



2001 Progress Report

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Executive Summary

- *Clean Air Hamilton* is a community initiative to improve air quality in the City of Hamilton and is directed by Council to report annually on progress and advise on current air quality issues.
- Citizens benefit from *Clean Air Hamilton* initiatives; by improving air quality we improve the quality of life for our residents and improve Hamilton's image.
- *Clean Air Hamilton* is an example for other municipalities, as a positive result of the support that it gets from the City of Hamilton. Several inquiries have been received from City Officials in Toronto, Kitchener-Waterloo and Windsor.
- *Clean Air Hamilton* is an example of success at the federal, provincial and municipal levels, and as a result attracts a lot of in-kind and financial support. Funding from Council is an integral part of *Clean Air Hamilton*'s progress as it is substantially leveraged by support from other stakeholders. The current funding attracts additional donations, which may not otherwise have been committed to this initiative.
- In 2001 *Clean Air Hamilton* sponsored or participated in research, emissions reduction projects and public awareness campaigns that were valued at nearly \$500,000 (direct funding and in-kind contributions).
- *Clean Air Hamilton*'s community process in local air quality improvement earned the City of Hamilton the prestigious United Nations for Human Settlements award, *The 2000 Dubai International Award for Best Practices in Improving the Living Environment*.
- Significant improvements in air quality will require moving current structures of *Clean Air Hamilton* into a new phase that supplements voluntary commitments with committed funding from key stakeholders, including the City of Hamilton, local industry, academic institutions and various levels of government.
- The most notable improvements in Hamilton's air quality have been
 - (1) The Air Pollution Index (API) has not reached the advisory level of 32 at any of the API stations since June 1996. This means that requests for voluntary cutbacks by industries have not been necessary. The API now rarely exceeds 20.
 - (2) Levels in toxics have gone down significantly in Hamilton's air throughout the 1990s. Benzene levels decreased in 1999 and 2000 by over 50% near industry. Benzo(a)pyrene levels decreased by about 50% in 1999 and 2000 near industry and downtown.

- In order to utilize its capability to facilitate partnerships in air quality, it is recommended that *Clean Air Hamilton*:
 - (1) Develops a three year self-sustaining program and seeks funding for the proposed initiatives.
 - (2) Facilitates discussions among industrial stakeholders as they deal with monitoring issues (report on this issue will be forwarded to Council).
 - (3) Continues to support research and adequately advise City Council on current air quality issues.

1.0 Introduction

Clean Air Hamilton presents the 2001 Progress Report on Air Quality to City Council.

This report describes annual progress in improving air quality in the City of Hamilton by summarizing community initiatives, analyzing trends in air quality and recommending strategies for improvements to air quality.

Clean Air Hamilton is a community initiative to improve air quality in the City of Hamilton and is directed by Council to report annually on progress and advise on current air quality issues. The plan is prepared and implemented by a community-based team, referred to as the *Clean Air Hamilton* committee.

1.1 Background

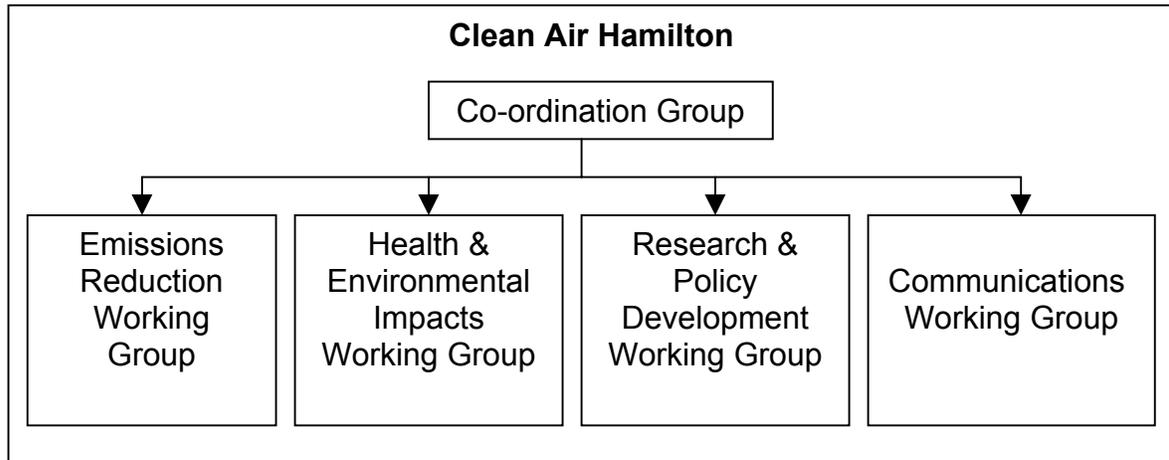
The former Regional Council endorsed *Clean Air Hamilton* in 1998, following the publication of a series of air quality reports entitled *The Hamilton-Wentworth Air Quality Initiative (HAQI)*.

HAQI began in 1995 as a collaborative approach between all levels of government and the community at large to assess the social, environmental and economic impacts of air pollution in the City. The reports concluded with over twenty recommendations for community action on air quality, including suggestions for corporate and individual improvement strategies.

Clean Air Hamilton was formed to promote emission reduction strategies and support local air quality research as suggested by the *HAQI* reports. Council's directives to the committee are outlined in Section 3.0.

There are approximately 40 active members on the *Clean Air Hamilton* team, mainly from government, academic institutions, industry, environmental firms, and non-profit organizations. Most members participate in one of five working groups and the groups' activities are coordinated by a Co-ordination Group, as outlined in Figure 1.

