



The City of New York Department of Sanitation



FINAL 2012-2013 Winter Snow Plan for the Borough of Manhattan

Pursuant to Local Law 28 of 2011



John J. Doherty, Commissioner
November 2012

FY 13 BOROUGH SNOW REMOVAL PLAN

The Department of Sanitation (DSNY) Borough-Based Snow Plan sets forth the measures to be undertaken by DSNY to enable transportation to continue safely and address issues of public safety due to snow and ice conditions that may occur on the City's public streets and highways. This document is published pursuant to the requirements set forth under Local Law 28 of 2011.

INTRODUCTION

Winter conditions on the City's nearly 17,000 roadway lane miles introduce potential hazards to vehicles. 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, 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 and hauling of significant snow accumulations from the City's roadways.

I. SEASONAL PLANNING

Planning for each winter season is an ongoing process within DSNY. The steps outlined below detail the DSNY's preparation for the onset of the 2012-2013 snow season.

A. Post Season Planning (Spring/Summer)

- The approximately 3,000 snow-plowing routes ("Snow Routes") that DSNY covers throughout the City are reviewed and adjusted 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 equipment is upgraded, as necessary, and preventative maintenance is performed.
- At the end of each winter season, DSNY's Operations Division performs 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 equipment and supervisory personnel, are made as necessary.

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B. Pre-Season Planning (Fall)

- Meetings are held internally within DSNY in order to coordinate operations, discuss snow staffing and plan snow-drill exercises.
- DSNY meets with other city agencies (OCAs) to coordinate asset dedication for its snow operations and to discuss putting OCAs on notice during a Snow Alert. A Snow Alert indicates the type of frozen precipitation, amount expected, temperature and timing of the event as forecasted by weather services contracted by DSNY. A notification of a Snow Alert is transmitted by a combination of telephone and email to OCAs.
- Based upon these meetings with OCAs, the following procedures have been adopted and assets will be in place / available for the upcoming snow season:
 - **DOT:** The Department of Transportation will provide truck plows with operators. (See appendix iii-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.
 - DSNY meets with the DOT Bridge Division to review winter plans and to exchange contact information. DOT services the four lower East River Crossings and calls upon DSNY to assist as necessary during a snow event.
 - CEMUSA, DOT's contractor is responsible for maintaining and clearing the interior of bus shelters. During a snow event, CEMUSA will send a representative to OEM to liaison and coordinate snow removal from bus shelters.
 - **DEP:** The Department of Environmental Protection will provide assistance as able after completion of snow removal work at DEP locations. (See appendix iii-F).
 - DSNY meets with DEP representatives of each borough to assist in determining suitable sewers to support snow melting operations.

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- **DPR:** The Department of Parks and Recreation will provide assistance after completion of snow removal work at DPR locations.
 - 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. (See appendix iii-F).
- **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.
- **FDNY / EMS:** The Tow Truck Task Force, which is coordinated through OEM, 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.
- City agencies are responsible for clearing snow from their own facilities in order to comply with their Charter-mandated responsibilities. During a snow event, DSNY is in constant contact with OEM and all other City agencies and as equipment becomes available, it is assigned to DSNY, who will deploy as needed. Should an emergency situation necessitate such action at an earlier stage, OEM will coordinate the reallocation of resources.
- 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 coordinate with the Port Authority or the TBTA, those authorities have seats at OEM's Emergency Operations Center and are in constant contact with City agencies during a snow event. If necessary, DSNY will assist as able.

