LEXINGTON TREE CANOPY
REPORT CARD

2015

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About this Report Card

The maps and information from the recent UTC project in Lexington, Kentucky allows us to look at the tree canopy in many ways, ask important questions, and identify areas of improvement in order to meet our 30% canopy cover goal. This Report Card assigns six "grades" to the entire Urban Service Area, along with each Council District. The grading categories are:

1. Reaching the 30% UTC goal
2. Achieving the maximum possible canopy cover for an area
3. Controlling stormwater issues causing water pollution and flooding
4. Avoiding "heat island effects" and heat stress
5. Maximizing tree benefits

Based on this criteria, we then provide a final, overall grade. Do your part to get your council's grade up! Find out how your council district is doing, and then find out how you can help.

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Introduction

What is urban tree canopy, and why should I care?

Urban tree canopy (UTC) is simply a measurement of the amount of land that is covered by trees when examine from an aerial view.

Tree canopy is vital to a community because it cleans the air, decreases energy use and costs, reduces heat stress, and minimizes water pollution and flooding. Canopy also influences property values, attracts shoppers to commercial districts, and improves public health.

Like all cities, the Lexington and Fayette County community benefits from these essential services provided by trees. And unlike man-made structures that depreciate over time, trees offer services that actually increase over time. Trees also provide more than one service at one time. For example, a tree planted to shade a window ultimately decreases energy use and costs, but will also remove dust and smog from the air and increase property value.

Lexington values trees.

The Lexington-Fayette Urban County Government recognizes the benefits of trees and the value of urban tree canopy. Lexington has been a Tree City USA for 26 years (the longest tenure of any city in Kentucky) and is committed to the protection and management of the community's tree resource.

To this end, an Urban Tree Canopy (UTC) analysis was conducted in 2012 in Lexington to determine existing tree canopy and identify where trees can help address the city's stormwater management issues. This analysis provided Lexington with three valuable items:

Currently, tree canopy covers almost 25% of Lexington and provides over $50 million in benefits.

- Canopy Map & Measurements of all trees throughout Lexington.

- Quantified Tree Benefits in Lexington from an environmental and economic standpoint.

- A Prioritized Planting Plan to maximize future tree benefits.

The analysis revealed that trees cover almost 25% of all land in Lexington's Urban Service Area and provide residents with over $50 million in benefits.
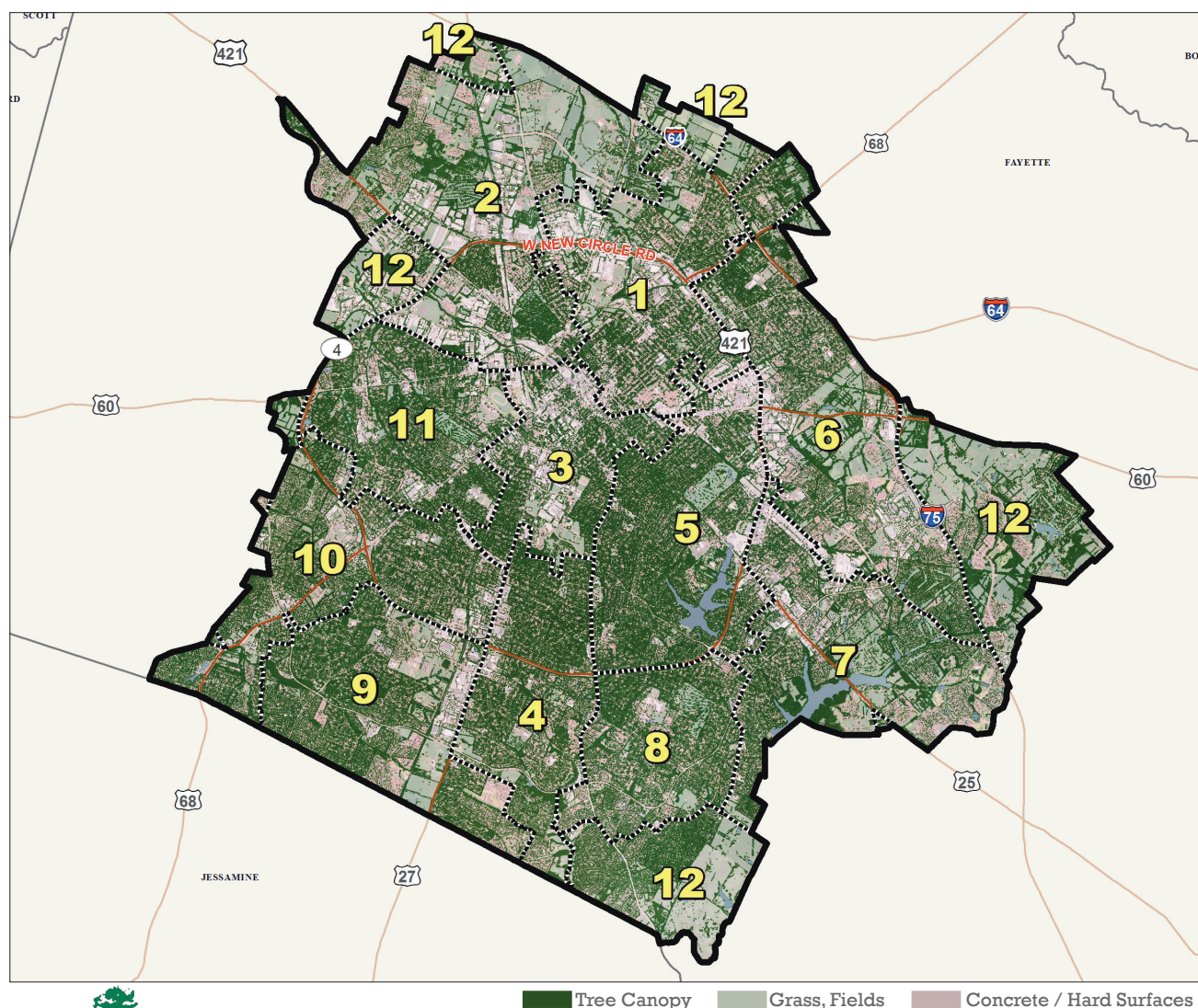
Based on these results, the city has established a goal of reaching 30% canopy cover. This goal is both reasonable and realistic, as it considers the necessary balances of the need for more trees with the need for business, housing, and infrastructure development.

