

Speaker 1: [00:04](#) Welcome to "Prep Talk," the emergency management podcast. Find out what you need to know about preparedness, get all the latest tips from experts in the field, and learn what to do before the next disaster strikes. From the emergency management department in the city that never sleeps. Here are your hosts, Omar Bourne and Allison Pennisi.

Omar Bourne: [00:26](#) Hello everyone. Thank you for listening. I'm Omar Bourne.

Allison Pennisi: [00:30](#) I'm Allison Pennisi, and you are our listeners, and as always we thank you for joining us. We want you to come back as often as you can, so feel free to listen to "Prep Talk" on your favorite podcast provider. You can also follow us on social media, on Twitter @nycemergencymgt, Facebook, Instagram, and much more.

Omar Bourne: [00:48](#) It is Winter Weather Awareness Week here in New York City, and across the state, and other locations across the country. Now, this is a time where the National Weather Service asks emergency management, public safety officials, and local media to highlight our readiness, responsiveness, and resiliency against extreme winter weather. On this episode of "Prep Talk," it is only fitting that we discuss one of the most talked about operations during the winter. Allison, you know what it is?

Allison Pennisi: [01:21](#) Snow removal?

Omar Bourne: [01:21](#) That's right. Snow removal.

Allison Pennisi: [01:23](#) All right, well our guest is no stranger to Prep Talk, he's been on the show before. If you want to know about snow operations here in the city, he's the person you want, Chief Edward Grayson of the New York City Sanitation Department will be joining us shortly.

Omar Bourne: [01:36](#) But before we dive in, you know what time it is. Let us get you up to date on the latest news in the emergency management field.

Speaker 4: [01:46](#) Here's your "Prep Talk" situation report.

Allison Pennisi: [01:50](#) All right, it's the situation report, let's get started. You may not want to hear this, but winter is just around the corner and winter weather is more than an inconvenience, it can be downright dangerous. The best way to keep your family safe is to prepare now. During a winter storm, the best action is to stay indoors, so be sure to have an emergency supply kit at your

home. Your emergency supply kit should include essential items including a flashlight, extra batteries, and a battery-powered radio in case of a power outage. Your supply kit should also include nonperishable food and water, extra medication, warm clothing, and first aid supplies.

- Omar Bourne: [02:27](#) Thank you Allison. It is important for us to remember to be prepared for winter weather. Now, have you heard of stormquakes?
- Allison Pennisi: [02:37](#) I can't say I've ever heard of a stormquake. That can't be real.
- Omar Bourne: [02:39](#) Well, neither have I. But scientists have discovered a mash-up of two hazards, hurricanes and earthquakes, and they're calling them stormquakes. Now, according to a study in the Journal of Geophysical Research Letters, the shaking of the sea floor during hurricanes and nor'easters can rumble like a magnitude 3.5 earthquake that can last for days. Now, this team of scientists found more than 14,000 stormquakes between September 2006 and February 2015 in the Gulf of Mexico and other areas. But don't panic. Experts say a stormquake is more of an oddity than something that can hurt you since the impacts are only felt on the sea floor during a hurricane. It doesn't seem like these are something that you have to be worried about, but we learned a new term today, stormquake.
- Allison Pennisi: [03:46](#) Good to know, thanks Omar. Now, new data reveal that damaging air pollution has increased nationally since 2016, reversing decades-long trend toward cleaner air. Carnegie Mellon researchers analyzed data from the Environmental Protection Agency and found that fine particulate pollution increased 5.5% on average between 2016 and 2018.
- Omar Bourne: [04:10](#) Try saying that five times quickly.
- Allison Pennisi: [04:12](#) I will not, I will just continue on. This research identified recent increases in driving and the burning of natural gas as likely contributors to the uptick in unhealthy air, even as coal use and related pollution have declined. The analysis estimates that the increase was associated with nearly 10,000 additional premature deaths during that time. Now, this type of pollution also known as PM 2.5 is linked to a range of health problems including asthma, respiratory inflammation, lung cancer, heart attack, and stroke.
- Allison Pennisi: [04:44](#) That is the situation report. Still to come, we will be talking with the ranking uniformed four-star chief Edward Grayson, the

director of the New York City Department of Sanitation's, Bureau of Cleaning and Collection. But first, here is a public service announcement from New York City Emergency Management and the Ad Council.

