View of Land Conservation:

Do you cut down the forest to live in your house?

By Bob Barnett

Living in a city, even in a town or village, one forgets that we are displacing our original forested land. When Governor Simcoe arrived in York, he laid out concessions which have become our main streets and the hundred-acre lots between them where we now live. My own street, Toronto's Major Street, was converted from forest to market gardens around 1850, then gradually filled with houses on 17-foot lots for the worker class. My own house was part of a row developed in 1885. Eventually, the last of the original allotment shacks was torn down in the 1930s and made into brick houses by Cadillac, the same people that made the Eaton Centre about 50 years later. I grew up in Leaside, now central Toronto, on a lot carved out of a farm in 1945 as the city expanded. The market gardens and farms all emerged from the forest or the migratory fields set out by our First Nation predecessors. Every house, apartment and condominium sits on land that was forest originally.

Nature Calculator

To explain this better, I've set up a nature calculator to describe how much forest we displace as we live our lives on a residential lot.

The easy part is including the area of your house together with outbuildings, garage and hard-surface driveways and walkways. Next we need to include the municipal road we use in front of our house. Others share our road, but essentially, it was built for us. Grassed areas, trees and flower gardens around our house also push back the forest, but at least provide some ecological services like cooling, air cleaning and carbon sequestration. Maybe they provide 25 per cent of the benefit of a "real" forest. Sharing a house with family and friends cuts your footprint dramatically. City planners are wisely restricting lot size and encouraging higher buildings to slow down urban sprawl. According to Neptis Foundation, due to intensification in housing, for the first time in history, in the Golden Horseshoe there is less land per resident than a decade ago.

I've surveyed enough people to realize that we're pretty efficient at using land for living. House dwellers use maybe a tenth or a fifth of an acre while apartment dwellers may perch above the earth in as little as a hundredth of an acre.

Next comes our need to eat. Eating grain, fruit and vegetables is pretty efficient, while those of us who eat meat need large areas of former forest to graze those cows and fence those chickens. A vegetarian uses about ¾ of an acre while a "normal" meat eater requires about five acres. Those cows do eat a lot of grass.

Driving a car made of steel or using a phone requires mining sites while our clothes take farmland and our car probably uses oil from the tar sands. I haven't figured out how to calculate that area.

Forests Sequester Carbon Dioxide

The next challenge is to assess the area of forest required to soak up our carbon produced by burning carbon-based fuels.

▲ Cities, towns and villages have displaced original forested land. PHOTO BY MIKE DAVIS.

Here we don't have to cut down the forest to live and eat, but use a portion of our limited forest lands to sequester our share of the carbon dioxide we create. Depending on our use of heating fuel, driving fuel and our time in the air it's not hard to ring up 30 tonnes a year. Part of that we share with the family for heating or by carpooling so we discount that. We're figuring on about five tonnes of carbon per acre of forest every year, so our carbon use may require a six-acre forest.

So far, the most efficient person has "used" only six acres of forest while the most profligate is running about 40 acres. Unfortunately there just aren't enough acres on Earth for us to each use six or 40 acres.

Just to put this into perspective, we calculate for you the ecological services lost to society because of this loss of forest. Even the most efficient "six-acre" person is removing six acres of forest which would bring $16,650 worth of services if it was still forest. These are Ministry of Natural Resources figures based on air and water cleaning, reduction of flooding and a range of services including tourism and pollination. Other jurisdictions have figured it out: Long Island decided to stop further development to protect their remaining ecoservices.

Our Conservancy is able to set land aside for those who wish to offset their own use of the forest. Purchasing six acres to protect it may cost only $6,000 for your lifetime, while helping us receive donated land may only cost $600.

I'd appreciate your comments on this. We'd like to find a way to connect those of us who live in the city with the consequences of our choices on our shared countryside. When you get a chance, thank rural landowners for looking after their woodlot and wetland. They pay taxes on their land to make our lives more livable here in the city and give us far more than a good view when we visit the country. **NEV**

Take the test at escarpment.ca or I can email you a calculator. How many acres do you use?

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