

Benefits of Trees

- **Energy** - Trees cool the air naturally through water evaporating from leaves and direct shade. Deciduous trees planted on the south or west side of your home will reduce costs of energy for cooling in summer and heating in winter.
- **Air Quality** - Tree leaves work as natural air filters. They remove particulate matter and pollutants such as ozone, nitrogen oxides, ammonia, and sulfur dioxide.
- **Water Quality** - Healthy trees can have a strong influence on water quality. Tree canopies and root systems slow and reduce stormwater runoff, flooding, and erosion. Trees also help filter water, reducing potential sources of water pollution.
- **Real Estate Values** - Studies show that well-landscaped neighborhoods with shade trees have a positive economic influence on real estate values and speed the sale of a home by four to six weeks.



- **Business Values** - Consumers respond positively to shopping environments with well-maintained landscapes and healthy trees.
- **Climate Change** - Trees take in carbon dioxide and produce oxygen. This makes them ideal candidates for reducing greenhouse gases in our atmosphere.

.....
Reduce your carbon footprint, plant a tree!



Alliance for Community Trees

The Alliance for Community Trees (ACT) is a national nonprofit dedicated to improving the health and livability of cities. We believe that every community deserves cleaner air and greener streets, and that trees are essential in helping cities deal with pollution, energy efficiency, crime, and overall health. Through 150 affiliates in 40 states, ACT calls on 450,000 volunteers to take action to improve their environment by planting and caring for more than 7.8 million trees. The simple act of neighbors coming together to plant trees can be the catalyst for enormous community change. Locate an ACT affiliate near you at: www.actrees.org.



The Alliance for Community Trees would like to thank The Home Depot Foundation for their continued generosity and commitment to healthy communities built responsibly.

Economic Values of Trees

More Livable Neighborhoods. The cooling effect of trees can save millions of energy dollars. 3-4 shade trees located strategically around a house can cut summer cooling costs by 30-50%. For every one million trees, that's \$10 million in energy savings. Property values of homes with trees in the landscape are 5 - 20% higher than equivalent properties without trees. The presence of trees in urban neighborhoods has also been linked to reduced crime.



Tangible Investments. One acre of trees produces enough oxygen for 18 people to breathe each day and eliminates as much carbon dioxide from the air as is produced from driving a car 26,000 miles. Every 4 million trees removes 8 million pounds of air pollutants annually, and saves \$20 million in annual air pollution cleanup.

Downtown Assets. For every \$1 a municipality invests in trees, it receives benefits of up to \$3.74.

Here are two ways.... Every one

million trees reduces 4 billion gallons

of stormwater runoff annually and

saves \$3.5 million in annual stormwater runoff costs. At the same time,

the shade cast by trees can significantly increase the life of road

surfaces by reducing surface temperatures.

Asphalt maintenance of

shaded areas needs repair

half as often and costs

nearly 60% less.



Green Infrastructure for Sustainable Communities

High resolution satellite imagery and other new technologies are providing a new understanding of the importance of trees and other green elements in our communities. In Washington, DC these tools are being used to map and measure our existing canopy and to set goals for expanding it in neighborhoods where it is limited.

Despite several decades of tree decline, the District of Columbia's 36 percent tree canopy is among the best in the country for cities of its size. Still, many neighborhoods have few trees and residents there suffer from hotter summer temperatures, and vast expanses of pavement means more polluted stormwater runoff to our streams.