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- Community Board district service cabinet meetings are held at the district level where Department representatives report on DSNY's snow operations plan.
- Borough service cabinet meetings are held at the borough level where DSNY representatives report on the Department's snow operations plan.
- Salt and calcium chloride are delivered to DSNY storage locations located in each borough. (See appendix iii-E).
- DSNY has established contracts with multiple vendors for the replenishment of salt stockpiles.
- DSNY ensures that a sufficient number of snow chains are available to ensure an adequate inventory for the snow season. Tire chains are attached to each of the outer tires of the rear axle(s) of spreading and plowing equipment.
- Training for winter operations is held each year from September through December. Training for Sanitation Workers includes, but is not limited to, spreader operation, attachment of plows and chains, and use of two-way radios and GPS.
 - Personnel from the Bureau of Motor Equipment and personnel from the Bureau of Cleaning and Collection, together demonstrate and train field personnel on the proper attachment of chains, use of the Automatic Traction Control Mud/Snow mode and Inter-Axle Differential Lock on vehicles equipped with these features as well as providing a thorough understanding of proper plow maintenance. Additionally, plow operators are retrained on how to make proper turns into side streets when ridges of snow are present. Materials are then distributed to personnel to serve as a handy reference for these topics.
 - While DSNY has a strong driver training program that has been guiding the workforce for many years, more input and guidance from our Bureau of Motor Equipment has become a permanent part of the Training Division.
 - 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.

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- Additional classroom training is conducted for instruction on procedures when employing Hired Equipment and “Load and Dump” procedures for hauling and snow disposal operations.
- Night Plow Season Staffing is established.
 - Night Plow Season is a specified period of time during the snow season where DSNY increases staffing of personnel on night shifts, to ensure sufficient personnel are available to address weather related issues. The Night Plow Season begins each year in mid-November, and ends the first Monday in April. During this time period, personnel are scheduled for regular cleaning and collection functions on three shifts (0001 hrs - 0800 hrs, 0600 hrs -1400 hrs, and 1600 hrs -2400 hrs).
- 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.
- Temporary Snow Laborers:
 - Each year in October DSNY seeks individuals interested in registering as temporary snow laborers during major snow events via its website and through the media, and by providing information through 311 upon request. Persons interested in becoming a temporary snow laborer can register at any local district garage between the hours of 7 A.M. to 3 P.M. The rate of pay begins at \$12 per hour and increases to \$18 per hour, after completing the first 40 hours. 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 photos, and original and copies of two forms of identification together with their social security card at the time of registration.
 - Once a snow alert is activated during the snow season and a DSNY request for temporary snow laborers to report for duty is issued publicly, a temporary snow laborer typically reports for duty at 8 A.M. at the district garage where the laborers initially registered. This occurs usually within 24 to 48 hours after the snowfall ceases and plowing operations are completed. DSNY relies on this pool of available temporary laborers to undertake the task of clearing an ingress and egress path at bus stop areas, and from certain crosswalks, pedestrian curb cuts, step streets,

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MTA Select Bus ticket kiosks and some pedestrian overpasses throughout the City. All work performed by temporary snow laborers is supervised by DSNY supervisors. In cases where there are insufficient temporary snow laborers who report for duty in a specific district during a major snow event, temporary snow laborers from nearby district garages will be transported to assist in the manual snow removal efforts of the district where there is a shortage and transported back at the end of the work shift to their original assigned garage where they reported for duty.

II. DSNY SNOW REMOVAL PRIORITY (PRIORITY STREET CLASSIFICATION)

To formulate an effective snow removal response, roadways are categorized and serviced in the following order: Primary, Secondary and Tertiary streets. Each year, as part of pre-season preparations, street designations are reviewed and updated in accordance with the DSNY Public Street Snow Removal Classification criteria. Mapping of streets indicating priority designation has been created. Street priority designations are accessible via the following New York City website: <http://www.nyc.gov/sanitation> (Click on Snow Plans & Mapping).

The plowing of snow and spreading of road salt to treat icy road conditions will be undertaken in order of strategic priority as follows:

A. PRIMARY STREET - Any street that is considered:

1. A main traffic artery, main thoroughfare or a lifeline street such as highways, expressways, drives or bridges;
2. Feeder approaches to and exits from bridges, tunnels, ferries, highways, airports;
3. All bus routes, private and city owned;
4. All streets within concentrated food-produce, industrial, financial, theatrical-amusement, shopping, hospital or maritime (passenger and freight) areas;
5. Streets which have located upon them facilities such as FDNY fire houses and EMS stations, NYPD police stations, hospitals, nursing homes, newspaper plants, fuel distribution depots, transportation terminals, and schools; and/or

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6. All Snow Emergency Streets so designated by the Department of Transportation.

