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City of Saco
DEPARTMENT OF PUBLIC WORKS
SNOW AND ICE CONTROL POLICY

2001-02

I. INTRODUCTION

The following policies and procedures will serve as a practical guide for cost-effective snow and ice control in the City of Saco. This policy can be amended as determined by the Department of Public Works when specific changes within the department's structure would cause such a need.

II. GENERAL

The Department of Public Works has responsibility of maintaining several essential services. A significant portion of the department's overall efforts is directed towards maintaining essential transportation and utility infrastructure throughout the year. None is more demanding than our 130 miles of transportation services during an extended period of high precipitation, low temperatures and heavy winds, which together characterize a Maine winter.

The Director of Public Works has direct responsibility for daily operation of all departmental functions reporting to the City Administrator regularly. Day-to-day operations include several different types of functional divisions where services may be required in, around and during the worst of winter storm events. Departments within the Public Works structure are as follows: Public Administration, General Maintenance, Winter Maintenance, Solid Waste-Recycling, Transfer Station, Sewers and Drains, Garage Facilities and Camp Ellis Pier.

III. RESOURCES ASSISTING IN THE PLANNING AND EXECUTION OF WINTER OPERATIONS

In efforts to provide timely winter maintenance services and to gauge the level of activity required prior to, during and following winter storms, Public Works utilizes the following resources:

- National Weather Service On Weather Radio, Internet Forecasting, See Appendix A
- York County Emergency Management Agency Fan Outs
- Local Television & Radio Stations
- Dedicated Weather Channel on Cable Television
- Police Department
- MDOT to include DTN; Division 6 Internet; Precision Weather Forecasting
- Other internet providers, Sample Appendix B

Public Works has internet capabilities at its facility. Our e-mail addresses are as follows:

Larry Nadeau-lnadeau@sacodpw.com
Amy Oliver-aoliver@sacodpw.com
Ronald Kiene-rkiene@sacodpw.com
Phil Labbe – plabbe@sacodpw.com
Mike Tilley-mtilley@sacodpw.com

This ability affords the department the latest possible weather information from various web pages offering such services.

Having a 24-hour service schedule, most calls for service come from the Police Department's central dispatch. It is crucial that necessary inclement weather information is conveyed to Public Works as quickly as possible for assessment and response. If calls for service can wait until the next regular work shift the Police Department should enter, on work request forms, the service request and forward to Public Works prior to the morning dispatch period.

Emergency needs should not be neglected. In providing expeditious services it is crucial to have detailed information to the problem or need to the extent possible in order to respond as quickly as possible. This will be discussed into greater detail below. Weather conditions may at times bring about varying emergency needs; work request form being mentioned should assist in directing attention to the reported problem in an expeditious manner. See appendix C.

IV. MONITORING AND NOTIFICATION OF SNOW AND ICE EVENTS

Coordination between Public Works and the Police Department is a critical element in successful snow and ice control. During working hours inclement weather observations by public works crews and or police may trigger the first crew response. During off duty hours police officers may direct the police dispatcher to initiate the first crew response.

The dispatcher's call will be made utilizing the assigned winter months call list. This weekly rotating list of supervisors, whom are assigned to assume the duties to the scheduling of crews during a storms' final formation, will dispatch first crew responders. This schedule is updated yearly. Changes occurring during the winter months will require notification to the parties receiving this list. Presently this list is forwarded to the City Administrator, Fire Department, and Police Department. Sample in appendix D.

It has been customary for the police department and public works personnel to monitor weather reports when inclement weather is approaching. The use of the resources mentioned earlier is encouraged, including any other services totally dedicated to weather forecasting.

The Director of Public Works may declare a need for the snow emergency-parking ban, Chap. 211-13, see appendix E. When initiated the media will be notified by fax in the format illustrated as appendix F. The Fire Department will assist in this notice by sounding its central station horn. The horn will release 6 blows at the declaration of a parking ban.

