URBAN TREE CANOPY GOALS AND PROGRESS IN THE CHESAPEAKE BAY WATERSHED

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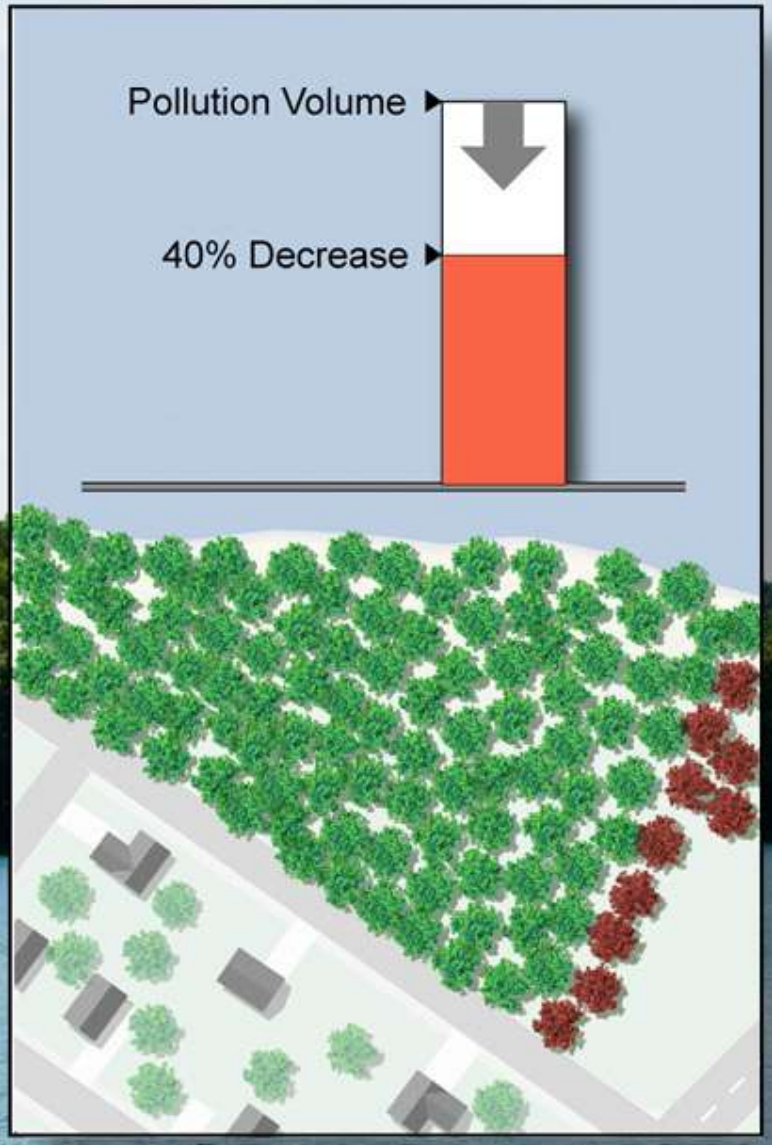
OVERVIEW

- Where we've been
  - Background on Urban Tree Canopy goals in the Region
  - Key Areas of Progress
- Where we are going
  - New Chesapeake Bay Agreement UTC Goal
  - Connections to Chesapeake Bay TMDL
  - Key Issues to Address in UTC Management Strategy

CHESAPEAKE BAY CONTEXT

- 44 Million Acre Watershed
- 18 Million People
- 55% Forest Cover
- 100 acres/day forest loss
- Forestry Goals:
  - Riparian Forest Buffers
  - Forest Conservation
  - **Urban Tree Canopy**

