate our poor air quality a comprehensive change in *business as usual* will be necessary.

## Communication and Implementation

The city and county have been negligent in developing an implementation strategy for the Air Quality Action Plan. The lack of such a plan, with sufficient funding, timetables to achieve goals and an annual report, has left the public without the information they require to assess the commitments made by their representatives.

Currently the city and county are not providing the tools necessary to make their environmental decision-making transparent. There has been no accountability for these failures. Local municipal officials have still not created an information base and the means of tracking progress in order to improve environmental quality.

**Highlights:**

⊙ After adjourning in the summer of 2002, the newly formed Windsor Essex County Environment Committee (WECEC) began meeting in March of 2003. The committee is an amalgamation of the failed air quality committee and the Windsor Environmental Advisory Committee. The committee began as an ambitious attempt to bring all stakeholders to the table, but the ambition was unsustainable. Many of the appointees to the committee continually failed to attend meetings – including many of the individuals that had originally argued for a large multi-stakeholder committee. However, the committee managed to make some progress on transboundary pollution issues.

⊙ As a result of the change in committee structure, the Air Quality Coordinator's role is less defined. The role that the coordinator plays in the air quality action plan remains poorly understood and it is unclear to most committee members how the goals of the air quality action plan are, if at all, being accomplished.

⊙ In December 2002, the City of Windsor joined the Federation of Canadian Municipalities' (FCM) Partners for Climate Protection programme (a recommendation of the CEA's 2002 air quality report card). The programme offers municipalities a five-part initiative to reduce greenhouse gas emissions. As part of the programme, municipalities are provided the opportunity of FCM technical and financial support including access to Green Municipal Funds – a programme of the federal government that provides funding for municipalities attempting to reduce pollution. After one year the city has not even completed an inventory of its greenhouse gas emissions. The inventory is a crucial first step in the programme. The lack of progress toward implementing the Partners for Climate Protection programme is another example of the gap between the city's rhetoric and action on air quality.

⊙ Transit Windsor has struggled to maintain its service in the face of chronic underfunding by all levels of government. Their campaign to provide free Smog-Action-Day transit, although less comprehensive than required, was a success and received provincial and national recognition. This success has not translated into secure funding for Transit Windsor and the free Smog-Action-Day programme remains imperilled. Transit Windsor has maintained its successful bike rack programme, continued its attempt to offer discount transit passes for University of Windsor students, and continued its experimental emission reduction technology trial.

⊙ Bicycle infrastructure on Windsor streets is another positive development in the last twelve months. Opposition to the Bicycle Use Master Plan continues to be expressed in some quarters, including by some city councilors. Bicycle lanes and/or better road access for cyclists must be a key issue for City Council if cycling is to become a prominent form of transportation in the City of Windsor.

⊙ Much of the council's attention in 2003 focussed on providing viable road infrastructure for trucks transporting goods through Windsor, including several ward meetings and a special council meeting in January. The increasing volume of truck traffic threatens the viability of many components of the air quality action plan. The various transportation infrastructure plans of the provincial and federal governments and the private sector, as currently proposed, would worsen the air quality of Windsor-Essex by expanding road infrastructure and accommodating more on-road freight transport.

**Recommendations:**

1. The City of Windsor and local municipalities should create an implementation strategy for the Air Quality Action Plan that was adopted in May 2000 and other programmes that supplement the plan such as the Partners for Climate Protection Programme. The implementation strategy should set out targets and a timetable to achieve those targets. Commensurate funding should be forthcoming to accomplish the implementation schedule.
2. The City of Windsor and local municipalities should ensure the creation of an independent Air Quality Coordinator office. The office would be responsible for producing an annual report, for the

public, assessing municipal compliance with the *Air Quality Action Plan*.

3. The City of Windsor and other municipalities in Essex County should implement a schedule for the elimination of non-essential, cosmetic pesticide use similar to other municipalities in Canada.
4. The City of Windsor and local municipalities should demand that Environment Canada open an air quality office in Essex County. Many air quality issues facing this region fall within federal jurisdiction (e.g. transboundary air pollution). Environment Canada would better assist our communities in addressing environmental issues if they were doing it from Windsor/Essex, as opposed to Burlington or Toronto.
5. The City of Windsor and local municipalities should demand that the Province of Ontario re-invest in the Ministry of the Environment. The Windsor office of the Ontario Ministry of the Environment was a District Office before it was downgraded to an Area Office in 1997. Its staff was cut in half from sixteen positions to eight. There was a full-time air quality technologist until 1997; this position was cut.
6. The City of Windsor and local municipalities should insist that all levels of Government devise an international transportation strategy with a view to alleviating air quality problems. According to the Canadian Consulate General in Detroit, 3.5 million trucks crossed the Detroit River on the Ambassador Bridge in 2001. Given current growth trends, there will be 6 million before 2020!
7. All levels of Government should spend more public money on public transit. Windsor property-tax payers and Transit Windsor riders are the sole source of revenue for our local public transit system. Transit Windsor fees are not proportional to the service offered. Despite an identified need for it, there is still no public transit linking the City with other municipalities.
8. The City of Windsor should develop a pedestrian Charter of Rights containing a list of principles to develop a walkable city and include it in the Official Plan. Many neighbourhoods in Windsor currently lack sidewalks.
9. The City of Windsor should rigorously enforce existing laws that would improve air quality (e.g. the City of Windsor Anti-Idling bylaw). Further, the City of Windsor and local municipalities should challenge senior levels of Government to enforce their laws, like the Ontario Environmental Protection Act, Regulation 346 which allows the Minister to order sources of air pollution to curtail or cease operations when certain air pollutants reach levels that may be injurious to health.
10. The City of Windsor and local municipalities should insist on revisions to the current Air Quality Index in Ontario. The changes must incorporate health-based criteria that reflect the most recent scientific evidence for numerous air pollutants. The County of Essex this year criticized the MOE's six-hour-persistence notification schedule for smog advisory days.
11. The City of Windsor should fully implement the Bicycle Use Master Plan (BUMP) endorsed in 2001. Bicycle lanes on Windsor streets (and plans for more bicycle lanes and greater bicycle access) are positive steps, however, Windsor still lacks sufficient, safe on-road routes for cyclists wishing to commute to work, shopping, etc. More funding needs to be provided to ensure the success of the plan.

