

March 12, 2025
Project No. 2401807/422079

**Re: Salt Management Plan
Northern Lands (6581 Highway 6)
Fergus, Ontario**

Introduction

The following Salt Management Plan has been prepared for the Polocorp Inc. Northern Lands Subdivision (6581 Highway 6) in the Township of Centre Wellington (Fergus) in support of Draft Plan approval.

The proposed subdivision consists of the following elements:

- 87 – 129 single detached residential lots and 179-266 street townhouse lots with associated yards and driveways
- One (1) existing single-detached dwelling with associated yard and driveway fronting onto Highway 6.
- 2.403 ha of medium density and mixed-use blocks. These areas will develop salt management plans at the time of their Site Plan approval.
- Servicing and stormwater management infrastructure.
- 9 internal streets for which the Township will ultimately take ownership and maintenance.

Salt Management Plan

A three-stage salt management plan is recommended for the Northern Lands Subdivision. Stage 1 of the salt management plan will address the ploughing of snow and the application of salt/sand during the construction phase. Stage 2 of the salt management plan will address the ploughing of snow and the application of salt/sand within the limits of the right-of-way by Township forces. Stage 3 of the salt management plan will include snow removal and placing of salt on private property by the homeowner.

Stage 1 – Construction Phase

The recommended best management practices for the removal of snow and application of salt/sand during the construction phase (Stage I) include the following:

- Plowing of snow as required on driveways, parking areas, sidewalks and internal roads following snowfall events or as required to ensure safe passage for motorists and pedestrians.

- Application of sand/salt mixture (hand application) immediately following plowing if required. The application of a sand/salt mixture is not mandatory after each snow clearing operation.
- A sand/salt mixture will not be applied unless ice conditions develop.
- Monitoring and documenting the application of a sand/salt mixture (i.e., frequency, concentration, etc.).
- Storage of all plowed snow is to be in an area appropriately designed for snow storage to minimize the impact of salt on environmental features, to a height which will not block the view of motorists and pedestrians and will not impede surface drainage.
- Snow will be removed typically with mechanical methods and only by a Contractor. The winter maintenance Contractor will be retained for this work.
- Equipment for snow removal will be stored off site and only brought to site during a snow event.
- No liquid materials are to be stored on site.
- No snow removal equipment washing is to occur on site.
- Site inspections by the winter maintenance Contractor will be conducted regularly.
- Snow will be hauled to a properly designed offsite snow disposal facility/site.
- Snowdrifts will be controlled by frequent plowing as needed.
- The winter maintenance Contractor will be required to monitor local weather forecasts and be prepared before an event occurs.
- The winter maintenance Contractor is to be trained in winter maintenance practices.
- The winter maintenance Contractor will be trained to handle a salt spill.
- Both the site and the winter maintenance Contractor are to be Smart about Salt certified.
- The winter maintenance contractor must be trained in the Transportation Association of Canada's Syntheses of Best Practices Road Salt Management.

In addition, the attached Winter Maintenance (Chemical Management Plan) describes additional objectives, where applicable, for salt management practices during the construction phase.

Stage 2 – Municipal Rights-of-Way

The recommended best management practices for the removal of snow and application of salt/sand within the limits of the municipal rights-of-way by Township forces (Stage 2) include the following:

- Ploughing of snow as required following snowfall events or as directed by the Township to ensure safe passage for motorists.
- Application of salt/sand immediately following ploughing if required or as directed by the Township. The application of salt/sand is not mandatory after each snow clearing operation.
- Monitor and document the application of salt/sand on municipal rights-of-way (i.e. frequency, concentration, etc.).

- Storage of all ploughed snow in an area appropriately designated for snow storage to minimize the impact of salt/sand on environmental features and to ensure that surface drainage is maintained. As part of the detailed engineering design, an appropriate snow storage area will be confirmed with the Township.

Stage 3 – Private Properties in Subdivision

For stage 3 of the salt management plan, which includes the removal and stockpiling of snow and application of salt/sand on private property, the recommended best management practices are as follows:

- Ploughing or shoveling snow on driveways and sidewalks immediately following a snowfall event to ensure the safe passage of motorists and pedestrians.
- Application of salt/sand immediately following ploughing or shoveling only as required.
 - In order to employ the most effective method in salt reduction, it is recommended to utilize a variety of products consisting of sand, sand/salt mixture, and environmentally friendly de-icer (i.e., no salt).
 - Salt should not be applied unless ice conditions develop. Use an alternative to salt when current and forecasted temperatures are lower than -10 degrees Celsius.
 - The application of salt/sand is not mandatory after each snow clearing operation.
- Storage of all ploughed or shoveled snow in the front yards and boulevard areas (i.e. grassed areas) to a height which will not block the view of motorists and pedestrians and will not impede surface drainage.

Engineered Measures

In order to minimize the infiltration of runoff with high concentration of chloride and sodium, runoff from impervious surfaces will be diverted to the on-site storm sewers. Runoff from building downspouts is proposed to divert to enhanced infiltration structures and pervious areas to promote the infiltration of “clean” runoff. The downstream stormwater management facility is proposed to include quality control for the Northern Lands subdivision (6581 Highway 6).

Salt Management Plan
Northern Lands (6581 Highway 6)
Fergus, Ontario
March 12, 2025

Closing

If you have any questions, please feel free to contact me at 519.748.1440.

Sincerely,

GEI Consultants Canada Ltd.



