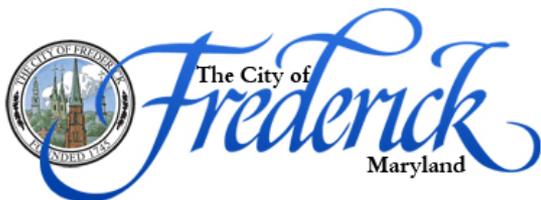*Sustainable Maryland Wednesday Webinars*

Growing Your Town's Tree Canopy

Jenny Willoughby

Sustainability Manager, City of Frederick

February 8, 2017

Sustainable Maryland

- Free & Voluntary program for communities that want to go green and save green!

- We help communities
  - choose a direction for their sustainability efforts
  - Improve access to resources
  - Measure their progress
  - Share success with other communities

Actions for Sustainable Communities:

To become Sustainable Maryland Certified, municipalities must complete and document actions from the list below. To achieve certification, municipalities will need to complete actions worth a **total of 150 points**, including **two Mandatory Actions (M)** and **two of six Priority Actions (P)**, and submit the appropriate documents as evidence that the requirements have been satisfied.

ACTION ITEM	POINTS
COMMUNITY ACTION	
Green Team	
Participate in SMC Green Team Training	5
Create a Green Team	10 M
Complete a Green Team Action Plan	10 M
Conduct Community Barriers and Benefits Assessment	15
Build SMC Resource Center	5
Participation in MD Green Schools	10
Innovative Demonstration Projects	5 to 20
COMMUNITY-BASED FOOD SYSTEM	
Local Food Consumption	
Local Food Fair	10
Local Food Consumption & Preservation Classes	5 per class
Establish Local Farmers Market	15
Promote Local Farmers Market	5
Local Food Production	
Community Gardens	15 P
Spring Transplant Sale	10
Fall Transplant Sale	10
Establish CSA Drop-off Location	10
Innovative Demonstration Projects	5 to 20
ENERGY	
Municipal Energy Audits	10 (1st bldg), 5 (consec bldgs) P
Residential Energy Efficiency	5 to 20+
Wind Energy Project	10
Innovative Demonstration Projects	5 to 20
GREENHOUSE GAS	
Municipal Carbon Footprint (pre-requisite)	15 P
Community Carbon Footprint (pre-requisite)	15
Climate Planning	
Climate Action Plan	10 to 25+
Climate Change Adaptation Element	5
Innovative Demonstration Projects	5 to 20
HEALTH & WELLNESS	
Let's Move	15
Workplace Wellness	
Join Healthiest Maryland Businesses	5
Workplace Wellness Program	5 to 15
Living Well Program	5 per class
Innovative Demonstration Projects	5 to 20
LOCAL ECONOMIES	
Buy Local	
Establish Local Business Directory	10
Promote Local Business Directory	5
Buy Local Campaign	15
Local Business Roundtable	5 per roundtable
Local Business Procurement Notices	10
Economic Analysis of Procurement Practices	15
Local Purchasing Preference Policy	10
Green Business Recognition	
Join Maryland Green Registry	5
Promote Maryland Green Registry	5 points per 2 businesses

ACTION ITEM	POINTS
LOCAL ECONOMIES (CONTINUED)	
Green Business Certification Program	15
Green Purchasing	
Green Purchasing Policy (pre-requisite)	15 P
Evaluate Current Purchasing Practices (pre-requisite)	10
Vendor Preference Statement (pre-requisite)	10
Purchase Recycled Products	10
Purchase Environmentally Preferable Products	10
Implement Waste Reduction Program	10
Innovative Demonstration Projects	5 to 20
NATURAL RESOURCES	
Watershed Stewardship	
Implement Watershed Stewardship/Pollution Prevention Outreach Program(s)	10
Facilitate Engagement in Existing Watershed Stewardship Opportunities	5 per event
Provide Voluntary Opportunities for Citizen Engagement in Watershed Stewardship	10
Provide Incentives for Watershed Stewardship on Private Lands	15
Create a Watershed Plan	20 P
Stormwater Management	
Stormwater Management Program	15 P
Stormwater Manager/Coordinator	15
Stormwater Fee Structure	20
Septic Management	
Septics System Assessment	15
Septics System Management Plan	20
Dedicated Septic System Fund	20
Water Conservation	
Develop a Water Conservation Plan	15
Develop a Water Conservation Outreach Program	10
Tree City USA	15
Pet Waste	
Implement Pet Waste Education Program	5
Develop a Pet Waste Program	5
Adopt a Pet Waste Ordinance	5
Innovative Demonstration Projects	5 to 20
PLANNING AND LAND USE	
Participation in DHCD Sustainable Communities	
Housing and the Comprehensive Plan	
Land Preservation	
Conduct Easement Outreach that Encourages Inspection, Evaluation, and Stewardship	
Build Easement Inventory	10
Innovative Demonstration Projects	5 to 20

