



Beneficial Practices Worksheet



Winter maintenance for multi-residential and commercial properties



Version 1 2017

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www.regionofwaterloo.ca/winterplan
This document is available in alternate formats upon request.

Section 1

The importance of a winter maintenance plan

This worksheet includes information to assist multi-residential and commercial property owners and staff with their winter maintenance planning. Implementing a complete winter maintenance plan can improve winter safety and salting practices.

Over salting – which includes de-icing products - can increase repair and maintenance costs for landscaping and concrete structures and impacts municipal water supply sources.

Before you start

Before completing this worksheet, the Region of Waterloo recommends you first confirm the property is not in a wellhead protection area.

Properties in wellhead protection areas may be subject to the Grand River Source Protection Plan and may require the negotiation of a Risk Management Plan with the Region of Waterloo. Financial support may also be available to implement the Risk Management Plan.

To find out if the property requires a Risk Management Plan:

1. Go to <http://taps.regionofwaterloo.ca>
2. Click on “Does the Source Protection Plan apply to my property?”
3. Enter the property location
4. Answer questions as prompted
5. Follow instructions on how to proceed

To learn more go to www.regionofwaterloo.ca/sourceprotection.

Create your winter maintenance plan

- Complete a property site assessment
 - Complete a visual inspection of the property
 - Use a property site map to include applicable identifiers. Refer to the end of this worksheet for a sample map with possible identifiers.
 - Complete Sections 2 and 3 of this worksheet
- Develop and implement your winter maintenance plan
 - Review your completed worksheet and property site map for areas of improvement
- Review the plan annually with your winter maintenance team
 - Are there changes to the property requiring updates to your winter maintenance plan?
 - Does your team require training?
 - How effective was the plan last year? Can you identify areas for improvement?
- Additional resources available at www.regionofwaterloo.ca/winterplan



Section 2 Property and contact information

1. Property information

Property location:

Municipal address: _____

2. Contact information

Property owner:

Name: _____

Company: _____

Mailing address: _____

Phone number: _____

Email address: _____

Property tenant (if applicable):

Name: _____

Company: _____

Mailing address: _____

Phone number: _____

Email address: _____

Property contractor (if applicable, and where related to activity or activities in this worksheet):

Name: _____

Company: _____

Mailing address: _____

Phone number: _____

Email address: _____

3. Person(s) engaged in activity or activities

Who is engaged in, or responsible for, the activity or activities addressed in this worksheet (check all that apply):

- Owner
- Tenant
- Contractor
- Other (e.g. property/site manager)

If "Other" is indicated, please provide contact information below:

Name: _____

Job title: _____

Company: _____

Mailing address: _____

Phone number: _____

Email address: _____

Section 3

Beneficial management practices

The following section contains the beneficial management practices that will protect our water and form the basis of your Winter Maintenance Plan. Under each practice indicate the most accurate status and provide additional information in the large boxes provided as follows:

- In place: describe what you are doing or have done and indicate the location on the site map
- Planned: describe how and when you will have the practice in place, and indicate the new location (where applicable) on the site map
- Not practical: describe the reason and provide an alternative practice that can achieve a similar result

If you require additional space, provide information as an attachment and include a note in the details box.

1. Certifications, training and tracking

S.1. Property is Smart About Salt™ Certified

- Completed. Certification date:
- Planned or in progress
- Not planned

S.2. Individuals (employees and/or contractors) performing or supervising winter maintenance activities are Smart About Salt™ Trained

- Completed
 - Winter maintenance staff have successfully completed Smart About Salt™ Operator Training
 - Winter maintenance is completed by a Smart About Salt™ Certified Contractor
- Planned

S.3. Maintain annual documentation of winter maintenance activities and employee and/or contractor training.

