

APPENDIX AM

SECTION 19 REPORT – WORKSOP – STORM BABET, OCTOBER 2023

Introduction

Section 19 of the Flood and Water Management Act 2010 states:

1. On becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate:
 - (a) Which Risk Management Authorities (RMAs) have relevant flood risk management functions.
 - (b) Whether each of those RMAs has exercised, or is proposing to exercise, those functions in response to the flood.
2. Where an authority carries out an investigation under subsection (1) of Section 19 it must:-
 - (a) Publish the results of its investigation.
 - (b) Notify any relevant RMAs.
3. The objective of this report is to investigate which RMAs had relevant flood risk management functions during the flooding in October 2023 and whether the relevant RMAs have exercised, or propose to exercise, their risk management functions (as per section 19(1) of the Flood and Water Management Act 2010).
4. The Risk Management Authorities for this area of Nottinghamshire are the Environment Agency (EA) (Derbyshire, Nottinghamshire and Leicestershire), Bassetlaw District Council (BDC), The Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), VIA East Midlands Ltd as Highways Authority on behalf of NCC, and Severn Trent Water Ltd. (STW).
5. It should be noted that this duty to investigate does not guarantee that flooding problems will be resolved and cannot force others into action.

Background

6. Worksop is a town within the District of Bassetlaw, Nottinghamshire. It has a population of approximately 43,439 people according to the 2021 census.
7. The River Ryton (main river) runs through Worksop from West to East, with several bridges and culverts through the town. The Worksop River Level gauge is located near Stubbing Lane, and a rain gauge is present in the Manton area of the town.
8. On the 20th October, during Storm Babet, Worksop suffered a flood event caused by sustained heavy rainfall. 103.2mm of rainfall was recorded at the Worksop rain gauge, with 75.4mm of this on the 20th alone (Figure 1). Consequently, 93 residential properties

and 36 business properties were subject to internal flooding with more suffering flooding to gardens and outbuildings.

9. This storm came after a prolonged period of persistent rain which had saturated the ground resulting in flooding of roads and properties quicker than they would following a dry period.

