

### Good Luck on that Lake Ice Hockey Rink

A friend of mine, an ice fisherman, once replied to my complaints about slaving to make a skating 'rink' on the lake adjoining my property by saying "What could be easier – the lake furnishes the ice." Just like a fisherman! The only work they do is poking holes in the ice with a power auger, or better yet, taking over a hole already open. The few times fishing on my lake, he probably saw nothing but smooth clear ice everywhere. I didn't have the heart to poke holes in his naïveté.

I built my first ice rink in the early nineties when I was skating with a hockey team in Anchorage. Once the average daytime temperature dropped below freezing, I flooded the broken pavement of an abandoned tennis court on my property. The second year, with the help of my teenage boys, I put up a ring of 'boards' cobbled together from 2x4's and half sheets of plywood. Resurfacing the ice with a hose was delicate and time-consuming, motivating an innovation consisting of a 35-gallon barrel feeding a homemade spray boom. Fastened within my garden trailer, I pulled the rig with my one-cylinder John Deere tractor. The contraption worked well except in cold temperatures, which froze the boom nozzles solid. Between clearing snow and resurfacing the ice, I worked far more than I skated. However, basking in the happiness this skating opportunity brought my family and their friends, I never seriously considered quitting.

Fifteen years later – my children now adults with their own families – I returned from living eight years in Oregon to build a home fronting a lake in the Matanuska Valley. With the addition of five more grand children and a few of their friends, there were more skaters.

This year marks the third consecutive winter creating and maintaining a skating area on the frozen lake. Each year, the rink becomes larger to accommodate improved skaters and faster hockey players. In an attempt to boost my skating time, I dabble with new ideas for reducing manual labor.

Simply stated, lake ice is not well suited for a regularly used skating surface. A lake is a dynamic entity, most evident in the winter. At times, I think of the lake as a creature struggling to relieve strain from discontented ice. As the ice depth plunges, it expands upward and outward, seeking relief through fracturing along paths of least resistance, akin to lightning streaking between clouds and the ground.

The ice surface is not flat as the mirrored water appears on a dead-calm summer day. For proof, flood a rink-size area with a hose and you will see water running unevenly from high to low areas.

What's needed is a Zamboni! A hilarious thought hits me: I'll ask one of my rich neighbors if I could borrow their Zam. Dream on! People in the Mid-West have solved this problem for us commoners, I learned. For three hundred bucks, I could order a walk-along device attached to a hose that spreads the water uniformly over a four-foot swath. A You Tube video showed how well it works. Actually, the ice looked perfect ahead of the operator! Before I decided to buy this so-called resurfacer, I talked with a rink maintenance man in Minnesota

who said, “It’s just a bunch of pipes with holes drilled in the bottom piece dragging a terrycloth towel. Why don’t you just build your own?” Why not, I thought. Parts cost about \$50 – a nifty savings – so that’s what I did. Terrycloth may work well in Minnesota but freezes to Alaskan ice in seconds, so I replaced it with patched-together sides of Fred Meyer grocery bags. Ain’t pretty but it works! Later, the bags were replaced with a waterproof flooring pad I had handy. Now, it *is* pretty.

Unless your rink is away from shore where cars and snow machines travel (not recommended), the underlying water depth may vary significantly causing the slight differences in local water temperature. A lake freezes from shallow to deep such that part of a rink may freeze under different conditions, setting the tone for early ice restoration. Wind, rain or falling snow will leave a rough surface, making skating difficult. Mid-winter thaws often re-freeze leaving the ice rough. Freezing following significant flooding can result in submerged air bubbles that weaken the ice.

Asked which is worse, wind or snow, I answer ‘yes’. Winds bring in twigs, leaves and spruce cones. Some catch on ice surface anomalies, eventually collecting enough heat to soften the ice. Rarely do I find wind-polished ice without debris frozen into the surface. Glacial silt, which rides every strong wind, is a killer on skate blades. Snow, of course, must be removed to enable rink-like hockey. Berms around the rink can be great backstops to keep pucks from sliding hundreds of feet. However, these berms catch the upwind snow resulting in drifting onto the rink.

During my first year at the lake, a snow machiner evidently thought jumping the berms around the rink would be great fun. Must have been since the flattened berms showed many jumps. The wet snow from the drive belt shook loose and froze to the ice. I spent an afternoon scraping the ice with a long handle chisel to restore a skateable surface. The following year, I put up driveway reflectors around the rink and a large sign on my dock informing motor vehicle drivers to give the skating ice a wide berth.

If that’s not enough to keep you busy, consider gaping cracks in the ice, some plunging several feet. I’ve seen cracks wider than one-half inch at the top. Catch a skidding skate blade in such a crack and you may be nursing a sprained ankle or worse. Unless you are very lucky, by the dead of winter you will have cracks to fill.

This year, of all the rotten luck, the ice crevasses converged on my rink from all directions! Perhaps, it’s the ice God punishing me for fooling with nature’s creation. Some splits were larger than I had seen during the previous winters. Several times, I carried down a 2-gallon water container before deciding that such a small amount was having no more affect than spitting into the mouth of an unquenchable monster. Drastic conditions call for unconventional measures. I hooked up 300-feet of hoses, screwed on a nozzle and shot water into the largest crack. The ice mass protested, letting loose loud groans, once directly under my feet. I kept telling myself I was safe, to squelch creeping doubts. Eventually the crack filled then overflowed before I could close the nozzle. I repeated this process on all the large crevasses. An hour later, I had erased the last one. However, the overflows gave birth to unacceptable frozen plateaus. I tried using my ice chisel, soon giving up after I calculated it would take over four

hours of heavy manual labor to smooth the bulges. What worked eminently better was to bring down the tractor and spin brodies over the raised areas, chained-wheel digging away the unwanted ice. Later, reflecting upon the hose with nozzle stuck into the ice and my whirling tractor, I wondered if the neighbors thought I had gone wacko.

