

Chloride Pollutant Minimization Plan

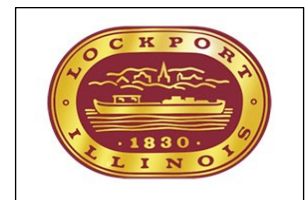
City of Lockport

March 29, 2023

Prepared by City of Lockport



City of Lockport is a member of the
Lower Des Plaines Watershed Group



1.0 Introduction to Chloride Issue in CAWS/LDPR

This Pollutant Minimization Plan (PMP) has been prepared by City of Lockport to reduce the environmental impacts from the organization’s chloride related operations. City of Lockport is a discharger covered under the Time Limited Water Quality Standard for Chloride for the Chicago Area Waterways System and Lower Des Plaines River watersheds. This PMP has been prepared to meet the requirements laid out in the Time Limited Water Quality Standard (TLWQS) for Chloride. The term of this PMP covers the first 5-years of the TLWQS period and will be updated following the re-evaluations at Years 4 ½, 9 ½, and 14 ½.

Chloride is a permanent pollutant. It does not degrade over time and continues to accumulate in the environment. Proactive measures to reduce the amount of chloride discharged can help reduce the impacts from chloride on receiving waterways and the environment. Chloride impacts aquatic life, vegetation, and infrastructure. As the chloride concentrations increase and our waters become saltier, aquatic and plant biodiversity decreases and native species are overtaken by salt tolerant invasive species.

Chlorides are commonly found in road salt, fertilizers, water softeners, dust suppressants, and certain industrial processes. Chloride-based deicers, like rock salt, are used on parking lots, sidewalks, and roads to provide safe surfaces to the public during the winter months. These deicers are one of most common sources of chloride in the Chicago region.

The water quality standard for chloride for the Chicago Area Waterway System (CAWS) was updated as part of the rulemaking process related to changing the designated use of the CAWS. The chloride standard was updated from 1,500 mg/L during the winter and 500 mg/L during the summer to 500 mg/L all year round. The change in the chloride water quality standard took effect in 2018. Because portions of the CAWS were not going to meet this new standard due to the need to maintain public safety on roads, highways, sidewalks and parking lots during the winter months, a joint submittal and supporting individual petitions were submitted between 2015 and 2018 to the Illinois Pollution Control Board for a variance from the chloride standard. The joint petition laid out best management practices that can be achieved by the petitioners to reduce their chloride use while maintaining public safety during winter storms. In addition to the CAWS, portions of the Lower Des Plaines River watershed were included as it receives water from the CAWS.

On November 4, 2021, the IPCB issued an Opinion and Order for a Time Limited Water Quality Standard (TLWQS) for Chloride for portions of the CAWS and Lower Des Plains River watersheds. The TLWQS for Chloride watersheds are defined in the Opinion and Order as the Des Plaines River watershed from the Kankakee River to the Will County Line (except for the DuPage River watershed) and the CAWS watershed (except the North Branch Chicago River watershed upstream of the North Shore Channel and those portions of the watershed located in Indiana). This is a watershed-based approach to reduce the chloride concentrations in the CAWS and Lower Des Plaines River. The TLWQS for Chloride requires all dischargers covered under the TLWQS for Chloride to create PMPs and implement specific best management practices based on their operations to reduce their chloride discharges.

2.0 Organization Info, Facilities’ Specific Info

2.1 Facility overviews/descriptions

Agency Name: City of Lockport		
Facility Name: City Wide		Permit Number: ILR400377
Facility Address: 222 E. 9 th Street		
City: Lockport	State: IL	Zip Code: 60441

The City of Lockport is a MS4 Community located approximately 30 miles southwest of Chicago in Will County with a residential population of 26,094. The City owns and maintains 184 lane miles of roadways and 10 commuter & public parking lots.

The City of Lockport currently has two covered salt storage dome facilities with a combined storage capacity of 2,000 tons of salt. No salt is stored outside of the designated structure and salt is ordered on and as needed basis to prevent overflowing the storage.

