

**Report to: Cabinet**

**Subject: Final Report and Recommendations of the Surface Water Flooding working group**

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### **Purpose of the Report**

To present the final report and recommendations of the Surface Water Flooding Working Group.

### **Background**

In recent years flooding has had a considerable impact on some areas within the borough, significant disruption was caused by storms in June 2019, November 2019, storms Ciara and Dennis in February 2020 and more recently in January and February 2021. These events affected numerous areas including Arnold, Burton Joyce, Carlton, Gedling, Lambley, Linby, Papplewick, Redhill, Stoke Bardolph, Woodborough and in 2016 Colwick. The Overview and Scrutiny Committee established a working group to examine the effectiveness of current procedures and assess how Gedling Borough Council prepares, assists and supports residents during incidents of surface water flooding. This included examining factors that contribute to flooding and what can be done to minimise future flood risk.

### **Information**

Pluvial flooding, also known as surface water flooding, occurs during periods of extreme rainfall when the ground cannot absorb rainwater effectively or the drainage system is overwhelmed by excessive water. Torrential rain fall over a short period of time can also cause flash floods which can be very dangerous and destructive not only because of the force of the water but the amount of debris swept along in the flow. This type of flooding has been the cause of most recent events in the borough. There has also been fluvial flooding affects from rivers flooding properties across the Borough. It is not possible to precisely predict the weather in detail, and therefore its

effect on communities, but there are some areas in the borough that are more likely to experience flooding during extreme weather events for example February 2020 Storm Ciara and Dennis impacted on Arnold, Gedling, Lambley, Linby, Netherfield Woodborough, Papplewick and Stoke Bardolph. June, August and November 2019 Arnold, Carlton, Lambley, Netherfield and Woodborough were affected. In extreme weather conditions streams and drainage systems reach capacity and the ground becomes saturated. Water collects and natural boundaries will no longer retain water resulting in water overflowing taking the point of least resistance and settling in low lying areas. Flooding has occurred in both rural and urban areas and although it is difficult to predict the weather accurately there are some areas in the borough which regularly flood during extreme weather conditions. Flood risk maps for surface water are available at gov.uk these are produced by the Environment Agency and show areas that are more predisposed to flooding.

### **Key Partners**

Since 2010 **Nottinghamshire County Council** has been the lead local flood authority (LLFA) having powers and a statutory duty to manage and coordinate local flood risk activities. It does this by working with other organisations including the Environment Agency, Severn Trent Water, Internal Drainage Boards, District, Borough and Parish Councils. Under the Flood and Water Management Act 2010 the County Council is required to publish a Local Flood Management Strategy which includes an action plan and report flooding incidents under Section 19. A Section 19 report is triggered by five or more properties being flooded in any one area, the report outline what has happened during a flooding incident and how risk management authorities have exercised their responsibilities, it does not identify specific measures to prevent future flooding.

Nottinghamshire County Council as the Highways Authority for Nottinghamshire has responsibility for public highways which includes a duty to maintain, repair and inspect the highways drainage asset. Highways drainage systems are key to ensuring that water flows off highways and into watercourses. Although gullies are regularly cleaned during periods of heavy rain, water in the pipework can exceed the drains capacity to carry it, resulting pressure in the drainage system and causing water to escape through gullies or manhole covers resulting in flooded roads.

**Severn Trent Water** oversee the flood risk from the failure of public sewer and water mains infrastructure.

**The Environment Agency** have responsibility for flood risk from main rivers and work with the Meteorological Office to provide flood forecasts and warnings. It undertakes works to reduce flood risk to people and properties and manages water levels for agricultural and environmental needs within their district.

**Internal Drainage Boards** provide water level management within their Internal Drainage District, facilitating land drainage and flood defence work on ordinary

watercourses which consist of small rivers and streams, not managed by the Environment agency.

**Gedling Borough Council** undertakes the risk assessment and management of watercourses which it is responsible for as the land owner, there are currently 9 watercourse risk assessments in place in the borough. It works in partnership with LLFAs and other risk management authorities to ensure risks are managed effectively, this includes making decisions relating to housing development in the borough. In addition Gedling has responsibilities under the Civil Contingencies Act 2004 to risk assess, plan for emergencies, warn and inform, cooperate and share information with partner agencies as well as business continuity promotion. There are service level agreements in place with the County Council and Newark and Sherwood District Council to support the Council in its duties.

### **Working together**

As the lead local flood authority the County Council prepared a Preliminary Flood Risk Assessment report which considered where floods have taken place in the past and where they could take place in the future from surface water runoff, ground water and ordinary water courses. In this role the County Council has permissive powers and statutory duties to manage and coordinate local flood risk management activities. Under the Flood and Water Management Act 2010 it has a duty to publish a Local Flood Risk Management Strategy including an Action Plan that identifies key objectives to shape the delivery and flood risk management services in Nottinghamshire

The Local Resilience Forum (LRF) brings a number of partners together, it has no legal powers to direct members but relies on cooperation. These partners include category 1 and 2 responders as defined by the Civil Contingencies Act 2004 who have a collective responsibility to plan and prepare for emergencies. Category 1 responders include amongst other organisations the Police, Fire and Rescue, the Environment Agency the County Council and District Councils. Gedling Borough Council is therefore a category 1 responder and responsibilities include risk management, emergency planning, co-operating with partner organisations and information sharing. Prior to flooding events all partners receive flood updates from the Meteorological Office this enables partner agencies to plan and coordinate activities. Gedling Borough has a Service Level Agreement with Newark and Sherwood District Council who attend the LRF and Risk Working and Advisory Groups on our behalf.

The County Council organise Flood Warden training which flood risk communities can volunteer to join. Communities that are members of the scheme can be included in an initiative that enables designated roads to be closed to protect properties. Woodborough has a scheme and other areas have been encouraged to establish a scheme, the Covid 19 pandemic has curtailed additional schemes being developed.

## **Gedling Borough Council action before and during a flooding event**

Proactive work to mitigate the effects of flooding in various locations has been undertaken including:

- An ongoing programme of monitoring and clearing of grids
- Risk assessments and management of water courses by Parks and Street Care, currently there are nine watercourse risk assessments in place
- Increased water retention from car park drainage systems
- The procurement of a high volume pump and trailer for flood emergencies for Colwick quays. This included working with the Environment Agency and the County Council to develop activation protocols for river level monitoring and asset activation.
- The construction of three balancing ponds at Coppice Road, Foxhill Drive and Thackerays Lane
- Attenuation ponds, near Spring Lane Lambley
- The Jubilee ponds, Daybrook, a possible medium or long-term programme of works is being considered.
- Debriefing and learning from flood incidents and sharing learning with multi agency colleagues.

One issue of concern for members of the working group was the blocking of gullies by leaves particularly during the autumn. It was explained how the Parks and Street Care Team (PASC) regularly sweep and clear drainage gullies but these can often be blocked by other items for example garden waste, rubbish or builder rubble. There is a ten week cycle for street sweeping and between October and Christmas there is additional sweeping in heavily leaved areas for example Woodborough and Ravenshead. Although this reduces the obstructions it will not completely alleviate the problem. The PASC Team is aware of where there are particular issues and will take necessary action should problems occur. The clearing (unblocking) of gullies is a County Council Highways responsibility and they undertake a regular programme of gully clearing. Community litter picks by residents can be effective in removing rubbish which often collects and covers grids.

During a flooding event Gedling Borough Council convenes an Incident Management Team this will include a wide range of specialist officers, the 24 hour on call duty emergency planning officer, senior leadership, the Health and Safety Manager, heads of service and communications staff. Protocols for Gedling Borough's emergency response support for the management of flooding events is included in the Council's emergency plan. This covers a wide range of activities including delivery sandbags to vulnerable residents, clearing grids, checking lagoon levels and pumping out water from Colwick Quays. The Gedling Borough website is updated to give the latest flooding news and information signposting to useful partner organisations should assistance be required.

Gedling Borough has a supply of 1,000 plus sandbags which are only issued if a property is at immediate risk of flooding as per the current sandbag policy, if there is a major incident the County Council also has some available. Sandbags provide only limited protection against flooding and are relatively ineffective when compared with purpose designed flood resilience products. Once sandbags have been in contact with flood water they are contaminated and it is the responsibility of the property owner to dispose of them. Members of the public should be aware that it is not a statutory duty for local authorities to provide sandbags. The primary responsibility for protecting property rests with the property owner. Gedling Borough has finite resources to mitigate flood risk and the effects of flooding and has limitations on what it is able to achieve.

The Police and the County Council respond to reports of flooded roads and put up signs warning of hazardous driving conditions or road closures. Areas with a Flood Wardens scheme may have delegated powers to close roads in identified locations when predetermined triggers are met. 'Bow waves' from vehicles that ignore these signs can cause additional flooding issues for residents and businesses.

### **After a flooding event**

After a flooding event it may be necessary to undertake a clean-up operation and Gedling Borough will work with other agencies in the most severe events. This can include provision of skips to remove household debris and clear gardens. The County Council may undertake a Section 19 investigation if 5 or more properties have been flooded internally.

If properties or businesses have been affected by flooding they are encouraged to complete a Flood Impact Assessment form, available on the website. The information provided assists in assessing the impact of a flooding incident, the recovery needs of the community and in planning for future flood management. The Council does not share this information with insurance companies.

### **Conclusions**

Flood risk management is a very complex issue, and the causes of flooding multiple and varied. In addition it is increasingly unpredictable due to the escalation in extreme rainfall events. Flooding will always occur and pose a risk to property so there has to be a focus on managing that risk. Local communities have a responsibility to take action to reduce that risk, for example disposing of garden waste appropriately. The organisation of community litter picks is one way of reducing the amount of debris that is washed on to grids which impede the drainage of water and be a contributory cause to flooding.

Residents living in areas prone to flooding should be encouraged to prepare a Community Action Plan or establish a Flood Warden scheme which would help decide what practical actions can be taken quickly when flooding occurs. This would

include information to help residents to prepare themselves and provide a coordinated response that will assist the emergency services.

The importance of giving property owners timely information and advice regarding preventive action to take before, during and after a flood to mitigate future damage was highlighted. This includes informing residents of their responsibilities to take practical measures to safe guard their property by investing in flood barriers and other flood resistance measures. The limitations of the use and supply of sandbags should also be clarified.

The review group recognised the need to identify and support vulnerable residents in the community and encourage them to sign up with the priority registration schemes available to support them during emergencies.

The sterling work by officers to identify and plan for flooding events was acknowledged and the strong joint working relationships with other organisations was considered to be an important factor in addressing this challenging issue.

**The Overview and Scrutiny Committee recommends that:**

- I. Residents in areas prone to flooding are reminded annually of their flood risk, their responsibility to put in place measures to improve the resilience of their property and existing emergency plans. This could be included with the annual refuse collection calendar distribution.
- II. New residents in flood risk areas are given information about their responsibilities, what to do, and who to contact, in the event of a flood emergency.
- III. A mechanism to enable Ward Councillors to directly report emerging flooding concerns to the Notts. County Council Highways and Emergency Planning Teams is established.
- IV. Ward Councillors make use of social media platforms to disseminate information during flooding events.
- V. Ward Councillors encourage local residents to develop a Community Emergency Plan and establish a Flood Warden Scheme. A short guidance leaflet to support Councillors to do this is developed.
- VI. An article is included in the autumn edition of the Contacts magazine highlighting flooding related concerns including:
  - The actions householders can take to mitigate flood damage to their property

- The limitations of the sandbag policy and the householders' responsibility to take measures to protect their own property
- Reminding householders' to dispose of garden waste responsibly to reduce the blocking of grids
- Encouraging residents, if they are eligible, to sign up for the priority registration scheme
- Encouraging householders to report flooding events and complete the Flood Impact Assessment form
- Web site addresses and signposting to websites for in-depth information.
- The reasons why roads are not open as soon as water levels have subsided.