

City of Alexandria, Virginia

Environmental Action Plan

DEQ Virginia Environmental Excellence Program
December 5, 2018

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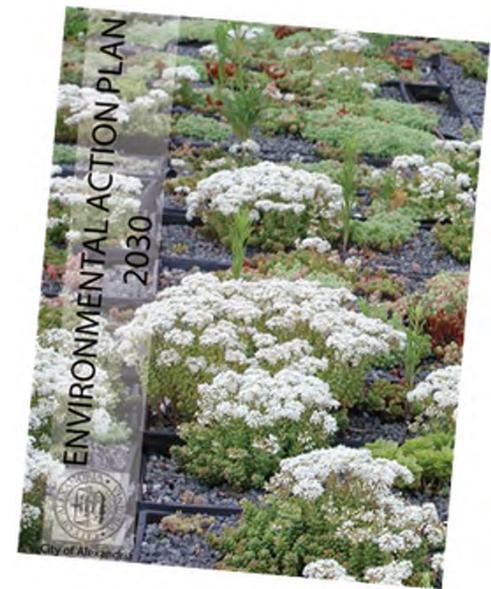
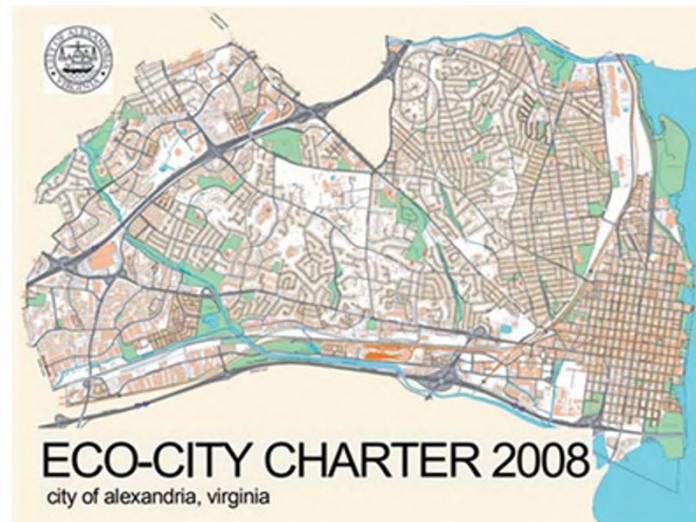
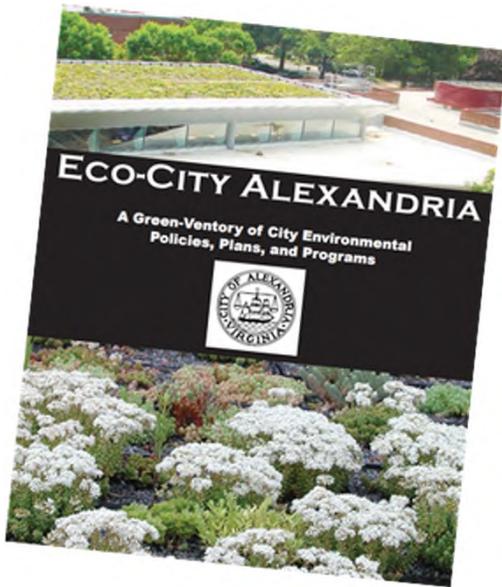