2.2 Chloride Sources

The City of Lockport's chloride sources includes winter road maintenance and commercial, industrial and residential water softening. All salt stored by the City is stored in one of our two permanent dome structures. The City's snow and ice control on roadways is prioritized for arterial and collector roadways, emergency vehicle routes, school zones, hills and bridges. City owned parking lots and sidewalks within downtown Lockport are cleared and salted by City Staff. There are commercial, industrial and residential users within the City that choose to soften their water. The softened water that may result in chlorides discharging to the sanitary sewer system.

2.3 Level of Service for Winter Maintenance Activities

The City of Lockport's Snow and Ice Control Policy details the steps taken during any winter event and how the City responds. We have plans in place for any type of winter storm event and a response that is appropriate for that event. Each winter storm event is different, and we determine the appropriate plan of action based on up to date forecasts and predictions from reputable weather sources.

3.0 Chloride Monitoring Data

Chloride monitoring data will be collected for the CAWS and Lower Des Plaines River watersheds per the IPCB order. The data will be maintained by the workgroups. Chloride data for the CAWS will be collected by MWRD for the CAWS watershed and provided to the workgroups as part of the annual reporting as required by the IPCB order. The Lower Des Plaines Watershed Group also maintains a USGS monitoring station in the Des Plaines River at Channahon, IL that collects continuous conductivity data to estimate chloride concentrations.

In addition, the City of Lockport collects chloride concentrations data monthly on the influent and effluent at our Division Street Wastewater Treatment Plant.

4.0 Chloride Reduction BMPs for POTWs, MS4s, CSOs, Industrial Sources, IDOT/Tollway

As part of the Chloride TLWQS, specific BMPs were identified for POTWs, MS4s, CSOs, Industrial Sources, and IDOT/Tollway to reduce the chloride impact on the watershed. These BMPs will be implemented over the 15-year term and additional BMPs evaluated at 5-year intervals during the 15-year term. Further details about winter maintenance practices currently being implemented by the City of Lockport are included in the snow and ice plan, which is included as Appendix [#]. The BMPs identified are outlined below:

Workgroup BMP

Variance BMP	Currently Implementing	Will Implement (Target Year)	Agency Description of Current Implementation
The permittee must participate in a Chlorides workgroup for the CAWS or LDPR, depending on the watershed within which the facility's discharge is located.	X		City of Lockport has been a member of the Lower Des Plaines Watershed Group since 2017. Staff attends meetings on a regular basis.

Salt Storage and Handling BMPs

Variance BMP	Currently Implementing	Will Implement (Target Year)	Agency Description of Current Implementation
Store all salt on an impermeable pad that must be constructed to ensure that minimal stormwater is coming into contact with salt unless the salt is stored in a container that ensures stormwater does not come into contact with the salt.	X		All salt stored by City of Lockport is stored in a permanent dome structures on an asphalt pad to prevent contact with storm water.
Cover salt piles at all times except when in active use, unless stored indoors.	X		All salt stored by City of Lockport is stored in a permanent dome structures on an asphalt pad to prevent contact with storm water.
For working areas, provide berms and or sufficient slope to allow snow melt and stormwater to drain away from the area. If snow melt and stormwater cannot be drained away from the working area, channeling water to a collection point such as a sump, holding tank or lined basin for collection, discharge at a later time, use for prewetting, and use for make-up water for brine must be considered.	X		The City of Lockport salt is stored in permanent dome structures and the salt is loaded immediately outside of the dome's entrance. Both domes sit higher than the surrounding area and all snowmelt and stormwater drains away from the work area.
MS4/CSO Only - Use deicing material storage structures for all communities covered under General Permit ILR40 for MS4 communities.	X		All salt stored by City of Lockport is stored in a permanent dome structures on an asphalt pad to prevent contact with storm water.
Good housekeeping practices must be implemented at the site, including: <ul style="list-style-type: none"> cleanup of salt at the end of each day or conclusion of a storm event; 	X		The City of Lockport uses good housekeeping practices for winter road salt related work including loading, salt deliveries, facility upkeep and inspections. Details are provided in the City's Snow and Ice Control Policy (Appendix 1).

