

In-house innovation will help Aurora keep cool on outdoor rinks

By Brock Weir

It is certainly not a problem that has had to be tackled over the last few weeks compared to this time last year, but uncertainty over the day-to-day conditions of Aurora's outdoor ice rinks could be a thing of the past, thanks to a 'made-in-Aurora' solution.

With Council's approval of the 2014 Municipal Capital Budget just before Christmas, Councillors approved a new way to keep the Town ahead of the curve when it comes to ice, with in-house innovation.

'With a trend towards more mild winters experienced over the past several years, staff have found it increasingly more difficult to construct and maintain our very popular natural outdoor ice rink surfaces,' said Al Downey, Aurora's Director of Parks and Recreation, in a \$54,000 pitch for a new ice making system developed by Parks Manager Jim Tree.

'Under our current outdoor rink construction standards there are three requirements that must be available in order to commence and maintain our outdoor rink construction standards: hard winter frost must have penetrated the ground surface a minimum of two inches in depth, a compacted snow-covered base to a depth of four inches, and consistent nighttime temperatures of at least -10 to -15 Celsius for five to six days in a row.

'Assuming all of these requirements are achieved, it is possible to prepare an initial skating surface within a seven day period.'

It's a situation repeated year in and year out, but that could soon become a distant memory if Mr. Tree's plan bears some chilly fruit in the next winter season. His work began in 2012 to research ways of developing a 'relatively simple' ice making system. The result is an intricate system of grids of individual cells holding water on top of the ground, connecting to create a uniform ice surface. Think a series of larger-than-life ice cube trays.

'It is believed that this product shows significant potential in terms of water conservation and labour in that once the grid is laid out and filled with water, it can be left to freeze regardless of weather or site conditions and has no reliance on either ground frost or snow base in order to function.'

The pilot project will be carried out, following Council approval in December, and Councillors banked on this as the way forward in years to come.

'I think the \$54,000, if it works, is a good deal considering how much money we actually spend on man hours in the winter spraying and creating ice surfaces and nothing is more popular in the wintertime,' said Councillor Evelyn Buck. 'People come from Newmarket to skate on our parks because they enjoy it so much and [the time and man hours] has always been a problem in creating the ice surfaces we have in January and February which almost immediately thaw.

'It's almost heartbreaking to create ice in Aurora. In this part of Ontario, it is something you are constantly arguing with yourself on whether you should be doing it and yet you know how much people enjoy it and it is people of all ages who enjoy it. If this works, it is an investment that will be well worth the money. It will solve the problem for at least another 50 years and it is a problem we have had for 50 years.'

While the item was approved, some Councillors, however, were a little bit more cautious in their enthusiasm.

Councillor John Gallo, for instance, said it was an 'interesting' idea and a good step forward in the name of 'innovation', but questioned whether 'innovation' was the role of a municipality.

'In my view, it is the role of the private sector to be innovating and coming up with these kinds of things,' he said. 'I am in favour of ice rinks and I think that is a great thing, but I am not a big fan of spending \$54,000 on a pilot project that may or may not work.'

Others, although supportive of the pilot project, wanted to make sure that credit went where credit was due.

?It is developed by an employee who works at the Town of Aurora and, if it works, it sounds like it is going to be very popular,? said Councillor Wendy Gaertner, questioning if it was an innovation which could be patented.

Similar concerns were voiced by Councillor Chris Ballard.

?This is a fair chunk of change for something which may or may not work, and I have some hesitation about that,? he said. ?The other issue I have is more of a cautionary tale and I hope it has been thought through with regards to intellectual property rights. I would really hate to see a mess between the Town and a very valued employee. I want to make sure the Town understands what it is getting and the employee understands what they are getting so there is no miscommunication and no hurt feelings.

?As this thing becomes successful and takes off across North America?I am looking for some assurances that the discussion has been had?and I have a feeling this is going to be successful.?

From Mr. Downey's perspective all of those details had already been checked off and it was a matter of Mr. Tree and the Parks Department looking ahead to a successful pilot project.

?We developed a prototype that seems to work and we think it is going to work,? said Mr. Downey. ?However, moulds need to be made in order to produce this prototype. We are recommending we spend money to develop the aluminium mold to manufacture enough of these to try out on a pilot project?on one of our four rinks.

?If it works, then we would come back to Council and request additional funds in order to produce a steel mould which we would then be able to mass produce and use in all of our rinks.?