

## Chaparral Ice Safety Q&A

### **Q: When is the lake ice safe?**

A: Lake Ice is never considered “safe”, there are many factors that affect ice quality and thickness so there is always some risk.

### **Q: What do the red and green flags mean?**

A: The green flag means that the lake ice is open for you to use at your own risk. The red flag means that the lake ice is closed.

### **Q: What causes the red flag to be shown?**

A: If the lake staff find through testing our ice conditions and thickness that the lake ice does not meet our minimum safety requirements we close the ice and show the red flag.

### **Q: What are your safety considerations?**

A: We have two main areas where we are concerned about safety. We have a responsibility to our staff not to put them into an unacceptable risk situation without proper personal protective equipment, training and supervision. We also have a responsibility to minimize risk to our residents, particularly children who are using the lake facility who may not be able to evaluate risks as well as an adult is able to.

### **Q: Where do your safety rules come from?**

A: Our safety rules have been in place unchanged since before we took over from Genstar. Patti Coburn, who was Genstar’s lake manager, developed the safety procedures and rules. She consulted the Calgary Fire Department about ice rescue, frostbite, hypothermia and exposure training and education; created safe work procedures for staff; and created the measurement and condition assessment rules that we use to determine when we open the lake and fly the Green Flag.

Patti was also a member of Water Safety Partners, a task force created in 1999 to promote water safety. Water Safety Partners ran from 1999-2006. The knowledge that Patti Coburn brought with her to inform our safety procedures is still valid.

The Water Safety Partners task force included: Alberta Environment, Calgary Community Manmade Lakes, Canadian Coast Guard, Canadian Red Cross, Fish Creek Provincial Park, Lifesaving Society, and the following City of Calgary agencies: Bylaw Services, Fire Department, Police Service, Community Strategies, Emergency Medical Services, Recreation, Wastewater and Waterworks.

Through the persistence of the internet, we can still see the Water Safety Partners Web Site:

<https://web.archive.org/web/20060106135604/http://www.watersafety.ca:80/aboutus.htm>

**Q: Are the safety rules the same for staff and residents?**

A: No, we have a duty of care to our employees that is different than the residents. Residents use the ice at their own risk. We require our employees to work on the ice so that means we have to provide proper training, equipment and supervision.

**Q: If I see a staff person on the ice does that mean its ok to go on the ice?**

A: No. The flags tell you if the ice is open or not. Staff may be out measuring the ice or working to prepare the ice for use. When they are measuring the ice before the green flag is shown, they have the equipment, training and supervision that a resident does not have.

**Q: What kind of personal protective equipment does staff use?**

A: The staff are required to have or are provided: a life Jacket, rescue throw bag, work gloves, steel toe boots, clothing appropriate to the elements, long stick to test ice, screw drivers or ice picks to help pull themselves out of the water back onto the ice, and radios. They have available dry clothing, blankets and first aid kits, and are trained in ice rescue and first aid. Lastly, our staff is never on the ice alone and are supervised by other staff from on shore when the red flag is up.

**Q: So what are the parameters lake staff use to determine if a green flag can be flown?**

A: Our procedures for ice condition and thickness are:

Ice Conditions:

- Clear black ice is the strongest.
- White or slush ice can have half the strength of black ice.
- Dry cracks in black ice can be OK to fly a green flag, as they typically heal.
- Wet cracks that can be exposed and packed with ice/snow can be OK for the green flag.
- Water and slush on top of ice weakens the ice.
- Small holes that can be packed with ice/snow can be OK for the green flag.
- Larger holes more than 8-10 inches usually indicate weaknesses. Depending on the amount of overflow water around the holes, if they can be safely accessed and patched they can be OK for the green flag.
- 1 to 2 holes, depending on the condition of the holes (water, cracks, etc.) can potentially be managed by barricades and packing repairs. More than that typically indicates broader weakening of the ice conditions.
- Rapid changes in temperature can also reduce the strength of ice by up to half.

Thickness of solid clear blue/black lake ice:

- Skating, ice fishing and walking on the ice by individuals or groups: 6-8 inches
- Operation of smaller equipment: walk behind and small utility vehicles 6-8 inches
- Operation of Olympia (Zamboni) ice resurfacers 12-15 inches

**Q: When do we use the Olympia (Zamboni)?**

A: We use the Olympia when the temperature is between +4°C down to -15°C or -20°C. When the temperature is too cold the Olympia can freeze and become inoperable. We don't want that to happen when it is out on the lake ice.

**Q: What about other lake's ice?**

A: Other lake's ice is not our ice. Other lake's conditions and procedures are not ours (though they may be similar). We do testing and examination of our ice conditions and thickness to determine if we are OK for the green flag.

**Q: Why are we always the last to open?**

A: We're not always last. Last season we were one of the first lakes to open on December 15<sup>th</sup> 2016. This year, Sundance was a few days behind us and all of the lakes have been struggling with their ice conditions. We open when our testing indicates we can, not when other lakes are open.

**Q: Are we being too careful?**

A: No. We are quite risk averse and our procedures reflect that.

We look at the fact that our lake is not supervised continuously by staff (like a life guard would) and that we have young children accessing and using our amenities. Those children may or may not be well supervised. Those children may not have the ability to evaluate risk. These considerations make us very risk averse when it comes to children's safety. This is why we are concerned about holes that a small child could fall through and may close the whole lake even though holes are not everywhere. Large holes in the ice are indications of weakening ice.

**Q: Where else can I find out more information?**

A: Keeping in mind that our safety procedures are the ones we follow, these are some links you can use to find out about general ice safety.

- <http://www.calgary.ca/CSPS/Fire/Pages/Safety-tips/Ice-safety.aspx>
- <https://mywildalberta.ca/fishing/safety-procedures/ice-safety-tips/default.aspx>
- <http://www.ceaa.gc.ca/050/documents/29913/29913E.pdf>
- <http://www.redcross.ca/training-and-certification/swimming-and-water-safety-tips-and-resources/swimming--boating-and-water-safety-tips/ice-safety>
- <http://www.albertacamping.com/blog/53/>

**Q: Who do I ask if I have more questions?**

A: You are always welcome to come in and speak to our lake manager. If that is not convenient please call the manager at 403-254-4148 or email at [manager@lakechap.ca](mailto:manager@lakechap.ca). If you feel that your question or concern has not been answered to your satisfaction, you are welcome to contact the board of directors at [CRA@lakechap.ca](mailto:CRA@lakechap.ca).