



Winter Maintenance

Version 1 2017

Reference number: 4424429



Section 1: instructions

This worksheet includes beneficial practices for property owners and staff to consider when developing a winter maintenance plan. Following these practices may help improve winter safety and reduce the use of salt that can be harmful to our drinking water sources.

Before you start

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 the plan annually with your winter maintenance team
 - Are there changes to the property requiring updates to your 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

Company name: _____

Property address: _____

Property owner: _____

Property tenant (if applicable): _____

Property contractor (if applicable): _____

Person(s) engaged in activity or activities:

Owner

Tenant

Contractor

Other (e.g. property / site manager): _____

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 notes section 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

Certifications, training and tracking

1. Property is Smart About Salt™ Certified

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

Notes: _____

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

Notes: _____

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

In place

Planned

Notes: _____

Salt contract

Not applicable. Do not contract out winter maintenance.

1. 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.

In place

Planned

Notes: _____

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

In place

Planned

Notes: _____

Ice formation prevention and parking lot design

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

In place

Planned

Not practical

Notes: _____

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

Examples where ponding may occur include around catch basins and low areas.

In place

Planned

Not practical

Notes: _____

3. Close off areas not requiring maintenance during winter months

Close off unneeded areas that do not block emergency exits, accessibility ramps or entrances.

Benefits may include:

- Allows winter maintenance team to focus efforts on high traffic areas
- Reduce winter maintenance costs and repairs from salt damage
- Manage risk from potential slip and fall hazards
- Reduce winter maintenance costs from plowing and salting
- Provides location to store plowed snow

In place

Planned

Not practical

Notes: _____

Winter maintenance practices

1. 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

Notes: _____

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

- In place. Include strategy with completed worksheet
- Planned

Notes: _____

3. Remove areas of drifting snow

Consider wind direction, elevation changes and location of snow fences.

- In place
- Planned
- Not practical

Notes: _____

4. Store snow on a sufficiently sized impermeable surface adjacent to a catch basin

- Consult with contractor about snow storage location and size to ensure feasibility
- Direct snow melt from piles 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. Use chloride-free chemical (ex. Calcium magnesium acetate) to de-ice snow storage melt between snow events.

Notes: _____

Salt storage

Not applicable. Salt not stored on property.

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

- In place
- Planned
- Not practical

Notes: _____

2. Store salt in a secure, closed container or enclosure on an impermeable pad

- In place
- Planned

Notes: _____

3. Clean up spilled salt

- In place
- Planned

Notes: _____

Salt storage – liquid de-icers only

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

1. 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 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

Notes: _____

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

In place

Planned

Notes: _____

3. 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. Include Spills Plan with completed worksheet.

Planned

Notes: _____

4. 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

Notes: _____

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

In place

Planned

Notes: _____

6. 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

Notes: _____

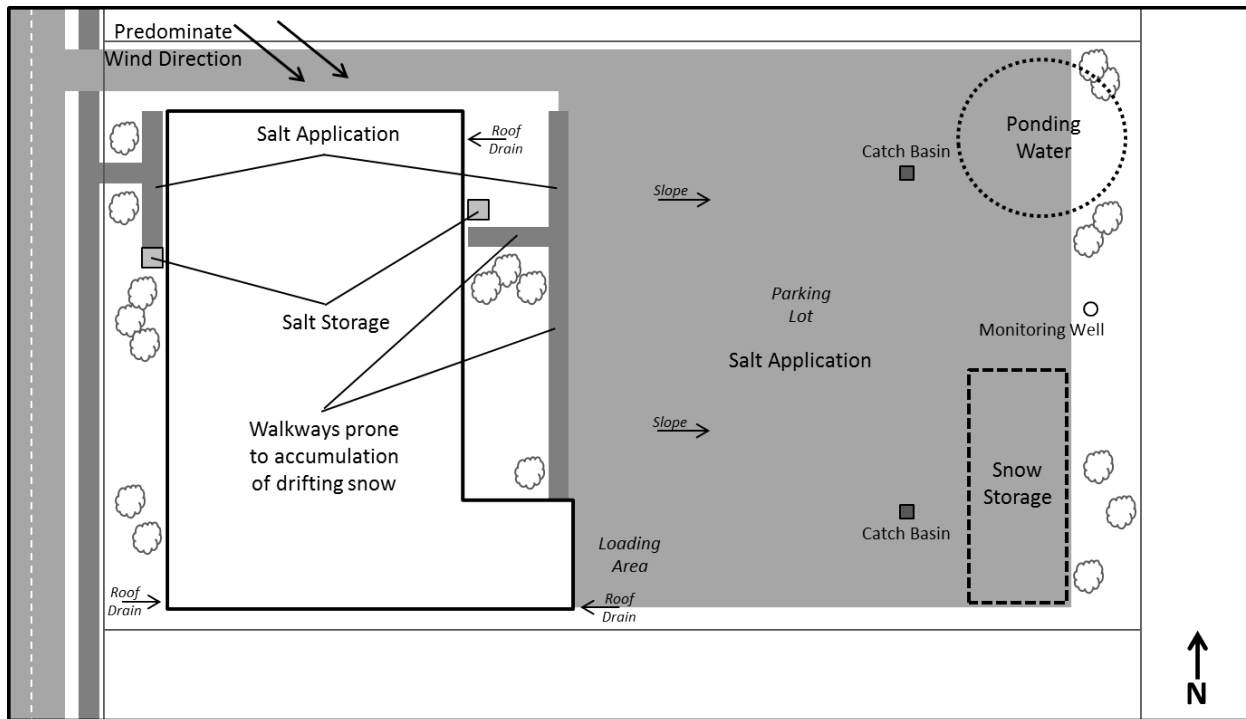
7. Store de-icing liquids in a tank or tote on an impermeable pad with 110% secondary containment and collision protection

In place

Planned

Notes: _____

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
- snow fence locations
- direction of surface drainage flow
- predominant wind direction
- areas to close 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 and salt pails by entrances
- snow storage locations