- Speaker 4: [05:05](#) Your daughter doesn't want to talk about why her room is a horrible mess. Your son doesn't want to talk about why he's wearing mismatched socks. Your spouse doesn't want to talk about their bad haircut. Families don't have to talk about everything, but they should talk to plan for an emergency. Pack basic supplies in a go bag, water, canned food, flashlights, batteries, medical supplies, IDs, some cash. Talk about where you'll meet in case you lose one another, and of course don't forget to pack the dog treats. Talk to your family and make an emergency plan. Go to NYC.gov/readyny or call 311 to make your family's emergency plan. Brought to you by New York City Emergency Management and the Ad Council. You're listening to "Prep Talk," the emergency management podcast.
- Omar Bourne: [06:12](#) You are listening to "Prep Talk" and we are back. Joining us for this episode is four-star chief Edward Grayson of the New York City Department of Sanitation. Chief, thank you for joining us.
- Edward Grayson: [06:26](#) Oh, thank you. It's an absolute pleasure to be here. This podcast is an excellent program. We really appreciate the commitment of New York City Emergency Management to keep all of New Yorkers and all of your listeners truly informed.
- Omar Bourne: [06:38](#) Thank you very much. We appreciate that, and we appreciate having you. Let us get right into it, it is Winter Weather Awareness Week as we've mentioned. However, I know that the sanitation department has been preparing for snow for some time now. How does the department prepare the city for a snow emergency, and what are some of your plans and procedures?
- Edward Grayson: [07:00](#) We literally plan all year, it's never a downtime for us. From the end of the season last April and ongoing through the final week of October, residents have seen our spreaders driving around recently in fair weather, that's part of our training protocols. We've been servicing the fleet, we've been training the staff, we've been procuring supplies and the tools that are needed, managing inventory, working with agency partners to ensure that we're ready for what mother nature may or may not throw at us this season.

Edward Grayson: [07:29](#) As the plans and standard operating procedures for a storm, we naturally have a tiered response protocol for tactical deployments that starts with the seasonal change in a staffing dynamic, what we affectionately call Night Plow. We put out some public messaging. What Night Plow is, wherein we shift our staff into more fixed posts up on to night shift. We have a three watch system similar to other agencies where we're going to put more staff dedicated on the 4:00 PM to midnight and the midnight to 8:00 AM shift to be sure that if the forecast pivots on a dime, we have more staff in place to be able to respond quicker on the turnaround.

Edward Grayson: [08:08](#) In addition to that, and speaking to that, a key factor in storm response planning is also weather monitoring. We monitor weather constantly between our own internal resources that we rely on as well as all the inter-agency calls during a major event. The key to situational awareness for snow prep and storm response is that weather monitoring. It is also one that, sadly, all of us mere mortals are not fully in control of. Meteorology is a science and forecasting tools and technology continue to get better and better. However, there are so many X factors in predictions that the department, and all of New York City, including our partners here at New York City Emergency Management and all of our energy partners, we've taken a real forward-leaning posture. The way we approach snow, and the stance of DSNY and New York City as a whole, is to be fully prepared in the advance of a storm by having continual weather monitoring.

Edward Grayson: [09:06](#) The safety and well-being of New Yorkers in severe weather is a core function for DSNY. The department was formed in 1881. We've literally had the job of snow removal as a municipal first responder in that for 138 years. It's a core value of our identity as an agency. In snow, we are the first responders. We are proud of being your heroes with the plow where the iron meets the asphalt. This is our identity. This is what we are truly about, and we take our role very seriously all the time, and that is through preparation and planning all year round.

Omar Bourne: [09:38](#) Where the iron meets the asphalt, I like that.

Allison Pennisi: [09:40](#) I do too.

Omar Bourne: [09:41](#) I wasn't sure where you were going chief, but I like it.

Edward Grayson: [09:43](#) There you go.

Allison Pennisi: [09:46](#) Before the snow begins, the sanitation department has salt spreaders out to pretreat the roads and when it snows, plowing operations do not begin immediately. Two questions for you. How many tons of salt do you have available this year, and why doesn't plowing begin at the first flake?

Edward Grayson: [10:01](#) Well, as to the salt, we start the season with just over 300,000 tons on hand inside the city, stored at over 42 locations citywide. That seems like a lot of tons, but we also have the capacity to bring in another 600,000 tons of salt. Again, same 42 storage locations, and that typically would get us there. We have had seasons where we have spread in excess of 500,000 tons of salt due to need. That is something that we try to plan on. The key for us is supply line logistics and having that 300,000 tons on hand at the start of the season will make sure that we can keep the demand if we get back to back events. That's a critical component for us. Having product in the city available in real time is key.

Edward Grayson: [10:49](#) As to the plowing. Well, our two-inch plowing threshold. Why don't we plow on the first flake? Because the plow is designed to ride a little bit on top of the black top to adjust for the natural crowning of how the roads are built so that the roads can drain. None of the roads are completely flat on purpose so that they can drain. If you put a plow blade directly on the floor, you're only going to be scraping blacktop. If there's nothing to push to the side, you're really only damaging infrastructure, damaging the plow, you're really not getting any bang for your buck. The real truth is that, what we're trying to do is have some accumulation, push it over to the side, get it to where it can melt, get it to where it is giving a roadway passability. If you go out there with plows down at the first flake, you really being ineffective, you're damaging the equipment, you're damaging the road. We really need some accumulation for those plows to be effective.

Allison Pennisi: [11:39](#) Good to know.

Omar Bourne: [11:40](#) In addition to salt, are there other chemicals you are using to pretreat the roads?

