



# How Do Trees Benefit Virginia Beach?

STATE OF THE URBAN FOREST  
2018/19



VIRGINIA BEACH  
**PARKS &  
RECREATION**

**W**ith approximately 3.2 million trees estimated to exist in Virginia Beach, the urban tree canopy (UTC) contributes to economic savings and environmental benefits for residents. Among the key annual savings and benefits to Virginia Beach citizens, stormwater runoff reduction and property value increases are the most financially significant. Above all, over \$263 million in reported annual savings and benefits are attributable to the city's urban tree canopy at 38%.



## VIRGINIA BEACH URBAN TREE CANOPY

**3.2 million**  
trees approximately

### WHAT IS

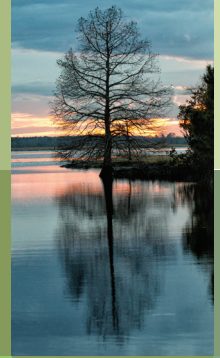
## Urban Tree Canopy?

**U**rban tree canopy (UTC) is the layer of leaves, branches, and stems of trees that cover the ground when viewed from above. In urban areas, the UTC provides an important stormwater management function by intercepting rainfall that would otherwise run off of paved surfaces and be transported into local waters through the storm drainage system, picking up various pollutants along the way. UTC also reduces the urban heat island effect, reduces heating/cooling costs, lowers air temperatures, reduces air pollution, increases property values, provides wildlife habitat, and provides aesthetic and community benefits such as improved quality of life.

|| CENTER FOR WATERSHED PROTECTION AND U.S.  
FOREST SERVICE - NORTHEASTERN AREA STATE &  
PRIVATE FORESTRY







TREE CITY USA



## accolades

### CELEBRATING ARBOR DAY

On April 27, 2018, Parks & Recreation celebrated Arbor Day at Kempsville Recreation Center along with students from Kempsville Meadows Elementary School's "Green Team" and their principal Mikelle Williams. This was the 38th consecutive year that Virginia Beach has been honored by the National Arbor Day Foundation with a Tree City USA award. The City also received its 5th Tree City USA Growth Award for initiating new projects that go above and beyond standard requirements. Speakers included Laura Jacobson, Council of Garden Clubs of Virginia Beach; Demaris Yearick, Virginia Beach Beautification Commission; Johnnie Miller, Arbor Month Chair for the Council of Garden Clubs; and Virginia Department of Forestry representative Molly O'Liddy.

## inventory

### 10 PARKS = 540 TREES

In 2018, Virginia Beach Master Gardener Tree Stewards carried out a hands-on inventory of 540 trees located in ten city parks. The project documented tree genus, species, height, diameter and condition. Tree Stewards found that the three most abundant types of trees in our parks were Oaks, Pines and Crape Myrtles. Fortunately, 96% of the trees that were inventoried were found to be in good condition.

This survey included neighborhood parks in: Bellamy Woods, Broad Bay Estates, Chelsea/Green Hill, Colonial Oaks, Groveland, Haygood, Kings Grant, Laurel Cove, Pembroke Meadows, and Seatack. All volunteers had previously been through Virginia Cooperative Extension's Master Gardener training program and Master Gardener Tree Steward training. The inventory will help Parks & Recreation to determine locations for future tree plantings throughout the city.



## preservation

### SAVING LIVE OAK TREES

A new Live Oak preservation partnership between Parks & Recreation and Public Works was initiated at the Lynnhaven Boat Ramp on Shore Drive in 2018. Mature Live Oaks adjacent to the new Lesner Bridge that were originally scheduled for removal received specialized crown cleanings. In addition, a recycled rubber paving surface that is pervious to storm water was installed to replace damaged concrete and improve the compacted soil. Pervious paving allows moisture to penetrate into the tree roots below.

### CYCLICAL RESIDENTIAL TREE MAINTENANCE

Park & Landscape Services' CRTM program was developed to address the need for regular pruning of street trees in Virginia Beach neighborhoods. Last year, we carried out street tree pruning in 12 neighborhoods throughout the city, for a total of 5,511 trees.

### PLANTING TREES

Over 850 trees were contractually planted on City properties in 2018. More than 7,200 trees have been planted in Virginia Beach parks and along city streets since 2012.

## outreach

### & EDUCATION

12 outreach presentations  
//372 citizen attendees

1 internal presentation  
//26 Virginia Beach city employees

Several urban forest classroom presentations were made during the school year to students with Virginia Beach City Public Schools

### VB URBAN FOREST RESOURCES & FUNDING

**\$275,000** // Enhanced funding was secured in 2018 to allow for more contracted tree plantings that will increase our tree canopy.



# Trees help save money

Virginia Beach has 3.2M trees. That's equivalent to \$263.4M in savings and benefits each year for its residents.

The economic values of Virginia Beach's ecosystem services are based on the cost of obtaining these same services without the benefit of having trees. Without trees, additional grey infrastructure -- such as filtration systems, check dams and ponds -- would need to be built, or other costly mitigation measures would have to be implemented to meet environmental standards.



This municipal forest report card was developed to identify components of current city urban forest practices and evaluate areas of progress and improvement. The "Treeport Card" will be reassessed periodically to determine where progress is being made and where additional efforts should be focused. Scores in each criteria were reached by consensus among key City stakeholders.

An updated Virginia Beach Urban Tree Canopy LIDAR Analysis has been contracted; results pending.

