

# De-icing 101

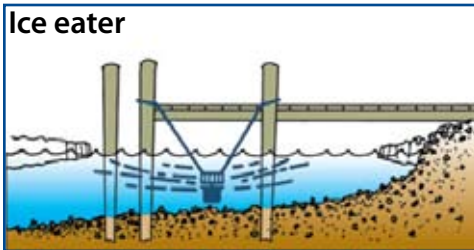
## What is a de-icing device?

A de-icing device agitates or warms water to prevent ice from forming and often can also melt existing ice.

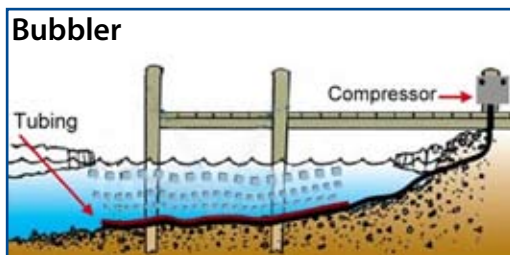
The two most common kinds of de-icers are 1) submersible motors with propellers, often called ice eaters, and 2) bubbler systems.

## How does it work?

**Ice eaters** work by propelling warmer water from the bottom up to the surface, which along with agitation, keeps ice from forming. Ice eaters are commonly hung off of a dock with a rope or other mounting system.



**Bubblers** consist of an air compressor that forces air through tubing or piping placed on the lake bottom around a dock. The tubing has holes all along it that release tiny air bubbles. The constant water movement caused by the bubbles prevents ice from forming.



*The LGA does not necessarily endorse any of the manufacturers of de-icing devices mentioned in this brochure.*



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## Did You Know?

Ice Eater is actually a brand name, but just like Kleenex or Xerox, it is often used to refer to a general product.

Pyramid Tech's "D-icers" are oil free, so there is no danger of oil leaking and polluting the water.

The old Adirondack signal for open water in the winter was putting an evergreen tree near the hole.

There are over 3800 docks on Lake George.

[www.lakegeorgeassociation.org](http://www.lakegeorgeassociation.org)

Tips for effective and safe use of ice eaters

# Don't be Eaten Alive!



# The De-icing Debate

## The Issue:

The **overuse** of ice eaters to protect docks can actually cause dock damage **and** creates access and safety concerns for lake users in the winter.

## The Players:

- property owners trying to protect their docks and other shoreline structures
- winter recreationists using the frozen lake
- manufacturers and retailers of de-icing devices
- property managers installing de-icing devices

## The Solution:

**Safe and effective use of ice eaters.** When used properly, ice eaters can protect docks and property from ice damage and not cause unnecessary safety and access concerns for winter lake users.

## Always use caution around open water

Even when following guidelines for safe and effective use of ice eaters, safety is important since an open area of water is still being created. You might want to consider the use of a sign that says "Danger: Thin Ice" or "Caution: Open Water" as a general precaution if you are concerned about safety or live close to a public access location.

## Overuse of ice eaters to protect docks can actually cause dock damage!



# For effective and safe ice eater use, follow these simple steps:

## Your dock will thank you

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

Ice-eaters comes in different sizes. On average an ice-eater with a...

... ½ hp motor opens a 50' diameter area

... ¾ hp motor opens a 75' diameter area

... 1 hp motor opens a 90' diameter area

These numbers can vary with temperature and water depth. But don't just get the 1 hp model when the ½ hp would do. Bigger isn't better – **it's more dangerous for lake users since it opens up larger areas of water.**

### 2. Save electricity and money.

Limit the time that your ice-eater runs by using a **timer and a thermostat**. It doesn't need to run all day - 4 hours per day is plenty - even on the coldest days we get on Lake George. There is also no need to have it run when temperatures are above freezing and ice can't form.



*This is a timer and thermostat made by Kasco (model #C-20).*

**By only running an ice eater 4 hrs/day you reduce your electrical usage and cost by about 85%**

### 3. Keep it to yourself.

Place your ice eater in the water pointing vertically. You should not point it out towards the middle of the lake or in towards the shoreline unless it is absolutely necessary for dock protection (and in most cases it is not). Angling your ice-eater allows it to open up elongated areas of water which can **create dangerous areas of thin ice** around the open water that cannot be seen from the surface.

### 4. Timing is everything.

Before the ice starts to melt turn off your ice-eater (**the first week of March is usually good**). 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 keep your dock safe. Open water acts as a runway for thick ice sheets to be blown across and crash into your dock. Having your dock connected to the ice-matrix protects it from moving ice sheets in open water areas. **If you keep your ice eater going as the ice melts and breaks up, your dock will be a sitting duck.**

### 5. Use only as directed.

Ice-eaters are designed to protect shoreline structures and docks. They are not designed to impede public access to the lake. The misuse of ice-eaters along shorelines where there are no structures to protect creates hazardous conditions for people accessing the lake from nearby locations. If you are concerned about trespassing, using an ice-eater is not the answer.

## Ice Eaters vs. Bubblers

**Ice eaters** cost less initially and need less labor to install and maintain. However they cost more to run, use more energy, and are capable of opening up much larger expanses of water (can create safety concerns and dock damage).

**Bubblers** cost more to purchase and are more labor intensive to install and maintain, but they use less energy, cost less to run, and keep smaller areas of water open (don't create safety concerns and dock damage like ice eaters do).

*These are only suggestions based on the combined experience of dozens of dock owners. We do not guarantee the success of any dock-protective measure.*