Figure 1: Clean Air Hamilton Committee



This community initiative in local air quality improvement has earned the City of Hamilton the prestigious United Nations for Human Settlements award, *The 2000 Dubai International Award for Best Practices in Improving the Living Environment*.

1.2 Current Profile

Clean Air Hamilton activities have been a leader in Canada, relative to all provincial and municipal analyses of air quality impacts on human activities, to improve the air quality and the level of community involvement in air quality issues.

Clean Air Hamilton is an example for other municipalities, as a positive result of the support that it gets from the City of Hamilton. It has been referred to as a model in Toronto's proposal for a Clean Air Council, and several inquiries have been received from City Officials in Kitchener-Waterloo and Windsor.

The citizens of Hamilton benefit the most from the support of *Clean Air Hamilton*. An improvement in air quality leads to an improvement in the quality of life for residents, while improving Hamilton's overall image.

2.0 Program Funding

Clean Air Hamilton is an example of success at the federal, provincial and municipal levels, and as a result attracts a lot of in-kind and financial support. Funding from Council is an integral part of *Clean Air Hamilton*'s progress as it is substantially leveraged by support from other stakeholders. The current funding attracts additional donations, which may not otherwise have been committed to this initiative.

2.2 Current Programs

Hamilton's air quality "partnership" is aided and advanced through substantial volunteer commitments, which has jump started a number of projects to improve air quality; however, these projects as they are identified in Section 3.0 and Appendix A have exhausted current resources and require significant additional funding to move ahead.

In 2001, *Clean Air Hamilton* sponsored or participated in research, emission reduction projects and public awareness campaigns that were valued at nearly \$500,000. The City of Hamilton generated approximately 20% of the total value including staff and finance, and the remaining 80% were supported by outside organizations through sponsorship and in-kind contributions.

The City currently contributes \$98,000 per year to municipal initiatives under the *Clean Air Hamilton* program compared with \$400,000 on average per year contributed by outside organizations to community programs in partnership with the City (nearly \$500,000 total).

2.3 New Programs

Significant improvements in air quality will require moving current activities of *Clean Air Hamilton* into a new phase that supplements voluntary commitments with committed funding from key stakeholders, including the City of Hamilton, local industry, academic institutions and other levels of government.

The City of Hamilton has been a leader in facilitating the efforts of Clean Air Hamilton to date. Any decision on behalf of the City regarding an adjustment to its current contributions would greatly influence the decisions of outside organizations to match funding for projects that are critical to making tangible improvements in Hamilton's air quality.

3.0 Project Status

The *Clean Air Hamilton Action Plan* summarizes the range of projects that are based on recent activities that build upon the 1997 *HAQI* recommendations. This section summarizes the projects that continue the actions encompassed in the 1998 Council directives.

a) Strategies to reduce the number of single-occupancy auto trips

Commuter Challenge

Clean Air Hamilton provided partial funding to support Green Venture's efforts in coordinating the Hamilton Commuter Challenge during the first week of June, 2001. The challenge is a friendly competition between local organizations to see who can get the most employees to leave their car behind and, walk, bike, take public transit or carpool to work. Over 50 organizations participated in 2001 compared with over 40 in 2000. Participants kept 35 tons of pollutants out of the air and Hamilton placed 7th per capita in the national standing. The next Commuter Challenge takes place June 2-8, 2002.

b) Greening of Fleets

Normal Use Vehicle (Nuvehicle) Partnership

The Ontario Ministry of Environment (MOE) completed an evaluation of the hybrid vehicles purchased in 2000 by the City of Hamilton, MOE, and Hamilton Hydro. Altogether the three participating organizations purchased three Honda Insight vehicles and one Toyota Prius vehicle. The Nuvehicle project was first proposed by *Clean Air Hamilton* in July 1998 to introduce innovative and environmentally beneficial vehicles to the City.

The study showed that hybrid vehicles are three times more fuel efficient than existing gasoline vehicles. They are also cost competitive, reliable and approximately 80-90% less polluting. Hybrid vehicles are currently the most practical solution to reducing vehicle related air pollution, fossil fuel consumption, and global warming.

Given these benefits, the City of Hamilton has purchased 10 hybrid vehicles in their fleet in 2002.

d) Reduction of Transboundary Air Pollution

Upwind Downwind: A Practical Conference on Improving Air Quality

Throughout the 2001 calendar year, plans were developed for the second *Upwind Downwind* Conference to be held on February 25 and 26, 2002, at the Sheraton Hotel. *Upwind Downwind* is held biennially on behalf of *Clean Air Hamilton* as a strategy to address transboundary air pollution issues and maintain contact with other communities pursuing similar initiatives. The conference, a very successful event, will be reported as an activity in the 2002 Progress Report.

Plans for the *Upwind Downwind* Conference took precedence over workshops for the ***Southern Ontario Clean Airshed Network Initiative (SO CAN I)***, a group of

representatives from 11 communities from across Southern Ontario. Reference and information exchange on air issues took place on an email distribution list and website. Many members of the SO CAN I group registered and participated in the conference.

Response to Ontario Power Generation Proposal to Reduce NOx Emissions

In 2001 the Ontario Clean Air Alliance approached the City of Hamilton to join a call for a public environmental assessment to review the Ontario Power Generation's proposal to install selective catalytic reduction (SCR) units at its Naticoke and Lambton coal-fired power plants. Council referred the matter to *Clean Air Hamilton* for comment. Members of the Coordination Group prepared a response to assist Council in its decision on the issue by highlighting the advantages and disadvantages to the proposal and the implications of an assessment.

e) Development and/or enhancement of tree projects

Over 500 native trees were planted in the City of Hamilton through funding partnerships with two local non-profit groups under the *Clean Air Hamilton* Program.

