Welcome to Lyons Tree Tagging Project

Be on the lookout for bright orange tags on trees around Lyons!

The tags have been placed by the 4th graders of Lyons Elementary School, as part of a project that seeks to quantify the benefits of individual trees.

This tree tagging project aims to educate the public on the environmental and economic values that trees provide.

The students identified each tree, measured its circumference and then used an online calculating tool to come up with the values you see displayed on the orange tags.

An explanation of each of the values follows:

Stormwater Runoff – Unabated runoff from rain storms washes harmful chemicals into waterways, increases erosion and sends sentiment into local rivers and streams. Trees act as mini-reservoirs, controlling runoff by:

- Intercepting and holding rain on leaves, branches and bark
- Increasing infiltration and storage of rainwater through the tree's root system
- Reducing soil erosion by slowing rainfall before it strikes the soil

Property Value - Trees in front of homes can increase the "curb appeal" of properties thereby increasing sale prices. Research has verified that home buyers are willing to pay more for properties with ample versus few or no trees.

Energy Savings - Trees modify climate and conserve building energy use in three principal ways:

- Shading reduces the amount of heat absorbed and stored by buildings.
- Evapotranspiration converts liquid water to water vapor and cools the air by using solar energy that would otherwise result in heating of the air.
- Tree canopies slow down winds thereby reducing the amount of heat lost from a home, especially where conductivity is high (for example, glass windows).

Air Quality - Trees can mitigate the health effects of pollution by:

- Absorbing pollutants like ozone, nitrogen dioxide and sulfur dioxide through leaves
- Intercepting particulate matter like dust, ash and smoke
- Releasing oxygen through photosynthesis
- Lowering air temperatures which reduces the production of ozone
- Reducing energy use and subsequent pollutant emissions from power plants

It should be noted that trees themselves emit biogenic volatile organic compounds (BVOCs) which can contribute to ground-level ozone production; however, the sum total of the tree’s environmental benefits always trumps this negative.

Carbon Dioxide Reduction - How significant is this number? Most car owners of an “average” car (mid-sized sedan) drive 12,000 miles generating about 11,000 pounds of CO2 every year. A flight from New York to Los Angeles adds 1,400 pounds of CO2 per passenger. Trees can have an impact by reducing atmospheric carbon in two primary ways:

- Trees sequester ("lock up") CO2 in their roots, trunks, stems and leaves while they grow, and in wood products after they are harvested.
- Trees near buildings can reduce heating and air conditioning demands, thereby reducing emissions associated with power production.

Strategically placed trees can increase home energy efficiency. In summer, trees shading east and west walls keep buildings cooler, cutting back on air conditioning usage. In winter, allowing the sun to strike the southern side of a building can warm interior spaces saving on heating.