# Windsor/Essex County Air Quality Report Card 2003

Table I: Recommended Elements of a Community-based Response to an Air Quality Advisory

What They Promised:	What they delivered:	GRADE
<b>i) AIR QUALITY ADVISORY MECHANISM</b>		
Appointment of an Air Quality Coordinator	An Air Quality Coordinator has been contracted. Unfortunately, a more ambitious (full-time) proposal was rejected in favour of a part-time proposal. Worse, the City and the County guarantee only two-thirds of the part-time Coordinator's salary, and plan to review their commitments annually. Further, the current role of the Air Quality Coordinator is not well defined in the new committee structure	<b>F</b>
Identification of an anticipatory air quality advisory mechanism	The Provincial air quality detection and alert system is used by the City and the County. This system, however, contains outdated health information that has resulted in an excessively high poor-air-quality threshold. The County has acknowledged problems with the provincial system and objected to the six-hour-persistence rule of the MOE. Michigan air quality advisory programmes are not sufficiently being monitored .	<b>C</b>
Local Response plan	There is no overarching response plan. City Departments have rescheduled some activities, but these are ad-hoc measures. This failure seriously undermines several other promises that have been made and are outlined below.	<b>F</b>
<b>ii) ACTIVATE COMMUNICATIONS PROCEDURE</b>		
Notify major employers, government departments and agencies, institutions and the public in the region regarding the smog advisory, with required and suggested actions	Notification of a smog alert entailed forwarding emails to City workers. The Air Quality Coordinator reported contacting businesses, healthcare and day-care facilities. The lack of an official response plan and mandatory reduction programmes undermined the Coordinator's efforts. Aside from Transit Windsor's signboards (only on newer buses) there is no public notification of smog alerts from the City or County.	<b>D</b>
Staff a hotline and website to provide information, advice and referrals regarding smog advisory and appropriate responses.	A hotline does not exist and no independent website has been created. This is an egregious failure especially since the City of Windsor has other hotlines, including a <i>litterbug</i> hotline. The <i>litterbug</i> project has used billboards and pamphlets to educate the public about littering and illegal dumping. One <i>litterbug</i> hotline project worker reportedly told the Windsor Star, "It's important that children learn early about the dangers of polluting." The City's air quality programme doesn't even have a pamphlet!	<b>F</b>
<b>iii) SUGGESTED ACTIONS TO ALLEVIATE AIR QUALITY IMPACTS (Suspend or Reduce...)</b>		
Non-essential motor vehicle use (use transit and alternative travel; delay deliveries and errands; use teleconferencing in lieu of driving to meetings; for essential vehicle use, priority to alternative fuels/zero emission vehicles)	There is no evidence of any progress in this category, partially the result of the lack of a municipal implementation plan. Many neighbourhoods in the city and county don't have sidewalks!	<b>F</b>
Use of gasoline-powered equipment (including lawnmowers, trimmers, leaf blowers, chainsaws)	Violations are widespread – mainly by Parks and Recreation. Parks reports that the use of gas-powered equipment has been reduced on smog advisory days, but admits that there is no overall plan. Further, they assert that grass cutting will continue through smog advisories if it is deemed to be <i>necessary</i> . Provisions like this are subjective.	<b>F</b>