The Importance of Large Trees

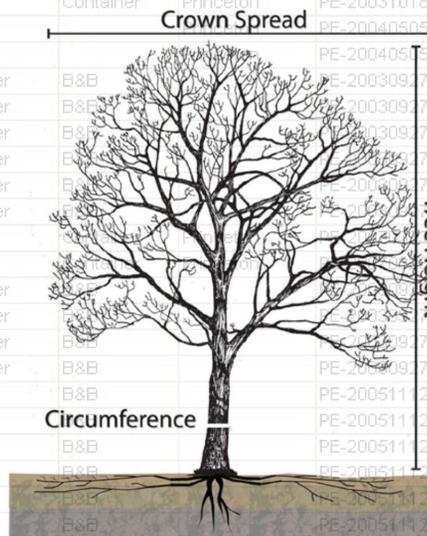
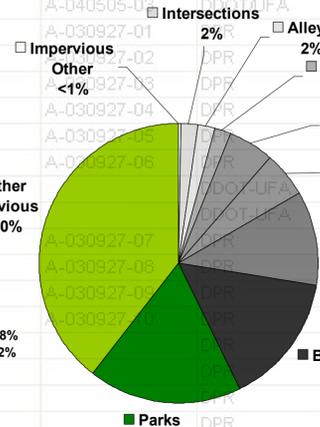
Trees 30 inches in diameter remove 70 times more pollutants from the air than three inch diameter trees. In DC, just 3% or our 1.9 million trees are 30 inches or larger. Most trees here (56%) are six inches or less. Helping these trees to grow larger, and locating areas to plant additional trees to provide environmental and public health benefits, is today's challenge.



Volunteers Entering Tree Inventory Field Data Into a GIS Database



Volunteer Measuring the Circumference of a Street Tree



DC's Largest Known Tree: The Northampton Oak

Circumference: 220"
Crown Spread: 122'
Tree Height: 105'

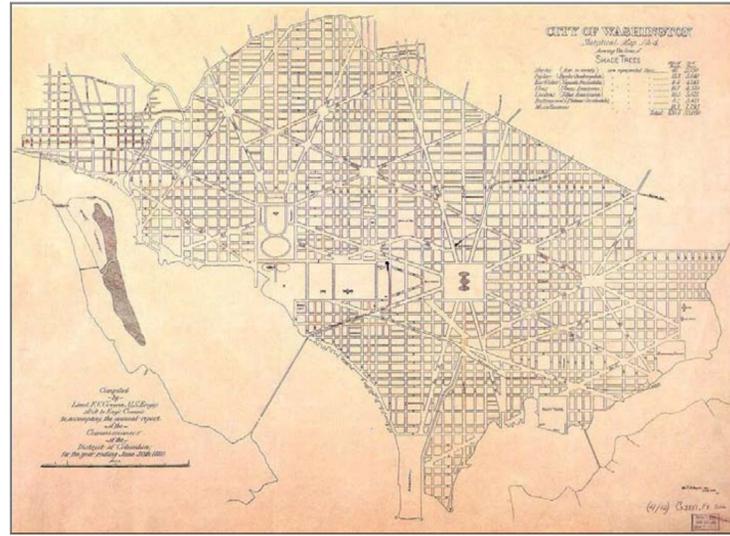
SCI_NM	OBJEC	Shape	TREE_ID	WIRES	CMMN_NM	PS_ID	JURISDICTN	NURSERY	ROOTPACK	CULTIVAR	PEID
Magnolia grandiflora	3	Point	T-050418-Y01		American holly		DCPS	Robin Hill	B&B	Nelle Stevens	PE-20051013_59
Ulmus americana	8	Point	T-051112-D27		Elm, American	A-091303-0ES	DCPS	Riveredge Farms	Container	Princeton	PE-20031018_50
Ulmus americana	36	Point	T-051112-D22		Elm, American	A-091303-4ES	DCPS	Riveredge Farms	Container	Princeton	PE-20031018_50
Ulmus americana	37	Point	T-051112-D21		Elm, American	A-091303-3ES	DCPS	Riveredge Farms	Container	Princeton	PE-20031018_50
Ulmus americana	38	Point	T-051112-D20		Elm, American	A-091303-2ES	DCPS	Riveredge Farms	Container	Princeton	PE-20031018_50
Ulmus americana	39	Point	T-051112-D19		Elm, American	A-091303-1ES	DCPS	Riveredge Farms	Container	Princeton	PE-20031018_50
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Ulmus americana	41	Point	T-051112-D17		Elm, American	A-090903-ES2	DCPS	Riveredge Farms	Container	Princeton	PE-20031018_50
Ulmus americana	42	Point	T-051112-D16		Elm, American	A-090903_1ES	DCPS	Riveredge Farms	Container	Princeton	PE-20031018_50
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Ulmus americana	91	Point	T-051112-D67		Elm, American	A-030927-42	DPR	Merrifield Garden Center	B&B		PE-20051112_50
Ulmus americana	92	Point	T-051112-D66		Elm, American	A-030927-43	DPR	Merrifield Garden Center	B&B		PE-20051112_50
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Ulmus americana	100	Point	T-051112-D58		Elm, American	A-030927-51	DPR	Merrifield Garden Center	B&B		PE-20051112_50

Map created by Casey Trees, December 2007
Base data courtesy of DC GIS / OCTO Imagery from 2006.