Homeowner Tree Subsidy Program

The City of Hamilton subsidized half the cost of native trees offered to homeowners across the City. Hamilton-Wentworth Green Venture promoted and administered the program in partnership with Trees for Life Canada and the local separate school board. A total of 550 trees were planted in the fall through this program.

VISION 2020 Award Tree Planting

Fifteen (15) trees were planted in the fall along the trail at TB McQueston Park on behalf of the award recipients in the VISION 2020 Sustainable Community Recognition Program.

f) Development of a Community Smog Plan

Corporate Smog Response Plan

The City of Hamilton reassessed its corporate-wide Smog Response Plan. Revisions were made to the former Regional policy to create a new response procedure for new staff and departments of the new City of Hamilton. Each department implements an action plan that will minimize smog-producing emissions when the Ministry of Environment issues a local smog advisory. Hamilton experienced 12 days in 2001 when the air quality index exceeded 50

and conditions called for a smog advisory. As smog formation intensifies with heat and light, smog levels were higher than average in 2001 partly due to unusually hot and dry summer weather.

Anti-idling Campaign

The City of Hamilton and the Hamilton Industrial Environmental Association are sponsoring an anti-idling educational campaign to encourage drivers to turn their engines off when waiting for an extended period of time.

The City began an internal campaign by first educating staff on the impacts of idling on health and air quality, and the benefits of reducing idling time. A presentation series was developed and 10 Powerpoint presentations were given to Departmental Management Teams.

Signage was prepared and municipal locations were selected for posting anti-idling signs. The Fleet Department began drafting a corporate anti-idling policy in 2001.

g) Promotion of Public Awareness through Social Marketing

Annual Public Meeting

A public meeting on air quality was held in November 2001 with over 80 guests attending on behalf of *Clean Air Hamilton* and the general public. The meeting featured guest speaker Dr. Trevor Hancock on Healthy Transportation Policy and received public input on *Clean Air Hamilton's* three-year work plan proposal.

Clean Air Hamilton Communications

Clean Air Hamilton is the new name of the *Hamilton-Wentworth Air Quality Initiative* and its implementation committee. The name was launched in 2001 along with a new logo designed by Palmese Photo Design (in-kind contribution for design of logo).

A bimonthly *Clean Air Hamilton* Electronic Newsletter was introduced in 2001 to keep members informed of local air quality initiatives.

A new communications plan and website at www.airquality.hamilton.on.ca was designed in 2001 for the *Clean Air Hamilton* program.

Clean Air Awards

Clean Air Hamilton launched a new "clean air" category in the VISION 2020 Sustainable Community Recognition Awards Program hosted by ACTION 2020. Two recipients were selected out of six nominations under the clean air category.

Two awards were presented. One award was given to Anne Turner of VFT Inc. for her outstanding contributions during the 2001 commuter challenge and the other award to Dofasco for their benzene emissions control program.

Dubai Award Reception

A reception was held in March, 2001, to celebrate the *Dubai International Award for Best Practices in Improving the Living Environment* that was granted to the Region in 2000 for its work on VISION 2020 and the *Hamilton-Wentworth Air Quality Initiative*. The reception honored all of the participants in the *Clean Air Hamilton* and VISION 2020 initiatives for their outstanding contributions and ongoing support over the past ten years. Over 300 people attended the reception to hear special speeches given by the Deputy Mayor, the Honorable Minister Witmer, a representative from the United Nations, and chairpersons of the *Clean Air Hamilton* and ACTION 2020 community groups.

h) Land Use / Transportation Issues and Planning

VISION 2020 Action Plan

Clean Air Hamilton prepared a two-year action plan to improve the progress of air quality indicators in VISION 2020, Hamilton's Sustainable Community Initiative. The action plan was presented for public input at a community workshop hosted by ACTION 2020 in November 2001.

Funding Proposal

A work plan proposal of research and activities designed to make tangible improvements to Hamilton's air quality was drafted in 2001. Funding is proposed for three years, and is designed to establish a *Clean Air Hamilton* office and support projects that implement actions to reduce emissions, research to assist with policy development, and promotion to share best practices with communities across Canada and the world. This proposal will be directed to a range of agencies, which have the best matches to the goals of individual *Clean Air Hamilton* projects.

4.0 Progress Indicators

Trends in local ambient air quality are used to measure progress toward improving air quality in Hamilton. The 2000 Progress Report included a section on trends in ambient pollutant levels over the past decade (1990 – 1999). An update of this data to 2000 is included in Appendix B. The results are consistent with a stable to reducing trend in Hamilton's pollutant levels.

The pollutants were selected from the 1997 HAQI study in which they are identified as the most harmful factors affecting human health and the environment. The air

quality data is tracked, monitored and analyzed by the Ontario Ministry of Environment, West Central Region (MOE).

4.1 Notable Improvements

The Air Pollution Index (API) has not reached the advisory level of 32 at any of the API stations since June 1996. This means that requests for voluntary cutbacks by industries have not been necessary. The API now rarely exceeds 20.

Levels in toxics have gone down significantly in Hamilton's air throughout the 1990s. Two of Hamilton's common toxics are Benzene and Benzo(a)pyrene. Benzene levels decreased in 1999 and 2000 by over 50% near industry. Benzo(a)pyrene levels decreased by about 50% in 1999 and 2000 near industry and downtown.

The outlook is positive for further improvements in air quality as the provincial government develops new initiatives that will implement reporting regulations, an industrial stack inspection program and industrial self monitoring initiative.

4.2 Further Improvements

The trends for particulate matter and ozone, which form smog, have leveled off considerably over the years. However, it will become a challenge to meet new Canada-wide standards for particulate matter and ozone.

