

Health officials have closed five of Hamilton's eight public beaches over fears they might be contaminated with bacteria.

The beaches in Pier 4, Bayfront and Confederation parks, along with Van Wagner's Beach and Binbrook Conservation Area Beach are now posted as unsafe for swimming.

Weekly bacteria testing shows high levels of *E. coli*, the bacteria associated with fecal matter, at Confederation and Van Wagner's beaches.

Public health posts beaches as unsafe when *E. coli* levels surpass 100 parts per million in 100 millilitres of water. *E. coli* bacteria indicate other harmful organisms are present.

Earlier this week, water samples at Confederation and Van Wagner's topped 1,000 in *E. coli* counts. Health officials think rough weather and high waves raised bacterial levels.

Another Lake Ontario beach at Beach Boulevard remains open, but its *E. coli* levels are very close to unacceptable.

Christie Conservation Area's beach became safe for swimming after its chlorination curtain was installed this week. In Hamilton Harbour, Bayfront and Pier 4 beaches have been open only two weeks this year, beginning May 24.

Scientists are trying to figure out why many beaches with no obvious sources of contamination such as sewer overflow outlets continue to show unacceptable bacterial counts.

"It's a lot more complicated than we thought," said Murray Charlton, a leading Environment Canada researcher at the Nation-

Today will be hot and humid so cool it, say the experts

BY MELISSA MEWDELL

The thermometer might say 34 C, but today will feel more like 40 C.

Blame the high humidity.

Hamilton is under both heat and smog alerts today, and the Halton Region Health Department has issued this warning: Stay cool.

"Even short periods of high temperatures can cause serious health problems," reads Halton's warning.

"Whenever it gets exceedingly hot, you can suffer heat stroke, headache and nausea," said Burgess Hawkins, environmental health specialist with the health department.

"If your body temperature gets too high, it can damage vital organs."

Hawkins said those most at risk are the elderly and young children and people on medication and with various heart and lung conditions.

Symptoms of heat-related illnesses include rapid breathing, weakness or fainting, headache

and confusion. The health department says vulnerable people should stay out of the sun, avoid strenuous outdoor activities and head to air-conditioned places.

It also recommends that people stay hydrated by avoiding coffee, tea, pop and alcohol and by drinking lots of water and fruit juice instead.

The smog warning issued yesterday means the environment ministry believes air quality will be moderate to poor today.

They urge people to minimize vehicle use and keep air conditioners a few degrees higher than normal.

There have already been 18 smog advisories this year. The record, set in 2001, is 21.

A report released by the Ontario Medical Association calculated 5,800 people across the province will die because of breathing polluted air, 60,000 will go to an emergency room and 17,000 will be admitted to hospital beds this year.

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al Water Research Institute in Burlington.

Health officials look for *E. coli* to tell them if there is contamination from human feces, indicating sewage spills or seepage.

"What we've found out is that the test doesn't tell any difference between bird poop and human poop," he said.

Current research suggests wa-

terfowl populations around beaches are the source of contamination.

And in Hamilton, bird numbers are exploding. Three decades ago, the city had almost no Canada geese. Today, more than 80,000 breeding pairs have moved in, Charlton said.

Another piece of the picture is also emerging. Researchers now

think the beaches themselves are acting as huge *E. coli* sponges where the bacteria can survive.

No one seems to know how long they can survive in the beach, Charlton said, "but it looks like it's a long time."

Charlton's team used a jackhammer to break through the frozen sand at Bayfront Park last winter. "About 60 centimetres down, we found *E. coli* alive."

That means they've been there since the summer, he said, and suggests the bacteria can live longer than anticipated in beaches, even though they're not actively reproducing.

"We don't have a definitive answer on this and we don't suggest public health people change anything at this time," Charlton said.

The city will build a bird-free zone at Pier 4 beach this summer to see if controlling the geese and gulls improves water quality. The beach and shallow water will be caged by poles supporting a net of wires to keep the waterfowl from flying in.

But when Canada geese moult and can't fly in July and August, they walk and swim to where they want to go, said Eric Matthews, public health's manager of safe water programs.

The shoreline will be changed to discourage waterfowl and a floating barrier will surround the beach to keep them from swimming in. Shrubs that geese refuse to walk through will be planted and temporary sliding gates will be installed on the stairs down to the beach. "I was down there in May and watched lots of geese use those stairs just like they were people," Matthews said.

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