<p>-Gasoline re-fuelling (delay essential re-fuelling until evening hours)</p> <p>-Use of solvents, oil-based paints and stains, solvent-based cleaners and other materials containing volatile organic compounds (VOCs)</p> <p>-Road and path sweeping operations</p> <p>-Use of air conditioning in all vehicles and buildings; use of lights</p>	<p>In all four categories there is no evidence that any of these actions were reduced or suspended by City or County Departments. We can only assume that it was business as usual. The Windsor Utilities Commission (WUC), for example, had young workers painting utility poles/hydrants on some of the worst smog days of 2003. Overall, there is no sign of a long-term strategy to implement any of these actions. This demonstrates both a lack of commitment to the Plan's initiatives, as well as a lack of communication with the public, a continuing problem for the successful implementation of the plan.</p>	<b>F</b>
<p>Pesticide spraying</p>	<p>Evidence of action in this category remains incomplete. Windsor Parks and Recreation reported that all pesticide contractors are required to suspend spraying on air quality advisory days, but admitted that there are deficiencies in their smog advisory notification system.</p>	<b>F</b>
<p>Road resurfacing and paving; asphalt roofing</p>	<p>A much-hyped voluntary commitment strategy by the Heavy Construction Association was forwarded to City Council. Although the County Warden, Windsor Mayor and Ontario Minister of the Environment endorsed it, members of the Air Quality Committee were never invited to discuss its merits or shortcomings. Because compliance was voluntary, there remained no penalties or effective restrictions for paving on smog days. This remains a good example of how members of the Air Quality Committee, and by extension the public, were not consulted on pertinent issues.</p>	<b>F</b>
<p>Outdoor activities for vulnerable groups (children, elderly, those with heart or respiratory problems)</p>	<p>The Air Quality Coordinator has reported contacting some healthcare and day care facilities via fax. Any reduction in outdoor activities as a result of the Coordinator's actions is unknown. A strategy to communicate with parks users (ie. Little League baseball, soccer, etc.) has not been established. No effective public notification system has been established. Communication with local school boards has been insufficient.</p>	<b>D</b>
<p>Municipal, industrial and agricultural point and area source emissions of ozone precursors and particulate</p>	<p>There is no evidence of reduction in this area by either city or county point source polluters. Provincial efforts and/or assistance in this category have been woeful. Credible data for programmes such as Drive Clean have not been provided to the public. The province has only recently mandated a pollutant emissions inventory for point sources. Public access to this data will be limited since the Ministry of the Environment will not produce a summary report for the public containing regional and Provincial-level analysis.</p>	<b>F</b>
<p>Vehicle idling</p>	<p>The city passed an Anti-idling bylaw in June 2001 after approximately eighteen months of deliberation. There has been no public education campaign about vehicle idling or the bylaw, although the city has indicated a willingness to provide limited support for an education programme if outside funding can be secured. Rigorous enforcement and education about the idling bylaw could improve this grade.</p>	<b>D</b>
<p>Use of motorboats and recreational vehicles</p>	<p>The city's riverfront plan for a transient marina in Windsor's downtown remains as the premiere obstacle to a passing grade in this category. Off-road recreational vehicles are used throughout the city and county's sensitive natural areas with relative impunity.</p>	<b>F</b>
<p>- Requirement of formal office attire</p> <p>- Rigid (inflexible) work schedules</p>	<p>For these initiatives there is no evidence that any type of communication or incentives were offered to City of Windsor employees.</p>	<b>F</b>

Table II: Local Smog Prevention Initiatives (long term strategies)

What The City Promised:	What The City Delivered:	GRADE
<p>i) PROMOTION OF ALTERNATIVE TRAVEL</p>		
<p>a. General                      Develop and implement regional transportation plan to improve air quality. That the City of Windsor commit to a timetable for re-routing diesel trucks away from the tunnel and downtown core, and further, to a traffic engineering study of truck traffic on Huron Church Road.</p>	<p>A regional transportation study was scheduled to be completed in 2003, but has not yet been made available on the city or county website. The different positions of the city and county regarding the “Gateway Action Plan” are an example of the poor quality of sustainable “regional” transportation planning. There are no signs of a plan to re-route truck traffic away from Windsor’s downtown. Official discussion of upgrading this region’s trade corridor (ie. Huron Church Rd, etc.) has relegated possible air quality impacts to a minor consideration. The city has opposed current senior level government plans to expand infrastructure to increase truck capacity.                      The focus on transportation has primarily been to accommodate more on-road vehicle traffic. The County of Essex continues to provide support for the NAFTA Superhighway Coalition.</p>	<p><b>F</b></p>
<p>Human-Powered Transportation                      Enhance infrastructure (bicycle lanes/paths, sidewalks, racks, mixed mode)                      Provide support for employees (showers, secure storage for bicycles, financial incentives to ride or walk)                      Require staff to walk or cycle when appropriate (e.g., police, parking enforcement, couriers, deliveries)                      Require provision of secure bicycle storage in new developments                      Promote walking and cycling through education and partnership with community groups and local businesses (e.g., bike share programme, “walking school bus”)</p>	<p>Windsor Council endorsed the Windsor Bicycling Committee Bicycle Use Master Plan (BUMP) in 2001. Unfortunately, several Councillors continue to view bicycle infrastructure as secondary to motor-vehicle infrastructure; some Councillors continue to openly challenge on-road bicycle lanes.                      Bicycle lanes on Windsor streets (and plans for more bicycle lanes) are a positive step, however, there has been little progress in any of the other listed items.                      Bike to Work Month was a success. More initiatives like this need to be implemented.                      Bicycle rack/parking requirements for new developments need to be extended to existing commercial and industrial areas.                      Bicycle lanes and/or better road access for cyclists must become a key issue for City Council if BUMP is to be fully implemented – and for this grade to be improved. Bicycle links to other municipalities as well as an education campaign for both cyclists and motorists will also be essential.</p>	<p><b>C+</b></p>
<p>b. Transit Use                      -Develop and implement incentives to encourage increased transit use (e.g., subsidize transit passes, education)                      -Study feasibility of regional express buses, preferential fare structure, financial support, infrastructure (express lanes)                      -Promote corporate commuter service                      -Develop options for rural residents                      -Enhance public education programme to encourage ridership</p>	<p>Although there has been criticism that county residents’ use of the City of Windsor roadways goes unsubsidised, there has been no provision of alternatives to driving one’s car. Transit Windsor deserves credit for continuing the bike rack programme on 17 of its buses and new busses, promoting transit passes for University of Windsor students, and securing funding for free transit on some smog days. Unfortunately, Transit Windsor suffers from insufficient government funding and little City Council support. Future initiatives must include: elimination of diesel buses, low emission or zero emission fleets, increased service during critical smog time and free service on smog alert days. Options for rural residents do not exist despite expressions of interest from many County residents, as well as the towns Essex and Kingsville, for the expansion of Transit Windsor into the County.</p>	<p><b>C+</b></p>
<p>c. Ride Sharing                      Provide economic and other incentives to promote ride sharing; remove disincentives (e.g., subsidized parking, priority parking spaces/lot, guaranteed ride)                      Provide assistance for development of</p>	<p>There is no sign of any effort in this area. The City and the County need to look at other municipalities that are already practising these small but not insignificant measures.                      No progress on Windsor-Detroit water taxi services. A Windsor-Detroit gondola feasibility project remains in nascent form.</p>	<p><b>F</b></p>