Inhalable particulates have decreased by about 15 to 20% since 1991 in most of the City, whereas summer time ozone levels have been variable in the 1990s. High ozone experienced in summer months are due mostly to long-range transport from distant sources.

5.0 Recommendations

Partnerships are essential to facilitate cooperation among the various stakeholders in the City to meet, by law and voluntarily, the requirements of new programs and regulations announced by the provincial and federal governments.

Hamilton is a step ahead of any other city in the way that it has already established a partnership capable of facilitating new strategies of various groups to meet new regulations.

In order to continue with air quality improvements and utilize its capability to facilitate partnerships in air quality, it is recommended that *Clean Air Hamilton*:

- Develops a three year self-sustaining program and seeks funding for the proposed initiatives.
- Facilitates discussions among industrial stakeholders as they deal with monitoring issues.

- Continues to support research and adequately advise City Council on current air quality issues and health impacts.

In order for *Clean Air Hamilton* to leverage off the existing success that it has retained, it is recommended that the City of Hamilton continue to support and coordinate the activities of the *Clean Air Hamilton* committee.

Appendix A – Clean Air Hamilton Action Plan

Recommendations	Responsibility		Progress to Date	Short Term Plans (1 year)	Long Term Plans (5 years)
	CAH	Other			
Reduce Industrial Sources					
Implement Code of Best Practice Guidelines {HAQI Recommendation 1}					
Develop Best Available Control Technology and Practices for Major Sources {HAQI Recommendation 2}	ERWG	MOE Industries	<ul style="list-style-type: none"> Developed website registry for companies and their fine particulate reduction projects 	<ul style="list-style-type: none"> Promote and utilize emissions reduction registry 	<ul style="list-style-type: none"> Reward companies for the air pollution reduction projects through a series of local Clean Air Awards
Implement Strategic Options Process (SOP) Recommendations {HAQI Recommendation 3}	ERWG	EnvCan MOE Stelco Dofasco VFT. Ltd. Columbian Chemicals Other Industries	<ul style="list-style-type: none"> A review on the effectiveness of the SOP was planned for 1999 		<ul style="list-style-type: none"> Monitor progress on implementation
Continue Permitting Programs {HAQI Recommendation 4}	ERWG	MOE Dofasco Stelco	<ul style="list-style-type: none"> Stelco with commitment to meet the terms of the Strategic Options Process or better, plans to refurbish or shut down coke oven with high emissions Voluntary Agreement with Dofasco 		<ul style="list-style-type: none"> As the MOE continues to develop and enforce air quality/source performance standards, the team will comment on the programs as required.
Establish Industry-Local Resident	CG ERWG	HIEA	<ul style="list-style-type: none"> The Hamilton Industrial Environmental Association (HIEA) 		<ul style="list-style-type: none"> Communications will be ongoing between the Air

Recommendations	Responsibility		Progress to Date	Short Term Plans (1 year)	Long Term Plans (5 years)
	CAH	Other			
Liaison Committee {HAQI Recommendation 5}	RPDWG HEIWG CWG		has established a Community Advisory Panel, the Air Quality Stakeholder Committee with three industrial representatives		quality Stakeholder Committee and Clean Air Hamilton
Reduce Emissions from Private Vehicles					
Reduce the Number of Single-Occupancy Auto Trips <ul style="list-style-type: none"> Enhance HSR Bus Services Design Accessible Urban Development Promote Cycling Promote Walking Discourage Parking Downtown {HAQI Recommendation 6}	ERWG	Green Venture City of Hamilton EnvCan HIEA	<ul style="list-style-type: none"> Staff Transportation Alternatives Plan presented to Council, referred to City with recommendation for joint action. City Council has referred it to staff for a report – currently on hold Free Regional staff parking ended as benefit on grandfathered basis Hamilton Community Challenge successful in June 2000 and 2001 HSR Campaign to show transit use a “green” alternative to the private automobile, especially during Smog Alert Days Travel Options Workshop hosted by the City in 2000 for local organizations City of Hamilton Bikeways System – Waterfront Trail 	<ul style="list-style-type: none"> Commuter Challenge in Spring 2002 	<ul style="list-style-type: none"> Support for Commuter Challenge to continue each year
Minimize the Emissions of Private Vehicle Use <ul style="list-style-type: none"> Promote Carpooling Offer Discounts on Vehicle Tune-Ups Minimize Discretionary Trips {HAQI Recommendation 7}	ERWG	City of Hamilton Green Venture	<ul style="list-style-type: none"> Hamilton-Wentworth Community Challenge successful in June 2000 and 2001 	<ul style="list-style-type: none"> Staff Carpooling Registry at the new City of Hamilton 	

Recommendations	Responsibility		Progress to Date	Short Term Plans (1 year)	Long Term Plans (5 years)
	CAH	Other			
Establish Standards for Vehicle Emissions and Implement Vehicle Emissions Testing {HAQI Recommendation 8}	ERWG	MOE Drive Clean Office EnvCan	<ul style="list-style-type: none"> Ongoing support to the Ontario Drive Clean program, implemented in Hamilton in 1999 Ongoing support to the Drive Clean pilot program for heavy duty vehicles introduced in 1999 Ongoing support to the fuel economy tax MOE Smog Rover monitors tailpipe emissions of cars and light duty trucks in the Greater Toronto and Hamilton-Wentworth area. 		
Anti-idling By-Laws {HAQI Recommendation 9}	RPDWG ERWG CWG	City of Hamilton	<ul style="list-style-type: none"> Anti-idling By-law drafted and on hold Anti-idling signage designed for railway crossings and industrial properties Research and Educational Packages for anti-idling campaign complete 		<ul style="list-style-type: none"> Expand anti-idling signage campaign
Reduce Emissions from Commercial/Fleet Vehicles					
Enact Commercial Vehicle Maintenance Standards {HAQI Recommendation 10}					
Achieve more Efficient Commercial Vehicle Flow {HAQI Recommendation 11}					

