



The City of New York Department of Sanitation



2023-2024 Final Snow Plan for the Borough of Staten Island

Pursuant to Local Law 28 of 2011

**Jessica Tisch, Commissioner
November 2023**

The Department of Sanitation (DSNY) Borough Snow Plan describes measures DSNY will take to fight winter weather, clear streets for safe transportation, and address issues of public safety related to snow and ice conditions. This document is published pursuant to the requirements set forth under Local Law 28 of 2011.

I. INTRODUCTION

The NYC Department of Sanitation (DSNY) keeps New York City clean, safe, and healthy by collecting, recycling, and disposing of waste, cleaning streets, attacking the scourge of illegal dumping, and clearing snow and ice. A critical component of this mission is to clear snow and ice from New York City's more than 19,000 lane-miles of roadways and associated infrastructure in a prompt, reliable, and equitable manner.

Winter conditions on the City's roadways introduce potential hazards to all forms of travel. Snow, ice, and other winter weather can impede first responders, temporarily close businesses and schools, and restrict the mobility of all New Yorkers. Snowfall can be expected to lead to the disruption of normal traffic patterns and public transportation. In prolonged or severe snowfall, disruption can last for extended periods of time.

While DSNY makes every reasonable effort to clear snow and ice from the City's highways and streets as quickly and effectively as possible, it can be a lengthy process, particularly when persistent or heavy snowfall occurs combined with falling temperatures and high winds. This Snow Plan concentrates on the planning, organization, and response to winter weather conditions, the execution of operational tasks to perform salt spreading on roadways, and the plowing, piling, hauling, and melting of significant snow accumulations from the City's roadways.

II. PLANNING

DSNY's preparation and planning process for winter weather is continuous and ongoing. In the spring and summer, DSNY staff review the approximately 1,500 snow-plowing routes throughout the city and adjust them as necessary based on the prior year's experiences and changes in the physical cityscape (i.e., construction of a new school or hospital). Snow routes no longer follow outdated "priority" designations, instead being designed to provide equity to all parts of the City. DSNY also performs preventative maintenance on all snow-related equipment and upgrades equipment as necessary.

At the end of each winter season, DSNY's operations teams perform a review and assessment of its response to all winter storms during the previous season. Operational changes and adjustments, such as improving equipment training and improving communications between snow removal personnel and supervisory personnel, are made as needed.

In the fall, DSNY holds meetings internally to coordinate operations, discuss snow staffing, and plan snow-drill exercises. DSNY also meets with other city agencies to coordinate asset dedication for its snow operations and to discuss putting City agencies on notice during a Snow Alert. A Snow Alert indicates the type of winter weather, amount expected, temperature and timing of the event as forecasted by weather services contracted by DSNY. As a result of these meetings, DSNY and other City agencies have adopted procedures and made assets available as outlined in Section V-D, below.

DSNY representatives also attend Community Board district service cabinet and Borough service cabinet meetings to report on DSNY's snow operations plan.

In the months before the snow season begins, DSNY ensures it has adequate equipment, parts, and supplies to carry out this Snow Plan. DSNY has established contracts with multiple vendors for the replenishment of salt stockpiles, and salt and calcium chloride are delivered to DSNY storage locations located in each borough. (See Appendix E). Citywide, DSNY has 31 permanent and 11 seasonal salt storage sites, with the capacity to store over 300,000 tons of rock salt. DSNY also has 52 calcium chloride locations citywide with the capacity to store 375,500 gallons of calcium chloride. Calcium chloride system components are inspected and tested prior to snow season to ensure pumps, nozzles and associate hardware are fully functional. The Department ensures that it has sufficient snow chains on hand to have an adequate supply for the snow season.

Every year, a snow-drill exercise is conducted at the beginning of the Night Plow season to get everyone in "Snow Mode" and identify areas that may need strengthening. This exercise involves all DSNY divisions, including both operational and administrative functions.