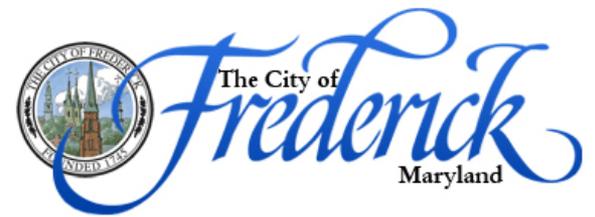P denotes Priority Action   M denotes Mandatory Action

To learn more visit
www.sustainablemaryland.com

EFC Environmental Finance Center
www.efc.umd.edu

Please note: Sustainable Maryland Certified actions and points may be subject to change.
Printed on 55% recycled & 30% post-consumer waste paper.

Jenny Willoughby, BCMA, TRAQ
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What have we done so far?

1. Tree City USA
2. Canopy Assessment
3. Target Planting Areas
4. Trainings
5. OpenTreeMap
6. *Outreach*

City of Frederick—TREE CITY USA (Sustainable Maryland Action points!)

Oldest Tree City in MD

Sterling Tree City USA

1 of 8 Sterling Communities

Forest Service

- Forest Service Home
- About Us
- Forestry Education
- Forestry Facts
- Volunteer Opportunities
- Chesapeake Forests
- Sustainable Forestry Council
- Governor's Commission on Sustainable Forestry
- Vision, Mission and Goals
- The Online Forester

Urban & Community

- Forest Conservation Act
- Reforestation Law
- Tree Expert Law
- Roadside Tree Law

Tree City USA - Awards Program

40TH ANNIVERSARY

TREE CITY USA
Arbor Day Foundation

The Arbor Day Foundation's Tree City USA program is celebrating its 40th Anniversary

Tree City USA was designed in 1976 to encourage better care of the [...] awarding recognition to communities that meet forest basic standa[...] 3,400 cities and towns in all 50 states take great pride in being recogn[...] In fact, 42 communities were recognized in the inaugural year and of thos[...] participation this year. In Maryland, the two longest participating towns are the City of Frederick with 36 years and Chestertown with 35 years.

How can I join the celebration?

2,841 Forested Acres (2016)

To reach 40%, each resident
will need to plant 5 trees.
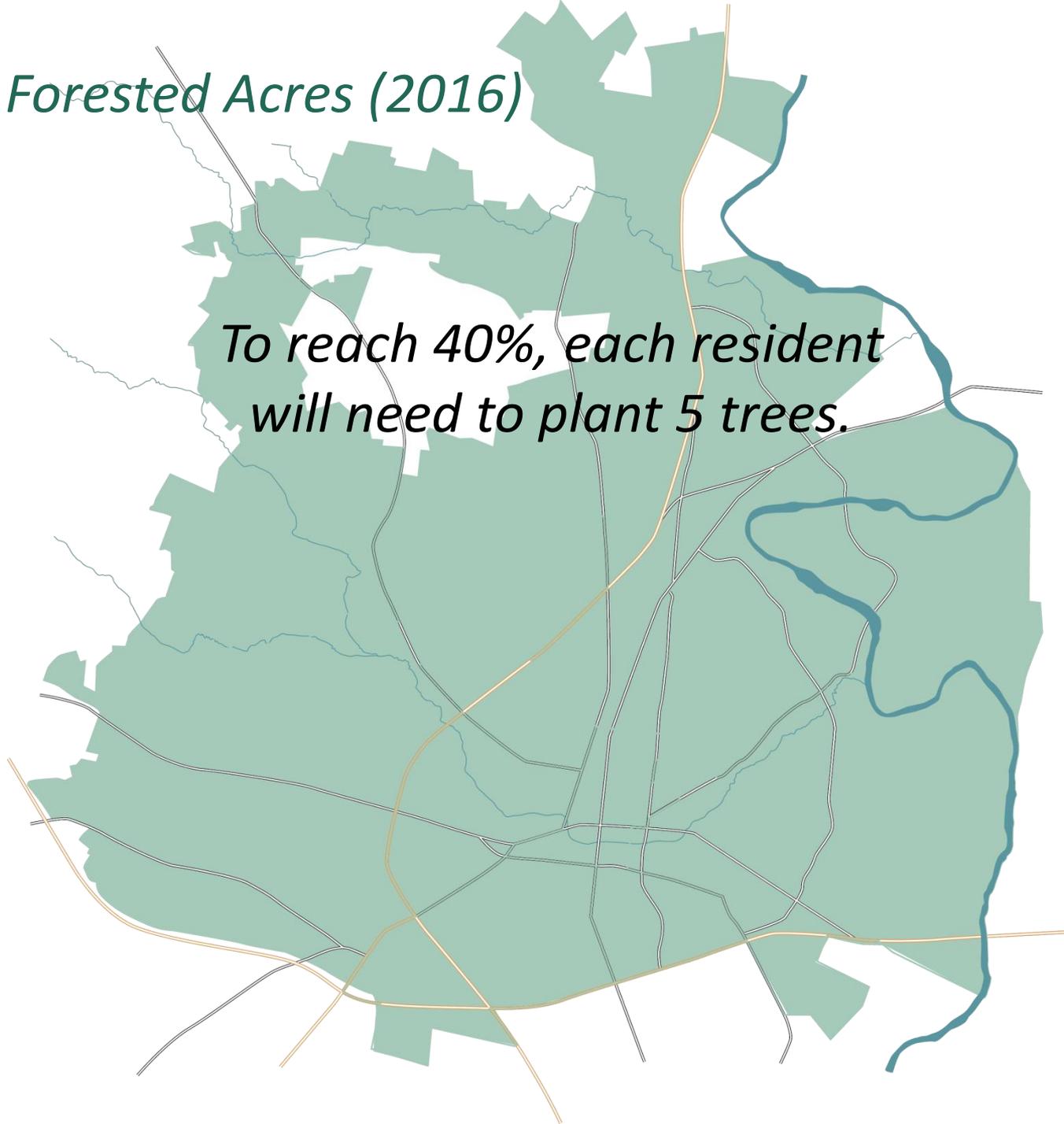
How Do We Stack Up?