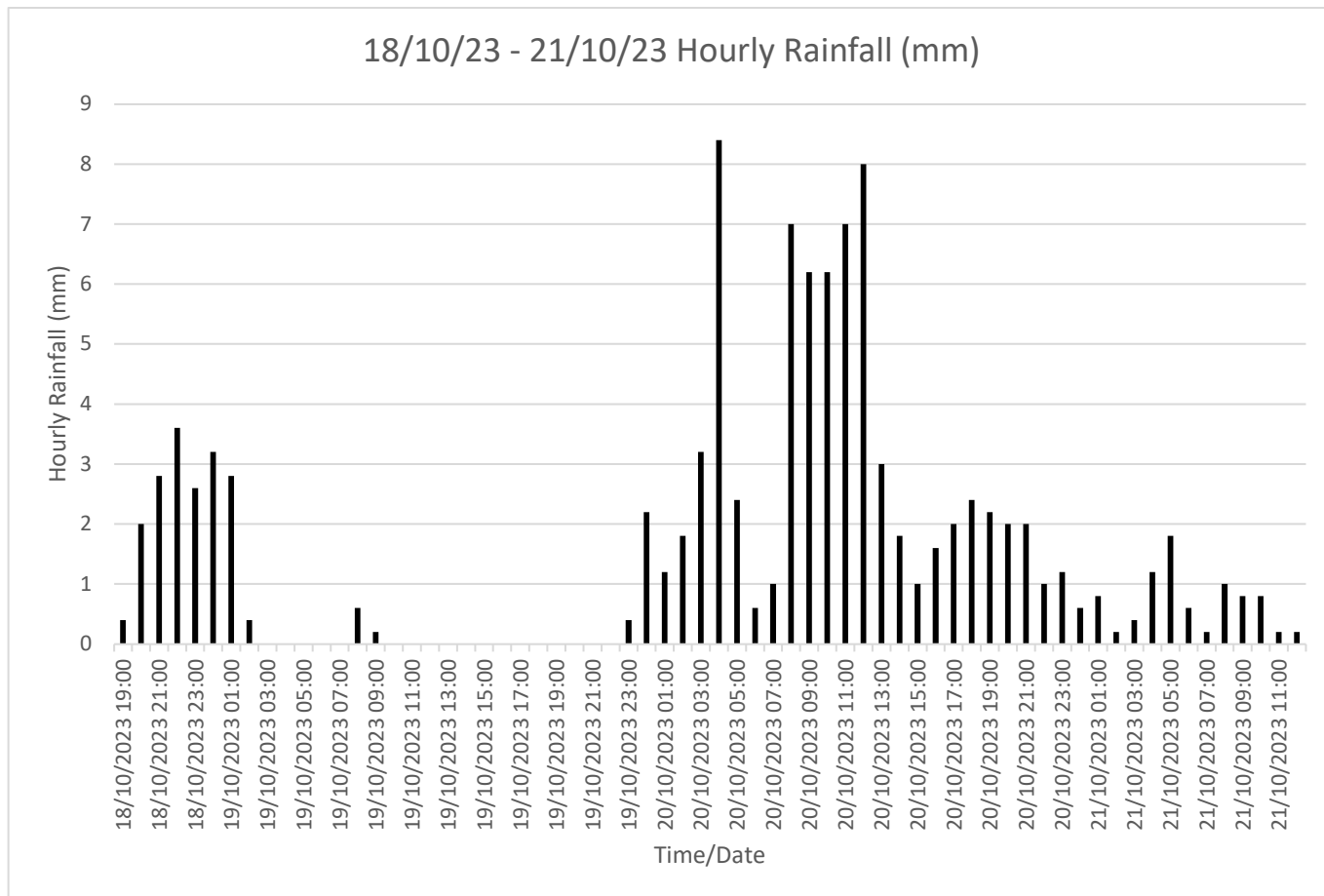


Figure 1. Worksop Hourly Rainfall 19:00 18th October – 12:00 21st October 2023. Data supplied by the Environment Agency.

10. A location map of Worksop is shown in Figure 2. The areas affected were: (Internally flooded property numbers given in brackets)

- Allen Street (19)
- Carlton Road (1)
- Central Avenue (32)
- Chapel Walk (1)
- Dunlin Court (1)
- Hardy Street (8)
- King Street (20)
- Lady Walk (2)
- Newcastle Avenue (20)
- Old Bakery Yard (11)
- Poplar Close (2)
- Redwing Close (3)
- Redwood Avenue (1)

- The Willows (8)
- Watson Road (3)



Figure 2. View of Worksop flood affected areas. 1. Allen Street, Central Avenue, Chapel Walk, Hardy Street, King Street, Newcastle Avenue and Stubbing Lane 2. Dunlin Court, Lady Walk and Redwing Close 3. Watson Road 4. Poplar Close 5. Carlton Road

Summary of flooding and its causes

Allen Street, Central Avenue, Chapel Walk, Hardy Street, King Street, Newcastle Avenue and Stubbing Lane

11. Due to the sustained heavy rainfall, the River Ryton which flows through Worksop rose rapidly through the 20th of October, peaking at 2.11m at the Worksop gauge on Stubbing Lane, as shown on Figure 3.
12. Allen Street, Central Avenue, Chapel Walk, Hardy Street, King Street, Newcastle Avenue and The Willows (location plan included as Figure 4.) are located to the south of the River Ryton, which runs from west to east. The Bull Brook (ordinary watercourse) also runs from south to north through the area, out falling into the river Ryton.
13. Accounts from residents note that there was significant flooding off Farr Park and flows of flood water down Brook Terrace, which then caused internal flooding on Newcastle Avenue and King Street. Flooding on all surrounding streets is understood to be a

combination of floodwater from the river Ryton, Bull Brook and the local drainage system being unable to effectively discharge into the wider drainage system or river directly.

- 14. The clarity on the extent to which each contributor to the flooding is unclear and needs further investigation from all partners.