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Lexington Canopy

Overall Canopy in Lexington's Urban Service Area

In Lexington's Urban Service Area, 25% of the land is covered by trees. This canopy cover provides residents over $50 million[1] in environmental, economic, and social benefits:

- **Flooding and Water Pollution Reduction:** Trees intercept, hold, or slow the release of over *1.9 billion* gallons of rainwater every year, a benefit valued at $15 million. In addition, trees actually clean polluted water that runs off streets and parking lots. Without this service, the sewer district would have to build larger stormwater systems to handle additional runoff, costing customers significantly higher sanitation fees.

- **Carbon Reduction:** Over their lifetime, Lexington trees store approximately 1.7 million tons of carbon. Additionally, those same trees sequester another 62,000 tons of carbon dioxide each year. Removing carbon from the air is important because of its effect on surface ozone levels, which in turn have significant impacts to public health. These carbon benefits are valued at $34 million.

Tree Canopy   Grass, Fields   Concrete / Hard Surfaces

[1]Benefits values differ from 2013 UTC Assessment due to newer more accurate models used in 2015.

- **Air Pollution Reduction:** Lexington's entire urban forest removes 1.1 million pounds of pollutants from the air every year, a benefit valued at $1.2 million. Without trees cleaning the air, asthma and other respiratory illness rates increase and public health suffers.

Lexington has a 30% total tree canopy cover goal for the Urban Service Area. A small increase in canopy can have substantial increases in benefits. If, for example, citizens work to increase canopy by 5%, canopy benefits would increase by 15%. Canopy goals can be met through new tree plantings or volunteer efforts like Reforest the Bluegrass. The UTC assessment revealed there is actually enough potential planting spaces to more than double the current canopy to 54%. While this may not be realistic for Lexington's urban area, the important thing to remember is that greater tree canopy means greater benefits for current and future citizens.

Overall Grade:

C−

Find out how you can help!

GRADES

CRITERIA	GRADE
Reaching the Goal 25% of the Lexington Urban Service Area was covered by tree canopy in 2012; the overall goal is 30%.	B
Achieving Maximum Possible Canopy The Lexington Urban Service Area has the potential for 54% canopy cover, though to-date has reached only 25%.	D+
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in Lexington intercept 1.9 *billion* gallons of stormwater annually.	D−
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	F
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. Total value of benefits provided by Lexington trees was calculated at $50 million, or $912 per acre.	B−

See the *full description of grading criteria and scales* (pg 19).

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Council District 1
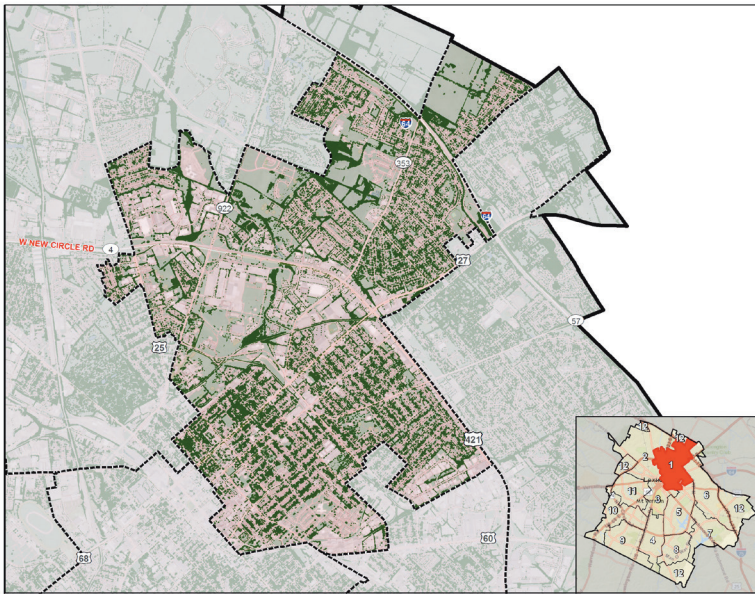
Overall Grade:

D

District 1 has one of the lowest UTC percentages (22%) because it has less park acreage. Most of the land is used for industries, schools, and small residential properties. There is, however, ample space to plant more trees across each of these land uses, especially those around Cane Run Creek.

Find out how you can help!

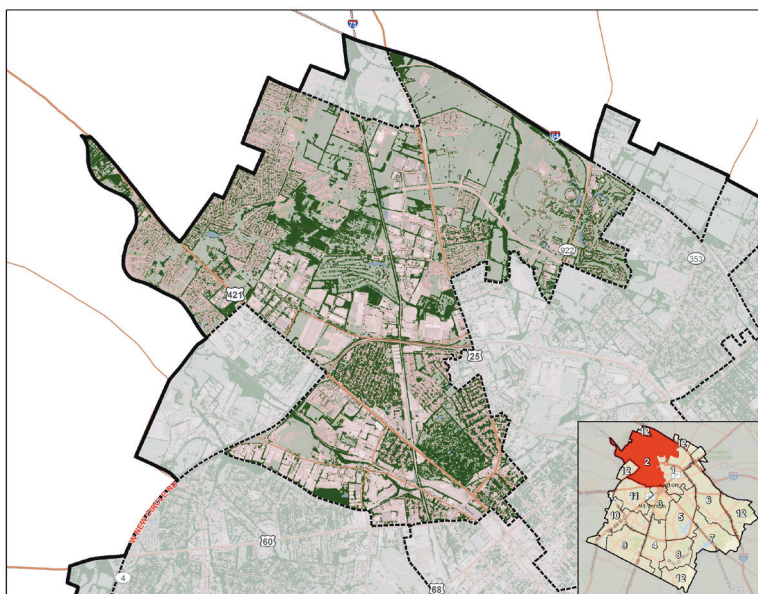Tree Canopy   Grass, Fields   Concrete / Hard Surfaces

GRADES

CRITERIA	GRADE
Reaching the Goal 22% of District 1 was covered by tree canopy in 2012; the overall goal is 30%.	C-
Achieving Maximum Possible Canopy District 1 has the potential for 54% canopy cover though has reached only 22% to-date.	D+
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 1 intercept 156 million gallons of stormwater annually.	F
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	F
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 1 trees was calculated at $3.8 million, or $852 per acre.	C+

See the full description of grading criteria and scales (pg 19).

