



SALT MANAGEMENT PLAN - 2009 UPDATE REVISED

**PUBLIC WORKS DEPARTMENT (PWD)
CITY OF GREATER SUDBURY
SUDBURY, ONTARIO**

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TABLE OF CONTENTS

	<u>Page</u>
1.0	PURPOSE OF THIS DOCUMENT.....1
1.1	SALT MANAGEMENT - OBJECTIVE2
1.2	POLICY STATEMENT.....2
2.0	CURRENT WINTER MAINTENANCE PROGRAM.....3
2.1	THE SYSTEM MAINTAINED3
2.2	LEVEL OF SERVICE POLICY4
2.3	WINTER PATROL4
2.4	STAFFING AND HOURS OF WORK5
2.5	WINTER MATERIALS USED ANNUALLY5
2.5.1	SALT.....5
2.5.2	PICKLED SAND.....6
2.5.3	BRINE.....6
2.6	EQUIPMENT - WINTER MAINTENANCE FLEET.....6
2.7	YARD FACILITIES.....7
2.8	SNOW REMOVAL AND DISPOSAL.....7
2.9	WEATHER MONITORING.....8
2.10	COMMUNICATIONS9
2.11	TRAINING9
2.12	RECORD KEEPING10
3.0	CONTINUOUS IMPROVEMENT PRACTICES AND STRATEGIES12
3.1	LEVEL OF SERVICES POLICY12
3.2	EQUIPMENT UPGRADING12
3.3	EQUIPMENT CALIBRATION13
3.4	EQUIPMENT WASHING13
3.5	MATERIAL DELIVERY AND HANDLING14
3.6	RECORD OF MATERIAL USAGE.....14
3.7	WEATHER AND PAVEMENT TEMPERATURE FORECASTING.....15
3.8	STORM RESPONSE15
3.9	WINTER PATROL16
3.10	EMERGENCY RESPONSE PROCEDURES.....16
3.11	TRAINING17
3.12	TECHNICAL REVIEW18
3.13	ENVIRONMENTALLY SENSITIVE/VULNERABLE AREAS.....18
3.14	COMMUNICATION STRATEGY.....20
4.0	MONITORING AND UPDATING.....22
4.1	TRAINING22
4.2	DRAINAGE AND STORMWATER MANAGEMENT (INCLUDING SNOW DUMP SITES)22
4.3	PAVEMENTS AND SALT MANAGEMENT.....22
4.4	VEGETATION MANAGEMENT.....23

4.5	PWD SALT STORAGE FACILITY	23
4.6	WINTER MAINTENANCE EQUIPMENT AND TECHNOLOGY.....	23
5.0	PERFORMANCE MEASURES.....	25

LIST OF FIGURES
(Following Text)

FIGURE 1.0	SECTIONAL BREAKDOWN OF GREATER SUDBURY
FIGURE 2.0	PWD OPERATIONS FACILITY SOUTH SECTION - ST. CLAIR
FIGURE 3.0	PWD OPERATIONS FACILITY SOUTHEAST SECTION - FROBISHER DEPOT
FIGURE 4.0	PWD OPERATIONS FACILITY SOUTHWEST SECTION - LIVELY
FIGURE 5.0	PWD OPERATIONS FACILITY SOUTHWEST SECTION - WHITEFISH
FIGURE 6.0	PWD OPERATIONS FACILITY SOUTHWEST SECTION - NAUGHTON
FIGURE 7.0	PWD OPERATIONS FACILITY SOUTHWEST SECTION - BEAVER LAKE
FIGURE 8.0	PWD OPERATIONS FACILITY NORTHEAST SECTION - SUEZ
FIGURE 9.0	PWD OPERATIONS FACILITY NORTHEAST SECTION - CAPREOL
FIGURE 10.0	PWD OPERATIONS FACILITY NORTHWEST SECTION - CHELMSFORD
FIGURE 11.0	PWD OPERATIONS FACILITY NORTHWEST SECTION - DOWLING
FIGURE 12.0	PWD OPERATIONS FACILITY NORTHWEST SECTION - (OLD MTO) SITE
FIGURE 13.0	PWD OPERATIONS FACILITY NORTHWEST SECTION - LEVAK