Casey Trees:
Mapping the Green for a Sustainable Washington, DC



From the L'Enfant plan for the new capital city...



... to the massive post-Civil War reconstruction of District streets and utilities

... to the planting of American elms on the Mall in the 1930's, Washington, DC has been known for its trees



Beautiful Tools of Sustainability

Today the trees that make up DC's urban forest are appreciated for much more than their beauty. We value them for their cooling shade, for reducing stormwater runoff that pollutes our waterways, and for cleaning the air.

Part of this renewed appreciation of trees is due to the work of Casey Trees, a nonprofit community-based organization established in 2001 with a mission to restore, enhance, and protect the tree canopy of the Nation's Capital. We do this by directly involving neighborhood residents.



Volunteers at the Thurgood Marshall Academy Planting Event, Spring 2005

Casey Trees first major initiative was a landmark inventory of street trees compiled by 500 volunteers who walked 955 miles of streets to inventory 132,000 trees spaces. Since then, thousands of volunteers have planted and maintained more than 5,000 trees in more than 200 Casey Trees planting events with community groups. We have trained more than 500 Citizen Foresters who provide leadership for planting, watering, inventory and advocacy initiatives. For the next free Citizen Forester classes or to volunteer to help care for thousands of new trees this summer, visit us online at www.caseytrees.org.

Tree Watering Campaign 2008

In the summer of 2008, Casey Trees is working with DC's Urban Forest Administration to recruit residents to adopt and water newly planted street trees.



Watering Bag - placed around tree and filled with 25 gallons of water, released slowly over time.

Casey Trees:
Restoring DC's Green Canopy Neighborhood by Neighborhood



United Nations Environment Programme



The Regional Office for North America (RONA), located in Washington, D.C., is one of six regional offices for the United Nations Environment Programme (UNEP). RONA's mission is to foster cooperation on environmental issues in North America, thereby promoting effective responses to global environmental challenges.



To achieve these goals, RONA promotes collaboration between UNEP and North American organizations, facilitates regional participation in UNEP-sponsored global efforts, develops environmental education initiatives, and organizes environmental awareness-raising campaigns.



Regional Office for North America
900 17th St. NW – Suite 506
Washington D.C. 20006
www.rona.unep.org



Commit to Action : Join UNEP's Billion Tree Campaign

The Plant for the Planet: Billion Tree

Campaign is an example of an UNEP

voluntary initiative that promotes personal

commitment to environmental, economic

and social concerns.

Launched in November of 2006, the

Plant for the Planet: Billion Tree Campaign

encourages individuals, communities, organizations, businesses and

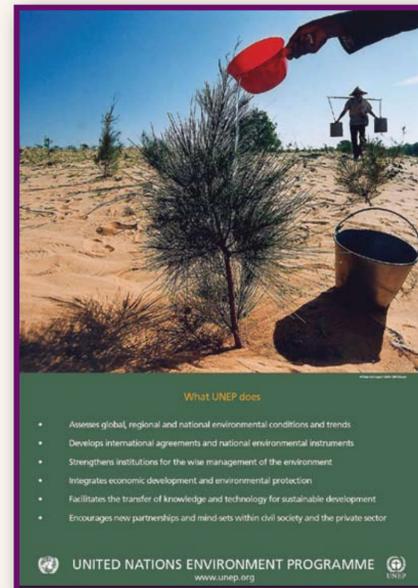
governments to plant trees and enter their tree planting pledges on the

web site www.unep.org/billiontreecampaign. The objective of pledging

at least one billion trees worldwide during 2007 was reached,

and UNEP is now hoping to receive pledges for an additional

one billion trees in 2008.