## HOW ARE WE DOING? Treeport Card

VEGETATIVE RESOURCE	2013 GRADE	2015 GRADE	2017 GRADE	2018 GRADE
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Canopy Cover	C+	C+	B-	B-
Condition of Publicly Owned Trees	C-	C-	B-	B-
Species Diversity	C-	C+	C+	C+
<b>OVERALL GRADE</b>	<b>C-</b>	<b>C+</b>	<b>B-</b>	<b>B-</b>

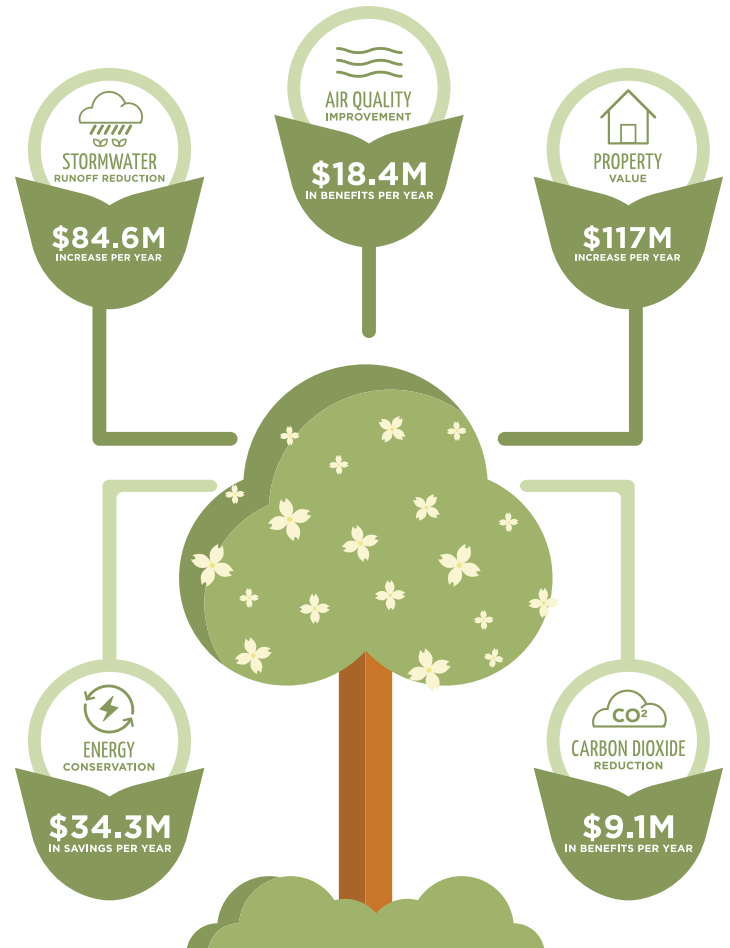
COMMUNITY FRAMEWORK	2013 GRADE	2015 GRADE	2017 GRADE	2018 GRADE
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Public Agency Cooperation	B	B	B+	B+
Neighborhood Action	C	C	B	B
General Awareness of Trees as a Community Resource	C	B-	B+	B+
<b>OVERALL GRADE</b>	<b>C</b>	<b>B-</b>	<b>B+</b>	<b>B+</b>

RESOURCE MANAGEMENT	2013 GRADE	2015 GRADE	2017 GRADE	2018 GRADE
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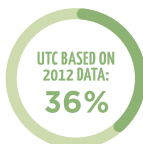
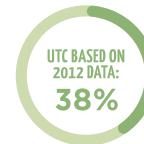
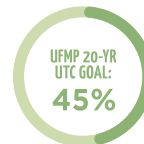
Canopy Cover Inventory	A	A	A	A
Municipality Funding	C-	B-	B-	B-
Tree Protection Policy and Enforcement	C	C+	B-	B-
Maintenance of Public Trees	C	B-	B-	B-
<b>OVERALL GRADE</b>	<b>C</b>	<b>B</b>	<b>B</b>	<b>B</b>

## TOTAL SAVINGS AND BENEFITS:



VIRGINIA BEACH UTC  
BASED ON 2012 DATA  
**38%**

According to American Forests, a leading urban forest management, conservation and research group, the region in which Virginia Beach is located should strive to maintain at least 40% UTC. This percentage is the minimum recommended to help to sustain a healthy community. Based on data captured in 2008, Virginia Beach had a 36% UTC. In 2012, the city's UTC increased to 38%. In 2014, by way of the Urban Forest Management Plan, Virginia Beach adopted a goal of 45% UTC over the next 20 year period.





## Virginia Beach Urban Forest Management's Vision

is a strong urban forest that thrives through mutually beneficial partnerships and effective resource commitment which fosters sustainable development, clean air and water, economic vitality, strong neighborhoods, and the city's physical beauty.

## Our Mission

is to enhance Virginia Beach's urban forest through education, community involvement, proactive management, and responsible stewardship.

**[VBgov.com/trees](http://VBgov.com/trees)**

**[LANDSCAPE@VBGOV.COM](mailto:LANDSCAPE@VBGOV.COM)**  
**757-385-4461 (TTY: DIAL 711)**

# GET INVOLVED

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## DONATE

Give to Virginia Beach Parks & Recreation Foundation's **Urban Tree Canopy Fund** which finances tree plantings and tree preservation efforts along roadway and on other city properties. For details, contact Park & Landscape Services at **[landscape@VBgov.com](mailto:landscape@VBgov.com)**

## LEARN

Virginia Beach Parks & Recreation provides tree-related educational programming for adults and children of all ages. For details, contact Park & Landscape Services at **[landscape@VBgov.com](mailto:landscape@VBgov.com)**

## BUDDY UP

Support the **Virginia Beach Parks & Recreation Foundation's Tree Buddies program** which plants beautiful native trees in our parks and other municipal properties. Tree planting includes a plaque bearing your own dedication, and it's maintained for up to 10 years. Learn more at **[VBPRF.org](http://VBPRF.org)**



Virginia Beach Parks & Recreation is accredited by CAPRA, the certifying agency of the National Recreation and Park Association.