


City of Alexandria, Virginia

MEMORANDUM

DATE: JANUARY 6, 2009

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: JAMES K. HARTMANN, CITY MANAGER 

SUBJECT: RECEIPT OF THE FY 2008 ANNUAL REPORT FROM THE ALEXANDRIA ENVIRONMENTAL POLICY COMMISSION

ISSUE: Receipt of the FY 2008 Annual Report from the Alexandria Environmental Policy Commission.

RECOMMENDATION: That City Council receive the FY 2008 Annual Report from the Alexandria Environmental Policy Commission and thank the Commission and its members for their efforts on behalf of the City.

DISCUSSION: The Alexandria Environmental Policy Commission (EPC) is an advisory body comprised of thirteen citizen members appointed by City Council to advise and make recommendations to City Council and, where appropriate, to the Planning Commission, City staff, and the City Manager on issues related to clean air, land use, noise pollution and abatement, pesticides, herbicides and contaminants, solid waste, water quality and supply, other topics relating to conservation and protection of environmental conditions, and other such matters referred to the Commission by City Council. The EPC is staffed by the Department of Transportation and Environmental Services (T&ES), Office of Environmental Quality.

The EPC report, which highlights the principle activities of the EPC for FY 2008, is provided as Attachment I. The primary focus for the EPC during this fiscal year was the development of the Eco-City Charter for the City as part of the Eco-City Alexandria project. Highlights of the Commission's work include:

1. **Development of Eco-City Charter**

EPC monthly work sessions starting in the latter part of 2007 were dedicated to focused discussion of the ten subject areas related to the Eco-City Charter, namely, Land Use and Open Space, Water Resources, Air Quality, Transportation, Energy, Building Green, Solid Waste, Environment & Health, Emerging Threats and Implementation. EPC members were assigned to

various subgroups that worked with Virginia Tech and City Staff to review the GreenVentory, the Compendium of Best Practices prepared by Virginia Tech and other resources to draft the principles of environmental sustainability for their specific subject area.

- **Eco-City Café**

On March 8, 2008, EPC hosted a highly successful community event at the George Washington Middle School in order to receive public input on environmental issues facing Alexandria. Over 75 citizens attended this event and provided valuable input for the preparation of the draft Eco-City Charter.

- **Eco-City Summit**

Following the release of the draft Charter at Earth Day, the EPC organized an Eco-City Summit at the T.C. Williams High School on May 10, 2008. About 200 people attended this event. This day long event included Mayor Bob Harvey of City of Waitakere, New Zealand, a pioneer of the Eco-City concept, as a keynote speaker, and a series of roundtable discussions among community stakeholders. The objective was to obtain the community feedback on the draft charter.

Based on the feedback obtained from the Café and Summit, EPC finalized the Eco-City Charter and submitted it to City Council on June 10, 2008. Council adopted this Charter on June 14, 2008, immediately after a Council Public Hearing on it.

2. Alexandria Earth Day

EPC also successfully organized the Alexandria Earth Day 2008 that was celebrated at Ben Brenman Park on April 26, 2008. The theme was “What’s YOUR Footprint?” and approximately 1,300 people attended. The draft Eco-City Charter was released to the public at this event.

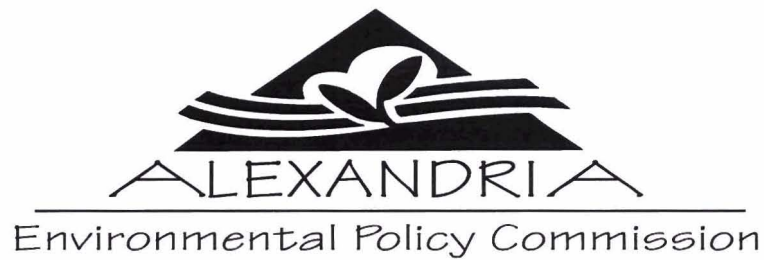
Attached to the EPC’s annual report is the Environmental Progress Report for FY 2008 prepared by the Office of Environmental Quality (OEQ) that provides an update and highlights to the EPC in three key program areas water quality, air quality and contaminated land/brownfields.