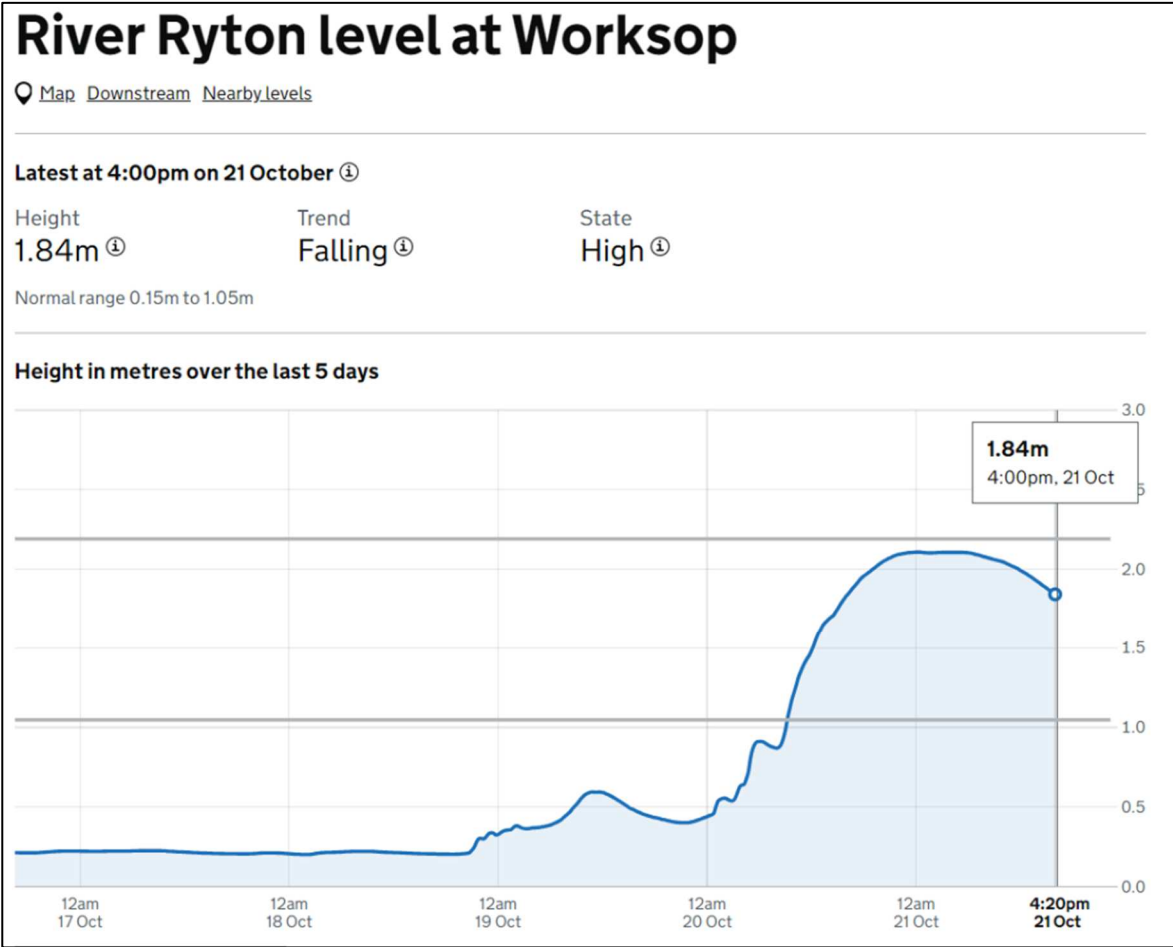


Figure 3. River Level gauge data for the River Ryton at Worksop.



Figure 4. Allen Street, Central Avenue, Chapel Walk, Hardy Street, King Street, Newcastle Avenue, Stubbing Lane

Dunlin Court, Lady Walk and Redwing Close

15. Dunlin Court, Lady Walk and Redwing Close are located in the Gateford Area of Worksop, with locations shown in figure 5. Due to the sustained heavy rainfall during Storm Babet, drainage systems were overwhelmed. As a result, highway flooding began initially, however levels were reached whereby surface water flowed off the highway and into properties. A total of 6 properties suffered internal flooding in this area.
16. This localised surface water flood risk is identified by mapping, shown in figure 6, which correlates with the flooding experienced.