B. SECONDARY STREET - Any street that is:

1. Reasonably heavily trafficked but not a primary street;
2. Used as an alternate route for a primary street; and/or
3. The short length of residential area streets that feed into primary streets.

C. TERTIARY STREET - All other streets not heavily trafficked and not considered primary or secondary streets, including, but not limited to dead-end streets.

III. ASSIGNED EQUIPMENT AND PERSONNEL

See Appendix ii-B.

IV. IMPLEMENTATION

The Snow Plan is implemented every winter and will normally be in effect from mid November through the beginning of April. This period is referred to as the Night Plow Season.

During this time period, field personnel are scheduled for regular cleaning and collection functions on three shifts (0001 hrs - 0800 hrs, 0600 hrs -1400 hrs, and 1600 hrs -2400 hrs) to ensure sufficient personnel are available around the clock to address weather related issues.

The following is a timeline of how the Department fights an impending snowstorm.

STAGE 1: Forecast for Snow (48 to 72 hours before)

- DSNY uses three meteorological services to determine and monitor the threat of winter storms during the Snow Season. The following three services will be contracted for the 2012-2013 Snow Season:
 - MetroWeather
 - Accuweather
 - CompuWeather

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- DSNY's Operations Office monitors the weather forecasts through the contracted weather reporting services 24/7.
- When a risk of snow is indicated by the forecast, the Department Bureau Operations Chief will brief the Commissioner, First Deputy Commissioner and Bureau Director. At this stage the First Deputy Commissioner will consider the need to activate personnel 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 hrs – 1900 hrs and 1900 hrs – 0700 hrs). During these situations, regularly scheduled days off for Sanitation Workers and Uniformed Officers are cancelled to ensure maximum personnel availability.
- Orders are issued to have all spreaders loaded with salt and calcium chloride.
- Orders are issued to attach plows and chains to all spreader equipment and all vehicles used for plowing, based on precipitation type and the amount of precipitation forecasted.
- Subsequent weather forecasts are monitored and discussions are conducted with contracted weather forecasting services.
- An assessment will be made based on the forecasts provided as to what action is needed and a "Snow Alert" will be issued informing DSNY personnel as well as City Hall, DEP, DOT, DPR, FDNY, MTA, OEM and NYPD of a pending snow event
- The DSNY Office of Public Information will issue a "snow alert declaration" to all media and the public via a news release/advisory. Such advisory will also be posted on OEM's New York City's Severe Weather page, which can be found at: <http://www.nyc.gov/severeweather>.
- PlowNYC was created to allow the public to track the progress of DSNY snow clearing operations throughout the five boroughs. PlowNYC is activated when DSNY snow clearing operations begin. When PlowNYC is active, residents are able to access a map displaying city streets that have been serviced by DSNY snow clearing equipment. To access PlowNYC, go to: <http://www.nyc.gov/severeweather>.

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STAGE 2: 24 Hours Prior to Snowfall

- Staffing needs are formulated based on current forecasts.
- Attaching plows and chains to equipment continues as needed based on current forecasts.
- When a threat of Snow is imminent, as indicated by the forecast, the Department will issue a “Snow Alert” informing DSNY personnel of the possibility of frozen precipitation. The Snow Alert is also transmitted by a combination of phone and email to City Hall, DEP, DOT, DPR, FDNY, MTA, OEM and NYPD of a pending snow event.
- In addition to receiving the snow alert, DEP, DOT and DPR are notified of the need for their resources to address the pending snowfall.