<ul style="list-style-type: none"> • tarping of trucks for transportation of bulk chloride; • maintaining the pad and equipment; • good practices during loading and unloading; • cleanup of loading and spreading equipment after each snow/ice event; • a written inspection program for storage facility, structures and work area; • removing surplus materials from the site when winter activity finished where applicable; • annual inspection and repairs completed when practical; • evaluate the opportunity to reduce or reuse the wash water. 			
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Winter Maintenance Operations BMPs

Variance BMP	Currently Implementing	Will Implement (Target Year)	Agency Description of Current Implementation
Calibrate all salt spreading equipment at least annually before November 30th. Records of the calibration results must be maintained for each piece of spreading equipment.	X		The City staff and/or vendor (Force America) performs the calibration on our eleven (11) trucks that are equipped with pre-wetting and computer controls each year.
Pre-wet road salt before use, either by applying liquids to the salt stockpile, or by applying liquids by way of the spreading equipment as the salt is deposited on the road.	X		The City uses pre-wet road salt on all eleven (11) trucks.
Use equipment to measure the pavement temperature unless such equipment has already been installed on road salt spreading vehicles.	X		All eleven (11) trucks in the City fleet are equipped with pavement thermometer and sets the application rate prior to crews starting work.
Develop and implement a protocol to vary the salt application rate based on pavement temperature, existing		Targeted year is 2024.	

weather conditions, and forecasted weather conditions.			
Track and record salt quantity used and storm conditions from each call-out.	X		The City maintains records for each winter storm event. This is verified with AVL/GIS reporting on the computer controlled equipment.
Develop a written plan for implementation of anti-icing, with milestones. The plan should consider increased use of liquids (e.g., carbohydrate products) beginning with critical locations such as bridges over streams.		Targeted year is 2026.	
Provide employees involved in winter maintenance operations with annual training before November 30th on best management practices in the use of road salt in operations, including the practice of plowing first and applying salt only after snow has been cleared.	X		The City completes annual training for all staff prior to the winter season beginning. The Snow and Ice Control Policy is reviewed along with routes.
Be responsible for complying with all applicable BMPs even when deicing practices are contracted out and ensure that contractors are properly trained and comply with all applicable BMPs.	X		Not applicable as the City does not use contractors for snow and ice control.
Complete an annual report, as required by paragraph 3(B) of this order, which is standardized in an electronic format and submitted to the IEPA's website and to the watershed group.		Targeted year is 2023.	
Obtain and put into place equipment necessary to implement all salt spreading/deicing measure specified in this BMP, such as any new or retrofitted salt spreading equipment necessary to allow for pre-wetting and proper rates of application.	X		The City uses pre-wet road salt on all eleven (11) trucks.
MS4/CSO/IDOT/TOLLWAY Only - Install equipment to measure the pavement temperature on the winter maintenance fleet for a sufficient number of vehicles to provide sufficient information to adjust application rates for the most efficient levels. Develop and	X		All eleven (11) trucks in the City fleet are equipped with pavement thermometer and sets the application rate prior to crews starting work.

complete a plan to equip the winter maintenance fleet before the first re-evaluation.			
MS4/CSO/IDOT/TOLLWAY Only - Before the first re-evaluation, develop a method for conducting a post-winter review to identify areas of success and areas in need of improvement. Items to be completed as part of the review must include, but are not limited to, an evaluation of each salt spreader's application rate, variations in application rates, and discussion of the variation compared to the recommended rates. Once developed, the review should occur annually in the spring/early summer following each winter season.		Targeted year is 2023.	

Additional BMPs Identified for Agency/Facility

BMP	Currently Implementing	Agency Description of Current Implementation
Weather Forecasting Service for the City of Lockport	X	The City uses a weather forecasting service with certified meteorologists to provide a City specific daily, 6-day look ahead forecast and snow/ice warnings prior and during winter storm events.

5.0 Plan to Implement BMPs

City of Lockport will implement the following BMPs to take steps towards compliance with chloride standards for the watershed.

BMP: Develop and implement a protocol to vary the salt application rate based on pavement temperature, existing weather conditions, and forecasted weather conditions.

Plan to Implement BMP: The City of Lockport will engage other municipalities to learn how others are implement this BMP. Then develop and implement a City protocol to vary the salt application rate based on pavement temperature, existing weather conditions, and forecasted weather conditions.

Schedule for Implementation: The City will begin engagement in 2023 with the desire to begin implantation in 2024.

BMP: Develop a written plan for implementation of anti-icing, with milestones. The plan should consider increased use of liquids (e.g., carbohydrate products) beginning with critical locations such as bridges over streams.

