



The Daily Gleaner

Adapting to Climate Change in our Future

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Our climate is changing. Scientific understanding of climate change indicates that Canada will experience significant shifts in weather patterns over the span of a single generation due to past and current high emissions of greenhouse gases (GHGs) and the long lags of the climate system. Among the anticipated impacts of climate change are droughts; diminished and lower quality surface water; a higher incidence of infectious diseases; more frequent heat waves; and an increase in storm surges in coastal regions.

For most municipalities in Canada, however, the change in the frequency of extremes in weather, such as intense precipitation, heavy winds or ice storms is one of the greatest concerns. Climate change will have both positive and negative impacts on various types of municipal and provincial infrastructure – be it roads and bridges, or our health and social services system (in the case of heat waves and health impacts on our aging population). To address these climate change impacts is a practice called *adaptation* which involves policies and operational approaches to reduce climate change risk, vulnerability and damage.

Fredericton's Green Matters campaign is primarily focused on GHG mitigation (reduction) efforts, however, our community must also reduce our vulnerability to the effects of climate change that are already set in motion, and will continue to affect us in our lifetimes. So, in addition to continuing to mitigate GHGs, we must also anticipate and **adapt** to the effects of climate change in our lives now and in the years ahead.

Whether we realize it or not, we've already been experiencing the effects of climate change – from hotter drier summers to wetter winters. What we need to understand though is that these changes will continue to be erratic, meaning that some winters may still see lots of snow and some summers may still be wet and cool, not hot and dry. So, in fact, we need to 'adapt' to a much wider range of weather conditions.

So now let's talk about how these climate changes affect us as we 'live'. Understanding the big picture is important, but we then need to make practical sense of the science, and get down to what we can do in our everyday lives to prepare for these erratic changes in our climate.

Since summers may be getting hotter and drier (especially July and August) we can start making practical adjustments to our lawns, so that they require less maintenance (water, mowing) and still look attractive. Some suggestions are:

- Use native plants and vegetation in our landscaping (consider *xeriscaping* or landscaping in ways that do not require supplemental irrigation), and reduce the amount of grass in your yard by planting shrubs and ground cover, and use mulch which drains well but holds in moisture.
- Use rain barrels to collect rain water for watering lawns and gardens rather than drawing from the tap. Or direct downspouts towards shrubs, trees and gardens.

- Use porous materials for walkways and patios to keep water in your yard and prevent wasteful runoff.
- And for the long-term outlook - plant deciduous, leafy trees, especially on the southern side of your house - the shade will keep your lawn and home cool on hot days. Then when leaves fall and temperatures drop, sunlight will warm your house and reduce your energy costs.

Winters that are expected to be milder and wetter, but with less snow, have both positive and negative considerations. On the positive side, there will be fewer minus 20 degree days, so heating costs may fall even in the face of rising energy costs (if your home is well insulated and has an efficient heating system). And on the negative side, more rain than snow means that flash floods are a stronger possibility, so well-planned drainage on streets, properties and homes will reduce the risk of flooding. As well, wind and ice storms are a real concern in our city that has nearly 70 percent forest cover! So investigate your property for rotting and unstable trees and remove them, and cut off any tree branches that are near your house to prevent damage if they were to break during storms.

You can see that many of your current GHG mitigation efforts are also adaptive in nature – such as making your home more energy efficient and reducing your water use. In the years ahead these efforts will be rewarded – both in your bank account, as energy and water costs rise, but also by reducing the risks of climate change related damage to your home and property.

As Frederictonians, we need come together in a planned, cohesive way to adapt our properties, neighborhoods and our city to the effects of climate change. The solutions are here, it just takes concerned citizens to make them reality. The following quote was used in a recent column but it bears repeating!

Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.

(Margaret Mead - Anthropologist, 1901-1978)

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