

# TREE CANOPY MANAGEMENT STRATEGY

---

## Assessment of the Region's Tree and Forest Resources

Steve Walz  
Environmental Programs Director

Chesapeake Bay and Water Resources Policy Committee  
July 27, 2018

# Tree Canopy – Triple Bottom Line Asset

---

- **Water quality** from forest lands & urban tree canopy
  - Non-fragmented & riparian forest lands reduce water pollution
  - Chesapeake Bay Program
    - Watershed Model accounting framework recognizes tree canopy land uses
    - Credits for urban tree BMPs can help achieve Watershed Improvement Plan goals & MS4 permit requirements
- **Air quality**, urban heat island, & climate change benefits
  - 1997 Ozone NAAQS State Implementation Plan (2007)
  - Smart Surfaces providing water quality, air quality, energy/climate, health, & economic benefits
- **Quality of life** – parks, property values, silviculture



# Regional Tree Canopy Workgroup

---

- Tree Canopy Management Strategy is a product of the Regional Tree Canopy Workgroup
- COG ad-hoc Workgroup established in 2007
  - Develop strategies, tactics, & recommendations to conserve & manage regional tree & forest resources
  - Identify opportunities to manage our urban forests collaboratively at a regional scale
- Local & state representation



# Urban Forest Defined

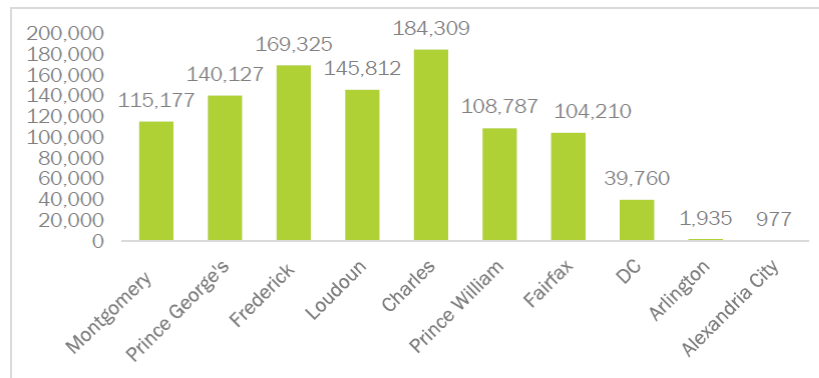
1. Street trees
2. Public trees
3. Residential trees
4. Urban trees
5. Wooded areas
6. Riparian buffers



# State of the Canopy

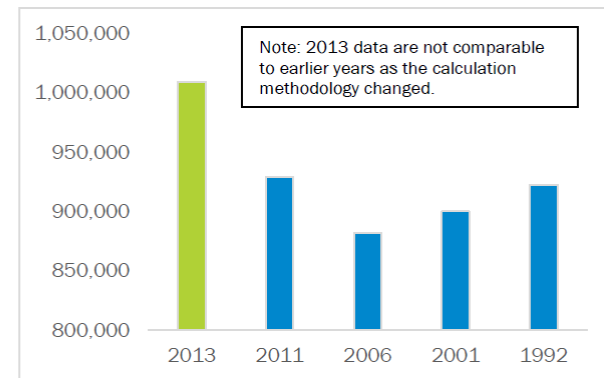
- Land clearing began prior to European settlement – for hunting, agriculture & travel – 50% forests cover of Chesapeake watershed
- Urbanization, agriculture, military activity, & timber harvests reduced forest to 40-50% by mid 20<sup>th</sup> century
- 2013 is new baseline – prior USGS land cover data had less resolution
  - 2013 Chesapeake Conservancy Land Cover Data measure non-fragmented forest land equal to 1.01 million acres or 45.7% of 2.21 million acres

Figure 4: 2013 Non-fragmented Forested Land Acres by Locality <sup>1</sup>



(COG)

Figure 5: COG Region Forest Acres



(COG)



# Threats to Tree Canopy

---

## Threats to Forests

- Deer overpopulation and browse
- Fragmentation of forest ecosystems
- Invasive plants
- Loss of forested properties

## Threats to Urban Tree Canopy

- Insufficient species diversity
- Inadequate planting space
- Insufficient funding for tree programs

