

# OUTDOOR HOCKEY IN A CHANGING CLIMATE

Few experiences are more quintessentially Canadian than skating on an outdoor rink. Indeed, there is nothing quite like a good skate on a well-made outdoor rink. It has been celebrated in story and in song; it even once appeared on our money. But in recent years, warnings have come that future Wayne Gretzkys will need to practice their skills indoors, for winters may become too mild for people in Southern Ontario to build backyard rinks for their enjoyment.

## TEMPERATURES FOR SUCCESS: WHAT'S NEEDED FOR AN OUTDOOR RINK

To get a rink started, it takes 4-5 days of 24-hour below-freezing temperatures. Once the ice is formed, average daily temperatures colder than -5.5°C make for the best skating surface. Rain, wet snow, and sudden thaws can damage the surface, requiring extra time and maintenance to get the smooth surface back. In Southern Ontario, the outdoor skating season typically starts in late December and finishes in early March, but that's changing.

## CLIMATE IMPACTS ON OUTDOOR HOCKEY

**MANY OF THE IMPACTS OF A CHANGING CLIMATE ON OUTDOOR HOCKEY ARE ALREADY HAPPENING – AND YOU MAY HAVE NOTICED THESE IMPACTS YOURSELF.**



### Unpredictable Weather

Southern Ontario winters have become highly unpredictable from one year to the next, and drastic temperature swings within the winter season are becoming common. This unpredictability requires extra work to maintain a good skating surface, and may discourage people from making rinks in future seasons, especially the year after a bad winter.



### Fewer Consecutive Cold Weather Days

Winters have always contained an occasional mild spell in mid-January or early February, but in recent years, these warm periods are warmer and last longer than they did a generation ago. The longer and more frequent the thaws, the tougher it is to get the skating surface into good shape.



### Shorter Outdoor Skating Seasons

The skating season in Southern Ontario now arrives a week to ten days later than it did back in the 1960s and 1970s. In a number of recent winters, it has taken until early January to get the rinks going. The later the start, the shorter the season, for warm temperatures in early March usually bring the season to a close.



### Fewer Skating Days per Season

The combination of warming temperatures, later starts to the season, and more frequent mid-winter thaws means fewer skating days. Combining RinkWatch data with global climate models, we found that the average number of skating days per winter in Montreal and Toronto will drop by one-third or more by the end of this century. Will they still be long enough to make building a rink worth the effort?



### Loss of Community

Surveys of RinkWatch participants found that most people build rinks in order to create a place for their kids, friends, and neighbours to play outside in the coldest part of winter. Rinks are social places, a true asset for the neighbourhood. If the number of outdoor rinks declines because of climate change, our communities will be poorer as a result.

# ACTION YOU CAN TAKE

The fate of the outdoor skating rink is symptomatic of the many challenges we must confront in the face of a rapidly changing climate. If preserving this icon of the Canadian winter for future generations is important to you, here are suggestions on what you can do to help prevent backyard rinklessness.



## Cut Back Greenhouse Gas Emissions

Do your part to help reduce greenhouse gas emissions, for they are at the root of the problem. Using active transportation, eating local food and making energy-efficient choices can reduce your own contributions to greenhouse gas emissions.



## Volunteer in Your Community

Volunteer to help maintain an outdoor rink in your local park or schoolyard, or get one started if there isn't one there already. The social benefits of a rink, especially for our kids, is tremendous.



## Ask for More Investment

Encourage your local government to invest in urban trees and parkland, and protected areas like the Greenbelt, to help buffer the urban heat island effect. Trees and parks are not only good for keeping rinks cool in the winter, they also help counter the impacts of extreme heat events in summer and increase biodiversity.



## Become a Citizen Scientist

Get involved in citizen science. If you have a backyard rink, participate in RinkWatch. If not, join one of the many other citizen science projects that ask for the public's help with collecting data on the impacts of climate change, such as [FrogWatch](#), [PlantWatch](#), [IceWatch](#), and [SnowTweets](#).



## Most Important of all ... Skate!

Go for a skate outdoors this winter, especially if it has been a while since you last did it. You will remember the sheer pleasure of being on ice, reconnect with your inner child, and appreciate more deeply why we need to act now to slow climate change and preserve the Canadian winter.



### ABOUT THIS SERIES:

The Greenbelt Foundation partnered with experts to understand how climate change is affecting our daily lives, and ways that we can individually and collectively respond to these challenges. For other installments in the series, visit [www.greenbelt.ca/changing\\_climate](http://www.greenbelt.ca/changing_climate)