

### **Request for Decision**

Protocols and Policies to Declare a Significant Weather Event

Presented To:	<b>Operations Committee</b>
Presented:	Monday, Aug 12, 2019
Report Date	Wednesday, Jul 31, 2019
Туре:	Managers' Reports

### **Resolution**

THAT the City of Greater Sudbury amends its current Winter Control Policy to include the process for the "Declaration of Significant Weather Event" as per the procedures outlined in O.Reg 239/02 (May 3, 2018), Minimum Maintenance Standards as outlined in the report entitled "Protocols and Policies to Declare a Significant Weather Event", from the General Manager of Growth and Infrastructure, presented at the Operations Committee meeting on August 12, 2019.

### <u>Relationship to the Strategic Plan / Health Impact</u> <u>Assessment</u>

This report refers to operational matters.

### **Report Summary**

The purpose of this report is to identify a change to the Winter Control Policy as it relates to winter maintenance of roads, bicycle lanes and sidewalks. The recently amended Provincial Minimum Maintenance Standards (MMS) allows a Municipality to declare a "Significant Weather Event" (SWE) when it is determined by the Municipality that a winter event is too significant for a Municipality to manage the event within the timelines outlined in the MMS.

### Signed By

**Report Prepared By** Tony De Silva Roads Operations Engineer *Digitally Signed Jul 31, 19* 

**Division Review** Randy Halverson Director of Linear Infrastructure Services *Digitally Signed Jul 31, 19* 

**Financial Implications** Jim Lister Manager of Financial Planning and Budgeting *Digitally Signed Jul 31, 19* 

Recommended by the Department Tony Cecutti General Manager of Growth and Infrastructure Digitally Signed Jul 31, 19

Recommended by the C.A.O. Ed Archer Chief Administrative Officer Digitally Signed Jul 31, 19

The declaration of a "Significant Weather Event" combined with associated communications, will create a greater awareness among road users of potential hazards that may be encountered during the weather event, allows the public to understand how the weather event affects maintenance response times, and reduces the City's financial risks during the period of the declaration.

### **Financial Implications**

There are no additional costs to implement the policy amendments, however, these policy amendments can

reduce the City's risk during significant weather events.

### BACKGROUND

Section 44 of the Municipal Act defines municipalities role as it relates to maintenance of bridges and highways (see appendix A for details). Furthermore, section 44 allows the Ministry of Transportation to make regulations establishing minimum standards for repairs of highways/bridges or any class of them. In 2002, the Minimum Maintenance Standards (MMS) were established (see appendix B for details). The purpose of MMS is to clarify the scope of the statutory defense available to a municipality under clause 44 (3) (c) of the Act. The MMS is reviewed and amended every five years with the latest changes occurring on May 3, 2018.

Much like the rest of the province, Sudbury has experienced more intense and unusual weather conditions in recent times. One important amendment to the MMS addresses these changes in weather by allowing Municipalities to declare a "Significant Weather Event" (SWE) with implications on winter maintenance on roadways, bicycle lanes and sidewalks during the duration of such an event. A "significant weather event" is defined as an approaching or occurring weather hazard with the potential to pose a significant danger to users of the highways within a municipality. A "weather hazard" means the weather hazards determined by Environment Canada as meeting the criteria for the issuance of an alert under its Public Weather Alerting Program (see appendix C for details).

The recent amendments allow Municipalities to communicate the declaration of the beginning and end of a SWE to the public in one or more of the following mediums:

- By posting it on the Municipality's website;
- Announcing it via social media;
- By press release;
- Through a police service; or
- Through any other notification method required in a Municipal by-law.

Declaring a SWE does not absolve the City from conducting its normal response to a winter event as outlined in its winter control policy. However, it is intended to notify its citizens that due to the severe nature of the winter event, the City may not be able to meet the service timelines outlined in its winter control policy. In addition, people who use the roads during a significant weather event would become aware of hazards created by the weather.

The standard for addressing snow accumulations during the declaration of a significant weather event is outlined in the MMS as follows:

- a) monitor the weather in accordance with Section 3:1 of the MMS
- b) if deemed practicable by the Municipality, to deploy resources to address snow accumulation on roadways, starting from the time the municipality deems appropriate to do so

Similar to ensuring that the City meets the MMS, the Overall Responsible Superintendent (ORS) will be responsible for declaring a SWE when required. This decision will be based on Environment Canada's weather hazard warnings and our Standard Operating Procedure.

From a Risk Management perspective, the declaration of a SWE also provides the City with an additional legal defense if necessary. It does not however absolve the City from liability.

Should council approve the recommendation in this report, staff will take the following actions:

- develop a modified communication plan for implementation during the winter of 2019/2020; and,
- develop a standard operating procedure for notification protocols and to declare the significant weather event

### RESOURCES

Appendix A: Municipal Act - Section 44, Maintenance

Appendix B: O.Reg 239/02 (May 2018) - Minimum Maintenance Standards

Appendix C: Environment Canada – Public Weather Alerting Program

#### Maintenance

**44** (1) The municipality that has jurisdiction over a highway or bridge shall keep it in a state of repair that is reasonable in the circumstances, including the character and location of the highway or bridge. 2001, c. 25, s. 44 (1).

#### Liability

(2) A municipality that defaults in complying with subsection (1) is, subject to the *Negligence Act*, liable for all damages any person sustains because of the default. 2001, c. 25, s. 44 (2).

#### Defence

(3) Despite subsection (2), a municipality is not liable for failing to keep a highway or bridge in a reasonable state of repair if,

- (a) it did not know and could not reasonably have been expected to have known about the state of repair of the highway or bridge;
- (b) it took reasonable steps to prevent the default from arising; or
- (c) at the time the cause of action arose, minimum standards established under subsection (4) applied to the highway or bridge and to the alleged default and those standards have been met. 2001, c. 25, s. 44 (3).

#### Regulations

(4) The Minister of Transportation may make regulations establishing minimum standards of repair for highways and bridges or any class of them. 2001, c. 25, s. 44 (4).

#### General or specific

(5) The minimum standards may be general or specific in their application. 2001, c. 25, s. 44 (5).

#### Adoption by reference

(6) A regulation made under subsection (4) may adopt by reference, in whole or in part, with such changes as the Minister of Transportation considers desirable, any code, standard or guideline, as it reads at the time the regulation is made or as it is amended from time to time, whether before or after the regulation is made. 2001, c. 25, s. 44 (6).

(7) REPEALED: 2002, c. 24, Sched. B, s. 25.

#### Untravelled portions of highway

(8) No action shall be brought against a municipality for damages caused by,

- (a) the presence, absence or insufficiency of any wall, fence, rail or barrier along or on any highway; or
- (b) any construction, obstruction or erection, or any siting or arrangement of any earth, rock, tree or other material or object adjacent to or on any untravelled portion of a highway, whether or not an obstruction is created due to the construction, siting or arrangement. 2001, c. 25, s. 44 (8).

#### Sidewalks

(9) Except in case of gross negligence, a municipality is not liable for a personal injury caused by snow or ice on a sidewalk. 2001, c. 25, s. 44 (9).

#### Notice

(10) No action shall be brought for the recovery of damages under subsection (2) unless, within 10 days after the occurrence of the injury, written notice of the claim and of the injury complained of, including the date, time and location of the occurrence, has been served upon or sent by registered mail to,

- (a) the clerk of the municipality; or
- (b) if the claim is against two or more municipalities jointly responsible for the repair of the highway or bridge, the clerk of each of the municipalities. 2001, c. 25, s. 44 (10); 2017, c. 10, Sched. 1, s. 4.

#### Exception

(11) Failure to give notice is not a bar to the action in the case of the death of the injured person as a result of the injury. 2001, c. 25, s. 44 (11).

#### Same

(12) Failure to give notice or insufficiency of the notice is not a bar to the action if a judge finds that there is reasonable excuse for the want or the insufficiency of the notice and that the municipality is not prejudiced in its defence. 2002, c. 24, Sched. B, s. 42.

(13) REPEALED: 2002, c. 24, Sched. B, s. 42.

#### No responsibility for acts of others

(14) Nothing in this section imposes any obligation or liability on a municipality for an act or omission of a person acting under a power conferred by law over which the municipality had no control unless,

- (a) the municipality participated in the act or omission; or
- (b) the power under which the person acted was a by-law, resolution or licence of the municipality. 2001, c. 25, s. 44 (14).

#### No liability

(15) A municipality is not liable for damages under this section unless the person claiming the damages has suffered a particular loss or damage beyond what is suffered by that person in common with all other persons affected by the lack of repair. 2001, c. 25, s. 44 (15).

### Municipal Act, 2001 Loi de 2001 sur les municipalités

### ONTARIO REGULATION 239/02 MINIMUM MAINTENANCE STANDARDS FOR MUNICIPAL HIGHWAYS

Consolidation Period: From May 3, 2018 to the e-Laws currency date.

Last amendment: 366/18.

Legislative History: 288/03, 613/06, 23/10, 47/13, 366/18.

