

# WHAT'S A TREE WORTH TO YOU?

## Residential Tree Planting for Water Quality



..... Planting trees around your home can result not only in a more attractive property, but in substantial environmental – and even financial – benefits. ....

Trees have long been known to provide significant benefits to people and their surroundings – from producing oxygen to moderating temperatures to providing spectacular fall foliage, trees can positively impact the environment for both individuals and communities in many ways.

Recently, people have learned to use trees to help reduce and treat stormwater runoff. Stormwater runoff occurs when rain or snowmelt cannot soak into the ground. Stormwater pollution occurs as the runoff mixes with pollutants on the ground such as sediment, oil, nutrients and bacteria and transport these materials to the nearest waterbody.

A leafy tree canopy itself can help intercept and retain precipitation, reducing the overall volume of stormwater. Recent study has shown that deciduous trees overhanging a paved surface can reduce the annual volume of runoff from that pavement by 15%. Plus - trees and their roots capture and use water to sustain the tree and help it grow. It can infiltrate and filter pollutants carried by stormwater, helping to maintain good water quality at nearby surface waters.



**Become part of the solution to stormwater pollution! Planting just one tree on your property can help significantly reduce stormwater pollution and help protect nearby water resources!**

## Tree Benefits: BY THE NUMBERS

- One large tree can capture and filter up to **36,500 gallons** of water per year
- Healthy, mature trees **add an average of 10%** to a property's value
- Trees properly placed around buildings can reduce air conditioning needs by 30% and can **save 20%-50% in energy** used for heating
- Trees **reduce erosion** by intercepting rainfall and by their roots binding the soil together
- Planting trees remains one of the cheapest, most effective means of drawing excess Carbon Dioxide (CO<sub>2</sub>) from the atmosphere. An acre of trees absorbs enough CO<sub>2</sub> over one year to equal the amount produced by driving a car 26,000 miles
- Trees provide **food and wildlife** habitats
- Trees recharge ground water and sustain stream flow
- One large tree strategically placed in a yard can **replace 10 room-size air conditioners** operating 20 hours per day
- One large tree can lift up to 100 gallons of water out of the ground and discharge it into the air in a day
- One large tree can **provide a day's supply of oxygen** for up to four people
- Trees **lower surface and air temperatures** by providing shade. Shaded surfaces may be 20–45°F cooler than the peak temperatures of unshaded areas
- During one year, a mature tree will absorb more than 48 pounds of CO<sub>2</sub> from the atmosphere and release oxygen in exchange

## FOLLOW THESE THREE EASY STEPS:

# 1

### Consider how trees can work for you:

- Intercept rainfall & reduce stormwater
- Improve water quality
- Reduce air pollution
- Increase property values
- Reduce energy costs

# 2

### Evaluate how your property affects tree selection/location:

- Site limitations (size/shape, existing facilities)
- Tree type and maintenance needs
- Climate/hardiness zone
- Proximity to pavements and buildings

# 3

### Utilize resources for tree selection, installation and care:

- Visit [www.itreetools.org](http://www.itreetools.org) to customize your search and find the tree that's just right for you, AND see the benefits existing trees provide.
- Visit [www.treesaregood.org](http://www.treesaregood.org) for in depth information on tree benefits and values, selecting and purchasing a tree, how to plant a tree, and tree maintenance/care.
- Visit [www.treecanopybmp.org](http://www.treecanopybmp.org) for helpful resources on tree canopy use and stormwater management along with resources for tree selection, installation and care.



Check with your local landscape and garden center for helpful information on trees available in your area, as well as tips for installation and routine tree care.

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