



# Tree Canopy

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*Forestry Workgroup Chair*

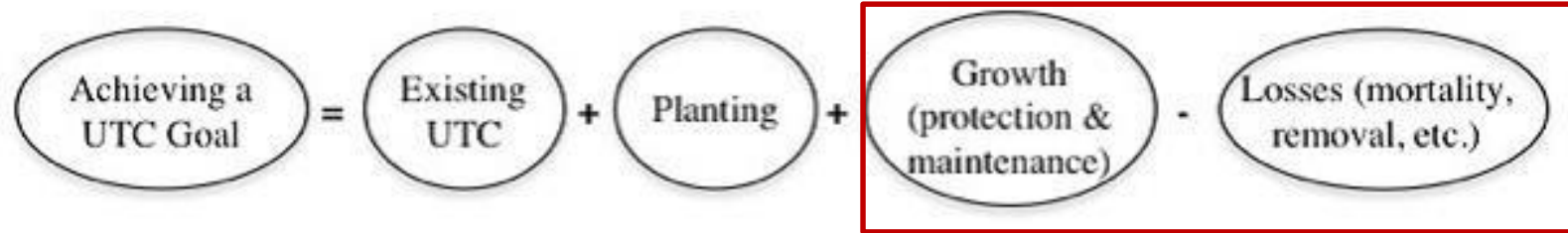
*Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...*



## Vital Habitats Goal

**Tree Canopy Outcome:** Continually increase urban tree canopy capacity to provide air quality, water quality and habitat benefits throughout the watershed. **Expand urban tree canopy by 2,400 acres by 2025.**

*It's not just about planting...*





## What We Want

**1**

**Build state and local capacity through new funding and policy strategies**

**2**

**Promote tree canopy through state and local stormwater programs and WIP efforts**

**3**

**Increase local engagement in tree canopy strategies and tracking**

# 1

## Setting the Stage:

*What are our assumptions?*

# Why is Tree Canopy So Important?

SEE HOW

## TREES IMPROVE



HUMAN HEALTH



ECONOMIC  
DEVELOPMENT



WATER QUALITY



AIR QUALITY



PUBLIC SAFETY



EQUITY



TRANSPORTATION



EDUCATION



CITY PLANNING



SMART CITIES  
TECH



URBAN WOOD  
REUSE



VIBRANT CITIES LAB

IMPACTS, RESEARCH, CASE STUDIES URBAN FORESTRY TOOLKIT RESOURCES

Vibrant cities cultivate thriving urban forests that boost public health, safety, sustainability and economic growth.

[www.vibrantcitieslab.com](http://www.vibrantcitieslab.com)

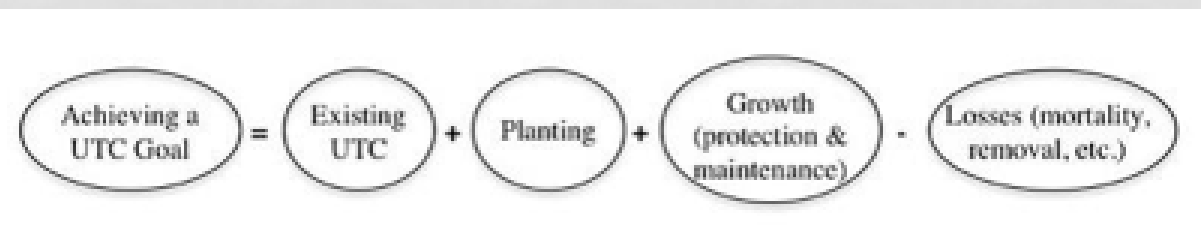
for latest research on  
urban forest co-benefits



## CHALLENGES

- ✓ Many drivers of loss (development, storms, pests)
- ✓ Weak or nonexistent local ordinances and staffing
- ✓ Inadequate or patchy funding
- ✓ People take trees for granted and sometimes focus on negatives

# FACTORS INFLUENCING ABILITY TO REACH URBAN TREE CANOPY GOALS



Funding & Partnerships

Policies & Ordinances

Technical Knowledge & Capacity

Community Education & Outreach

Drivers of Loss:

- Development
- Storms
- Pests/Disease
- Natural Mortality
- Utility Clearing
- Deer Browse
- Improper Maintenance



