

IMPLEMENTATION OF URBAN TREE CANOPY ASSESSMENTS WITHIN THE CHESAPEAKE BAY WATERSHED

PRELIMINARY RESULTS

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OCTOBER 18, 2013

UTC WORKSHOP - VIRGINIA TECH

URBAN TREE CANOPY



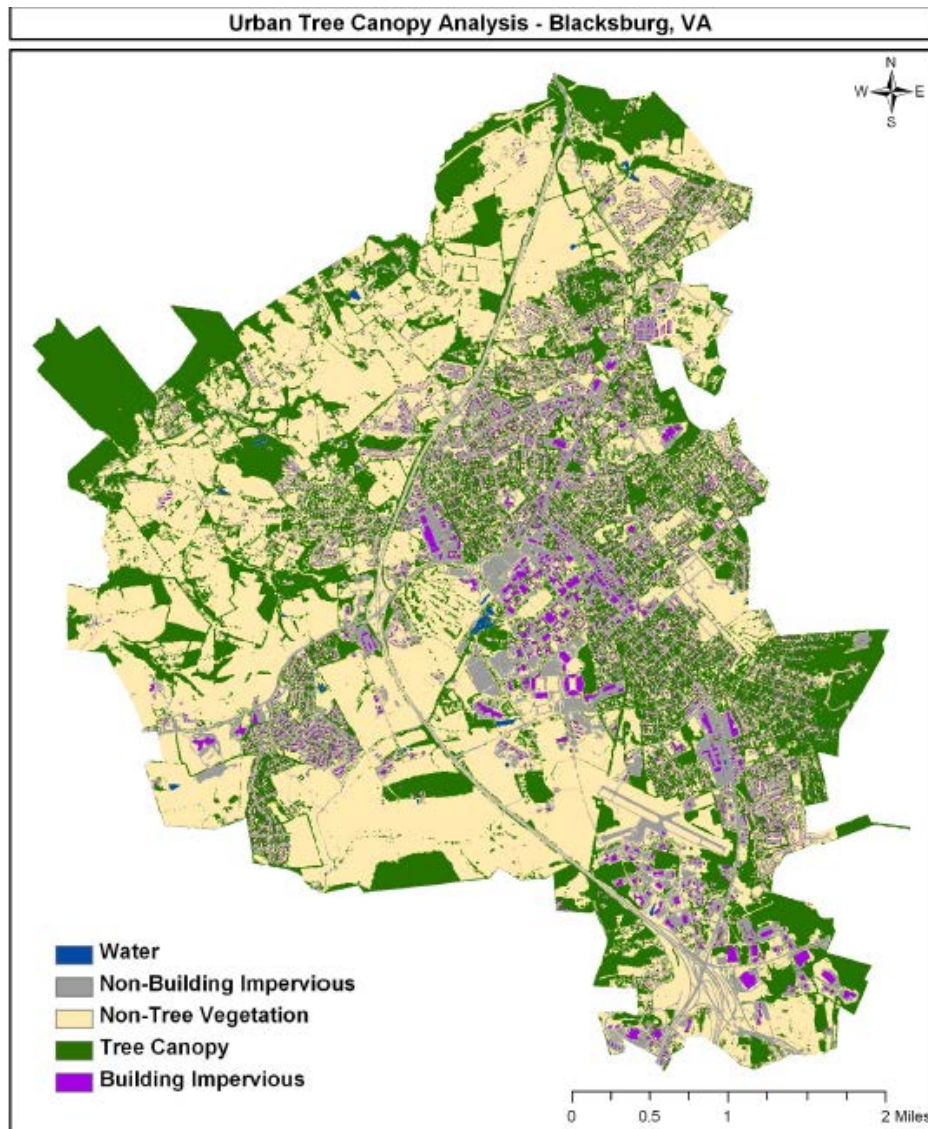
Watershed Forestry Resource Guide - Urban Tree Canopy