<p>trip reduction programmes (e.g., education, ride matching service, challenge programmes)                  Designate priority lanes for ride share vehicles                  Boat Services                  Study feasibility of water taxi or passenger ferry service between regional locations</p>		
<p>d. Discourage Motor Vehicle Use                  Decrease amount of land dedicated to vehicles through promotion of denser development, mixed-use communities; provide incentives to developers (consistent with official plan policies)                  Restrict use of private cars (from certain areas, every other day, etc.)                  Modify parking policies and by-law requirements (e.g., shift subsidies from parking to transit or alternatives, raise parking fees, raise parking permit fee for second car, by-law to reduce number of paved spaces provided in new developments and redevelopment)</p>	<p>These measures are not being met; there is evidence to the contrary. Plans to construct road bridges across Little River have been approved. New communities in Windsor and Essex County reflect outdated modes of land-use planning and development (ie. near total reliance on automobiles, absence of community services in new residential neighbourhoods, etc.) Mixed-use planning policies seem foreign to local bureaucrats and the developers who direct planning.</p> <p>Parking policies have included giving free parking passes, rather than transit tokens, for city committee members attending meetings at City Hall, approval of new parking garages downtown as well as a municipally-funded multi-million dollar parking deck for the new Chrysler-Canada headquarters in downtown Windsor. The Riverfront Plan includes increases of parking surfaces on the riverfront by 40%.</p>	<b>F</b>
<p>e. Alternative Work Options                   Allow flexible hours to avoid peak road use                  Telecommuting (work at home, satellite offices), Teleconferencing/video-conferencing in lieu of driving to meetings.</p>	<p>No evidence of action on any of these items.</p>	<b>F</b>
<p>ii) REDUCTION OF EMISSIONS FROM VEHICLES AND EQUIPMENT</p>		
<p>a. Fleet and Equipment Reduction and Replacement                  Initiate programme to replace fleet of vehicles with alternative fuel, zero emission vehicles; programme to replace high emissions equipment                  Promote fleet reduction/replacement for local businesses through cooperative programmes                  Study feasibility of lawn mower, other equipment or vehicle buy-back or rebate programme</p>	<p>Natural Gas and Propane-powered vehicles, now among the City-owned fleet, are examples of alternative fuel use. Zero emission fuel cells would be preferable. Transit Windsor has plans to purchase new vehicles, although these would not be alternative fuelled vehicles.                  The Air Quality Committee passed two Clean Car Campaign resolutions regarding municipal fleet purchases prior to its dissolution. Which of the two resolutions should guide City/County purchasing policies remains unclear. Whether or not the City/County have altered their purchasing policies as a result of either resolution is similarly unclear.</p> <p>The City should set targets and a timeline to fulfil the requirements of this category; there is no overall strategy.</p>	<b>D</b>
<p>b. Emissions Reduction                  Install anti-idling timer on fleet vehicles                  Use reformulated gasoline, low sulphur fuel and alternative fuels                  Encourage the availability of low sulphur gasoline (prior to regulatory deadline) and alternative fuels at retail stations</p>	<p>There has been no discussion of anti-idling timers or the other innovations listed. We reiterate the need for reporting of all departments on whether they are implementing these measures. Transit Windsor completed a pilot project that is experimented with water/diesel fuel mixtures designed to reduce emissions, but this programme, funded by Sunoco Inc., was temporary and did not reflect a permanent policy change of the Transit Windsor Board.</p>	<b>D</b>

<p>Require contracting or leasing companies to comply with specified standards for vehicles and equipment or with certification programmes (such as Drive Clean)</p> <p>Implement an inspection and maintenance programme for fleet vehicles</p> <p>Require installation of vapour recovery systems at fleet refueling stations</p> <p>Support regulations to mandate vapour recovery at retail fuel stations</p> <p>Lobby, and co-operate with, other levels of government to accelerate and improve mandatory emissions testing programmes, anti-tampering regulations, air quality standards</p>		
<b>iii) ENERGY USE REDUCTION</b>		
<p><b>ACTION</b></p> <p>a. Power Sources</p> <p>Promote use of cogeneration, district heating and cooling</p> <p>Procure electricity from alternative power (non-coal fired) sources</p>	<p>The downtown district energy system, begun in 1996, remains the only encouraging action in this category. But it preceded the Air Quality Action Plan and was serendipitous - not an action generated from an air quality action strategy. The city administration has produced a report promoting the purchase of green power (from renewable sources as defined by OPG) for the 2004 budget. This is the reason for a passing grade in this category.</p> <p>The Brighton Beach Power facility, given unanimous support by City Council, was a step backward for this category. The facility, not a cogeneration (cogen) facility, will be less efficient and produce more pollution than cogen natural gas plants. The Provincial government altered environmental assessment requirements for electrical generating facilities in order to allow natural-gas powered plants to contribute to the electrical grid quickly and thus ease the strains on the system from Provincially mandated reorganization.</p>	<b>D</b>
<p>b. Energy Efficiency</p> <p>Retrofit existing buildings for energy and hot water efficiency; promote private sector retrofit through cooperative programmes (e.g., Toronto's Better Buildings Partnership)</p> <p>Promote energy efficiency in new design and construction</p>	<p>New construction projects and the refurbishing of older structures present opportunities for the City to promote energy efficient design. There has been no evidence that such opportunities are being exploited despite the obvious connection with the Partners for Climate Protection (PCP) programme. The absence of such initiatives is particularly evident in the Canderel project, which built rooftop parking instead of a "green" rooftop garden.</p> <p>Representatives from the City of Windsor, until recently, have failed to take advantage of the PCP programme. Over 100 municipal governments in Canada are members of the programme and have committed to working toward greenhouse gas emission reductions in their respective municipalities. City Council's approval of this plan last December is the reason for a passing grade in this category.</p>	<b>D</b>
<p>c. Reduce Urban Heat Island Effect</p> <p>Use lighter colour pavement and roofing; alternatives to paved surfaces</p> <p>Use strategic tree planting to shade pavement and buildings and protect existing shade trees</p> <p>Increase green space (reclaim pavement), restore natural areas, naturalized planting (to reduce amount of grass), native species, use of rooftop</p>	<p>This past year, the city adopted a multi-year tree-planting programme and is the reason for a passing grade in this category. However, beyond the obvious impact from invasive species that will require tree replacement the city needs to improve tree cover and natural space. In some respects, the City has been stagnant on these issues. Building projects such as parking garages continue to be constructed with hard surfaced roofs, rather than rooftop gardens. Many downtown developments proceed with no evidence of concern for the issues in this category.</p> <p>The County of Essex Official Plan has lax controls protecting natural</p>	<b>D</b>

