



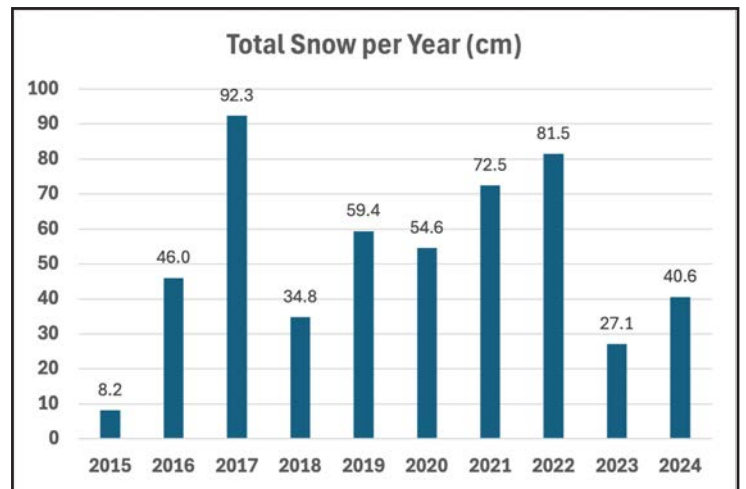
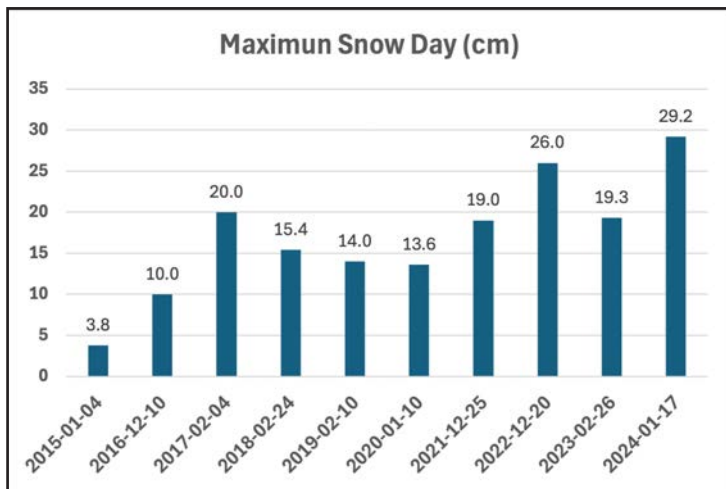
**Stoney Creek Trail Report
No. 71 - February 2025**

The Front Page photo shows a corner of the Dog Corral after the third consecutive day of snow early this month. It was taken by my wife, Sharon, on February 3rd at 8 AM when it was -7° . She was ‘pinch-hitting’ for me because my mobility scooter doesn’t take kindly to snow or slush. I could not get out on the trail until the 18th!

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Snow: Abbotsford Airport (YXX) recorded its highest single-day snowfall—within the last 10 years—when 29.2 cm fell on January 17, 2024. This broke the previous daily record of 26 cm set in December 2022. The chart below on the left shows the greatest single day snowfall each year. The one on the right shows the total snowfall in each year. As you can see, the snowiest year in the last decade was 2017.



The [BC Snow Survey and Water Supply Bulletin](#) covering this past month will not be available for several days, so I cannot comment on the big weather picture for February, 2025. However, the situation at the beginning of the month (described in the January bulletin) was as follows.... “Temperatures were near normal in January throughout most of British Columbia.... Precipitation was well below normal.... Several locations measured in the top 5 driest Januarys, including Abbotsford (since data began in 1945).” Consequently, as of February 1st, the snowpack was well below normal (less than 60%) for the South Coast basin. I’ll give their February comments in my March Trail Report.

The standard conversion from snow to rain is 10 to 1. That is to say, melt 10 cm of snow and you’ll get 1 cm of water. Theoretically, if all of our precipitation this month (145 mm) had been in the form of snow, we’d have had 145 cm (almost 5 ft) on the ground!

Incidentally, the weather data for any given day are not recorded at midnight. According to the Government of Canada Weather Office, a “climatological day” begins at 06:01 UTC (Coordinated Universal Time) on Day 1 and ends at 06:00 UTC on Day 2. (UTC replaced GMT, Greenwich Mean Time, in 1972). Our local weather office at YXX is on PST (in the Pacific Time Zone), so our weather measurements go from 10:01 PM to 10:00 PM the following day.

Views of the trail and creek early this month: 1/4



These photos were taken on February 2nd between 1 and 2 PM, after the first snowfall (about 1 cm). **Above:** Bridge 3 and Bridge 6. **Below:** A view of the trail from the Forks entrance and a look from the Latimer Street entrance at the top of Hemlock Hill.



Views of the trail and creek early this month: 2/4



These photos were taken in the afternoon of February 4th, a lovely day after several more centimetres of snow had fallen. **Above:** a view upstream from Bridge 6, and looking downstream below Bridge 5. **Below:** in the Glade and on the Straightaway looking at the Nursery Trees.



