

APPENDIX A

SECTION 19 REPORT – EASTWOOD – 18 SEPTEMBER 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 Risk Management Authorities 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 Risk Management Authorities.
3. This report sets out the results of such investigation detailing which RMAs had relevant flood risk management functions during the flooding in September 2023 and whether the relevant RMAs have exercised, or propose to exercise, their risk management function (as per section 19(1) of the Flood and Water Management Act 2010).
4. The Risk Management Authorities for this area of Nottinghamshire are:
 - (a) The Environment Agency (EA).
 - (b) Broxtowe Borough Council (BBC).
 - (c) Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA).
 - (d) Nottinghamshire County Council as Local Highway Authority (LHA)
 - (e) Via East Midlands Ltd as Highways Authority on behalf of NCC (Via).
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. During the evening of the 17th September 2023 Nottinghamshire was subjected to heavy localised rainfall with over 35mm of rain falling over the Eastwood area in 3 hours. This rainfall resulted in internal flooding to 5 residential properties and external flooding to gardens and roads. Figure 1 below shows the local area, the areas affected and the development site where the flooding occurred.



Figure 1. Diagram showing local area.

7. The internal flooding was very isolated in nature with 5 residential properties affected. Investigations showed that excessive surface water built up behind earthen bunds on the development site at the rear of the affected properties. These bunds were built to stop excess water flowing off site, following the stripping of the site. After the intense rainfall event this bund failed resulting in the captured water flowing down the banks of one resident's garden and eventually entering the 4 other properties. Figure 2 below shows the bund in question and the area of failure.



Figure 2. Photographs showing banks on development site.

8. Properties on Garden Road suffered flooding from the rear due to the direct breach of the bund, this water subsequently entered the highway, then travelled between properties affecting further residential properties on Greenhills Road. An additional 9 properties in the area suffered external damage to gardens, sheds, garages and outbuildings.
9. Discussions were undertaken with the development site owners with regards to ensuring additional remedial works were undertaken to reinforce existing bunds on site. As of the 4th of November, these additional measures were complete and included:
 - (a) Reinforcing and compacting of the earth bund on the North side of the site,
 - (b) installation of a land drain across the northern boundary, discharging into 2 existing manholes,
 - (c) further creation of depressions across site to spread water retention,
 - (d) installation of geo-textile membrane to stop silt build up on new assets.

Risk Management Authorities and their responsibilities

10. 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. Lead Local Flood Authorities also have a 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council)

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

11. Broxtowe Borough Council

- i. 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.

Risk Management Authority Responses to Flood

12. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:
- a) Nottinghamshire County Council:
 - i. Attended site immediately after flooding occurred.
 - ii. Initiated and led the Section 19 Flood Investigation.
 - iii. Carried out on site investigation into the flooding.
 - iv. Liaised with affected residents on site.
 - v. Liaised with development site owner.
 - vi. Undertook follow up site visits with development site owner.
 - b) Broxtowe Borough Council:
 - i. Responded to residents: cleared debris from Garden Road and pavements, unblocked drain on Beach Lane, and assisted an elderly resident to clear his drive.
 - ii. Assessed whether any resident was homeless and needed emergency accommodation.
 - iii. Informed Emergency Planning: Nottinghamshire County Council.
 - iv. Liaised with affected residents on Garden Road, Beach Lane and Greenhills Road.
 - v. Planning Enforcement officer attended site and reported incident to the Health and Safety Executive.
 - vi. Liaised with developer.
 - vii. Liaised with Nottinghamshire County Council representatives on site.
 - viii. Contacted VIAEM to initiate emergency response.
 - ix. Distributed sandbags to residents.
 - x. Released communications to provide media and residents with latest information.
 - xi. Checking whether a breach of planning legislation / regulations has occurred.
 - xii. Planning Enforcement Officer has visited the site on a number of occasions since the flooding to monitor the situation.

Additional information and future actions

13. This was a very isolated flooding incident and onsite investigations concluded that it was the result of a heavy localised rainfall event falling onto a stripped development, with an ultimate failure of the assets on site with no other obvious contributing factors. There was no evidence or suggestions that any flood water came from the public highway network, sewer network or nearby watercourses.
14. The local community spirit and resilience during the flooding must be recognised as without their efforts the impacts of the flooding could have been worse.
15. Further reviews on the current mitigation on the development site have been assessed by NCC and Broxtowe Borough Council to ensure their suitability and safety. The Local Planning Authority will continue to monitor and assess.
16. 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. NCC

will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.

17. NCC will continue to work with local planning authorities and developers regarding the need for robust construction phase management plans.