Spring warming entices adults to skate in light jackets and kids in t-shirts but also adds to ice maintenance. Remember, the rink is not out near the center of the lake but close to shore. Heat reflected from a dock and other vertically inclined objects softens the ice surface, often erratically. Worse, any dark object buried under the rink ice absorbs heat, melting a pocket surrounding the mass. Very small twigs and leaves blown in during freeze-up will give the ice a Swiss cheese look before you are ready to pack away your skates.

What does lake ice hockey and winter golf have in common? Both use the lake! Yes, that's right. Once a year, the local Elks Club sponsors a 9-hole golf challenge laid out on the lake. Why they pick January, often the coldest month, bends the rational mind. Their course design puts a green, if you can call it that, within seventy-five feet of my rink. That's an insignificant distance for even a poorly struck golf ball on cleared ice. Last year while patching some cracks, I had to duck as a shot passed overhead. With a friendly wave and a shrug, the golfer dismissed his errant shot. I retreated onto land to watch from a safe distance. Sprayed shots were more frequent than on-target strikes. The next morning I found two golf balls, one in the goal and the other directly behind it. Next year, I'll put up a sign labeling the rink as a lateral hazard, entry into which incurs a penalty stroke! Don't I wish!

In hindsight, this last tale of woe is my favorite. Not long ago on a very windy night, my nearest westerly neighbor called. "Just watched your goal pass in front of my house," he said nonchalantly. Darkness had blanketed the lake several hours earlier so I did not bother to look out my kitchen window. I thanked him for alerting me and sat down to think about my options. Based upon an earlier happening, I decided to do nothing – tonight. So, what *was* that preceding incident?

During the intense winds several weeks before, a hockey goal had disappeared during the daytime. How long it had been gone, I can only guess. With the winds sweeping westward, I knew it should be near the shoreline about a half mile away. Thinking I had made a brilliant decision, I grabbed a length of heavy rope, jumped on my garden tractor, negotiated the drifting lake access drive and zoomed out onto the surface. Couldn't take more than fifteen minutes to retrieve the goal so I didn't put on my warmest clothes. Big mistake. I practically sailed down ice easily spotting the goal stuck in a snow bank about fifty feet from shore. Going to be easy, I was still thinking. Within minutes, I was singing a different tune. My gloves had to come off to fashion a rope hitch. The unrelenting wind numbed my fingers more quickly than I thought possible. Finally succeeding, I turned the tractor and headed back towards home. I had inadvertently grabbed a coat with a broken hood fastener that now caused me to hold my hat on and hood up with one hand, while steering the tractor with the other. Before long, a violent gust hit the tractor, equipped with a front-mounted snowplow, head on, stopping forward progress. Then it dawned on me that the plow, acting as a sail sending me down the lake in a hurry, was now effectively a brake. The chained wheels were spinning (one at a time on this old John Deere) and all I was doing was turning sideways! So I went with the flow, heading for a shallow

drift hoping to purchase traction. This tactic worked but now I was headed north instead of east. After repeating this procedure a few times, getting colder by the minute, I started to think about which house I would approach to get respite from the numbing wind. Closing the distance to home, crabbing northeast, I decided to continue, gambling on arrival before freezing. Some twenty minutes later, I pulled the goal in behind my dock, safe from the thieving wind. Several lessons had been driven home but not the one I needed.

Getting back to the current episode, my decision to do nothing set well. The next morning, facing a brisk but not raging wind, I opted for more horsepower and traction granted with my all-wheel drive Subaru Outback. This time, the retrieval *would* be quick and easy. However, the goal was not where it had been before or anywhere nearby. I spent thirty minutes eyeballing the shoreline before heading home empty-handed. I theorized some lucky stiff in a pickup had intercepted its journey and loaded his precious find. Believable since young adults sometimes cruise the lake after dark – probably a lot more fun than driving a deserted, wind-whipped Main Street. Next morning, more than a little depressed from the thought of spending \$125 for a replacement goal, I drove across the lake again, this time enroute to the post office. Strange as it may sound, this is a short cut to the local P.O. With better visibility today, I spotted a red object on the shoreline. However, the shape did not resemble a hockey goal. Still, I drove closer and suddenly realized it *was* my goal. The pipes had come apart allowing the top to collapse. Lodged along the west bank of the southern finger, I now suspect the wind direction had changed taking it almost a half-mile from where the first one had lodged.

I know what you are thinking – after the first incident, why did I leave the goals on the lake. I can recall two differences: the wind did not come up until after dark and the goal was left lodged behind the west snow berm. Smugly, I thought the goals were safe. Nope, the wind ate that berm completely away, freeing one goal. Now, both goals come in behind the dock after every usage.

Think are you ready to put a rink on your lake? Being retired is a pre-requisite and having the patience to solve seemingly unending problems highly recommended. As a distraction, think of the effort as good exercise as well as a gift to your family, friends and community. We Alaskans are fortunate to have a testy environment for unique learning experiences.