- Documentation may include:
 - Weather and site condition logs
 - Application records
 - Training records
 - Spreader calibration logs
 - Salt and snow management protocols: application rates, snow plowing and storage, salt storage inspections

Completed

Planned

2. Salt contract

Not applicable. Winter maintenance is not or will not be contracted

S.4. Contract salt by unit price per event or lump sum per season

- Many contracts are “salt extra” where the client pays based on how much salt is applied. To encourage contractors to use less salt, the basis of payment for new contracts should be unit price per event or lump sum per season

Completed

Planned

S.5. Contract specifies that all winter maintenance activities are performed by persons who have successfully completed Smart About Salt™ Operator Training

Completed

Planned



3. Ice formation prevention and parking lot design

S.6. Direct roof drainage away from paved areas, including walkways and entrances

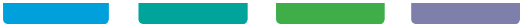
- In place
- Planned
- Not practical

S.7. Maintain pavement to ensure impermeability, to allow for complete snow removal, and to prevent ponding

- Examples where ponding may occur include around raised catch basins and low areas
- In place
- Planned

S.8. Close off areas not requiring maintenance during winter months

- Examples include seasonal walkways, redundant stairwells and overflow parking
- In place
- Planned
- Not practical



4. Winter Maintenance Practices

S.9. Clean up excess applied salt

- If using contractor, notify them to assess the application rate and clean up excess applied salt
 - Train staff to recognize excess salt and clean up when contractor not involved
- In place
- Planned

S.10. Prepare and implement a maintenance strategy for temperatures below -10C, when salt is less effective

- In place
- Attach the maintenance strategy to this completed worksheet
- Planned

S.11. Remove areas of drifting snow

- Consider wind direction, elevation changes and location of snow fences
- In place
- Planned
- Not practical

S.12. Store snow on a sufficiently-sized impermeable surface adjacent to a catch basin

- Snow storage location and size should be made in consultation with winter maintenance contractor to ensure feasibility
 - Snow melt from piles should be directed towards a catch basin to prevent an ice hazard requiring more salt
 - Snow melt must not infiltrate directly to grassed areas
- In place
- Planned
- Snow is stored on an impermeable surface, but cannot be feasibly located adjacent to a catch basin. Chloride-free chemical (ex. calcium magnesium acetate) to be used to de-ice snow storage melt between snow events

5. Salt Storage

- Not applicable. Salt not stored on property

S.13. Store smaller quantity of salt on property as needed and only during winter months

- In place
- Planned
- Not practical

S.14. Store salt in a secured, closed container or enclosure on an impermeable pad

- In place
- Planned
- Not practical

S.15. Clean up spilled salt

- In place
- Planned

6. Salt Storage - Liquid De-icers Only

- Not applicable. Liquid de-icers not stored on property

S.16. Store and handle liquid de-icers in an area that does not drain into the environment, including storm sewer, sanitary sewer or watercourse

- Includes direct and indirect drainage such as via floor cracks, drains or ditches
- Prevention includes sealing cracked floors, moving liquid de-icer storage away from drainage areas, completing drain assessments, covering or decommissioning drainage points
- If moving de-icers to new location, label proposed storage area on the site plan

- In place
- Planned

S.17. Protect liquid de-icer storage areas from all vehicular traffic

- In place
- Planned

S.18. Prepare and implement your Spills Plan, including prevention and response measures

- Complete and review your written Spills Plan at least once a year
- Document the completion of each review in your Spills Plan

- In place
 - Attach the Spills Plan to this completed worksheet

- Planned

S.19. Train staff on Spills Plan, including prevention and response measures

- All staff to complete training initially with annual review
- New staff to complete training upon hire
- Document training and retain records

- In place
- Planned

S.20. Continuously supervise delivery and transfer of liquid de-icers by personnel trained on the Spills Plan