APPENDIX B

SECTION 19 REPORT – ARNOLD – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Gedling Borough Council (GBC), 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 (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. Arnold is a town within the Borough of Gedling, Nottinghamshire. It has a population of approximately 39,995 people according to the 2021 census.
7. On the 20th October, during Storm Babet, areas of Arnold suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 80mm of rainfall was recorded at the Calverton rain gauge (Figure 1). Consequently, 5 residential properties and 1 business were subject to internal flooding with more suffering flooding to gardens and outbuildings.

8. 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.

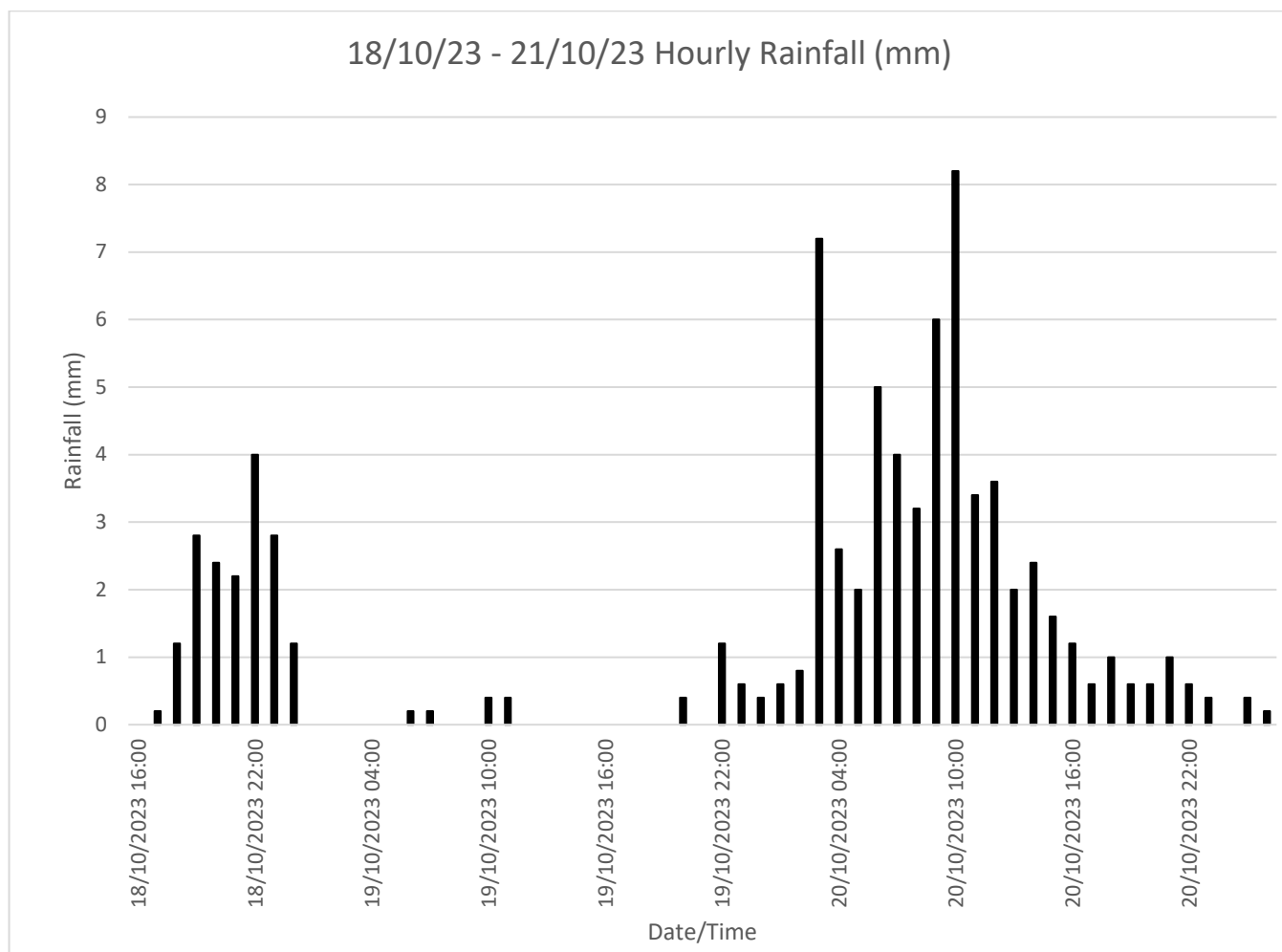


Figure 1. Calverton Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

9. A view of Arnold is shown in Figure 2. The areas affected were:

- Mansfield Road (3 properties)
- Bonington Drive (2 properties)
- Georgia Drive (1 property)



Figure 2. Reference map for flood affected areas across Arnold. Mansfield Road (1), Bonington Drive (2), Georgia Drive (3).