Benefits of Trees and Forest Cover



Reduced Nitrogen Pollution

A 10% increase in forest cover can reduce the amount of nitrogen runoff by 40%

Chesapeake NEMO

TREES…THE ULTIMATE MULTI-TASKER

iTree Analysis, Fond du Lac, Wisconson, itreetools.org

WHERE WE'VE BEEN…

2003 Chesapeake Executive Council Directive

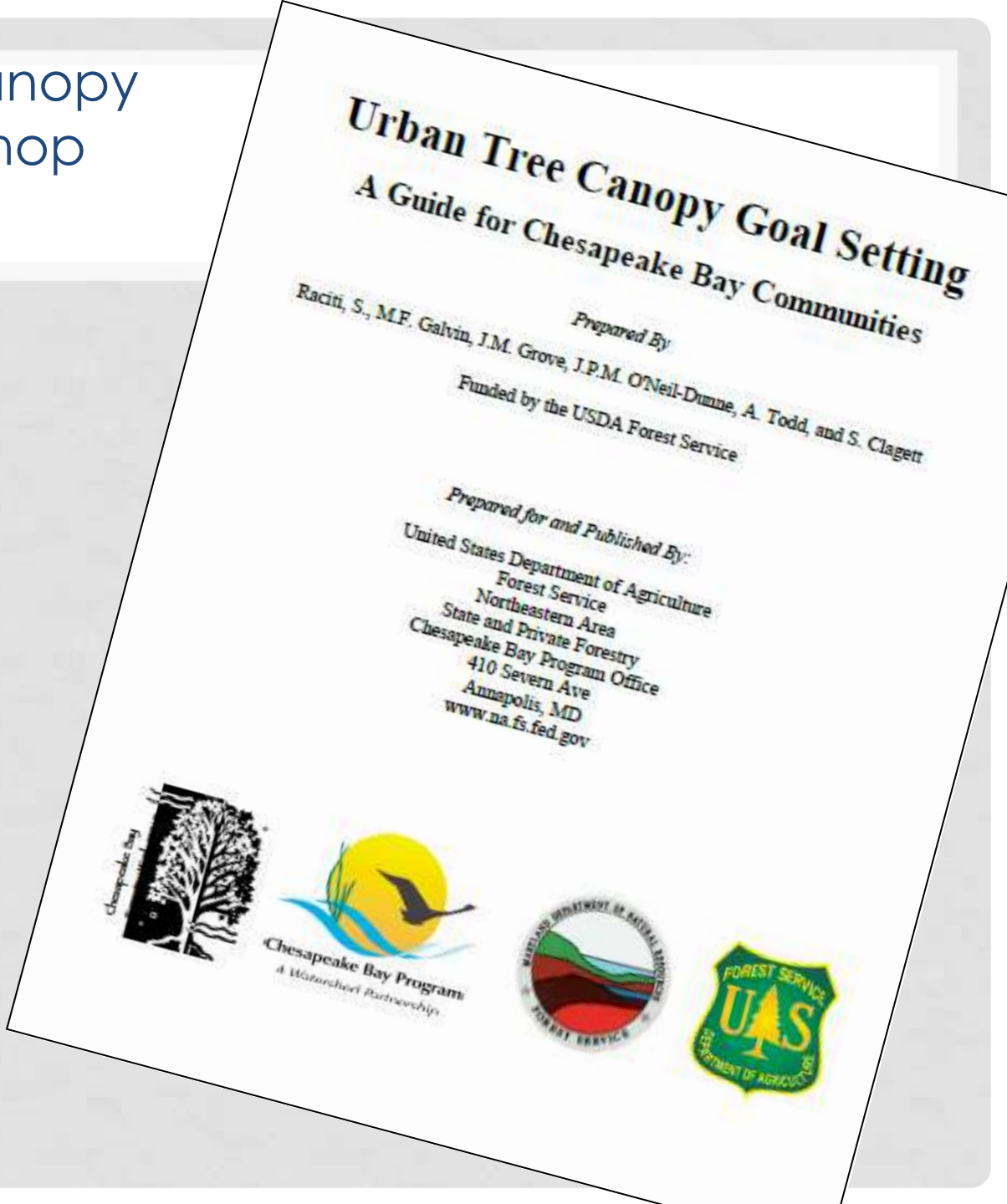
…WE FURTHER RECOGNIZE THAT URBAN TREE CANOPY COVER offers stormwater control and water quality benefits for municipalities in the Chesapeake Bay watershed…

- **By 2010,** work with at least 5 local jurisdictions in each state to complete an assessment of urban forests, adopt a local goal to increase urban tree canopy cover and encourage measures to attain the established goals…

And in 2007 Forest Conservation Directive…

- **By 2020**, accelerate reforestation and conservation in *urban and suburban areas,* by increasing the number of communities with commitments to tree canopy expansion goals to 120.