Rockville 44%

Pittsburgh 37%

Annapolis 41%

Brunswick 38%

Purcellville 20%

Baltimore City 25%

Cumberland 49%

City of Frederick 20%

Bowie 46%

Leesburg 27%

Hyattsville 41%

Balancing Interests With UTC
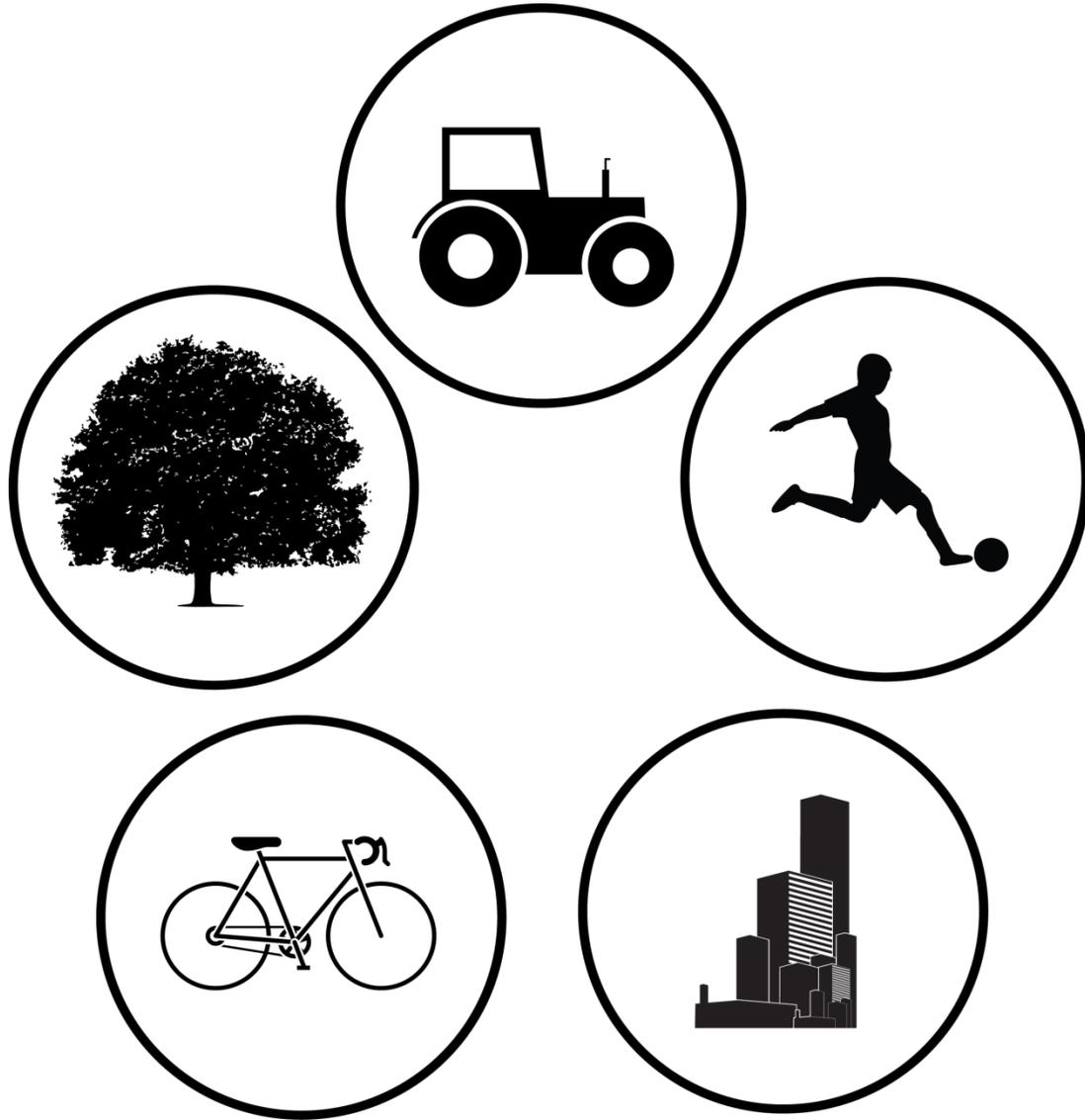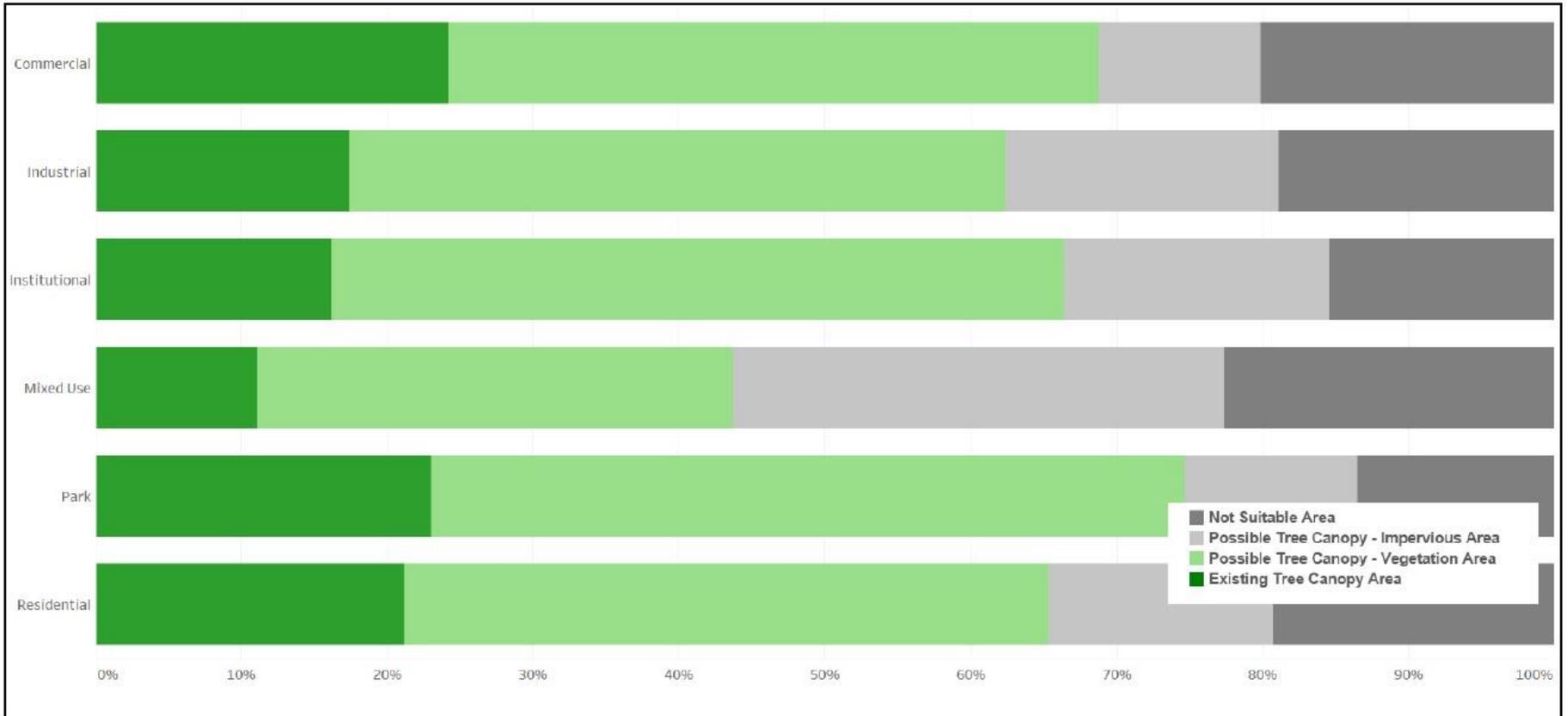
Completed Park Tree Plantings