- In place
- Planned

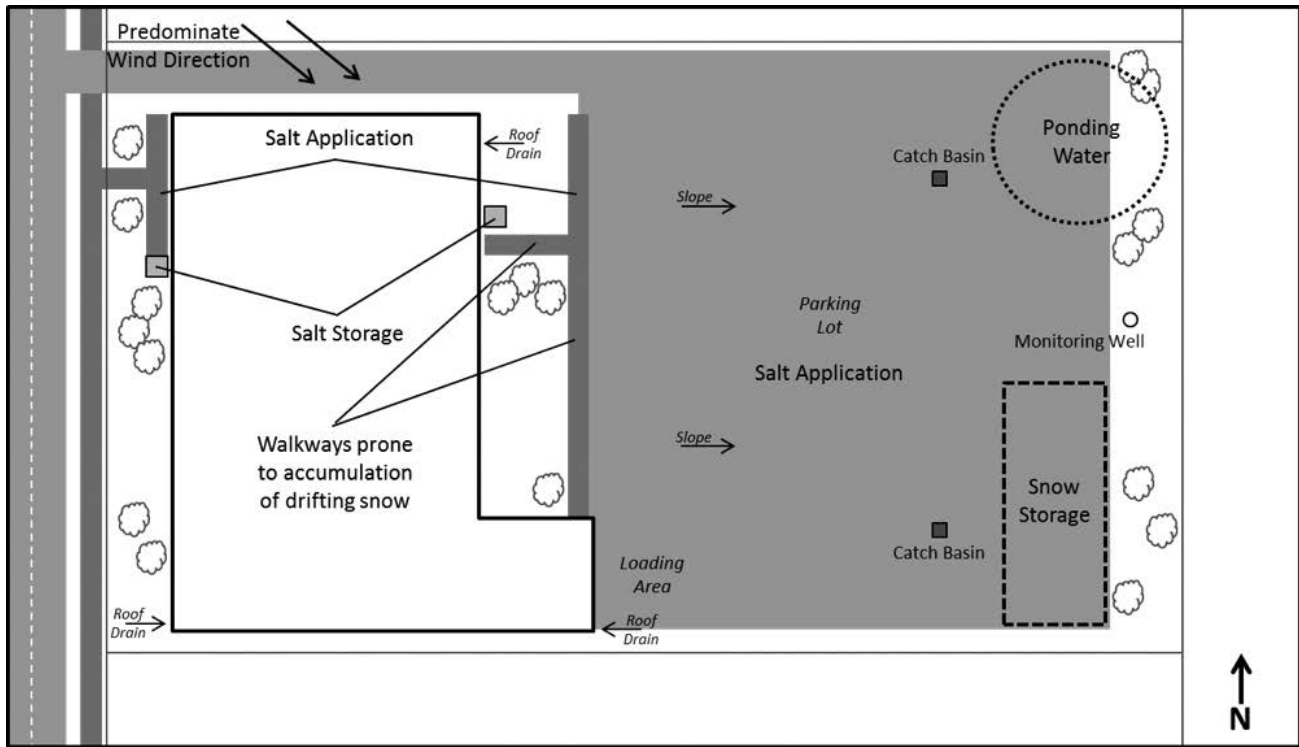
S.21. Place spill kits in accessible locations

- Spill kit contents must be appropriate for liquid salt, inventoried annually with Spills Plan review, and restocked as necessary
 - Document spill kit contents and locations
- In place
 - Planned

S.22. Store de-icing liquids in a tank or tote on an impermeable pad with 110% secondary containment and collision protection

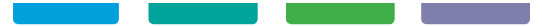
- In place
- Planned
- Not practical

Winter maintenance sample map



The map should include the following identifiers (where applicable);

- salt application areas
- building drainage outlets i.e. roof drains
- loading areas
- parking locations
- septic systems
- wells
- areas of ponding water
- areas prone to accumulation of drifting snow
- direction of surface drainage flow
- predominant wind direction
- areas not requiring winter maintenance i.e. seasonal walkway or overflow parking
- site drainage features, including catch basins (specify discharge point)
- stormwater management ponds and discharge locations
- areas of land leased
- salt storage areas, including salt boxes
- snow storage areas



Sketch map for (building name/property address):

Roll number: _____