Figure 5. Dunlin Court, Lady Walk, Redwing Close

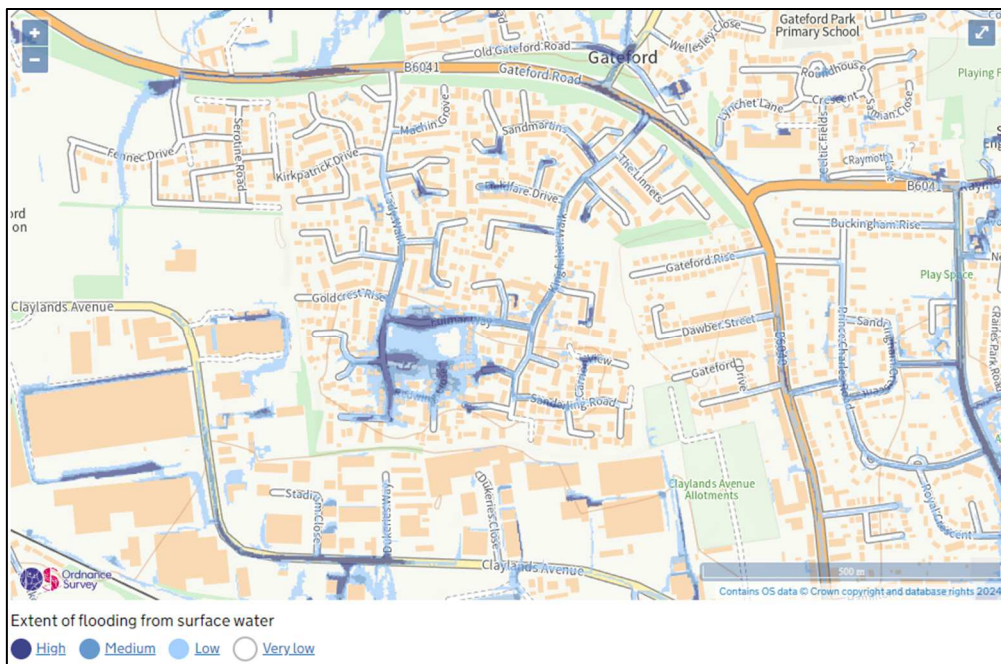


Figure 6. Surface Water Flood Risk Mapping. Data provided by the Environment Agency.

Watson Road

17. At Watson Road one business property was internally flooded. As shown in Figure 7, the road crosses a bridge over the River Ryton, which due to the sustained heavy rainfall had overtopped its banks.
18. As a result, the resultant flood water then followed the surrounding topography and pooled in the low spot causing internal flooding.