#### This Regulation is made in English only.

#### Definitions

**1.** (1) In this Regulation,

"bicycle facility" means the on-road and in-boulevard cycling facilities listed in Book 18 of the Ontario Traffic Manual;

"bicycle lane" means,

- (a) a portion of a roadway that has been designated by pavement markings or signage for the preferential or exclusive use of cyclists, or
- (b) a portion of a roadway that has been designated for the exclusive use of cyclists by signage and a physical or marked buffer;

"cm" means centimetres;

"day" means a 24-hour period;

- "encroachment" means anything that is placed, installed, constructed or planted within the highway that was not placed, installed, constructed or planted by the municipality;
- "ice" means all kinds of ice, however formed;
- "motor vehicle" has the same meaning as in subsection 1 (1) of the *Highway Traffic Act*, except that it does not include a motor assisted bicycle;
- "non-paved surface" means a surface that is not a paved surface;
- "Ontario Traffic Manual" means the Ontario Traffic Manual published by the Ministry of Transportation, as amended from time to time;
- "paved surface" means a surface with a wearing layer or layers of asphalt, concrete or asphalt emulsion;
- "pothole" means a hole in the surface of a roadway caused by any means, including wear or subsidence of the road surface or subsurface;
- "roadway" has the same meaning as in subsection 1 (1) of the Highway Traffic Act;
- "shoulder" means the portion of a highway that provides lateral support to the roadway and that may accommodate stopped motor vehicles and emergency use;
- "sidewalk" means the part of the highway specifically set aside or commonly understood to be for pedestrian use, typically consisting of a paved surface but does not include crosswalks, medians, boulevards, shoulders or any part of the sidewalk where cleared snow has been deposited;
- "significant weather event" means an approaching or occurring weather hazard with the potential to pose a significant danger to users of the highways within a municipality;
- "snow accumulation" means the natural accumulation of any of the following that, alone or together, covers more than half a lane width of a roadway:
  - 1. Newly-fallen snow.
  - 2. Wind-blown snow.
  - 3. Slush;

"substantial probability" means a significant likelihood considerably in excess of 51 per cent;

"surface" means the top of a sidewalk, roadway or shoulder;

"utility" includes any air, gas, water, electricity, cable, fiber-optic, telecommunication or traffic control system or subsystem, fire hydrants, sanitary sewers, storm sewers, property bars and survey monuments;

"utility appurtenance" includes maintenance holes and hole covers, water shut-off covers and boxes, valves, fittings, vaults, braces, pipes, pedestals, and any other structures or items that form part of or are an accessory part of any utility;

"weather" means air temperature, wind and precipitation.

"weather hazard" means the weather hazards determined by Environment Canada as meeting the criteria for the issuance of an alert under its Public Weather Alerting Program. O. Reg. 239/02, s. 1 (1); O. Reg. 23/10, s. 1 (1); O. Reg. 47/13, s. 1; O. Reg. 366/18, s. 1 (1, 2).

(2) For the purposes of this Regulation, every highway or part of a highway under the jurisdiction of a municipality in Ontario is classified in the Table to this section as a Class 1, Class 2, Class 3, Class 4, Class 5 or Class 6 highway, based on the speed limit applicable to it and the average daily traffic on it. O. Reg. 239/02, s. 1 (2); O. Reg. 366/18, s. 1 (3).

(3) For the purposes of subsection (2) and the Table to this section, the average daily traffic on a highway or part of a highway under municipal jurisdiction shall be determined,

- (a) by counting and averaging the daily two-way traffic on the highway or part of the highway; or
- (b) by estimating the average daily two-way traffic on the highway or part of the highway. O. Reg. 239/02, s. 1 (3); O. Reg. 23/10, s. 1 (2); O. Reg. 366/18, s. 1 (3).

(4) For the purposes of this Regulation, unless otherwise indicated in a provision of this Regulation, a municipality is deemed to be aware of a fact if, in the absence of actual knowledge of the fact, circumstances are such that the municipality ought reasonably to be aware of the fact. O. Reg. 366/18, s. 1 (4).

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Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Average Daily Traffic (number	91 - 100 km/h	81 - 90 km/h	71 - 80 km/h	61 - 70 km/h	51 - 60	41 - 50 km/h	1 - 40 km/h
of motor vehicles)	speed limit	speed limit	speed limit	speed limit	km/h speed	speed limit	speed limit
					limit		
53,000 or more	1	1	1	1	1	1	1
23,000 - 52,999	1	1	1	2	2	2	2
15,000 - 22,999	1	1	2	2	2	3	3
12,000 - 14,999	1	1	2	2	2	3	3
10,000 - 11,999	1	1	2	2	3	3	3
8,000 - 9,999	1	1	2	3	3	3	3
6,000 - 7,999	1	2	2	3	3	4	4
5,000 - 5,999	1	2	2	3	3	4	4
4,000 - 4,999	1	2	3	3	3	4	4
3,000 - 3,999	1	2	3	3	3	4	4
2,000 - 2,999	1	2	3	3	4	5	5
1,000 - 1,999	1	3	3	3	4	5	5
500 - 999	1	3	4	4	4	5	5
200 - 499	1	3	4	4	5	5	6
50 - 199	1	3	4	5	5	6	6
0 - 49	1	3	6	6	6	6	6

#### TABLE CLASSIFICATION OF HIGHWAYS

O. Reg. 366/18, s. 1 (5).

#### Application

**2.** (1) This Regulation sets out the minimum standards of repair for highways under municipal jurisdiction for the purpose of clause 44 (3) (c) of the Act. O. Reg. 288/03, s. 1.

(2) REVOKED: O. Reg. 23/10, s. 2.

(3) This Regulation does not apply to Class 6 highways. O. Reg. 239/02, s. 2 (3).

#### Purpose

**2.1** The purpose of this Regulation is to clarify the scope of the statutory defence available to a municipality under clause 44 (3) (c) of the Act by establishing maintenance standards which are non-prescriptive as to the methods or materials to be used in complying with the standards but instead describe a desired outcome. O. Reg. 366/18, s. 2.

#### MAINTENANCE STANDARDS

#### Patrolling

**3.** (1) The standard for the frequency of patrolling of highways to check for conditions described in this Regulation is set out in the Table to this section. O. Reg. 23/10, s. 3 (1); O. Reg. 366/18, s. 3 (2).

(2) If it is determined by the municipality that the weather monitoring referred to in section 3.1 indicates that there is a substantial probability of snow accumulation on roadways, ice formation on roadways or icy roadways, the standard for patrolling highways is, in addition to that set out in subsection (1), to patrol highways that the municipality selects as representative of its highways, at intervals deemed necessary by the municipality, to check for such conditions. O. Reg. 47/13, s. 2; O. Reg. 366/18, s. 3 (2).

(3) Patrolling a highway consists of observing the highway, either by driving on or by electronically monitoring the highway, and may be performed by persons responsible for patrolling highways or by persons responsible for or performing highway maintenance activities. O. Reg. 23/10, s. 3 (1).

(4) This section does not apply in respect of the conditions described in section 10, subsections 11 (0.1) and 12 (1) and section 16.1, 16.2, 16.3 or 16.4. O. Reg. 23/10, s. 3 (1); O. Reg. 366/18, s. 3 (3).

#### TABLE PATROLLING FREQUENCY

Class of Highway	Patrolling Frequency
1	3 times every 7 days
2	2 times every 7 days
3	once every 7 days
4	once every 14 days
5	once every 30 days

O. Reg. 239/02, s. 3, Table; O. Reg. 23/10, s. 3 (2).

#### Weather monitoring

**3.1** (1) From October 1 to April 30, the standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once every shift or three times per calendar day, whichever is more frequent, at intervals determined by the municipality. O. Reg. 47/13, s. 3; O. Reg. 366/18, s. 4.

(2) From May 1 to September 30, the standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once per calendar day. O. Reg. 47/13, s. 3; O. Reg. 366/18, s. 4.

#### Snow accumulation, roadways

- 4. (1) Subject to section 4.1, the standard for addressing snow accumulation on roadways is,
- (a) after becoming aware of the fact that the snow accumulation on a roadway is greater than the depth set out in the Table to this section, to deploy resources as soon as practicable to address the snow accumulation; and
- (b) after the snow accumulation has ended, to address the snow accumulation so as to reduce the snow to a depth less than or equal to the depth set out in the Table within the time set out in the Table,
  - (i) to provide a minimum lane width of the lesser of three metres for each lane or the actual lane width, or
  - (ii) on a Class 4 or Class 5 highway with two lanes, to provide a total width of at least five metres. O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (1).

(2) If the depth of snow accumulation on a roadway is less than or equal to the depth set out in the Table to this section, the roadway is deemed to be in a state of repair with respect to snow accumulation. O. Reg. 47/13, s. 4.

(3) For the purposes of this section, the depth of snow accumulation on a roadway and, if applicable, lane width under clause (1) (b), may be determined in accordance with subsection (4) by a municipal employee, agent or contractor, whose duties or responsibilities include one or more of the following:

- 1. Patrolling highways.
- 2. Performing highway maintenance activities.
- 3. Supervising staff who perform activities described in paragraph 1 or 2. O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (2).
- (4) The depth of snow accumulation on a roadway and lane width may be determined by,
- (a) performing an actual measurement;
- (b) monitoring the weather; or
- (c) performing a visual estimate. O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (3).
- (5) For the purposes of this section, addressing snow accumulation on a roadway includes,
- (a) plowing the roadway;

- (b) salting the roadway;
- (c) applying abrasive materials to the roadway;
- (d) applying other chemical or organic agents to the roadway;
- (e) any combination of the methods described in clauses (a) to (d). O. Reg. 366/18, s. 5 (4).
- (6) This section does not apply to that portion of the roadway,
- (a) designated for parking;
- (b) consisting of a bicycle lane or other bicycle facility; or
- (d) used by a municipality for snow storage. O. Reg. 366/18, s. 5 (4).

#### TABLE SNOW ACCUMULATION - ROADWAYS

Class of Highway	Depth	Time
1	2.5 cm	4 hours
2	5 cm	6 hours
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours

O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (5).

#### Snow accumulation on roadways, significant weather event

**4.1** (1) If a municipality declares a significant weather event relating to snow accumulation, the standard for addressing snow accumulation on roadways until the declaration of the end of the significant weather event is,

- (a) to monitor the weather in accordance with section 3.1; and
- (b) if deemed practicable by the municipality, to deploy resources to address snow accumulation on roadways, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 7.

