

The Ice Storm of 1998! (Part 2)

More of the interview with Warren Spinner, former Burlington City Arborist

The storm lasted from Jan. 5-9, but its impact was felt for long after. The death toll was 35, (including 28 in Canada); 945 people were injured; thousands of animals were killed. Economic loss was estimated at ~\$1.4 billion for the US; \$3 billion for Canada. Over a million maples were damaged; 22% of Canada's maple syrup taps were affected. What was it like for Burlington's Tree Crew?

You couldn't be everywhere. Who communicated to you about tree problems?

The police would contact the Parks & Rec. or Public Works Depts. They made the list, and called it in to me. I was also in direct contact with Burlington Electric (BED) dispatch. It was a team effort among all the city departments.

How long did clean up take? On the first night we all worked throughout night, focusing on the most urgent problem areas. On Day 2 we started working around the clock with BED to help restore power. I worked all day, and our arborist tech worked all night removing branches from lines. That continued for 5 days straight. Our parks crews cleaned up trees and debris in the parks and downed branches on the streets. The City allowed homeowners to put branches in front of their homes. We contracted with haulers to remove the debris. In Burlington it went to Leddy Park. Tree chippers ground it up and it was taken to the McNeil Generating Plant to generate electricity.

After the most critical issues were addressed, it took another 6 months to remove trees that were unsalvageable, and to prune others. This included trees on the streets and parks, and other public forested areas. First, we had to inventory the trees on every street to determine how many were damaged and to either repair or remove them. Then all the parks and the forest land had to be inspected. We had to provide a cost estimate of financial loss for FEMA. Vegetation was just one part of it. We also had to include other expenses, such as staff time and tree removal or repair costs. It took over a year to put that together. Contracts with tree services were arranged to work on trees in the parks and recreational paths. By June the initial phase of cleanup was complete. It was all about making sure the trees were safe for the public.

What was the long-term impact on Burlington's urban forest? That is a complicated question. First, there's the impact on the actual trees. There was a lot of pressure to save as many trees as I could. Other arborists were enlisted to give a second opinion. In general, if 50% of the crown was gone, usually I removed the tree.

How long did it take trees that survived to recover? It all depended on the species. Lindens (*Tilia* spp.) recovered best, while some maples (*Acer* spp.) didn't do so well. Some of the trees we saved never recovered, and eventually were removed. Others needed considerable pruning to reshape them. A lot of the trees did recover after a few years, though, and with our tree replanting, Burlington's urban forest has probably been fully restored.

You took over as city arborist in 1980 and had to deal with the loss of elm trees. How did this ice storm compare with that?

The ice storm was bad, but it was a walk in the park compared with loss of our American elms (*Ulmus americana*) from Dutch elm disease (DED). The ice storm only occurred over 3-4 days. DED was a slow and steady destroyer. We lost thousands of trees to DED, with the last elms coming down in the 1980s. Several streets were blighted with no trees lining them, and minimal funds for removal or replanting. Prior to 1983, tree replacement was done only when funds were available.

What has the city done to minimize impact to the city's trees and infrastructure from ice storms? We developed an emergency management section to Burlington's Urban Forestry Master Plan (<https://www.getinvolvedburlington.ca/ufmp>) because we realized how to do it better. This section is now included in the city-wide emergency management plan.

Was there a silver lining to the 1998 ice storm? With many a disaster there's good things that come out of it. Senators from NY, NH, ME, VT lobbied for ice storm recovery funds. The Burlington Free Press initiated a public campaign called the "Trees for the 21st Century" to help communities recover from the loss of trees. We used those donations to plant trees; esp. large trees on major streets. The ice storm awoke a strong love of our city trees among the public and administrators. A dedicated streets, trees and sidewalks tax was levied, which still provides sustained funding for trees. This tax allowed me to expand our program, and hire another permanent staff person and purchase essential equipment.

Do you think we will ever see another storm like that? Time will tell. It seems like our weather is changing so it wouldn't surprise me. However, I would like to think the city is much better prepared for this type of weather event next time.

NOTE: Parts of the southern US experienced a similar ice storm last month. We know what they are going through.



Power lines down (above) and ice-covered branches (below) in Burlington.