ATTACHMENTS:

Attachment I	Alexandria Policy Commission Annual report for FY 2008.
Attachment II	OEQ FY 2008 Environmental Progress Report

STAFF:

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Fiscal Year 2008 Annual Report

ECO-CITY ALEXANDRIA

environment | economy | community



DECEMBER 2008

1. Introduction

The Alexandria Environmental Policy Commission (EPC) was established under Chapter 4, Article M, of the City Code to "advise and make recommendations to the City Council and, where appropriate, to the Planning Commission and City Manager." This report provides a summary of EPC's activities during Fiscal Year 2008 (FY 2008). This report also includes descriptive information on the EPC.

2. Who We Are

The Alexandria City Council established the EPC in 1970 to advise and make recommendations to the City Council and City Manager, where appropriate, on matters relating to the following:

- Clean air
- Land use
- Noise pollution and abatement
- Pesticides, herbicides and contaminants
- Solid waste
- Water quality and supply
- Other matters referred to the EPC by the City and citizens
- Other topics relating to the conservation and protection of Alexandria's environment

The EPC consists of 13 members, including five members from the field of environmental sciences, five citizen-at-large members, one member from the field of urban planning, one student attending high school in the City of Alexandria and one member with experience in Federal or state environmental statutes, regulations, and procedures. The Commission is supported by the City of Alexandria Department of Transportation and Environmental Services (T&ES), Office of Environmental Quality.

The table below identifies the Alexandrians who served on the EPC during FY 2008.

Danielle Fidler (<i>Chair</i>)	Jerry Casagrande ¹ (<i>Vice-Chair</i>)
Carol Braegelmann	Patrick Hagan
Joy Pochatila (<i>Earth Day Chair</i>)	Lucy Shapiro ^{1,2}
Sarah Sturtevant ¹ (<i>Secretary</i>)	Peter Pennington ²
Christopher Osburn ^{1,2}	Jennifer Hovis ²
David Evans ²	David Boxer ²
Kurt Moser ²	Keith Freihofer ²

¹Membership expired during FY 2008.

²Membership began during FY 2008.

3. EPC Priorities for FY 2008

The primary focus of the EPC during this fiscal year was the development of the *Eco-City Charter* for the City. The Eco-City initiative was born in a memo from Councilman Krupicka and Vice Mayor Pepper to the City Manager in September, 2006. The Eco-City effort is a partnership between the City and the Virginia Tech Urban Affairs and Planning Program.

The initial phase of the Eco-City effort included the development of a “Greenventory” of existing City programs and policies that impact or address environmental sustainability, as well as a compendium of model practices from around the world. Each of these products were finalized in the fall of 2007, and helped direct EPC efforts on the development of the Eco-City Charter.

Eco-City Charter

In order to initiate the development of the charter, monthly work sessions through the latter part of 2007 were dedicated to focused discussion of select subject areas to be addressed in the final document. EPC members were assigned to various subgroups to tackle each of the following topics:

- Land Use & Open Space
- Water Resources
- Air Quality
- Transportation
- Energy
- Building Green
- Solid Waste
- Environment & Health
- Emerging Threats
- Implementation

Each subgroup worked with Virginia Tech graduate students and appropriate City staff to review the Greenventory, best practices, and other resources to draft principles of environmental sustainability for their specific subject area. The draft Eco-City Charter was released for public comment at the City’s annual Earth Day event on April 26, 2008.

The public submitted comments on the charter at EPC monthly meetings and the Eco-City Summit. After reviewing, analyzing, and incorporating the public’s comments, the City Council approved the final Charter, the first of its kind in the region, at a public hearing on June 14, 2008. The final charter outlines the City’s guiding principles and vision for a sustainable Alexandria.