(2) If the municipality complies with subsection (1), all roadways within the municipality are deemed to be in a state of repair with respect to snow accumulation until the applicable time in the Table to section 4 expires following the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 7.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

- (a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and
- (b) address snow accumulation on roadways in accordance with section 4. O. Reg. 366/18, s. 7.

#### Snow accumulation, bicycle lanes

**4.2** (1) Subject to section 4.3, the standard for addressing snow accumulation on bicycle lanes is,

- (a) after becoming aware of the fact that the snow accumulation on a bicycle lane is greater than the depth set out in the Table to this section, to deploy resources as soon as practicable to address the snow accumulation; and
- (b) after the snow accumulation has ended, to address the snow accumulation so as to reduce the snow to a depth less than or equal to the depth set out in the Table to this section to provide a minimum bicycle lane width of the lesser of 1 metre or the actual bicycle lane width. O. Reg. 366/18, s. 7.

(2) If the depth of snow accumulation on a bicycle lane is less than or equal to the depth set out in the Table to this section, the bicycle lane is deemed to be in a state of repair in respect of snow accumulation. O. Reg. 366/18, s. 7.

(3) For the purposes of this section, the depth of snow accumulation on a bicycle lane and, if applicable, lane width under clause (1) (b), may be determined in the same manner as set out in subsection 4 (4) and by the persons mentioned in subsection 4 (3), with necessary modifications. O. Reg. 366/18, s. 7.

- (4) For the purposes of this section, addressing snow accumulation on a bicycle lane includes,
- (a) plowing the bicycle lane;
- (b) salting the bicycle lane;
- (c) applying abrasive materials to the bicycle lane;
- (d) applying other chemical or organic agents to the bicycle lane;
- (e) sweeping the bicycle lane; or

(f) any combination of the methods described in clauses (a) to (e). O. Reg. 366/18, s. 7.

Column 1 Class of Highway or	Column 2 Depth	Column 3 Time
Adjacent Highway		
1	2.5 cm	8 hours
2	5 cm	12 hours
3	8 cm	24 hours
4	8 cm	24 hours
5	10 cm	24 hours

TABLE SNOW ACCUMULATION – BICYCLE LANES

O. Reg. 366/18, s. 7.

#### Snow accumulation on bicycle lanes, significant weather event

**4.3** (1) If a municipality declares a significant weather event relating to snow accumulation, the standard for addressing snow accumulation on bicycle lanes until the declaration of the end of the significant weather event is,

- (a) to monitor the weather in accordance with section 3.1; and
- (b) if deemed practicable by the municipality, to deploy resources to address snow accumulation on bicycle lanes, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 7.

(2) If the municipality complies with subsection (1), all bicycle lanes within the municipality are deemed to be in a state of repair with respect to snow accumulation until the applicable time in the Table to section 4.2 expires following the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 7.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

- (a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and
- (b) address snow accumulation on bicycle lanes in accordance with section 4.2. O. Reg. 366/18, s. 7.

#### Ice formation on roadways and icy roadways

**5.** (1) The standard for the prevention of ice formation on roadways is doing the following in the 24-hour period preceding an alleged formation of ice on a roadway:

- 1. Monitor the weather in accordance with section 3.1.
- 2. Patrol in accordance with section 3.
- 3. If the municipality determines, as a result of its activities under paragraph 1 or 2, that there is a substantial probability of ice forming on a roadway, treat the roadway, if practicable, to prevent ice formation within the time set out in Table 1 to this section, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose. O. Reg. 366/18, s. 8.

(2) If the municipality meets the standard set out in subsection (1) and, despite such compliance, ice forms on a roadway, the roadway is deemed to be in a state of repair until the applicable time set out in Table 2 to this section expires after the municipality becomes aware of the fact that the roadway is icy. O. Reg. 366/18, s. 8.

(3) Subject to section 5.1, the standard for treating icy roadways is to treat the icy roadway within the time set out in Table 2 to this section, and an icy roadway is deemed to be in a state of repair until the applicable time set out in Table 2 to this section expires after the municipality becomes aware of the fact that a roadway is icy. O. Reg. 366/18, s. 8.

(4) For the purposes of this section, treating a roadway means applying material to the roadway, including but not limited to, salt, sand or any combination of salt and sand. O. Reg. 366/18, s. 8.

(5) For greater certainty, this section applies in respect of ice formation on bicycle lanes on a roadway, but does not apply to other types of bicycle facilities. O. Reg. 366/18, s. 8.

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Class of Highway	Time
1	6 hours
2	8 hours
3	16 hours
4	24 hours
5	24 hours

TABLE 1
ICE FORMATION PREVENTION

O. Reg. 366/18, s. 8.

#### TABLE 2 TREATMENT OF ICY ROADWAYS

Class of Highway	Time
1	3 hours
2	4 hours
3	8 hours
4	12 hours
5	16 hours

O. Reg. 366/18, s. 8.

#### Icy roadways, significant weather event

**5.1** (1) If a municipality declares a significant weather event relating to ice, the standard for treating icy roadways until the declaration of the end of the significant weather event is,

- (a) to monitor the weather in accordance with section 3.1; and
- (b) if deemed practicable by the municipality, to deploy resources to treat icy roadways, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 8.

(2) If the municipality complies with subsection (1), all roadways within the municipality are deemed to be in a state of repair with respect to any ice which forms or may be present until the applicable time in Table 2 to section 5 expires after the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 8.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

- (a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and
- (b) treat icy roadways in accordance with section 5. O. Reg. 366/18, s. 8.

#### Potholes

**6.** (1) If a pothole exceeds both the surface area and depth set out in Table 1, 2 or 3 to this section, as the case may be, the standard is to repair the pothole within the time set out in Table 1, 2 or 3, as appropriate, after becoming aware of the fact. O. Reg. 239/02, s. 6 (1); O. Reg. 366/18, s. 8 (1).

(1.1) For the purposes of this section, the surface area and depth of a pothole may be determined in accordance with subsections (1.2) and (1.3), as applicable, by a municipal employee, agent or contractor whose duties or responsibilities include one or more of the following:

1. Patrolling highways.

2. Performing highway maintenance activities.

3. Supervising staff who perform activities described in paragraph 1 or 2. O. Reg. 366/18, s. 8 (2).

(1.2) The depth and surface area of a pothole may be determined by,

- (a) performing an actual measurement; or
- (b) performing a visual estimate. O. Reg. 366/18, s. 8 (2).

(1.3) For the purposes of this section, the surface area of a pothole does not include any area that is merely depressed and not yet broken fully through the surface of the roadway. O. Reg. 366/18, s. 8 (2).

(2) A pothole is deemed to be in a state of repair if its surface area or depth is less than or equal to that set out in Table 1, 2 or 3, as appropriate. O. Reg. 239/02, s. 6 (2); O. Reg. 47/13, s. 6.

# TABLE 1 POTHOLES ON PAVED SURFACE OF ROADWAY

Class of	Surface Area	Depth	Time
Highway			
1	600 cm <sup>2</sup>	8 cm	4 days
2	800 cm <sup>2</sup>	8 cm	4 days
3	1000 cm <sup>2</sup>	8 cm	7 days
4	1000 cm <sup>2</sup>	8 cm	14 days
5	1000 cm <sup>2</sup>	8 cm	30 days

O. Reg. 239/02, s. 6, Table 1.

# TABLE 2 POTHOLES ON NON-PAVED SURFACE OF ROADWAY

Class of Highway	Surface Area	Depth	Time
3	1500 cm <sup>2</sup>	8 cm	7 days
4	1500 cm <sup>2</sup>	10 cm	14 days
5	1500 cm <sup>2</sup>	12 cm	30 days

O. Reg. 239/02, s. 6, Table 2.

 TABLE 3

 POTHOLES ON PAVED OR NON-PAVED SURFACE OF SHOULDER

Class of Highway	Surface Area	Depth	Time
1	1500 cm <sup>2</sup>	8 cm	7 days
2	1500 cm <sup>2</sup>	8 cm	7 days
3	1500 cm <sup>2</sup>	8 cm	14 days
4	1500 cm <sup>2</sup>	10 cm	30 days
5	1500 cm <sup>2</sup>	12 cm	60 days

O. Reg. 239/02, s. 6, Table 3.

#### Shoulder drop-offs

7. (1) If a shoulder drop-off is deeper than 8 cm, for a continuous distance of 20 metres or more, the standard is to repair the shoulder drop-off within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 9 (1).

(2) A shoulder drop-off is deemed to be in a state of repair if its depth is less than 8 cm. O. Reg. 366/18, s. 9 (1).

(3) In this section,

"shoulder drop-off" means the vertical differential, where the paved surface of the roadway is higher than the surface of the shoulder, between the paved surface of the roadway and the paved or non-paved surface of the shoulder. O. Reg. 239/02, s. 7 (3).

#### TABLE SHOULDER DROP-OFFS

Class of Highway	Time
1	4 days
2	4 days
3	7 days
4	14 days
5	30 days

O. Reg. 366/18, s. 9 (2).

#### Cracks

**8.** (1) If a crack on the paved surface of a roadway is greater than 5 cm wide and 5 cm deep for a continuous distance of three metres or more, the standard is to repair the crack within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 10 (1).

(2) A crack is deemed to be in a state of repair if its width or depth is less than or equal to 5 cm. O. Reg. 366/18, s. 10 (1). TABLE

		CRACKS
Column 1	Column 2	
Class of Highway	Time	
1	30 days	
2	30 days	
3	60 days	
4	180 days	
5	180 days	

#### Debris

**9.** (1) If there is debris on a roadway, the standard is to deploy resources, as soon as practicable after becoming aware of the fact, to remove the debris. O. Reg. 239/02, s. 9 (1); O. Reg. 366/18, s. 11.