Economic Benefits

Social Benefits

Environmental Benefits

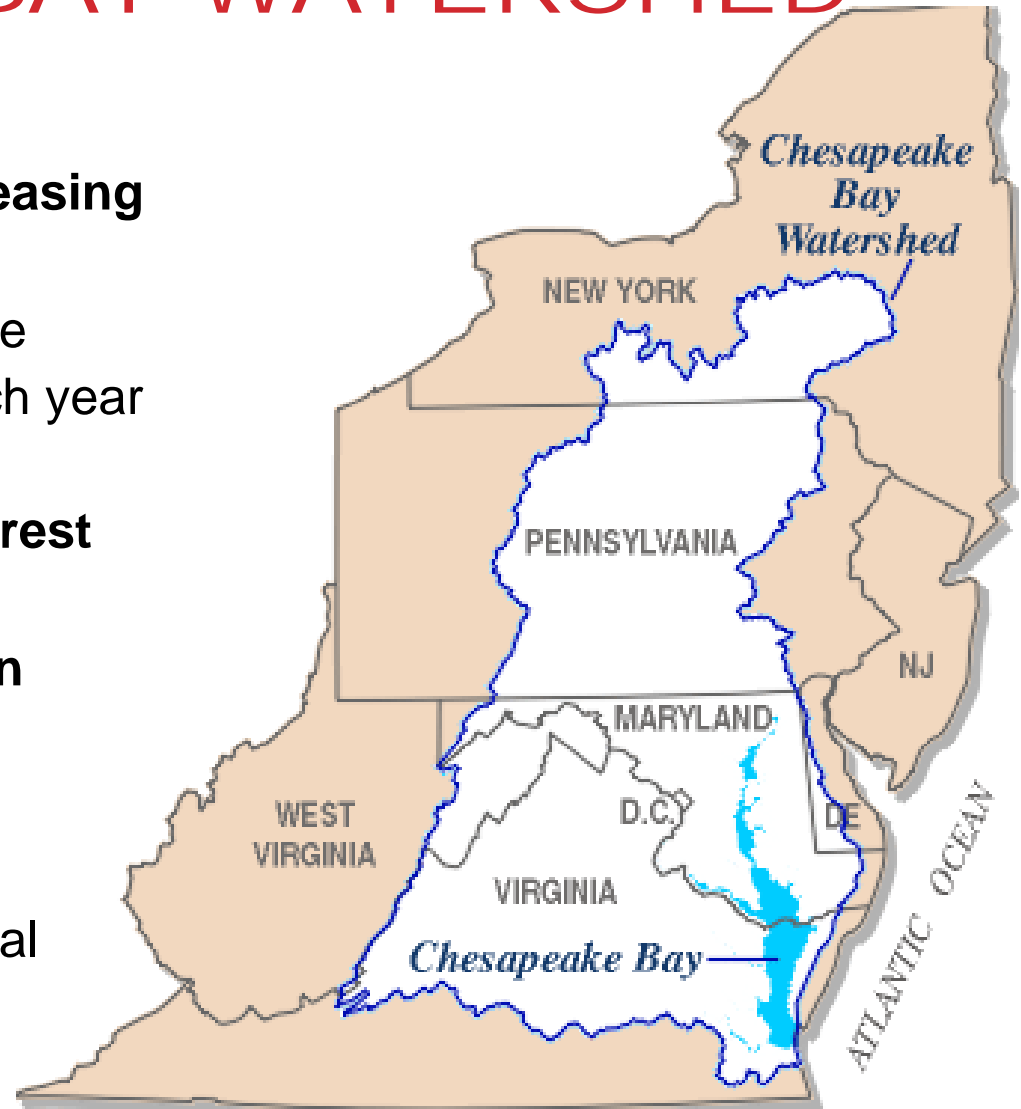
URBAN TREE CANOPY (UTC) ASSESSMENT



- Measures amount of both existing and possible UTC
- UTC assessment is data!
- Can help decision makers effectively design and implement the urban forest

CHESAPEAKE BAY WATERSHED

- **Continues to experience population growth and increasing urbanization¹**
 - Currently 17 million people
 - 150,000 more people each year
 - Nearly 65,000 mi. sq.
- **Loses about 100 acres of forest per day²**
- **By 2010, five communities in each state with:**
 - Completed assessment
 - Canopy goal adopted
 - Measures to attain the goal
- **120 communities with UTC expansion goals by 2020**



RESEARCH QUESTIONS

How are localities in the Chesapeake Bay watershed using UTC assessments?

Are there ways to increase the use of those assessments?