2006 Urban Tree Canopy Goal Setting Workshop (Annapolis, MD)



Urban Tree Canopy Goal Setting

A Guide for Chesapeake Bay Communities

Prepared By

Raciti, S., M.F. Galvin, J.M. Grove, J.P.M. O'Neil-Dunne, A. Todd, and S. Clagett

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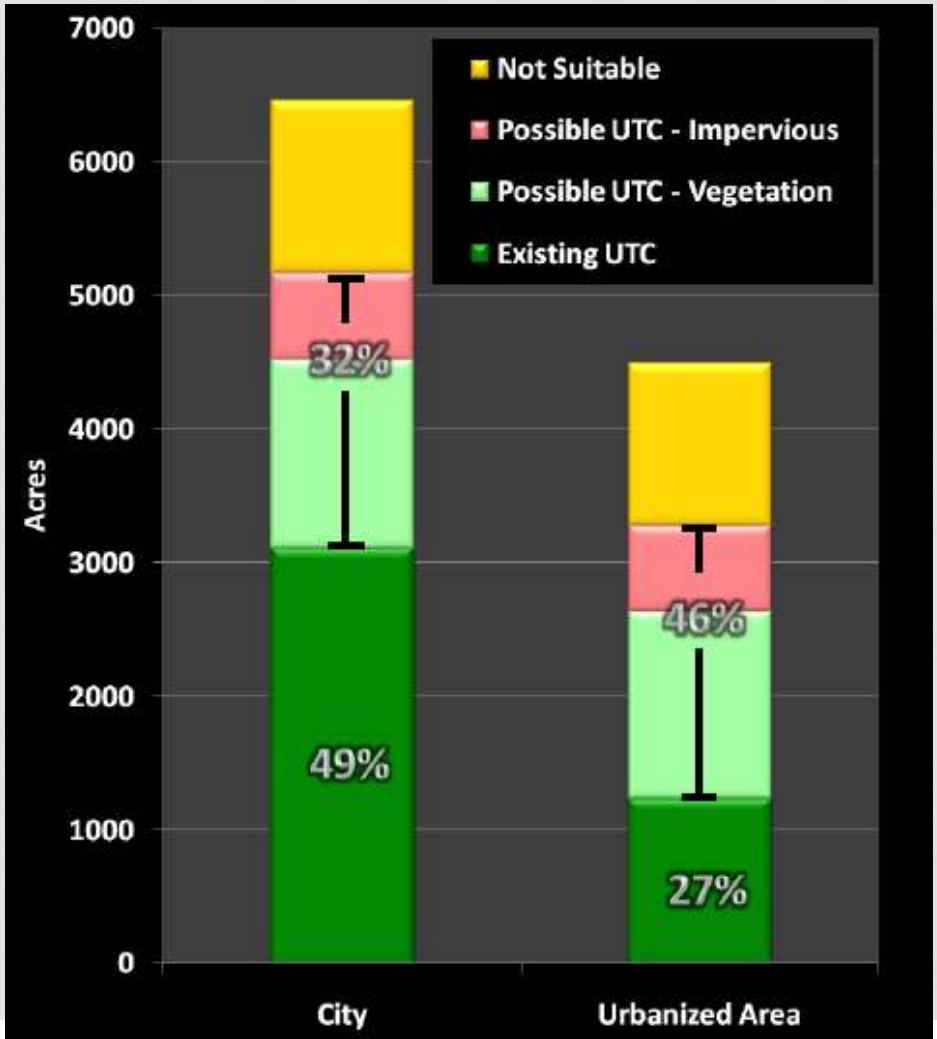
Chesapeake Bay Program
A Watershed Partnership