Eco-City Café & Summit

In FY 2008, EPC, the City, and Virginia Tech hosted two highly successful community events in order to obtain input and feedback on environmental issues facing Alexandria. On March 8, 2008, the first-ever *Eco-City Café* was held at George Washington Middle School. This half day event included a series of roundtable discussions among diverse community stakeholders. The ideas and suggestions developed during the Café helped shaped the draft Eco-City Charter.

Following release of the draft charter, an *Eco-City Summit* was held at T.C. Williams High School (May 10, 2008). This daylong event included similar roundtable discussions, with a focus on providing direct feedback on the draft charter. Innovative polling technology allowed summit sponsors to provide instantaneous analysis of the participants’ feedback on environmental priorities and the principles contained in the draft charter. The keynote speaker for the event was Mayor Bob Harvey of Waitakere, New Zealand.

Each event attracted more than 120 citizens, members of City Council, and City staff who displayed and distributed information on key City programs. In addition to the assistance provided by VA Tech, several staff from the design firm EDAW volunteered at these events.

Although the EPC was impressed by the number of people who attended the Eco City Summit and the enthusiasm and knowledge they displayed, the Commission was disappointed it did not attract a more diverse audience. More than three-quarters of participants classified themselves

as White/Caucasian and 92% had a college or graduate degree. EPC recognizes this problem and members have begun to study this issue in order to develop a more comprehensive outreach plan for all Eco-City efforts.

Environmental Action Plan

The Environmental Action Plan serves as the road map for City leaders, staff, and citizens to implement the Eco-City Charter. The Action Plan establishes general policy goals, identifies specific action steps, sets tentative timelines and develops measures of success. These goals serve as the bridge between the Charter's sustainability vision/principles and the specific actions (e.g., policies, programs and projects) that may be undertaken by the City, EPC, and the community in the coming years.

In FY 2008, the EPC initiated work on the development of Phase I of the Action Plan, which will include goals and action steps that are either underway, or can be implemented in the short term (FY 2009 - FY 2011). This will be followed by a Phase II Action Plan, which will address long term actions. The EPC will continue to work with City staff and Virginia Tech in FY 2009 to complete all phases of the Environmental Action Plan.

4. Other Issues

City Staff provided continuous updates to the EPC on other developments in the City, such as the revised operating permits for the Mirant and Virginia Paving facilities and the expansion of the Alexandria Sanitation Authority treatment plant. During FY08, the EPC worked with several other City commissions and groups to address water quality, energy, air quality, green building, transportation and open space issues facing the City.

The EPC was formally represented on the following City commissions and working groups:

- Open Space Advisory Group
- Mirant Community Monitoring Group
- Urban Forestry Steering Committee
- Earth Day Planning Committee
- Waterfront Committee
- Transportation Commission

The Office of Environmental Quality's annual Environmental Progress Report for FY 2008 providing an update on water quality, air quality, and contaminated land/brownfields is also included as an attachment to this report.

5. Earth Day

Alexandria Earth Day 2008 was celebrated at Ben Brenman Park on April 26th. This year's theme was "What's YOUR Footprint?" and more than 1,300 people attended! Attendees enjoyed live musical performances and a puppet show; and the City Arborist's tree sale more than doubled the number of trees sold last year (225 trees sold). City departments provided educational displays, while local businesses and non-profit organizations participated in the first "Green Home Fair". Exhibitors were required to sign a zero-waste contract in order to participate in the event in an effort to recycle or compost all waste materials. The EPC's Joy Pochatila served as Chair of the 2008 Earth Day Committee.



City of Alexandria
Transportation and Environmental Services
Office of Environmental Quality

ENVIRONMENTAL PROGRESS REPORT

An Update on Water, Air, and Contaminated Land Programs in FY 2008 for the Environmental Policy Commission

All Programs

Response to Citizen's Complaints

OEQ staff receives citizens' complaints via phone calls and the City's email hotline related to air quality, odor, noise, water quality and contaminated lands issues. Complaints are investigated by staff and either passed on to the appropriate authority (if warranted) or handled internally. Actions and responses are maintained in a database and communicated to the concerned parties.

Web Page

Staff is working to enhance the OEQ webpage to provide new content and updates for all functions.