Plan to Implement BMP: The City of Lockport will engage other municipalities to learn how others are implement this BMP. Then develop a written plan and begin purchasing of needed equipment to implement anti-icing pretreatment.

Schedule for Implementation: The City will begin engagement in 2026.

6.0 Other Chloride TLWQS Required Milestones

City of Lockport will implement these specific milestones (not included in the above BMPs) as outlined by the Chloride TLWQS.

Milestone	Agency Completion Date	Agency Completion Details
6 MONTHS AFTER EFFECTIVE DATE: Petitioner establishes a mechanism for tracking of de-icing salt usage for each facility.	November 1, 2022	The City tracks miles driven and salt quantity used for each winter storm event. This is verified with AVL/GIS reporting on the computer controlled equipment.
July 1st OF EVERY YEAR (BEGINNING WITH YEAR 2): Discharger must submit an Annual Report for the previous year beginning on May 1 and ending on April 30 of the following year to the Agency and the chlorides workgroup on. The report shall be on salt usage for deicing and steps taken to minimize salt use and makes the report publicly available.	By July 1 of each year, beginning in Year 2, 2024.	City of Lockport will submit an annual report to the workgroup and IEPA.
July 1st of YEAR 3, YEAR 8 and YEAR 13: The chlorides workgroup submits a Status Report to the IEPA which includes an analysis on the following: chlorides monitoring data; report on the chloride workgroup’s outreach strategy, which includes outreach efforts to expand coverage of the TLWQS, and outreach and training for nonpoint sources; identification of any new BMPs, treatment technology or salt alternatives; identification of the impediments and potential solutions of those impediments faced by dischargers and those granted coverage under the TLWQS that prevent them from completing the training and making all capital purchases necessary to implement the required BMPs; and identification and description of any assistance (financial, technical, or otherwise) that the chloride workgroup may be able to provide.	By July 1 of year 3 [2025], the workgroups will submit a Status Report to the IEPA.	The Lower Des Plaines Workgroup will submit a Status Report as required.
July 1st OF YEAR 4 ½: Chlorides workgroup submits to the Board its first proposed re-evaluation pleading consistent with the Board’s order granting the TLWQS.	By July 1 of year 4 ½ [2026], the workgroups will submit a re-evaluation to the IEPA and IPCB.	The Lower Des Plaines Workgroup will submit an evaluation as required.

City of Lockport

Snow and Ice Control Policy 2009



PURPOSE

This pamphlet is a compilation of all relevant Department policies, procedures, guidelines, assignments, operational protocol and reference materials pertaining to snow and ice control. This pamphlet provides staff with essential background information and direction. It is our goal to minimize the impact of the inevitable inconvenience and hardship resulting from winter storms on the citizens we serve to the degree practical by having a consistent, organized plan of attack. Please review this pamphlet thoroughly. When policies, principles and practices contained herein are consistently followed, we will be in a position to provide the most effective control operations and emergency response possible for the community at large with the equipment and personnel available.

NOTIFICATION AND MOBILIZATION PROCEDURE

The Lockport Police Department has the responsibility for initial notification of the designated supervisor and on-call employee during off-duty times as summarized below.

When snow, ice, ice pellets, freezing drizzle or rain, or any combination is imminent or has accumulated to a depth which is considered potentially hazardous to vehicular travel in the city, the Watch Commander or Sergeant in charge is to authorize the dispatch agency, WESCOM, to notify Public Works on-call personnel **immediately!** In accordance with routine procedure, the time and person notified will be logged.

The Police Department has been consistently alerted that **early notification is essential.** It must be remembered that a minimum of (1) hour will elapse before the first salt truck will hit the streets. An early or premature call is far preferable to a late call. This is especially critical with approaching rush hours.

When weather conditions are predicted to deteriorate quickly after a regular workday, or if it is obvious to the supervisory staff that conditions warrant immediate service although Police notification has not yet been officially received, a crew will be promptly retained/organized.

The same holds true for weekend operations. We strive to be self-sufficient as possible. When conditions and predictions are extremely threatening or ominous, the responsible on-call supervisor should, at a minimum, promptly mobilize a skeleton crew for standby status.

When notified by the Police Department that service is required, the Public Works supervisor will initiate an Ice Control Response up to (10) salt trucks to cover all streets and municipal parking lots.

