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Attachments: 1. 14-2527_Attachment 1 Eco-City of Alexandria Progress and Environmental Indicator Report, 2. 14-2527_Attachment 2 Progress Report on the Environmental Action Plan 2030 Presentation

Date	Ver.	Action By	Action	Result
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City of Alexandria, Virginia

MEMORANDUM

DATE: APRIL 16, 2014
TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL
FROM: RASHAD M. YOUNG, CITY MANAGER /s/

DOCKET TITLE:

Consideration of 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.

RECOMMENDATION: That City Council:

1. Receive this progress report and recognize the Environmental Policy Commission (EPC), community members and City staff that have participated in the implementation of the Environmental Action Plan 2030 aimed at leading Alexandria further toward sustainability.
2. Receive the staff report entitled "2013 Eco-City Progress Report and Key Environmental Indicators" (Attachment 1), intended for informing the public at the 2014 Alexandria Earth Day on April 26.

BACKGROUND: The comprehensive Environmental Action Plan 2030 (EAP 2030) was adopted by City

Council on June 13, 2009 following a Council Public Hearing. It consists of 48 goals, 50 preliminary targets and 353 actions that span the course of 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 and in consultation with the City's Environmental Coordination Group members, the EPC spearheaded the development of key environmental indicators that can be measured on an annual basis. These environmental indicators were first reported to the City Council in 2012 progress report on the EAP 2030. Attachment 1 is this year's report entitled "2013 Eco-City Progress Report and Key Environmental Indicators." It gives an overview of the Eco-City program, provides the latest indicators, and the top ten environmental achievements for 2013. This is the third year for this report and it will be released and promoted as part of the 2014 Alexandria Earth Day.

DISCUSSION:

Key Environmental Indicators

The twenty key environmental indicators were reported in Table I of Attachment 1. Overall, fourteen of these indicators showed either a neutral or positive trend as compared to the last reporting period. Six of the indicators had a negative trend.

One of the major highlights is that the City achieved its highest ever recycling rate of 48.7% for CY 2012. This slight increase over last year's recycling rate of 48.4% confirmed that this high recycling rate is in fact, sustainable. The City is well on its way to achieve the 2020 target of 50% recycling rate stipulated in the City's Environmental Action Plan 2030. An expansion to the solid waste recycling program including increased public space recycling bins, T.C. Williams refuse & recycling compactors, Earth-Saver Challenge, and a new drop-off center was initiated in FY2014 and is proposed to continue in FY2015.

The per capita energy use for the Alexandria community has been reduced by 7.4% compared to 2011 and was 17.2% less than year 2005. The continuing economic slowdown combined with the unseasonably warm weather as well as ongoing energy conservation effort and awareness by the community could be among the contributing factors for this positive trend. More data is required to confirm specific underlying reasons for this reduction in energy use. City government energy use was slightly reduced by 0.6% in FY 2012 compared to 2011 and was 23.3% less than that for the FY 2006.

With regard to GHG (greenhouse gas) emissions, the per capita GHG emissions reduced by 3.1% compared to the last reporting period, and by 22.1% compared to 2005. The major contributing factor for the 22.1% reduction was the decreased 2011 GHG emissions factor for electricity generation which results directly from the increased use by the utilities of cleaner fuels such as natural gas and renewable energies combined with more efficient power plant technologies occurring from 2005 to 2011. In this regard, the recent permanent closure of the GenOn power plant in Alexandria and the replacement of its electrical production with facilities using cleaner fuels will contribute to additional reduction of the GHG emissions factor for the mid-Atlantic region in future.

The City achieved its Open Space Master Plan target of 100 acres of open space by the end of 2012. The City is

going through a public process to seek inputs for implementing the Plan for the next ten years. Further, the per capita water use stayed the same while the per capita waste water treated increased by 10.5%. The number of storm water structural best management practices (BMP) increased by 7.7%. The number of respiratory health complaints received by the Alexandria Health Department increased significantly by 28.8% in 2012 when compared to 2011, but is down 7.3% from the base year of FY 2010. This might reflect the random nature of complaints being used as an indicator.

Highlights of Progress in 2013

The City and Arlington County agreed to extend the Covanta energy-from-waste plant lease agreement through 2038 for the disposal of municipal trash, resulting in estimated savings to the jurisdictions totaling \$26 million and continued reduction in greenhouse gas emissions compared to landfilling.

The City completed two significant environmental remediation projects: one is associated with the Witter Recreational Facility; the second was the construction of a groundwater remediation system at the foot of Oronoco Street to prevent migration of the impacted groundwater from the former city-owned manufactured gas plant into the Potomac River.

In October, the City was named a Silver level Bicycle Friendly Community by the League of American Bicyclists. Awarded the bronze level in 2008, this new achievement reflects the City's launch and future expansion of the Capital Bikeshare program, the significant growth of on-street bike facilities, with 13 lane miles added in 2013, and the completion of major components of the bicycle and pedestrian trail network such as the pedestrian and bicycle crossing at Chambliss Street and Phase I of the Potomac Yard trail between Glebe Road and Monroe Avenue.

The City continues construction on the Route 1 transitway between Potomac Avenue and East Glebe Road to widen Route 1 north of Potomac Avenue in order to construct dedicated transit lanes and two transitway stations. This project is nearing completion.

DASH celebrated 30 years of dedicated service to Alexandria residents in March. The Alexandria Transit Company (ATC), the DASH operator, has 25 hybrid electric buses in its fleet of 79 buses. ATC plans to procure 21 additional hybrid electric buses over the next year, bringing the total hybrid fleet to 46, or 58% of the fleet.

The City's Local Motion Program sponsored the third annual commuter challenge whereby fourteen companies and 500 individuals from those companies engaged in a friendly competition to change their commute modes from driving alone to transit, carpool, walk, bike, vanpool, etc. This challenge resulted in several environmental benefits and savings in commuting costs.

Overall, the City has made significant progress towards implementation of the Environmental Action Plan 2030. This has occurred despite the challenging economic conditions and budget constraints. For the fifth straight year, the City was named a Certified Green Government by the Virginia Municipal League (VML). The City earned Platinum level certification, the highest level in VML's Green Government Challenge. Likewise, the Alexandria City Public Schools received recognition as a Certified (Silver Level) Green School Division in the Virginia School Boards Association's Fifth Annual Green Schools Challenge.

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.

City's stormwater permit requires implementation of stormwater management practices sufficient to achieve a minimum of 5% of the nutrient and sediment reduction 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 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 for and received a grant of \$1.2M from Commonwealth of Virginia

These overarching regulations require remaining 40% of the reduction targets to be met by 2023 with 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, Hunting Creek Bacteria TMDL has resulted in several new requirements in City's Combined Sewer System (CSS) permit. These include several specific projects that will be implemented in next four years and a major requirement to update 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 high as \$200 million to \$300 million and depends on the type and mix of technologies, and must be implemented by no later than 2035. 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: None

ATTACHMENTS:

1. 2013 Eco-City Progress Report and Key Environmental Indicators
2. Presentation

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