Environmental Quality eNews

OEQ staff sends out eNews announcements of informational and educational updates on environmental issues, volunteer opportunities and Eco-City Alexandria Project events.

Water Quality Program Update

Municipal Separate Storm Sewer (MS4) Permit

OEQ continues to manage the City's MS4 state (DCR) stormwater permit. The City reapplied for a new 5-year permit that became effective on July 8, 2008. New responsibilities included in this permit will require additional resources to remain in compliance.

Stormwater BMP Facility Inspection Program

With over 400 BMPs in the City, the maintenance inspection program continues to be implemented. Approximately all BMPs have been inspected (through 2005 projects) at least once and staff has begun re-inspecting the facilities. The database is updated as new BMPs come online and facilities are added to the GIS layer.

Education and Outreach Efforts

- Public service announcements (Riversmart) were aired on Comcast channel 69 highlighting activities that negatively impact water quality.
- NVRC Clean Water Campaign partners include a website, regional radio spots and distribution of postcards.
- City-sponsored a Holmes Run Cleanup on Saturday, May 5, 2007. Over 35 participants collected over 40 bags of trash and large items.

- Staff participated in a cleanup at Holmes Run behind the Beatley Library and the dog park on Saturday, February 9, 2008.
- Staff participated in the Water Day-Spring Break Events at the Buddy Ford Nature Center on March 20, 2008.
- Staff attended the rain barrel "Train the Trainer" workshop to on March 30, 2008.
- The Potomac Watershed Cleanup - in support of the Potomac Watershed Trash Treaty - occurred at the west end of Four Mile Run Park on April 5, 2008. Volunteers removed over 50 bags of trash, with over 400 bags collected from all four locations in the City. Staff helped register 3 of the 4 sites and distributed supplies for all of the sites.
- Earth Day was celebrated on April 26, 2008 at Ben Brenman Park, which included the Eco-City Alexandria Draft Charter, interactive displays, education materials.
- Eco-City Alexandria Café and Eco-City Summit were held on March 8th and May 10th, respectively.
- "Build Your Own Rain Barrel" workshops were conducted at Maury Elementary School on May 17th and at Francis C. Hammond Middle School on July 12th, with over a total of 50 residents at each event learning about water conservation, the effects of non-point source pollution, and LID techniques, before building a rain barrel and taking it home.
- First Thursdays on the Avenue with the Del Ray Artisans included a rain barrel display, other educational materials, and the EnviroScape watershed model on June 5th.
- Don Karnes from WFAX radio recorded a telephone interview with staff to discuss rain barrels and water conservation on July 1st that aired at a later date.
- An article about rain barrels and water conservation was included in the Summer 2008 edition of FYI Alexandria and distributed to citizens.
- A "Build Your Own Rain Barrel" podcast can be found on the City website.
- Other outreach efforts included several presentations on soil and non-point source water management to local Garden clubs. The Hunting Creek Garden Club was inspired to offer a donation of \$5,000 to aide in constructing a green roof on City Hall.
- Invited panel participant to the Lyceum Science Series, Chesapeake Bay: Past, Present, Future" June 5, 2007. Spoke on the challenges of local implementation of the Chesapeake Bay Ordinance.
- Invited Speaker and Science Fair Judge Cora Kelley Elem. School. February 27th
- Science Fair Mentoring of Haley Harrington, St. Mary's Catholic School - 8th Grade
- Teachers at Cora Kelly toured the Health Dept Green Roof - tips for integrating green roof concepts in classroom instruction. Dec. 14, 2007
- Participate in search committee for the Virginia Tech Stormwater Management Professor

Watershed Projects

- Chesapeake Bay Program Review (Completed by the State every three years) Alexandria's program was rated in the top 10% in the State.
- Applied to utilize the 2004 State and Tribal Assistance Grant for a green roof and bioretention area at Cora Kelly Magnet Elementary School – water quality improvements in the Four Mile Run Watershed.
- Reviewed over 375 development plans for water quality compliance with the Environmental Management Act and Erosion and Sediment control regulations.
- Continue to work with the Corps of Engineers on implementing the Four Mile Run Master Plan (35% designs in the alluvial section) and the Cameron Run/Holmes Run Feasibility Study (10% designs in the tidal section).
- Over \$150,000 in funds committed to the Water Quality Improvement Fund.

