

# STREET SMART™ TREES

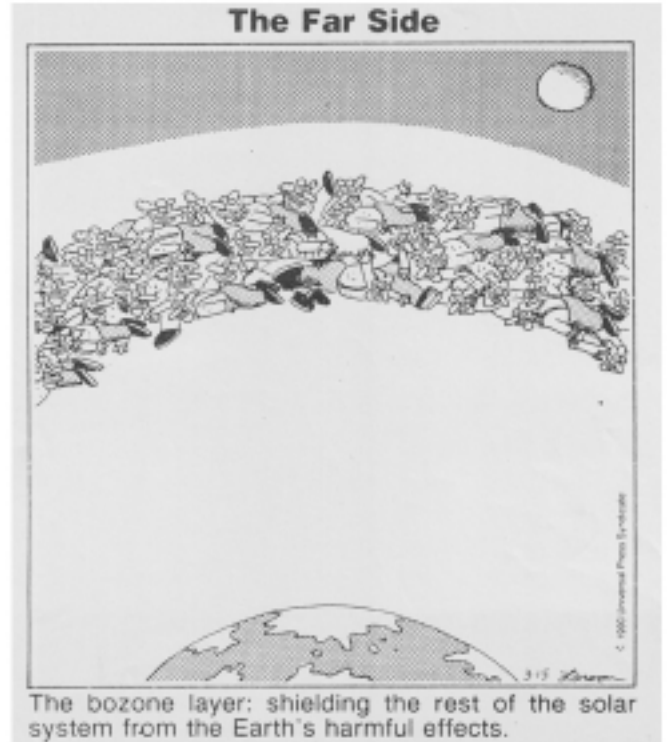


## Part 5

## THE LUNGS OF THE EARTH - CONNECTING THE DOTS

The headline read "County earns 'D' on clean-air report". (Northwest Herald) The county wasn't Cook or Los Angeles it was McHenry County, IL. In the American Lung Association's "State of the Air 2005" Report the upper Midwest states had the most cities with the worst year-round particle pollution levels and ranked second only to California with the most cities with the most unhealthy ozone days. The Chicago-Naperville-Michigan City region was ranked 12th for worst year-round particles, 13th worst for short-term particles and 22nd worst for ozone.

How could McHenry County with no cities and towns over 40,000 people get a 'D' for air pollution? The answer is in the 9 Ozone alert days recorded between 2001 & 2003. Ozone is created from the burning of fossil fuels in cars, trucks and power plants. Hydrocarbon vapors from fuel mix with nitrogen oxide in the air as cars and trucks sit idling in traffic. Combined with sunshine and warm temperatures, no wind or rain a toxic gas is created that burns the lining of the human lungs. Many vulnerable groups, such as children, elderly and people with asthma or respiratory problems are at risk of lung disease or premature death.



The worst counties such as Cook, Lake and Milwaukee received 'F's', because the lake and impermeable cover combine to back up and hold the pollution over the densest populations in the summer. Anything that cools the earth's surface can greatly reduce the possibility of Ozone alert days. Anything, that is, such as trees.

Trees really are the only option to change the environment to eliminate the factors that create the worst air pollution. Short of making less polluting vehicles and having more people take mass transit or ride bicycles the pollution given off by our current technology conspires with the Midwestern summer to create a witches brew of floating diesel particles, Ozone gas and dust.

One hundred trees on the other hand pull in five tons of CO<sub>2</sub> and 1000 pounds of other pollutants from the atmosphere each year. That is the equivalent of the emissions from one car per year. While these lungs of nature are filtering the air we breath all through the summer months they are also shading the earth underneath and reflecting the sun back, which counters the buildup of the conditions that trigger the Ozone alerts. Anyone who has ever stood under a large forest canopy can testify that the air is definitely cooler and also fresher.

McHenry County is not unique in the world today. Rational individuals make decisions every day where they try to maximize their benefits and reduce their costs. Yet because we have difficulty matching up the short-term benefits with the long term costs most of our decisions lean toward immediate gratification. In essence we really are not rational. The cumulative effect of everyone making short-term gratification decisions leads to a tragic long-term outcome. The weakest pay for the costs that the strongest don't want to bear. In a interconnected world though you can run but you cannot hide. The costs in the long run will not be avoidable by anyone. Everyone will pay, whether through declining health or increased health care costs and higher taxes.



Changing our habits to prevent the conditions that cause Ozone alerts does not seem to be within our nature. When individuals come together in groups or organizations, the propensity for irrational behavior is aggravated. Called Group-Think, the result is that decisions are usually made on a crisis by crisis basis. The costs of solving the problems are usually so prohibitive that very few preventive decisions are ever entertained. The benefits of planting trees are dwarfed on a short-term basis by the costs incurred in the annual budgets. Unless a village or other government agency has a long-term capital budget that allows the costs of planting and maintaining trees to be amortized over 20 to 30 years the burden of tree planting is often shifted to the private sector.

Mandating that the private sector plant and maintain more trees as part of new development can be justified under the health, safety and welfare powers of local governments. There is a clear nexus to improving the health, safety and welfare of the local community. Resistance from the private sector to any additional costs requires a trained professional staff to oversee the implementation of the ordinances. It also requires a political will on the part of the elected officials. Fights can often erupt over the removal of a single tree threatening the future of the entire forest.

With all that is known about the benefits trees bring to the human community today most regions are losing more forest canopy than is being replanted. The upper Midwest, with its high humidity and sprawling populations is competing with California for the worst air pollution and yet very few communities protect their existing canopy let alone increasing it. There are a myriad of reasons why we are neglecting this important component of our human ecosystem and will be explored in our next issue.

**The American Lung Association's State of the Air Analysis is based on data collected by the USEPA. The counties with the most Ozone alerts, year-round particle pollution, and short-term particle pollution days determined the Grade each county was given throughout the country.**

**Worst 10 Counties In:**

**Illinois**

1. Cook
2. Madison
3. Lake
4. Jersey
5. Saint Clair
6. Will
7. McHenry
8. Hamilton
9. Clark
10. Mclean

**Wisconsin**

1. Kenosha
2. Sheboygan
3. Milwaukee
4. Ozaukee
5. Door
6. Manitowoc
7. Kewaunee
8. Racine
9. Brown
10. Walworth

**For more information check out the American Lung Association website for Chicago at [www.lungchicago.org](http://www.lungchicago.org)**

