



# **Eco-City Alexandria: A Holistic Approach to Achieving Sustainability**

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Intergovernmental Green Building Group Meeting  
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# The Alexandria Community

- Located just outside Washington D.C., inside the Capital beltway
  - 140,000 citizens (well educated citizenry)
  - Significant interest in environmental issues
  - Over 200 homeowner, civic and business associations
  - Mayor and six other City Council members with City Manager
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# Eco-City Principles

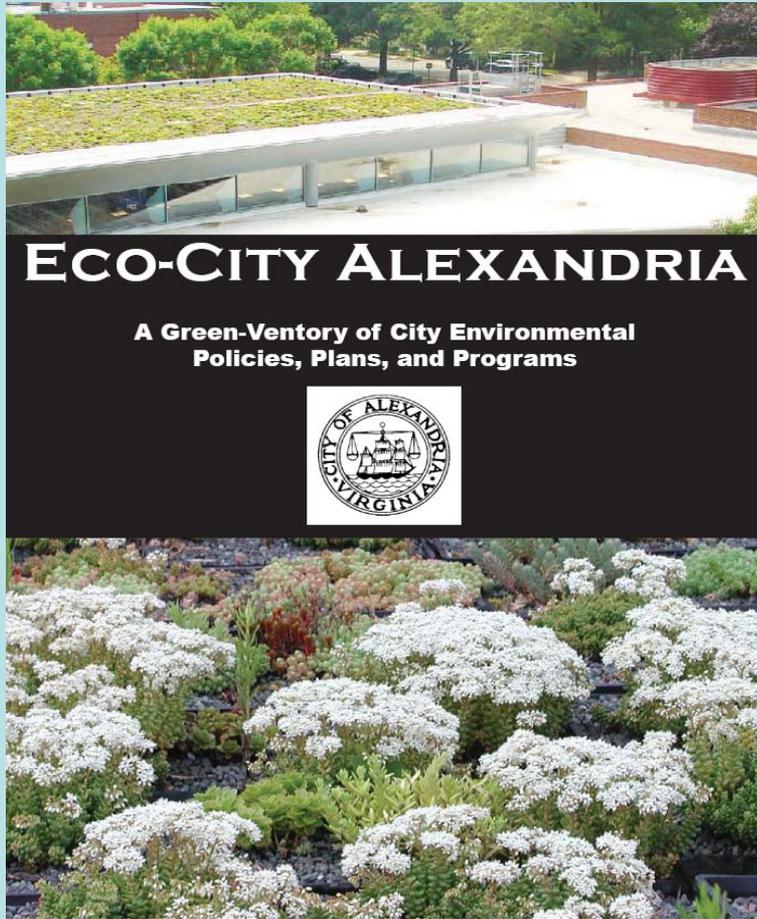
- Places where people can live healthier & economically productive lives while...
  - Reducing their impact on the environment
  - Protecting natural resources
  - Restoring community assets
- Harmonize existing policies, regional realities, economic and business markets with natural resources and environmental assets
- Strive to engage all its diverse citizens in collaborative & transparent decision making



# **Eco-City Alexandria – Partnership Between the City, Alexandria Environmental Policy Commission, Virginia Tech and the Community**

- Eco-City Alexandria project started in January 2007 following a request from City Council
  - Green-Ventory and Compendium of Model Sustainability Practices – December 2007
  - Eco-City Café and Eco-City Summit – Spring 2008
  - Eco-City Charter Adoption – June 2008
  - Phase I Environmental Action Plan Adoption – January 2009
  - Environmental Action Plan 2030 Adoption - June 2009
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# Green-Ventory Report



- Water & Solid Waste
- Land Use
- Open Space & Parks
- Transportation & Air Quality
- Energy & Green Buildings
- Environmental Health