Edward Grayson: [11:45](#) Yes. Well, chemicals are an interesting thing. Salt has an effective temperature rate. Salt, to a certain degree and a temperature rate, you're going to get a very good melting and a very good brine that comes out of when the salt... Salt is water soluble, so salt breaks down and what you have now is this water that is salt water. Because rock salt is only sodium

chloride and what it does, it becomes salt water. Then the salt water has a eutectic temperature, which is the freezing point, and it doesn't freeze, and then the wind comes in and dries out the road. When temps are very low, you need to go below that 25, 20 degree threshold.

Edward Grayson: [12:23](#)

With that said, we use, and we've been using for years, of course staple, one of our chemicals to help with the salting operation, help treat the roads, is calcium chloride. Calcium chloride is applied to the salt at the back of the spreader before it hits the pavement, it's called pre-wedding. What we do is you'll see, if you ever see our spreaders, there's a spray bar that's actually spraying a chemical on the salt when temps are right for that, that basically calcium chloride, which is another amazing chemical that helps with roadway bonding and preventing that, ice accretion on the roadways. Calcium chloride is hygroscopic, so in addition to being a liquid, it starts to break down the salt. It becomes that first water-soluble content to hit the salt on the roadway and it also drops the effective temperature of that salt to way below zero. Now, no matter how cold it gets, you're still getting the melting to go on, which is what we want.

Edward Grayson: [13:13](#)

That's our core component. Now, that's how we've been treating for years, the roadways. Interestingly enough for this season, we also introduced a new product that's going to help be even more beneficial to the citizens of New York. We're going with an anti-icing product. It goes out in advance of the first flake as a liquid and we're going to be using a sodium chloride brine. Now, basically what this is is the liquid equivalent of the rock salt. Imagine we broke it down already. It didn't take... it's water. Like I said, the salt is water-soluble, so instead of putting out a solid product waiting for the snow to interact with it and become a brine, we are putting out a salt water brine ahead of time. This way it can get absorbed right into the center line of the roadway, and what that product is going to do is put us out in advance of the storm, give a pretreatment, and anti-icing treatment to the roadway, that's going to suppress accumulations and suppress ice accretion, which is bonding to the roadway, which are those slippery travel.

Edward Grayson: [14:09](#)

We have dedicated areas of the city, citywide, that are prone to icing. Either they have high elevation or they were built with construction with additional steel. We know, we've been working a long time to know exactly where those vulnerable areas are, and our goal is to get out there ahead of time, to

keep the critical travel paths open. They're going to have a pretreatment when conditions are right and this is a new way we're approaching being proactive, being forward-leaning, and that is going to give a lot more safety and security to motorists this season.

Omar Bourne: [14:40](#) We're going to use the brine at some critical locations in addition to the salt.

Edward Grayson: [14:48](#) Yes, this is another layer of protection. One of the things, one of the components in storm response is the timing of the event. Because if it's happening at... if the peak of the snow storm is happening when it would've been a travel advisory, or it's rush hour, or it's coming in on the overnight. The other thing about it is that we're going to get out there on the threat of winter precip. We're taking a very aggressive stance that winter precip could happen once it's forecasted, and that the severity of it could be even worse than anticipated. Now, with that in mind, we're going to be out there not assuming that it's coming in as it was prescribed, it's coming in faster and sooner than we thought.

Edward Grayson: [15:33](#) That said, that pulls timelines in. We want to make sure that we are giving the motorists the best chance to heed the travel advisories and the timing by having this layer of protection on the ground where when they start, we've already hit some of these critical interchanges with the product that is going to prevent roadway icing and let people heed those, stay off the road, start...

Edward Grayson: [15:55](#) It's a funny thing about forecasts. Some people will try to, instead of heeding advisories on, "Take mass transit, stay off the road," they will try to get to work or try to get home and they will put themselves in a situation where now if the roadway conditions are such that it slows traffic or delays, they're making decisions that maybe we can give them some more bonding. Maybe we can give that added layer of protection to the roadway. That's what we're shooting for.

Omar Bourne: [16:22](#) Right. We want to remind everyone for our listeners that when there is a travel advisory issued for winter weather, for snow, mass transit is the best option. We really want people, where possible, to take mass transit. But brine, you've heard it. Is this breaking news chief?

Edward Grayson: [16:43](#) I would say that for the listeners of this podcast, absolutely. This is something we've been working on, this is something we've

been developing. It's starting this season at critical interchanges and areas that have been identified to help travel and help give that added layer of protection to New York City motorists and keep us going. We're going to keep evaluating product, keep evaluating how it goes, we're going to build on it and see how that changes our tactical deployment strategy moving ahead. But this is definitely some breaking news.

Omar Bourne: [17:13](#) What are some of those points where you will see brine being used? Can you name a couple of those areas-

Edward Grayson: [17:19](#) Yes, you'll see them definitely on... One of the critical areas that we're looking at, and it's about efficiency of deployments, are on and off ramps at highways that are specifically on an elevated interchange. You'll see some of... I mean, up in the Bronx, they call it the Pretzels, and the Clover Leaves out on the LIE. You're looking at that at places where the LIE meets the Cross Island Parkway. All those they're elevated where the Bruckner leads up into the Crossbar. All those areas that are elevated steel span they are critical interchanges, we're going to try and get up there. Not try, we're getting up there. We are definitely getting up there to apply this liquid anti-icing to give that added layer of bonding to the roadway on that pretreat so that when precipitation falls... because we're not doing this to not go out with salt spreaders. If anything else, we've added another layer of protection, that first advanced, thin candy shell if you would.