VI. TRAINING

DSNY conducts annual in-service training for uniformed staff each year from September through December. Training for Sanitation Workers includes, but is not limited to, equipment operation, attachment of plows and chains, use of two-way radios, and the use of route navigation technology, along with other annual training topics related to City and Department policies.

Front end loaders are a vital piece of snow removal equipment. Each year Sanitation Workers are selected for training to operate Front End Loaders at the DSNY training center located at Floyd Bennett Field. Additional classroom training is conducted for instruction on procedures when employing Hired Equipment and "Load and Dump" procedures for hauling and snow disposal operation.

IV. ASSIGNED EQUIPMENT AND PERSONNEL

For a full list of equipment and personnel assigned to each district, see Appendices A and B.

V. IMPLEMENTATION

The following is a step-by-step overview of how DSNY fights an impending snowstorm.

A. Forecast and Preparation

DSNY's Operations Office monitors weather forecasts through the contracted weather reporting services 24/7. The following services will be contracted for the 2023-2024 Snow Season: Accu Weather, Compu Weather, and Metro Weather.

When a risk of snow is indicated by the forecast, senior DSNY staff consider the need to activate personnel and equipment for snow response. If the forecasted amount of frozen precipitation would result in the need to deploy plows, personnel are re-scheduled into two 12-

hour shifts (normally 0700 hours to 1900 hours and 1900 hours to 0700 hours). During these situations, regularly scheduled days off for Sanitation Workers and Uniformed Officers are cancelled to ensure maximum personnel availability. DSNY formulates staffing needs 24 hours in advance of snowfall based on weather forecasts and other factors. After an assessment is made as to the necessary action, DSNY will issue a "Snow Alert" informing Department personnel, the Mayor's Office, and other City agencies of a pending snow event. In addition to receiving the snow alert, DEP, DOT and DPR may be notified of the need for their resources to address the pending snowfall if forecasts warrant it. (See Section V-D for City agency responsibilities).

DSNY's Bureau of Public Affairs will issue a "winter operations advisory" or "snow alert" declaration to all media and the public via a news advisory and all social media channels. Such advisories will also be posted on NYCEM's Severe Weather page, available at: <http://www.nyc.gov/severeweather>. Subsequent weather forecasts are monitored, and DSNY's Operations Office maintains ongoing communication with contracted weather forecasting services.

Before the storm, Department staff prepares equipment to begin snow fighting operations. This may include loading spreaders with salt and calcium chloride, attaching plows to spreader equipment and vehicles used for plowing, and attaching chains to spreaders and vehicles used for plowing, based on precipitation type and the amount of precipitation forecasted. Based on forecasted conditions, vendors be instructed to prepare for piling, hauling, or towing operations.

In the hours prior to snowfall, weather condition reports are submitted hourly from DSNY's field weather stations located at DSNY facilities. Salt spreaders are equipped and pre-positioned to begin operations at the first trace of precipitation.

B. Salting and Plowing Operations

DSNY no longer uses tiered routing designations for different categories of streets – every street is on a route, and every route can be dispatched as needed.

At the first trace of snow or frozen precipitation, salt spreaders begin dispensing salt on roadways. Spreaders are DSNY's first line of defense against snow and ice conditions. Large spreaders have plows attached and have the capacity to hold approximately 16 tons of salt. Spreaders are equipped with tanks of liquid calcium chloride for pre-wetting salt to enable the melting of snow and ice at lower temperatures. Each spreader can hold up to 120 to 240 gallons of liquid calcium chloride, depending on the series of truck. DSNY has expanded its equipment used to pre-treat roadways with liquid sodium brine solution. Beginning 24-48 hours prior to a predicted snow event, DSNY may pretreat pre-selected streets citywide with a liquid sodium brine solution designed to reduce the adhesion of snow and ice to the pavement. This process suppresses snowfall accumulation and can increase the effectiveness of DSNY's plowing operations and provide greater traction to motorists.