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Council District 2

Overall Grade:

D

District 2 has the lowest UTC percentage (18%) and least benefits per acre of all districts for two primary reasons: industry is the dominant land use and it has the highest acreage of hard surfaces. Since 2000 there have been multiple tree plantings and greenway improvements, however residential land and large industrial campuses have room for improvement.

Find out how you can help!

■ Tree Canopy   ■ Grass, Fields   ■ Concrete / Hard Surfaces

GRADES

CRITERIA	GRADE
Reaching the Goal 18% of District 2 was covered by tree canopy in 2012; the overall goal is 30%.	D-
Achieving Maximum Possible Canopy District 2 has the potential for 50% canopy cover though has reached only 18% to-date.	D
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 2 intercept 248 million gallons of stormwater annually.	D-
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	F
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 2 trees was calculated at $5.2 million, or $747 per acre.	C

See the full description of grading criteria and scales (pg 19).

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Council District 3

Tree Canopy   Grass, Fields   Concrete / Hard Surfaces

Overall Grade:

D+

District 3 received good marks for approaching the UTC goal of 30% (currently 24%); however, the district will need to strategically plant more trees to decrease stormwater and heat stress problems. Opportunities for expanded tree canopy exist on the University of Kentucky's campus, in residential neighborhoods, and in parks.

GRADES

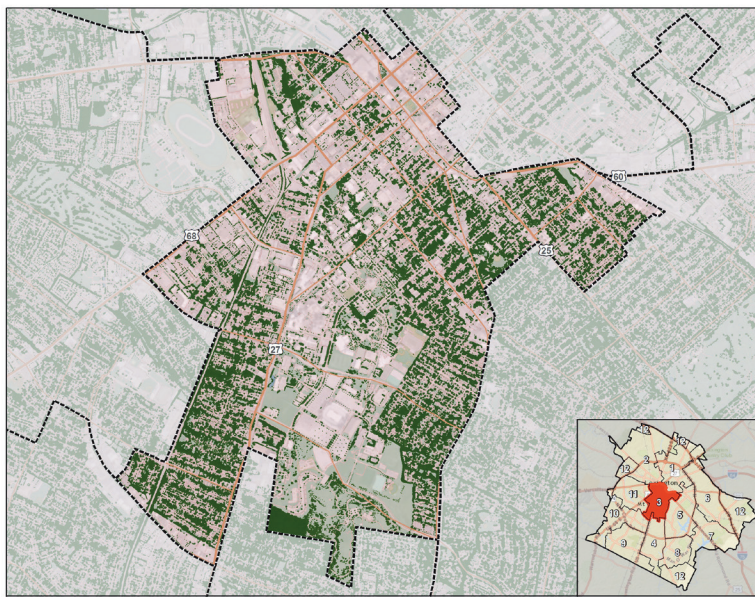| CRITERIA	GRADE
Reaching the Goal 24% of District 3 was covered by tree canopy in 2012; the overall goal is 30%.	B-
Achieving Maximum Possible Canopy District 3 has the potential for 47% canopy cover though has reached only 24% to-date.	C
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 3 intercept 92 million gallons of stormwater annually.	F
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	F
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 3 trees was calculated at $2.3 million, or $905 per acre.	C+

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Council District 4
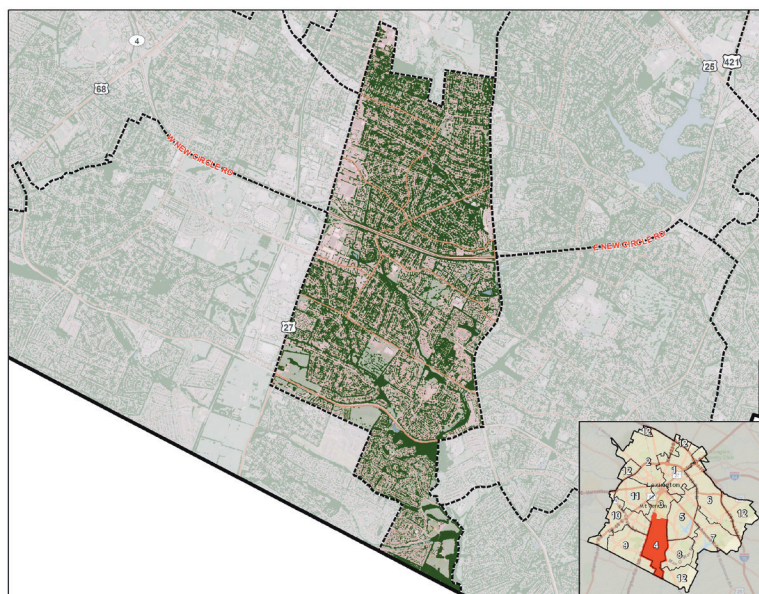
Tree Canopy   Grass, Fields   Concrete / Hard Surfaces

Overall Grade:

C+

District 4 has the highest UTC (32%) and receives the most tree benefits of all the districts. Even though the tree canopy goal has been met, District 4 has one of the highest maximum possible canopy percentages, so there is ample room to plant more trees on private property and in parks.

Find out how you can help!

GRADES

CRITERIA	GRADE
Reaching the Goal 32% of District 4 was covered by tree canopy in 2012; the overall goal is 30%.	A+
Achieving Maximum Possible Canopy District 4 has the potential for 61% canopy cover though has reached only 32% to-date.	C
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 4 intercept 120 million gallons of stormwater annually.	D-
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	D
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 4 trees was calculated at $3.8 million, or $1,115 per acre.	B+

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See the full description of grading criteria and scales (pg 19).