EXHIBIT— OVERALL FREDERICK CITY, EXHIBIT LOCATIONS

THE CITY OF FREDERICK
140 WEST PATRICK STREET.
FREDERICK, MARYLAND 21701
PHONE: (301) 600—1498

DRAWN BY: SM
CHECKED BY: RA

SCALE: 1" = 5000'
DATE: 10—26—2012
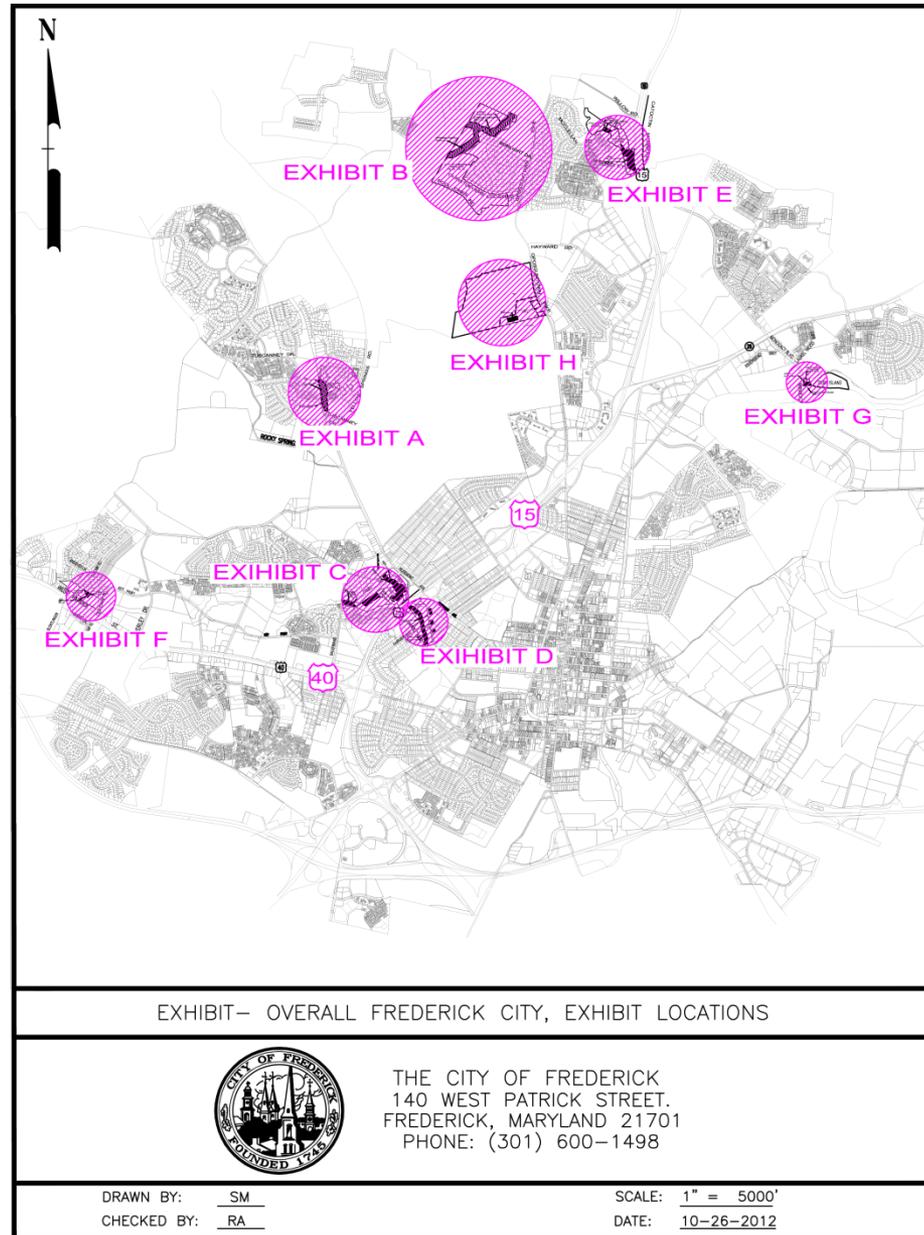
Most UTC Potential in Areas We Cannot Control