The Director of Public Works or his designee has full responsibility and authority for planning, coordinating, implementing, monitoring and managing all snow and ice control efforts.

ICE CONTROL RESPONSE

Our initial response to any snow emergency (stand-by or call-out) is to immediately dispatch up to (10) salt trucks to all streets and municipal parking lots beginning with all primary streets. Unless otherwise notified by the supervisor, all operators will continually salt/plow all streets and parking lots in their pre-assigned areas. The supervisor shall constantly monitor street condition and the progress of the storm to determine if and when additional salt/plow trucks or full plowing are needed.

The following are important reminders to be closely followed during and after all salting operation.



Drivers are to review detailed area maps carefully to clarify exact perimeters of their responsibility. Individual section maps are enclosed in each truck.

All Driver are to **“hit the road”** immediately upon checking in, after checking fuel, oil, salt and calcium levels in their vehicles. Do not wait until other drivers arrive!

Keep in contact with the supervisor by radio as necessary. **When completed with your designated route, check with the supervisor promptly to see if any other driver needs assistance.**

Inspect and **wash** the truck/spreader/spinner when finished to prevent “caking” and to identify mechanical problems in need of prompt repair. Always park vehicle fully fueled with a full tank of calcium chloride de-icer. If there is no indication that the vehicle will be needed within the next 24 hours after parking it, the vehicle shall be cleaned of all salt in the bed of the truck.

A liquid de-icing system (calcium chloride) is used to enhance effectiveness of salting efforts, especially at temperatures below 24 degrees Fahrenheit. Usage will be determined by the responsible supervisor/operator. The city operates two 4500 gallons calcium chloride tanks. One tank is located at the Public Works and Engineering facility next to the fuel tanks. The second tank is located at the Lockport sewer treatment plant next to the salt dome. Each salt/plow truck is

equipped with a calcium chloride tank, which should be sufficient for the treatment of multiple loads of salt. The pump and spray nozzles are calibrated to deliver the proper amount of liquid per ton of salt. The driver should monitor usage to assure proper system operation. Exercise caution when filling the tanks on the trucks. **Liquid de-icing chemicals are caustic. Always use extreme care and wear eye protection and rubber/vinyl gloves when filling and naturally, avoid spills.**

SNOW PLOWING ROUTES AND TRUCK ASSIGNMENTS

Route #1 Truck #132

All city streets that fall within the limits of the Victoria Crossings subdivision (east and west), Prime Blvd. Part of 163rd by Victoria Crossings, Parker Ridge and Parkside Estates

Route #2 Truck #126

All city streets that fall within the limits of Broken Arrow, Broken Arrow town homes, Thunder Hill, Dakota Glenn, Pueblo Point, Long Bow Creek, and parts of Farrell Road.

Route #3 Truck #123

All city streets that fall within the limits of Broken Arrow South town homes, Navajo town homes, Lakewood at Broken Arrow, and Willow Walk. City portions of Gougar Road, Bruce Road, Oak Avenue and Farrell Road.

Route #4 Truck #133

All city streets that fall within the limits of Pine Valley, Neuberry Ridge, meadow Ridge, Parkview Manner, South Estates and everything from Lawrence Avenue east to Briggs Street and Division south to Neuberry Ridge.

Route #5 Truck #129

All city streets that fall within the limits of Division South to Parkview and Lawrence west to Prairie. All city streets on the west side of I&M Canal from 2nd Ave to Division.

Route #6 Truck #107

All city streets that fall within the limits of Commerce/Rail Road tracks east to Garfield Street. Division Street to 9th Street. Metra commuter parking lot, Madison Street parking lot.



Route #7 Truck #127

All city streets that fall within the limits of Commerce Street/Rail Road tracks east to Read Street. 9th Street North to Bluff Street. Central Square parking Lot and 8th Street parking Lot

Route #8 Truck #128

All city streets that fall within the limits of Garfield Street east to Porter Drive and from Division Street north to 9th Streets. North of 7th Street this route includes Read Street and everything west. Pleasant Grove Subdivision and Grand Point Crossings

Route #9 Truck #118

All city street that fall within the limits of Regency Point, Westwood Estates, Clover Ridge, Fieldstone, and Karen Springs. Sections of Farrell Road, the Police Station, Parts of Highland and Robson

Route #10 Truck #125

All city streets that fall within the limits of Abbey Glenn, The Woodlands, North Meadows, Saddlewood Estates, Whispering Pines, Creekside Estates (North) Deer Path Run, Port Ridge, The Fields, Forest Point, 151st from State to Gougar, Gougar Road from 151st north to 147th and east to Lemont Road, North on Lemont Road ¼ mile.