Plowing operations begin when snowfall exceeds two inches. Plowing clears snow from the roadways, moving it out of the way of the path of moving traffic. Plow blades are fixed to the right to avoid blocking oncoming traffic and keep intersections clear. Plows must follow their designated routes in the proper order, or they may miss some street segments. As a result, plows cannot be diverted from routes to resolve customer complaints until after snow has stopped falling and assigned roadways are clear.

DSNY also deploys specialized equipment as needed to meet local conditions. V-plows are deployed to areas where drifting or considerable accumulations of snow have made plowing too difficult for truck plows alone. Utility haulsters are small spreaders with plows attached for treating areas with limited accessibility. These spreaders can hold approximately 2.5 tons of salt. Front end loaders are used for salt loading, snow plowing in narrow streets, and snow hauling operations.

Additionally, in heavy snowfall events the Department may activate emergency hired equipment contracts as needed.

C. Situational Awareness

DSNY maintains situational awareness throughout a storm using a range of technologies and channels of communication. Department officers monitor operations in the field, and district offices and submit progress reports on the status of spreading and plowing operations.

DSNY headquarters, located at 125 Worth Street in Manhattan, maintains a Radio Control Center. All spreading and plowing equipment are outfitted with two-way radios and GPS to maintain communication with Supervisory personnel, Borough Commands, and the Radio Control Center throughout the event. GPS units are installed on all DSNY equipment as well as the units in DOT, DPR, and DEP that may be assigned to DSNY during storms. This allows DSNY to track all resources engaged in snow fighting efforts.

Radio communication is DSNY's best tool for relaying orders and information to and from the field during a storm. Each Borough Command transmits on a separate assigned radio talk group. Additional talk groups may be utilized to alleviate radio traffic during emergency situations.

When the NYC Emergency Management's Emergency Operations Center (EOC) is activated in response to a snow event, DSNY Operations will staff for the entirety of the activation.

DSNY coordinates with other City agencies through NYCEM as to the needs of those agencies including, but not limited to, emergency vehicles, NYCHA developments, hospitals, and other areas. This coordination will continue through the EOC throughout the snow event. DSNY also embeds staff in the NYPD and DOT command centers to monitor those agencies' camera feeds in real time.

D. Other City Agencies

City agencies are responsible for clearing snow from their own facilities to comply with their Charter-mandated responsibilities. During a snow event, DSNY is in constant contact with NYCEM and other City agencies. In some cases, DOT, DPR, and DEP may provide plowing equipment and operators to DSNY, as described below. Should an emergency situation necessitate such action at an earlier stage, NYCEM will coordinate the reallocation of resources.

DOT: The Department of Transportation provides truck plows with operators (See Appendix F). When plowing operations are completed, these trucks may also assist in snow hauling operations. During a snow event, DOT will send a representative to DSNY Operations Command Center to facilitate coordination between DSNY and DOT. All DOT employees

assigned will be directed by DSNY personnel. DOT services the four lower East River Crossings and calls upon DSNY to assist as necessary during a snow event.

JCDecaux, DOT's bus shelter contractor, is responsible for maintaining and clearing the interior of bus shelters.

DEP: The Department of Environmental Protection provides plowing assistance after completion of snow removal work at DEP locations (See Appendix F). DEP also advises DSNY on sewers suitable to support snow melting operations.

DPR: The Department of Parks and Recreation provides plowing assistance after completion of snow removal work at DPR locations (See Appendix F). When necessary, DPR supplies light duty vehicles with plows, which are able to perform snow removal work after initial large accumulations have been cleared by heavy-duty DSNY plows. In addition, DPR provides front end loading equipment as necessary to assist during piling and hauling operations.

NYPD: DSNY meets with NYPD to exchange contact information with the NYPD Traffic & Tow and Highways Divisions and to review the use of NYPD tow trucks during and after heavy snow. DSNY also sends representatives to liaise and monitor street conditions via private and public streaming video feeds received from hundreds of cameras located throughout the 5 boroughs.

FDNY / EMS: The Tow Truck Task Force, which is coordinated through NYCEM, may involve the use of Front-End Loaders from DSNY to clear snow from streets to provide access for NYPD tow trucks to tow snowbound ambulances.