(2) In this section,

"debris" means any material (except snow, slush or ice) or object on a roadway,

- (a) that is not an integral part of the roadway or has not been intentionally placed on the roadway by a municipality, and
- (b) that is reasonably likely to cause damage to a motor vehicle or to injure a person in a motor vehicle. O. Reg. 239/02, s. 9 (2); O. Reg. 47/13, s. 9.

#### Luminaires

10. (0.1) REVOKED: O. Reg. 366/18, s. 12.

(1) The standard for the frequency of inspecting all luminaires to check to see that they are functioning is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 366/18, s. 12.

(2) For conventional illumination, if three or more consecutive luminaires on the same side of a highway are not functioning, the standard is to repair the luminaires within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 12.

(3) For conventional illumination and high mast illumination, if 30 per cent or more of the luminaires on any kilometre of highway are not functioning, the standard is to repair the luminaires within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 12.

(4) Despite subsection (2), for high mast illumination, if all of the luminaires on consecutive poles on the same side of a highway are not functioning, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the luminaires. O. Reg. 366/18, s. 12.

(5) Despite subsections (1), (2) and (3), for conventional illumination and high mast illumination, if more than 50 per cent of the luminaires on any kilometre of a Class 1 highway with a speed limit of 90 kilometres per hour or more are not functioning, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the luminaires. O. Reg. 366/18, s. 12.

- (6) Luminaires are deemed to be in a state of repair,
- (a) for the purpose of subsection (2), if the number of non-functioning consecutive luminaires on the same side of a highway does not exceed two;
- (b) for the purpose of subsection (3), if more than 70 per cent of luminaires on any kilometre of highway are functioning;
- (c) for the purpose of subsection (4), if one or more of the luminaires on consecutive poles on the same side of a highway are functioning;
- (d) for the purpose of subsection (5), if more than 50 per cent of luminaires on any kilometre of highway are functioning. O. Reg. 366/18, s. 12.
- (7) In this section,

"conventional illumination" means lighting, other than high mast illumination, where there are one or more luminaires per pole;

"high mast illumination" means lighting where there are three or more luminaires per pole and the height of the pole exceeds 20 metres;

"luminaire" means a complete lighting unit consisting of,

(a) a lamp, and

(b) parts designed to distribute the light, to position or protect the lamp and to connect the lamp to the power supply. O. Reg. 239/02, s. 10 (7).

Class of Highway	Time
1	7 days
2	7 days
3	14 days
4	14 days
5	14 days

#### TABLE LUMINAIRES

#### Signs

**11.** (0.1) The standard for the frequency of inspecting signs of a type listed in subsection (2) to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 7 (1); O. Reg. 47/13, s. 11 (1); O. Reg. 366/18, s. 13.

(0.2) A sign that has been inspected in accordance with subsection (0.1) is deemed to be in a state of repair with respect to the retro-reflectivity requirements of the Ontario Traffic Manual until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the sign has ceased to meet these requirements. O. Reg. 47/13, s. 11 (2).

(1) If any sign of a type listed in subsection (2) is illegible, improperly oriented, obscured or missing, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair or replace the sign. O. Reg. 239/02, s. 11 (1); O. Reg. 23/10, s. 7 (2); O. Reg. 366/18, s. 13.

- (2) This section applies to the following types of signs:
- 1. Checkerboard.
- 2. Curve sign with advisory speed tab.
- 3. Do not enter.
- 3.1 Load Restricted Bridge.
- 3.2 Low Bridge.
- 3.3 Low Bridge Ahead.
- 4. One Way.
- 5. School Zone Speed Limit.
- 6. Stop.
- 7. Stop Ahead.
- 8. Stop Ahead, New.
- 9. Traffic Signal Ahead, New.
- 10. Two-Way Traffic Ahead.
- 11. Wrong Way.
- 12. Yield.
- 13. Yield Ahead.
- 14. Yield Ahead, New. O. Reg. 239/02, s. 11 (2); O. Reg. 23/10, s. 7 (3).

#### Regulatory or warning signs

**12.** (1) The standard for the frequency of inspecting regulatory signs or warning signs to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 8; O. Reg. 47/13, s. 12 (1); O. Reg. 366/18, s. 13.

(1.1) A regulatory sign or warning sign that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to the retro-reflectivity requirements of the Ontario Traffic Manual until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the sign has ceased to meet these requirements. O. Reg. 47/13, s. 12 (2).

(2) If a regulatory sign or warning sign is illegible, improperly oriented, obscured or missing, the standard is to repair or replace the sign within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 23/10, s. 8; O. Reg. 366/18, s. 13.

(3) In this section,

"regulatory sign" and "warning sign" have the same meanings as in the Ontario Traffic Manual, except that they do not include a sign listed in subsection 11 (2) of this Regulation. O. Reg. 23/10, s. 8.

#### TABLE REGULATORY AND WARNING SIGNS

Class of Highway	Time
1	7 days
2	14 days

3	21 days
4	30 days
5	30 days

O. Reg. 239/02, s. 12, Table.

#### Traffic control signal systems

**13.** (1) If a traffic control signal system is defective in any way described in subsection (2), the standard is to deploy resources as soon as practicable after becoming aware of the defect to repair the defect or replace the defective component of the traffic control signal system. O. Reg. 239/02, s. 13 (1); O. Reg. 366/18, s. 13.

(2) This section applies if a traffic control signal system is defective in any of the following ways:

- 1. One or more displays show conflicting signal indications.
- 2. The angle of a traffic control signal or pedestrian control indication has been changed in such a way that the traffic or pedestrian facing it does not have clear visibility of the information conveyed or that it conveys confusing information to traffic or pedestrians facing other directions.
- 3. A phase required to allow a pedestrian or vehicle to safely travel through an intersection fails to occur.
- 4. There are phase or cycle timing errors interfering with the ability of a pedestrian or vehicle to safely travel through an intersection.
- 5. There is a power failure in the traffic control signal system.
- 6. The traffic control signal system cabinet has been displaced from its proper position.
- 7. There is a failure of any of the traffic control signal support structures.
- 8. A signal lamp or a pedestrian control indication is not functioning.
- 9. Signals are flashing when flashing mode is not a part of the normal signal operation. O. Reg. 239/02, s. 13 (2).

(3) Despite subsection (1) and paragraph 8 of subsection (2), if the posted speed of all approaches to the intersection or location of the non-functioning signal lamp or pedestrian control indication is less than 80 kilometres per hour and the signal that is not functioning is a green or a pedestrian "walk" signal, the standard is to repair or replace the defective component by the end of the next business day. O. Reg. 239/02, s. 13 (3); O. Reg. 366/18, s. 13.

(4) In this section and section 14,

"cycle" means a complete sequence of traffic control indications at a location;

"display" means the illuminated and non-illuminated signals facing the traffic;

- "indication" has the same meaning as in the *Highway Traffic Act*;
- "phase" means a part of a cycle from the time where one or more traffic directions receive a green indication to the time where one or more different traffic directions receive a green indication;
- "power failure" means a reduction in power or a loss in power preventing the traffic control signal system from operating as intended;

"traffic control signal" has the same meaning as in the *Highway Traffic Act*;

"traffic control signal system" has the same meaning as in the Highway Traffic Act. O. Reg. 239/02, s. 13 (4).

#### Traffic control signal system sub-systems

14. (1) The standard is to inspect, test and maintain the following traffic control signal system sub-systems once per calendar year, with each inspection taking place not more than 16 months from the previous inspection:

- 1. The display sub-system, consisting of traffic signal and pedestrian crossing heads, physical support structures and support cables.
- 2. The traffic control sub-system, including the traffic control signal cabinet and internal devices such as timer, detection devices and associated hardware, but excluding conflict monitors.
- 3. The external detection sub-system, consisting of detection sensors for all vehicles, including emergency and railway vehicles and pedestrian push- buttons. O. Reg. 239/02, s. 14 (1); O. Reg. 47/13, s. 13 (1); O. Reg. 366/18, s. 13.

(1.1) A traffic control signal system sub-system that has been inspected, tested and maintained in accordance with subsection (1) is deemed to be in a state of repair until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the traffic control signal system sub-system has ceased to be in a state of repair. O. Reg. 47/13, s. 13 (2).

(2) The standard is to inspect, test and maintain conflict monitors every five to seven months and at least twice per calendar year. O. Reg. 239/02, s. 14 (2); O. Reg. 47/13, s. 13 (3); O. Reg. 366/18, s. 13.

(2.1) A conflict monitor that has been inspected, tested and maintained in accordance with subsection (2) is deemed to be in a state of repair until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the conflict monitor has ceased to be in a state of repair. O. Reg. 47/13, s. 13 (4).

(3) In this section,

"conflict monitor" means a device that continually checks for conflicting signal indications and responds to a conflict by emitting a signal. O. Reg. 239/02, s. 14 (3).

#### Bridge deck spalls

**15.** (1) If a bridge deck spall exceeds both the surface area and depth set out in the Table to this section, the standard is to repair the bridge deck spall within the time set out in the Table after becoming aware of the fact. O. Reg. 239/02, s. 15 (1); O. Reg. 366/18, s. 13.

(2) A bridge deck spall is deemed to be in a state of repair if its surface area or depth is less than or equal to that set out in the Table. O. Reg. 239/02, s. 15 (2); O. Reg. 47/13, s. 14.

(3) In this section,

"bridge deck spall" means a cavity left by one or more fragments detaching from the paved surface of the roadway or shoulder of a bridge. O. Reg. 239/02, s. 15 (3).