METHODS

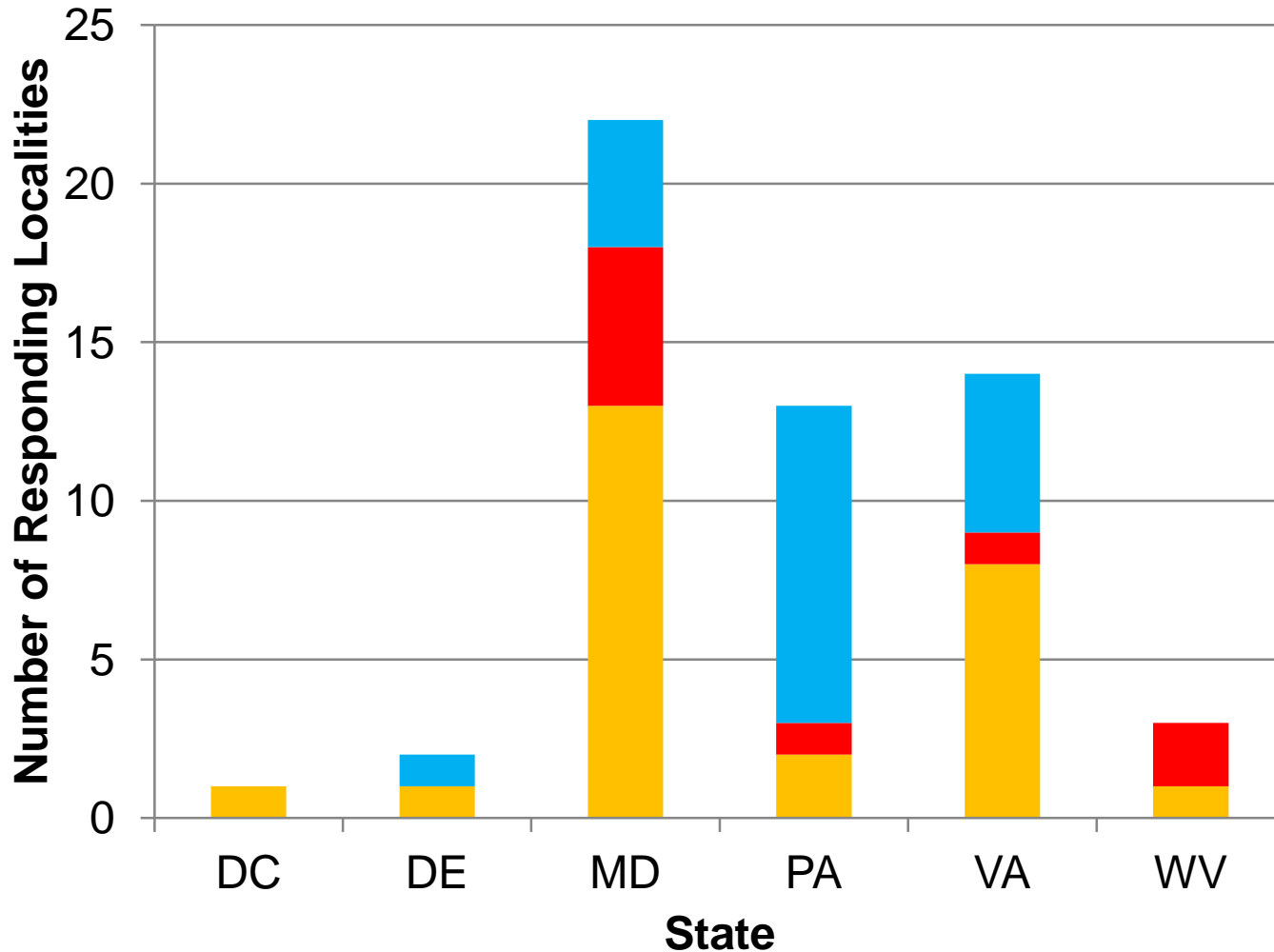
- **Web-based survey sent to each locality within the Chesapeake Bay watershed with a UTC assessment**
- **Approximately 9.2% of the area in the watershed has a UTC assessment**
- **Total of 100 counties, cities, and towns/boroughs (PA)**
- **Population range from 2,500 to 1.1 million**
- **Area range from 0.5 sq. mi. to almost 1,000 sq. mi.**