Recommendations	Responsibility		Progress to Date	Short Term Plans (1 year)	Long Term Plans (5 years)
	CAH	Other			
<p>Greening of Fleets</p> <ul style="list-style-type: none"> Schedule Off Peak Trucking Shipments Replace Old Trucks Alter Fleet Technology Specify Trucks that meet Standards in Purchase Contracts Switch to Rail <p>{HAQI Recommendation 12}</p>	ERWG	City of Hamilton MOE EnvCan Hamilton Hydro	<ul style="list-style-type: none"> Workshop was held in 1999 with 13 fleet managers in attendance, where a commitment to further meetings and information sharing was made Literature review initiative, focused on greening, strategies of other fleet replacement alternatives for retired vehicles NuVehicle considerations ongoing: MOE, City of Hamilton, and Hamilton Hydro have altogether purchased three Honda Insight hybrid vehicles and one Toyota Prius in 2000. Evaluation of local hybrid vehicle performance complete 	<ul style="list-style-type: none"> City of Hamilton to replace 10 fleet vehicles with hybrid vehicles. 	<ul style="list-style-type: none"> Partners will purchase additional hybrid vehicles as they become available, and as they are evaluated
Reduce Overall Community Emissions					
<p>Control Fugitive Dust</p> <ul style="list-style-type: none"> Establish Paving Bylaws Establish Fugitive Dust Control Bylaws Establish Operating Standards for Trucks Use Best Available Control Technology <p>{HAQI Recommendation 13}</p>	RPDWG ERWG	City of Hamilton	<ul style="list-style-type: none"> Street Sweeping Study is complete. Enhanced street sweeping and monitoring in the north end to continue until December 2000 (on hold). 		
Reduce Transboundary Pollution	HEIWG	City of Hamilton	<ul style="list-style-type: none"> Upwind Downwind: A Practical Conference on Improving Air Quality was held on September 30 	<ul style="list-style-type: none"> Next Upwind Downwind Conference February, 2002. 	<ul style="list-style-type: none"> Air Quality Conference to address transboundary air pollution to be held

Recommendations	Responsibility		Progress to Date	Short Term Plans (1 year)	Long Term Plans (5 years)
	CAH	Other			
{HAQI Recommendation 14}		SO CAN I members	<ul style="list-style-type: none"> and October 1, 1999 Southern Ontario Clean Airshed Network Initiative (SO CAN I) was established in January 2000 	<ul style="list-style-type: none"> City of Hamilton to chair SO CAN I in 2002 	biennially
Develop and Implement Energy Conservation Measures <ul style="list-style-type: none"> Municipal Energy Reduction Programs Industrial Energy Reduction Programs Alternative Energy Pilot Program Subsidies for Energy Audits District Heating and Co-generation {HAQI Recommendation 15}	RPDWG	City of Hamilton Green Venture	<ul style="list-style-type: none"> City to promote Energuide program in buildings approval process District Energy Project Energy Management Program City a Member of Partners for Climate Protection Campaign; developing action plan to reduce energy consumption 		<ul style="list-style-type: none"> City to develop and implement energy reduction action plan to reduce greenhouse gas emissions and air pollutants
Develop and/or Enhance Community Tree Projects {Regional Council 1999}	ERWG	City of Hamilton Green Venture HIEA	<ul style="list-style-type: none"> The City of Hamilton Tree Planting Program supported partnerships with non-profit groups to plant trees on school grounds and near industries Green Venture, in partnership with the City and HIEA, offers subsidized trees to residents in new homes and in the industrial north end of Hamilton HIEA, in consultation with the citizens, are devoting \$50,000 to tree planting in the north end of 	<ul style="list-style-type: none"> Review, evaluate and continue tree planting programs underway 	

Recommendations	Responsibility		Progress to Date	Short Term Plans (1 year)	Long Term Plans (5 years)
	CAH	Other			
			Hamilton on industrial sites <ul style="list-style-type: none"> Trees planted on behalf of VISION 2020 award recipient 		
Develop a Community Smog Plan {Regional Council 1998}	ERWG CWG	City of Hamilton Green Venture	<ul style="list-style-type: none"> Provincial Anti-Smog Action Plan City of Hamilton Corporate Smog Response Plan Community Anti-Smog Campaign 	<ul style="list-style-type: none"> City of Hamilton Long Term Smog Reduction Plan Corporate Smog Plan Policies at two local organizations 	<ul style="list-style-type: none"> City of Hamilton Smog Management Plan Corporate Smog Plan Policies at five local organizations
Public Awareness					
Promote Public Awareness through Social Marketing <ul style="list-style-type: none"> Videos Pamphlets Updates in Print Media Combine with High Profile Municipal Initiatives Website {HAQI Recommendation 16}	ERWG HEIWG RPDWG CWG	City of Hamilton Green Venture	<ul style="list-style-type: none"> Research results are publicized and explained through verbal presentations and visual displays Reports are linked to the Clean Air Hamilton website Smog brochures, fact sheets and posters produced for the City's Corporate Smog Response Plan Promotional materials produced by Green Venture and the City of annual Commuter Challenge ERWG Work Plan has been incorporated into the Clean Air Hamilton website (www.airquality.hamilton.on.ca) Received 2000 Dubai International Award for Best Practices in Improving the Living Environment Logo designed, Website revamped and electronic newsletter prepared in 2001 	<ul style="list-style-type: none"> Promote results of research Finalize communications plan and prepare public information kit 	<ul style="list-style-type: none"> Continue promotion of research and developed policies Activities to be incorporated into a Clean Air Hamilton newsletter and video
Monitoring, Research and Development					
Expand Capability for Inhalable/Respirable Particulate	HEIWG	MOE	<ul style="list-style-type: none"> MOE maintains monitoring network in Hamilton 		<ul style="list-style-type: none"> Facilitate a partnership in industrial self monitoring.