Views of the trail and creek early this month: 3/4



These were also taken on February 4th, another sunny day. **Above:** Sadie's bench and the century-old cedar stump above and below Bridge 4. **Below:** the boulders at the top of the trail above Bridge 6 and the "grove" of not-so-giant Sequoias at the top of Hemlock Hill.



Views of the trail and creek early this month: 4/4



These photos of four of the six bridges on the trail were taken in the afternoon on February 8th. No more snow had fallen since the 6th, and the earlier stuff had been well-trodden. **Above:** Bridge 2 and Bridge 4. **Below:** Bridge 5 and Bridge 6.



Saving ourselves from nature-deficit disorder



Certain disorders are more common in people living a modern urban lifestyle. These include autoimmune (inflammatory) diseases like Lupus and Type 1 Diabetes in which the body's immune system attacks healthy tissues and organs. It is believed that these diseases could be due to: a) a high level of hygiene, b) consumption of highly processed foods, and c) use of antibiotics.

[Many studies](#) have found that people who live in rural areas have a lower probability of developing immune system disorders. To test a hypothesis that higher levels of autoimmune diseases in urban areas could also be a result of d) insufficient contact with nature, Finnish researchers carried out [a study](#) involving daycare children, ages 3 to 5. To increase the biodiversity of their environment, lawn turf, moss, and shrubs were added to their play area. The children were thus exposed to a wider range of microbiota such as microscopic invertebrates, protozoa, fungi, and viruses than they would be in ordinary play areas.

The researchers made detailed observations. Within a month, children in these greener environments were found to have increased microbiota on their skin and more antibodies in their blood. The conclusion: playing in natural greenery led to a better immune system.

For further information:

- [Childcarecanada](#)
- [Child Mind Institute](#)

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[Research appears to confirm](#) that spending time in green spaces supports mental health. Walking in nature does help to reduce anxiety while improving mood and mindfulness. Such behaviour should not be taken casually. Everyone should be encouraged to incorporate "[green exercise](#)" into their normal lifestyles. Abbotsford is blessed with many urban parks, so it's relatively easy for us to green walk. We are doubly fortunate here to have a park with a fish-bearing creek in it. So, walk on the trail as well as the street!

A winter hazard for Stoney Creek:

The salmon in Stoney Creek have a lot to contend with. The storm drains in the Stoney Creek Park neighbourhood empty into the creek. This salt on Hearthstone Court, leftover from street snow treatment, could only go into fish habitat.

According to a group of BC zoology researchers, “salt pulses” [present significant threats](#) to developing salmon eggs, Chloride levels in streams can reach up to 10 times the provincial water quality guideline during the most vulnerable development stages of coho salmon.

The researchers monitored salt levels in over 30 lower mainland streams, then mimicked the effect of salt pulses on salmon eggs in the lab. Salt concentrations double the BC guideline began to harm eggs, while levels 8 times higher resulted in a mortality rate of over 70% within just 24 hours. Some eggs were deformed, and would not survive.

To mitigate these impacts, the researchers advocate the use of brine, which contains half the chloride of rock salt and adheres better to surfaces. It offers a cost-effective, environmentally friendly alternative. **Individuals can also help** by using minimal salt—two tablespoons per square meter—shovel the snow first, then spread the salt evenly.



Abbotsford City uses brine in the initial stage of street snow treatment. Their snow policy has three phases. 1) the application of sodium chloride anti-icing solution (brine) which is sprayed on to prevent the snow from bonding to the pavement and assists plowing. 2) the application of a sand and salt mixture which improves traction. 3) snow plowing.

Odds and ends 1:



Top & Right: All the salt that had been applied to Hearthstone Court since the beginning of the month, including this apparent salt spill, created a tremendous salt pulse overnight on the 16th.

Bottom: The Bowl after a heavy rain. Due to soggy buildup of mulched autumn leaves, the trail could use another application of gravel in many places, such as on the Straightaway.



Odd and ends 2:



Top: A derelict birdhouse on Hemlock Hill. Did you know that salmon is the primary food source for Orcas? A 1 cm-long Winter Firefly beetle (non-glowing).

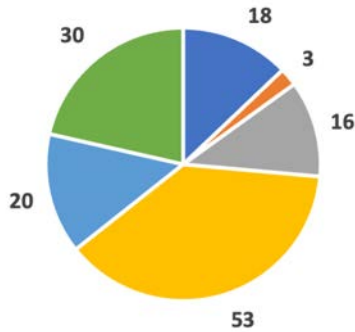
Middle: Apparently dogs are not the only ones that carry balls on the trail.

Bottom: Skunk cabbage once thrived in this boggy location near Bridge 5. We will know soon if any survived bridge construction.