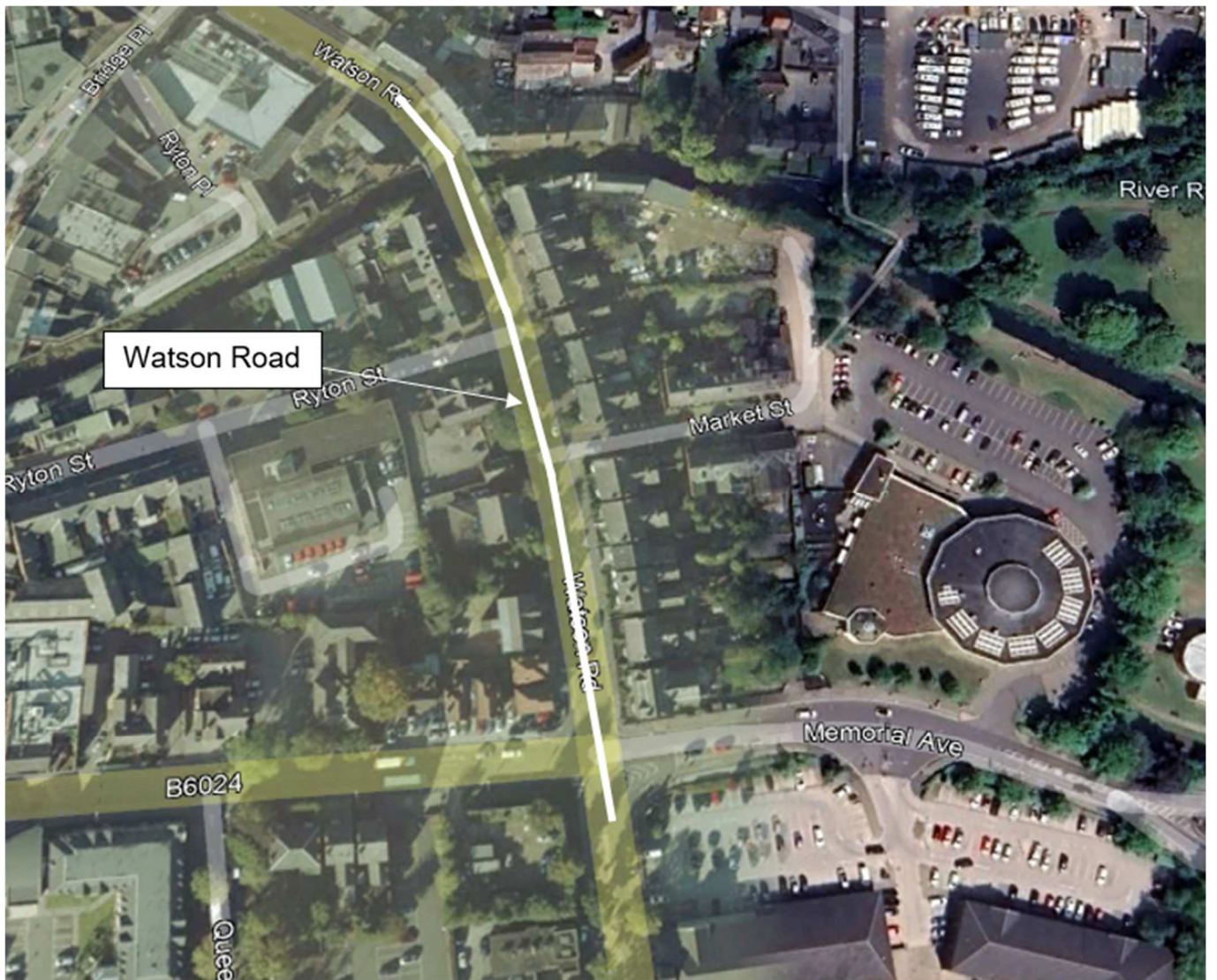


Figure 7. Watson Road

Poplar Close

19. As shown in Figure 8, Poplar Close is located to the south of Farr Park which has the Bull Brook (ordinary watercourse) run through it.
20. Residents accounts note that during Storm Babet areas of Farr Park were subject to flooding to a depth of approximately 1 foot. Surface water flowing down Poplar Close could not outfall effectively into the drainage system which would usually take this to the Bull Brook. As a result, surface water built up and then flowed off the highway, internally flooding two residential properties.
21. Predicted Fluvial Flood Extents as shown in Figure 9. correlate with this observed flooding on Farr Park.



Figure 8. Poplar Close

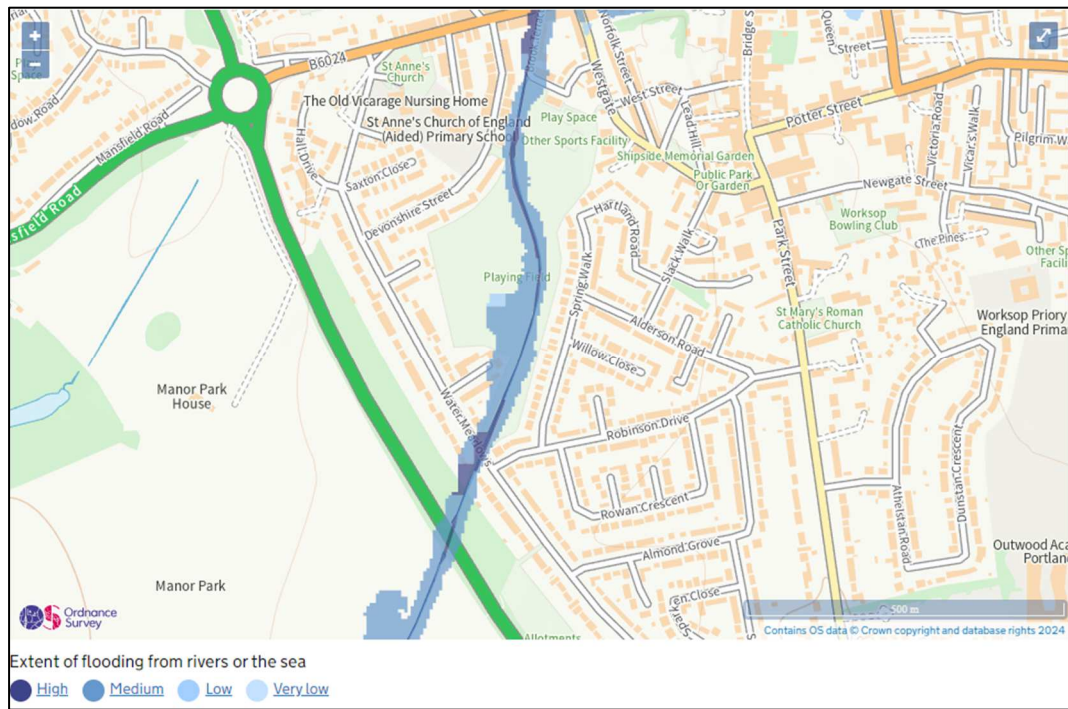


Figure 9. Surface Water Flood Risk Mapping. Data provided by the Environment Agency.