Council District 5

Tree Canopy Grass, Fields Concrete / Hard Surfaces

Overall Grade:

C+

District 5 has the second highest UTC (30%) and meets the canopy goal. This district has many mature trees due to its historical nature and larger residential lot sizes. There is, however, room for improvement, especially to address flooding, water pollution, and heat stress.

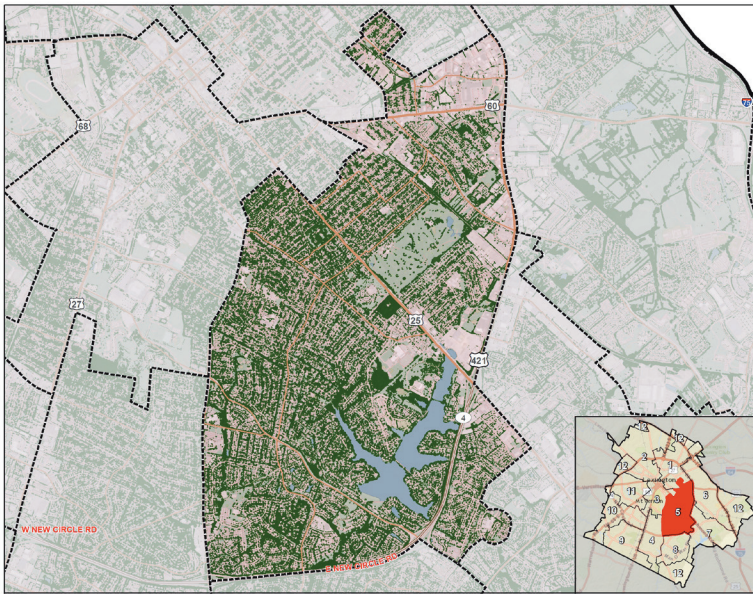Find out how you can help!

GRADES

CRITERIA	GRADE
Reaching the Goal 30% of District 5 was covered by tree canopy in 2012; the overall goal is 30%.	A+
Achieving Maximum Possible Canopy District 5 has the potential for 55% canopy cover though has reached only 30% to-date.	C+
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 5 intercept 164 million gallons of stormwater annually.	D−
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	D−
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 5 trees was calculated at $4.9 million, or $1,062 per acre.	B+

See the full description of grading criteria and scales (pg 19).

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Council District 6

Overall Grade:

D+

District 6 has a 23% canopy. Homes and residential lots are smaller in this District, where young trees have been planted with new developments. There is room to almost *double* the tree canopy. Tree planting and care for existing trees should be a priority.

[Find out how you can help!](#)

■ Tree Canopy   ■ Grass, Fields   ■ Concrete / Hard Surfaces

GRADES

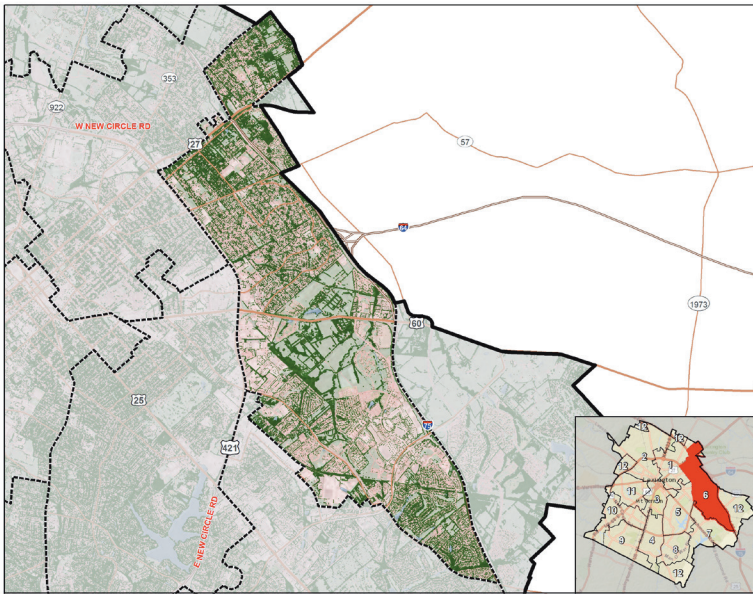| CRITERIA	GRADE
Reaching the Goal 23% of District 6 was covered by tree canopy in 2012; the overall goal is 30%.	C-
Achieving Maximum Possible Canopy District 6 has the potential for 50% canopy cover though has reached only 23% to-date.	D+
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 6 intercept 204 million gallons of stormwater annually.	D-
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	F
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 6 trees was calculated at $4.9 million, or $852 per acre.	C+

See the [full description of grading criteria and scales](#) (pg 19).

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Council District 7

FAYETTE URBAN COUNTY GOVERNMENT · LEXINGTON KENTUCKY · 1775

Overall Grade:

D+

District 7 has one of the lower tree canopy percentages (22%). This can be attributed to smaller residential lots, as well as tree losses from EAB and storms. There is room to almost *triple* the tree canopy. Tree planting on streets and private property should be a priority.

[Find out how you can help!](#)

