

Making Climate Costs Visible

Climate expense tagging for Canadian municipalities
2026



About This Resource

What this resource is

This resource introduces climate expense tagging as a practical tool for municipalities to identify, record, and track the costs of weather-related events. It explains why tagging matters, how it works, and how to get started.

Is this resource for you?

This resource is intended for municipal finance staff, climate adaptation practitioners, and local government administrators who are responsible for tracking municipal expenditures, understanding the financial impacts of extreme weather, and building the case for climate resilience investments. No prior experience with climate expense tagging is required.

Using this resource

Read this resource from start to finish for an introduction to climate expense tagging or jump directly to the sections most relevant to your needs. An accompanying Excel model demonstrates how a climate expense tagging system can be structured in practice. Its Code Book, Climate Expense Sheet, and Analysis Dashboard are designed to be adapted to your municipality's context and existing financial systems.

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Why Track Climate Costs?

Municipalities bear the frontline financial burden of extreme weather.

However, unlike other municipal expenses, these fiscal impacts rarely appear under a single category. Instead, they are dispersed across multiple departments and are often unclassified as an expense incurred from a weather event. Spiked operational costs, emergency services, unbudgeted overtime or salaries and infrastructure repairs are some of the most common expenses; when left untagged, these compounding costs quietly deprive other municipal services of their respective funds.

Climate Tagging is a systematic approach that governments use to flag and categorize spending that has climate relevance within their existing budget frameworks. By assigning structured markers to these expenditures, it becomes possible to measure, monitor, and report on climate-related spending over time.¹



How Does Climate Expense Tagging Work?

At its core, climate expense tagging is quite straightforward; it is the practice of attaching a structured label to any expenditure that is triggered by or relates to a weather event, such that the expense is recorded. That label, (the tag) allows the municipality to pull those expenses together later, across departments and over time, in a way that ordinary budget codes cannot.

¹ UNDP. (2019). [Knowing What You Spend: A guidance note for Governments to track climate finance in their budgets](#)

Implementing a tagging system involves three core decisions:

1

First, define what counts as a climate-relevant expense.

Not every municipal expense needs a climate tag. The focus should be on spending that was directly driven by a climate or weather event; costs that either would not have arisen at all, or would have been far lower, under normal conditions.

The distinction is usually intuitive; emergency culvert repairs following a flash flood, overtime for crews clearing windstorm debris, generator rentals after a weather-related power outage all qualify. A routine pothole repair scheduled months in advance does not. Municipalities can establish their own definition of what counts as climate-relevant by referencing their existing climate action plans, or by adopting the hazard, consequence, and expense categories built into their tagging model. Either way, the definition should be kept specific.

2

Second, decide what to cover.

A practical starting point is to focus on direct, unbudgeted spending; the emergency costs that surface across departments like Public Works, Emergency Services, and Parks in the immediate wake of an extreme weather event.

These are the expenses most clearly tied to a specific climate trigger, and the easiest to identify and tag consistently. From there, coverage can grow. As the system matures and staff become comfortable with the process, municipalities can extend tagging to capital projects with a clear climate rationale, or to costs incurred through contracted service providers. The broader the coverage, the more complete the picture and most established tagging systems eventually capture both operational and capital expenditures for this reason.

3

Third, determine how to record the tag.

One of the more common misconceptions about climate expense tagging is that it requires a new financial system.

It does not. In most cases, a municipality's existing expense tracking system can be adapted with minimal adjustment, i.e., adding a new field, a supplementary code segment, or a note column is often all that is needed. The City of Windsor, for example, simply modified its existing expense code structure to include a unique climate event identifier, without replacing any underlying system. Where existing systems cannot be easily modified, a simple parallel process works equally well to get started. For instance, a shared spreadsheet (see Appendix A), used consistently across departments, is entirely sufficient in the early stages. What matters most is not the sophistication of the tool, but the consistency with which it is applied; as long as every department uses the same event codes and classification categories, costs from a single weather event can be gathered together and analyzed regardless of where they originated.



In Practice: How Windsor did it

The City of Windsor began climate expense tagging in 2016, after a series of weather events produced millions in unplanned capital costs that were difficult to track across departments.

Windsor's approach was straightforward: they modified their existing expense code to include one additional segment, i.e., a unique identifier for each climate event.



Before 2016

001 – 2730 – 999 – 9999 – 012838

Type of cost – account – default – default – project



After 2016

001 – 2730 – 999 – 1234 – 012838

Type of cost – account – default – **climate tag** – project

That single addition—replacing one default segment with a unique event identifier—made it possible to aggregate all costs from a given storm or flood across every department that responded to it.