2

# Progress:

*Are we doing what we said we would do?*

# What Has Been Done to Support the Outcome?



## PROGRESS: Funding & Partnerships

- State Urban Forestry Programs – grants, regulations, technical assistance, citizen training – are the most important driver of the progress we are able to track to date; these are critical to maintain and grow
- Tree Canopy Financing Guide – release and workshop in Dec. 2018 (*UMD Environmental Finance Center, Alliance for the Chesapeake Bay, MWCOG, and partners*)

# What Has Been Done to Support the Outcome?

## PROGRESS: Policy & Ordinances

- Crediting Tree Canopy in TMDL/WIP efforts
  - ✓ New Tree Canopy land uses/loading rates in Phase 6
  - ✓ BMP Expert Panel – approved urban tree canopy credit
  - ✓ 3 BMP credits now count towards our outcome:
    - 1) urban tree planting
    - 2) urban forest planting
    - 3) urban forest buffers

### Recommendations of the Expert Panel to Define BMP Effectiveness for Urban Tree Canopy Expansion

Karen Capiella, Sally Claggett, Keith Cline, Susan Day, Michael Galvin, Peter MacDonagh, Jessica Sanders, Thomas Whitlow, Qingfu Xiao



Accepted conditionally by Forestry Work Group, June 23, 2016  
Approved by Watershed Technical Work Group, September 1, 2016  
Final Approval by Water Quality Goal Implementation Team, September 12, 2016

See <https://chesapeakestormwater.net/urban-tree-canopy-expansion/>

# What Has Been Done to Support the Outcome?

## PROGRESS: Technical Knowledge and Capacity

- Tree Canopy Land Cover/Land Use Data for entire watershed
  - ✓ Freely available online
  - ✓ Incorporated into Phase 6 model
- Analysis of ecosystem services and demographics in i-Tree Landscape

Links to [CB Land Cover Data](#); [CB Land Use Data](#); and [i-Tree Landscape](#)

# What the land cover data shows us today (2013 Baseline)

Jurisdictions	Total Tree Canopy (acres)	Forest in Urban Areas & Clusters (acres)	Tree Canopy + Urban Forest
Delaware	6,320	3,414	9,734
District of Columbia	8,073	4,477	12,550
Maryland	317,076	331,308	648,384
New York	50,840	22,058	72,898
Pennsylvania	293,821	148,724	442,545
Virginia	407,940	303,375	711,315
West Virginia	46,069	15,481	61,549
Watershed	1,130,139	828,837	<b>1,958,976</b>

Tree Canopy = Tree Canopy over Turf Grass and Tree Canopy over Impervious (both from Phase 6 land use)

Forest = Forest as defined in Phase 6 model land use, exclusive of tree canopy; filtered to only 2010 Census Urban Areas and Urban Clusters

# What Has Been Done to Support the Outcome?

## PROGRESS: Community Education and Outreach

- Created new website to support and connect watershed tree programs

The screenshot shows the homepage of the Chesapeake Tree Canopy Network website. The header is dark blue with the logo on the left and navigation links on the right. The main content area features a large image of people measuring a tree, with text on the left and a call-to-action on the right. The footer includes a section for tree canopy initiatives and the organization's logo.

**Chesapeake Tree Canopy Network**

SIGN UP ABOUT US CONTACT US CHESAPEAKEFORESTBUFFERS.NET

WHY TREE CANOPY? UNDERSTAND YOUR CANOPY EXPAND YOUR CANOPY MAINTAIN YOUR CANOPY

## Welcome to the Chesapeake Tree Canopy Network

Connecting you with resources, stories, and best practices to [understand your canopy](#), [expand your canopy](#), and [maintain your canopy](#). Learn about and make the case to others [why tree canopy](#) is so critical to a healthy, vibrant Chesapeake Bay watershed. We are building this resource as we go, so please [send your ideas](#) and suggestions for making the network most helpful.

DC: Using leading edge tools to manage our Capital's canopy  
[Read More](#)

Get updates on tree canopy news and events! [Sign up](#)

## Tree Canopy Initiatives

Find local tree canopy assessments, goals, and urban forestry contacts.