Summary of flooding and its causes

10. Mansfield Road

Areas impacted by flooding on Mansfield Road are shown in Figure 3. In total, 2 residential properties and 1 business were impacted by flooding. As shown in Figure 4, a surface water flow path is present which flows from the east of Mansfield Road before flowing northward along Mansfield Road itself. Due to the significant volume of rainfall falling within the catchment during Storm Babet, watercourses adjacent to the road were overwhelmed which caused water to flood onto the highway. Water then entered properties as a result. In many areas, Mansfield Road was submerged to a significant depth which caused significant disruption to traffic.



Figure 3. Location Plan – Mansfield Road.



Figure 4. Surface water flood mapping for Mansfield Road. Data supplied by Environment Agency.

11. Bonington Drive

On Bonington Drive, 2 residential properties were affected by internal flooding (Figure 5). During Storm Babet, water flowed from the Coppice Road flood storage basin and through back gardens of properties of Bentwell Avenue before flooding properties on Bonington Drive. Gedling Borough Council Staff observed that the attenuation basin overtopped during this event. In addition to the residential properties that flooded a significant amount of damage was done to gardens and outbuildings.



Figure 5. Location Plan – Bonington Drive.

12. Georgia Drive

One residential property was affected by flooding on Georgia Drive. Due to intense and prolonged rainfall, overland flows occurred within the agricultural field to the north of Georgia Drive. Water flowing from the north then entered a property.



Figure 6. Location Plan – Georgia Drive.

Risk Management Authorities and their responsibilities

13. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

14. Gedling Borough 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.

15. Severn Trent Water Ltd. (STW).

a) Maintenance of the public sewerage system.

As a water and sewerage company, STW manage the risk of flooding from their water supply and sewerage facilities. This includes;

- i. Surface water sewers – these carry rainfall and surface water away from properties to watercourses.
- ii. Foul water sewers – these carry wastewater away from properties to be treated.
- iii. Combined water sewers – these drain both wastewater and surface water from properties along with run off from highways.
- iv. Managing the impact of flooding to their networks by ensuring their systems have the appropriate level of resilience to flooding.
- v. Engage with RMAs on how water and sewerage company assets impact on local flood risk.

- vi. 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

16. 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:
17. 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.
18. Gedling Borough Council
 - a) After reports of overtopping of the storage area on the 20th of October, GBC staff attended site to check on vulnerable residents and assess the developing situation.
 - b) Attended areas downstream of the Coppice Road Attenuation Basin to monitor the water levels.
 - c) It was concluded that evacuation was not required due to the limited impact on properties, although garden flooding was observed.
 - d) Delivered 1200 sandbags across Gedling Borough to residents who requested them.
 - e) Coordinated clean-up activities including cleansing and road sweeping in flood impacted areas.

- f) Coordinated a multi-agency meeting to discuss the impacts of Storm Babet on Arnold and partner progression towards future flood risk management options.
- g) Took an active role in the Section 19 Investigation.

19. Severn Trent Water Ltd

- a) Severn Trent are aware of flooding at Coppice Road flood storage area and are working with Gedling Borough Council and Nottinghamshire County Council to investigate and develop an action plan.
- b) Severn Trent checked that the flow control device at the downstream end of Coppice Road storage area was operational.
- c) Captured CCTV images of the storage area filling and emptying to help inform future management options.
- d) Severn Trent actively engaged with the Section 19 Flood investigation.

Additional Information and Future Actions

- 20. 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.
- 21. Gedling Borough Council have established and coordinated a multi-agency group which will investigate the flooding impacts from the Coppice Road Flood Storage Area.
- 22. NCC are leading on a feasibility study to assess potential options for flood risk management in Arnold. The project is being undertaken in partnership with GBC and STW.
- 23. As the Lead Local Flood Authority NCC 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.
- 24. 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.
- 25. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX C

SECTION 19 REPORT – BILSTHORPE – STORM BABET, OCTOBER 2023

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 - (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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA) and Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Bilsthorpe is a village within the District of Newark and Sherwood, Nottinghamshire. It has a population of approximately 3,497 people according to the 2021 census.
7. On the 20th October, during Storm Babet, areas of Bilsthorpe suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 124mm of rainfall was recorded at the Staythorpe rain gauge with 95.6mm recorded on the 20th of

October alone (Figure 1). Consequently, 23 residential properties were subject to internal flooding.

8. 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.