Edward Grayson: [18:13](#) We're getting out there and we are totally up on the roadway giving some level, it adds extra protection for bonding and roadway traction and that's what we're hoping for this season. But you'll see them on elevated roadways, some specific areas where, mostly on and off interchanges. Where we now, because for us to service them... Remember, on and off interchanges are a tough highway operation for anyone because you've got to literally get off and circle back around to get back on. You lose critical time in response by having to loop back around on and off of a highway. When you can pretreat that leading into it, you can keep up on the main bed, keep the main bed going as much as possible or supplement with only a plow as opposed to needing more product because you had that added layer of protection down.

Edward Grayson: [18:59](#) We're going to do some interesting stuff with that. We really like where we are operationally between the current operation, which we have, which is tried and true, and now this new added

layer of anti-icing, which is getting out ahead of it. We really feel like we're in a good place.

Allison Pennisi: [19:15](#) Wonderful. You're talking about snow removal operations, but New Yorkers can actually track snow removal operations through PlowNYC. On this website, people can see different routes, critical, sector, and haulster. Now, can you explain to our listeners what does that mean and weren't they called something else?

Edward Grayson: [19:34](#) Yes. They used to have an old name, but critical, sector, and haulster when you're looking that up, critical routes are basically as... they're aptly named. What these roadways are, if you're on a critical route, you are on a major arterial roadway, a major travel thoroughfare, a highway. You are on a bus route, because remember we're messaging, "Take mass transit." Every New York City bus route, every bus route for mass transit is on a critical route. Every street leading in and out of a police precinct, firehouse, EMS station, hospital, school, these are all the critical things that need to stay open. They need to have those egresses happen.

Edward Grayson: [20:14](#) If you're any first responder agency at all, you're on a critical route. If you're on a main avenue main travel hub, if you are a Access-A-Ride hub, if you are a transit hub, if you are the feeder street leading into something that is critically important and that we're messaging, "This is how we want you, the citizenry of New York to travel," you're on a critical route. That's what those streets segments are.

Edward Grayson: [20:36](#) If you are on a haulster route, those are our tightest, smallest streets. They're dead ends. They are narrow infrastructure streets where our large pieces will not fit, so we have... there are smaller utility vehicles with plows and a smaller bed of salt and they go out specifically on that task and they are out on the first flake in those areas.

Edward Grayson: [20:56](#) If you're in a sector route, that is mostly the residential areas where it's basically residential, street to street, and we're going in and out. One thing I would like to put out, if you're in a residential area, it would be very beneficial if you remembered that we're going to ask you about... we're going to put out advisories. Please heed the travel advisories and please watch for the messaging on alternate side parking that may come out.

Edward Grayson: [21:22](#) One of the things we are asking that all of the listeners know is, watch parking directly at the corner because we are turning in

and out of there with a plow on the truck. If you could give us just a little bit of room on the corner, because most people do and we get it, believe me, we get it. It gets tied for parking in this town, so you're parking bumper to bumper, all the way, with the most available curb space you have. Believe me as a department, as a resident, I get it. But the closer you park to the corner, the harder for us to swing that turn. You got a big plow on the front of the truck and we're coming to plow and do our job. The closer you are to the corner, the tougher it is for us, so just maybe you want to keep that in mind, although we do understand the challenge.

Allison Pennisi: [22:02](#) Right? I'm glad you brought up alternate side parking. Who goes into making that decision if it gets suspended or if it's active?

Edward Grayson: [22:09](#) In fairness, so it's an interesting thing. Those regulations are built and there for us, to do our job and clean the street. But DOT is in charge of the roads, they're the governing body. In essence, we make a recommendation to DOT and naturally we tell all of our agency partners and the mayor's office, "We're recommending the suspension of ASP." Once it becomes pretty clear to us that because of winter weather, we won't be able to make that commitment. Because it would be unfair to us to say, "Hey, move your car," if we can't come sweep the street. We're asking you to move so we can come sweep. If we don't think we can do that because of the planning, or the staffing, or the change in dynamic, or the weather itself is not going to be conducive to us running a mechanical broom because the snow is going to be in the way, or slush is going to be in the way.

Edward Grayson: [22:54](#) Then we're going to make the recommendation to DOT that we need to suspend. It also goes in line with the public messaging. If we're asking you to stay off the road because of winter weather, why would I want you out there moving your car? There's a couple of synergy messaging that goes into that, and mostly it's because, what we don't want to do as an agency is fail to meet our commitment to you. We've either committed... We want you to move so we can clean your street or we want you to move, sadly, and we understand that that's also a challenge, we also sometimes want you to move after snowfall so that we can get the snow out of the... give you back your parking spot.