PROGRESS: UTC ASSESSMENTS

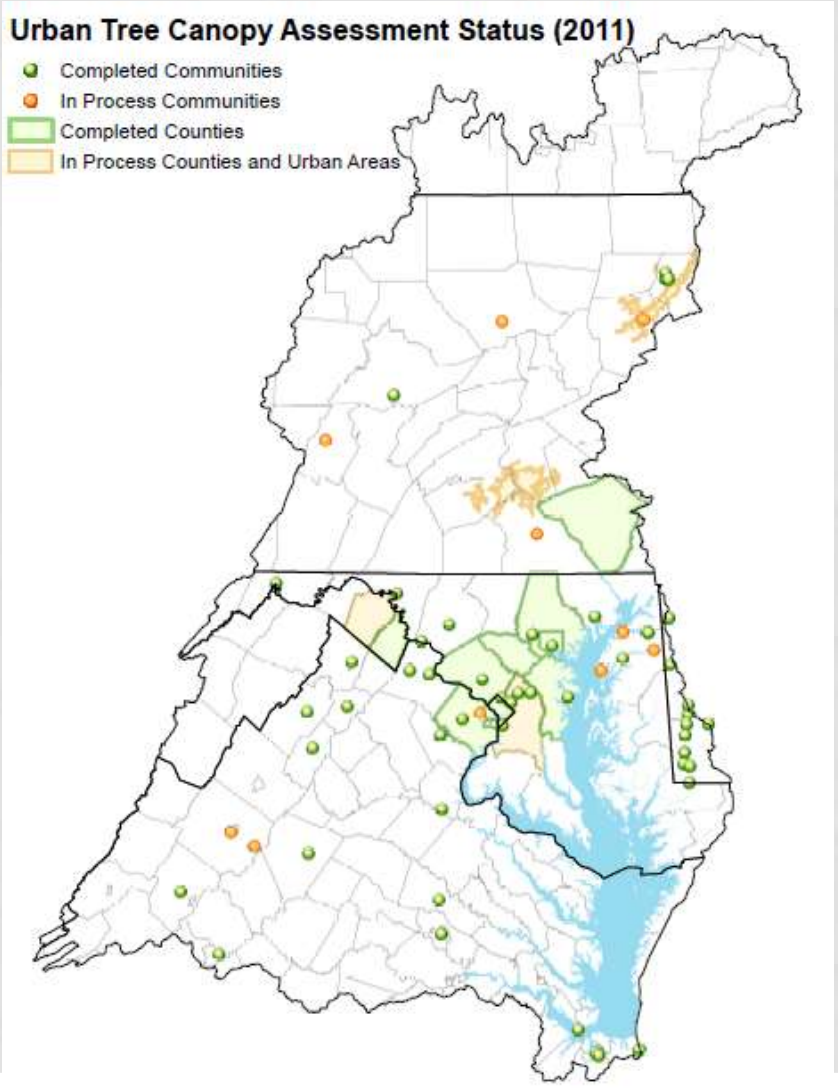
(Cumberland, MD, J. O'Neil-Dunne)