Environmental Progress

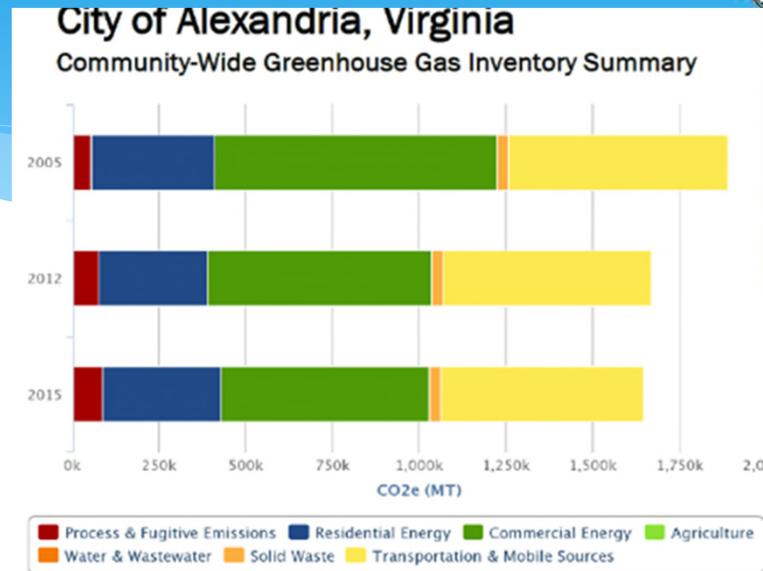


1998 to 2009 Alexandria was an early leader

2007 GreenVentory - 2008 Charter - 2009 Environmental Action Plan



Environmental Action Plan 2030



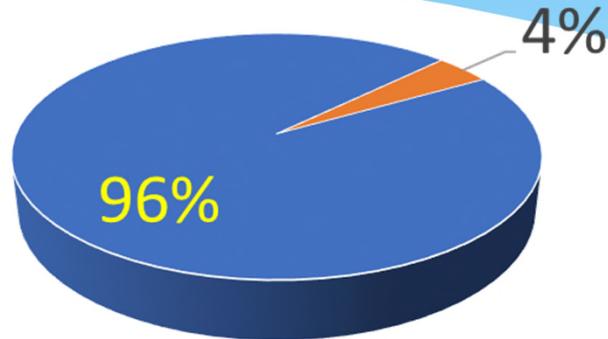
- Energy
- Green Building
- Land Use & Open Space
- Solid Waste
- Global Climate Change

- Air Quality
- Water Resources
- Environmental Health
- Transportation
- Implementation + Education and Outreach

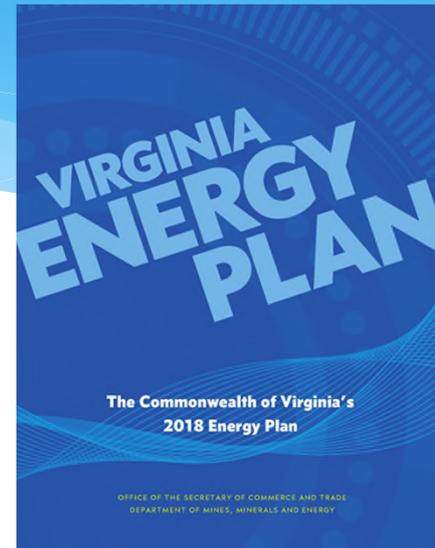
GHG Target Reduction 80% by 2050



SOURCE OF EMISSIONS (2012)



■ REST OF ALEXANDRIA ■ CITY GOVERNMENT EMISSIONS



- **13% drop in GHG emissions**
- City operations and facilities only 4% of GHG emissions
- Residents, businesses, and transportation are 96%
 - 58% is buildings (19% residential, 39% commercial)
 - 35% is transportation (12.5% drop in vehicle mile traveled)
- **Collaboration and leveraging is needed to reach target goals**



Eco-CITY  ALEXANDRIA



Environmental Action Plan (EAP)

Energy



- Energy Renewable: move toward electrification to replace fossil fuel use and offset energy use with renewables
- Energy Efficiency: reduce city and community use through efficiency upgrades and transition to electrical vehicles
- Community: CPACE



EAP: Solid Waste



WasteSmart Strategic Plan





EAP: Green Buildings



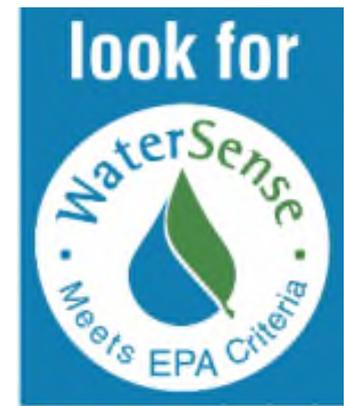
- Pic of green bldg



Green Building Policy and Development Conditions



- 95% development since 2009 (10 million sqft)
- LEED Silver commercial or equivalent
- LEED Certified residential or equivalent
- Development conditions
 - Low flow water fixtures & energy star appliances
 - Electric vehicle charging infrastructure
- **Green Building Policy** being updated
 - Priority strategies from the task force



