Trouble in bubbler land
No cottager wants a winter-damaged dock, but is a de-icer worth the risk?

By Ray Ford

It was supposed to be a routine copper-and-cottagers chat, with a take-home message on the dangers of drunk driving. But when Larry Butterfield, a sergeant with the Ontario Provincial Police, met the board of the Lake of Bays Association (LOBA) last January, he also dealt with local concerns: noisy boats, litter from ice anglers, and the legalities of running a dock bubbler.

So when Butterfield mentioned “dock bubbler” and “manslaughter” in the same discussion, “there were 50 sets of eyebrows collectively raised,” says LOBA executive coordinator Wendy Gibson. “People were thinking, Oh my God, I’m just doing this thing to protect my investment, and now I’ve got to worry about liability?”

The short but unhappy answer is yes. If someone drowns after falling through an unguarded hole you’ve made in the ice, you could face a manslaughter charge and years in the pen—look it up: the Criminal Code of Canada, section 263(1), “Duty to safeguard opening in ice”—not to mention the potential for a wrongful death lawsuit in a civil case.

No wonder bubblers aren’t merely roiling the water around docks and boathouses, they’re also getting cottagers, insurers, and snowmobilers stirred up too. It’s a surprising amount of turbulence for small machines that melt ice by lofting warmer water towards the surface. Although the most popular term in Ontario is “dock bubbler,” a true bubbler system uses a compressor, a sunken hose, and a stream of bubbles to maintain open water. More common is the submersible, propeller-driven agitator (also known as a “de-icer” or an “ice eater”). The goal is to keep docks from being crushed by expanding ice or lifted off their foundations by fluctuating water levels.

“Years ago, there were so few bubblers it wasn’t an issue,” says Bob Island, a Lake of Bays resident who has campaigned for de-icer safety in the pages of his magazine, Snowmobile Central Ontario. “The popularity of bubblers is increasing so quickly that an area that was safe last year isn’t safe this year.”

The problem was magnified by the unusually mild winter of 2011-12. Gaps opened by de-icing systems were “upwards of 100 to 200 feet wide,” says Butterfield, the coordinator of the OPP’s
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Snowmobile, ATV, and Vessel Enforcement Unit. “If you have three or four cottagers with bubblers along the same stretch of shoreline, you can get 500 to 6000 metres of open water or poor ice.”

Butterfield can’t point to a bubbler-caused drowning and associated criminal charges. But Island argues “the problem is growing so quickly it’s going to happen. It’s just a question of when.”

The prospect has insurers taking a second look. “We’ll be sending our clients a letter advising them of the risk and discouraging the use of bubblers,” says Ross Robertson of R. Robertson Insurance Brokers, who has many cottage clients.

Ice is unpredictable and dynamic on its own. Robertson worries that when cottagers melt it, the risk becomes even more difficult to manage. “Currents could cause the ice to be weakened in other areas away from the actual bubbler,” he says. “You could have a situation where some states regulate bubblers and Cottage associations offer usage tips. Any cottage neighbours. Fearing unsuspecting snowmobilers have come to us and said: ‘What should we do?’ But we can’t provide the answers,” says Gibson. “If there was litigation, the association would be liable… that’s certainly how we’ve been advised.”

Gibson’s concern is a common one, cited repeatedly by sources we contacted. Most see the value of de-icer use and safety guidelines, but no one wants to dispense them, for fear of being named in a suit if the advice fails to prevent a tragedy. “It may require some forward-thinking group of stakeholders to say, ‘Let’s come up with general guidelines to pre-empt this problem,’ ” Gibson adds.

In the meantime, the lack of best practices is causing confusion. When dock owners began using red lights to warn people away from their bubblers, Bob Island, the snowmobiler, saw an accident waiting to happen. “What do you follow when you’re driving in a snowstorm? You follow the tail lights in front of you.”

Fearing unsuspecting snowmobilers could follow red beacons into open water, Island pushes for amber warning lights. Now, he says, most Lake of Bays cottagers use amber lights. At least one Canadian manufacturer plans to include amber beacons with its de-icers this winter.

Canadian cottagers might be able to draw lessons from south of the border, where some states regulate bubblers and cottage associations offer usage tips. Wisconsin’s detailed prescription for safeguarding a hole includes a barricade made of uprights and reflective rope, cord, or ribbon, or “a visual warning mechanism that is highly visible and that is reflectorized, fluorescent, or lighted.”

New Hampshire requires a municipal permit and a reflective Danger, Thin Ice warning sign, with a specific red-and-white diamond pattern and readable at a distance of 45 metres. Some Michigan townships, fearing that de-icers pose too great a public safety hazard, have banned them outright.

Both the Lake George Association in New York and the Lake Sunapee Protective Association in New Hampshire note that cottagers could avoid the problem altogether by removing docks for the winter. Failing that, they suggest users:

• Select the smallest de-icer that does the job, and control it with a thermostat and a timer. (The Lake George Association says four hours of de-icer use per day should do the job.)

• Opt for a bubbler, for more control over the amount of open water created.

• Install prop-style de-icers facing up to the open area within a few inches of the waterline and they’ve got it all blocked. The bottom line is that de-icer users need to “mind the gap,” keeping the area of open water just large enough to protect the dock, without endangering people, wildlife, and cottage dogs.

This probably can’t be done if you toss a de-icer in the water at Thanksgiving and ignore it until you return on the Victoria Day weekend. “Because the weather was so up and down last year, I was probably adjusting the bubbler two or three times a week,” says Jim Boys, a full-time resident on Lake Simcoe’s Grape Island who also looks after the de-icers of his cottage neighbours.

Thanks to a thermostat and a timer, “I’ve got to the point where I can keep the open area within a few inches of the dock,” he adds. “Although I don’t do it very often, if I can walk to the end of my dock and step out over the gap onto the ice, I think I’ve got it about right.”

And whether you use warning lights, signs, permants, or a snow fence, minimizing the gap makes the hole easier to guard. John Lazareth marks the open area inside his U-shaped dock near Gloucester Pool by stationing a barrel-type reflective pylon—the same kind used at highway construction sites—at the end of each dock, with a yellow rope and red warning buoys strung between them.

“I’m comfortable that I’ve done my due diligence, but I’m not suggesting I might not do more later,” he says. “It’s the same as in the city, when they’re working on a waterline and they’ve got it all blocked off with pylons. That doesn’t mean some idiot won’t still drive into the hole.”

As Rusty Russell of the Orillia law firm Russell Christie stresses, “the law says you have to adequately, in the eyes of the court, alert people” to the danger a de-icer creates. What does “adequately” mean? Determining that, Russell says, “would take a series of court cases.”

Useful as those legal precedents may be, no cottager wants to be the one who sets them. It’s better to practise safer bubbler use and stay out of the courts.

Ray Ford has written about bears, concrete, oois, and many other topics for Cottage Life.