UTC Assessments in the Chesapeake Bay Watershed

~ 70 cities/towns

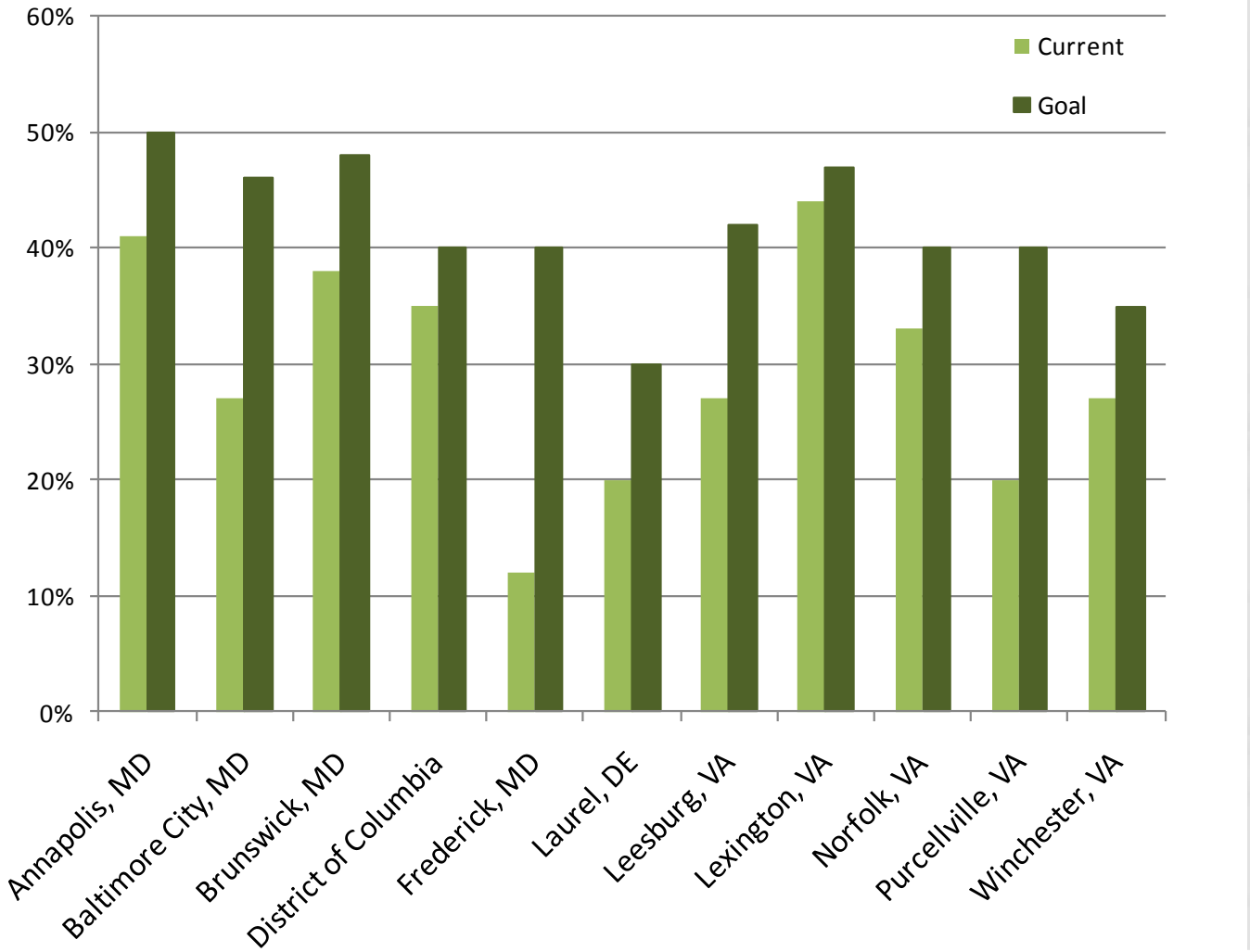
9 counties



PROGRESS: UTC GOALS

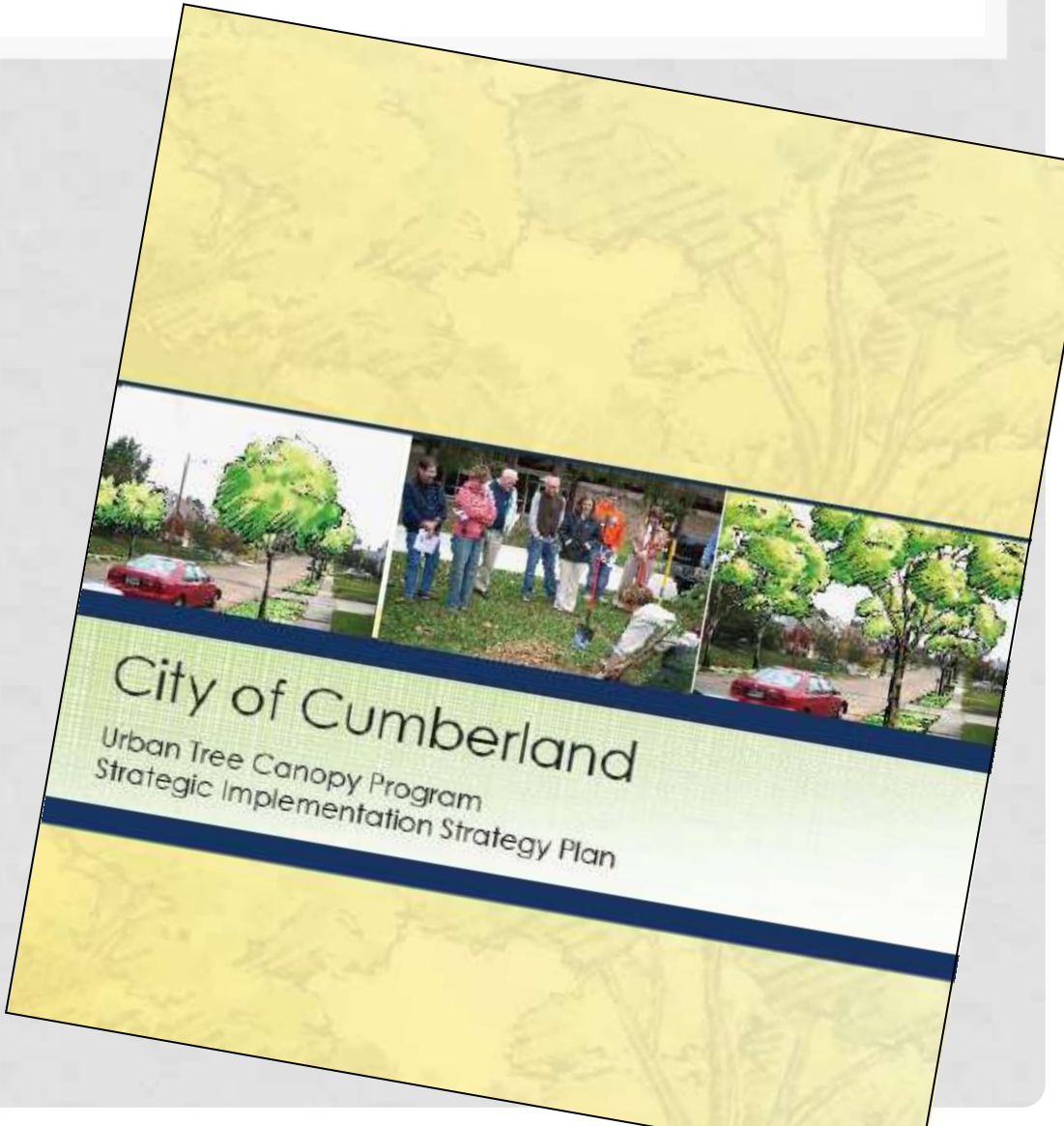
- 5 Counties and ~40 Cities/Towns have set UTC Goals