The City of Saco and City of Biddeford Public Works Departments have merged efforts to better assist residents within both communities when a parking ban is necessitated. Before a parking ban is put into effect both departments will communicate on need and timing. It is now customary to have parking bans in both communities at the same time. This affords residents a better chance to be aware of the needs for off street parking in whichever community they may reside, as the need will be similar, if not identical, in both.

V. DETERMINATION OF OPERATIONS

Using the resources identified, as well as experience, the start up supervisor in close contact with the Director of Public Works, will determine the appropriate level of response and timing for snow and ice control to be performed. The start up supervisor will contact necessary personnel from an employee listing which will have all applicable phone numbers.

Once the storm progresses, necessitating personnel to take their respective pieces of equipment and assigned routes, the start up supervisor will pass on his authority to the Director of Public Works or his designee. From this point on, all equipment and personnel movement will be assigned as the emergencies warrant.

Although significant improvement has been made in weather forecasting, accuracy varies significantly in communities along the coast. An overall plan with assigned routes has been

developed to provide for cleaning of roads and is generally followed. However, each storm event is unique and deviations from the plan occur often. Decisions must be made using individual judgment based upon current assessment to the situation.

VI. CONTROL CENTER

Upon notification to the commencement of snow removal activities, Public Works employees will meet at the Public Works facility on North Street. At this location employees will receive final assignments. The facility phone numbers are 284-6641 for administration and 282-4646 for the garage maintenance facility. The start up supervisor or designee may leave the control center to evaluate conditions and assist in the operations they will be available via radio. Vehicle numbers will dictate a person's call sign if a need to reach them by radio is necessary.

Snow removal activities also include the staffing of the garage facility. Once the announcement for additional personnel is made the shop supervisor will be notified to start calling shop personnel. At a minimum there will be one mechanic in the shop at all times during a full-scaled storm incident. Shop personnel will also assist in snow activities such as wing persons or equipment operators during plowing operations.

The Public Works phone system is equipped with voice mail capabilities. Messages can be left in six different boxes. The general information mailbox has several notices for the general public. In numerical order they are,

- Press 0 or 10 for the Administrative Assistant
- Press 22 for the Director of Public Works
- Press 29 for the Garage Supervisor
- Press 28 for the Parts Room
- Press 23 for the General Maintenance Supervisor
- Press 25 for the Recycling Supervisor
- Press 0 for the General Information Mail Box
- Press 26 for the General Superintendent/Environmental Specialist
- Press 34 for the Engineering Technician

Another information line is available to inform the public of parking bans. This courtesy line offers a recording to whether a parking ban is on or not. If a snow-parking ban is enacted details are available by dialing 282-SNOW (7669). See appendix H.

VII. EQUIPMENT

Prior to any equipment being dispatched the operator will complete a pre-start up inspection. As most equipment is prepped prior to all storms it does not negate the need for this inspection.

In support to snow operations the department has the following equipment resources available to fighting snow and ice storms:

- 3 Tandem trucks, 10 CY plus capacity sand/salt sanders with two way snow plows and wings.
- 11 Single axle trucks, 5 CY capacity sand/salt sanders with two way snow plows and wings.

- 1 Single axle truck, 5 CY capacity sand/salt sander with one-way snowplow and wings. This is a front wheel drive truck having immense capacity for shelving or heavy pushing. A v-plow is usually installed to a unit such as this. It has the ability to operate two wings but only one is used.
- 1 Single axle truck, 5 CY dumps with rear sander. One-way snowplow and wings. This is a front wheel drive truck having considerable capacity for shelving and heavy pushing. It is operated with two wings during storm events.
- 3 Front-end loaders with two way plows and wings. Units easily convert to having a bucket for various uses.
- 1 Front-end loader with bucket. This unit is for loading of aggregate and salt.
- 1 Wheel-loader backhoe. Also used in assisting loading aggregate and salt.
- 1 4-wheel drive tractor, used to assist in cleaning drains and yard as deemed necessary.
- 2 Sidewalk plows with two-way plows. One has a small sander and dump for sand/salt applications.
- 4 One ton trucks and sanders with two-way plows. One is owned by Parks & Rec. but utilized by Public Works with Parks & Rec. personnel.

In an emergency situation where the City equipment is out of service for repair or the situation is beyond the ability of the City to handle, supplemental equipment and operators may be hired. A list of potential contractors is indicated in appendix H and I. Assistance may also be secured from neighboring communities through inter-local agreements.

As snow events may be similar in neighboring communities supplemental equipment will depend on various combinations, stand-by equipment and personnel, storm tract and precipitation total. Major winter disasters may require assistance of the Maine Army National Guard. The York County Emergency Management Agency also has mutual aid agreements with contractors for emergency draws.

In further assisting our efforts towards providing the best possible service to the citizens of Saco and to our workers we have an Emergency Preparation Policy which applies to serious storm events, from blizzards to hurricanes. As this policy extends beyond snow activities it is included as an appendix. See appendix I.

VIII. SNOW ROUTES AND EMERGENCY PRIORITIES

Public Works has established plow routes for all equipment having the potential to perform snow removal activities including other City department equipment and personnel. These routes are based on equipment size, capabilities, and storm intensity. The storm event is assumed to be manageable where a normal 3 to 4 hours has lapsed in completing the entire route in making road passable. This does not include continued cleaning needs or final clean up. It is customary to have personnel in for 18 to 24 hours and beyond before all roads have been satisfactorily completed.

Smaller units, 1-ton trucks, will assume responsibility for minor plowing needs. Work may include narrow and short streets along dead end streets, too small for larger units with full gear. Because cul-de-sacs are extremely time consuming for cleaning and require more equipment maneuvering efforts to minimizing lost productivity is considered. Smaller units may be assigned when available in the effort to maximize larger equipment for through street cleaning. Other areas requiring smaller units include pump stations, parking lots, intersections and other municipal

properties. During significant storm activities the smaller vehicle assignments will monitor larger plow equipment traffic and assist as needed, potentially delaying their routes.

Sidewalk clearing in designated areas will generally begin with priority areas at the onset of a storm. The first area will be the immediate down town and intersecting streets. Equipment will continue to work outward coming back if the storm is significant in efforts to at least keep the heart of town open. It is the goal to clean all sidewalks that are within a one-mile radius of all schools as quickly as possible.

With personnel shortages, general sidewalk clearing may take some time following a storm. An effort to use two sidewalk cleaning is always considered when staffing is available.

Sidewalk clearing operations will be done during storm events when road maintenance personnel are conducting their own clearing operations. Hours of operation may vary slightly but normally is fairly close to the hours plow operators may put in. If clearing of sidewalks is not fully complete work will resume the next workday excluding Saturday and Sunday unless other crews are working.

During significant and severe storm events we must be prepared to move personnel and equipment into maintaining priority routes first. These changes could result from storm severity, emergency calls, equipment failure, personnel availability, and finances.

In order to make the most efficient use of our personnel and equipment resources, it is necessary to establish routes that are deemed priorities for our services and more specifically emergency response teams. The Director of Public Works will consider these priorities in the determination when it is deemed that the storm has surpassed the normal capabilities of the City's snow removal resources.

Established street and route priorities are as follows:

- Main Street from York Hill to Beach Street
- Route 1 from Beach Street to the Scarborough line. Note...from the Scarborough line to Route 98 is presently maintained by MDOT, however, this segment is a city maintenance responsibility. MDOT travels this corridor to maintain Route 98 and we have mutually agreed that their interaction to this segment would prevent unnecessary overlapping and wasted resources.
- Beach Street from Main Street onto the Ferry Road up to Seaside Avenue/Route 9
- Seaside Avenue/Route 9 from Ferry Road to Old Orchard Beach
- North Street from Main Street onto Route 112 to the Town of Buxton line
- Spring Street from North Street to Lincoln Street
- Lincoln Street from Elm Street onto the Boom Road up to Route 5
- Bradley Street/Route 5 from Spring Street to Loudon Road
- Loudon Road in its entirety from either Route 112 or Route 5
- Industrial Park Road from North Street to Route 1
- Jenkins Road from Route 112 to Flag Pond Road
- Flag Pond Road from Route 1 to the North Saco Fire Station