Recommendations	Responsibility		Progress to Date	Short Term Plans (1 year)	Long Term Plans (5 years)
	CAH	Other			
Monitoring {HAQI Recommendation 17}					
Maintain Current Monitoring System {HAQI Recommendation 18}	HEIWG	MOE	<ul style="list-style-type: none"> Provincial monitoring network in Hamilton 		
Expand Mobile/Portable Monitoring Capabilities {HAQI Recommendation 19}	HEIWG	MOE	<ul style="list-style-type: none"> MOE looking for partners to strengthen the monitoring network. MOE has enhanced the telemetry network 		
Maintain Government Scientific/Laboratory Capabilities {HAQI Recommendation 20}	HEIWG	MOE	<ul style="list-style-type: none"> MOE has requested lab allocations for air quality in 2000 MOE is working on a self monitoring program for industry 		
Research about the Origins, Characteristics and Health Impacts of Particulates {HAQI Recommendation 21}	HEIWG RPDWG	McMaster University City of Hamilton	<ul style="list-style-type: none"> Discussion with McMaster University to create a research chair in Air Quality has begun Canada-Wide Standards Sub-Agreement committees to the development of national standards for ozone and fine particulate. The process for developing the standards is on target. 		
Analyze and Model Transportation Emissions {HAQI Recommendation 22}	RPDWG	EnvCan City of Hamilton McMaster	<ul style="list-style-type: none"> Truck Emissions Modeling complete Support reductions in sulphur content of fuels and diesel fuel regulations 	<ul style="list-style-type: none"> Conduct a truck industry survey to determine truck travel patterns and come up with policy recommendations for reducing transportation 	<ul style="list-style-type: none"> Implement policy recommendations from the Truck Emissions Modeling project

Recommendations	Responsibility		Progress to Date	Short Term Plans (1 year)	Long Term Plans (5 years)
	CAH	Other			
		University		emissions	
Research on the Impact of Air Toxics on Ecosystems {HAQI Recommendation 23}	RPDWG	City of Hamilton McMaster University	<ul style="list-style-type: none"> Research on the impacts of air toxins ongoing at McMaster University 	<ul style="list-style-type: none"> Chemical Analysis of pollutants to be completed 	
Develop an Emissions Inventory and Carry out Atmospheric Modeling {HAQI Recommendation 24}	ERWG RPDWG	RWDI Ltd. MOE	<ul style="list-style-type: none"> MOE is establishing a mandatory emissions reporting program ERWG is following the stages of mandatory reporting Hamilton data sets can eventually be extracted for RWDI airshed modeling 		
Review and Continued Refining of Environmental Priorities {HAQI Recommendation 25}	HEIWG	City of Hamilton McMaster University McMaster Institute of Environment and Health	<ul style="list-style-type: none"> 1997 Air Quality Initiative used to identify priority pollutants, sources and management strategies. Protocol development for Human Health Risk Assessment underway 		<ul style="list-style-type: none"> Environmental Priorities will be introduced through the results of the Health Assessment
Land Use/Transportation Air Quality Issues {HAQI Recommendation 26}	ERWG	City of Hamilton	<ul style="list-style-type: none"> Initial issues identified for City wide planning and case studies addressed electronic database established on land use/transportation/air quality references ACTION 2020 Task Force on Air Quality; development of action plan to improve air quality indicators 	<ul style="list-style-type: none"> monitor secondary planning studies and development of City official plan and provide comments where appropriate 	<ul style="list-style-type: none"> monitor secondary planning studies and development of City official plan and provide comments where appropriate full implementation of Task Force on Air Quality Action Plan

Keynote:

HAQI – Hamilton-Wentworth Air Quality Initiative
CG – Co-ordination Group

ERWG – Emissions Reduction Working Group

RPDWG – Research and Policy Development Working Group

MOE – Ontario Ministry of the Environment

Mac – McMaster University

SO CAN I – Southern Ontario Clean Airshed Network Initiative

HEIWG – Health and Environmental Impacts Working Group

CWG – Communications Working Group

EnvCan – Environment Canada

HIEA – Hamilton Industrial Environmental Association

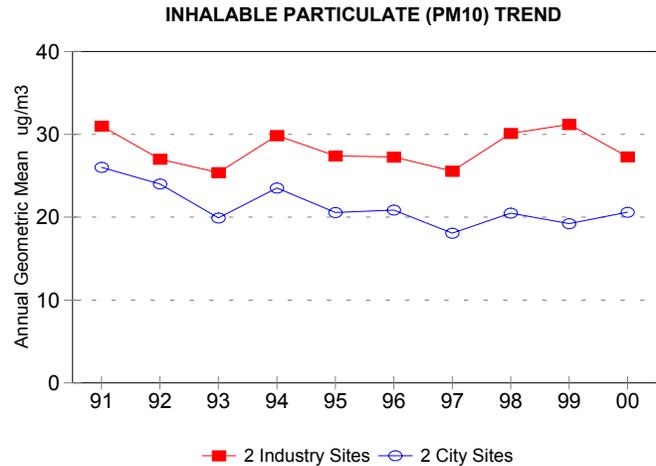
CAH – Clean Air Hamilton

Appendix B: Progress Indicators

(2001 data to be available in 2002)