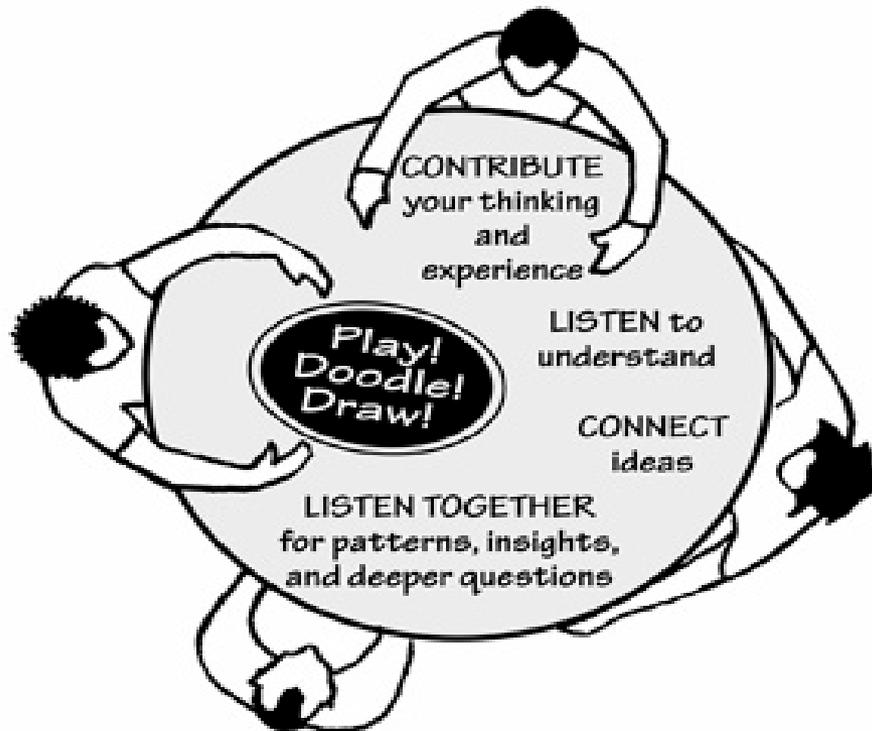
# Compendium of Model Practices

- Search for resources
    - articles, web sites, etc.
  - Focus on comparable communities
    - size, population, mid-Atlantic, etc.
  - Complete program and policy template
  - Select interviews w/ program staff
  - Compile model practices
  - Offer observations
  - Working document for EPC & staff discussions
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# Eco-City Café

## CAFÉ ETIQUETTE

FOCUS  
on what matters!



# Eco-City Café





# Eco-City Summit

- Held at the newly-constructed TC Williams High School that achieved the LEED Gold standard
  - Mayor Harvey from Waitakere, New Zealand, a pioneer in the Eco-City movement, served as the Summit's keynote speaker
  - Over 200 participants including local elected officials, city businesses, and citizens
    - Offering strategies for sustainable future of the City as well as feedback on the draft Eco-City Charter
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# Eco-City Summit