STAGE 3: Four Hours Prior to Snowfall

- Weather condition reports are submitted hourly from the DSNY’s twenty one field weather stations located at DSNY facilities.
- Salt spreaders equipped with two-way radios and GPS are pre-positioned.
 - Radio Communication:
 - DSNY headquarters, located at 125 Worth Street, New York, maintains a Radio Control Center. 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.
 - Each Borough Command transmits on a separate assigned radio talk group.
 - Additional talk groups may be utilized to alleviate radio traffic during emergency situations.

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- **GPS:**
 - Spreaders and truck plows are equipped with a GPS system that allows for remote monitoring of the equipment location by supervisory and management personnel.
- DSNY has extensively field tested the two-way radio and GPS systems to ensure that they are effective. Feedback from both sanitation workers and supervisors has been successfully incorporated into communications procedures.
- Pre-salting may be initiated if conditions warrant.
- When the OEM Emergency Operations Center (EOC) is activated in response to a snow event, DSNY will send the following representatives to liaison and coordinate with OEM officials and representatives of other city agencies.

Days

**Gerald Carannante,
Assistant Chief**

**David Trupia,
Superintendent**

Nights

**Michael Warren,
Deputy Chief**

**Steven Tinkler,
Superintendent**

- DSNY will coordinate with other City agencies through OEM 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.

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- Customer Service

- Customer Service and Government Relations

- The following Department representatives from the DSNY Customer Service & Government Relations (CSGR) office will be available to liaison with government and elected officials and community boards regarding snow events by providing updates and maintaining communications. The Division of CSGR also serves as liaison to the City's 311 Customer Service Center.

- ❖ **Maria Termini, Associate Commissioner, Division of Customer Service & Government Relations**

- ❖ **Henry Ehrhardt, Director, Customer Relations, Division of Customer Service & Government Relations**

- 311 Customer Service Center – Public Information, Service Requests & Complaints

- 311 is New York City's single number 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. The data and information from 311 is regularly received by DSNY officials. Service requests and complaints go directly to the relevant sanitation district field office for review and appropriate action. Throughout snow events the DSNY Division of Customer Service and Government Relations 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, a Rapid Service Request (RSR) is deployed (by 311), allowing customers to submit reports of locations of concern during DSNY snow operations. Because DSNY is currently salting/plowing snow or ice from highways, roadways and streets it cannot respond to individual plowing or spreading requests. This

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information is used to provide an overview of the storm situation and snow operations. These locations are mapped and listed periodically during and immediately after the storm. Such maps and lists are analyzed internally.

- After the conclusion of the snow event, once the Mayor and/or the Commissioner has announced that snow clearing operations are concluded, all complaints and service requests are sent immediately from 311 directly to the Sanitation District and/or Enforcement Zone for action. The local district supervisors determine priority needs based on street designations (primary, secondary, and tertiary) 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) isolated serious icy patches on streets; (4) conditions caused by post-storm freeze/thaw cycles; (5) icy conditions not caused by a storm or natural event; and (6) enforcement service request for failure to clear snow/ice from sidewalk area.
- Snow Removal Volunteers and NYC Service
 - NYC Service has taken on the role of assisting organizations such as local not-for-profit organizations, civic organizations and community groups to establish registries of recruited volunteers willing to help remove snow on behalf of persons who are unable to do so due to infirmity, illness or disability.

STAGE 4: Precipitation Commences

- Salt spreaders begin dispensing salt.
 - 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

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melting of snow and ice at lower temperatures. Spreaders are also equipped with two-way radios to ensure operators can communicate with supervisory and management personnel. All spreading equipment is also outfitted with GPS.

- Plows are prepositioned based on forecasted amount of snow:
 - When snowfall exceeds 2 inches, plowing operations begin. Plowing clears snow from the roadways moving it out of the way of the path of moving traffic. After streets have been addressed, municipal parking lots and bike lanes are also cleared of snow. DSNY reviews and updates plow routes each season.
 - The plowing of snow and spreading of road salt to treat icy road conditions by DSNY will be undertaken in order of strategic priority as follows (see definitions on pages 6-7):
 1. Arterial Highways and Primary Roadways
 2. Secondary Roadways
 3. Tertiary Streets *
- Utility haulsters are deployed where needed:
 - Utility haulsters are small spreaders with plows attached for treating areas with limited accessibility. These spreaders have a capacity to hold approximately 2 tons of salt and are equipped with a liquid calcium chloride pre-wetting system, two-way radios and GPS.
- Front end loaders are deployed as needed :
 - Front End loaders are assigned for salt loading and snow plowing in designated areas that benefit from this type of specialized equipment (i.e., municipal parking lots, dead end streets, narrow streets) as well as snow hauling operations.
- V-plows are deployed as needed:
 - V-plows are deployed to areas where drifting or considerable accumulations of snow have made plowing too difficult for truck plows alone.
- Progress reports are taken on spreading and plowing operations. These reports will be used internally to ensure that all plowing and salting operations are on schedule.

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- Equipment is monitored by supervisory personnel with GPS system.
- Plowing contract for tertiary streets is activated based on forecasted amount of snow. See appendix iii-G for relevant contractors.
 - Once notified, contractors are to respond with plow equipment within eight hours.
- A determination is made whether or not emergency hired equipment for snow removal is necessary.
 - DSNY maintains a Hired Equipment Agreement as a means of obtaining additional resources if needed for severe storm events.

STAGE 5: Precipitation Ceases

- Spreading and Plowing operations continue until all streets are serviced.
- 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 is currently evaluating the submissions received for a Requirements Contract for supplemental snow piling and hauling equipment that includes equipment for the incidental towing of vehicles. With this Requirements 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.

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- Snow Melters are brought out to predetermined staging areas:
 - Small melters are capable of melting 60 tons of snow per hour. Larger “mega-melters” are capable of melting 130 tons of snow per hour. Melters are used in conjunction with hauling operations. In simple terms the snow is melted as opposed to hauling it away and dumping it. Water from the melted snow is discharged directly in to sewers approved by NYC DEP. (See Appendix iii-C for approved locations).

- Temporary Snow Laborers are employed:
 - When necessary, DSNY hires, deploys, and supervises emergency snow laborers to clear crosswalks, pedestrian curb cuts, catch basins, paths for loading and unloading at bus stops and for MTA Select Bus ticket kiosks. These laborers include those who have pre-registered and those who register at a DSNY garage during or after a snow event. In addition, OEM has a database of all City employees who can be mobilized to perform these duties.

 - The DSNY Customer Service and Government Relations office will handle Councilmember and Community board issues and suggestions and will route these directly to DSNY Borough Commands.

 - DSNY supervisors will monitor conditions of bus stops and crosswalks that have been shoveled. Laborers will be re-deployed to address bus stops or cross walks should they be re-covered by subsequent plowing.

 - DSNY has taken steps to reduce the time taken to pay laborers and intensified its public outreach through DSNY’s Office of Public Information to ensure a more timely and proper hiring process, should the need arise.

- Bike lanes, pedestrian overpasses and step streets, bus stops and crosswalks are addressed for snow and ice removal.

- Hauling operations begin to authorized Snow Disposal Locations:
 - Utilized for large accumulations of snow, Piling is the precursor to hauling. Hauling is accomplished with Departmental personnel, Other City Agency personnel and Private Equipment if necessary. Snow is hauled to snow melters and approved snow disposal locations.

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- Snow Disposal Locations:
 - Snow disposal locations are utilized 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 iii-D for authorized snow disposal locations).

STAGE 6: Ongoing Operations After Precipitation Ceases

- Snow melting operations are implemented.
- Hauling operations continue as needed.
- SCR (street cleaning regulations) routes are cleared to prepare for the return of mechanical sweeping.
 - Often when there is snow accumulation, Street Cleaning Regulations (SCR) are cancelled while the DSNY plows and salts the City's roadways. After roadways have been serviced and the temperatures are expected to be above freezing, the process of clearing snow from SCR routes begins. SCR regulations will be placed back in effect according to the schedule of SCR days. A combination of Front End Loaders, plows, spreaders and haulsters may be used to clear snow away from curbs.