Edward Grayson: [23:31](#) One way or another, we're trying to either sweep your street or plow your street to give you back, either a clean street, and/or your parking. We don't want to do that at all if we can't, if we know operationally it's not going to work out because it's active

snowfall, or there's another storm coming behind the first one, or... We also are cognizant of heavy snow fall that we've plowed people in and you have to go out there and now stand in the roadway to dig your car out in the first place. There's a lot of thought put into the suspension of it because believe me, if anybody wants the street clean it's us. We've been trying to get the street cleaned forever. It's a core function of ours, so suspending is the last thing we want to do, really.

Edward Grayson: [24:12](#) But once we know that operationally we can't meet that commitment, we don't want you out there moving your car and we certainly don't want you out there moving your car if we're putting out a travel advisory with our agency partners to say, "Stay off the road." Why would we want you out there moving your car? That's what goes into it. It's our recommendation amongst others. Basically, when we're informed the situational awareness of sanitation, "Will you be able to meet the commitment that makes sense to have the residents go out and move their car today?" Once we determined that it's not, we let everybody know.

Omar Bourne: [24:41](#) Emergency Management works closely with the sanitation department and DOT, which is the Department of Transportation, to issue these travel advisories before a snowstorm. Now, as you said, snow removal is about the people, and New Yorkers are vocal when it comes to snow removal, we know that. What can individuals do to help the sanitation department during the snow removal process?

Edward Grayson: [25:12](#) First and foremost is definitely heed the messaging. Not just sanitation, but all of our partners. You're a great team at New York City Emergency Management, PD, Department of Transportation. Everyone is putting out a message and usually there's a combined message. There's a-

Omar Bourne: [25:28](#) Unifying-

Edward Grayson: [25:28](#) We get together, especially on major events. When we know that we're going to have a significant event that really has a cascading impact, there is a unified message. If anything I would recommend, please to the residents, heed the message. It was thought out well, it's for your safety, for the betterment of all of us. If you could heed the messaging to the best of your ability, that would be my first definite recommendation.

Edward Grayson: [25:49](#) Second, for sanitation specific, if you're able-bodied and you can help out, we would love it if you'd register to be a snow

laborer. We have an entire program that is basically a volunteer army. This comes into play after the snow has stopped. There is a lot of bus stops, corner caps, pedestrian accessible signals. There are a lot City infrastructure that really could use some additional hand shoveling that totally usurps our ability as a department because after we pivot away from plowing, salting, and everything, we have to go back and pick up the refuse and recycling that we suspended. Because what some residents don't realize is that it is literally the same workforce doing both jobs.

Edward Grayson: [26:31](#) We pivot from our core functions of cleaning and collection to become your first responders in snow. Suspending those operations or limiting those operations to only a minimal, to keep quality of life at a certain level. Then we have to pivot back to go get all the stuff that we've suspended. We really do count on these registered laborers, which is only a volunteer army, but we pay. You come down, there's this messaging, you could see our website. There's a lot to do. You can come down and you can register to be a laborer and help out that would be completely beneficial. Like I said, it's a volunteer army though, so we would really appreciate if you registered, and then when the call to arms comes, come down, we supply you with a shovel, we get you out to where it's needed, and it's a really good program.

Edward Grayson: [27:12](#) Third, if you're out there shoveling yourself, your own property, or your car, remember some things about shoveling that are tactical. Don't block the hydrant. A lot-

Omar Bourne: [27:21](#) That's key.

Edward Grayson: [27:21](#) ... of people... Don't block the hydrant. That would be one. Don't block the catch basin. You want all that snow to drain. People are making decisions because it just makes sense to them, so think about where you're putting your snow. Think about if you are out shoveling your sidewalk and your property, remember that we have citizens that have mobility challenges. You're going to want to think of the width of that path. Really, we need a little bit more than 36 inches, 36 to 48. There's people that have assistive devices to help them travel and they need that width. You want to make sure that you're thinking about...

Edward Grayson: [27:56](#) Be a good neighbor. If you know you live on a block and you have folks that may have challenges with snow removal afterwards, or elderly, people who have some mobility

concerns, you're going to want to know where they are, check in. New York's a great town. If you know you have people on your block that may need a hand, check in on them. If you're shoveling in your backyard, know where you're venting your dryer. Don't block that. There's little things that people don't think about that... What you certainly don't want to do is put snow where you're going to block fresh air coming in and out of your house.

Omar Bourne: [28:30](#)

That's true.

Edward Grayson: [28:32](#)

They're are little things, they're spatial things that in the hustle and bustle of living here, sometimes you're just not thinking. You're thinking, "Let me get it done." Or you're out there and you're trying to rush through snow removal because, "I got to get it done. I don't want..." We're saying to you, listen to the messaging, remember yourself, remember your neighbors. Lastly, I'd really like to put out there that, we, the Department of Sanitation, we'd just like you to be a little bit patient. We literally are working, we have a plan, we're getting to...

Edward Grayson: [28:59](#)

Every streets on our route, our plan is to get to everyone. We literally are doing everything in our power, all 10,000 members of the department are trying everything to get you what you need to be. It's 10,000 of us to service the 9 million, there are over 19,000 routed miles of roadway that we have to get to, and I could promise you that it doesn't happen overnight. It doesn't... We're there, we're coming. There is a systemic approach. Be patient and we'll be your heroes with the plow. I promise.