Washington Gas Energy Services, Inc. (WGES)

Respondents by State and Locality Type

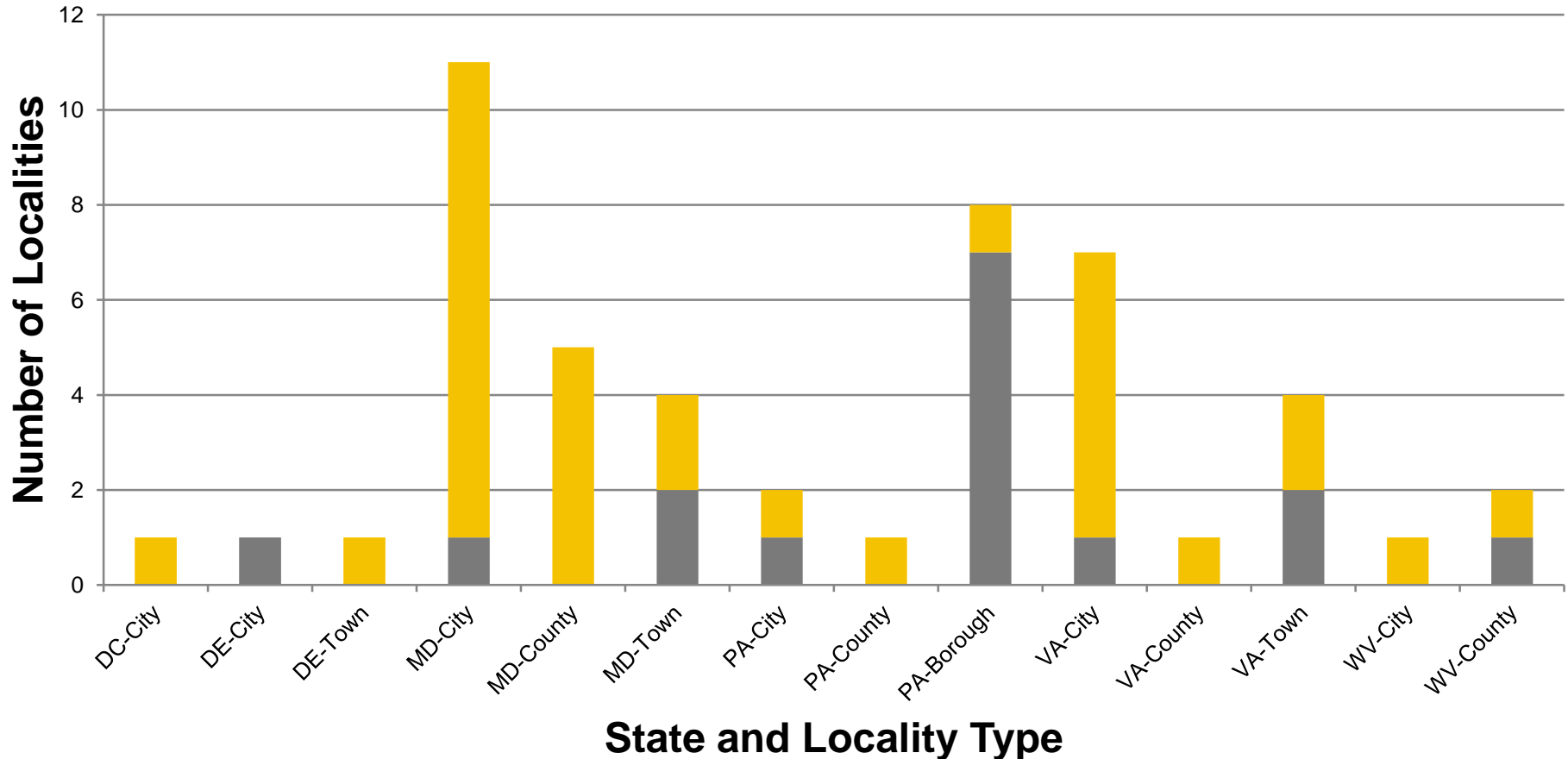
■ City ■ County ■ Town



- **55% response rate from localities**
- **Representing :**
 - 80% of total area with UTC assessment