MTA: DSNY attends the MTA's Annual Snow Operations Meeting to discuss issues and concerns going into the new snow season. MTA submits priority locations for DSNY salting and plowing, including turn-around locations for bus lines.

Port Authority & TBTA: The Port Authority of NY & NJ is responsible for managing bridges and tunnels between New York and New Jersey as well as airports in New York City and Northern New Jersey. The Triborough Bridge and Tunnel Authority (TBTA) manages the toll bridges and plazas within New York City. Although DSNY does not directly coordinate the Port Authority or the TBTA responses, communication is still maintained throughout the entirety of each event. These authorities have seats at NYCEM's Emergency Operations Center and are in constant contact with City agencies during a snow event. If necessary, DSNY will assist as able.

E. Customer Service

311 is New York City's main source for non-emergency services and information about City government, including information and services related to snow events. DSNY has worked very closely with the City's 311 Customer Service Center to provide a medium for public information and when appropriate for registering service requests and complaints related to snow events. Throughout snow events the DSNY Bureau of Community Affairs sends regular updates to 311 about snow operations, laborer and private equipment hiring, enforcement of sidewalk clearing responsibilities and collection service.

During the snow event, 311 uses Rapid Service Requests, allowing customers to submit reports of locations of concern during DSNY snow operations. Because DSNY is actively salting/plowing snow or ice from highways, roadways and streets, it cannot respond to individual plowing or spreading requests. This information is used to provide an overview of the storm

situation and snow operations. These locations are mapped periodically during and immediately after the storm, and these maps are used to evaluate the effectiveness of snow operations and allocate resources as necessary.

After the snow event ends and the Mayor and/or the Commissioner have announced that snow clearing operations have concluded; all complaints and service requests are sent immediately from 311 directly to the district garage and/or Enforcement Zone for action. The local district supervisors determine priority needs based on street designations (see Section IV) and local conditions.

The following are examples of complaints and/or service requests received by 311: (1) unplowed streets (those streets where it is apparent that a plow has missed the location); (2) conditions where a plow has been down a street but residents have been throwing snow into the street creating new conditions; (3) unsafe icy patches on City streets; (4) icy conditions not caused by a storm or natural event; and (5) enforcement service request for failure to clear snow/ice from sidewalk area.

The DSNY Bureau of Community Affairs is available to liaise with government and elected officials and community boards regarding snow events by providing updates and maintaining communications. The Bureau of Community Affairs also serves as liaison to the City's 311 Customer Service Center.

New Yorkers can use the PlowNYC online mapping tool to track the progress of DSNY snow operations throughout the five boroughs. PlowNYC is activated when DSNY snow clearing operations begin. When PlowNYC is active, residents can access a map displaying city streets that have been serviced by DSNY snow clearing equipment. Streets are color-coded based on the amount of time that has elapsed since a plow or spreader last passed down the street, and the map is updated every 15 minutes. PlowNYC data is available to the public and software developers through the City's Open Data Portal. To access PlowNYC, go to: <http://maps.nyc.gov/snow/>.

F. Snow Clearing Operations

Spreading and plowing operations continue until all public streets are serviced. After precipitation ceases, piling operations begin as needed. When snow accumulations approach the 6 to 8-inch range, the operation of piling follows plowing. Snow is plowed to keep main arteries open. This ridge created is then pushed into piles for scheduled removal. DSNY updates piling routes as needed each season.

DSNY has an established requirements contract for supplemental snow piling and hauling equipment that includes equipment for the incidental towing of vehicles. (See Appendix G). With this contract, contractors will be expected to have equipment readily available for DSNY employment throughout the snow season.

DSNY does not pile snow to be left on the public streets. Piles temporarily made by DSNY are hauled to approved snow disposal locations and left to melt or are transported to snow melter locations to be melted. Additional piles made by the public should be reported to 311 for DSNY removal.