After Removing Ft. Detrick and Airport From Calculations…

Chart legend:
- **Not Suitable Area** (dark gray)
- **Possible Tree Canopy - Impervious Area** (light gray)
- **Possible Tree Canopy - Vegetation Area** (light green)
- **Existing Tree Canopy Area** (dark green)

Categories (top to bottom): Commercial, Industrial, Institutional, Mixed Use, Park, Residential

X-axis: 0% to 100%

About 20% Residential land is covered by UTC but could potentially have 45% more

Possible Additional UTC in City of Frederick

61%

"By ownership type, it is Frederick's residents that control the largest percentage of the city's tree canopy (Fort Detrick and the airport excluded). Programs that educate residents on tree stewardship and incentives provided to residents that plant trees are crucial if Frederick is going to sustain its tree canopy in the long term."—COF Urban Tree Canopy Assessment, 2010

June 10, 2015
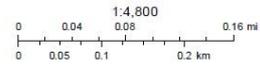
Dearbought HOA Potential:
93 acres

5 Trees For Me

The City of Frederick

THE WHY:

Create Stewards

Plant More Trees

Reach 40% Goal

Intangible Benefits

5 Trees For Me
The City of Frederick

THE HOW:

- ~15 Dedicated Treeple
- 4-Week Training
- 50 Trees
- Variety of Backgrounds
- Targeted NAC Training

A-10 | LOCAL

City approaches tree education

Class teaches how to identify varieties

By SYLVIA CARIGNAN

News-Post Staff
scarignan@newspost.com

The city of Frederick's efforts to create a tree inventory are getting started with grass-roots efforts to educate the public.

Sustainability Manager Jenny Willoughby is teaching a series of six classes on tree identification for city residents. The weekly courses began Sept. 17 and have attracted about 15 volunteers.

Renee Bourassa, a Frederick resident and one of the newest members of the city's Green Initiative Team, has been attending the courses.

"For the most part, I know the trees in our own backyard, but now I'm learning about my neighbors' trees," she said.

The attendees are a mix of green thumbs and greenhorns, but they all have one thing in common.

"It's people that are passionate about Frederick city," Bourassa

> For the most part, I know the trees in our own backyard, but now I'm ... neighbors' trees.

said.

Willoughby has taught the residents about more than two dozen tree varieties by helping them identify their structure and leaf type.

In addition to those who are taking the class, Willoughby is looking for more volunteers to help the ci...

To catalog the trees that already exist, volunteers will learn how to use iTree...

determine the current tree canopy percentage and how far it needs to...

ner Pam Reppert.

Willoughby's class plans to meet at the tennis courts in Baker Park...

Commissioners

(Continued from A-5)

