

## Regional councillors told climate change is real and serious

By Bill Rea

There are many who believe it's a myth, but Peel Regional councillors were recently assured that climate change is very real.

They got that message Ontario's Environmental Commissioner Diane Saxe.

Saxe is a legislative officer with the Province, performing a watchdog role and providing reliable and non-partisan information for people who want to access it.

She added her position has given her some additional insights into the seriousness of the issue.

"I thought I had a pretty good idea of how bad climate change was," she told councillors. "I was completely blown away."

Saxe asserted that some 97 per cent of scientists agree climate change has been caused by human activity, and that it is a serious matter. She said it's caused mainly by greenhouse gases in the atmosphere that prevent solar heat from escaping. Since it causes water temperatures to increase around the world, it also causes water levels to rise.

Saxe likened it to a bathtub that has water coming into as fast as it drains. But as hairs get into the drain, it slows down the water that's leaving, causing the level to rise.

Carbon dioxide (CO<sub>2</sub>) is the most common greenhouse gas, and the emissions are currently higher than they've ever been. Saxe said things have levelled off as the use of coal in China has slowed. But the emissions are still 63 per cent higher than what they were in 1990.

It took millions of years for CO<sub>2</sub> levels to get to 280 parts per million (PPM) by 1860. By 1988, she said it was up to 350, and it now at 410. Saxe agreed there are natural sources of CO<sub>2</sub>, like volcanoes, but she added they have always been on earth, when the figures were below 280 PPM.

She also stated it takes about a generation before the CO<sub>2</sub> levels in the air start producing results, but that has been happening. She said coral reefs and glaciers are disappearing, and the levels continue to rise. Saxe warned the CO<sub>2</sub> levels are now permanently above 400 PPM, and it will take another generation before the results of that are realized.

The current results, according to Saxe, include temperature records that are being set all over the world. She also said there are changes to the way heat is being distributed and the patterns of weather systems.

One of the results of warmer water is it holds less oxygen, as well as taking up more space, causing sea levels to rise.

She also pointed out these changes have occurred in her lifetime.

She also observed that higher sea levels result in wilder storms.

"Storms are heat engines," she said.

There were average temperature changes during the 20th century, with that level being regarded as normal. Saxe said almost all planning and infrastructure development was based on that normal, but levels have risen to the point where that normal is gone.

"It cannot come back," she said. "Normal can never come back."

Saxe added the number of extreme weather events have increased, and that doesn't take into account the recent massive hurricanes or the wild fires in the west.

There is an economic impact from this too. According to the Insurance Bureau of Canada, catastrophic insured losses in Canada have been creeping up every year since 1983, with substantial spikes some years, such as the Quebec floods in 1996, eastern ice storms in 1998, the 2013 floods in Toronto and Alberta, the Fort McMurray fire and floods in Windsor last year, etc. And Saxe said it can be assumed the actual losses would have been about twice that, because only about half of them would have been covered by insurance.

There have been other consequences unleashed by climate change, such as impacts on permafrost, losses of soil carbon, changes to ocean currents and the loss of sea ice. She added the tipping point will be when this is not reversible, and she thinks the loss of sea ice is that point.

Saxe said Ontario is making some progress on this issue, such as closing coal power plants and implementing cap and trade, etc.

"Ontario's doing a lot right," she said, pointing out there were 53 smog days in 2005. There were none in 2015, the first year Ontario didn't have any coal plants.

She added that's had a "big impact on public health."

Saxe said some dramatic change is needed. People want to care for the environment, but they also want to have an energy system that can make life convenient. They can't have both.

Municipalities play an important role in advancing concrete action on the environment. It involves land use planning, energy efficiency, etc. For example, she said there are many opportunities to use food waste and sewage as sources of energy. She also said

municipalities have the authority to pass bylaws regarding climate change.

'Are you going to use these powers?' she asked. 'This is the most defining challenge we've got. You can do something. Will you?' 'There has been considerable progress to date, and a lot more to do to be sure,' she told councillors.

Councillor Annette Groves was appreciative of the message. She observed much of Bolton is in a flood plain, and was concerned the policies in place might not be sufficient. She said 500-year storms are becoming more frequent, with water levels increasing and stormwater systems overflowing.

'It's very costly,' she observed.

She also asked Saxe if she could make a presentation before Caledon council.

'If we're invited, we'll do our best to schedule something,' Saxe replied.

'Don't you feel you're preaching to the converted?' Mississauga Councillor Nando Iannicca asked her.

Saxe told him some municipalities are trying harder than others, adding the cost to municipalities to deal with this is staggering.

'If we keep trying to do things the way we're doing them now, we'll fail,' she remarked, adding there is a lot awareness, but not as much action at the local levels.

'It's a sad situation we're in,' Brampton Councillor John Sprovieri observed, adding a lot of people feel powerless.

Saxe told him the climate has always been changing, as evidenced by the Ice Age. But the range of change is a lot greater these days.

She also said there's not much of an economic benefit to running coal. There were nine northern American states that got together about 10 years ago to work on reducing emissions, and they recently agreed to cut emissions by a further 30 per cent. She also pointed out that the cost of natural gas has dropped a lot, as has the cost of solar and wind power. In fact, she said a coal museum in Kentucky has solar panels on the roof.

Brampton Councillor Michael Palleschi said climate change is something he's believed in from the start, but there are many who don't, like American President Donald Trump.

Saxe said the oil and coal industries are spending billions to raise doubt.

Mayor Allan Thompson observed that Caledon was once regarded the greenest town in Ontario.

He too invited Saxe to come to town and do a workshop on how everyone can work together.

He also pointed out he's a farmer and with the climate always changing, they have to know how to adapt. He also said a lot of smaller municipalities can't afford to implement what's being asked for.