Carlton Road

22. One business property suffered internal flooding on Carlton Road. From accounts from staff it is understood that the flooding came from surface water runoff from the rear yard of the property.

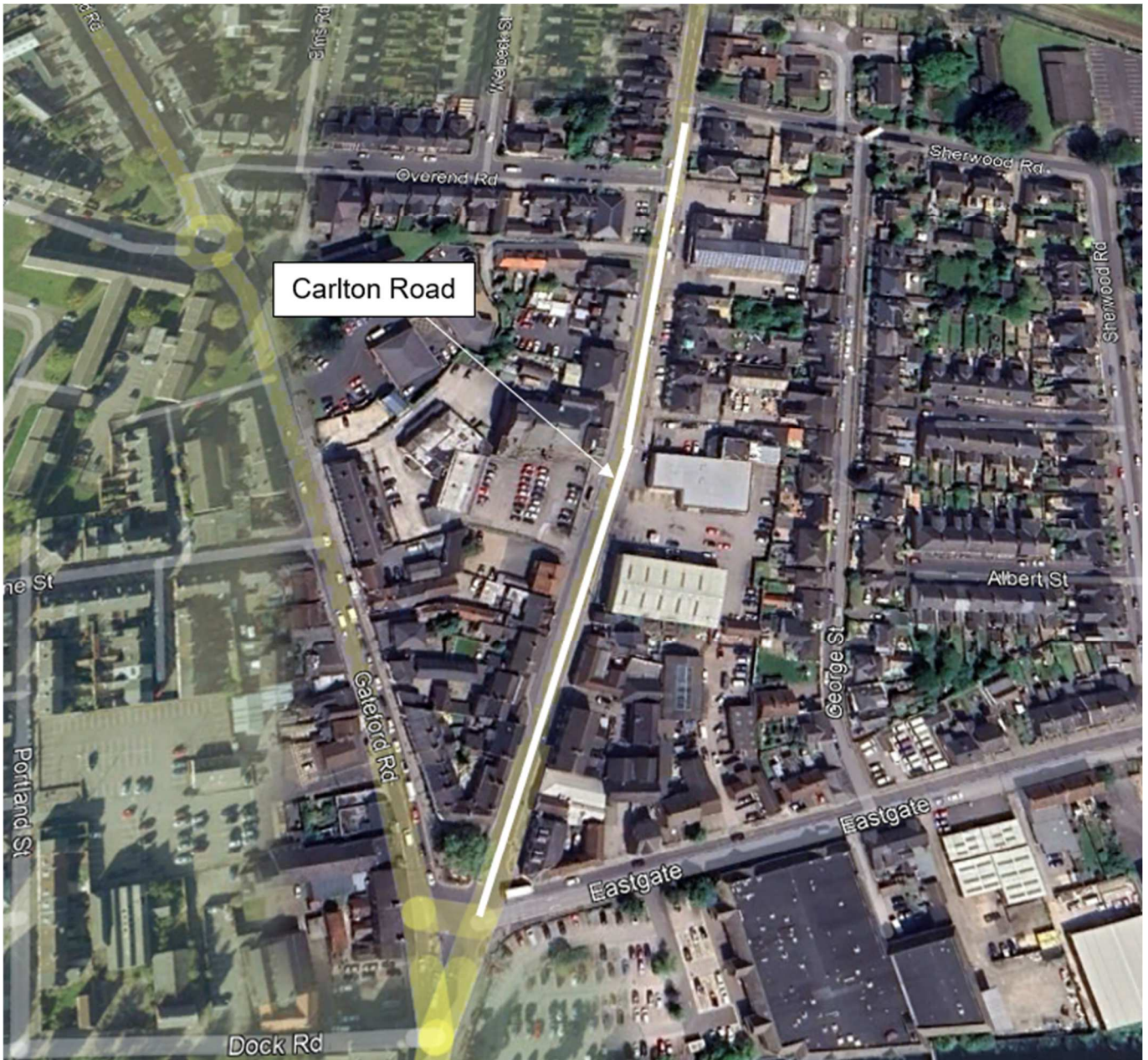


Figure 10. Carlton Road

Risk Management Authorities and their responsibilities

23. Nottinghamshire County Council.
- a) Lead Local Flood Authority.
 - i. Investigate significant local flooding incidents and publish the results of such investigations.
 - ii. Play a lead role in emergency planning and recovery after a flood event.
 - iii. As the Lead Local Flood Authority, we have a new duty to determine which risk management authorities have relevant powers to investigate flood incidents to help understand how they happened, and whether those authorities have or intend to exercise their powers.