V. Post-Season Review

At the end of each winter season, DSNY's Operations Division will perform a review and assessment of the Department's response to all winter storms during the current season and adjust and make changes where necessary.

- Snow routes are reviewed and revisions are implemented as needed.
- Snow equipment is assessed and repaired as needed.

APPENDIX

A

ASSIGNED SNOW PERSONNEL BY DISTRICT

The following reflects planned personnel to respond to snow events.

Personnel available from other units such as the Bureau of Waste Disposal and the Lot Cleaning Unit will be assigned to Boroughs on a citywide basis as needed.

Manhattan Borough Chief - Joseph Andrews				
DISTRICT	ADDRESS	G/S	SUPV	S/W
BORO OFFICE	427 EAST 87th STREET			
MANHATTAN 1	297 WEST STREET	1	6	40
MANHATTAN 2	2 BLOOMFIELD STREET	1	6	55
MANHATTAN 3	SOUTH STREET - PIER 36	1	8	71
MANHATTAN 4	2 BLOOMFIELD STREET	1	6	57
MANHATTAN 5	2 BLOOMFIELD STREET	1	6	53
MANHATTAN 6	606 WEST 30th STREET	1	8	65
MANHATTAN 7	780-786 12th AVE	1	6	63
MANHATTAN 8	423 WEST 215 STREET	1	6	57
MANHATTAN 9	125 EAST 149th STREET-BX	1	6	58
MANHATTAN 10	110 EAST 131st STREET	1	6	54
MANHATTAN 11	343 EAST 99th STREET	1	6	57
MANHATTAN 12	301 WEST 215 STREET	1	6	74
	TOTAL	12	76	704

B

**DSNY INVENTORY OF AVAILABLE SNOW MANAGEMENT EQUIPMENT
MANHATTAN**

BORO	DIST.	Large Spreader	Utility Haulster	Plowable Trucks	Front End Loaders	Plow Blades Assigned	V-Plows Assigned	Snow Melter		
								Small	Large	
M A N H A T T A N	1	3	2	24	2	41				
	2	3	1	26	3	51				
	3	6	2	30	5	63	1			
	4	3	1	22		49	1			
	5	3	2	28		32				
	6	5	1	31	4	47	1			
	7	5	1	43	5	73	1			
	8	4		41		50	1			
	9	4	1	24	5	44	1			
	10	4		25	5	38	1			
	11	4		19	3	56	1			
	12	7	1	42	5	52	2			
	BORO								9	1
	TOTALS		51	12	355	37	596	10	9	1

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	Snow Melter Small	Snow Melter Large
	MAN	51	12	355	37	596	10	9	1
	TOTAL	51	12	355	37	596	10	9	1

C

Snow Melter Staging Areas

DEP locations (Pending approval)

Location	From	To
West 38th Street	10th Avenue	11th Avenue
East 41st Street	FDR	1st Avenue
135th Street	12th Avenue	
138th Street	12th Avenue	
Dyckman Street	Staff Street	
West 49th Street	11th Avenue	12th Avenue
West 33rd Street	11th Avenue	12th Avenue
9th Avenue	201st Street	

D

Authorized snow disposal locations:

- Riverside Park, 158th Street and Henry Hudson
- Riverside Park, 140th Street and North River
- Randall's Island
- Pier 42

E

Salt and Calcium

There are **(6)** permanent salt storage sites.

Usable capacity is **(82,000)** tons.

There are **(10)** tank locations for the storage of calcium chloride.

Total storage capacity is **(70,680)** gallons.

F

OCA's

DOT will provide **(8)** employees to perform snow removal in the Times Square pedestrian Plazas. No truck plows will be provided.

DEP will provide (TBD) truck plows with operators.

DPR will provide (TBD) truck plows with operators.

G

Manhattan does not have any roadways designated as tertiary, in accordance with the DSNY Public Street Snow Removal Classification criteria.