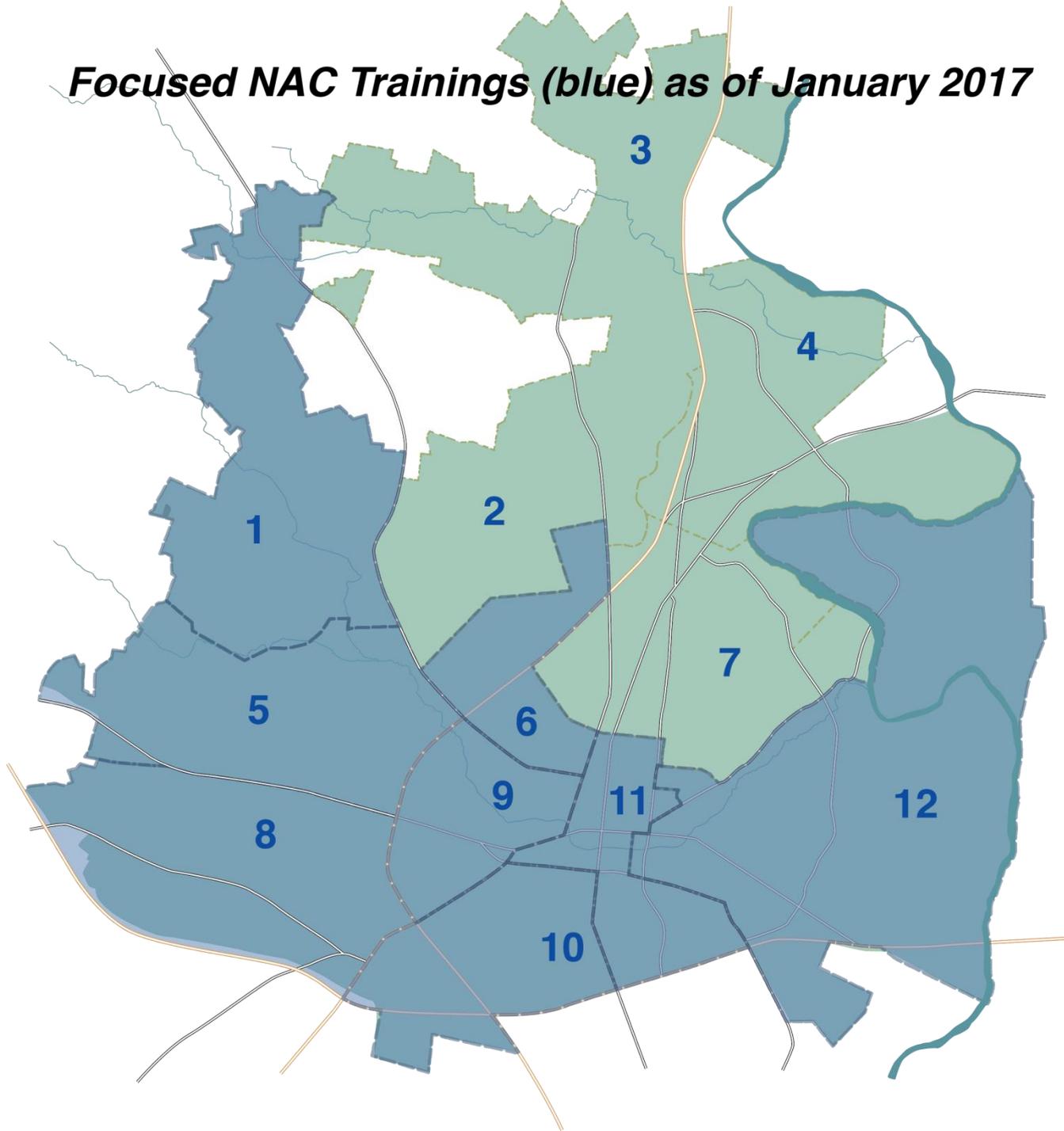will be remembered primarily for setting in motion the...

served as an opportunity for Rhoderick to smoke a cigar without his wife's knowledge,

(Continued from A-5)

bike ride and still had miles to go when she stopped at...

"She might complain about a few things, but she is going to keep going and...

Focused NAC Trainings (blue) as of January 2017

Diversity: 30-20-10 Rule
(& Why NACs 6/9 Were Chosen First)

have long, dense clusters of extremely fragrant, one-inch white blossoms which are literally "alive" with the bustling activity of visiting bees. The honey which is produced is quite delicious. The dark red to black, leathery seeds pods which follow will persist on the trees throughout the winter.

- **MAGNOLIA, SOUTHERN (Magnolia grandiflora)**

  Height: 60' – 80'., Spread: 30' – 50'. Can be a very large, handsome, yard t̶
  room to grow. Leaves are leathery and dark green above. Flowers are creamy
  pleasant fragrance. Seeds grow in a "cone" and are a beautiful red.

> 30% From One Family

- **MAPLE, RED (Acer rubrum)**

  Height: 40'-60', Spread: same. Medium to fast grower. Excellent tree as specimen for lawn and park settings. Excellent fall color. Good shade tree. Buds, flowers and leaves provide̶
  many birds and mammals. Chipmunks and squirrels eat seeds and some songbir̶
  for nest building.

- **MAPLE, SUGAR (Acer saccharum)**

  Height 60'-70', spread usually 2/3 the height. Leaf color is medium to dark green i̶
  changing to brilliant yellow, burnt orange and red tones in autumn. It grows best in we̶
  moderately moist, fertile soil. It does not grow well in tight, compacted situations such as in very small lawns or other conditions that restrict root growth. It tolerates shade but does not tolerate air pollution and is susceptible to damage from road salt.

> 20% From One Genus

- **OAK, CHESTNUT (Quercus prinus)**

  Chestnut oak commonly reaches 60 to 80 feet at maturity and grows better
  than other oaks. Acorn is a favorite food of deer, turkey and squirrels.

> 10% From One Species

- **OAK, NORTHERN RED (Quercus rubra)**

  Height: 60'-80', Spread: 45'-65'. Habit is round-topped and symmetrical. Full sun. Prefers loamy, well drained soils. Fast growing tree for lawns, parks and estates. Acorns are at the top of the food preference list for wood ducks, pheasants, grackles, jays, nuthatches, thrushes, woodpeckers, rabbits, foxes, squirrels and deer.