EXAMPLES – UTC GOALS



PROGRESS: IMPLEMENTATION PLANS

- Over 20 UTC Implementation Plans completed, more in progress



PROGRESS: TOOLS AND DATA

- Many free, online tools to analyze and quantify urban tree benefits

Applications

- i-Tree Eco
- i-Tree Streets
- i-Tree Hydro (beta)
- i-Tree Vue
- i-Tree Design
- i-Tree Canopy

PROGRESS: GUIDANCE

Available at www.forestsforwatersheds.org

PROGRESS: ON THE GROUND?

- We don't have good information on actions taken and progress made in protecting and expanding urban tree canopy.

NEW CHESAPEAKE BAY AGREEMENT JUNE 2014

- Signed June 2014 by all 6 States and DC
- Urban Tree Canopy one of 29 Outcomes
- Management Strategy needed for each outcome
- Public Draft – March 2015, Finalize June 2015

Management Strategy – Key Elements

- ✓ Executive Summary
- ✓ Outcomes and Baselines
- ✓ Jurisdictions and agencies participation
- ✓ Factors influencing ability to meet goal
- ✓ Current efforts and gaps
- ✓ Management approach
- ✓ Monitoring Progress
- ✓ Assessing Progress
- ✓ Adaptively Manage
- ✓ Biennial Workplan

NEW CHESAPEAKE BAY AGREEMENT

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**.

- Must be 2,400 acres net gain, after accounting for canopy losses
- For reporting, 1 acre = 100 trees planted
- Tracked using tree planting data submitted to Chesapeake Bay model, cross-checked with periodic canopy assessments

PRELIMINARY STATE UTC TARGETS

State	Annual Target (New Acres)	2025 Target (New Acres)
Delaware	5	60
DC	40	480
Maryland	45	540
New York	5	60
Pennsylvania	60	720
Virginia	40	480
West Virginia	10	120
TOTAL	205	2460

CHESAPEAKE TMDL
(TOTAL MAXIMUM DAILY LOAD/POLLUTION DIET)

2010 Chesapeake Bay TMDL requires by 2025:

- ✓ Reduce Nitrogen 25%, Phosphorus by 24%, Sediment 20%
- ✓ All sectors (ag, stormwater, wastewater, etc.)
- ✓ State Watershed Implementation Plans
- ✓ Accountability – 2 Year Milestones

