Name: _____

Date: _____

Every tree provides benefits that can be measured. By using i-Tree, a public domain website created by the United States Forest Service, you can easily calculate how much a tree near you helps to mitigate air pollution, storm water, and energy use.

INSTRUCTIONS: Begin by picking the tree you would like to study. Then visit the website **mytree.itreetools.org** to get started. Some information will be required that you may need to obtain in advance.

- Address where the tree is located

- Type of tree: (i.e., existing or new planting)

- Tree species

- Tree condition (e.g., good, poor, etc.)

- Sun exposure (e.g., full, partial, shade)

- Distance of the tree to the building (e.g., within or further than 60 feet)

- How old the building is (e.g., built before 1980, etc.)

- Trunk size — You will have two options: diameter or circumference. Select the question mark next to this entry for how to measure your tree and how to enter the data. To measure the diameter of your tree, you can use a logger's tape. You can use a flexible ruler to measure the circumference of your tree.

- Compass direction from the tree to the nearest building (e.g., northeast 45°). You can use the compass setting in a mobile device to determine the compass direction of your tree.

Once you have input this data, the MyTree calculator will provide you with an analysis similar to this one. If this is how much one tree can provide in benefits, just imagine what an entire urban forest can offer!

MyTree Benefits

Shortleaf pine, *(Pinus echinata)*

Serving Size: 36.00 in. diameter
Condition: Excellent

Total benefits for this year:	**$66.81**
Carbon Dioxide (CO_2) Sequestered	**$4.48**
Annual CO_2 equivalent of carbon[1]	192.47 lbs
Storm Water Runoff Avoided	**$2.97**
Runoff Avoided	332.39 gal
Rainfall Intercepted	1,906.88 gal
Air Pollution Removed Each Year	**$6.40**
Carbon Monoxide	1.01 oz
Ozone	19.54 oz
Nitrogen Dioxide	7.67 oz
Sulfur Dioxide	0.73 oz
$PM_{2.5}$	1.68 oz
Energy Usage Per Year[2]	**$40.43**
Electricity Savings (A/C)	405.88 kWh
Fuel Savings (natural gas, oil)	-0.38 MMBtu
Avoided Energy Emissions	**$12.53**
Carbon Dioxide	500.19 lbs
Carbon Monoxide	3.46 oz
Nitrogen Dioxide	1.19 oz
Sulfur Dioxide	26.77 oz
$PM_{2.5}$	2.76 oz
CO_2 Stored To Date[3]	**$223.43**
Lifetime CO_2 equivalent of carbon[3]	9,607.04 lbs

Benefits are estimated based on USDA Forest Service Research and are meant for guidance only.

[1] For large trees sequestration is overtaken by CO_2 loss with decay/maintenance.

[2] Positive energy values indicate savings or reduced emissions. Negative energy values indicate increased usage or emissions.

[3] Not an annual amount or value.

Visit www.itreetools.org to learn more.
MyTree 2.4.16
Powered by the i-Tree Eco Engine

GPB EDUCATION

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