Class of Highway	Surface Area	Depth	Time
1	600 cm <sup>2</sup>	8 cm	4 days
2	800 cm <sup>2</sup>	8 cm	4 days
3	1,000 cm <sup>2</sup>	8 cm	7 days
4	1,000 cm <sup>2</sup>	8 cm	7 days
5	1,000 cm <sup>2</sup>	8 cm	7 days

#### TABLE BRIDGE DECK SPALLS

O. Reg. 239/02, s. 15, Table.

#### **Roadway surface discontinuities**

**16.** (1) If a surface discontinuity on a roadway, other than a surface discontinuity on a bridge deck, exceeds the height set out in the Table to this section, the standard is to repair the surface discontinuity within the time set out in the Table after becoming aware of the fact. O. Reg. 23/10, s. 9; O. Reg. 366/18, s. 13.

(1.1) A surface discontinuity on a roadway, other than a surface discontinuity on a bridge deck, is deemed to be in a state of repair if its height is less than or equal to the height set out in the Table to this section. O. Reg. 47/13, s. 15.

(2) If a surface discontinuity on a bridge deck exceeds five centimetres, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the surface discontinuity on the bridge deck. O. Reg. 23/10, s. 9; O. Reg. 366/18, s. 13.

(2.1) A surface discontinuity on a bridge deck is deemed to be in a state of repair if its height is less than or equal to five centimetres. O. Reg. 47/13, s. 15.

(3) In this section,

"surface discontinuity" means a vertical discontinuity creating a step formation at joints or cracks in the paved surface of the roadway, including bridge deck joints, expansion joints and approach slabs to a bridge. O. Reg. 23/10, s. 9.

#### TABLE SURFACE DISCONTINUITIES

Class of Highway	Height	Time
1	5 cm	2 days
2	5 cm	2 days
3	5 cm	7 days
4	5 cm	21 days
5	5 cm	21 days

O. Reg. 239/02, s. 16, Table.

#### Sidewalk surface discontinuities

**16.1** (1) The standard for the frequency of inspecting sidewalks to check for surface discontinuity is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 10; O. Reg. 47/13, s. 16 (1); O. Reg. 366/18, s. 13.

(1.1) A sidewalk that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to any surface discontinuity until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge of the presence of a surface discontinuity in excess of two centimetres. O. Reg. 47/13, s. 16 (2).

(2) If a surface discontinuity on or within a sidewalk exceeds two centimetres, the standard is to treat the surface discontinuity within 14 days after acquiring actual knowledge of the fact. O. Reg. 366/18, s. 14.

(2.1) REVOKED: O. Reg. 366/18, s. 14.

(3) A surface discontinuity on or within a sidewalk is deemed to be in a state of repair if it is less than or equal to two centimetres. O. Reg. 366/18, s. 14.

(4) For the purpose of subsection (2), treating a surface discontinuity on or within a sidewalk means taking reasonable measures to protect users of the sidewalk from the discontinuity, including making permanent or temporary repairs, alerting users' attention to the discontinuity or preventing access to the area of discontinuity. O. Reg. 366/18, s. 14.

(5) In this section,

"surface discontinuity" means a vertical discontinuity creating a step formation at any joint or crack in the surface of the sidewalk or any vertical height difference between a utility appurtenance found on or within the sidewalk and the surface of the sidewalk. O. Reg. 366/18, s. 14.

#### Encroachments, area adjacent to sidewalk

**16.2** (1) The standard for the frequency of inspecting an area adjacent to a sidewalk to check for encroachments is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 366/18, s. 15.

(2) The area adjacent to a sidewalk that has been inspected in accordance with subsection (1) is deemed to be in a state of repair in respect of any encroachment present. O. Reg. 366/18, s. 15.

(3) For greater certainty, the area adjacent to a sidewalk begins at the outer edges of a sidewalk and ends at the lesser of the limit of the highway, the back edge of a curb if there is a curb and a maximum of 45 cm. O. Reg. 366/18, s. 15.

(4) The area adjacent to a sidewalk is deemed to be in a state of repair in respect of any encroachment present unless the encroachment is determined by a municipality to be highly unusual given its character and location or to constitute a significant hazard to pedestrians. O. Reg. 366/18, s. 15.

(5) If a municipality determines that an encroachment is highly unusual given its character and location or constitutes a significant hazard to pedestrians, the standard is to treat the encroachment within 28 days after making such a determination, and the encroachment is deemed in a state of repair for 28 days from the time of the determination by the municipality. O. Reg. 366/18, s. 15.

(6) For the purpose of subsection (4), treating an encroachment means taking reasonable measures to protect users, including making permanent or temporary repairs, alerting users' attention to the encroachment or preventing access to the area of the encroachment. O. Reg. 366/18, s. 15.

#### Snow accumulation on sidewalks

**16.3** (1) Subject to section 16.4, the standard for addressing snow accumulation on a sidewalk after the snow accumulation has ended is,

- a) to reduce the snow to a depth less than or equal to 8 centimetres within 48 hours; and
- b) to provide a minimum sidewalk width of 1 metre. O. Reg. 366/18, s. 15.

(2) If the depth of snow accumulation on a sidewalk is less than or equal to 8 centimetres, the sidewalk is deemed to be in a state of repair in respect of snow accumulation. O. Reg. 366/18, s. 15.

(3) If the depth of snow accumulation on a sidewalk exceeds 8 centimetres while the snow continues to accumulate, the sidewalk is deemed to be in a state of repair with respect to snow accumulation, until 48 hours after the snow accumulation ends. O. Reg. 366/18, s. 15.

(4) For the purposes of this section, the depth of snow accumulation on a sidewalk may be determined in the same manner as set out in subsection 4 (4) and by the persons mentioned in subsection 4 (3) with necessary modifications. O. Reg. 366/18, s. 15.

(5) For the purposes of this section, addressing snow accumulation on a sidewalk includes,

- (a) plowing the sidewalk;
- (b) salting the sidewalk;
- (c) applying abrasive materials to the sidewalk;
- (d) applying other chemical or organic agents to the sidewalk; or
- (e) any combination of the methods described in clauses (a) to (d). O. Reg. 366/18, s. 15.

#### Snow accumulation on sidewalks, significant weather event

**16.4** (1) If a municipality declares a significant weather event relating to snow accumulation, the standard for addressing snow accumulation on sidewalks until the declaration of the end of the significant weather event is,

- (a) to monitor the weather in accordance with section 3.1; and
- (b) if deemed practicable by the municipality, to deploy resources to address snow accumulation on sidewalks starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 15.

(2) If the municipality complies with subsection (1), all sidewalks within the municipality are deemed to be in a state of repair with respect to any snow present until 48 hours following the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 15.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

- (a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and
- (b) address snow accumulation on sidewalks in accordance with section 16.3. O. Reg. 366/18, s. 15.

#### Ice formation on sidewalks and icy sidewalks

**16.5** (1) Subject to section 16.6, the standard for the prevention of ice formation on sidewalks is to,

- (a) monitor the weather in accordance with section 3.1 in the 24-hour period preceding an alleged formation of ice on a sidewalk; and
- (b) treat the sidewalk if practicable to prevent ice formation or improve traction within 48 hours if the municipality determines that there is a substantial probability of ice forming on a sidewalk, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose. O. Reg. 366/18, s. 15.

(2) If ice forms on a sidewalk even though the municipality meets the standard set out in subsection (1), the sidewalk is deemed to be in a state of repair in respect of ice until 48 hours after the municipality first becomes aware of the fact that the sidewalk is icy. O. Reg. 366/18, s. 15.

(3) The standard for treating icy sidewalks after the municipality becomes aware of the fact that a sidewalk is icy is to treat the icy sidewalk within 48 hours, and an icy sidewalk is deemed to be in a state of repair for 48 hours after it has been treated. O. Reg. 366/18, s. 15.

(4) For the purposes of this section, treating a sidewalk means applying materials including salt, sand or any combination of salt and sand to the sidewalk. O. Reg. 366/18, s. 15.

#### Icy sidewalks, significant weather event

**16.6** (1) If a municipality declares a significant weather event relating to ice, the standard for addressing ice formation or ice on sidewalks until the declaration of the end of the significant weather event is,

- (a) to monitor the weather in accordance with section 3.1; and
- (b) if deemed practicable by the municipality, to deploy resources to treat the sidewalks to prevent ice formation or improve traction, or treat the icy sidewalks, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 15.

(2) If the municipality complies with subsection (1), all sidewalks within the municipality are deemed to be in a state of repair with respect to any ice which forms or is present until 48 hours after the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 15.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

- (a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and
- (b) address the prevention of ice formation on sidewalks or treat icy sidewalks in accordance with section 16.5. O. Reg. 366/18, s. 15.

#### Winter sidewalk patrol

**16.7** (1) If it is determined by the municipality that the weather monitoring referred to in section 3.1 indicates that there is a substantial probability of snow accumulation on sidewalks in excess of 8 cm, ice formation on sidewalks or icy sidewalks, the standard for patrolling sidewalks is to patrol sidewalks that the municipality selects as representative of its sidewalks at intervals deemed necessary by the municipality. O. Reg. 366/18, s. 15.

(2) Patrolling a sidewalk consists of visually observing the sidewalk, either by driving by the sidewalk on the adjacent roadway or by driving or walking on the sidewalk or by electronically monitoring the sidewalk, and may be performed by persons responsible for patrolling roadways or sidewalks or by persons responsible for or performing roadway or sidewalk maintenance activities. O. Reg. 366/18, s. 15.

#### Closure of a highway

**16.8** (1) When a municipality closes a highway or part of a highway pursuant to its powers under the Act, the highway is deemed to be in a state of repair in respect of all conditions described in this Regulation from the time of the closure until the highway is re-opened by the municipality. O. Reg. 366/18, s. 15.