**Working Today For A Better Tomorrow**  
The City of Alexandria  
Department of Transportation & Environmental Services

Eco-City ALEXANDRIA

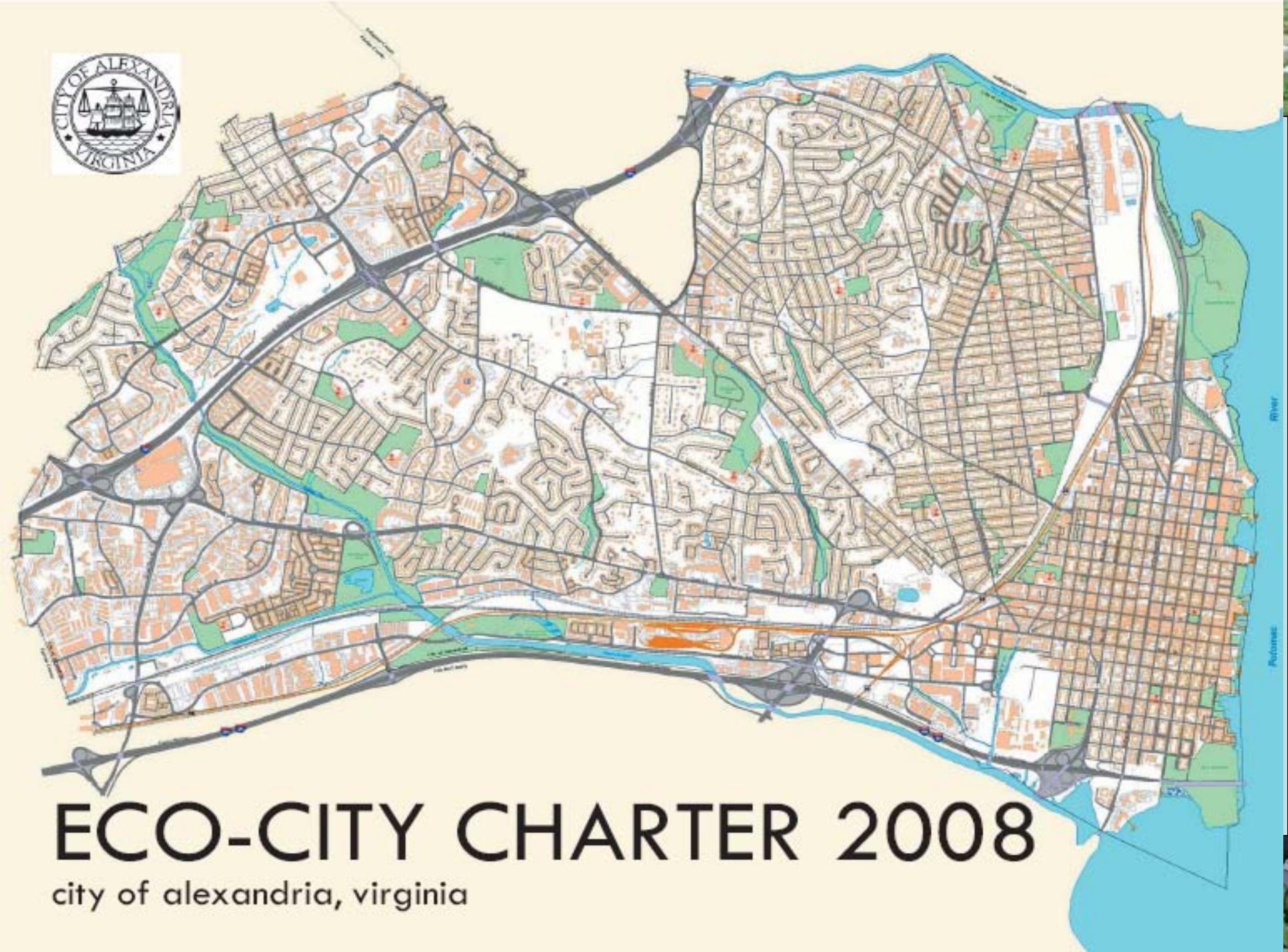
Eco-CITY CHARTER 2008

- Urban Affairs & Planning  
Virginia Tech
- Graduate students
  - Full-time faculty & professors in practice
  - Metropolitan Institute ([www.m-i.edu](http://www.m-i.edu))
  - Alexandria Center ([www.aic.virginia.edu](http://www.aic.virginia.edu))
  - Institute
  - Landscape Architecture
  - Government & International Affairs
  - Natural Resources



# Eco-City Summit





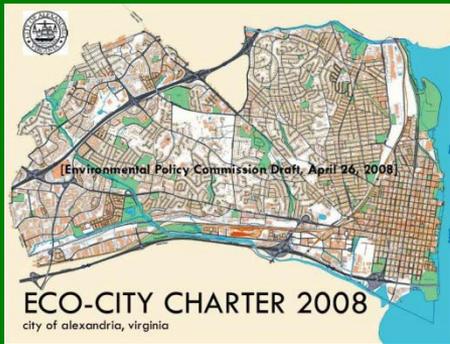
# ECO-CITY CHARTER 2008

city of alexandria, virginia

A photograph of a green roof with various succulent plants in shades of green, white, and red, growing in a grid pattern over a dark surface.

# 10 Eco-City Charter Principles

- Land Use and Open Space
- Water Resources
- Air Quality
- Transportation
- Energy
- **Building Green**
- Solid Waste
- Environmental Health
- Emerging Threats & Climate Change
- Implementation



# The Eco-City Charter

Green Buildings Are a Key Component  
of the City's Eco-City Program

## Building Green Principles:

- Reduce overall environmental impact of new development, redevelopment, and renovation
- Integrate green building and sustainability standards into all private and public development

A photograph of a rocky, vegetated slope with various green and white plants, likely a coastal or high-altitude environment. The plants are dense and cover the dark rocks.

# Environmental Action Plan 2030

- Comprehensive plan and road map for sustainability for the next 20 years
  - Implementation plan following the ten guiding principles of the Eco-City Charter
  - Incorporates short term goals and actions from Phase I EAP with new mid and long term goals and actions
  - Contains 48 goals, 50 preliminary targets and 353 actions covering the next 20 years and beyond
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- A photograph of a rocky, vegetated slope with various green and white plants, similar to the top image, showing a dense growth of vegetation on dark rocks.



# Key Actions on EAP 2030

## Green Building

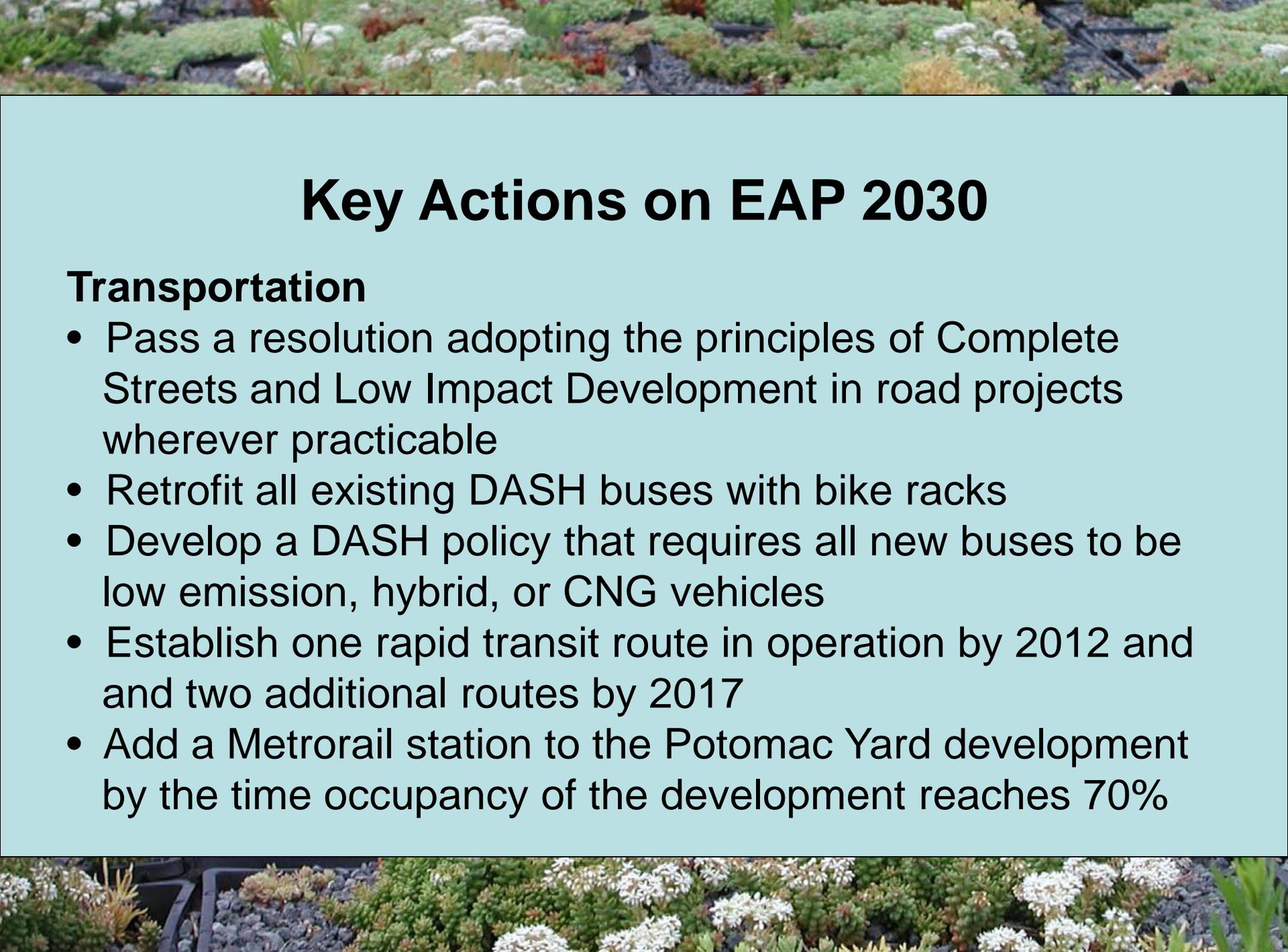
- Establish and promote green building standards for new commercial and residential development (LEED)
  - Develop a policy encouraging retrofitting existing buildings, including residences and historic buildings
  - Require all new construction by 2030 to be carbon neutral
  - All new construction and renovation of City buildings, will meet a LEED Silver rating as a minimum
  - Develop incentives for energy conservation through tax policy, fees, and green funding
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# Key Actions on EAP 2030

## Energy

- Hire an Energy Manager
  - Conduct energy audits of major City buildings
  - Conduct a feasibility study to establish a carbon tax designed to reduce energy consumption and GHG emissions
  - Require that all property owners provide full energy audits at time of sale or legal transfer of the property
  - At least 50% of the City's energy portfolio will come from renewable and clean energy sources by 2020, and raise that percentage to at least 80% by 2030
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# Key Actions on EAP 2030

## Transportation

- Pass a resolution adopting the principles of Complete Streets and Low Impact Development in road projects wherever practicable
- Retrofit all existing DASH buses with bike racks
- Develop a DASH policy that requires all new buses to be low emission, hybrid, or CNG vehicles
- Establish one rapid transit route in operation by 2012 and two additional routes by 2017
- Add a Metrorail station to the Potomac Yard development by the time occupancy of the development reaches 70%



# Key Actions on EAP 2030

## Water Resources

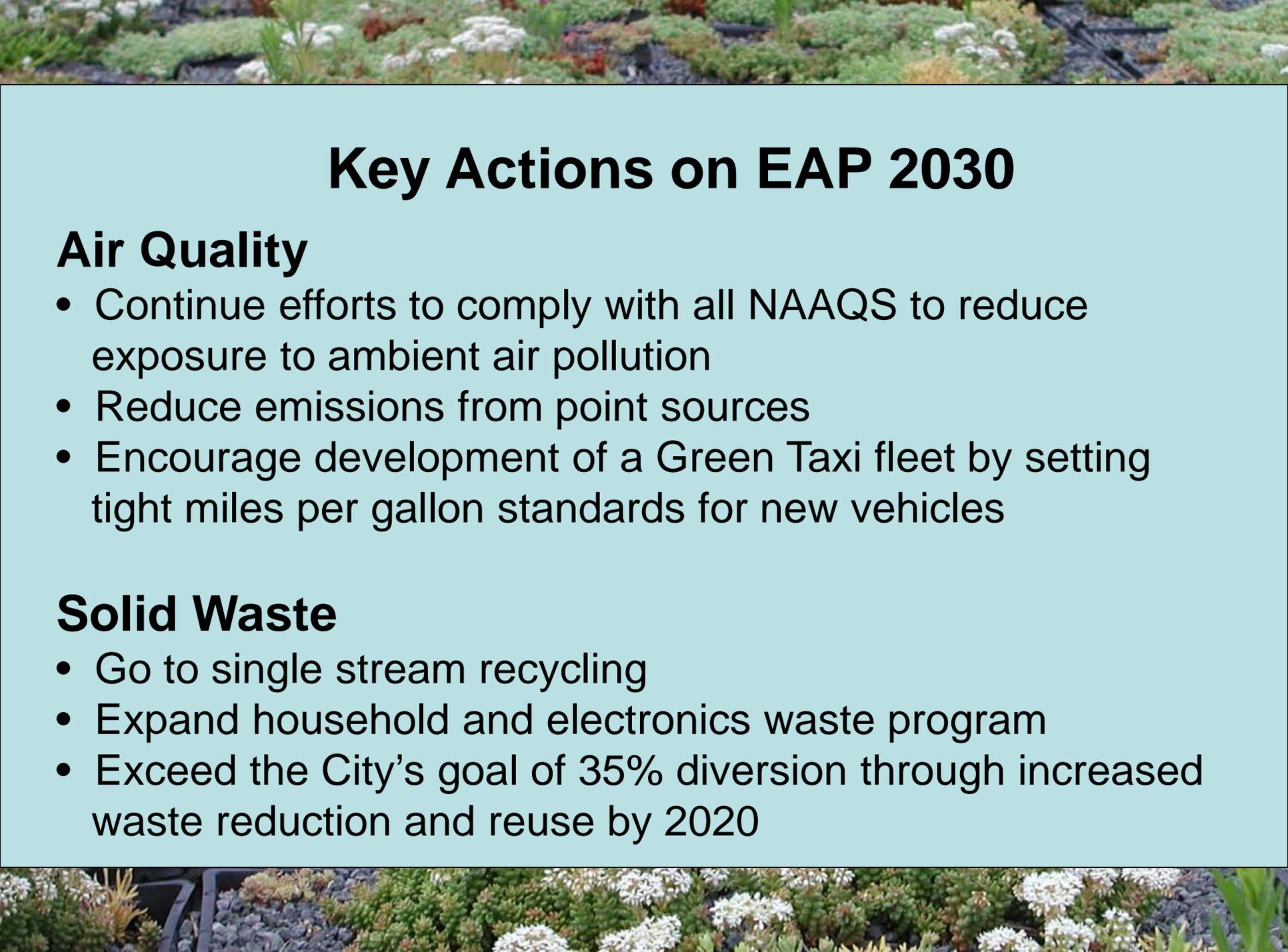
- Establish long-term dedicated funding mechanisms to improve and maintain stormwater infrastructure
  - Retrofit all City facilities with stormwater BMPs
  - Reduce impacts from combined sewer system
  - Maintain and improve key infrastructure, sanitary and storm sewer systems
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# Key Actions on EAP 2030