Combined Sewer Systems (CSS)

The CSS Area Reduction Plan – implemented during development or redevelopment – provides guidance for separating sanitary and storm sewers at specific locations. Digital maps of the sewer system (which include the combined sewer area) have been developed. Field verification of the GIS-based inventory is underway. To date, separation is proposed in and around projects such as Samuel Madden, the Saul Center, Portner Brothers, the Prescott, Monarch and the Charles Houston Recreation Center.

Combined Sewer System Permit

OEQ coordinates the management of the permit, performs permit requirements, and organizes information from the participating divisions for inclusion in annual report submitted to the state in March. The City received a new permit on January 17, 2007 that expires on January 15, 2012.

Erosion and Sediment Control Program Compliance

The E&SC program remains in compliance by meeting or exceeding state law.

Environmental Coordinating Group (ECG)

Formed in late 2002 and scheduled to meet quarterly, the purpose of the ECG is inform City department representatives and other organizations of environmental activities occurring within each department. Representatives from Transportation and Environmental Services, Planning and Zoning, the Health Department, General Services, Code Enforcement, Parks and Recreation, Alexandria Sanitation Authority, and the City Attorney's Office attend the meetings.

Air Quality Update

Emissions Inventory Project

In 2005, Mayor Euille endorsed and signed the U.S. Mayors Climate Protection Agreement and the City was subsequently recognized by the Sierra Club as a "Cool City" for its commitment to the agreement. In January 2008, the City adopted a resolution to join the International Council on Local Environmental Initiatives (ICLEI), a membership association of 1,000 local governments committed to advancing climate protection and sustainable development. As part of ICLEI membership requirements, the City has committed to achieving the following milestones.

1. **Conduct a greenhouse gas emissions inventory and forecast**

This essential step is needed to establish a baseline of emissions from City-controlled operations as well as residents and businesses. The emission inventory is currently under development using ICLEI's Clean Air and Climate Protection (CACP) Software. Due to quality assured data, 2005 was selected as the baseline year.

2. **Establish a greenhouse gas emissions reduction target**

The City will establish emission reduction targets based upon data gathered from the emission inventory analyses and input from stakeholder groups. The City's goal is to have reduction targets and projection years for the government and community consistent with Metropolitan Washington Council of Government.

3. **Develop a Climate Action Plan**

The Climate Action Plan will describe the policies, programs, and projects the City will implement to meet the greenhouse gas emission (GHG) reduction targets. These policies and programs will focus on reducing emissions from industrial sources such as power plants, mobile sources, and residential, commercial, and industrial

buildings. The final Climate Action Plan will be incorporated into the Environmental Action Plan.

4. **Implement the action plan**

T&ES, OEQ and other City Departments will develop performance measures, timelines, and the financial requirements needed to successfully implement the strategies outlined in the action plan. These efforts will be coordinated via the Environmental Coordination Group and Environmental Action Plan steering committee.

5. **Monitor and report progress**

Monitoring activities are pivotal for determining the success of the plan and will be an ongoing exercise to assess overall accomplishments and refine policies and goals.

Criteria Pollutant Emissions

The City expanded its emission inventory scope (using 2005 as the baseline year) to include the following criteria pollutants: SO₂, NO_x, PM₁₀, CO, VOC, and PM_{2.5}. The emission inventory is currently under development using the ICLEI's CACP Software and the Environmental Protection Agency's AP-42—Compilation of Air Pollution Emission Factors document.

The next steps in the emissions inventory process are as follows:

- Finalize the proposed GHG emission reduction targets and emission reduction measures;
- Finalize the draft "State of the Air" report which includes the GHG emissions inventory, criteria pollutant emissions inventory, and historical air monitoring data; and
- Develop the Climate Action Plan and incorporate into the Environmental Action Plan.