Omar Bourne: [29:29](#)

I like that. What we remember also is that, at the end of your 12-hour shift, you're probably going home to shovel.

Edward Grayson: [29:39](#)

Yes. It's interesting. It's a funny thing. You remember our workforce, our 10,000 with you, we are victims and responders of the same, if you want to call it that, for lack of a better term, meteorological crime that is happening altogether. Everyone in New York City is getting hit with the snow at the same time, which is why systemic routing, having an approach, because we're not responding to something that we didn't expect, we've been planning for it. That's why when I say, be patient, we've been putting out messaging as a City, we've been putting out messaging as and inter-agency collaboration. We've been putting out messaging that, "We think a snow storm is about to happen, everybody heed it."

- Edward Grayson: [30:20](#) You have to understand why we would have a routing system and an approach that has to be tactical and play itself out because we're not responding to one flake somewhere, we're responding to all flakes everywhere. That's why I love a podcast like this to be able to explain and add some context into how it happens, how we're cooking the sausage, because most people don't see it from that perspective. They think, "What about my block? What about this?" Right, we're coming. We are coming. There's a plan. Every street gets a plow, every street gets a service, and we are totally all about getting you safe and secure.
- Omar Bourne: [30:57](#) For our listeners who might be interested in signing up to be a snow laborer, where could they get more information? NYC.gov/sanitation?
- Edward Grayson: [31:06](#) Yes. They can go to our homepage, there is some interesting... they'll give you all the guidance. Basically we do sign ups right at the local garage. Even to that, for all the residents, if you knew where your local garage is, go down and see everybody, they're more than happy to see you. We also have some teams that have been going to job fairs, just putting some information out there. We also partner with DOT. DOT takes some laborers. They have a partnership program with us under the same sign up process. If you live near a DOT yard, again, you can get that right off of our website, which DOT yards are signing up laborers as well. They take a portion of that population and do some of the overpasses, and bridge walkways, and all that stuff. Because you could imagine how much pavement needs to be shoveled in the wake of a big snowstorm.
- Allison Pennisi: [31:54](#) I can imagine there's a lot of challenges with snow removal. Can you tell us, is there a difference with or more difficulty I should say, shoveling or plowing heavy wet snow versus light, fluffy snow?
- Edward Grayson: [32:06](#) That's a great question Allison, and the reason why is because, and not to sound so ethereal like, "Oh, everything is different." But the truth of the matter is, each storm response and the conditions that lead into it are completely different. It's funny, snowflakes are called dendrites, and just like fingerprints, none of them are the same they say. I don't know, I've never counted them all, looked at them all, but that's a fun fact about snowflakes. Interesting thing though, each storm is also different because of that. The temperatures leading in to a storm and following a storm are completely factors that would be able to answer that question.

- Edward Grayson: [32:41](#) Now, if all things are created equal, I personally like wet, heavy snow. Why? Because I can plow it and push it over to the side. It's a funny thing about light, fluffy snow. Light, fluffy snow becomes susceptible to ground blizzards. Now if you have wind that light fluffy snow is now not bonding to each other, it's... Usually you get light fluffy snow when it's so cold that those dendrites, they don't start to melt right away, they stay crystalline. It's an interesting thing about our challenges.
- Edward Grayson: [33:10](#) If you look at roadways... I grew up in Queens, affectionately known sometimes as the borough of parks and cemeteries. Well, it's an interesting thing. Take the Jackie Robinson Parkway for example, my old neighborhood. Well, all of that greenery and a light, fluffy, crystalline snow, every time the wind blows, it blows back over the roadway. It stays so fluffy that a minor breeze now pulls everything off of that landing, that mound of... It's beautiful. It's so beautiful to look at, except every time the wind blows, we now have a completely frosted over roadway again because of that fine crystalline snow. I don't like it.
- Edward Grayson: [33:46](#) Also, to me it all depends on where we are with the wind. Heavy snowfall, again, if it's heavy and wet and we still have that wind, we have those heavy blizzard-like conditions, that's going to be tough no matter how you slice it and you're going to... Those are tough because now it depends on what time of year is it snowing. Have we passed the point where we have canopy because now I'm worried about the trees. There's a myriad of factors that come in and that's why when we sit here, especially when we're doing that sit room call, and everybody's at the table, and we're talking, that's why it is so critical to have everybody there. What is the Parks Department telling us? How are we on canopy? How are we on this? Having all that situational awareness totally plays into every piece, every nuance of the response.
- Edward Grayson: [34:28](#) But on the straight, just to be honest, I like heavy wet snow. It's usually easier for us to get in and get out, plow right away and it stacks. If it gets colder on the back end, we have a plan in place to come in with the heavy equipment, pick it up, move it, take it to our melters. Light snow, it's always tough. It's also tough because in light events, it's an interesting thing. Once you hit certain triggers, everybody gets smart. If they think there's a lot of snow coming, people hunker down. They like, "Oh, hunker down." They get the milk and the bread, all the memes come out, and everybody gets the mindset and everybody's on the news, and it's great.