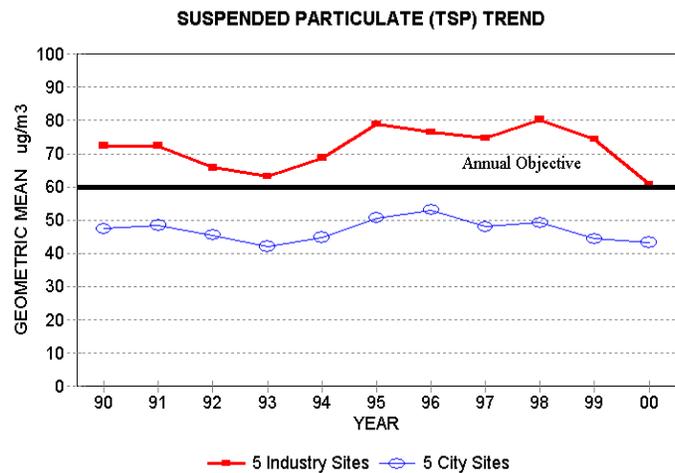
Inhalable Particulate Material (PM10)

Inhalable particulate material (PM₁₀) levels have decreased by about 15-20% since 1991 in most of the City. Close to the heavy industry, levels have also decreased by about 10% since 1991, but show greater variability from year to year.



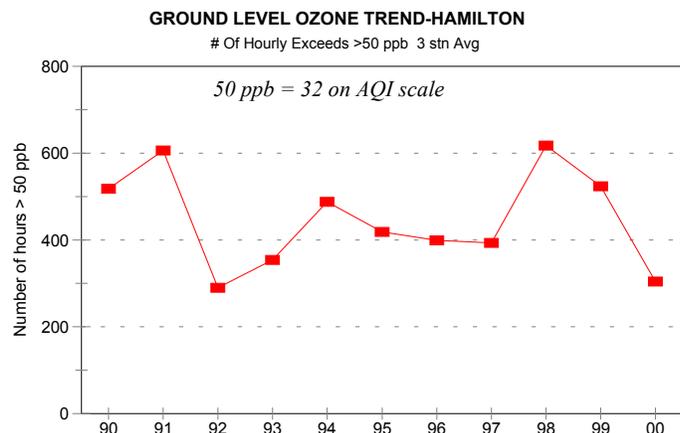
Total Suspended Particulates

Total suspended particulates (TSP) have decreased by 10-15 % since 1990, throughout the City. Levels in the industrial zone are now only fractionally above the annual MOE objective on average.



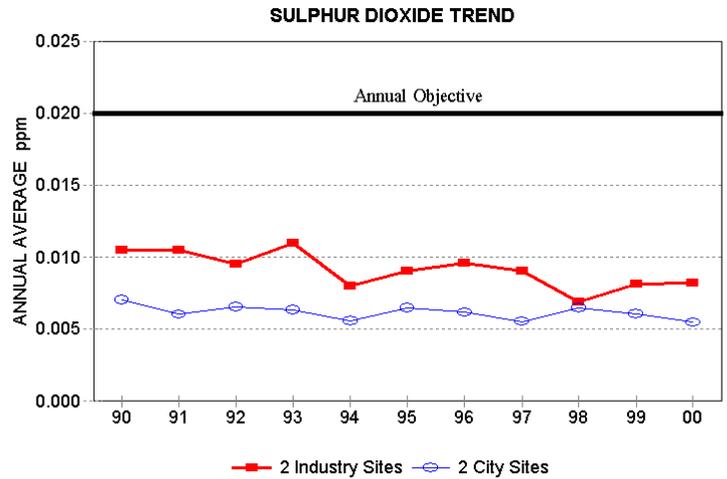
Ozone

Summertime ozone levels (associated with smog) are due mostly to long-range transport from distant sources. It has been variable in the 1990s. Most annual fluctuations are related to summer climate.



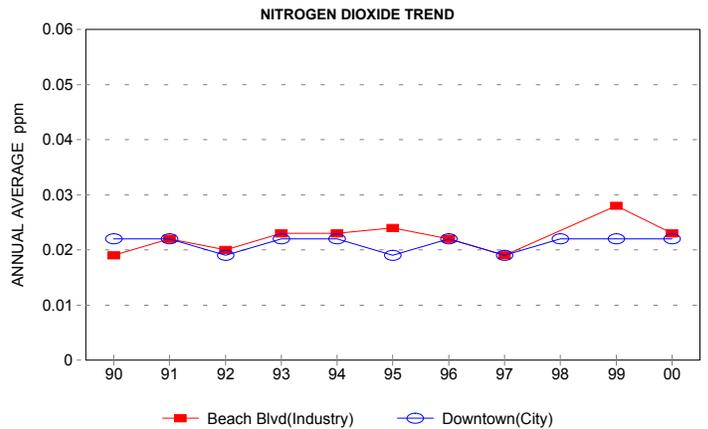
Sulphur Dioxide

Sulphur dioxide levels have decreased by over 20% since 1990 across the city.