Cul-de-sacs, Alleys and Parking lots

The Director of Public Works or his designee will call out smaller snowplow trucks to plow areas such as cul-de-sacs, alleys, and municipal parking lots. The driver assigned to the route will be responsible in ensuring the smaller snowplow truck completes the areas in the route. Should a smaller truck not be available, the driver in charge of the route should make all reasonable attempts to complete all areas within their routes before concluding their shift or otherwise directed by the Public Works Director or his designee.

Small Truck Route Assignments

Route #1 Truck #109
Route #2 Truck #102
Route #3 Truck #134
Route #4 Truck #106
Route #5 Truck #105
Route #6 Truck #621
Route #7 Truck #622
Route #8 Truck #120
Route #9 Truck #708
Route #10 Truck #104

It is critical that for each storm we meet our goal of full-width, **curb-to-curb** clearance to better ensure vehicular safety, proper drainage and ample snow storage during subsequent storms.

The following are important instructions, policies and reminders to be observed during all plowing operations:

- Drivers are to review area-plowing maps carefully to clarify their responsibilities. Supervisors are to schedule time prior to November 15th for all primary drivers to drive and thoroughly inspect their normal area assignment. All potential hazards in roadways or adjacent thereto are to be noted and promptly submitted in writing to the director for correction.
- Drivers are urged to formulate a logical route in their mind to ensure the area is plowed in the most effective manner.
- All plows and spreaders are to be staffed with one person, unless otherwise directed (i.e. specific training requirements).
- All private roads and subdivisions are to be plowed by the homeowners association or their agent. The City of Lockport may be contracted to plow these areas at the expense of the owner, homeowners association or developer and only after all city streets have been plowed. A \$500.00 fee shall be paid to the City of Lockport per occurrence. Seasonal rate of \$3500.00 will be applied to areas that have less than 1 lane mile. Areas with more than 1 lane mile will be subject to the City's budgeted amount



for snow and ice control per lane mile multiplied by their lane mile distance. All fees shall be paid and accompanied by a signed liability waiver prior to any services being provided.

TANDEM PLOWING

A tandem plowing pass will typically consist of a lead dump truck making a center cut with the plow's left edge at or near the pavement centerline followed by a salt spreading truck pushing the remaining snow over the curb. The second plow's cut should overlap the first plow's path to prevent a snow ridge from forming between the two cuts. Salt should be spread on each tandem pass at one half of the 2-lane mile rate used for that storm. The spreader operator shall adjust the spinner control to overlap both plow cuts with salt. **It is imperative that during tandem plowing/salting that only the second of the two trucks spreads salt so as not to waste salt.**

EMERGENCY/ BLIZZARD TYPE CONDITIONS

The primary objective of the plan is to concentrate snow removal efforts on priority city streets, thoroughfares, arterials, and significant collectors during severe weather conditions. In isolated emergency circumstances, it may be necessary to supplement personnel and equipment with contractual assistance.

Supervisors shall maintain contacts with local contractors who operate loaders, tractors, plows and trucks for hauling in disaster situations.

All snowstorms are categorized based on severity and snow accumulation. They are:

Category 1 Storm: (Minor)- Typically frost, ice or nuisance snow. Isolated trouble areas (bridges, hills, overpasses, some intersections) may be treated.

Category 2 Storm: (Minor)- A prediction of less than 2 inches of snow. All hills, bridges, overpasses and major intersections treated.

Category 3 Storm: (Intermediate)- A prediction of 2-4 inches of snow. Parking restrictions for all marked snow routes; other parking bans may be implemented. All city streets and intersections will be plowed and/or treated. Mobility will be maintained in alleys.

Category 4 Storm: (Major)- A prediction of 4-6 inches of snow. Parking restrictions implemented. All city streets and intersections plowed and/or treated. Plowing priority system implemented. Mobility maintained in alleys.