Edward Grayson: [35:03](#) That minor frosting event that nobody was looking for, that icing event, those are dangerous because people take them for granted. Just a little bit of snow, but how cold is it? Will you have roadway traction? For us, you got to remember we're responding to the threat of winter precip, because all of it... It's a funny thing. If you need one spreader, you might need them all. If you need one, it's because you have an icing concern. How far is that icing concern going, and the reason why that comes into play is always with temps. Where are the temps, what is the precip potential coming with the front that's moving into the area? It's not enough to say, "Oh well, we expected it to do a change over the rain." What if it doesn't? We have to assume that all of the moisture coming our way could be all snow at a freezing point at any given time. It's such a myriad of factors, and that's why. But again, wet and heavy every time.

Omar Bourne: [35:59](#) We're talking with four-star chief Edward Grayson of the New York City Department of Sanitation. We're talking winter weather, we're talking snow preps, we've got breaking use, we've got fun facts. As I mentioned, it's Winter Weather Awareness Week, and I want to get into some preparedness tips. Now during the sit report earlier we mentioned some supplies that you need for your home winter preparedness checklist. Make sure you have your warm clothing, your flashlights with batteries, first aid kit, portable AM/FM or weather radio. Let's talk about some tips for traveling in winter weather.

Allison Pennisi: [36:39](#) All right, so when there's snow in the forecast, the best action is to take public transportation or just stay off the roads as Chief Grayson mentioned before. If you must drive, please allow for extra travel time and drive slowly. Some important points to remember, winterize your vehicle. Have a snow shovel, ice scraper with a brush, nonperishable food, blankets, booster cables, extra clothing, cell phone, charger, and sand or kitty litter for traction.

Omar Bourne: [37:07](#) That's right Allison, you want to be sure that you're prepared for the worst. Remember, and I guess this one I have no problem with because I do it even when it's not necessary, to dress for the weather.

Allison Pennisi: [37:20](#) Yes, yeah. Make sure you have those extra scarves on.

Omar Bourne: [37:24](#) Yeah, those two scarves and two hats that I wear when it's below 66 degrees outside. But Chief Grayson, I digress. Let's talk about the do's and don'ts of shoveling. I know people love to

shovel and throw the snow back in the streets. That's one of the don'ts. Well, what else do you have for us?

Edward Grayson: [37:47](#) In addition to that, and thank you for bringing that up. We mentioned some before just on the common sense side, but that's basically what you need to come out armed with. Be sensible for yourself. Having done my fair share of shoveling both as a municipal worker and just as a resident, and just because that was the kind of dad I had, "You get out there boy." Once I was old enough to hoist one I was out there with pop. With all that said, definitely be realistic. Stay hydrated, lift from the power zone.

Edward Grayson: [38:18](#) Remember that it's not a race. I know that people... You're trying to get something done, but be realistic to what you can do, especially in heavy snow events. It's a physically taxing activity, and be mindful of where you put it. Think about your neighbors and about where you're storing your snow. Please think about your fellow motorists and the fact that if you throw it back in the road, you are creating a traction hazard, you never know. You may be piling snow on for those who come out, not just shoveling, for everybody who comes out with that snowblower. Believe me, they're fun. I get it. But you've got to watch the size of that mound. Can motorists see behind it? Are you creating a blind spot? Are you putting everything on the corner because you think it makes sense except now people can't see?

Edward Grayson: [39:06](#) Remember, roadways are getting narrowed in a plowing operation, so there's a specific roadway. As we start pushing the wake of snow towards the right roadways and narrowing. That means turn radiuses are narrowing, two-way streets are getting narrowed. Everything is happening at the same time despite the ability for us to come down and put down a chemical that may suppress accumulations. You want to have some common sense. If you're out there shoveling, think about where you're putting it, stay hydrated. Definitely don't try to take all of it with one pass of a shovel especially. Know your limits, listen to your body, think about your neighbors.

Edward Grayson: [39:40](#) Try to remember those travel paths, 36 inches or more for those with mobility challenges and concerns, and especially for the folks out there with the snowblowers or anybody who sees that guy driving around with the private plow. You don't want to create a roadway hazard or a condition that hurts your neighbors. Think about that. Think about others. Do what you need to do to make the front of your property passable the way

the law is required and keep yourself safe. But try not to create a hazard for somebody else when you're doing it, that's my main advice with that.

Omar Bourne: [40:14](#)

Good advice.

Allison Pennisi: [40:15](#)

Right. While you're clearing the sidewalks, when are you supposed to actually start doing that? Is it when the snow stops falling? Is there a certain time, or a law, or a rule regarding that?

