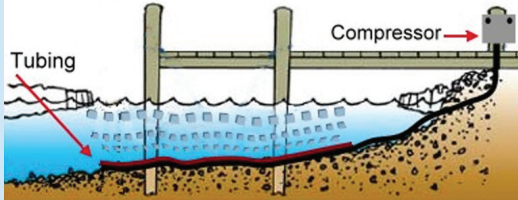


# DE-ICING 101

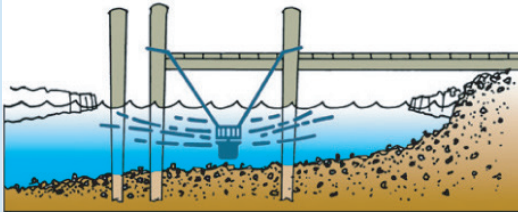
A de-icing device agitates water to prevent ice from forming and can also melt existing ice. The two most common types of de-icing devices are:

## 1. Bubblers



A small air compressor forces air through tiny holes in tubing placed around a dock. Bubblers use less energy, cost less to run, and create a smaller area of open water.

## 2. Ice Eaters



Fan blades on a submersible electric motor propel warmer water to the surface which, along with agitation, create a hole in the ice. Ice eaters cost more to run, use more energy and can be noisy. They also tend to create larger areas of open water, which can intensify negative impacts.



## LEARN MORE

For more information, visit  
[www.warrencountyny.gov/lakeice](http://www.warrencountyny.gov/lakeice)

Warren County Municipal Center  
1340 U.S. 9,  
Lake George, NY 12845



## DE-ICING TRIVIA! (answers inside)

1. What was the old Adirondack signal for open water in winter?  
A) 2% B) 5% C) 10% D) 20%
2. What is the volume increase when water solidifies into ice?  
A) 6 inches B) 6 feet C) 60 feet
3. How much open water around a dock does it take to protect it from ice damage?  
A) 6 inches B) 6 feet C) 60 feet



# DON'T BE EATEN ALIVE!



Common Sense  
De-Icer Safety

# NEGATIVE IMPACTS

## Dock Damage

Improper use of de-icers creates large areas of open water, which can actually cause dock damage by allowing ice floes more room to accelerate in windy conditions when the ice goes out.

## Energy Usage

De-icers are expensive to operate. If you are concerned about climate change, limiting electrical usage is environmentally friendly as well as financially prudent.

## Safety & Recreational Hazards

Large open water areas are a safety hazard for people and animals. They can also significantly reduce or prohibit winter recreational opportunities.

## Water Quality

Circulator style de-icers can disturb bottom sediments, increasing the possibility of harmful algal blooms (HABs).

## Environmental Impacts

De-icers can alter water temperature and light conditions which may impact algae, plant growth, and the feeding habits of fish and other aquatic organisms.



Photo Credit: Carl Heilman

**These impacts are compounded when multiple circulator style de-icers are in use along adjacent properties, creating a continuous pool.**

# TIPS FOR SAFE & EFFECTIVE USE OF DE-ICERS

## 1. One size doesn't fit all.

A ice-eater with a :

- 1/2 HP motor opens a 50' area
- 3/4 HP motor opens a 75' area
- 1 HP motor opens a 90' area

These numbers can vary with temperature and water depth, but don't just get the 1 hp model when the 1/4 HP will do.



## 3. Use as directed.

De-icers are designed to protect shoreline structures and docks. They are not designed to impede public access to the lake. A de-icer is not the answer to trespassing concerns.

## 5. Timing is everything.

Turn off your de-icer before the ice starts to melt (early March). This allows a thin sheet of ice to connect your dock with the rest of the ice on the lake. Don't worry—the ice is too thin to do any damage and the connection helps stabilize the ice cake and keep your dock safe. Open water acts a runway for thick ice sheets to blow across and crash into your dock. If you keep your de-icer going as the ice breaks up, your dock will be a sitting duck.

## 2. Keep it to yourself.

Set up your de-icer to form a narrow open water area around your dock. A Bubbler works best. If using a circulator de-icer, point it in a vertical direction—not out toward the middle of the lake. Angling your ice-eater allows it to open elongated areas of water which are dangerous.



## 4. Save electricity and money.

Use a thermostat and timer to run the de-icer only for 2-4 hours a day. Also, there is no need to run the device when air temperature is above freezing, since ice can't form.

## 6. Always use caution around open water.



Even when following all the guidelines for safe and effective use of de-icers, safety is important since an open area of water is still being created. Consider the use of caution signs at the end of your dock to alert the public to safety risk, as well as to lower the risk of possible insurance issues on your property.

## TRIVIA ANSWERS

- 1) An evergreen tree
- 2) 10%
- 3) 6 inches. It's as effective as B or C, and it's safer for other docks, saves money, and doesn't disturb the lake bottom.