gardens on public and private property	areas. The City of Windsor's eastside developments included the emaciation of a natural area across from Peche Island and ambitious plans to extend roads. The Brighton Beach area has been zoned heavy industrial. Representatives of the City of Windsor are aware of viable options to decrease the urban heat island effect, such as rooftop gardens. There has been a conspicuous lack of interest among many City officials in acknowledging the importance of environmental improvements in design, let alone requiring mega-project developments to include innovative, sustainable design elements.	
iv) OTHER		
<p>a. Smog Prevention and Reduction Plan Implementation</p> <p>Establish clean air fund; direct fees, fines and other moneys into the fund (to be used for anti-smog initiatives)</p> <p>Set emissions reductions targets</p> <p>Establish programme for plan evaluation; audits</p>	<p>Funding, target setting and evaluation are fundamental aspects of any anti-smog action plan. Regrettably, they are absent here. The funding to WECEC is provided, primarily, by three governments. These governments have shown only a modicum of commitment to clean air, based on funding commitments. There is no established programme for target setting or evaluation; (Public Works) officials have publicly stated they do not believe target setting and evaluation of progress are important to air quality initiatives. Several municipalities in Canada, including Edmonton and Toronto, have demonstrated the efficacy of creating and directing finances through clean air funds to mitigate pollutant emissions. The Partners for Climate Protection programme is an example of a national programme designed specifically for municipalities to reduce their emissions.</p>	<b>F</b>
<p>b. Education and Communication</p> <p>Develop and implement a comprehensive smog prevention education and communication plan</p> <p>Prepare annual report on smog action and goal achievement</p> <p>Establish awards for meeting or exceeding goals and for innovative smog reduction ideas</p>	<p>Education is key to the success of any public interest campaign. The city has shown some interest in assisting in an education programme to support anti-idling initiatives. Communication is the cornerstone of public education. But despite its importance to public health, little action has been taken.</p>	<b>D</b>
<p>c. Particulate and Dust Reduction</p> <p>Develop programme for dust suppression at construction sites and aggregate storage facilities</p> <p>Develop programme for dust reduction from roads</p>	<p>Although some industries have their own programmes, there is no overall city effort to encourage others to follow suit. The City does have a programme to limit dust on main roadways; it needs to be expanded and the private sector should be encouraged to follow suit.</p> <p>Dust at paving operations throughout the city remained ubiquitous. A combined sweeping and vacuuming system, such as the one used by Hamilton, could be adopted by the City of Windsor to further reduce air-borne particulate matter.</p>	<b>F</b>
<p>d. Phase Out of Cosmetic Use of Pesticides</p> <p>Educate on alternatives to pesticide use, "green" lawn care</p>	<p>In October 2000, City Council finally adopted as its goal the elimination of the cosmetic use of pesticides on municipal properties. A timetable that will culminate in a phase-out has not been adopted. Despite City departments' claims of pesticide reductions, there has not been public verification of reductions. The city uses Aquacide (steam sprayer) units to replace some herbicide spraying. LaSalle has a corporate policy against spraying; other local municipalities should follow their lead. In the past, Windsor officials have been resistant to working with the public on the issue of pesticide reduction and refused to address a petition (submitted in 2001 containing over twelve hundred signatures) calling for an end to spraying on public land. There is plenty of opportunity for improvement in this category.</p>	<b>F</b>

# Appendix A

## What is Smog?

Smog is a combination of ground-level ozone and fine airborne particles.

Ground-level ozone is a colourless and highly irritating gas that forms just above the earth's surface. It is produced when two primary pollutants react in sunlight and stagnant air. These two primary pollutants are nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs). Ground-level ozone not only affects human health, it can damage vegetation and decrease the productivity of some crops.

Airborne particles are microscopic and remain suspended in the air for some time. Particles can be both primary pollutants and secondary pollutants, sent directly into the atmosphere in the form of windblown dust and soil, pollen and spores. Secondary particles are formed through chemical reactions involving nitrogen oxides, sulphur dioxide, VOCs and ammonia. Numerous studies have linked particulate matter (PM) to aggravated cardiac and respiratory (heart and lung) diseases such as asthma, bronchitis and emphysema and to various forms of heart disease. Children and the elderly, as well as people with respiratory disorders such as asthma, are particularly susceptible to health effects caused by PM.