Edward Grayson: [40:27](#)

There's definitely a law and a rule, and I will definitely explain it. As far as your own personal strategy, I know folks, if you're looking at waiting until all 20 inches are down, that's up to you, depending on what the forecast was. But on snow removal, the official law is that it's temporal. It has a time. In essence, you have four hours to clear your sidewalk if the snow stops falling between 7:00 AM and 4:59 PM on the same day. If between 7:00 AM and 4:59 PM the snow stops falling... let's say, using that in context. If it stops falling, official stop of the last flake, we've declared that's the end of the storm and there's messaging that goes out on that, you would have until 9:00. If it happens up into 4:59 PM you have until 9:00 PM that day. If the snow stops falling between 5:00 PM and 8:59 PM, so up until 9:00 PM that day, you have until 11:00 AM the next morning, which is basically 14 hours.

Edward Grayson: [41:30](#)

In essence, if it's snowing on the same day and it stops on the same day between 7:00 AM and 4:59 PM, you should have a clear pathway for all of your fellow neighbors and residents, of your property by 9:00 PM that day. If the snow stops falling anywhere after 5:00 PM, you basically have to have it done by 11:00 AM the next day.

Omar Bourne: [41:52](#)

Is that for residents and businesses?

Edward Grayson: [41:54](#)

Yes.

Omar Bourne: [41:55](#)

Okay.

Allison Pennisi: [41:55](#)

Thank you. Chief Edward Grayson for joining "Prep Talk" for this informative conversation on snow operations here in New York City. For our listeners, you can be winter ready now by visiting [NYC.gov/emergencymanagement](http://NYC.gov/emergencymanagement) for winter preparedness tips. You can also visit the NYC Department of Sanitation online at [NYC.gov/sanitation](http://NYC.gov/sanitation) for more information on snow operations and how to be a snow laborer this season.

Speaker 4: [42:24](#) If you don't know, now you know. You're listening to a "Prep Talk," the emergency management podcast. It's time for "Prep Talk" rapid response.

Allison Pennisi: [42:40](#) It is rapid response time and if you are a first time listener, it's simple. Omar and I will ask questions and our guest will give the first answer that comes to mind.

Omar Bourne: [42:48](#) All right chief, first question. What is the one winter emergency item you cannot live without? I feel like I know what this is going to be. Go ahead.

Edward Grayson: [42:58](#) I'm actually going to go with common sense. I'm going with that. But on a true emergency item, you give me salt every day. I like it.

Allison Pennisi: [43:08](#) All right. What is your favorite winter-themed movie?

Edward Grayson: [43:12](#) "Elf."

Allison Pennisi: [43:13](#) That's a good one.

Omar Bourne: [43:15](#) It's a very good one.

Allison Pennisi: [43:15](#) It's very good one.

Omar Bourne: [43:15](#) What is currently on your playlist?

Edward Grayson: [43:17](#) A plethora of things on my playlist? Zac Brown, Black Sabbath, 90's hip hop, and-

Omar Bourne: [43:23](#) Oh yeah?

Edward Grayson: [43:24](#) Oh man. Oh yeah.

Omar Bourne: [43:25](#) Yeah?

Edward Grayson: [43:25](#) Oh yeah?

Omar Bourne: [43:26](#) Who you got?

Edward Grayson: [43:28](#) Lately I've been jamming on DJ Kool. "Let Me Clear My Throat." That's my jam to get me into work in the morning, it gets me pumped up. I am also a big fan of some House of Pain, and... Listen, Grand Puba was a good one for me. I got a couple. It's an eclectic playlist?

- Omar Bourne: [43:49](#) I see that. I like it.
- Edward Grayson: [43:51](#) I'm also addicted to Ted Talks. That's what happens. I've been bringing in... I listen to you folks your podcast is great. I'm a podcast and a Ted Talk kind of guy, but mostly on the jam, a little bit of country, a little bit of rock and roll, and definitely my 90's hip hop. Got to have it.
- Allison Pennisi: [44:08](#) All right. I love it. Last question, sum up the work you do in one word.
- Edward Grayson: [44:13](#) Epic.
- Omar Bourne: [44:14](#) We've never heard that before. I like it. Epic.
- Allison Pennisi: [44:16](#) I like it.
- Omar Bourne: [44:17](#) Yeah. Anything else you'd like to add for our listeners before we sign off?
- Edward Grayson: [44:21](#) I just want to remind everybody that the men and women of sanitation are completely dedicated to the betterment of all 9 million New Yorkers. There's 10,000 of us who we come in just like you said, and we respond for snow and other emergencies all the time, and we try to be a hero at the curb with day-to-day operations given that quality of life, we certainly try to be the hero with the plow. It's not about being heroic, it's just about being what we've committed and taken the oath to do, serve the public trust every single day. We're trying out there, we're doing our best. We love all 9 million New Yorkers, and we're trying every day for the betterment of that.
- Edward Grayson: [44:58](#) I also want to thank you both and New York City Emergency Management. The partnerships we have here are just so beneficial. The fact that during emergencies, this agency, your agency, coordinates everybody, gets everybody in the room, makes sure that we're talking, makes sure that that situational awareness has been shared, and brings everybody together, it's fantastic, and I can't thank you enough.
- Speaker 1: [45:22](#) That's this episode of "Prep Talk." If you like what you heard, you can listen any time online or through your favorite RSS feed. Until next time, stay safe and prepared.