When forecasts warrant, DSNY stages snow melters in pre-determined locations. The City has twenty-nine small melters each capable of melting 60 tons of snow per hour. Two larger "mega-

melters" are each capable of melting 120 tons of snow per hour. Melters are used in conjunction with hauling operations. Water from the melted snow is discharged directly into City sewers preapproved for melting operations by DEP. (See Appendix C for approved locations).

Additional snow disposal locations during hauling operations to expeditiously remove piles of snow from streets to a location where snow can be piled and left to melt. (See Appendix D for authorized snow disposal locations).

Alternate side parking regulations may be suspended before, during, or after a snow event. After roadways have been serviced and the temperatures are expected to be above freezing, the process of clearing snow from street cleaning routes begins. Alternate side parking regulations will be reinstated to facilitate this process. A combination of front-end loaders, plows, spreaders and haulsters may be used to clear snow away from curbs.

G. Clearing Pedestrian and Bicycle Infrastructure

After salting and plowing operations have stopped, DSNY addresses snow and ice removal from bike lanes, pedestrian overpasses and step streets, bus stops and crosswalks. DSNY has a fleet of 102 skid-steer loaders to clear pedestrian areas more quickly and efficiently and 44 smaller bike lane plows to pre-treat and clear snow from protected bike lanes. For the 2022-2023 snow season, DSNY committed to dispatching bike lane plows at the same time as roadway plows to help make protected bike lanes passable during and shortly after snowfall events.

After major snow events, DSNY employs individuals as "Emergency Snow Shovelers" to clear crosswalks, pedestrian curb cuts, catch basins, paths for loading and unloading at bus stops, sidewalks adjacent to vehicular overpasses, and pedestrian bridges. All work performed by Emergency Snow Shovelers is supervised by DSNY staff.

Each year in October DSNY seeks individuals interested in registering as Emergency Snow Shovelers during major snow events via its website and through the media, and by providing information through 311 upon request. Interested applicants can register at any local district garage between the hours of 7 A.M. to 3 P.M., after making an appointment online or through 311. The rate of pay begins at \$18.00 per hour and increases to \$27.00 per hour after completing the first 40 hours in a given week. Applicants must be at least 18 years of age, eligible to work in the United States, and capable of performing heavy physical labor. All applicants must bring two small passport-sized photos, originals, and copies of two forms of identification, and social security card at the time of registration.

Citi Bike is a public-private partnership between the City of New York, represented by the New York City Department of Transportation (DOT), and Lyft. Lyft is a private company that owns and operates bike share systems around the country. Lyft is required to remove snow from a six-foot radius around bike stations. Lyft is also responsible to remove any snow that is inadvertently plowed against Bike Share stations. In cases where severe snowstorms are predicted, Lyft will be responsible for removing bikes and deactivating stations in advance.

H. Property Owner Responsibilities

All New York City property owners and managers, including homeowners, are required to remove snow and ice from the sidewalks adjacent to their properties.

Snow and ice must be cleared from sidewalks within these specific timeframes from the end of snowfall:

- Snowfall Ends between 7am and 4:59pm: Clear within 4 hours
- Snowfall Ends between 5pm and 8:59pm: Clear within 14 hours
- Snowfall Ends between 9pm and 6:59am: Clear sidewalks by 11am

Snow and ice may not be pushed into a street or crosswalk. Where possible, clear a continuous path at least four (4) feet wide. Corner properties should clear a path to the crosswalk, including pedestrian ramps. Property owners must also shovel the area around any fire hydrants and should clear a path to any catch basin to encourage proper drainage. Those who do not comply can face fines of \$100-\$250. If possible, New Yorkers should consider assisting older neighbors or those with disabilities.

Pursuant to Local Law 27 of 2011, NYC Service and DSNY provide capacity-building tools and resources to local not-for-profit organizations and other community groups to establish registries of volunteers willing to help remove snow on behalf of persons who are unable to do so due to infirmity, illness, or disability. For more information and resources, visit nyc.gov/snow.

Owners of private streets, driveways, parking lots, easements and other non-public roadways are responsible for clearing their properties. Snow may not be pushed or thrown into a City street from any private property. Operators who violate this provision are liable for fines that start at \$100.