Tree Canopy · Grass, Fields · Concrete / Hard Surfaces

GRADES

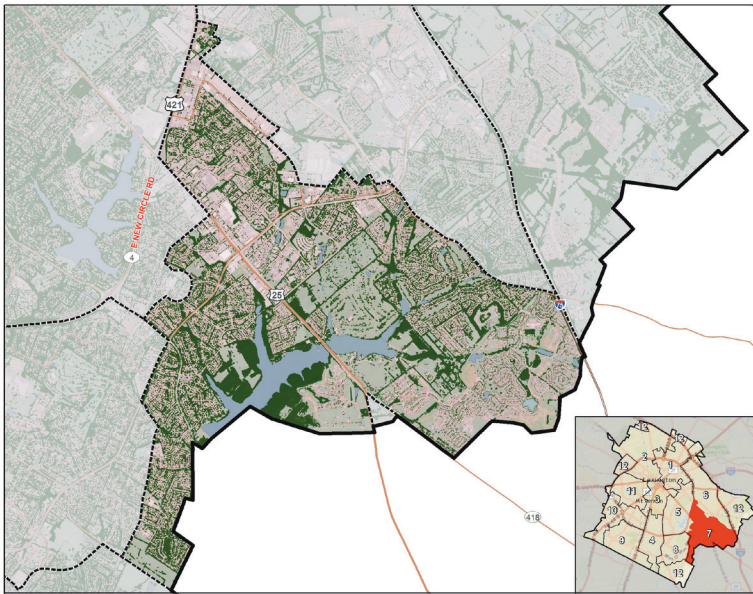| CRITERIA	GRADE
Reaching the Goal 22% of District 7 was covered by tree canopy in 2012; the overall goal is 30%.	C-
Achieving Maximum Possible Canopy District 7 has the potential for 58% canopy cover though has reached only 22% to-date.	D
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 7 intercept 165 million gallons of stormwater annually.	D
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	F
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 7 trees was calculated at $4 million, or $852 per acre.	C+

See the [full description of grading criteria and scales](#) (pg 19).

Council District 8
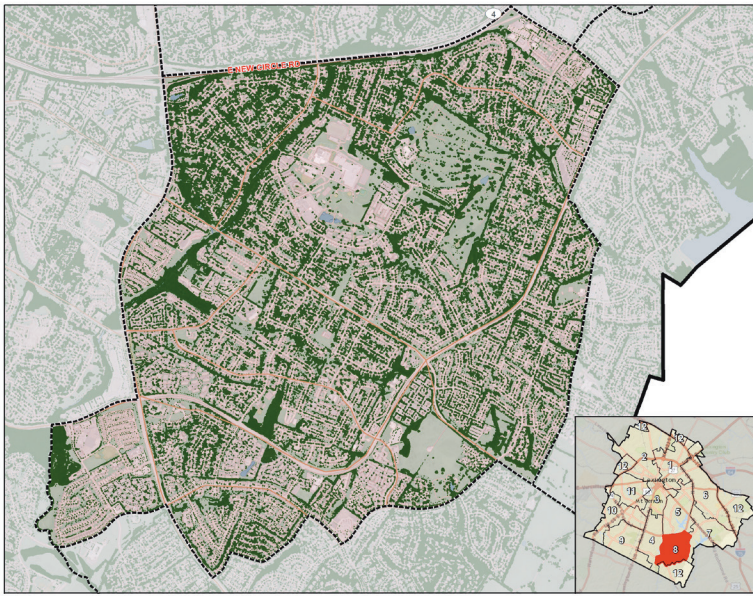
Overall Grade:

C

District 8 has one of the highest UTCs (29%) of all districts and receives significant benefits from its tree canopy. This district is primarily well-established residential land with limited commercial areas and thus, the lowest acreage of hard surfaces. There are many untapped opportunities to plant more trees.

Find out how you can help!

Tree Canopy   **Grass, Fields**   **Concrete / Hard Surfaces**

GRADES

| CRITERIA	GRADE
Reaching the Goal 29% of District 8 was covered by tree canopy in 2012; the overall goal is 30%.	A
Achieving Maximum Possible Canopy District 8 has the potential for 61% canopy cover though has reached only 29% to-date.	C-
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 8 intercept 100 million gallons of stormwater annually.	D-
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	D-
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 8 trees was calculated at $2.8 million, or $990 per acre.	B-

See the *full description of grading criteria and scales* (pg 19).

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Council District 9

Overall Grade:

C–

District 9 has nearly reached the 30% canopy goal (27%), despite large commercial areas and significant ash tree loss from EAB. Hosting multiple Reforest the Bluegrass projects has helped, but there is still room to more than double the UTC. Tree planting and care of existing trees should remain a priority.

[Find out how you can help!](#)

Tree Canopy | Grass, Fields | Concrete / Hard Surfaces
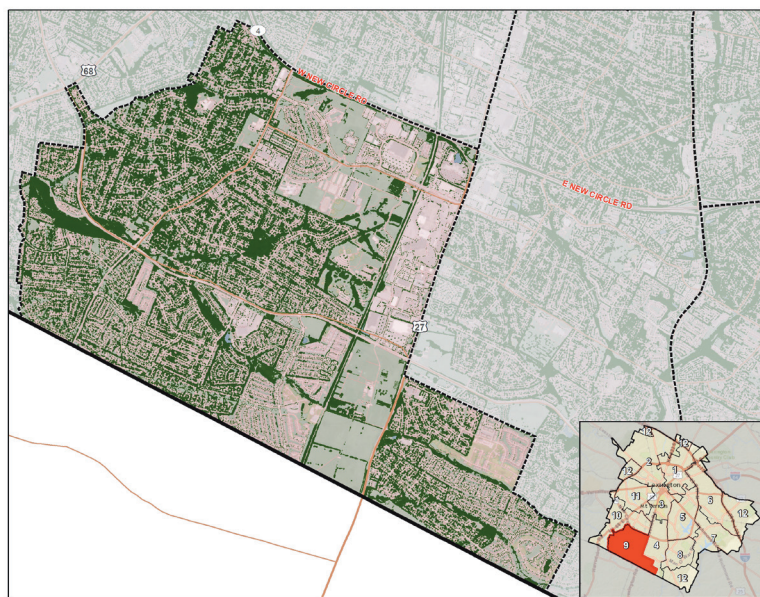
GRADES

CRITERIA	GRADE
Reaching the Goal 27% of District 9 was covered by tree canopy in 2012; the overall goal is 30%.	B+
Achieving Maximum Possible Canopy District 9 has the potential for 57% canopy cover though has reached only 27% to-date.	C–
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 9 intercept 153 million gallons of stormwater annually.	D–
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	F
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 9 trees was calculated at $4.1 million, or $957 per acre.	B–

See the [full description of grading criteria and scales](#) (pg 19).

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Council District 10

Overall Grade:

C-

District 10 (26% UTC) has many older neighborhoods with mature trees. Large and small reforestation projects have taken place here already, though with such a high maximum canopy potential (60%), continued tree planting and care of mature trees on both private and public property should be a priority.

Find out how you can help!

Tree Canopy   Grass, Fields   Concrete / Hard Surfaces

GRADES

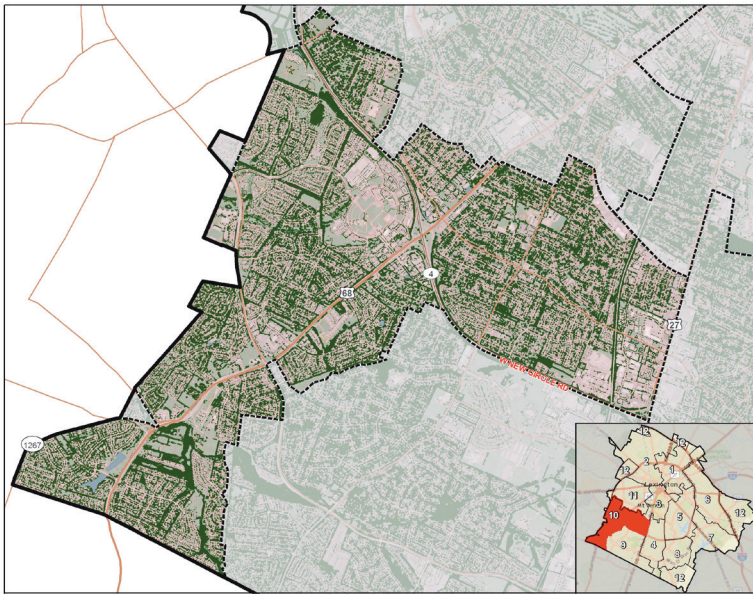| CRITERIA	GRADE
Reaching the Goal 26% of Council District 10 was covered by tree canopy in 2012; the overall goal is 30%.	B+
Achieving Maximum Possible Canopy Council District 10 has the potential for 60% canopy cover though has reached only 26% to-date.	D+
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 10 intercept 156 million gallons of stormwater annually.	D-
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	F
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 10 trees was calculated at $4.2 million, or $957 per acre.	C-

See the full description of grading criteria and scales (pg 19).

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Council District 11

Overall Grade:

C+

District 11 has the second highest UTC and meets the 30% canopy goal. This district has many mature trees thanks to its older neighborhoods, Hillcrest Cemetery, and the golf course. Action is still needed, especially planting trees in areas prone to flooding, water pollution, and heat stress.

Find out how you can help!

Tree Canopy   Grass, Fields   Concrete / Hard Surfaces

GRADES

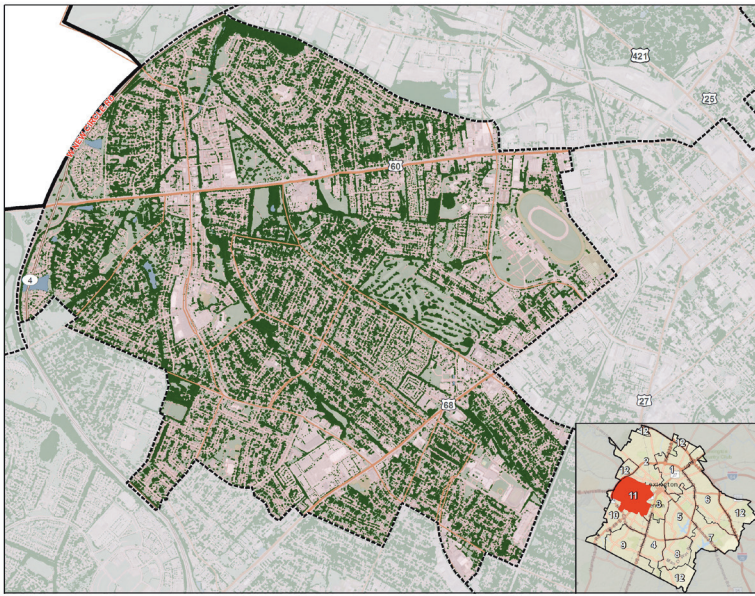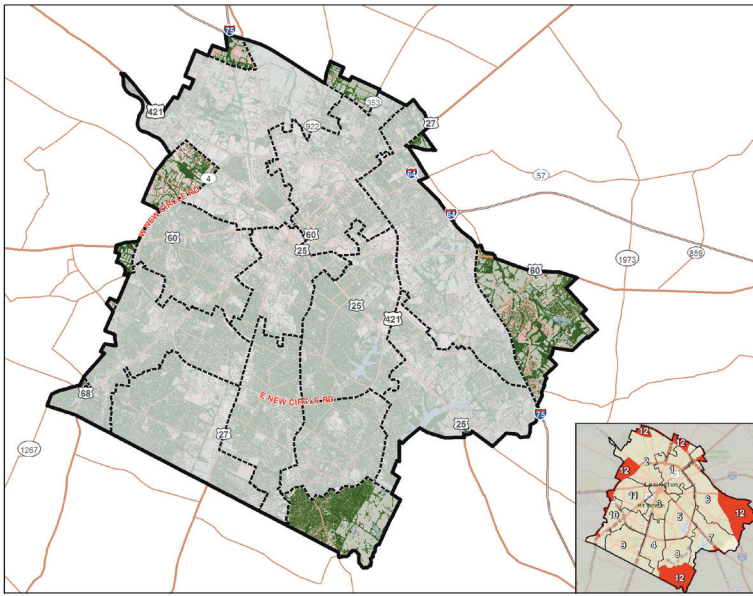| CRITERIA	GRADE
Reaching the Goal 30% of District 11 was covered by tree canopy in 2012; the overall goal is 30%.	A+
Achieving Maximum Possible Canopy District 11 has the potential for 59% canopy cover though has reached only 30% to-date.	C
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 11 intercept 120 million gallons of stormwater annually.	D−
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	D−
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 11 trees was calculated at $3.6 million, or $1,062 per acre.	B+

See the full description of grading criteria and scales (pg 19).

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Council District 12

Tree Canopy | Grass, Fields | Concrete / Hard Surfaces

Overall Grade:

C+

District 12 has the highest acreage of tree canopy but needs more trees on private properties and streets to reach the 30% canopy goal (currently 23%). This district is the only one to score an "A" in its trees' ability to reduce flooding and water pollution. District 12 also scored the highest in avoiding heat stress.

Find out how you can help!

GRADES

CRITERIA	GRADE
Reaching Goal 23% of Council District 12 was covered by tree canopy in 2012; the overall goal is 30%. Grade depicts percent of canopy goal achieved.	C-
Achieving Maximum Possible Canopy Council District 12 has the potential for 48% canopy cover though has reached only 23% to-date.	C-
Ability to Prevent Flooding & Water Pollution Trees intercept and hold significant amounts of rainwater. This reduces flooding in neighborhoods and pollution in local waterways. Trees in District 12 intercept 254 million gallons of stormwater annually.	A-
Avoiding Heat Stress Trees cool the environment. Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses, and leads to higher energy usage/costs and lower quality of life.	C
Overall Canopy Benefits Tree canopy is valuable for the benefits it provides, such as air and water quality, carbon storage, reduced energy needs, and property value increases. The total value of benefits provided by District 12 trees was calculated at $6.1 million, or $852 per acre.	C+

See the full description of grading criteria and scales (pg 19).

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Take Action!

Improving Your Grades - Take Action!

The Lexington UTC Report Card reflects the collective performance of the city's trees. Performance is measured by key environmental and economic benefits to people in the Urban Service Area. Clearly, there is room for improvement and need to plant more trees.

Trees provide more than beauty and shade; they are major capital assets in your neighborhood and in Lexington. Just as streets, sidewalks, buildings, and utilities provide benefits and remain critical components in the Urban Service Area, so too do trees. Trees and the urban tree canopy are important civic assets that require the same care and maintenance as other assets to provide all the services and benefits Lexington's citizens deserve, expect, and enjoy.

So, take action today – it will make a difference now and for future generations.

PLANT a Tree

"The best time to plant a tree is 20 years ago. The second best time is today." *Whether it's a seedling or a large tree, every tree counts.* If you have room to plant more than one tree, do it for those who can't. Trees provide benefits to the whole community, not only to the property where they are growing.

So get out there and plant a tree!

DIY Tree Planting Tips:

- Planting Tips (KY Division of Forestry)

- How to Plant a Tree (National Arbor Day Foundation)

- Lexington's Tree Planting Manual

OR join a group to plant trees - see **Volunteer Your Time section** *on opposite page.*

CARE for Trees

Proper maintenance will extend the lives of mature trees and help new trees reach their full potential. The greatest benefits come from mature trees. Proper pruning, watering, mulching, and insect and disease control will accelerate growth and keep trees healthy, attractive, and safe for decades, if not centuries, to come.

DIY Tree Care Tips:

- Pruning Mature Trees: Factsheet with information on reasons to prune, when to prune, and how to prune.

- Proper Tree Mulching: Factsheet with do's and don'ts of mulching trees.

- Kentucky Roots: Seven easy ways to care for trees, and five reasons trees are important.

- Dealing with Ash Tree Loss: A homeowners guide to emerald ash borer management.

- Find the Right Tree Care Company: accredited tree service companies from the Lexington Better Business Bureau

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Take Action!

Help Preserve our Existing Trees:

If you or someone you know has a large tree and are considering removing it, please consider the urban tree canopy and benefits detailed in this report. Keep in mind that the benefits trees provide increase greatly as trees become more mature.

Find out the benefits your tree is providing with the National Tree Benefit Calculator

SUPPORT the Urban Forest

There are many ways to support Lexington's urban forest:

• Start a project in your neighborhood. Grant funds are currently available for tree projects in the community that improve water quality, address stormwater runoff and educate the public about these issues. Learn more about Lexington's Incentive Grant Program available now.

• Help by conducting an inventory of street trees, reporting tree maintenance needs, and joining tree planting projects. Contact Lexington's Urban Forestry Program for more information.

• Show your support for trees in Lexington by attending a Tree Board public meeting or program, or volunteering your time (see next column).

• Donate money in support of Lexington's urban forest by helping fund the annual planting program Reforest the Bluegrass.

VOLUNTEER Your Time

"Many hands make for light work." *Help raise funds, friends, and awareness for urban trees.* Many Lexington area non-profits, schools, and neighborhood groups involved with tree initiatives can use your help with projects and education efforts. Donating small amounts of your time, money, and enthusiasm will go a long way to improving tree canopy in Lexington. Active projects include:

• Participate in Lexington's street tree inventory: assist Urban Forestry staff in counting and identifying street trees.
• Reforest the Bluegrass annual tree planting program.
• Lexington Tree Foundation to increase public awareness of the benefits and care of trees to keep communities healthy.
• Friends of Cane Run Watershed, Friends of Wolf Run Watershed, and Neighbors United for South Elkhorn Creek groups often hold stream clean up days and tree plantings to help improve the watershed.
• Keep Lexington Beautiful holds multiple tree planting and clean up events each year.
• Town Branch Trail, Inc. is working to build a greenway and trail from downtown to Masterson Station Park.

LEARN More

2013 Lexington Urban Tree Canopy
• UTC Assessment and Planting Plan
• UTC Factsheet
• UTC Web Viewer

Ask the Lexington Urban Forester

University of Kentucky Forestry Extension

Have question about or need service on your street trees? Submit a service request by dialing 3-1-1 or call an urban forester at (859) 425-2255.

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Grading

Grade / Scale Explanation

Reaching the Goal
= Existing Canopy/Canopy Goal
The amount of canopy cover can be evaluated by how much of the canopy goal has been reached. This grading scale compares the existing tree cover to the city's overall canopy goal of 30%. Grading Scale: A score of 97-100 is an A+; 93-96 is an A; 90-92 an A-; 87-89 a B+; 83-86 a B; 80-82 a B-; 77-79 a C+; 73-76 a C; 70-72 a C-; 67-69 a D+; 63-66 a D; 60-62 a D-; and less than 60 is an F.

