



Legislation Details (With Text)

**File #:** 14-3835 **Name:**  
**Type:** Written Report **Status:** Agenda Ready  
**File created:** 3/11/2015 **In control:** City Council Legislative Meeting  
**On agenda:** 4/14/2015 **Final action:**  
**Title:** Receipt of the Progress Report on Eco-City and the Environmental Action Plan 2030.  
**Sponsors:**  
**Indexes:**  
**Code sections:**  
**Attachments:** 1. 14-3835\_Eco-City Alexandria, 2. 14-3835\_Presentation\_Eco-City Alexandria

Date	Ver.	Action By	Action	Result
------	------	-----------	--------	--------

City of Alexandria, Virginia

MEMORANDUM

**DATE:** APRIL 8, 2015  
**TO:** THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL  
**FROM:** MARK B. JINKS, ACTING CITY MANAGER /s/

**DOCKET TITLE:**  
Receipt of the Progress Report on Eco-City and the Environmental Action Plan 2030.

**ISSUE:** Progress report on Eco-City and the Environmental Action Plan 2030 (EAP 2030).

**RECOMMENDATION:** That City Council (1) receive the “2014 Eco-City Progress Report and Key Environmental Indicators,” intended for informing the public at the 2015 Alexandria Earth Day on April 25 and (2) recognize the Environmental Policy Commission (EPC), community members and City staff that have participated in the ongoing implementation of the EAP 2030 aimed at leading Alexandria further toward sustainability.

**DISCUSSION:** The comprehensive EAP 2030 was adopted by City Council on June 13, 2009, which consists of 48 goals, 50 preliminary targets, and 353 actions that span over the next 21 years and beyond. One of the more important short-term actions in the EAP 2030 calls for the development of key environmental indicators to measure the progress of the Eco-City initiative. In 2010, the EPC spearheaded the development of key

environmental indicators that can be measured on an annual basis, in consultation with the City's Environmental Coordination Group members. These environmental indicators were first reported to City Council in the 2012 progress report on the EAP 2030. It gives an overview of the Eco-City program, provides the latest indicators and the top ten environmental achievements for 2014 (see Attachment). This is the fourth year for an Eco-City progress report which is usually released and promoted as part of the Alexandria Earth Day which this year is on April 25.

### **Key Environmental Indicators**

The 20 key environmental indicators were reported in Table I of the report, which outlines 12 out of the 20 indicators, showing overall improvement over last year.

The City government has made great strides in reducing greenhouse gas (GHG) emissions by 35.6% over the period, from 2006 to 2014. Likewise, for Alexandria, the per capita GHG emissions were reduced by 27.9% from 2005 to 2014, due to increased energy conservation and use of renewable energy, economic conditions and the fact that the region's utility companies have increasingly used more natural gas and renewable energy during this period. The per capita water use increased by 3.2% in 2014, but the per capita waste water treated increased by 13.4%, most likely due to the increased rain falls (42.73 in. compared to 32.06 in.). The number of stormwater Best Management Practices installed in the City increased by 19.4% over the last two years.

The number of respiratory health complaints received by the Alexandria Health Department reduced significantly by 56.6% somewhat corroborating the better air quality data reported for the Washington Metropolitan area. Air quality in the Washington Metropolitan area has significantly improved with only four orange air quality action days and no red days in 2013 and 2014. The EPA is proposing to lower the 2008 ozone standard of 75 ppb to somewhere between 65-70 ppb with the final rule being promulgated toward the end of 2015. DASH public transit ridership increased markedly by 9.2% and the total passengers per mile increased by 6.5%.

### **Highlights of Progress in 2014**

The Crystal City-Potomac Yard Transitway opened in August with the introduction of the City's Metroway service along the congested Route 1 corridor between the Braddock Road and Crystal City Metrorail Stations, with stops in Potomac Yard. This project is the Washington metropolitan area's first right-of-way dedicated to premium bus operations designed to encourage transit use. This Metroway is already surpassing pre-launch projections, resulting in a 23% increase in ridership as compared to the previous bus route 9S, according to Washington Metropolitan Area Transit Authority.

The Capital Bikeshare system in Alexandria doubled in size after the eight new additions located in Carlyle and Del Ray. Within a month, ridership had more than doubled from the same month in 2013. According to the 2013 member survey, over half of Bikeshare members used Bikeshare to access transit stops.

Alexandria Transit Company (ATC) continued to replace its fleet with hybrid electric buses. In July of 2014, ATC started the new AT9 crosstown route using quiet and environment-friendly hybrid buses that helped alleviate public concerns about noise and air pollution associated with this new service. In 2015, ATC will be taking delivery of 14 additional hybrid-electric buses which will bring its fleet of hybrid-electric buses to over 50% of the total bus fleet.

The City's solid waste recycling rate for 2013 increased fractionally to 48.8 %, a new record level. In 2014, new programs and enhancements to existing programs were introduced that moved Alexandria to the forefront of Northern Virginia's recycling efforts, and the City is aiming for 65% recycling rate by 2020.

The City continued to lead by example in the areas of green building and energy conservation with the following initiatives: 1) the City substantially completed construction of the Eisenhower Fire Station 210 which is expected to be certified for LEED Gold in 2015; 2) more than 19% of the City government's electricity use was offset or generated by renewable energy in 2014; and 3) the City carried out LED lighting retrofits at the Beatley Library, Duncan Library, Burke Library, Chinquapin Recreation Center, Ramsay House, Black History Museum, and the Lyceum. In 2014, 99.9% of the square footage for new developments commits to green building standards.