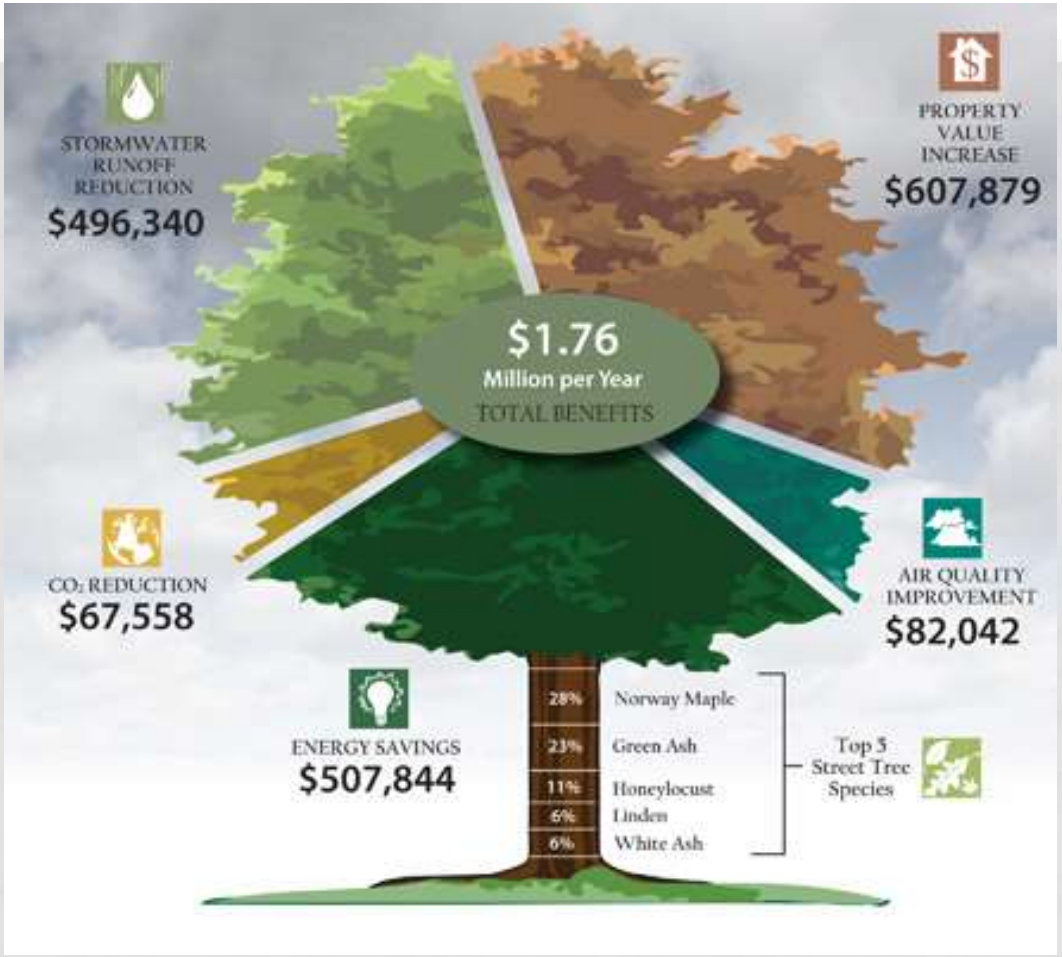
CHESAPEAKE TMDL – CREDIT FOR TREES? YES!!!

- Urban Tree Planting is a credited Best Management Practice (BMP) for the Chesapeake Bay TMDL
- On average, urban tree planting gets credit for reducing pollutant loading from around **12 lb/acre/year** total nitrogen **to 4 lb/acre/year** (varies by location in watershed)
- A new Urban Tree Canopy land use layer is being developed to better credit existing tree canopy in the Chesapeake Bay model
- These tree canopy credits/values are currently under review by an Expert Panel

CHESAPEAKE TMDL – CREDIT FOR TREES?

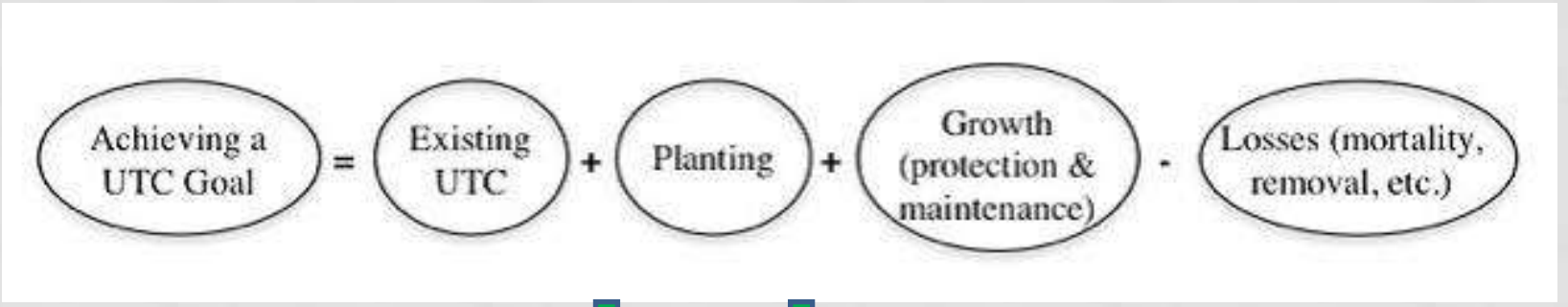
- Some states included urban tree planting targets in their TMDL Watershed Implementation Plans (20,000 new acres by 2025!!!)
- However, very little urban tree planting has been reported to date, since 2009 (exception: DC)
- Need to develop good tracking and reporting mechanisms for local governments to get credit for urban tree canopy expansion