Category 5 Storm: (Major)- A prediction of 6-12 inches of snow. Parking restrictions implemented. All city streets and intersections plowed and/or treated. Plowing priority system implemented. Due to accumulation of snow, in/out plowing implemented for off-route streets. Snow removal from sidewalks in downtown area and higher-speed arterials may be included. ESDA could declare an emergency. May take up to 7 days for removal and pushing back snow once streets are cleared.

Category 6 Storm: (Severe)- A prediction of more than 12 inches of snow. Parking restrictions implemented. All city streets and intersections treated. Plowing priority system implemented. Due to accumulation of snow, in/out plowing implemented for off-route streets. Snow removal from sidewalks in downtown area and higher-speed arterials may be included. ESDA could declare an emergency. May take up to 14 days for removal and pushing back snow once streets are cleared.

During high winds, drifting and/or blizzard-like conditions the main routes are repeatedly plowed as needed, even if off-route streets are still snow covered. These conditions as well as heavier snow often lengthen the time needed to clear the snow.

Rock salt (sodium chloride) is spread on streets to prevent unsafe travel conditions when either snow or ice begin to accumulate. It takes 4+ hours to completely salt the entire city. The amount of salt used is based on the total snow accumulation, outside air temperatures and traffic conditions since temperature and vehicular traffic are critical factors in the effectiveness of salt. The city uses

caution to ensure salt applications are not excessive and, therefore, detrimental to the environment or to automobile bodies.

Priority Plowing System

The city has established a Priority Plowing system for our 150 lane miles of roadway based on traffic volume, speed limit and potential safety concerns.

First Priority: Primary roadways are those with the highest traffic volume, adjacent to schools, leading to hospitals and emergency vehicle routes. These are generally considered “arterial” and “collector” roadways. Hills and bridges are included in this category.

Second Priority: Second priority roadways include residential streets and cul-de-sacs. During and after a storm's completion, some streets become snow packed as a result of wind, drifting conditions and/or vehicular traffic over unplowed roads. All attempts will be made to reduce snow pack situations. Snow accumulations impairing motorists' sight distance will be monitored and addressed as needed.

City crews will plow one path (in/out) through every roadway to allow residents mobility as early as is practical in the storm. Crews will return later to finish pushing the snow back and clean storm inlets.

Alleys:

Due to the narrow width, plowing alleys deposits snow on (and potentially causing damage) to adjacent structures such as garages and fences and also impairs garbage pickup as well as obstructing alley access where snow has been deposited. However city crews will evaluate alley conditions during heavier snow accumulations to determine if city assistance is needed to maintain alley mobility.

Cul-de-sacs:

The City of Lockport has upwards of 150 cul-de-sacs and dead end streets. Cul-de-sacs are the most time-consuming, taking an average of about 35 minutes to clear each one, which is eight times longer than it takes to plow a through street of the same size. These are more difficult due to the limited space to dump snow without burying driveways, mailboxes, streetlights or fire hydrants.

Driveways and sidewalks:

It is the responsibility of the resident and property owners to keep driveways and sidewalks clear of ice and snow. The city urges citizens to keep this critical part of Lockport's transportation system moving by clearing sidewalks, especially for children walking to and from school.

State law protects property owners from any additional liability if they shovel their sidewalks. Residents should shovel snow into their own yard, not onto the street. Putting snow onto the street is against the law because it causes dangerously slippery conditions for both motorists and pedestrians.

City crews try to avoid putting large piles of snow in front of driveways; however, this is not always possible. To avoid having to double shovel, citizens may want to wait until after their street has been plowed before clearing their driveway.

Residents are also asked to keep snow cleared around fire hydrants to aid firefighters and mailboxes to aid postal carriers.

Mailbox Damage:

The City of Lockport is not responsible for damage resulting from snow exiting the plow blade or for weak deteriorated posts. Should a city vehicle or plow hit a mailbox and cause damage, the resident has an option of having the city repair the existing mailbox, replace the mailbox with a black or white metal mailbox and wooden post, or make the repairs themselves and be reimbursed for material costs up to \$30.00 providing the resident gives a sales receipt and invoice to the city.