Without the tag, reconstructing the full cost of events like the 2017 flood (\$1,690,086) or the 2016 tornado (\$101,109) would have been extremely difficult.²

² ICLEI Canada. (2019). *Climate Change Impacts in Windsor: A Technical Analysis*

Why Municipalities Should Start Climate Tagging Now

Climate costs are already there, but often aren't visible

Every time a weather event hits, municipalities absorb costs that were never budgeted for. Those costs surface across multiple departments, get absorbed into general accounts, and disappear into the broader budget with no way to backtrack the expenses. The result is that councils, finance teams, and senior staff have no reliable way to answer a straightforward question: what did that storm actually cost us? Tagging does not create new costs; it simply makes the ones already occurring visible, easy to monitor, and comparable over time.

Today's data is tomorrow's asset

A single year of tagged expenses is useful. Five years of tagged expenses is powerful. Over time, a consistent tagging record gives municipalities the evidence base they need to make the case for climate resilience investments, respond to insurance inquiries with documented figures, and compete more effectively for provincial and federal adaptation funding. Grants and programs increasingly ask applicants to demonstrate climate exposure and past expenditure and without a tagging system in place, municipalities are often left relying on estimates or anecdotal accounts that carry far less weight than a documented, multi-year spending record. Municipalities that have been tagging will be far better positioned to answer those questions than those that have not.

Every weather event that passes without tagging is a gap in the record that cannot be recovered

Unlike many other data initiatives, climate expense tagging only works prospectively; the costs from last year's ice storm or flood cannot be reconstructed with the same precision after the event. Starting now, even imperfectly, is always better than waiting for the right moment, the right system, or the right mandate. The municipalities best prepared for future climate reporting requirements will be those that began building their record sooner.



Six simple steps to get started

Step 1

Build your team

Bring together representatives from the departments most likely to incur climate-related costs; Public Works, Emergency Services, Parks, and Finance at a minimum. Include both staff who approve expenditures and those who enter them and designate a coordinator to oversee the process and assign event codes when weather events occur.

Step 2

Establish shared understanding

Provide a brief orientation or training session for staff outside of climate roles. Those responsible for entering expenses are more likely to tag consistently when they understand why it matters, justify increased operational budgets, and give their department a clearer picture of the real cost pressures they face each year.

Step 3

Agree on your code book

As a group, confirm the categories you will use to classify climate-related expenses. The model provided in this resource offers a ready-made starting point. Review it together, make any adjustments that reflect your municipality's context, and ensure everyone is working from the same version before the next weather event occurs.

Step 4

Start tagging

With the team in place and the code book agreed upon, begin tagging expenses as the next weather event occurs. Assign a unique event code at the outset, share it across departments, and have each team apply the appropriate classification codes when submitting costs. Imperfect early data is far more valuable than no data at all.

Step 5

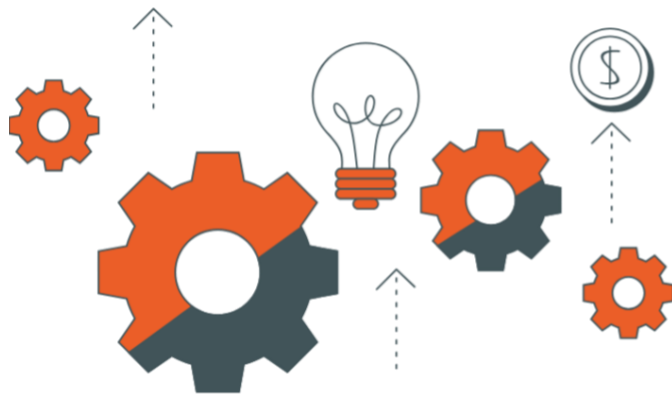
Review at year-end

At the close of each fiscal year, compile tagged expenses into a simple summary; total costs by event, hazard type, and department. Even a basic overview begins to reveal patterns and demonstrate the cumulative cost of weather events in a way that fragmented departmental budgets never could.

Step 6

Refine and expand

Use the annual review to strengthen the system. Were there expenses that should have been tagged but were not? Are there departments or cost categories that could be brought into scope? This iterative process builds a tagging system that grows with your municipality and produces increasingly reliable data for budgeting, grant applications, and climate planning.



Appendix A: Climate Expense Tagging Model

The Excel model accompanying this resource is designed to give municipalities a practical starting point and is structured across three components.

The **Code Book** provides the classification structure for tagging, organized into code-related indicators, hazard type, consequence type, and expense type, which combine into the Final Code, and two non-code reference columns, Asset/System Affected and Funding Source which add context for planning and reporting. All categories can be expanded to reflect your municipality's specific context.

The **Climate Expense Sheet** contains 22 sample expenses across five hypothetical 2025 weather events, a January ice storm, a March windstorm, a May flash flood, a July heatwave, and an August wildfire smoke event. Each event has multiple expenses tagged across departments, with costs ranging from under \$3,000 to over \$1.6 million, and each produces a Final Code in the format Event Code – Hazard – Consequence – Expense Type. (e.g., **4716-H02-C02-E03**).

The **Analysis Dashboard** aggregates tagged expenses by hazard type, giving a single view of what extreme weather cost the municipality across the year.

[Download the Excel Model](#)