Patrick Grier, P.Eng.
Senior Project Engineer

Appendices

Appendix A Winter Maintenance (Chemical Management Plan) Measures

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Appendix A Winter Maintenance (Chemical Management Plan) Measures

Winter Maintenance (Chemical Management Plan) Measures

1. If the property ownership changes, the responsible party shall provide written notice to the Risk Management Official (RMO) within 30 days of the ownership transfer.
2. The owner shall inform the RMO in writing of the name and contact information for the person responsible for the maintenance of the property (e.g. operations manager, contractor) within 30 days of the person being hired.
3. Employees shall be trained whenever new equipment is installed, new procedures are implemented, or new products are introduced. They should be familiar with the hazards associated with the material they are using and be aware of potential sources of contamination.
4. All records required as part of this winter maintenance chemical management plan shall be kept on site for a period of five (5) years from date of creation and made available to Risk Management Official and/or Risk Management Inspector (RMO/RMI) upon request.
5. Records of employee training regarding the winter maintenance chemical management plan shall be maintained and provided to the RMO/RMI upon request.
6. Roof gutters and downspouts shall be directed away from or under paved or impermeable areas. If runoff to paved surfaces cannot be mitigated in this manner, directing roof runoff directly into storm sewers shall be considered.
7. All pavement on the subject property shall be maintained to prevent areas of ponding water, and allow for complete snow removal. Newly paved areas on the subject property shall be graded to prevent ponding.
8. Low traffic, under used, or high risk areas, walkways, and entrances shall be closed during the winter maintenance season. Examples include, but are not limited to, overflow parking areas, seasonal walkways, or redundant stairways.
9. Remove areas of drifting snow to ensure that reapplication of winter maintenance chemicals does not become necessary.
10. Clean up excess applied winter maintenance chemical prior to each precipitation event and at the end of the winter maintenance season.
11. Prepare and implement a winter maintenance strategy for temperatures below -10°C, when salt is less effective.

12. The owner shall notify the RMO of whether winter maintenance is to be dealt with in-house, or if a contractor will be hired within 30 days of date of signing the contract, if applicable. If a contract is to be negotiated with a contractor, clauses 3.2 and 3.3 will be required.
13. When a new winter maintenance contract is negotiated, a written agreement stating that the contractor understands, and will implement, the terms of the winter maintenance chemical management plan will be signed by the contractor and property owner/manager at the time of contractor hire. A copy of the agreement shall be made available upon request by RMO/RMI.
14. New winter maintenance contracts shall ensure that payment for road salt application services on the subject property is not based upon on the total amount of salt used. To encourage contractors to use less salt, the basis of payment for new contracts can be unit price per event or lump sum per season.
15. All onsite staff applying winter maintenance chemicals shall be provided with annual orientation training based on practices outlined in Transportation Association of Canada's entitled: Syntheses of Best Practices Road Salt Management (specifically Chapter 10 - Salt Use on Private Roads, Parking Lots and Walkways). <https://www.tac-atc.ca/sites/tac-atc.ca/files/site/doc/resources/roadsalt-10.pdf>
16. Snow shall be cleared prior to winter maintenance chemical application in order to maximize the effectiveness and minimize the quantity of product that needs to be applied.
17. The required and recommended measures outlined in Smart About Salt™ training and certification or equivalent shall be completed for the site. This includes, but is not limited to:
 - Weather and site condition logs
 - Application records
 - Inspection and training records
 - Spreader calibration logs
18. Product application practices and rates shall be adjusted to suit current and forecasted conditions for each product application event. The amount of residual road salt on the impervious areas will be assessed prior to product application and removed where excessive application has occurred.
19. Use an alternative to dry sodium chloride (rock salt) when current and forecasted temperatures is lower than -10 degrees Celsius (alternatives include Magnesium

Chloride, Calcium Chloride, Calcium Magnesium Acetate, Potassium Acetate, plant-based additives, or abrasives).

20. Product application practices shall be annually reviewed to identify potential reductions in material use.
21. Winter maintenance chemical containers shall be stored in a location that minimizes risk of spills due to collisions with vehicles, equipment, or other hazards and located away from floor drains, cracks, catch basins, ditches or any other potential pathways to groundwater or surface water.
22. Uncovered, outside storage of winter maintenance chemicals is prohibited.
23. Snow storage areas shall not be located on top of catch basins, in ditches, etc. so as to not obstruct drainage at the site.
24. Snow storage area(s) shall be located on the low side of paved areas to alleviate the formation of ice as a result of meltwater, if possible.
25. Where possible, snow storage area shall be located directly up-gradient and in the immediate vicinity of a catch basin to minimize the area subject to meltwater runoff.
26. Litter, debris, salt and sediment from snow storage areas and site shall be collected and disposed of at the end of every winter maintenance season to prevent these materials from being released into the environment through precipitation, runoff, and snowmelt.
27. Snow shall not be stored in areas where it will impede the operations associated with Emergency Services (i.e. in front of fire hydrants, in fire lanes, etc.).
28. Record and retain documentation related to winter maintenance chemical and snow management by contractor and/or property management office for the calendar year, plus an additional five years, including:
 - Weather and site condition logs
 - Application records
 - Inspection and training records
 - Spreader calibration logs, if applicable
29. Records of employee training regarding the winter maintenance chemical management plan, including winter maintenance chemical best management practices, shall be maintained.