BUT, BEYOND THE TMDL…



MOST COST-EFFECTIVE BMP FOR ACHIEVING SO MANY GOALS

KEY ISSUES AND OPPORTUNITIES FOR UTC MANAGEMENT STRATEGY



Street Trees

Nonprofits

Schools

Parks and Greenways

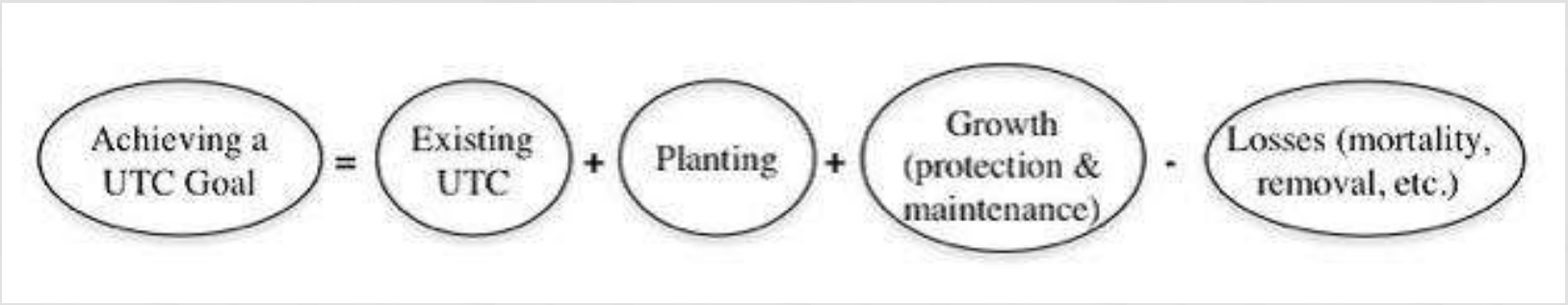
Utilities

Businesses

Churches

Stream Buffers

KEY ISSUES AND OPPORTUNITIES FOR MANAGEMENT STRATEGY



Development

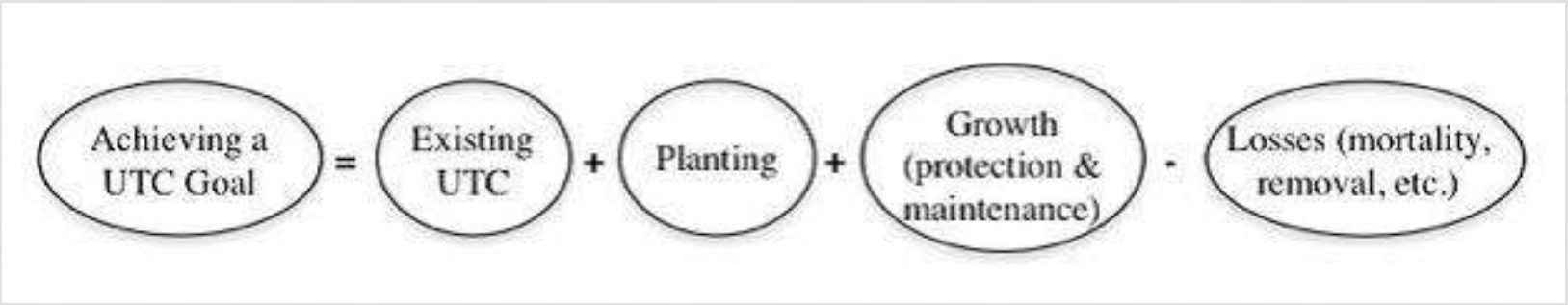
Storms/Utility Conflicts

Exotic Pests (Emerald Ash Borer)

Aging Tree Populations

Climate Change

KEY ISSUES AND OPPORTUNITIES FOR MANAGEMENT STRATEGY



Policies

Funding

Ordinances

Partnerships

Maintenance

Stewardship

Outreach

Tracking

QUESTIONS?

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