## Shared Threats to Urban Tree Canopy & Forests

- Pests and diseases
- Development and redevelopment of land
- Absences of regional forest planning
- Effects of climate change
- Lack of public awareness and support
- Storm damage



# Local Action Examples

---

- 1885 – Falls Church Village Improvement Society – tree care & planting
- 1892 – First Arbor Day in Virginia
- 1914 – Maryland Roadside Tree Law
- 1973 – Fairfax County tree preservation ordinance
- 1983 – Takoma Park tree canopy ordinance
- 1989 – Virginia legislation enabling tree preservation in development
- 2002 – Casey Trees established
- 2004 – Arlington County Urban Forest Master Plan
- 2009 – Virginia legislation enabling tree conservation ordinance
- 2009 – Fairfax tree conservation ordinance
- 2009 – District & Fairfax County quantify environmental value of tree canopy
- 2013 – Montgomery County Forest Conservation Law & Roadside Tree Protection Law



# Local Urban Forest Programs

**Table 3. Results Of 2018 Survey to Assess Urban Forest Programs Across the Region**

Jurisdiction	Tree or Forest Protection Ordinance	Tree Canopy Assessment	Tree Canopy/ Forest Cover Goal	Plan to Increase Tree Canopy	On/off-site, Bank, fee-in-lieu Mitigation	GI, UF, GS Plan **	Tree City USA, 2017
District of Columbia	●	●	●	◐	●	●	●
Charles Co.	●	○	◐	○	●	○	○
Frederick Co.	●	○	●	◐	●	●	○
Frederick	●	●	●	◐	●	●	●
Montgomery Co.	●	●	◐	○	●	●	●
Gaithersburg	●	●	●	◐	●	●	●
Rockville	●	●	●	●	●	●	●
Takoma Park	●	●	●	●	●	●	●
Prince George's Co.	●	●	●	●	●	●	●
Laurel	●	●	●	●	●	●	●
Bowie	●	●	●	◐	●	●	●
College Park	●	●	○	◐	○	●	●
Greenbelt	◐	●	●	◐	○	●	●
Hyattsville	◐	◐	◐	◐	○	◐	●
Bladensburg	○	●	○	◐	○	○	○
Alexandria	●	●	●	●	●	●	●
Arlington Co.	●	●	●	●	●	●	●
Fairfax Co.	●	●	●	●	●	●	●
City of Fairfax	●	●	○	◐	○	◐	●
Falls Church	◐	●	●	◐	○	○	○
Loudoun Co.	●	○	●	◐	○	○	○
Prince William Co.	●	○	●	◐	○	●	○
Manassas	●	●	●	●	○	◐	●
Manassas Park	○	○	○	○	○	◐	○
<b>% Implemented + In Progress</b>	<b>90%</b>	<b>77%</b>	<b>77%</b>	<b>60%</b>	<b>42%</b>	<b>79%</b>	<b>75%</b>

(COG)

**Table 3. Key**

- Unknown
- Not Started
- ◐ In Progress/ Partially Applied
- Implemented/Yes

"Tree Canopy / Forest Cover Goal" updated from CEEPC 2013 survey

\* Gaithersburg, City of Fairfax, City of Falls Church, Bladensburg, College Park rely on underlying county tree canopy assessments

\*\* GI = Green Infrastructure  
UF = Urban Forest  
GS = Green Space

\*\*\* Montgomery Co. and Loudoun Co. apply goals to specific developments or master plans



# Goals, Strategies & Implementation Steps

---

1. Protect, manage & expand urban forestry assets for health & quality of life
2. Optimize urban forest programs
3. Develop a regional urban forest action plan, & canopy goals
4. Inspire the community to take ownership of efforts to protect & expand urban forests
5. Integrate urban forestry with Region Forward



# Recommendations

---

1. Encourage COG member jurisdictions to conserve and expand urban forests
2. Establish on-going forest policy advisory committee
3. Align regional urban forest initiatives & metrics with Region Forward vision (Accessible, Sustainable, Prosperous, Livable)



## Steve Walz

Environmental Programs Director

(202) 962-3205

[swalz@mwkog.org](mailto:swalz@mwkog.org)

[mwkog.org](http://mwkog.org)

---

777 North Capitol Street NE, Suite 300

Washington, DC 20002



Metropolitan Washington  
Council of Governments