Achieving Maximum Possible Canopy
= Existing Canopy/Maximum Canopy Possible
Canopy can also be evaluated by how much has been achieved compared to the amount of canopy possible in each area. Maximum potential canopy was calculated in the recent UTC assessment for the city overall, as well as by council districts, homeowner associations, and more. Each grade represents the level of potential canopy that has been achieved. Grading Scale: A score over 85 is an A+; 80-85 is an A; 75-79 an A-; 70-74 a B+; 65-69 a B; 60-64 a B-; 55-59 a C+; 50-54 a C; 45-49 a C-; 40-44 a D+; 35-39 a D; 30-34 a D-; and less than 30 is an F.

Ability to Prevent Flooding & Water Pollution
= Acres of Pervious Land / Acres of Impervious Land
Trees intercept significant amounts of rainwater. Thus, the amount of stormwater that enters sewer systems is greatly impacted by the amount of tree canopy in that area. Interception of stormwater means less rainwater running into combined storm/sewage pipes that overflow during rainfalls.

Summary of All Scores & Data	Data by Council District							
	2012 Canopy	**Max. Poss. Canopy %**	**Canopy Goal**	**Acres in Council District**	**Acres of Canopy**	**Acres of Pervious**	**Acres of Impervious**	**Canopy Benefits***
District 1	22%	54%	30%	4408	953	2,572	1,836	$3,756,679
District 2	18%	50%	30%	7005	1,259	4,637	2,368	$5,234,460
District 3	24%	47%	30%	2609	637	1,272	1,336	$2,360,039
District 4	32%	61%	30%	3396	1,084	2,181	1,214	$3,784,894
District 5	30%	55%	30%	4647	1,410	2,901	1,746	$4,935,774
District 6	23%	50%	30%	5778	1,301	3,712	2,065	$4,923,984
District 7	22%	58%	30%	4663	1,013	3,154	1,508	$3,973,525
District 8	29%	61%	30%	2835	819	1,839	996	$2,808,454
District 9	27%	57%	30%	4324	1,150	2,813	1,510	$4,138,460
District 10	26%	60%	30%	4397	1,160	2,712	1,685	$4,209,030
District 11	30%	59%	30%	3393	1,012	2,160	1,234	$3,604,104
District 12	23%	48%	30%	7174	1,622	5,910	1,262	$6,113,766
All Districts	**25%**	**54%**	**30%**	**54628**	**13,418**	**35,863**	**18,760**	**$49,843,170**

*Includes air quality, stormwater, carbon sequestration , carbon storage, energy savings and property valu

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Less rainwater in the sewer means less pollution in local waterways. The ability to prevent water pollution is quantified as a ratio of pervious surfaces (land covers such as bare soil, streams, turf, shrubs, and trees that can absorb rainwater) to non-pervious land covers (concrete, buildings, and other paved surfaces). Grading Scale: A score above 5 is an A+; 4.75-4.99 is an A; 4.50-4.74 is an A-; 4.25-4.49 a B+; 4.00-4.24 a B; 3.75-3.99 a B-; 3.50-3.74 a C+; 3-3.5 a C; 2.50-3.00 a C-; 2.25-2.49 a D+; 2.00-2.24 a D; 1.50-1.99 a D-; and less than 1.50 is an F.

Avoiding Heat Stress
= Acres of Impervious Land / Acres of Tree Canopy
Heat extremes in urban areas (termed urban heat island effects) is a leading cause of respiratory and cardiac illnesses. Heat stress leads to higher energy usage/costs and lower quality of life. Grades are assessed as a ratio of impervious surface (concrete) to tree canopy, which is a strong predictor of heat-stressed areas. The higher the ratio value, the more UHI issues. Grading Scale: A score of 0.10 is an A+; 0.20 is an A; 0.30 an A-; 0.40 a B+; 0.50 a B; 0.60 a B-; 0.70 a C+; 0.80 a C; 0.90 a C-; 1.00 a D+; 1.10 a D; 1.20 a D-; and 1.30 or higher is an F.

Overall Canopy Benefits
= Total Value of Benefits from Trees / Total Acres
Tree canopy is valuable for the benefits it provides (both environmental and economic). Such benefits include air and water quality, carbon storage, reduced energy needs, and property value increases. Total value of benefits is divided by the total acres in each district; that way benefits across districts can be more accurately compared. Grading Scale: A score of $1250 is an A+; $1187 an A; $1125 an A-; $1062 a B+; $1000 a B; $912 a B-; $837 at C+; $750 a C; $662 a C-; $587 a D+; $500 a D; $375 a D-; $250 an F.

Reaching the Goal		Achieving Maximum Possible Canopy		Ability to Prevent Flooding & Water Pollution		Avoiding Heat Stress		Overall Canopy Benefits		Final Overall Grade
Score	Letter Grade	Score	Letter Grade	Score	Letter Grade	Score	Letter Grade	Score	Letter Grade	
72%	C-	40%	D+	1.40	F	1.9	F	$852	C+	D
60%	D-	36%	D	1.96	D-	1.9	F	$747	C	D
81%	B-	51%	C	0.95	F	2.1	F	$905	C+	D+
106%	A+	52%	C	1.80	D-	1.1	D	$1,115	B+	C+
101%	A+	55%	C+	1.66	D-	1.2	D-	$1,062	B+	C+
75%	C-	45%	D+	1.80	D-	1.6	F	$852	C+	D+
72%	C-	37%	D	2.09	D	1.5	F	$852	C+	D+
96%	A	47%	C-	1.85	D-	1.2	D-	$991	B-	C
89%	B+	46%	C-	1.86	D-	1.3	F	$957	B-	C-
88%	B+	44%	D+	1.61	D-	1.5	F	$957	B-	C-
99%	A+	51%	C	1.75	D-	1.2	D-	$1,062	B+	C+
75%	C-	47%	C-	4.68	A-	0.8	C	$852	C+	C+
82%	**B**	**45%**	**D+**	**1.91**	**D-**	**1.4**	**F**	**$912**	**B-**	**C-**

ues. All benefits values are annual except for carbon storage which span life of trees.