I. Waste Containerization Requirements

During extreme weather, DSNY may suspend waste containerization requirements for residents and businesses, if conditions require. DSNY will post any information regarding the suspension of containerization requirements on its website and will notify the public via Notify NYC. To sign up for Notify NYC, call 311, visit www.nyc.gov, or follow @NotifyNYC on Twitter.

J. Open Restaurants

During the 2020-2021 season, DSNY made route adjustments to accommodate changes in roadway conditions due to the City's popular Open Restaurants program, which includes dining on the sidewalk or in protected roadway seating areas.

During a DSNY-issued Snow Alert, businesses will be prohibited from seating diners in the roadway area, and they should remove or secure any tables and chairs and entirely remove any heaters. Restaurant operators should sign up for Notify NYC to receive snow alerts and all snow-related updates.

DSNY partners with SBS, DOT and the Office of Nightlife to communicate early and often with business owners in advance of any winter weather forecast to ensure they understand their responsibilities. DSNY will also continue to provide restaurants with tips and guidance on how to protect their assets, and take quick action to remove snow from roofs, awnings, and tents.

APPENDIX

APPENDIX

A

ASSIGNED SNOW PERSONNEL BY DISTRICT

The following reflects planned personnel to respond to snow events.

Personnel available from other units such as Solid Waste Management and Lot Cleaning will be assigned to Boroughs on a citywide basis as needed.

Staten Island Borough Chief - Christopher Hancock				
DISTRICT	ADDRESS	G/S	SUPV	S/W
BORO OFFICE	2500 RICHMOND AVENUE			
STATEN ISLAND 1	539 JERSEY STREET	1	12	191
STATEN ISLAND 2	2500 RICHMOND AVENUE	1	12	190
STATEN ISLAND 3	1000 WEST SERVICE ROAD	1	12	188
	TOTAL	3	36	569

B

DSNY INVENTORY OF AVAILABLE SNOW MANAGEMENT EQUIPMENT

BORO	DIST.	Large Spreader	Utility Haulster	Plowable Trucks	Front End Loaders	Anti Icing Vehicles	Plow Blades Assigned	V-Plows Assigned	Skid Steers	Bike Lane ATVs	Snow Melters	SUV	
S T A T E N I S L A N D	1	22	9	74	10		162	26	3			8	
	2	22	7	57	11	3	137	13	2	1		9	
	3	18	12	70	9		137	21	2			9	
	BORO										4	8	
	LCU			5									
	SERT											21	
	TOTALS		62	28	206	30	3	436	60	7	1	4	55

B O R O U G H R E C A P	BORO	Large Spreader	Utility Haulster	Plowable Trucks	Front End Loaders		Plow Blades Assigned	V-Plows Assigned	Skid Steers	Bike Lane ATVs	Snow Melters	SUV
	SI	62	28	206	30	3	436	60	7	1	4	55
TOTAL	62	28	206	30	3	436	60	7	1	4	55	

C

Snow Melter Staging Areas

DEP locations

Location	From	To
Jersey Street	Bank Street	
Father Capodanno Blvd	Parking Lot #8 - Fr. Cap. Blvd and Hunter Ave (DPR)	

D

Authorized snow disposal locations:

- Midland Beach - Parking Lot #8 - Fr. Cap. Blvd and Hunter Ave (DPR)

E

Salt and Calcium

There are **(8)** salt storage sites

Usable capacity is **(76,500)** tons.

There are **(5)** tank locations for the storage of calcium chloride.

Total storage capacity is **(45,000)** gallons.

F

OCAs

DOT will provide **(12)** truck plows with operators.

DEP will provide **(1)** truck plow with operator.

DPR will provide **(4)** truck plows with operators.

G

Piling and Hauling Contracts

	<u>Minimum</u>
	<u>Pieces of</u>
	<u>Equipment</u>
Ricceli	5
Natural Landscaping	2
Breen Brothers	3
Perciballi Container Services	11