The way we utilize and sustainably manage our forests can take a

pivotal role in addressing climate change. Forests act as carbon “sinks,”

moving carbon from the atmosphere into storage

in trunks and branches. The loss of natural forests

contributes more to global emissions each year

than the transport sector. Curbing deforestation is a

highly cost-effective way to reduce emissions.

To team up with the United Nations Environment Programme and the

Billion Tree Campaign, please contact us: billiontreecampaign@unep.org;

www.unep.org/billiontreecampaign



**UNEP is the Voice for the Environment
Within the United Nations System**

**UNEP Works with Governments, the Private Sector, Civil Society
and the Public At Large
to Protect Natural Resources Worldwide**

Healthy and Sustainable Communities Include Trees- Locally, Nationally, and Globally

To demonstrate how trees are important to the health, livability, and sustainability of our cities, towns, and villages, the Alliance for Community Trees, Casey Trees, and U.N. Environment Programme provide a vision of trees locally, nationally, and globally.

Local

Trees 30 inches in diameter remove 70 times more pollutants from the air than three-inch diameter trees. In DC, just 3% or our 1.9 million trees are 30 inches or larger. Most trees here (56%) are six inches or less. Helping these trees to grow larger, and locating areas to plant additional trees to provide environmental and public health benefits, is today's challenge and the work of Casey Trees. High resolution satellite imagery and other new technologies are providing a new understanding of the importance of trees and other green elements in our communities. In Washington, DC these tools are being used to map and measure our existing canopy and to set goals for expanding it in neighborhoods where it is limited.

Despite several decades of tree decline, the District of Columbia's 36 percent tree canopy is among the best in the country for cities of its size. Today, the trees that make up DC's urban forest are appreciated for much more than their beauty. We value them for their cooling shade, for reducing stormwater runoff that pollutes our waterways, and for cleaning the air. For more information, visit www.caseytrees.org

National

The Alliance for Community Trees (ACT) works to promote this message in DC and around the country. ACT is a national nonprofit dedicated to improving the health and livability of cities. We believe that every community deserves cleaner air and greener streets, and that trees are essential in helping cities deal with pollution, energy efficiency, crime, and overall health.

Here are a few ways in which trees affect lives everyday around the country:

- Energy Efficiency. 3-4 shade trees located strategically around a house can cut summer cooling costs by 30-50%. For every one million trees, that's \$10 million in energy savings.
- Property Values. Homes with trees in the landscape sell for 5-20% more than equivalent properties without trees.
- Stormwater. Every one million trees reduces 4 billion gallons of stormwater runoff annually and saves \$3.5 million in annual stormwater runoff costs.
- City Infrastructure. The shade cast by trees can significantly increase the life of road surfaces by reducing surface temperatures. Asphalt maintenance of shaded areas needs repair half as often and costs nearly 60% less.

For more information, visit www.actrees.org

Global

The United Nations Environment Programme (UNEP) Regional Office for North America works to foster cooperation on environmental issues in North America, thereby promoting effective responses to global environmental challenges. To achieve these goals, UNEP promotes collaboration with North American organizations, facilitates regional participation in UNEP-sponsored global efforts, develops environmental education initiatives, and organizes environmental awareness-raising campaigns.

The Plant for the Planet: Billion Tree Campaign is an example of a UNEP voluntary initiative that promotes personal commitment to environmental, economic, and social concerns. Launched in November of 2006, the campaign encourages individuals, communities, organizations, businesses, and governments to plant trees and enter their tree planting pledges. For more information, visit www.unep.org/billiontreecampaign

DC's Smallest Big Trees

These white oak seedlings sprouted from acorns collected from the District's largest tree in the fall of 2006.

The Northampton white oak is 105 ft. tall and its 122 ft. wide canopy provides shade to 6 homes each day (see nearby poster).

Just 3% of the trees in DC are white oaks, but due to their size and structure they account for nearly 14% of the 526,000 tons of carbon stored in our city trees.

For more information visit
www.caseytrees.org