- Heath Road from Route 112 to McKenney Road
- McKenney Road from Heath Road to Buxton town line
- Mast Hill Road from McKenney Road/Heath Road to Holmes Road
- Holmes Road to Scarborough town line
- Lincoln Road from Flag Pond Road to Ash Swamp Road
- Ash Swamp Road from Lincoln Road to Scarborough line
- Watson Mills Road from Mast Hill/Holmes Road to Ash Swamp Road
- Burnham Road from McKenney Road to Scarborough line
- Simpson Road from Route 112 to Buxton line
- Police, Fire and Rescue calls; for health and safety issues may take priority

In fulfilling the need to having all priority streets and routes safe and passable, when resources are limited, plowing and sanding of all other streets may be stopped at any time in order to go accomplish certain task. All school plowing and treating is done after all streets have been completed. However, emergency passes are done periodically during the storm around schools in case there is a need to respond in an emergency. These tasks also take into account other emergencies beside weather issues. Some foreseeable emergencies are listed below.

IX. DISTRICTS

Public Works has operated a two-district formation since 1990. This means that the City is virtually separated in two during snow activities. This allows better control during resource deployment and contributes to a joint participation in finishing operations. It also gives a slight competitive spirit towards the final product delivered. A recently updated procedures and policies as to the districts' make up and requirements it appended as appendix J.

X. EMERGENCIES, FORESEEABLE

- Immediate need for Police, Fire and Rescue assistance. If City personnel along with equipment must leave the public right of way in responding to an emergency snow removal crews will provide necessary assistance to emergency crews as directed.
- Icing conditions where a waterline break has occurred.
- Beach erosion threatening in place infrastructure and road access due to deposits of water and debris.

Unforeseeable circumstances, which could cause delays in completing assigned plow routes, must also be mentioned. As they may be sporadic they collectively account for serious delays during most storms. Listing a few we have;

- Commuter traffic
- Parked cars along streets
- Equipment breakdown
- Assistance to school buses

- Personnel shortages

Night-time plowing is not being listed due to the fact that it is more than sporadic; rather it is a common occurrence.

XI. RAILROAD MAINTENANCE

After every storm, day or night, a team is dispatched to clean out city owned railroad switches located in the Industrial Park. Personnel walk out to switch points removing all snow and ice. Potential treatment with salt may also be required. If the accumulation is too great front-end loaders may be dispatched to remove snow covering the rail. The rail service supplier will not enter onto our rails unless the railroad and switch points have been maintained.

XII. VIOLATIONS

A City code exists in protecting users of the public right of way from unforeseen hazards caused by the general public. Pushing of snow across streets, along streets, and into sidewalks occurs frequently. This hazard is more prevalent during and immediately after a storm.

Chapter 186 "Streets & Sidewalks", Section 48 "Obstruction of Public Ways Prohibited" describes the violation, which is enforced by the Police Department. When noticed the Police Department is notified by fax stating the location for the violation has occurred. Efforts to remove the hazard must be done as soon as possible. Public Works should be contacted to remove the hazard if delays in its removal are to be expected See appendix K.

XIII. MATERIALS AND APPLICATION

At the Public Works facility, located off North Street just before the Turnpike overpass, ice and snow abrasive and melting materials are stockpiled for use during the winter season.

- Approximately 3,500 to 4,000 CY of a sand/salt mixture is stored outside.
- At any given time approximately 200 tons of salt is maintained on site in a covered salt shed. During a winter season the City utilizes approximately 1,200 tons. The City's source for salt currently being used is International Salt Co. in South Portland, Maine. They operate at the Merrill Terminal in Portland. Phone number is 1-888-388-4726.
- Approximately 800 gallons of liquid calcium chloride is available in a plastic storage tank located near the salt shed. This material is utilized in connection with rock salt and sand to speed the thawing process and depress the thaw point.

Conditions may warrant the application of several treatment technologies in efforts to treat road services to a degree of acceptability according to local temperatures. Treatments could be in the form of sand and salt mix, sand-salt and liquid calcium mix, salt and liquid calcium mix, hot de-icer sand, or salt alone.