Address Search

**chesapeake network**

Looking to participate in the tree canopy

# What Has Been Done to Support the Outcome?

## PROGRESS: Community Education and Outreach

- Tree Canopy, Environmental Justice & Community Engagement Project
- ✓ Diversity Workgroup Collaboration
- ✓ 2017 Regional Workshop
- ✓ 5 Pilot Communities in Anacostia
- ✓ Case studies coming in 2019



# Tree Canopy Indicator, Progress & Tracking

Tree Canopy Indicator has 2 components\*:

- 1) States report three urban tree BMPs annually to track progress towards meeting the Bay TMDL
- 2) Long term progress analyzed through remote sensing in CBP Land Cover updates

\*Pending WQGIT approval



# State Targets and Progress Data Available

Jurisdiction	Outcome Annual Target (New Acres)	Outcome 2025 Target (New Acres)	2010-2017 Progress
Delaware	5	60	5
DC	40	480	272
Maryland	45	540	4983
New York	5	60	?
Pennsylvania	60	720	10+
Virginia	40	480	143
West Virginia	10	120	30
<b>TOTAL</b>	<b>205</b>	<b>2460</b>	

Note: These numbers will be refined with states by May 2019

These Tree Canopy targets were set by states in 2014 to develop the Agreement Outcome

# 3

## Challenges:

*Are our actions having the expected effect?*



## Challenges

*We're just getting started, still so much to be done!*

- ❖ Local action is fundamental
- ❖ Funding/policy – still highest needs locally
- ❖ More stormwater/WIP integration will drive implementation and tracking
- ❖ Need state tracking and reporting systems for urban tree BMPs that capture local implementation

# 4

## **Adaptations:**

*How should we adapt?*



**Based on what we've  
learned, we plan to...**

**1**

## **Build state and local capacity through new funding and policy strategies**

- ❖ Change our message?
- ❖ Build demand through compelling messaging/outreach materials that highlight latest research on tree canopy co-benefits and new partnership opportunities
- ❖ MB Ask: Provide CBP Communications and cross-outcome support for integrated messaging campaign



**Based on what we've  
learned, we plan to...**

**1**

## **Build state and local capacity through new funding and policy strategies**

- ❖ Use forthcoming Tree Canopy Financing Guide as a platform for new strategies and local capacity building
- ❖ MB Asks:
  - Help us plant and protect more trees!
  - Support task force on Tree Canopy Funding and Policy Strategies with high level state representation; report recommendations to Executive Council.



**Based on what we've  
learned, we plan to...**

**2**

## **Promote tree canopy more vigorously through state and local stormwater programs and WIP efforts**

- ❖ Bolster urban tree BMPs in WIP III planning efforts
- ❖ Increase urban tree protection and planting in urban stormwater programs
- ❖ MB Ask: bolster agency collaboration in integrating tree canopy goals in stormwater program delivery and WIP planning



**Based on what we've  
learned, we plan to...**

**3**

## **Increase local and partner engagement in tree canopy strategies and tracking progress**

- ❖ Develop user-friendly Tree Tracking tool to capture local/partner efforts not currently reported
- ❖ Engage local partners in latest tools, data, and strategies through Chesapeake Tree Canopy Summit 2.0
- ❖ MB Ask: Come to the summit! Help your local partners participate and identify funding for support



# Cross Goal and Outcome Considerations

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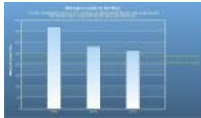
## Sustainable Fisheries

- Fish Habitat



## Vital Habitats Goal

- Stream Health
- Forest Buffer



## Water Quality Goal

- 2017 and 2025 WIPs
- Water Quality Standards Attainment and Monitoring



## Stewardship Goal

- Citizen Stewardship
- Local Leadership
- Diversity



## Healthy Watersheds Goal

- Healthy Watersheds



## Public Access Goal

- Public Access Site Development



## Land Conservation Goal

- Protected Lands
- Land Use Methods and Metrics Development
- Land Use Options Evaluation



## Environmental Literacy Goal

- Sustainable Schools
- Environmental Literacy Planning



## Climate Resiliency Goal

- Monitoring and Assessment
- Adaptation Outcome



## What We Want

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# Discussion