

New Year's Resolution: Let's Curb Our Carbon Footprint

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As we ring out the old year and ring in the new, it's worth taking a look at how we are doing globally on CO₂ emissions and what we can do as a community and as individual households to reduce our carbon footprint. In 2005, the Montgomery County Department of Environmental Protection conducted a county greenhouse gas inventory in order to set a baseline and goals for reductions. Goals in our *Montgomery County Climate Protection Plan* call for reducing emissions by 10% every five years to reach a total of 80% in reductions of greenhouse gases by the year 2050.

At the national and global level, CO₂ emissions continue to climb. The Carbon Dioxide Information Analysis Center at Oak Ridge National Laboratory, the US Department of Energy's primary center for data and analysis on climate change, estimates that in 2010, the latest year for which data have been assessed, global emissions reached a record high of 33.5 billion metric tons of CO₂. This amounted to a 5.9% increase over global emissions from the previous year (2009), and a 49% increase since 1990, the year that the Kyoto Protocol established as a baseline to measure increases or decreases in CO₂ emissions by countries.

This addition of CO₂ to the earth's atmosphere has resulted in atmospheric concentrations of CO₂ of 389.6 parts per million, the highest level recorded in at least the last 800,000 years. If we continue emitting at this rate, according to the Intergovernmental Panel on Climate Change (IPCC), the planet will see an increase in global temperatures far in excess of the two degrees Celsius over pre-industrial levels that scientists have warned will transform ecosystems, with severe social and economic consequences for the planet. It is interesting to note that in addition to being a record year for CO₂ emissions globally, 2010 was also the hottest year on record, since NOAA began collecting climate data in 1880.

What is the US's contribution to global CO₂ emissions? In 2010, our emissions increased by 4.1% over 2009 levels, to 5.5 billion metric tons. We are now the second largest emitter of CO₂ globally (after China). Our per capita emissions rate is estimated at 17.6 tons; the global average is around 4.5 tons per capita. What can we do locally to curb our emissions? Two of the most important things we can do to lower our CO₂ emissions are to (i) reduce our consumption of fossil fuels by improving energy efficiency in our homes and in the ways we travel, and (ii) plant more trees to absorb CO₂ from the atmosphere.

We are fortunate to have a mature tree canopy in the Chevy Chase Village — a legacy of 100 + years of tree planting and maintenance by members of the community – and the dedicated efforts our Village Tree Committee and Village management staff. We need to ensure that we continue to replant as trees are lost through storm damage and disease, that we keep take-downs of healthy trees to a minimum and that we actively reforest to maintain a healthy canopy of trees that can absorb CO₂ and provide their many other environmental services to us for free.

The November Crier's Village Green column included tips on how we as individuals can lower our carbon footprint. We will continue to update these, but for now residents may log on to the Town of Chevy Chase's website, Shades of Green, for ways to make more sustainable choices and in how we consume and how we recycle waste. As part of our efforts to Green the Village, the Environment

and Energy Committee also plans to calculate a baseline of Village CO2 emissions, through household surveys and energy audits. These will be voluntary, and discussed with the Village Board of Managers prior to circulation to residents.

To be good stewards of the earth, we must be good stewards of our village. As individuals, we can take steps every day to curb our carbon footprint in 2012. Together as civic and nonprofit associations in this county, we can plant trees, care for our mature tree canopy and encourage others in our communities to reduce energy consumption.

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