Localities' Awareness of UTC Assessment by State and Locality Type

■ Unaware of UTC Assessment ■ Aware of UTC Assessment



- **67% of localities aware of their UTC assessment**
- **Positive bias due to non-response?**

MOST COMMON TYPES OF USES

85%

Educate public
and officials
about tree
canopy

MOST COMMON TYPES OF USES

65%-75%

Plan and
prioritize tree
plantings

Create a
locality-wide
tree canopy
goal

Inform larger
initiatives

Baseline for
canopy
change

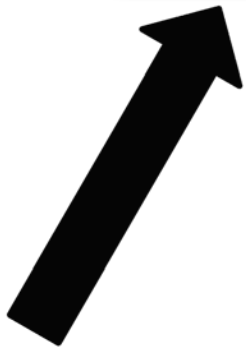
ADVANCED TYPES OF USES

Financial and
Public Buy-In

In-Depth Goal
Setting and
Prioritization

Informing and
Enforcing
Tree
Preservation
in Policies
and Planning

Gathering
Data for
External
Leveraging



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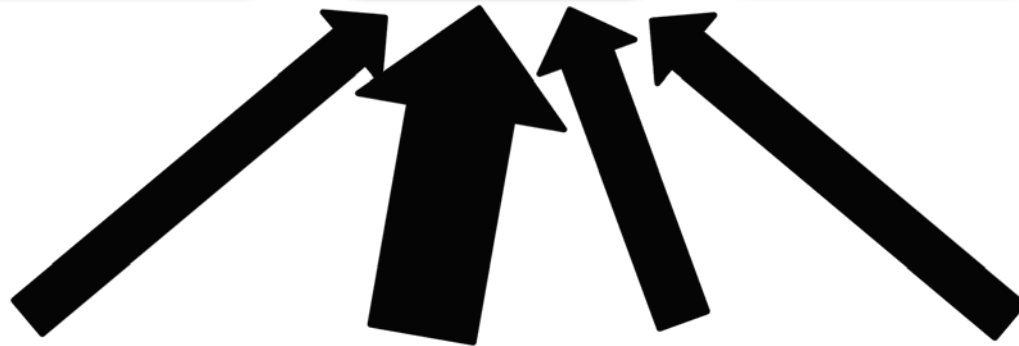
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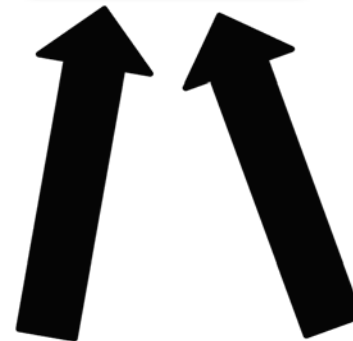
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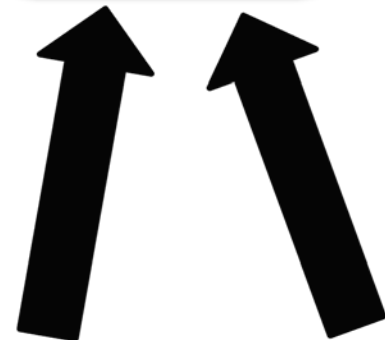
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STAFF EXPERTISE AND TRAINING

Localities with:

“lack of staff expertise” = less likely to be using assessment in sophisticated ways.

“staff trained or attended a workshop on how to use UTC data” = more likely to be using the assessment **but not necessarily in more sophisticated ways.**

- So training perhaps is only introductory?