- (2) For the purposes of subsection (1), a highway or part of a highway is closed on the earlier of,
- (a) when a municipality passes a by-law to close the highway or part of the highway; and
- (b) when a municipality has taken such steps as it determines necessary to temporarily close the highway or part of a highway. O. Reg. 366/18, s. 15.

#### Declaration of significant weather event

**16.9.** A municipality declaring the beginning of a significant weather event or declaring the end of a significant weather event under this Regulation shall do so in one or more of the following ways:

- 1. By posting a notice on the municipality's website.
- 2. By making an announcement on a social media platform, such as Facebook or Twitter.
- 3. By sending a press release or similar communication to internet, newspaper, radio or television media.
- 4. By notification through the municipality's police service.
- 5. By any other notification method required in a by-law of the municipality. O. Reg. 366/18, s. 15.

#### **REVIEW OF REGULATION**

#### Review

**17.** (1) The Minister of Transportation shall conduct a review of this Regulation and Ontario Regulation 612/06 (Minimum Maintenance Standards for Highways in the City of Toronto) made under the *City of Toronto Act, 2006* every five years. O. Reg. 613/06, s. 2.

(2) Despite subsection (1), the first review after the completion of the review started before the end of 2007 shall be started five years after the day Ontario Regulation 23/10 is filed. O. Reg. 23/10, s. 11.

**18.** OMITTED (PROVIDES FOR COMING INTO FORCE OF PROVISIONS OF THIS REGULATION). O. Reg. 239/02, s. 18.

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# **Arctic outflow**

Table 1. Alerting parameters Environment Canada uses for issuing an Arctic Outflow Warning

Alert type	Location	Threshold criteria
Warning	Coastal British Columbia regions only	Any combination of <u>wind</u> speed and temperature giving a <u>wind chill</u> of -20 or lower for 6 hours or more. A separate Wind Warning is not required.

## Blizzard

Alert type	Location	Threshold criteria
Warning	National, except North of the tree line	When <u>winds</u> of 40 km/hr or greater are expected to cause widespread reductions in <u>visibility</u> to 400 metres or less, due to <u>blowing</u> <u>snow</u> , or blowing snow in combination with falling <u>snow</u> , for at least <b>4 hours</b> .
Warning	North of the tree line	Same as above, except conditions are expected to last for at least <b>6 hours</b> .

## Blowing snow

 Table 3. Alerting parameters Environment Canada uses for issuing a Blowing Snow Advisory

Alert type	Location	Threshold criteria
Advisory	National, south of tree line	When <u>blowing snow</u> , caused by <u>winds</u> of at least 30 km/h, is expected to reduce <u>visibility</u> to 800 metres or less for at least 3 hours.

## **Dust storm**

Table 4. Alerting parameters Environment Canada uses for issuing a Dust Storm Warning

Alert type	Location	Threshold criteria
Warning	Alberta, Saskatchewan and Manitoba (ONLY)	When blowing dust is expected to occur, reducing <u>visibility</u> to 800 metres or less for one hour or more.

## Extreme cold

 Table 5. Alerting parameters Environment Canada uses for issuing an Extreme Cold Warning

Alert type	Location	Threshold criteria
Warning	South-central and Southwestern Ontario	Issued when the temperature or wind chill is expected to reach minus 30°C for at least two hours.
Warning	Southeastern Ontario, Southern Interior and Coastal B.C., Atlantic Canada except Labrador	Issued when the temperature or wind chill is expected to reach minus 35°C for at least two hours.
Warning	Western, Central and Eastern Quebec	Issued when the temperature or wind chill is expected to reach minus 38°C for at least two hours.
Warning	Central Interior B.C., Northern Ontario, Prairies - Alberta, Southern Saskatchewan, Southern Manitoba	Issued when the temperature or wind chill is expected to reach minus 40°C for at least two hours.
Warning	Far Northern Ontario, northern Saskatchewan, northern Manitoba, Northern B.C., Labrador	Issued when the temperature or wind chill is expected to reach minus 45°C for at least two hours.
Warning	Northern Quebec	Issued when the temperature or wind chill is expected to reach minus 48°C for at least two hours.
Warning	Yukon, NWT (except Paulatuk, Sachs Harbour and Ulukhaktok), Baffin Island (except Igloolik and Hall Beach), extreme northeast Manitoba	Issued when the temperature or wind chill is expected to reach minus 50°C for at least two hours.

Table 5. Alerting parameters Environment Canada uses for issuing an Extreme Cold Warning			
Alert type	Location	Threshold criteria	
Warning	Nunavik	Issued when the temperature or wind chill is expected to reach minus 52°C for at least two hours.	
Warning	NWT (Paulatuk, Sachs Harbour and Ulukhaktok only), Baffin Island (Igloolik and Hall beach only) Western and Northern Nunavut	Issued when the temperature or wind chill is expected to reach minus 55°C for at least two hours.	

# Flash freeze

 Table 6. Alerting parameters Environment Canada uses for issuing a Flash Freeze Warning

Alert type	Location	Threshold criteria
Warning	National, except Nunavik*	When significant ice is expected to form on roads, sidewalks or other surfaces over much of a region because of the freezing of residual water from either melted <u>snow</u> , or falling/fallen <u>rain</u> due to a rapid drop in <u>temperatures</u> .
*No <u>alert</u> of this type exists for this region at this moment.		

# Fog

### Table 7. Alerting parameters Environment Canada uses for issuing a Fog Advisory

Alert type	Location	Threshold criteria
Advisory	Newfoundland and Labrador, New Brunswick, Nova Scotia and Prince Edward Island	When low visibilities in <u>fog</u> are expected for at least <b>18 hours</b> .
Advisory	Elsewhere National, except Nunavik*	When low visibilities in <u>fog</u> are expected for at least <b>six hours</b> .
*No alert of	this type exists for this region at this moment.	

## Freezing drizzle

 Table 8. Alerting Parameters Environment Canada uses for issuing a Freezing Drizzle Advisory

Alert type	Location	Threshold criteria
Advisory	National, except Nunavik*	When a period of <u>freezing drizzle</u> is expected for at least <b>eight hours</b> .

\*No <u>alert</u> of this type exists for this region at this moment.

# Freezing rain

Alert type	Location	Threshold criteria
Warning	British Columbia, Yukon, Alberta, Saskatchewan, Manitoba, Northwest Territories, Nunavut, Ontario and Quebec (except Nunavik*)	When <u>freezing rain</u> is expected to pose a <u>hazard</u> to transportation or property; <b>Or</b> When freezing rain is expected for at least <b>two hours</b> .
Warning	Nova Scotia, New Brunswick, Prince Edward Island, Magdalen Islands, Newfoundland and Labrador	When <u>freezing rain</u> is expected to pose a <u>hazard</u> to transportation or property; <b>Or</b> When freezing rain is expected for at least <b>four hours</b> .

 Table 9. Alerting Parameters Environment Canada uses for issuing a Freezing Rain Warning

\*No <u>alert</u> of this type exists for this region at this moment.

## Frost

Table 10. Alerting parameters Environment Canada uses for issuing a Frost Advisory

Alert type	Location	Threshold criteria

 Table 10. Alerting parameters Environment Canada uses for issuing a Frost Advisory

Alert type	Location	Threshold criteria
Advisory	Southern portions of Canada except British Columbia	Issued during the growing season when widespread <u>frost</u> formation is expected over an extensive area. Surface <u>temperatures</u> are expected to fall near freezing in the overnight period.

## Heat

Alert type	Location	Threshold criteria
Warning	Alberta - Extreme south (including Pincher Creek, Cardston, Lethbridge, and Medicine Hat)	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 32°C or warmer and nighttime minimum temperatures are expected to fall to 16°C or warmer.
Warning	Alberta - Remainder of Alberta (including the Cities of Edmonton, Red Deer and Calgary)	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 14°C or warmer.

Table 11. Alerting parameters Environment Canada uses for issuing a Heat Warning			
Alert type	Location	Threshold criteria	
Warning	British Columbia – Northeast – Northern Interior, Central Interior, including Chilcotin, Cariboos, Prince George, North Thompson, and North Columbia, BC Peace, Bulkley Valley and the Lakes and Fort Nelson	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 14°C or warmer.	
Warning	British Columbia – Northwest – Central and Northern Coast (inland and coastal regions), Northern Vancouver Island, and northwestern BC	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 28°C or warmer and nighttime minimum temperatures are expected to fall to 13°C or warmer.	
Warning	British Columbia – Southeast – Fraser Valley, Southern interior (including South Thompson and Okanagan), Kootenays, and Columbias (south)	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 35°C or warmer and nighttime minimum temperatures are expected to fall to 18°C or warmer.	
Warning	British Columbia – Southwest – Metro Vancouver, Howe Sound, Whistler, Sunshine Coast, Vancouver Island (except northern sections)	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 16°C or warmer.	
Warning	Manitoba - North	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 16°C or warmer. Or	

Alert type	Location	Threshold criteria
		Issued when 2 or more consecutive days of humidex values are expected to reach 34 or higher.
Warning	Manitoba - South	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 32°C or warmer and nighttime minimum temperatures are expected to fall to 16°C or warmer. Or Issued when 2 or more consecutive days of humidex values are expected to reach 38 or higher.
Warning	New Brunswick	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 30°C or warmer and nighttime minimum temperatures are expected to fall to 18°C or warmer. Or Issued when 2 or more consecutive days of humidex values are expected to reach 36 or higher.
Warning	Newfoundland and Labrador	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 26°C or warmer and nighttime minimum temperatures are expected to fall to 15°C or warmer. Or Issued when 2 or more consecutive days of humidex values are expected to