Scientists now understand that there is no "threshold," or safe level, for exposure to PM or ground-level ozone. Further, PM and ground level ozone are not limited to urban areas; their presence is widespread throughout North America.

"It's really quite dramatic. Until very recently, we believed there was some sort of magic threshold, and once you crossed it, things got toxic," stated Dr. Ted Boadway of the Ontario Medical Association in early May 2001. "But we were wrong. We can now say definitively that air pollution operates on a graded and completely linear way. A little bit affects everybody a little bit, a little more affects everybody a little more. "This is a quite a radical departure in our understanding of smog. The bottom line is there's no comfort level. What you can see does hurt you. But what you can't see hurts you as well."

In Ontario a smog advisory, or *smog day*, occurs when the concentration of ground-level ozone is expected to exceed an Ontario Air Quality Index (AQI) of 50, which is approximately 80ppb (parts per billion). Readings below 50 are described as *good* or *moderate* air quality.

Data from the Ministry of the Environment indicate that there were at least 17 days when air quality was *poor*, for at least one hour, in Windsor-Essex County in 2003. Due to the provincial blackout in August and several days when local air quality data was not available, it is probable that there were more than 17 days in which poor air quality occurred in Windsor-Essex County.

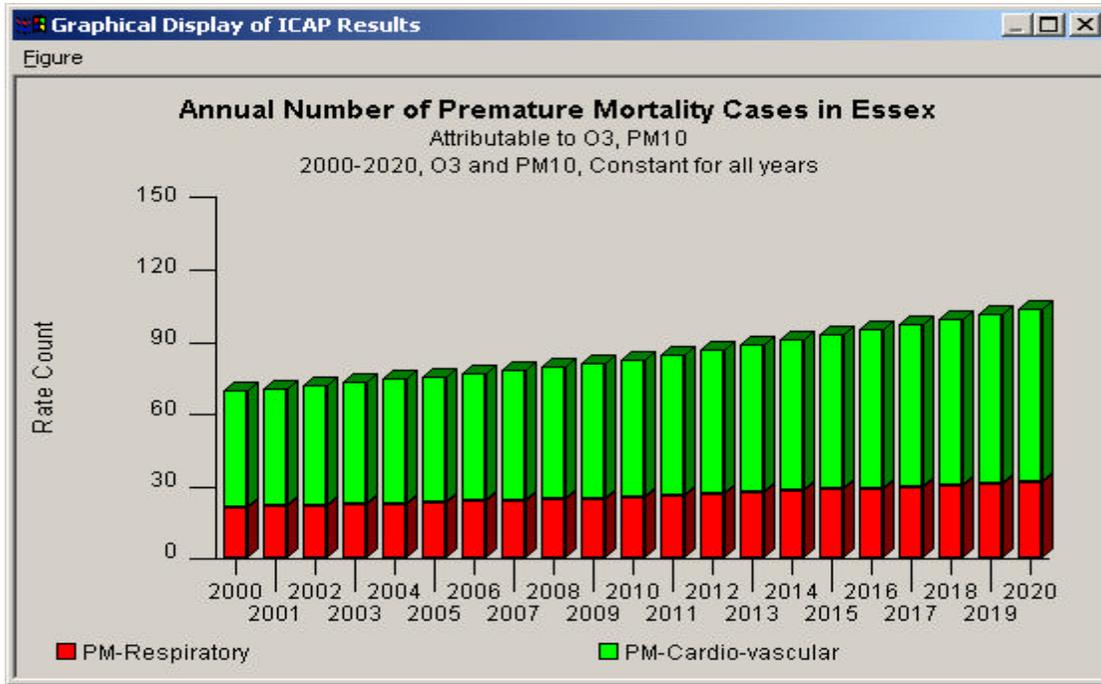
Since recent studies show that there is no threshold below which ozone or particles will cause no effects on human health, the Province of Ontario needs to adjust its Air Quality Index reporting to reflect this reality. Governments need to communicate that all levels of pollutants, even the lowest, can cause harm to some people.

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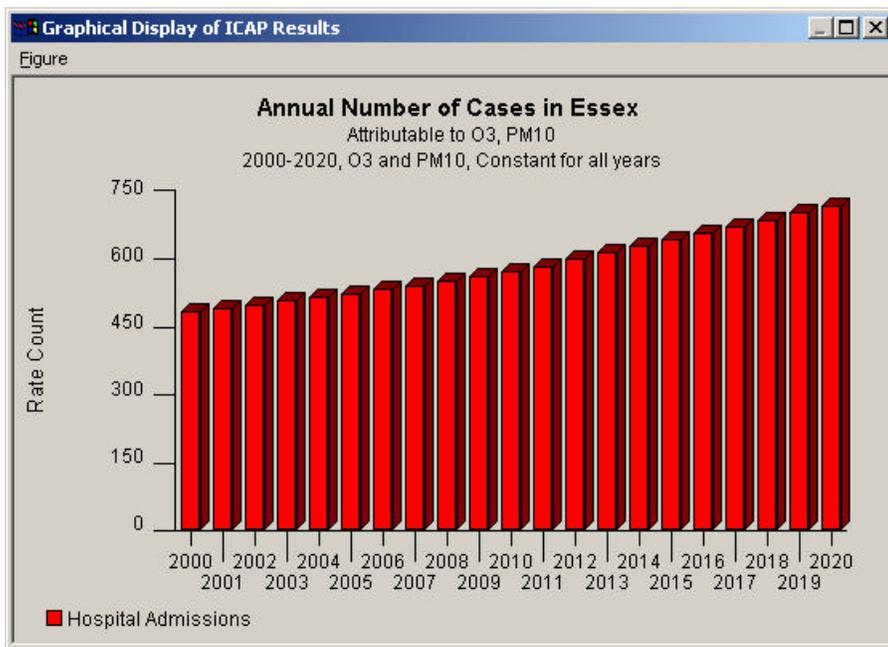
For more information, please see Toronto Public Health (2000) *Toronto's Air: Let's Make It Healthy*. TPH, Toronto; Health Canada and Environment Canada (1999) *National Ambient Air Quality Objectives for Particulate Matter, Science Assessment Document*. Health Canada and Environment Canada, Ottawa; Health Canada and Environment Canada (1999) *National Ambient Air Quality Objectives for Ground-Level Ozone, Science Assessment Document*. Health Canada and Environment Canada, Ottawa.

# Appendix B

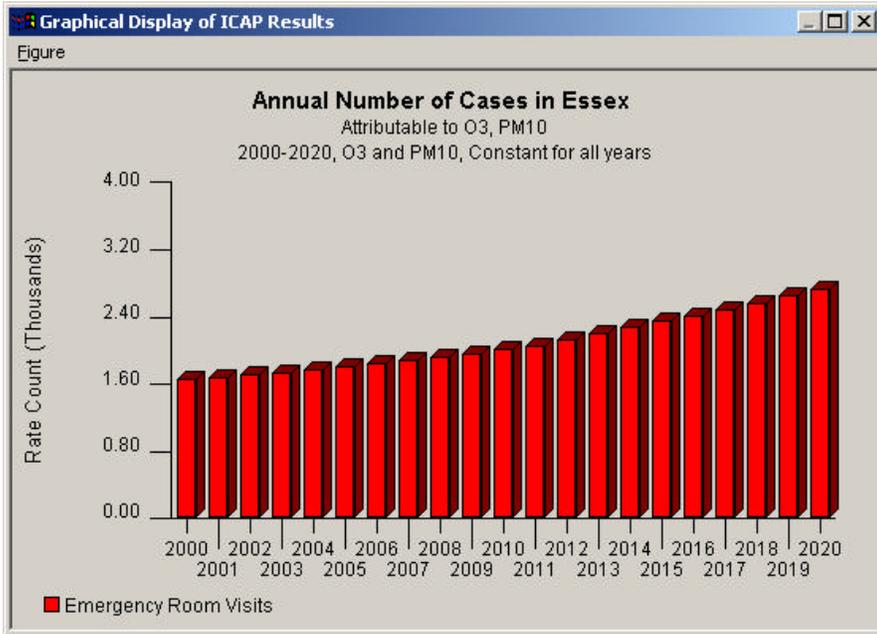
## Human Health and Economic Impacts of Air Pollution in Essex County, 2003 (Ontario Medical Association “ICAP” Estimates)



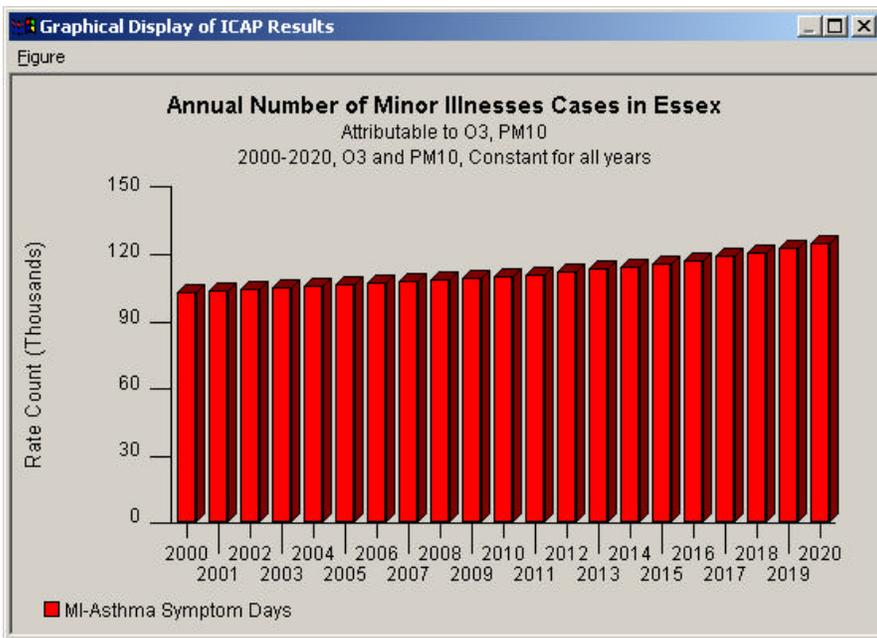
- Total estimated smog-caused premature mortality in Essex - 73  
(Estimated respiratory smog deaths – 22. Estimated cardio-vascular smog deaths – 51)