- **OAK, PIN (Quercus palustris)**

  Height: 60'-70', Spread: 25'-40'. Strongly pyramidal with ascending branches. One of the faster

The Value of a Tree

$725 vs. $1,260
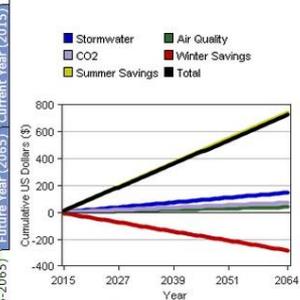
The Future of 5 Trees (Sustainable Maryland Innovative Demonstration Project Points!)

MARYLAND FOREST SERVICE

Marylanders Plant Trees

SAVE $25 ON A TREE TODAY!

Add a Tree   Explore Map   View Edits

The City of Frederick Maryland

5,202 trees, **0** empty planting sites
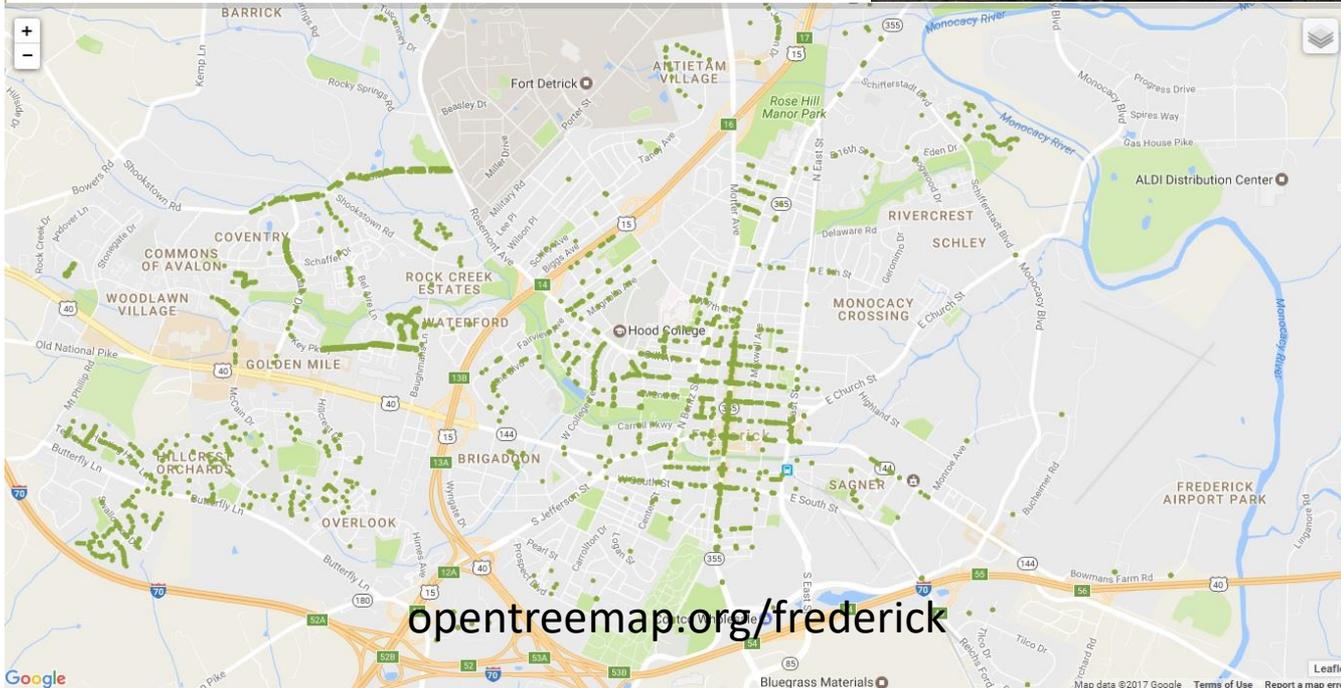
opentreemap.org/frederick

Details

Eco Benefits

Total annual benefits
$182,474 saved

TREE BENEFITS

Energy conserved
2,685,490 kwh/year saved $149,839

Stormwater filtered
4,152,746 gal/year saved $3,322

Air quality improved
4,868 lbs/year saved $25,381

Carbon dioxide removed
1,176,967 lbs/year saved $3,931

Carbon dioxide stored to date
3,047,682 lbs saved $10,179

Based on 4,919 out of 5,202 total trees.

QUESTIONS?

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Thank You!

City of Frederick

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