- iv. By working in partnership with communities, Lead Local Flood Authorities can raise awareness of flood risks.
- v. Lead Local Flood Authorities should encourage local communities to participate in local flood risk management.

b) Emergency Planning.

- i. If a flood happens, all local authorities are 'category one responders' under the Civil Contingencies Act. This means they must have plans in place to respond to emergencies and control or reduce the impact of an emergency.

c) Highway Authority (NCC/VIA East Midlands Ltd).

- i. Maintenance of the public highways including highway drainage assets.

24. Bassetlaw District Council.

- a) Category one responder under the Civil Contingencies Act. This means they must have plans in place to respond to emergencies and control or reduce the impact of an emergency.

25. The Environment Agency.

- a) Category one responder under the Civil Contingencies Act. This means they must have plans in place to respond to emergencies and control or reduce the impact of an emergency.

26. Severn Trent Water Ltd. (STW).

- a) Maintenance of the public sewerage system.
- b) As a water and sewerage company, STW manage the risk of flooding from their water supply and sewerage facilities. This includes:
 - Surface water sewers – these carry rainfall and surface water away from properties to watercourses;
 - Foul water sewers – these carry wastewater away from properties to be treated;
 - Combined water sewers – these drain both wastewater and surface water from properties along with run off from highways.
 - Managing the impact of flooding to their networks by ensuring their systems have the appropriate level of resilience to flooding.
 - Engage with RMAs on how water and sewerage company assets impact on local flood risk.
 - STW are Category 2 responders under the Civil Contingencies act, providing emergency response and supporting the management of flooding events.

Risk Management Authority Responses to Flood

27. The following lists the actions taken by each RMA in response to the flooding both in the immediate aftermath as well as in the longer term:

28. Nottinghamshire County Council.

Officers from across the County Council played a key role in the response to the Major Incident that had significant impacts across the county. The following lists the key actions taken by Nottinghamshire County Council:

- a) Initiated its Community Flood Recovery Grant to support individuals affected by internal flooding as a short-term recovery aid.
- b) Attended site after flooding occurred to verify scale of internal flooding, offer support, guidance and advice to affected residents and businesses.
- c) Information gathered on site was fed back to relevant RMA's and partners.
- d) Collated flood impact data from other RMA's and partners and published verified data on Resilience Direct.
- e) Visited flood affected residents and businesses to establish sources and mechanisms of flooding and severity of flood impacts.
- f) Chaired and attended Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- g) Provided 24-hour support through the Emergency Planning team.
- h) Carried out relevant actions requested by Strategic / Tactical / Recovery Coordination Groups.
- i) Initiated and led the Section 19 Flood Investigation, including liaison with relevant RMA's, parish councils, community groups, affected residents and businesses.
- j) Leading on procurement and delivery of DEFRA Property Flood Resilience Repair Grant Scheme.
- k) Liaised with and supported existing community flood signage schemes during the flooding.
- l) Delivered sandbags to affected areas and communities.
- m) Closed 77 roads across Nottinghamshire to promote road safety and avoid additional flood damage to at risk areas.
- n) Supported District and Borough partners by sharing resources during the emergency response.
- o) Utilised existing communication channels to update the public, partners and Elected Members with key messages during the event.

29. Bassetlaw District Council.

- a) Provided emergency response support for management of the flooding event including:
 - i. Participation in all LRF Strategic Co-ordination Group, Tactical Coordination Group, Communications Cell and Recovery Coordination Group meetings.
 - ii. Active deployment of sandbags and aquasacs to vulnerable premises and residents.
 - iii. Provision of community resilience stores enabling access to sandbags and aquasacs.
 - iv. Public communication of key messages at different phases of the incident, including warn and inform and recovery.
 - v. Provision of a rest centre at Retford Leisure Centre.
 - vi. Provided temporary accommodation to affected residents in need.
- b) Provided skips, caged vans and staffing support to residents to dispose of flood damaged property.
- c) Cleansing of significant detritus from roads, car parks and paths.
- d) Rehoused affected tenants from Council properties.
- e) Undertook repairs to affected Council housing properties.
- f) Promoted and administered Business Recovery Grant and Business Rates Relief schemes.