Litter Tally February 2025

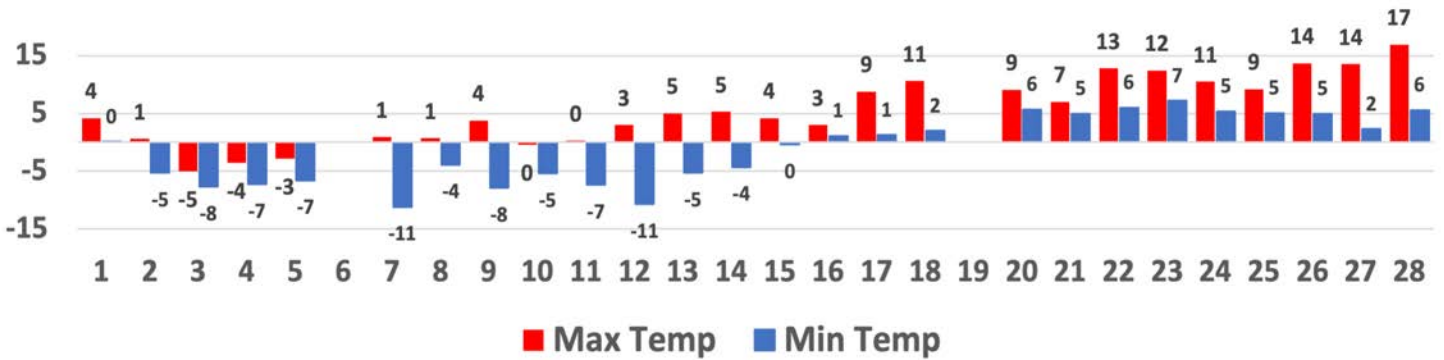
- Butts
- Containers
- Paper
- Plastic
- Wrappers
- Misc.



Total litter items = 140

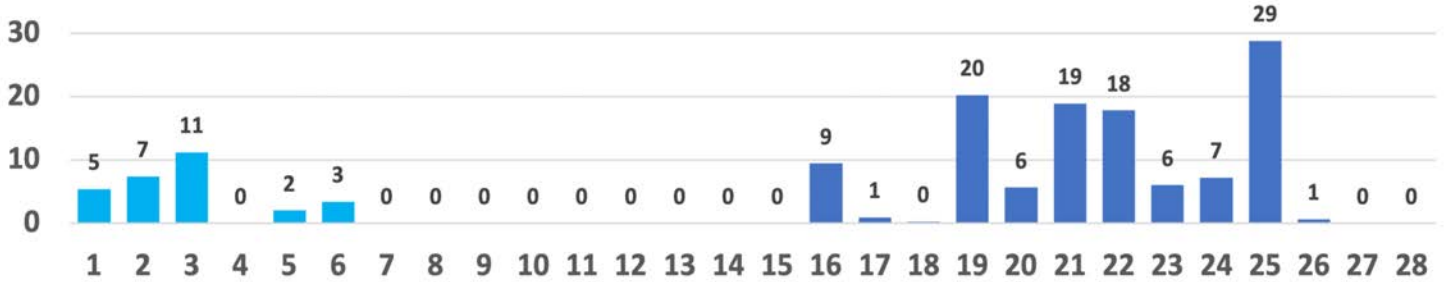
- Containers:** bottles, bottle tops, cans, coffee cups, lids, juice boxes.
- Paper:** tissues, napkins, posters, newspaper, receipts, cardboard, etc.
- Plastic:** dog waste bags & shreds, other items made of plastic.
- Wrappers:** candy wrappers, foil, cellophane.
- Miscellaneous:** clothing, glass, chewing gum, dog balls & fragments, etc.

Air temperature at YXX February 2025 (°C)

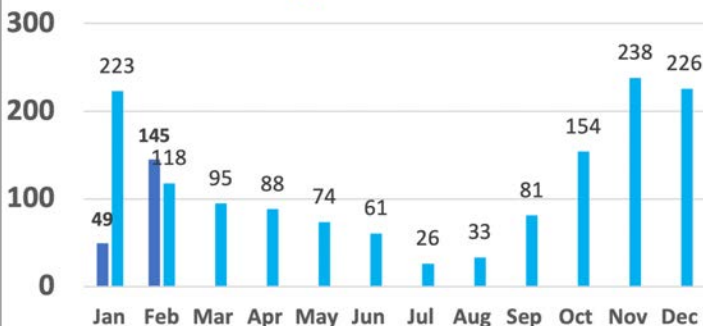


Precipitation at YXX February 2025

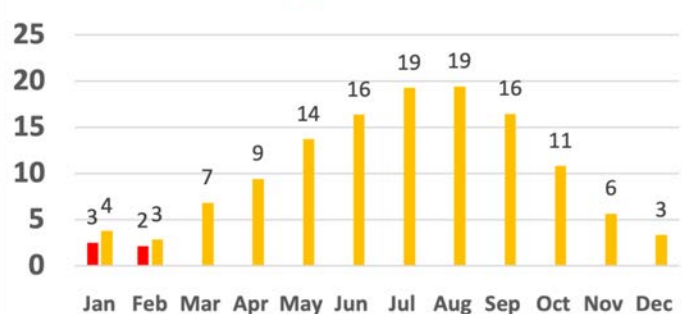
Total = 145 mm
Rain, Snow



Precipitation in 2025 (mm) Average: 2019-2024



Average Temperatures in 2025 Average: 2019-2024



For convenience, I use these custom place-names:

