



Severe Weather 2020/21



in partnership with



**Nottinghamshire
County Council**



Over recent years, the range and frequency of severe weather experienced in Nottinghamshire has increased, particularly across winter months.

Whilst ice and snow on the county's highways remains a threat, regular winter storms with high winds and prolonged heavy rainfall have also caused disruption through fallen trees and localised flood events.

Our strategy allows us to minimise the impact of severe weather events through preventative maintenance, whilst providing a reactive service when these events occur.



About the winter gritting service

Nottinghamshire County Council salting routes

Via East Midlands, who manage the county's highways on behalf of Nottinghamshire County Council, grit when road temperatures are predicted to be at or below 0°C and when ice is predicted to form on the road surface.

23 gritting lorries, out of Via's 30 strong fleet, are stationed across the county and grit 1,560km of Priority One routes. These include 'A' and 'B' roads (approximately one third of the county's entire road network), strategic routes carrying high traffic flows, main urban distributor roads and also main bus routes. The remaining seven vehicles are maintained to cover mechanical faults and breakdowns.

When a sustained period of cold weather has been forecast including snow, Priority Two routes may be gritted if resources are available. These are a further defined network of important roads leading to essential industrial, military, medical or emergency service establishments, major settlements not served by Priority One Routes, access to special schools and certain problematical hilly areas.

A team of 23 permanent night shift drivers work from November to March and additional drivers are on hand to provide cover for daytime and weekend gritting. 63 local farmers have also been recruited to be on standby to assist in case of severe weather supported by 85 snow wardens.

All Via gritting lorries have GPS tracking systems and CCTV onboard, and this year a new tracking and routing system has been installed to provide greater resilience and allow all drivers to drive any route in the county.

17,000 tonnes of salt are stored across four depots at Bilsthorpe, Markham Moor, Gamston and Newark. This is nearly 7,000 tonnes more than the recommended nationally and enough to carry out four gritting runs, every day, for three weeks. Each time the lorries go out an area of 1,050,000m square in size is gritted – equivalent to 100 large football pitches. As each gritting run can take over three hours, residents' roads will be gritted sometime after the gritting run commences.

Via make daily gritting decisions using ice prediction software, winter maintenance road forecasting services from MetDesk, and data from roadside weather stations across Nottinghamshire and neighbouring counties.

MetDesk issues the daily forecast at around midday. This is interrogated by Via's day Duty Controller who takes into account predicted temperatures, rainfall and timings, and makes a decision whether or not to grit the roads. The Duty Controller will then issue the gritting instruction via e-mail and organise the gritting shift as necessary. From 7pm each night, the Night Shift Controller will take over and respond to any changing weather conditions should the need arise.

While we are well equipped, the County Council is unable to respond to every request for roads and pavements to be gritted - like every other local authority in the country.

The Council already spend £2.15 million on winter maintenance services and gritting every road in the county would cost an extra £5.2 million plus an additional £8 million to pay for new equipment and salt storage.

The gritting of motorways and trunk roads in Nottinghamshire including the M1, A1, A46, A52 and A453 is the responsibility of Highways England – call **0300 123 5000**.

How does gritting work?

When we spread salt on the network it will mix with any moisture and create a saline solution. This has a lower freezing point than water and therefore helps to stop ice forming on the road, even though the temperature is below freezing for water.

The actual freezing point of a saline solution is dependent on the salinity (strength), and that relates to how much salt we put on to the network, or how much residual salt is present on the roads. We apply an amount of salt to ensure, as far as possible, that the salinity of any moisture on the roads is sufficient to prevent ice forming. We usually apply 15gms/m² or 20gms/m².

Salt will not directly melt snow as it must first mix with the snow to form a saline solution, and therefore snow can settle on treated roads. We spread the salt in advance of snow so it can start to mix to create the saline solution and help to reduce the accumulation of snow and also help to prevent ice forming.



Gritting isn't always effective...

At temperatures below minus 6 degrees the effectiveness of the salt is reduced, and therefore there is a chance that ice could form even though we have gritted the network.

It can also be the case in prolonged periods of snowfall. The snow will fall at a rate faster than the salt can mix with the snow, and therefore it will accumulate no matter what we do in advance.

If roads are quiet, this can also have an impact, as vehicles travelling on the roads can actually help the process by breaking down the snow and helping the formation of the saline solution.

So please remember, when highway users look at a main road and see snow has settled, it does not necessarily mean that the road has not been treated, it simply means the rate of snowfall has been sufficient enough for it to accumulate while the salt is still mixing to form a solution.



The freeze/thaw effect of gritting

Freezing conditions can take their toll on roads. Potholes can be caused by water seeping into pavement and asphalt cracks. This water expands inside of the pavement/asphalt when frozen, creating a weak patch. As vehicles drive over this weak patch and further freeze/thaw cycles extend the damage, a pothole begins to form.

Grit bins

Yellow grit bins

There are over 1,000 yellow grit bins across Nottinghamshire. These are placed at highway junctions, where there is a steep gradient or where there is very high pedestrian movement, especially near local centres used regularly by the elderly, very young or mobility impaired. They are kept filled up throughout the gritting season and are allowed to be used on roads - not private driveways.

Blue grit bins

Residents, town and parish councils can purchase a blue bin from Via which can be delivered, filled with salt, ready for use. Once delivered, local residents become responsible for making sure the blue bin is kept full of salt and for spreading any salt on the road in severe weather.



Winter Storms and Flooding

Recent years have seen an increase in the impacts of other severe weather brought by winter storms, in particular high winds and prolonged heavy rainfall.

Via East Midlands work with Nottinghamshire County Council all year-round to lessen the impacts of severe weather on the highway network, as well as providing emergency response to particular weather events as they occur.

Routine Maintenance



Throughout the year, Via undertake extensive programmes of routine maintenance to both highway drainage and trees, which helps to minimise the impact of severe weather.

Via is responsible for keeping over 158,000 highway gullies and offlets maintained in the Nottinghamshire area and work in partnership with Tarmac Limited and ACL Highway Services to clean every adopted gully in the county.

Via also has its own drainage team who investigate issues and complete repairs to highway drainage systems in the county, whilst also undertaking emergency cleansing where required.

Gully cleansing involves a specialist high-powered gully jetting and suction vehicle which is used to remove silt and debris from the gully, allowing water to flow freely.

A smart, data-led approach is taken to the frequency of gully cleansing, although every adopted gully in Nottinghamshire will be cleansed at least once every two years. This ensures that gullies which are more prone to collecting high levels of silt or debris, or other issues, are cleansed on a more regular six-monthly or yearly basis.

Via's Forestry team also have a rolling programme of works which sees every tree on the highway network inspected on a regular basis, with scheduled works such as removal of epicormic growth or pollarding being undertaken where required. Additionally, this allows us to identify any diseased or weakened trees so the remedial work can be completed.

How do we prepare and react during storms and floods?

Via's emergency response team operate 24-hours-a-day, 365-days-a-year and attend incidents on the highway that require an urgent response.

We monitor reports from the emergency planning team and local weather forecasts and when storm conditions are forecast, the emergency response team provide support to safeguard the public and property, and keep the highway moving.



For major storm events all available resources are utilised including all call out staff and additional staff from across Via's operational teams.

High winds and gales are common with winter storms and can result in hazards such as fallen trees and branches blocking roads and pavements, as well as damage caused to the highway by other loose debris and incidents.

When reports of an incident are received, the emergency response coordination will assess the situation and take action in accordance with our policies.

Whilst we aim to respond to an emergency call out within two hours of receiving the notification, during severe weather this may not be possible. In these instances, we assess the severity and potential for disruption, prioritising those roads/incidents that have potential to cause the largest impact.

Via's emergency response operatives, or one of Via's approved sub-contractors, will be dispatched to the site to remove any obstruction and make repairs as necessary.

During larger storm events, it is not uncommon to have a high number of concurrent incidents across the county. As these are prioritised, it may be a significant number of hours until all incidents are cleared.

Heavy, persistent rainfall during storms can also cause significant hazards on the highway. There are numerous cases in recent years where a month's rain has fallen in just a few hours, and where continuous rain over an extended number of days has resulted in rain falling on saturated ground which is then unable to flow into watercourses with high water levels.

In these cases, the drainage system can become overloaded and surface water flooding on the highway can occur. Whilst this will often drain away in a short period without intervention, it can temporarily block part or all of the highway. In extreme cases, it may also put people and properties at risk.

If a significant hazard is caused by standing or flowing water, Via's emergency response team will assess the situation to establish the level of risk to the public, property and road users.

If this is the case Via will attend, with other agencies as required, to make the area safe until water levels subside. This may involve full or partial road closures, cleansing of gullies or pumping of water from the carriageway if appropriate.

Where properties are at risk, the emergency response team may assist with sandbags for residential properties and pumping equipment if required.

It is important to note that an assessment will be made and the distribution of sandbags will be prioritised based on need. Whilst surface water flooding may be disconcerting to residents, our teams are able to assess where property flooding is likely to occur based on conditions and will only distribute provisions in these instances.



In times of severe weather events it is not always possible to guarantee that demand will be met, and therefore a criteria for allocation will be followed to ensure that vulnerable members of communities are prioritised. When considering dealing with the demand, district and borough councils also have a role to play in the distribution of sandbags and are included in the overall process and assessment.

Throughout storm events, we liaise with:

- District/Flood resilience groups
- Via and Nottinghamshire County Council Management teams
- Via and Nottinghamshire County Council Communications teams, to provide updates to local and social media
- Nottinghamshire County Council Emergency planning groups, where significant events are taking place

Facts and Figures



During last winter's storm events we:



Supporting communities

Helping people to help themselves

Recognising the strong community spirit in Nottinghamshire, the County Council is helping local people to help themselves get prepared for winter weather in a number of ways including:

- offering up to five bags of salt - free of charge - to parish councils
- running a scheme for town and parish councils to purchase blue grit bins which they then take on responsibility for keeping full
- highlighting the Snow Code in all our literature to reassure people that they will not face legal action if they safely clear snow and ice from driveways and pavements outside their home.
- administering a Flood Warden scheme, including supporting the provision of local sandbag stores, and a Community Flood Signage Scheme in communities at risk of potential flooding.

Keeping communities informed

The County Council has an important role to play in providing accurate, up-to-date information about the availability of Council services during winter weather. We do this in a number of different ways including:

- publishing daily updates on our website about school closures and other disruptions
www.nottinghamshire.gov.uk/disruption
- posting updates as we get them on the Council's Twitter feed - sign up to Twitter at **www.twitter.com** and then follow us **@NottsCC**
- posting updates on the Council's Facebook page at **www.facebook.com/nottinghamshire**
- close liaison with the local media and regular press releases and updates.



Emergency evacuation

In extreme weather conditions the emergency services may recommend that residents evacuate their property. Evacuees will be directed to a place of safety where an initial assessment of their needs will be made. People should consider if they have friends or family to stay with and have supplies of medication, baby and pet items to take with them.

Depending on the scale, duration and nature of the evacuation, residents may be temporarily re-housed in hotels, bed and breakfasts, hostels, residential homes or other temporary accommodation according to their needs. Many evacuees prefer to stay with family or friends as this often provides the most comfortable and supportive environment.

In the event of a large-scale evacuation, local authorities may open a rest centre. This is a facility, such as a leisure centre, where the immediate welfare needs of evacuees can be met and enables assistance to be targeted at the most vulnerable members of the community.

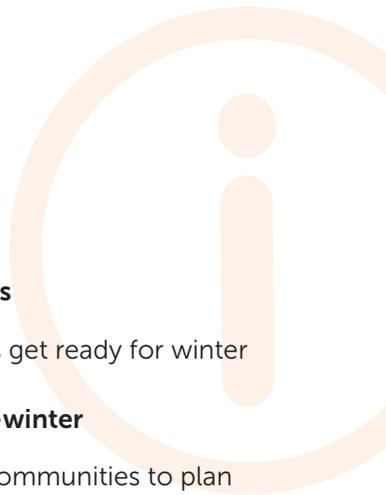
Evacuations taking place whilst COVID-19 is present will be made taking into account the potential risk from the virus in relation to the risk from the current emergency. Where evacuation to places of safety are deemed necessary then all possible measures will be taken to limit the risk of spread of the virus. Opening a rest centre will only be done when all other possible emergency accommodation measures have been considered.



Information to help residents

We have a range of information available to help residents including:

- the online gritting map to help people plan their route to work using roads that are gritted. Available on our public website at: **www.nottinghamshire.gov.uk/gritting-map**
- daily updates at **www.nottinghamshire.gov.uk**
- our Twitter feed provides real time updates delivered to your PC, smartphone or by checking our website homepage at **www.nottinghamshire.gov.uk**. Sign up to Twitter at www.twitter.com and then follow us **@NottsCC**
- updates on the Council's Facebook page – at **www.facebook.com/nottinghamshire**
- disruption to services page at **www.nottinghamshire.gov.uk/disruption**
- the winter weather plan **www.nottinghamshire.gov.uk/emergency-plans**
- reminding people how they can help themselves get ready for winter by checking information available online at **www.metoffice.gov.uk/learning/get-ready-for-winter**
- community emergency plan templates to help communities to plan ahead and help themselves **www.nottinghamshire.gov.uk/community-resilience**
- information on preparing for a flood, what to do during a flood, and support available after a flood **www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice**



Winter weather tips - motorists, pedestrians, homeowners and older neighbours

For motorists

If the weather is very bad, decide whether your journey is really necessary. As a driver, make sure that your car has had a winter maintenance check.

Make sure that you:

- keep the lights, windows and mirrors clean and free from ice and snow
- keep your battery fully charged
- add anti-freeze to the radiator and winter additive to the windscreen washer bottles
- don't drive through water if you are unsure of how deep it is
- do not travel along roads that have been closed
- do not attempt to drive through fast-moving water – your car could easily be swept away
- make sure wipers and lights are in good working order
- have an ice scraper and de-icer handy
- check that tyres have plenty of tread depth and are maintained at the correct pressure
- plan your route to work - use the online gritting routes map - and make sure you have a road atlas in your car
- help our gritting lorries and emergency services get through to keep the roads clear - if you're forced to abandon your car, make sure you leave it as close to the side of the road as you can
- consider using public transport – it will be easier as main roads are gritted
- make sure you have a coat, wellingtons or walking boots, a warm blanket, a shovel and a flask of hot drink in your car in case you break down
- take care near schools and drive especially carefully.

And if you get stranded

- make sure your mobile phone is fully charged in case you break down
- always carry details of your breakdown/recovery service.

For pedestrians

As a pedestrian, do your own winter maintenance check, ensuring that you:

- make sure other road users can see you
- wear or carry something light coloured, bright or fluorescent in poor daylight
- use reflective materials when it is dark, which will show up in car headlights. Reflective materials can be seen up to three times as far away as non-reflective materials
- use pedestrian crossing facilities where they are available
- if no pedestrian facilities are available then cross near to a street light if possible
- make sure that your footwear has a good tread, to avoid slipping.



Being prepared at home

- stock up on food and safety supplies
- learn how to shut off your water valves and cold supply pipe in case of a burst pipe
- have a supply of your prescription drugs and other medicine at home
- have a wind-up torch and radio in case of power cuts
- buy rock salt or table salt to melt ice on your driveway or use and to help get a grip on slippery surfaces
- check your snow shovels are in good condition
- if your home is in an area prone to flooding, ensure that you have sandbags and other flood prevention methods as appropriate
- in case of high winds, ensure any loose objects such as refuse bins and garden trampolines are stored away or securely anchored in place.

How to get up to date information about County Council Services during severe weather

For the latest information on County Council services, schools and libraries

- check the County Council website at www.nottinghamshire.gov.uk
- sign up to Twitter at www.twitter.com and then follow us @NottsCC
- visit the Council's Facebook page at www.facebook.com/nottsc
- call the County Council's Customer Service Centre on **0300 500 80 80**
- listen to local radio and check the local press.

Schools

Individual schools are responsible for deciding if they need to close or delay the start of school due to ice and snow. The decision is made by governors and headteachers. Many schools are close to existing main roads that are already salted.

Libraries

Inspire is responsible for deciding if they need to close or delay the opening of libraries due to ice and snow.

Meals at home

We have 4x4 vehicles on standby and borrow vehicles from other organisations like the Environment Agency to make sure our drivers can deliver hot meals as usual. If residents are concerned about whether or not they will receive a meal, please call **01623 490015**.