LIST OF TABLES
(Following Text)

TABLE 1.0	PWD SECTIONAL OFFICES
TABLE 2.0	SUMMARY OF STORM RESPONSE TRIGGERS, ACTIONS AND RESPONSE TIMES
TABLE 3.0	SUMMARY OF SALT AND SAND APPLICATION RATES
TABLE 4.0	SUMMARY OF ANNUAL SALT USAGE BY ROUTE AND SEASON
TABLE 5.0	SUMMARY OF ANNUAL SAND USAGE BY ROUTE AND SEASON
TABLE 6.0	PWD SALT DEPOTS BY SECTION
TABLE 7.0	SNOW DUMP INFORMATION

LIST OF APPENDICES
(Following Text)

APPENDIX A	CITY OF GREATER SUDBURY SALT MANAGEMENT POLICY STATEMENT
APPENDIX B	ROAD INVENTORY
APPENDIX C	ROAD PLOWING AND SALTING ROUTES
APPENDIX D	4X4 PLOWING ROUTES
APPENDIX E	SIDEWALK PLOWING ROUTES
APPENDIX F	LEVEL OF SERVICE POLICY
APPENDIX G	INVENTORY OF MUNICIPAL AND CONTRACT EQUIPMENT
APPENDIX H	CONTINUOUS IMPROVEMENT PRACTICES
APPENDIX I	POTENTIALLY VULNERABLE WATER AREAS
APPENDIX J	MINISTRY OF NATURAL RESOURCES VALUES MAPPING
APPENDIX K	DEFINITIONS
APPENDIX L	INSPECTION OBSERVATIONS

1.0 PURPOSE OF THIS DOCUMENT

This Salt Management Plan (SMP) sets out a policy and procedural framework to ensure the City of Greater Sudbury's (City's) Public Works Department (PWD) continuously improves the effective delivery of winter maintenance services and the management of road salt used in winter maintenance operations, as outlined in Environment Canada's "*Code of Practice for the Environmental Management of Road Salts*" (April 2004) (Code of Practice).

By following the objectives stated in Environment Canada's Code of Practice, the PWD works to ensure environmental protection while maintaining public safety during adverse road conditions. With proper monitoring and reporting, the recommendations made within the Code of Practice will result in improved safety and benefits to the environment, as well as potential benefits to the PWD including more efficient operations and savings in material usage.

This SMP also follows the Transportation Association of Canada's, Syntheses of Best Practices for Road Salt Management. Additional recommendations follow the Ministry of Transportation's (MTO's) Maintenance Manual for highway maintenance operations.

The SMP is meant to be dynamic allowing the municipality to evaluate and phase-in any changes, new approaches, and technologies in winter maintenance activities in a fiscally sound manner. At the same time, any modifications to municipal winter maintenance activities must ensure that roadway safety is not compromised. The following principals will be used for the continual improvement of the SMP:

- Periodic Review and Analysis of Industry Practices;
- Implementation and Documentation of the SMP;
- Education and Training of Staff;
- Monitoring and Analysis;
- Management Review;
- Environmental Review; and
- Practices and Policy Revision.

Managers are encouraged to negotiate adoption of the policies and procedures in the SMP to build a consensus with other parties involved in snow and ice control activities.

1.1 SALT MANAGEMENT - OBJECTIVE

The PWD is committed to improving winter maintenance operations in a cost effective manner while continuing to ensure public safety. This adopted, dynamic approach will allow the PWD to optimize the use of winter maintenance materials containing chlorides on all municipal roads while striving to minimize negative impacts to the environment. The PWD staff will strive to provide safe winter road conditions for vehicular and pedestrian traffic as set out in the level of service policy and within the resources established by City Council. Any deficiencies noted in current operations will be identified and corrective actions established.

1.2 POLICY STATEMENT

The City of Greater Sudbury will take the actions necessary to provide effective winter maintenance to ensure the safety of road users in keeping with applicable legislation and accepted standards while striving to minimize adverse impacts to the environment. The PWD will meet these commitments by:

- Adhering to the procedures contained within the SMP;
- Complying with applicable laws and regulations;
- Reviewing and upgrading the SMP periodically to incorporate new Technologies and new developments;
- Committing to ongoing winter maintenance staff training and education; and
- Monitoring on an annual basis, the present conditions of the winter maintenance program, as well as the effectiveness of the SMP.

A copy of the City's Salt Management Plan Policy is attached as Appendix A.

2.0 CURRENT WINTER MAINTENANCE PROGRAM

2.1 THE SYSTEM MAINTAINED

The PWD is the authority responsible for the winter maintenance activities for the City's road system and sidewalks. The City is divided up into the following five sections: South Section, Southeast Section, Southwest Section, Northeast Section, and the Northwest Section. Each section has its own designated Public Works Operations Facility. See Figure 1.0 for a sectional breakdown of the City of Greater Sudbury. The sectional office locations for each city section are listed on Table 1.0.

Wintertime conditions can adversely impact public safety, limit road usage, increase travel time, and increase economic costs. Winter brings around-the-clock operations in snow plowing, snow removal, sanding, salting, and sidewalk plowing. The PWD uses road salting techniques to maintain a standard of safety on roadways for the people of Sudbury during the winter season. It is these roads and walkways that provide Sudbury's local and business community alike, along with visitors, a safe, easy, and affordable means of access to work, leisure, and a multitude of other services.

The major activities related to winter maintenance within the City of Greater Sudbury are:

- Snow plowing
- Salt/sand spreading
- Salt and sand storage
- Snow removal
- Snow storage
- Sidewalk plowing and de-icing

The PWD is responsible for winter maintenance on:

Paved roads	2,362.7 lane kilometres
Surface treated roads	602.7 lane kilometres
Unpaved roads	620.6 lane kilometres
Sidewalks	303.14 kilometres
Bridges	99

The City's road system has been classified (Class 1, 2, 3, 4, 5 and 6) according to Ontario Regulation (O. Reg.) 239/02 "*Minimum Maintenance Standard*", Municipal Act, 2001 in order that a Level of Service (LOS) Policy can be set for each classification of road. This classification system is based on the posted/regulated speed and annual average daily traffic (AADT)

The City's Road Inventory is included in Appendix B. City plowing and salting routes are included in Appendix C, 4x4 plowing locations and routes (i.e. cul-de-sacs, alleys, dead ends, etc.) are included in Appendix D, and sidewalk plowing routes are included in Appendix E.

2.2 LEVEL OF SERVICE POLICY

The City's winter maintenance season commences on November 1 and is completed on April 30. The City's LOS policy currently meets or exceeds the Minimum Maintenance Standards (MMS) for snow accumulation and icy roads, as specified in O. Reg. 239/02. The City's LOS policy is summarized on Tables 2.0 and 3.0. Additional topics covered in the LOS are provided in Appendix F.

In June 2007 the City Council passed a resolution to approve five changes to the LOS. Details regarding these changes and the current storm response guide are also included in Appendix F.

2.3 WINTER PATROL

The PWD winter maintenance program operates 24 hours a day, 7 days a week throughout the winter season. Road patrolling consists of three, eight-hour shifts to provide 24 hour coverage. Plow and sanding staff work on an on-call 8-hour basis with overtime after eight work hours. Should storm conditions warrant the acting patroller remains on duty until relieved by the next shift.

The patroller is responsible for mobilizing winter maintenance operators to ensure that the roads are cleared in a timely fashion while remaining in compliance with established service standards.