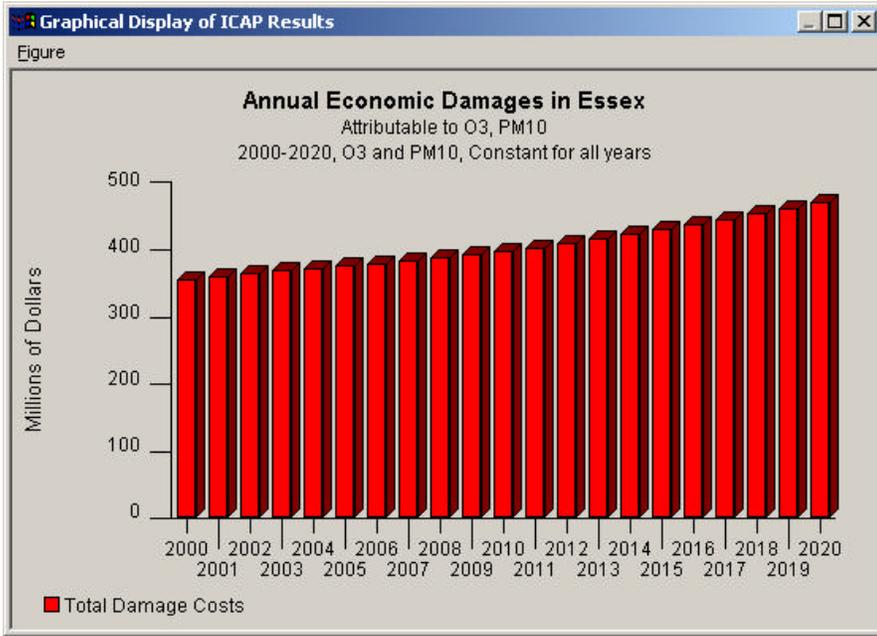
- Estimated hospital admissions – 504



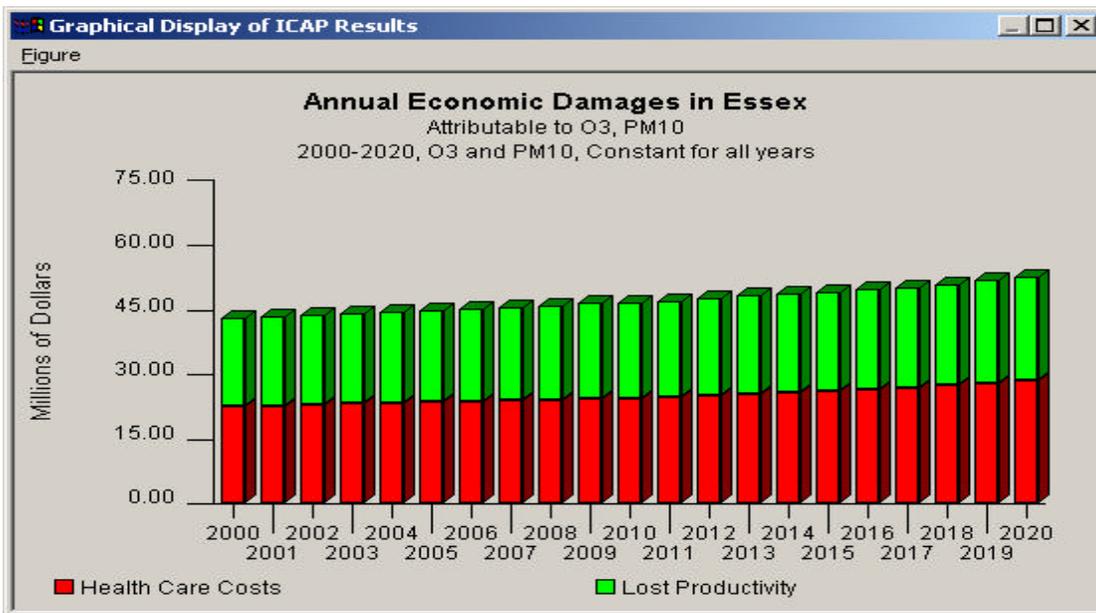
- Estimated emergency department visits – 1,730



- Estimated number of asthma symptom days – 104,650  
 (68,510 in those aged 0-17 years, 36,140 in those over 65 years)



- Estimation of total economic costs in Essex County - \$366.24 Million (includes estimates for pain & suffering, cost of human lives lost, etc.)



- Estimated smog induced health care costs – \$22.92 Million
- Estimated costs of lost productivity due to smog illness - \$21.03 Million
- Total health care and lost productivity costs for 2003 - \$43.95 Million

## Appendix C

### Air Quality Quotes:

“The Government of Canada addressed fiscal deficits, to avoid leaving a burden for future generations. Likewise it would be irresponsible to leave an environmental deficit of climate disruptions and pollution for future Canadians.” Prime Minister Jean Chrétien, 2001

“The fact that ground-level ozone is rising in Ontario while small particle concentrations are not declining is of particular concern because these two poisons are known to be harmful to health. These toxins can settle in the lungs and cause coughing, chest tightness, aggravation of asthma, bronchitis and emphysema, decreased lung function, and go on to cause heart attacks,” Ontario Medical Association President Dr. Kenneth Sky, June 2001.

“You won’t know how to make reductions if you don’t know what your emissions are.”  
© Louise Comeau, Director of the Federation of Canadian Municipalities’ Centre for Sustainable Community Development, in an October 2002 interview with CBC Radio One.

“Particulate matter and ozone are the key smog pollutants and are responsible for more than 1,900 premature deaths a year in Ontario. We see the serious health effects that people exposed to these pollutants endure everyday....”

© OMA President Dr. Elliot Halparin, August 2002.

“Studying the human health effects of air pollution has often been challenging, because it is difficult to isolate from other factors that also influence health, such as smoking, diet and exposure to poor indoor air quality. But recent studies are now confirming what intuitively makes sense - air pollution really does make us sick, and it may cause disease as much as it makes existing problems worse.”

© David Suzuki, Ph.D., geneticist, broadcaster, author, teacher and Chair of the David Suzuki Foundation, March 2002.

“Recent studies have shown that every major Canadian urban centre has levels of ground-level ozone high enough to pose a health risk.”

© Environment Canada Website, 2002.



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