Established priorities will receive treatment in the order selected by the Department of Public Works. Other streets will have material spread only at intersections, hills, and curves. Materials may also be applied to other locations in what is termed "spot sanding" to allow better tracking.

XIV. JOINT MUNICIPAL SERVICES

Due to inadequate turning areas for snow removal equipment at municipal boundaries, municipalities share in the effort to safely terminate their plowing operations municipal boundaries are described as follows;

Route 112 (turn around just beyond the “old Route 112” in Buxton, entering the “old Route 112” for maintenance and coming out at the Route 117 entrance)

McKenney Road (whichever municipality, Buxton or Saco, reaches? first will maintain the last 300 feet of McKenney Road on Saco’s side.

Tapley Road (Saco will maintain the Scarborough section up to the Buxton line).

Burnham Road (Scarborough will turn at Tapley Road and as will Saco).

Holmes Road (Scarborough will turn at Mast Hill Road intersection).

Hearn Road (Saco will turn to first available street in Scarborough)

Ashswamp Road (Scarborough will turn at Lincoln Road)

Route 1 north end (from Route 98 to City limits is maintained by MDOT)

Ross Road (City turns at the closest subdivision road in OOB and OOB will turn at the Saco bus turnaround)

Milliken Mills Road (Old Orchard Beach turns at Route 98)

Route 9/Seaside Avenue (Saco turns across Goosefare Brook at Old Orchard Beach pump station)

Main Street/York Hill (Saco turns on Biddeford side just across bridge)

Elm Street/Route 1 (Biddeford and Saco share bridge maintenance depending on arrival times).

Market Street Bridge (Biddeford turns at Market Street and Saco may turn in Biddeford)

Route 5 (MDOT coming from Dayton turns on top of hill at “Old Route 5” intersection)

All shared snow and ice maintenance is done without any financial consideration. Final clean up and monitoring remains the respective community’s maintenance obligation.

XV. PRIVATE DRIVEWAYS & PROPERTY

City equipment will not clear private driveways entrances unless one is situated at a dead end where no appropriate equipment turn around exist. In order to utilize these drives an agreement should exist between property owner and the city for allowing city vehicles to access this property. City will assume appropriate responsibilities if equipment damages such property in conducting snow removal.

It will be the City’s goal to secure adequate property easements and to construct appropriate turn around for safety and for mitigating liabilities.

Snow placed in driveways or private walks by the City when performing routine snow maintenance is the responsibility of the property owner to remove.

City equipment will clean only those private parking lots where the City has current agreements and where their use by the general public is permitted.

XVI. OPERATIONS DURING NON-STORM PERIODS

After a storm event or during periods of lessened storm activity a number of operations need to take place to insure readiness for subsequent winter operations.

- Equipment needs to be thoroughly inspected and cleaned. Special attention must be given to tires, brakes, wipers, liquids, snowplow hardware, sander spinners, bearings, and chains, lights, and other safety equipment.
- Materials, especially salt and calcium chloride, must be reordered in maintaining adequate inventory.
- Supervisors and other assigned personnel will check plow routes for visible problems. Any problem reported should be taken care of prior to the next storm or as soon as possible.
- It is important to wingback snow from road shoulders following each major storm and to clear critical areas to make room for future storage. Excessively high snow banks must have the tops cut down for proper visibility or future snow storage. In performing this act snow is pushed back to reasonable limits in achieving desired results where adequate storage for the next storm (s) is attained as well as visual safety. There will be snow pushed beyond right of way limits at times.
- The City does not have a policy of hauling snow after each and every storm. However, it is advisable to collect snow off certain streets whenever possible. Concentration will be given to the streets located in the immediate downtown where parking, traffic volume and speed, intersections, and parking lots require attention.
- Intersections and turn around areas elsewhere will be done on an as needed basis. Hauled snow will be dumped at the snow dump located on Cumberland Avenue or at suitable and acceptable locations as determined by the Director of Public Works.
- Efforts to clean out roadway drains and catch basins are an ongoing task following storms. Also, railroad crossing and city owned rail spurs must be monitored and cleaned every storm. Salt application may be needed to free ice and snow from both appurtenances.
- Every effort will be made following a storm, generally within 48 hours, to review all complaints received during the storm. Areas where work is necessary it will be scheduled. Where complaints are operational the Director and applicable supervisors will investigate. Findings will be made known to the complainant as soon as possible.