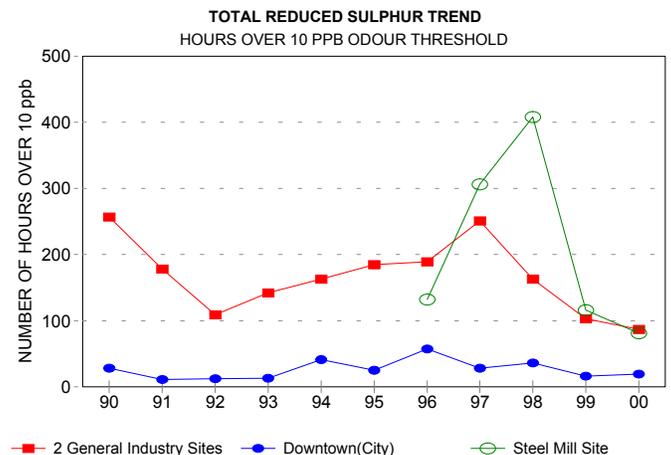
Nitrogen Dioxide

Nitrogen dioxide levels have been stable during the 1990s. Both industrial and vehicular emissions contribute to nitrogen dioxide levels. Cities such as Toronto, Vancouver and Montreal have experienced increased nitrogen dioxide levels during the past decade.



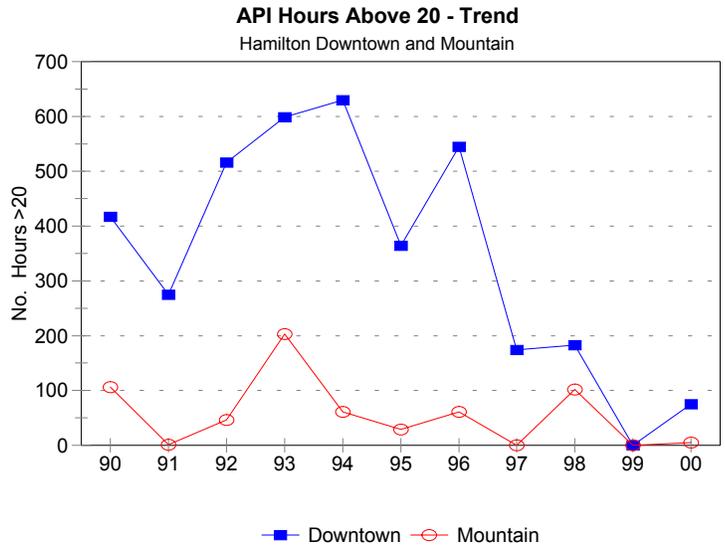
Total Reduced Sulphur (TRS)

Decreased TRS levels have resulted in large decreases in the number of hours above odour thresholds near the steel mills due to improved coke oven controls and procedures. Odours are generally confined to the northeast industrial zone, including the Beach Strip area. A small number of odorous hours are measured downtown annually, but these have decreased since 1996.



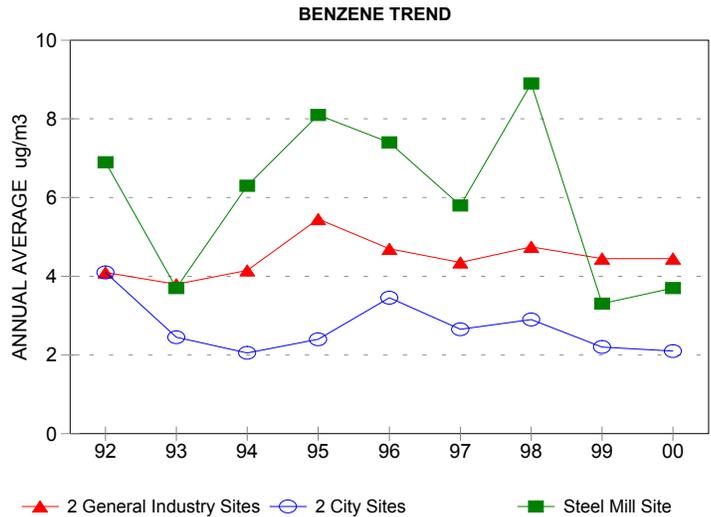
Air Pollution Index

The Air Pollution Index (API) has not reached the advisory level of 32 at any of the API stations since June 1996, and thus no requests for voluntary cutbacks by local industries have been necessary. These were the first years that this has occurred in Hamilton API history. The figure adjacent shows that the API now rarely exceeds 20.



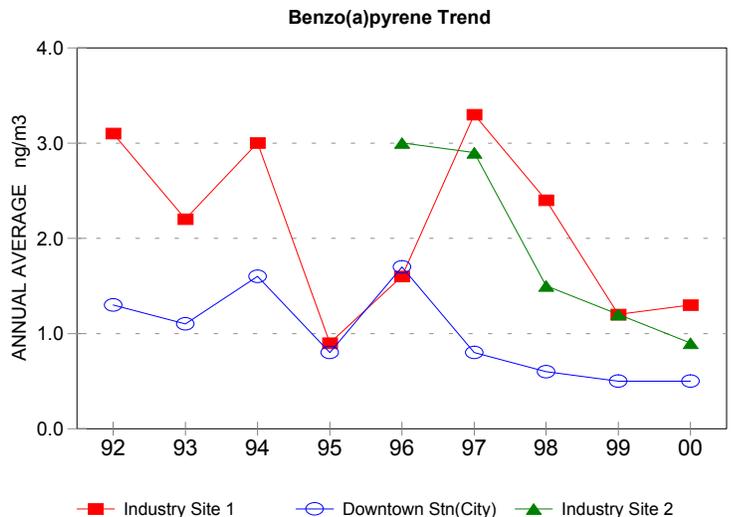
Benzene

Benzene levels decreased in 1999/2000 by over 50% near a steel mill compared to a composite of 1994-98. Benzene levels at the Beach Blvd site and another industry site have been stable since 1992 despite significant emission reductions at the steel mills. In the main part of the City benzene has decreased by 50% during the 1990s.



Benzo(a)pyrene (BaP)

BaP levels decreased by about 50% in 1999/2000 compared to a composite 94-98 average both near industry and downtown.



Clean Air Hamilton, May 2002

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