Tree Canopy

Rebecca Hanmer
Forestry Workgroup Chair
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
Setting the Stage: What are our assumptions?
Why is Tree Canopy So Important?

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

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

Achieving a UTC Goal = Existing UTC + Planting + Growth (protection & maintenance) - Losses (mortality, removal, etc.)

Drivers of Loss:
- Development
- Storms
- Pests/Disease
- Natural Mortality
- Utility Clearing
- Deer Browse
- Improper Maintenance

Funding & Partnerships
Policies & Ordinances
Technical Knowledge & Capacity
Community Education & Outreach
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 to date

• 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

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)

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

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
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

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Outcome Annual Target (New Acres)</th>
<th>Outcome 2025 Target (New Acres)</th>
<th>2010-2017 Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delaware</td>
<td>5</td>
<td>60</td>
<td>5</td>
</tr>
<tr>
<td>DC</td>
<td>40</td>
<td>480</td>
<td>272</td>
</tr>
<tr>
<td>Maryland</td>
<td>45</td>
<td>540</td>
<td>4983</td>
</tr>
<tr>
<td>New York</td>
<td>5</td>
<td>60</td>
<td>5</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>60</td>
<td>720</td>
<td>10+</td>
</tr>
<tr>
<td>Virginia</td>
<td>40</td>
<td>480</td>
<td>143</td>
</tr>
<tr>
<td>West Virginia</td>
<td>10</td>
<td>120</td>
<td>30</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>205</strong></td>
<td><strong>2460</strong></td>
<td><strong>5448+</strong></td>
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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.
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
- More stormwater/WIP integration will drive implementation and tracking
- Need state tracking and reporting systems for urban tree BMPs that capture local implementation
Adaptations: How should we adapt?
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, LGAC, and cross-outcome support for integrated messaging and outreach campaign
Based on what we’ve learned, we plan to...

Build state and local capacity through new funding and policy strategies

- Use forthcoming Tree Canopy Financing Guide, Healthy Watershed Forest Retention Study, and proposed TC Communications and Outreach plan as a platform for new strategies and local capacity building

- **MB Asks:**
  - Help us plant and protect more trees!
  - Support action team on Tree Canopy Funding and Policy Strategies with high-level state and local representation; report recommendations to Executive Council.
TC Funding and Policy Strategies Action Team

- **Focus:** Build robust, sustainable local TC programs and partnerships

- **Possible Members:**
  - Federal – USFS, EPA, HUD
  - Local – LGAC, LLWG, MWCOG, USWG: Stormwater Program Managers
  - State – Water and Urban Forestry Policy Level, CBC

- **Resources:** Tree Canopy Financing Guide, Healthy Watersheds Forest Retention Study
Promote tree canopy more vigorously through WIP efforts and state and local stormwater programs

- Bolster urban tree BMPs in WIP III planning efforts
- Overcome barriers to tree protection and planting in urban stormwater programs
- **MB Ask:** Assure agency teamwork in integrating tree canopy goals in WIP planning and stormwater program delivery
Increase local and partner engagement in tree canopy strategies and tracking progress

- Develop user-friendly BMP Tree Tracking tool to capture local/partner efforts not currently reported
- With LGAC help, 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

<table>
<thead>
<tr>
<th>Sustainable Fisheries</th>
<th>Vital Habitats Goal</th>
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<tbody>
<tr>
<td>Fish Habitat</td>
<td>Stream Health</td>
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<td></td>
<td>Forest Buffer</td>
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<thead>
<tr>
<th>Water Quality Goal</th>
<th>Stewardship Goal</th>
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<td>2017 and 2025 WIPs</td>
<td>Citizen Stewardship</td>
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<td>Water Quality Standards</td>
<td>Local Leadership</td>
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<td>Attainment and Monitoring</td>
<td>Diversity</td>
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<th>Public Access Goal</th>
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<tr>
<td>Healthy Watersheds</td>
<td>Public Access Site Development</td>
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<th>Environmental Literacy Goal</th>
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<td>Protected Lands</td>
<td>Sustainable Schools</td>
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<tr>
<td>Land Use Methods and Metrics Development</td>
<td>Environmental Literacy Planning</td>
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<td>Land Use Options Evaluation</td>
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<tr>
<td>Monitoring and Assessment</td>
<td>Adaptation Outcome</td>
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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
Discussion