School Bus Retrofit

T&ES partnered with Alexandria City Public Schools to obtain a \$70,000 grant to retrofit approximately forty school buses with clean air technology. Diesel Oxidation Catalyst System is an EPA-approved technology that works by breaking down exhaust stream pollutants into less harmful components. The retrofitted buses are expected to achieve emission reductions of approximately 20% for particulate matter, 50% for hydrocarbon, and 40% for carbon monoxide.

ACPS began retrofitting school buses in the summer of 2008. Operational data will be documented over the next several years by City staff and the VADEQ.

Education and Outreach

OEQ distributed compact fluorescent light bulbs (CFLs) and informational brochures to at Earth Day, Eco-City Café, Eco-City Summit, and the State of the City Address. Additionally, a climate change brochure was created to highlight the City's strategies to meet its climate protection goals and to urge citizens to take part in reducing their carbon footprint.

Air Quality Action Days

OEQ (with the assistance of the IT Department) expanded its outreach program to include the following to encourage citizens and City employees to take action

- Display air quality forecast on the homepage of the City of Alexandria's website.
- Send eNews releases notifying citizens when a Code Red Day is forecasted.
- Co-sponsored an Air Quality Action Day Kick-Off event at King Street Metro in which Mayor Euille participated in the dissemination of education material to citizens.
- Provided free bus rides on forecast Code Orange or worse days (Summer 2007 only).

- Post Air Quality Action Day display on forecast Code Orange or worse days in Market Square lobby.
- Updated and improved OEQ's Air Quality Action Days program webpage.
- Incorporated a condition into Transportation Management Plans (TMP) to allow commercial and residential property owners to utilize TMP funds for Air Quality Action Day projects.
- Submitted Air Quality Action Day articles to publications such as Local Motion, FYI, Alexandria Gazette, etc.
- Participated in the Regional Air Quality Action Day Advisory Team.

Air Quality Inspections

OEQ's continues to inspect major and minor air pollution sources within the City. These sources are evaluated on an annual, semi-annual, or tri-annual basis to ensure compliance with State air permits and the City's Special Use Permit (SUP).

Ambient Air Monitoring Program

OEQ continues to operate and maintain an Ambient Air Monitoring station at 517 N. St. Asaph Street. The station monitors local concentrations of O₃, CO, SO₂, NO₂, and PM₁₀. An additional PM₁₀ monitoring station was installed at Armistead Boothe Park/Cameron Station in June of 2006. Historical air monitoring data for both sites will be presented in the upcoming "State of the Air" report.

Contaminated Lands/Brownsfield Update

The City has a number of Brownfield sites in various stages of redevelopment.

- The Witter Recreational Field plan proposes to cap contamination from historic rail yard and manufacturing activities with three new artificial turf athletic fields.
- The new DASH bus facility broke ground earlier this year and has addressed contamination issues by a combination of on-site soil management and off-site disposal.
- The City continues to pursue methods of mitigating the impacts along Oronoco Street from the historic Manufactured Gas Plant. A biosparging pilot study will begin in 2009 to accompany the ongoing remedial efforts.
- The City acquired properties at 1 & 7 East Del Ray Avenue and is working with the community to develop a pocket park.
- Remedial activities at 4109-4125 Mt. Vernon Avenue (acquired in 2007) were completed in October 2008. Plans to redevelop the site as a multi-purpose City facility include an environmental/LID educational center and enhanced open space.

In addition to public projects, a number of private Brownfield sites have submitted plans for redevelopment.

- Contamination from historic rail yard operations at three Potomac Yard landbays will be capped in accordance with approved soil management plans.
- VADEQ approved corrective action plans for redevelopment of the properties at 2312 and 3015-3111 Mt. Vernon Avenue will require excavation of petroleum contaminated soil for below grade floor(s).
- The former Fannon Site at 1300 Duke Street has completed excavation of petroleum contaminated soil and will continue groundwater remedial efforts under the approved VDEQ corrective action plan.