

AIR QUALITY- A Breath of Fresh Air?

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One of the things that lured me to these mountains was the great diversity of birds. I defy anyone to choose the insufferable Howard Stern in the morning over the sweet sounds of a Carolina Wren wakeup call. Yet many of our most common birds are in trouble, which is a wakeup call for us humans.

Of all the things man has wrought on the environment, air pollution is one of the most difficult to protect against. Got impure water? Buy a water filter on your faucet or buy filtered water. Worried about pesticides in your food? Purchase organic food. But how do you avoid breathing the air?

For birds, air quality (and the rapid loss of habitat) is a matter of life and death and the recent dramatic decline of our most common birds by 68 percent, according to a 40 year study by the National Audubon Society, is a serious commentary on the level of pollution in our environment. For people, the mercuric rise of breathing problems such as asthma is a telling sign that there's something in the wind. So why should the air in our mountains be a cause for concern?

In the summertime, we see a rise in air pollutants because adding heat to the proliferation of nitrous oxide and volatile organic chemicals in our lower atmosphere creates a witch's brew of ground level ozone which has been directly linked to human illnesses, primarily the destruction of lung tissue. Hot, dry weather contributes to ground level ozone and this summer has been especially dry. Unlike naturally occurring ozone in the upper atmosphere that protects the earth from the sun's harmful ultraviolet radiation, ground level ozone is mostly caused by human activities, primarily from power plants, factories and vehicles. This harmful ozone damages plant life, reduces crop yields and is a respiratory irritant that can adversely effect everyone, particularly children, people with asthma and other respiratory ailments and those that spend a lot of time outdoors. Studies have demonstrated that emergency room visits for asthma increases by as much as 36 percent on high ozone days.

Also of concern is particle pollution, the airborne fine particles that are caused by car and truck emissions, power plants and open burning. Studies have shown that inhaled, fine particles can imbed themselves deep into lung tissue causing heart and lung disease. Most dramatically, even short term exposure to these substances have been linked to large increases in hospital visits, asthma attacks, heart attacks and cardia arrhythmias (irregular heart rhythms.) Thousands of heart attacks each year are directly linked to particle pollution.

What can we do?

Although Henderson County has no power plants, our air quality is effected by the Progress Energy power plant in Skyland as well as air pollutants coming in from Tennessee, Georgia and South Carolina. The good news is that we have seen a gradual drop in ozone over the last few years due to nitrogen oxide controls on vehicles and power plants. Thankfully, Progress Energy has recently installed scrubbers that have effectively lowered pollutants by 90%. Increasingly,

our pollution is effected by things we have direct control over. Lowering our energy usage in our home by replacing inefficient incandescent bulbs with compact fluorescent bulbs can provide energy savings of up to 75 percent and last up to 10 times longer. Insulating our homes to increase the home's "R" value, raising the thermostat in summer and installing solar panels for hot water can dramatically reduce energy use and save thousands of dollars in energy costs. This is a true win-win situation while lowering our doctor bills by eliminating respiratory irritants.

As far as fine particles are concerned, Henderson County weighs in with the largest number of complaints in WNC to the State's Division of Air Quality, for opening burning. Eliminating open burning can have a positive impact on everyone's health. Other things we can do are to drive less often, car pool whenever possible and purchase hybrid or alternative fuel cars if you can afford them.

To help people in the region make positive choices for the environment and your pocketbook, ECO is once again hosting the Fifth Annual Clean Air Car Fair as part of the Southern Energy and Environment Expo on August 24-26 at the WNC Ag Center. This will be a great opportunity to see the latest in fuel-efficient automobile technology from hybrids to plug-ins cars and more. The fair will also feature the first plug-in school bus. Alternative fuel vehicles on display will include an all-electric AmpMobile conversion vehicle, flex-fuel ethanol/gas cars from several dealers, the Honda Civic GX powered by compressed natural gas, a propane commercial mower, possibly a propane F-150 pickup, and numerous biodiesel vehicles from the area. More information is available on ECO's website.

Project Green Light

Lastly, ECO is launching Project Green Light, a challenge to Western North Carolinians to cut their carbon footprint by lowering their use of energy by as much as 30%. We are rallying schools, churches and community groups as well as neighborhoods to sign up and monitor their usage, replace their incandescent bulbs with energy-saving CFLs, insulate, raise their thermostat in the summer and more. If you or your group is interested in joining the campaign, please contact ECO and sign up today.

Helping protect the mountain's air quality is not just for the birds, its for people too.

Editor's Note: ECO Notes is provided by the Environmental and Conservation Organization, a nonprofit organization dedicated to clean air, clean water, recreation, and the conservation and preservation of the natural heritage and resources of the mountain region. For more information visit the ECO web site at www.eco-wnc.org or phone 692-0385.