- g) Promoted and administered the Community Recovery Grant and Council Tax Discount schemes.
- h) Worked in Partnership with Nottinghamshire County Council in relation to the verification and administration of the Property Flood Resilience Grant Scheme.
- i) Actively engaged in the section19 Flood Investigation.

30. The Environment Agency.

- a) The Environment Agency warned and informed the community of Worksop in a timely manner by issuing a Flood Alert for Ryton Oldcotes catchment on 19/10/2023 and Flood Warnings for River Ryton at Worksop, Shelley Street on 20/10/2023 and River Ryton at Worksop Town Centre including Shireoaks on 20/10/2023.
- b) The Environment Agency also instigated flood patrols to operate their structures in accordance with their incident response procedures and cleared blockages in the area before and after the peak flows.
- c) The Environment Agency proactively opened the Canch penstocks a day in advance of the rain and instructed Canal and Rivers Trust to open their penstocks in the same location to lower levels in advance and increase capacity.
- d) The Environment Agency along with partner organisations, have been working with Bassetlaw District Council extensively since Storm Babet with further detail outlined in the next section.
- e) The Environment Agency coordinated community information officers and surveyors to gather information and visit affected communities to understand the impact of flooding on affected communities and collect data.

31. Severn Trent Water Ltd.

- a) At the time of writing this report, Severn Trent has received reports of flooding in this area and are completing ongoing investigations into the source and mechanisms of flooding.
- b) Severn Trent attended site and deployed a tanker to suck up some of the flood water to reduce water levels.
- c) Severn Trent's monitor in the Gateford tank showed that this filled up during the storm event, suggesting it was operating as designed.
- d) Severn Trent actively engaged with the Section 19 Flood investigation.
- e) Severn Trent will support Nottinghamshire County Council on their investigation work into Worksop and proposed actions.

Additional Information and Future Actions

- 32. All the Risk Management Authorities involved in this event are committed to continuing the investigations into the causes of this incident. Those investigations may identify further actions not listed below.
- 33. As the Lead Local Flood Authority we have witnessed and have experience of how flooding devastates communities. The most vulnerable in the community will be our priority. Nottinghamshire County Council will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
- 34. The LLFA will liaise with all RMA's to further understand the multi-source flooding in the Central Avenue and Newcastle Avenue Area.

35. The Environment Agency will continue to deliver the enhanced maintenance regime, hold regular reviews with partners and gather data and evidence to help validate the flood warning service.
36. The Environment Agency will organise a multi-agency drop in event for Worksop & Shireoaks.
37. In agreement with Bassetlaw District Council, the Environment Agency intends to deliver a package of recovery works and intermittent revenue projects. These will take place in the 2024/2025 Financial Year and subsequent years following. The proposed works include:
 - Desilting works on the:
 - River Ryton through town centre and downstream
 - Canch
 - Worksop River Ryton conveyance and tree works through town centre and downstream.
 - Consider taking on operational control of the Canch Canal and River Trust sluice gates and investigate which works are required to bring them up to an expected standard.
 - Canch Canal feeder – options around spillway to bring water back into River Ryton, downstream of the Canal and River Trust penstocks will be explored.
 - Potential for a section of new floodwall along Priorswell Road at the Canch – if modelling shows this to be viable.
 - Explore the potential for Natural Flood Management (NFM) measures in the upper Ryton catchment to reduce and slow the flow of water into the river during periods of high rainfall.
38. NCC will continue to support its Flood Warden / Road Closure training programme and community volunteer groups to help ensure they operate as effectively and safely as possible.
39. The Flood Risk Management team will look at the suitability of its Property Flood Resilience Programme for communities affected by Storm Babet and will take recommendations through the Cabinet Member later this year for consideration.
40. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.
41. Bassetlaw District Council participated in the LRF Storm Babet Debrief and learning review meeting which identified a number of future actions.
42. Bassetlaw District Council has undertaken an internal review of the response to Storm Babet which identified a number of future actions.
43. Following a motion to Bassetlaw full Council on 25 January 2024 a resolution was passed to establish a working group reporting into Cabinet to focus exclusively on flooding, to ensure continued focus and scrutiny.
44. Bassetlaw District Council will work with partners to lobby for a change in government policy regarding the Environment Agency funding framework to enable more flood alleviation schemes to be delivered locally.