XVII. COMPLAINT PROCEDURES

Complaints will be recorded on telephone logs. Calls requiring service will be transferred onto a work request form and forwarded to appropriate supervisor for scheduling. Emergency complaints will be handled in an expeditious manner with resources available.

XVIII. SANDING AND PLOWING REPORTS

A sanding and plowing report shall be completed for each storm event. This report will include information for which the Director can use in comparing elements from previous years as well as a historical tool for tracking calls for service. See appendix L.

XIX. MAILBOXES AND OBSTRUCTIONS

Coming into contact with a mailbox is a common obstacle operator's face during storm activities. These chances increase dramatically whenever considerable snow falls, especially heavy wet snow. Other probabilities include meeting oncoming vehicles during snow events. Most vehicles tend to ride the center of the highway rather than their designated lanes forcing plow equipment to move out from on coming traffic onto shoulder sometimes in the path of mailboxes.

All operators take their equipment operations very serious in efforts to providing the best possible roads for commuters during the snow season. Hitting a mailbox sometimes, someplace is bound to happen. It is without saying that when poor visibility is at hand the operator's main objective is to hold his vehicle on the road while watching for someone which could be heading into his vehicle and watching not to drive into an abandoned or stalled vehicle including its operator. Operating under blinding conditions is a very stressful task, especially after several hours of seeing nothing but a white blanket in front of them.

We conduct a review of each mailbox incident as to the reasons and follow with correspondence to the affected party. The response will have postal regulations to mailbox design and placement. Owners are urged to inspect their mailbox post condition periodically and to follow postal guidelines as close as possible. We may offer other recommendations if deemed necessary. Mailboxes are the only know device that is a permitted use. However, they must meet regulations and are placed in the public way at the owner's risk and responsibility. See appendix J.

If determined that the incident was due to driver neglect the mailbox will be replaced by Public Works. The City will remove non-permitted obstructions placed within public ways if after notifying owner no corrective measure has been taken. Usually the owner complies with the request negating our involvement. If obstructions did cause any damages to city vehicles and injury to the employee(s) the installer would be held liable. See appendix M.

XX. CLOSURE

To the extent that any previous rule, regulation, policy or past practice, written or unwritten, is in conflict with the provisions of this policy, such is hereby withdrawn, voided. All personnel will conduct themselves in conformity with this policy.

This policy is not intended to create any unnecessary hardship to any individual member of the public or to protect any particular or circumscribed class of persons. It may be possible that one or more of the following, which could delay some or all of the services provided, may affect all or parts of this policy.

- Equipment breakdown
- Vehicles disabled due to snow depth
- Weather so severe as to cause crews to be called in from the maintenance duties
- Equipment rendered inadequate by the depth of the snow or drifts
- Crew rest and meal breaks
- Refueling, travel for refilling of sanders, installing chains and new blades.
- Unforeseen conditions and emergencies

Resources:
City of Saco DPW policies by Larry
Nadeau
City of Clive, Iowa
Town of Essex, Vermont

APPENDIX

- Appendix A National Weather Service Forecast
- Appendix B Sample Internet Providers
- Appendix C Work Request Form

Appendix D	Supervisor Winter Call List
Appendix E	Chapter 211-13 “Snow Emergency-Parking Ban”
Appendix F	Media Notification
Appendix G	Parking Ban Recording
Appendix H	Construction Services Bidder List
Appendix I	Emergency Preparedness Policy
Appendix J	District Policy
Appendix K	Chapter 186-48 “Streets & Sidewalks” and 1991 Editorial
Appendix L	Sanding and Plowing Report
Appendix M	Mailbox Postal Regulation