Alert type	Location	Threshold criteria
		reach 34 or higher.
Warning	Northwest Territories	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 14°C or warmer.
Warning	Nova Scotia	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 16°C or warmer. Or Issued when 2 or more consecutive days of humidex values are expected to reach 36 or higher.
Warning	Nunavut	No Heat Warning Program at this time.
Warning	Ontario - extreme southwest (Essex and Chatham-Kent Counties)	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 31°C or warmer and nighttime minimum temperatures are expected to fall to 21°C or warmer. Or Issued when 2 or more consecutive days of humidex values are expected to

Alert type	Location	Threshold criteria
		reach 42 or higher.
Warning	Ontario - North	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 18°C or warmer. Or Issued when 2 or more consecutive days of humidex values are expected to reach 36 or higher.
Warning	Ontario - remainder of southern Ontario (including the District of Parry Sound)	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 31°C or warmer and nighttime minimum temperatures are expected to fall to 20°C or warmer. Or Issued when 2 or more consecutive days of humidex values are expected to reach 40 or higher.
Warning	Prince Edward Island	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 27°C or warmer and nighttime minimum temperatures are expected to fall to 18°C or warmer. Or Issued when 2 or more consecutive days of humidex values are expected to

Alert type	Location	Threshold criteria
		reach 35 or higher.
Warning	Quebec, except Nunavik*	Issued when the humidex value is 40 or higher and when the temperature is 30°C or warmer, and both conditions persist for at least one hour. Or Issued when temperature is 40°C or warmer.
Warning	Saskatchewan - North and Central (including Meadow Lake, The Battlefords, Prince Albert, and Hudson Bay)	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 14°C or warmer. Or Issued when 2 or more consecutive days of humidex values are expected to reach 34 or higher.
Warning	Saskatchewan - South	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 32°C or warmer and nighttime minimum temperatures are expected to fall to 16°C or warmer. Or Issued when 2 or more consecutive days of humidex values are expected to reach 38 or higher.

Alert type	Location	Threshold criteria
Warning	Yukon Territory	Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 28°C or warmer and nighttime minimum temperatures are expected to fall to 13°C or warmer.

\*No <u>alert</u> of this type exists for this region at this moment.

## Hurricane

 Table 12. Alerting Parameters Environment Canada uses for issuing a Hurricane Watch and/or Warning

Alert type	Location	Threshold criteria
Watch	National, including all coastal and inland regions	When, within the following 36 hours, a <u>hurricane</u> or a developing hurricane is expected to pose a possible threat, with the risk of <u>hurricane force winds</u> (average sustained winds of 118 km/h or higher) threatening the area.
Warning	National, including all coastal and inland	When hurricane-force gales (average sustained winds of 118 km/h or higher) caused by a <u>hurricane</u> , or a strong <u>tropical storm</u> that may strengthen to hurricane force before making landfall, are expected to occur in 24 hours or less. It may also include areas where <u>storm</u>

 Table 12. Alerting Parameters Environment Canada uses for issuing a Hurricane Watch and/or Warning

Alert type	Location	Threshold criteria
	regions	surge or exceptionally high waves are expected, even though winds may be less than hurricane force.

## Rainfall

Table 13. Alerting parameters for a Short Duration Rainfall (Heavy Downpour) Warning

Alert type	Location	Threshold criteria
Warning	Alberta, Saskatchewan, Manitoba, Ontario, and Quebec (except Nunavik*)	When 50 mm or more of $\underline{rain}$ is expected within one hour.
Warning	Interior dry sections of British Columbia	When 15 mm or more of <u>rain</u> is expected within one hour.
Warning	Remaining sections of British Columbia, Yukon, Northwest Territories, Nunavut,	When 25 mm or more of <u>rain</u> is expected

Table 13. Alerting parameters for a Short Duration Rainfall (Heavy Downpour) Warning			
Alert type	Location	Threshold criteria	
	New Brunswick, Prince Edward Island, Nova Scotia, Newfoundland and Labrador	within one hour.	
Table 14. Alerting parameters Environment Canada uses for issuing a Long Duration Rainfall Warning in the Summer			
Alert type	Location	Threshold criteria	
Warning	National, except Nunavik* and portions of British Columbia, as specified below	When 50 mm or more of <u>rain</u> is expected within 24 hours; or When 75 mm or more of rain is expected within 48 hours.	
Warning	NEW - Interior dry sections of British Columbia	When 25 mm or more of <u>rain</u> is expected within 24 hours.	
Warning	Inland Vancouver Island, West Vancouver Island, North Vancouver Island, Central Coast - coastal sections,	When 100 mm or more of <u>rain</u> is expected	

Table 13. Alerting parameters for a Short Duration Rainfall (Heavy Downpour) Warning			
Alert type	Location	Threshold criteria	
	and North Coast - coastal sections	within 24 hours.	
Table 15. Alerting parameters Environment Canada uses for issuing a Long Duration Rainfall Warning in the Winter			
Alert type	Location	Threshold criteria	
Warning	National, except Nunavik* and British Columbia	When 25 mm or more of <u>rain</u> is expected within 24 hours.	
Warning	British Columbia, except except Inland Vancouver Island, West Vancouver Island, North Vancouver Island, Central Coast - coastal sections, and North Coast - coastal sections	When 50 mm or more of <u>rain</u> is expected within 24 hours; or When 75 mm or more of rain is expected within 48 hours.	
Warning	Inland Vancouver Island, West Vancouver Island, North Vancouver Island,	When 100 mm or more of <u>rain</u> is expected within 24	

<b>Table 15. Alerting parameters Environment</b>	Canada uses for issuing a Long Du	ration Rainfall Warning in the Winter
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Alert type	Location	Threshold criteria
	Central Coast - coastal sections, and North Coast - coastal sections	hours.

### Table 16. Alerting parameters Environment Canada uses for issuing a Long Duration Rainfall Warning during a Thaw Only

Alert type	Location	Threshold criteria
Warning	Interior British Columbia, Fort Nelson, Muncho Lake Park - Stone Mountain Park, Dease Lake, Cassiar Mountains, and Atlin	When 25 mm or more of <u>rain</u> is expected to within 24 hours.
*No alert o	of this type exists for this region at this moment	

The <u>alert</u> of this type exists for this region at this moment.

## Severe thunderstorm

 Table 17. Alerting parameters Environment Canada uses for issuing a Severe Thunderstorm Watch and/or Warning

Alert type	Location	Threshold criteria
Watch	National, except Nunavik*	<ul> <li>When conditions are favourable for the development of severe <u>thunderstorms</u> with one or more of the following conditions:</li> <li>Wind gusts of 90 km/h or greater, which could cause structural wind damage;</li> <li><u>Hail</u> of two centimeters (cm) or larger in diameter; or</li> <li>Heavy rainfall, as per rainfall criteria, excluding those for winter and during thaw (see above).</li> </ul>
Warning	National, except Nunavik*	<ul> <li>When there is evidence based on <u>radar</u>, satellite pictures, or from a reliable spotter that any one or more of the following three <u>weather</u> conditions is imminent or occurring:</li> <li>Wind gusts of 90 km/h or greater, which could cause structural wind damage;</li> <li><u>Hail</u> of two centimeters (cm) or larger in diameter; or</li> <li>Heavy rainfall, as per rainfall criteria, excluding those for winter and during thaw (see above).</li> </ul>

# Snowfall

Alert type	Location	Threshold criteria

Table 18. Alerting parameters Environment Canada uses for issuing a Snowfall Warning		
Alert type	Location	Threshold criteria
Warning	Newfoundland and Labrador, New Brunswick, Nova Scotia, Prince Edward Island, Magdalen Islands, Quebec (except Nunavik*), Ontario and the following regrions of British Columbia: Whistler, Howe Sound, Inland Vancouver Island, North Columbia, West Columbia, Kinbasket, Elk Valley, Yoho Park - Kootenay Park, North Coast - Inland Sections, West Kootenay, Arrow Slocan Lakes, Kootenay Lake, Cassiar Mountains	When 15 cm or more of <u>snow</u> falls within 12 hours or less.
Warning	British Columbia: Southern and Central Coast - coastal sections	When 10 cm or more of <u>snow</u> falls within 12 hours or less; or When five cm or more of snow falls within six hours or less.
Warning	Haines Skagway roads, Yukon / British Columbia	When 20 cm or more of <u>snow</u> falls within 24 hours or less.
Warning	Alberta, Saskatchewan, Manitoba, Northwest Territories, Nunavut, Yukon, and all remaining areas of British Columbia	When 10 cm or more of <u>snow</u> falls within 12 hours or less.
*No alert of	of this type exists for this region at this moment.	

# Snow squall

 Table 19. Alerting parameters Environment Canada uses for issuing a Snow Squall Watch

Alert type	Location	Threshold criteria		
Open-Wa	ter			
Watch	National, except Nunavik*	<ul> <li>When conditions are favourable for the development of open water <u>snow squall</u> down wind of large bodies of water, like the Great Lakes, with one or more of the following conditions:</li> <li>Localized, intense snowfall producing snowfall amounts of 15 cm or more in 12 hours or less.</li> <li>Reduced <u>visibility</u> (less than 400 metres) caused by heavy snow with or without <u>blowing snow</u> for 3 hours or more.</li> </ul> Note that local <u>snow</u> accumulations may be significant.		
Frontal	Frontal			
Watch	National, except Nunavik*	When conditions are favourable for the development of brief periods of very poor visibilities caused by heavy snow and blowing snow.		
*No <u>alert</u>	of this type exists for t	his region at this moment.		