## Land Use and Open Space

- Include sustainability principles in all land use plans
  - Finalize the Urban Forestry Master Plan and develop a funding plan to implement Plan recommendations, including achieving a 40% crown coverage by 2020
  - Continue progress on protecting the 35 remaining acres, through acquisitions, easements, and dedications, to achieve the City's 100-acre open space goal
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# Key Actions on EAP 2030

## Air Quality

- Continue efforts to comply with all NAAQS to reduce exposure to ambient air pollution
- Reduce emissions from point sources
- Encourage development of a Green Taxi fleet by setting tight miles per gallon standards for new vehicles

## Solid Waste

- Go to single stream recycling
- Expand household and electronics waste program
- Exceed the City's goal of 35% diversion through increased waste reduction and reuse by 2020



# Key Actions on EAP 2030

## Global Climate Change & Other Emerging Threats

- Adopt the proposed GHG emission reduction targets
- Continue to inventory GHG emissions within the City
- Establish City Climate Action Plan

## Environment and Health

- By 2010, create a Smoke-free Alexandria program that encourages restaurants and work places in the City to go completely smoke-free and recognizes those that do
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# Progress – Policy & Planning

- Adopted a new green building policy that requires all new commercial and multi-family developments to be LEED Silver or LEED certified
  - Adopted the Urban Forestry Master Plan that aims at protecting and enhancing the City's tree canopy by setting a goal of 40% tree canopy for the City
    - Incorporating sustainability principles into Small Area Plans such as the Potomac Yard Small Area Plan
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A photograph of a green roof with various succulent plants in shades of green, white, and red, growing in a bed of dark grey gravel. The plants are densely packed and cover most of the visible surface.

# Progress - Green Building Projects

- Completed in 2009:
  - Dept. of Human Services Admin. Building – LEED (EB) Silver
  - Charles Houston Recreation Center – LEED Gold
  - DASH facility – LEED Gold
  - Potomac Yard Fire Station & Mixed Use Development - LEED Silver (Awaiting Certification) & EarthCraft
- To the Future:
  - Alexandria Police Dept (Under Construction) – LEED Silver
  - Master Fire Station 210 (In Design) – LEED Silver
- T.C. Williams High School achieved LEED Gold certification in 2009





## Benefits of Eco-City

- Eco-City integrates environmental issues with all existing plans, policies and projects, creating a holistic governance of City affairs toward sustainability
  - Eco-City allows the City to brand all environmentally-related activities under the Eco-City “umbrella”
  - Funding for Environmental programs has been sustained and has been significant asset when pursuing grants
  - Enabled the City to market itself towards green businesses
  - Alexandria is viewed by many as a leader in environmental sustainability, creating value and pride for Alexandrians
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**Thank You**  
**[www.alexandriava.gov/Eco-City](http://www.alexandriava.gov/Eco-City)**

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