BIGGEST OPPORTUNITIES FOR FUTURE USE

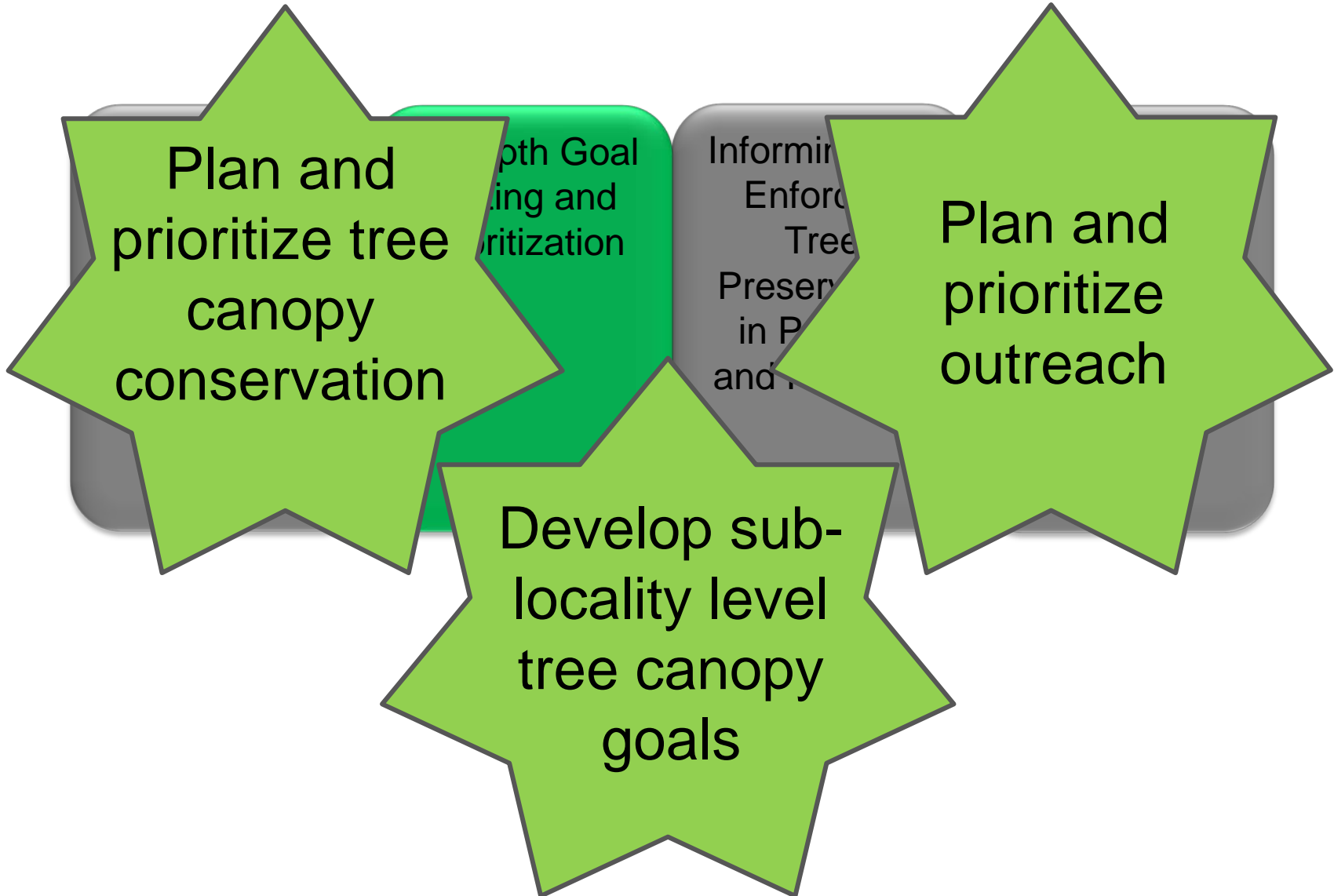
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BIGGEST OPPORTUNITIES FOR FUTURE USE



IMPLICATIONS

- **Currently UTC assessments are underutilized.**
- **Raising awareness may increase the number of localities using UTC assessments.**
- **Lack of staff expertise constrains more sophisticated uses.**
- **Need to increase staff expertise.**
 - How to do this?
 - Through training? If so, need to investigate effectiveness of training and have in-depth training.
- **Biggest opportunity for that training may be in in-depth prioritization and goal setting.**

QUESTIONS?

REFERENCES

- 1) Ruark, E. A. (2010). Immigration, Population Growth and the Chesapeake Bay: Federation for American Immigration Reform.
- 2) Chesapeake Bay Program. (2012a). Facts and Figures. Retrieved 9/28/2012, from <http://www.chesapeakebay.net/discover/bay101/facts>

FIGURES AND PHOTOS

- "Watershed Forestry Resource Guide - Urban Tree Canopy." *Watershed Forestry Resource Guide*. Accessed 14 Oct. 2013. <<http://www.forestsforwatersheds.org/urban-tree-canopy/>>.
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- McKee, J. (2009). UTC Report for Blacksburg, VA. Blacksburg, VA: Virginia Tech.