The City has been diligently working to clean up the Chesapeake Bay under the new Environmental Protection Agency regulatory requirements. In addition to updating and strengthening the City's stormwater ordinance, the City received a \$1.75 million grant from the Virginia Department of Environmental Quality through the Stormwater Local Assistance Fund Grant, in addition to the \$1.2 million that the City received last year from the same state agency to retrofit Lake Cook. This current grant will be used to help fund the \$3.5 million stormwater retrofit project to enhance the treatment efficiency of stormwater and improve aquatic habitat of the Ben Brenman Pond as part of the City's stormwater regulatory requirements.

With the invaluable participation of hundreds of volunteers, the City had a landmark year in reclaiming and restoring 40 acres of the City's natural areas and parkland through the removal of decades-old, pervasive non-native invasive plants. This work restored natural areas to re-disturbance conditions, thus preserving their ecological sustainability and aesthetic beauty, and allowing Alexandria's diverse, native biodiversity to flourish.

Overall, the City has made significant progress towards implementation of the EAP 2030. This has occurred despite the challenging economic conditions and budget constraints. The City was recognized for the seventh consecutive year by the Virginia Municipal League as a platinum-level "Green Government." The City was also rated number one of the 10 most "greenest" mid-sized cities in the nation based on a study conducted by My Life.com, a social aggregation site. This study ranked 189 cities using the following criteria: 1) number of public parks; 2) number of recycling centers; 3) number of environmentally conscious commuters; and 4) walk score. Alexandria was the only city to rank in the top 20 of in all four categories, and was noted for its implementation of climate change initiatives. AlexRenew received the National Association of Clean Water Agencies Platinum Peak Performance Award for 100% compliance with the National Pollutant Discharge Elimination System permits over a consecutive nine-year period.

### **Updating of the EAP 2030 and Green Building Policy**

In September of 2014, the EPC held its annual retreat and identified two priorities aimed at furthering goals of the Eco-City Alexandria, namely, the updating of the EAP 2030 and the City's Green Building Policy. The former is consistent with the EAP 2030 which calls for the review and updating of this document every five years. Both policy documents were adopted by City Council in 2009. The Commission then recommended to Council to include these two projects as part of the FY2016 Long-Range Inter-departmental Work Plan. However, due to budget constraints, the proposed budget for FY2016 did not include funding for outside resources for these projects.

As the first incremental step toward updating the EAP, City staff and the EPC will work together through the end of FY2015 on the review of the existing EAP. As part of this effort, staff and the EPC plan to leverage other City planning efforts, such as the Bike & Pedestrian Master Plan, the CSO long-term control planning and the stormwater management efforts, to avoid duplication of effort. The North Old Town Small Area Plan under consideration for FY2016 might also represent an opportunity to pilot new Green Building policies, such as the Eco-District concept, which could assist in shaping the updated EAP.

City staff will also work with the EPC over the next several months to explore an alternative work program for updating the Green Building Policy with the goal of accelerating work on key issues. The report back to the

City Council in May will build on the analysis already completed by the EPC and address four topic areas: benchmarking Alexandria's Green Building Policy compared to neighboring jurisdictions, identification of priority issues, the resources required to address those issues (staff, funds, and time), and exploration of work models whereby the EPC shares in the work load.

### **Emerging Environmental Challenges**

There are several environmental challenges and issues that the City must address in the short and long term. These include, but are not limited to the impacts of TMDLs (Total Maximum Daily Load) on the City's new stormwater and combined sewer permits.

The City's stormwater permit requires implementation of stormwater management practices sufficient to achieve a minimum of 5% of the nutrient and sediment reduction of TMDL targets as prescribed in the permit by 2018. The City strategy to meet this initial target is by implementation of combination of several projects that include:

- Installation of a stormwater pond designed to treat 50+ previously untreated acres in Eisenhower East (Pond 19) completely designed and constructed at the developer's cost as part of a redevelopment project.
- Retrofit of Lake Cook for which the City applied and received a grant of \$1.2M from the Commonwealth of Virginia.
- Retrofit project to enhance the treatment efficiency of stormwater and improve aquatic habitat of the Ben Brenman Pond.

These overarching regulations require the remaining 40% of the reduction targets to be met by 2023 with the last 60 % of the required reductions to be achieved by 2028. Total fiscal impact of these requirements may range up to \$100 million, and will depend on the type and mix of technologies implemented. The City has begun, and will expand it further, a broader public education and outreach with the goal of soliciting input as it moves to develop plans to implement 40% and 60% reductions in future permits.

Additionally, the Hunting Creek Bacteria TMDL has resulted in several new requirements in the City's Combined Sewer System permit. These include several specific projects that will be implemented in the next four years and a major requirement to update the City's Long Term Control Plan that upon implementation will comply with the TMDL. A plan to comply with this TMDL will likely include installation of extensive controls and other measures that can cost as much as \$200 million to \$300 million depending on the type and mix of technologies that get implemented. Development of such an update is an extensive engineering planning exercise and City has initiated and will expand its education and outreach to receive public input in development of this Long Term Control Plan Update.

Climate change and preparing the city and community for potential impacts remain a serious challenge. As part of the adaptation strategy for climate change, the City is moving forward with the waterfront flood mitigation project.

**FISCAL IMPACT:** The fiscal impact of the EAP 2030 is a combination of (1) savings such as energy efficiency initiatives and economic benefits of eco-friendly City policies, and (2) costs such as the substantial investment the City will need to make in the sanitary sewer and stormwater areas.

### **ATTACHMENTS:**

Attachment 1: 2014 Eco-City Progress Report and Key Environmental Indicators

Attachment 2: Powerpoint Presentation

**STAFF:**

Emily Baker, Acting Deputy City Manager

Yon Lambert, Director, T&ES

William J. Skrabak, Deputy Director, T&ES, Infrastructure and Environmental Quality

Khoa Tran, Environmental Program Manager, T&ES, Infrastructure and Environmental Quality