 Table 20. Alerting parameters Environment Canada uses for issuing a Snow Squall Warning

Alert type	Location	Threshold criteria
Open-Wa	ter	
Warning	National, except Nunavik*	<ul> <li>When, down wind of large bodies of water, like the Great Lakes, <u>snow squalls</u> are imminent or occurring with one or more of the following conditions being produced:</li> <li>Localized, intense snowfall producing snowfall amounts of 15 cm or more in 12 hours or less.</li> <li>Reduced <u>visibility</u> (less than 400 metres) caused by heavy snow with or without <u>blowing snow</u> for 3 hours or more.</li> <li>Note that local <u>snow</u> accumulations may be significant.</li> </ul>
Frontal		
Warning	National, except Nunavik*	When there is a brief period (less than one hour) of very poor <u>visibility</u> (400 m or less), caused by heavy snow and <u>blowing snow</u> , and accompanied by strong, gusty winds of 45 km/h or greater, is expected to occur with the passage of a <u>cold front</u> .
*No <u>alert</u>	of this type exists fo	or this region at this moment.

Storm surge

Alert type	Location	Threshold criteria

Table 21. Alerting parameters	Environment	Canada uses for	<sup>,</sup> issuing a S	torm Surge Warning
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Alert type	Location	Threshold criteria
Warning	Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and Labrador, Quebec - along the St. Lawrence and Gulf of St. Lawrence coastal areas and the Magdalen Islands	Issued for abnormally high water levels and high waves (storm surge or storm tide) caused by storms, which have the potential to cause coastal flooding. This usually occurs when astronomical tides are at their maximum.

# Tornado

 Table 22. Alerting parameters Environment Canada uses for issuing a Tornado Watch and/or Warning

Alert type	Location	Threshold criteria
Watch	National, except Nunavik*	When conditions are favourable for the development of severe <u>thunderstorms</u> with one or more <u>tornadoes</u> .
Warning	National, except Nunavik*	When a <u>tornado</u> has been reported; or when there is evidence based on <u>radar</u> , or from a reliable spotter that a tornado is imminent.
*No clort of	f this type sylists for this rea	ion of this moment

\*No <u>alert</u> of this type exists for this region at this moment.

# **Tropical storm**

 Table 23. Alerting parameters Environment Canada uses for issuing a Tropical Storm Watch and/or Warning

Alert type	Location	Threshold criteria
Watch	National, including all coastal and inland regions	<ul> <li>When, within the following 36 hours, a <u>tropical storm</u> or a developing tropical storm is expected to pose a possible threat, with the risk of tropical-storm force winds (average sustained winds of 63-117 km/h) threatening the area. This watch could be issued for:</li> <li>A <u>tropical storm</u>; or</li> <li>A <u>hurricane</u> that might approach an area but be far enough away that it is expected to bring gales that are less than hurricane force (118 km/h or higher).</li> </ul>
Warning	National, including all coastal and inland regions	When coastal and/or coastal winds of 63 to 117 km/h caused by a tropical cyclone are expected to occur.

# Tsunami

 Table 24. Alerting parameters Environment Canada uses for issuing a Tsunami Alert

Alert type	Location	Threshold criteria
Advisory	<b>East Coast</b> : Coastal areas of Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and Labrador, and areas of Quebec adjacent to the St. Lawrence River estuary and Gulf of St. Lawrence	A <u>tsunami</u> advisory indicates a tsunami with the potential to produce strong currents or waves and is dangerous to those in or very near the water is

Alert type	Location	Threshold criteria
	West Coast : Coastal areas and inlets of British Columbia	<ul> <li>imminent, expected, or occurring.</li> <li>Large inundations are not expected in areas under advisory status.</li> <li>Note: Tsunami advisories are issued in partnership with provincial and federal organizations in response to a mesage from the <u>National Tsunami</u> <u>Warning Center</u>.</li> </ul>
Warning	<ul> <li>East Coast : Coastal areas of Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and Labrador, and areas of Quebec adjacent to the St. Lawrence River estuary and Gulf of St. Lawrence</li> <li>West Coast : Coastal areas and inlets of British Columbia</li> </ul>	A tsunami warning indicates that a tsunami is imminent, expected, or occurring and that coastal locations in the warned area should expect widespread flooding. Note: Tsunami warnings are issued in partnership with provincial and federal organizations in response to a mesage from the <u>National Tsunami Warning</u> <u>Center</u> .
Watch	<ul> <li>East Coast : Coastal areas of Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and Labrador, and areas of Quebec adjacent to the St. Lawrence River estuary and Gulf of St. Lawrence</li> <li>West Coast : Coastal areas and inlets of British Columbia</li> </ul>	A tsunami watch is an early alert issued to areas which may later be impacted by a tsunami. Note: Tsunami watches are issued in partnership with provincial and federal organizations in response to a mesage from the <u>National Tsunami Warning</u> <u>Center</u> .

## Table 24. Alerting parameters Environment Canada uses for issuing a Tsunami Alert

# Weather

 Table 25. Alerting parameters Environment Canada uses for issuing a Weather Advisory and/or Warning

Alert type	Location	Threshold criteria
Advisory	National, except Nunavik*	A generic weather advisory. One example might be on days when funnel clouds are expected, but a Tornado alert would not be appropriate.
Warning	National, except Nunavik*	A generic weather warning may be issued for extreme weather events for which there is no suitable warning type, because they rarely occur. A generic weather warning may also be issued for other weather events during situations where the environment is vulnerable due to pre- existing conditions and any further weather could result in a significant <u>hazard</u> . For example: 50 km/h <u>winds</u> following an ice storm which could cause structural wind damage. A generic weather warning may also be issued for situations where the event is not expected to reach warning criteria values, but there is a special reason for the warning. For example: the first event of the season, or an off-season event.
*No <u>alert</u> o	of this type exists	for this region at this moment.

## Wind

Alert type	Location	Threshold criteria

Table 26. Alerting parameters Environment Canada uses for issuing a Wind Warning			
Alert type	Location	Threshold criteria	
Warning	National Including: Les Suêtes (The warning covers only the coast of the "INVERNESS COUNTY - MABOU AND NORTH" forecast region in Nova Scotia)	70 km/h or more sustained <u>wind;</u> and/or Gusts to 90 km/h or more.	
Warning	<ul> <li>Except: Alberta Crowsnest Pass - Pincher Creek - Waterton Lakes Nat. Park Cardston - Fort Macleod - Magrath City of Lethbridge;</li> <li>Newfoundland and Labrador, including: Wreckhouse Winds (The warning covers only the Wreckhouse area of the West Coast of Newfoundland)</li> <li>Yukon Dempster</li> <li>British Columbia Western Vancouver Island</li> </ul>	80 km/h or more sustained <u>wind</u> ; and/or Gusts to 100 km/h or more.	
Warning	Except: British Columbia North Vancouver Island	90 km/h or more sustained <u>wind;</u> and/or	

Table 26. Alerting paramet	ers Environment	Canada uses	for issuing a	Wind Warning
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Alert type	Location	Threshold criteria
	Central Coast - coastal sections North Coast - coastal sections Haida Gwaii	Gusts to 110 km/h or more.

## Winter storm\*\*

### Table 27. Alerting parameters Environment Canada uses for issuing a Winter Storm Watch and/or Warning

Alert type	Location	Threshold criteria
Watch	National, except Nunavik*	<ul> <li>When conditions are favourable for the development of severe and potentially dangerous winter <u>weather</u>, including:</li> <li>A <u>blizzard</u>;</li> <li>A major snowfall (25 cm or more within a 24 hour period); and</li> <li>A significant snowfall (snowfall warning criteria amounts) combined with other winter weather hazard types such as: <u>freezing rain</u>, rainfall (over coastal BC only), strong winds, <u>blowing snow</u> and/or extreme <u>wind chill</u>.</li> </ul>
Warning	National, except	When severe and potentially dangerous winter weather conditions are expected, including:

Table 27. Alerting parameters Environment Canada uses for issuing a Winter Storm Watch and/or Warning

Alert type	Location	Threshold criteria
	Nunavik*	<ul> <li>A major snowfall (25 cm or more within a 24 hour period); and</li> <li>A significant snowfall (snowfall warning criteria amounts) combined with other cold weather precipitation types such as: <u>freezing</u> rain, strong winds, <u>blowing snow</u> and/or extreme cold.</li> </ul>
		Blizzard conditions may be part of an intense winter storm, in which case a blizzard warning is issued instead of a winter storm warning.

\*No <u>alert</u> of this type exists for this region at this moment.

\*\*Winter storm conditions are not necessarily restricted to the winter season, and may occur in the late autumn and early spring, as well.

# Additional information in all alerts

The alert statements will include impact and call-to-action statements, designed to help Canadians be more aware of the risk of severe weather. This will allow them to take appropriate action to protect themselves, their families and their property.

A Call to Action statement provides information on how Canadians can protect themselves, family or property in this specific set of circumstances - some examples of a Call to Action statement are:

- Strong winds can cause unusually high waves. Keep a safe distance from the waterfront to avoid being swept away.
- It is recommended to stay indoors. If this is not possible, limit time spent outdoors and exposure to the cold as much as possible to reduce the
  risk of frostbite and hypothermia.
- Public Safety Canada encourages everyone to make an emergency plan and get an emergency kit with drinking water, food, medicine, a first-aid kit and a flashlight.

An Impact statement is designed to indicate what could happen if the forecast conditions occur - some examples of an Impact statement are:

- Surfaces such as highways, roads, walkways and parking lots will become icy, slippery and extremely hazardous. Be prepared for winter conditions at higher elevations. •
- •

Twitter hashtags, such as #bcstorm and #ONstorm will also be included in the alert statements so that Canadians can report local severe weather observations to Environment Canada. Note that hashtags are case-insensitive.