Eco-CITY ALEXANDRIA



VISION   
ZERO 
SAFER STREETS FOR ALEXANDRIA



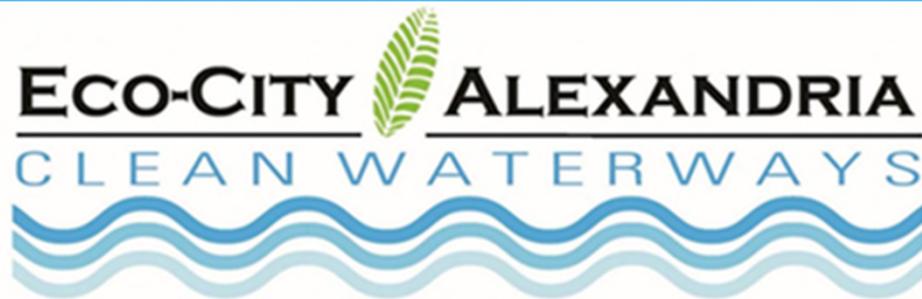


EAP: Transportation



- Update Transportation Demand Management (TDM) in the Alexandria Urban Mobility Plan
- Encourage/educate people to use sustainable mobility options with incentives and disincentives
- Improve/expand Alexandria's public transit system to integrate passenger rail and bus
- Add Potomac Yard Metrorail station

EAP: Water Resources



- Maintain and enhance stormwater and stream systems to a goal of fishable and swimmable waterbodies
- Achieve and/or exceed 100% pollutant reduction required by Chesapeake Bay Total Maximum Daily Load on each project



Only Rain Down the Storm Drain!

Runoff from hard surfaces like roofs, driveways, and streets picks up pollutants like:

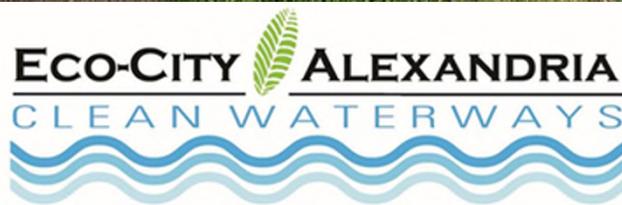
- Pet waste
- Litter
- Fertilizer
- Motor oils
- Chemicals

Polluted stormwater runoff flows directly into our local streams, the Potomac River, and eventually the Chesapeake Bay.





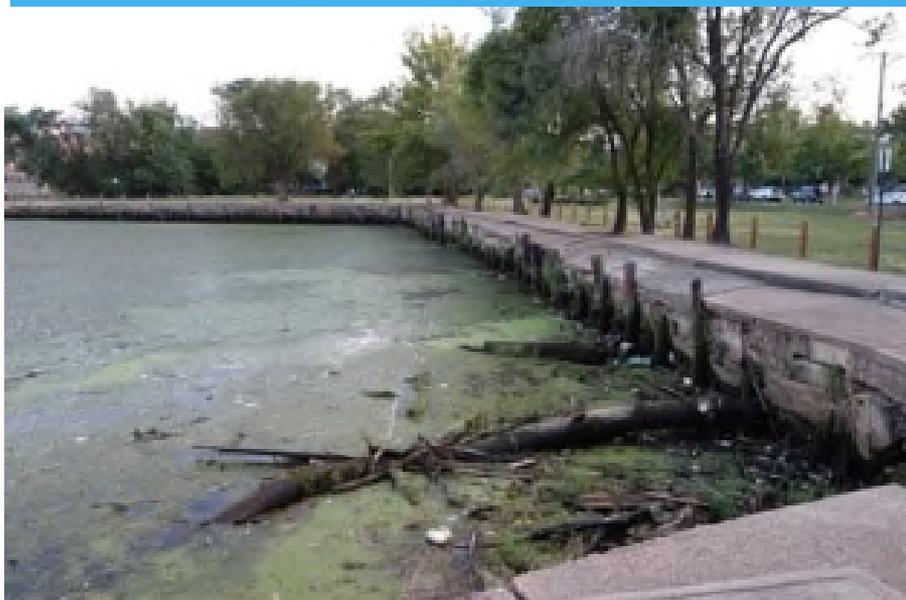
Four Mile Run
stream restoration



Street trees
Urban Bioretention



Living Shore Line



EAP: Climate Change



- Update of Energy and Climate Action Plan
- Update the City's Emergency Management Plan and operational planning to include infrastructure resiliency