The city is not responsible for mailboxes damaged during snowplowing if they do not meet U.S. Postal Service's guidelines. These guidelines state the front (face) of the mailbox may not extend beyond the back of the curb or overhang the curb or street. A 6" (inch) setback measured from the back of the curb to the front of the mailbox is recommended. However, the front (face) of the mailbox should not be greater than 6" (inches) from the back of the curb. Mailbox height should be between 36" to 42" measured from the bottom of the mailbox to the street level. If a mailbox is on a curve or cul-de-sac, it should be before and as close to the edge of the driveway as possible. The approach to a mailbox should be kept clear 10ft in each direction.

Railroad Crossings

It is the responsibility of all public works personnel to operate snow removal equipment with **extreme caution** at all times, especially at or near railroad crossings. It is necessary that we cooperate fully with railroads and other highway jurisdictions in maintaining all railroad crossings in a safe condition. The following precautions must be observed by all employees (as well as local contractors and other governmental agencies) operating snow removal equipment over or near railroad crossings at all time:

1. stop all heavy snow removal equipment before driving over a crossing;
2. be alert for trains from **both** directions when approaching crossings;
3. raise the nose and blade of snowplows as well as tractor buckets to clear rails, planks or rubberized grade crossing structures;
4. be sure that chunks of ice, large mounds of snow or other heavy debris are not deposited within the crossing zone;
5. spread sufficient amount of salt or abrasive to the pavement approaching the crossing to afford adequate traction and protection for traffic; and

6. turn spreaders off prior to actually crossing the grade in order to assure salt or abrasives are not deposited on the crossing or directly in the rail flangeway.

All personnel must realize the importance of complying with this policy in order to avoid derailments or related highway accidents. Proper and safe operation of snow removal equipment can minimize the potential for unnecessary property damage, personal injury and attendant lawsuits.

Clean up of Equipment and Facilities

Salt loading areas around bulk storage bins shall be cleaned up as soon as practical after every storm. All salt and plow trucks shall receive a preliminary wash/rinse down after **every** use and a thorough cleaning as soon as practical after each storm event. They shall be parked fully fueled and ready to go on a moments noticed. Special care should be given when operating next to bulk storage facility and the fuel island.

Any salt or abrasive spills in the field due to mechanical malfunction or overloading of hoppers shall be noted and thoroughly cleaned up at the conclusion of snow operations.

Equipment Inspection/Serviceing

All snow and ice control equipment is to be thoroughly inspected, repaired, re-calibrated and put into service for snow operations by November 1st. The bulk material storage facilities shall be inspected after receipt and filling of every salt order received as well as after every major storm for tidiness, structural stability and accidental damage. All plows will be fully inspected and repaired by fleet maintenance staff after every major storm event. **It is the specific responsibility of all personnel to report any defect they observe in equipment, street, right-of-way or facility conditions, or in operating or safety related procedures in writing c/o the immediate supervisor for the purpose of assuring expeditious remedial action.**

Rules of the Road

All snow and ice control equipment drivers shall be thoroughly familiar with the most current version of the *Illinois Rules of the Road* and the *Illinois Commercial Drivers License Study Guide*, both published and available through any Secretary of State's office. All supervisors shall secure a copy of each and have it available for review at all times.

Accident Prevention

Snow and ice control operations have certain inherent risks. Drivers are reminded to drive defensively. **All vehicles must have amber strobes and/or rotating lights activated during snow/ice removal operations.** Be alert for

changing road and traffic conditions at all times. Keep your eyes moving; use extreme caution during all backing maneuvers; exercise due diligence to avoid mailboxes; and report all accidents promptly! If the incident is serious, radio the supervisor so photos and police reports can be obtained. Departmental investigation will follow as soon as practical during or after completion of pending snow and ice obligations.

Commuter/Public Parking Lots

The commuter lot shall receive priority attention from the two assigned drivers in order to be fully plowed by 5:30am during the regular workdays Monday through Friday. In the event of a late start, additional units shall be called to assist the lots/stalls closest to the train station shall be plowed first.

The Police Department lot shall be plowed at regular intervals during a snow event. Special attention should be given to one hour prior to shift change when possible.

Roadway Jurisdictional Map

Current list of Municipal, County and State roads (attachment)

Plow/Salt Routes Sectional Maps

Area snow route maps indicating the area of responsibility (attachment)