Combined Sewer Long-Term Control Plan Adopted 2018

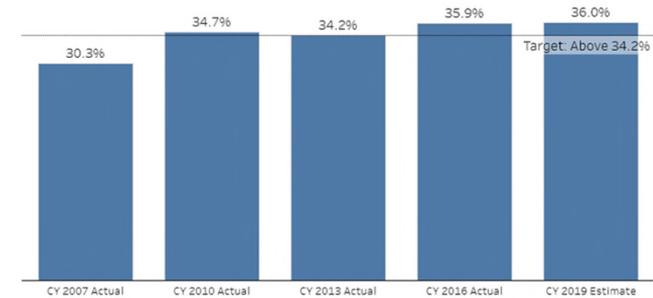


Range of Cost estimate
\$350-\$525 million

DASHBOARD Metrics



Tree Canopy
Percent of Alexandria land covered by tree canopy



Data is reported every three calendar years (CY) as part of a study conducted by the Geographic Information Systems (GIS) division in the Department of Information Technology Services. The tree canopy percentages shown were calculated from a multi-step methodology that uses customary GIS and remote sensing technologies. Final canopy percentages are affected by variations in the seasonality of images, classification parameters, and feature extraction criteria.



Alexandria City Schools



June 2017 to December 2018 completed

- 2,658 lights to LED's
- High Efficiency Domestic Hot Water Installation –
- Water Filling Stations – PTA Funded
- Upgraded heating and cooling systems
- Faucets – 99 automatic faucets
- Working to install smart meters at schools

Energy Masters and Rebuild Together



Help low income renters or homeowners make home improvements to reduce utility costs and make homes more affordable



ENERGY MASTERS

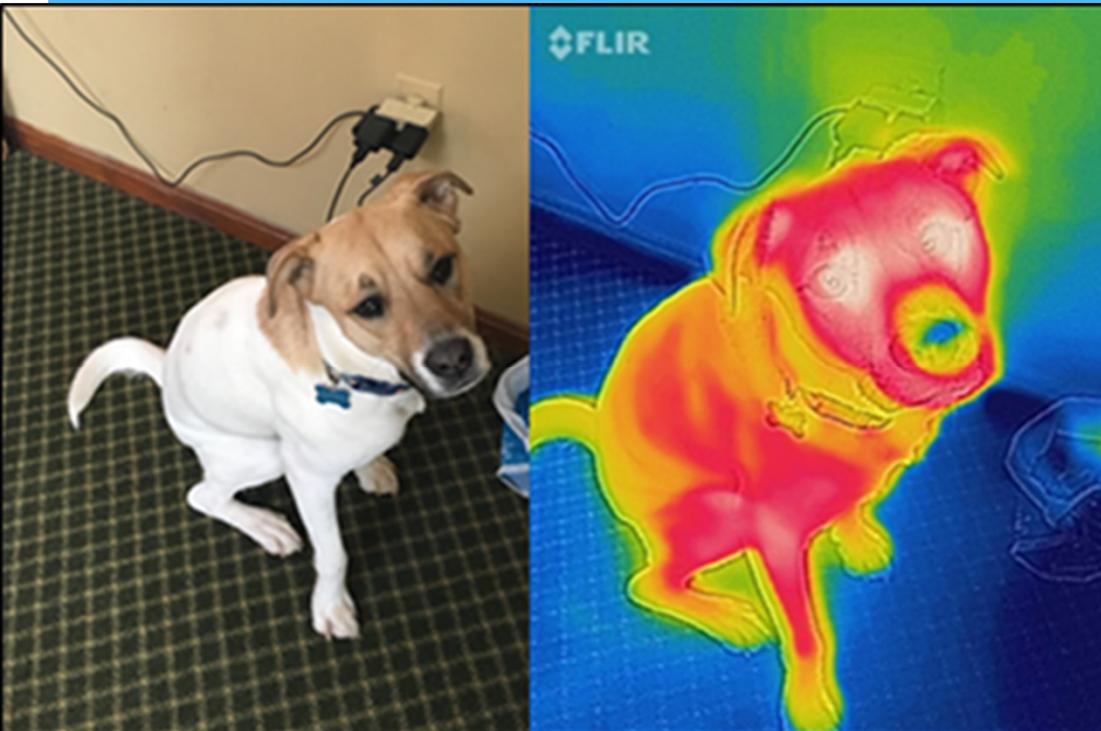


THE TOOLBOX



FALL 2018

EAP: Implementation, Education, and Outreach





EAP Update

Public Engagement





SUSTAINABILITY IN ALEXANDRIA

Environmental Action Plan 2030 Update



Questions

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