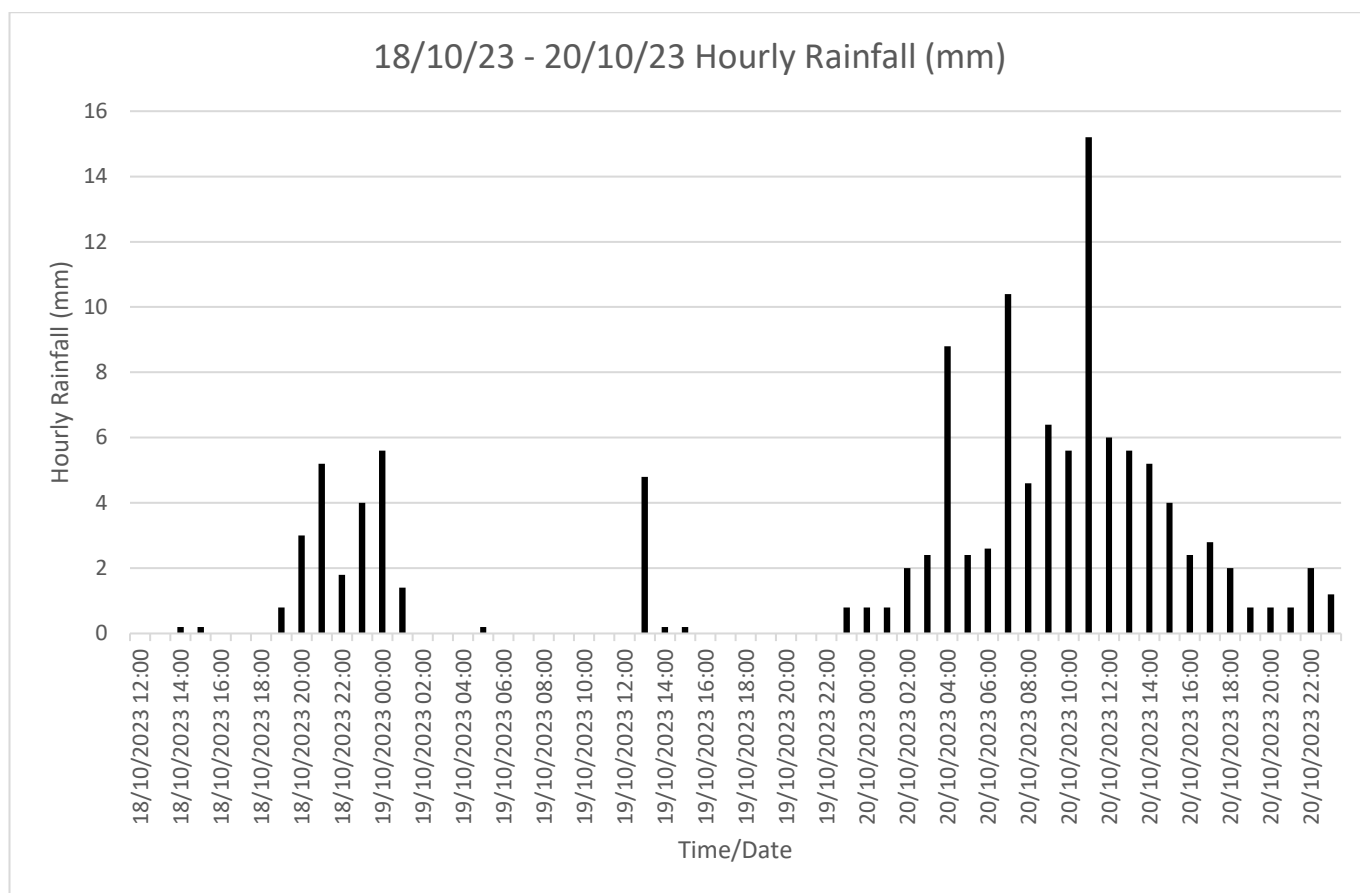


Figure 1. Staythorpe Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

9. A view of Bilsthorpe is shown in Figure 2. The areas affected were:

- Mickledale Lane (13 properties)
- Mickledale Close (8 properties)
- Kirklington Road (2 properties)



Figure 2. Reference Map for Flood Affected Areas across Bilsthorpe. Mickledale Lane (1), Mickledale Close (2), Kirklington Road (3)

Summary of flooding and its causes

10. Mickledale Lane and Mickledale Close

Areas impacted by flooding on Mickledale Lane and Mickledale Close are shown in Figure 3. In total, 13 residential properties were impacted by internal flooding on Mickledale Lane with 8 residential properties internally flooded on Mickledale Close.

Rainworth Water (ordinary watercourse) flows adjacent to Mickledale Lane on the western side of the road. Although Mickledale Lane and Mickledale Close are not shown to have fluvial flood risk in the Environment Agency Flood Risk Mapping, the area is at risk of surface water flooding as shown in Figure 4. The watercourse (Rainworth Water) has a large catchment at this point and due to heavy rainfall during Storm Babet, high flows were generated causing the watercourse to burst its banks and flow into properties.



Figure 3. Location Plan – Mickledale Lane and Mickledale Close.

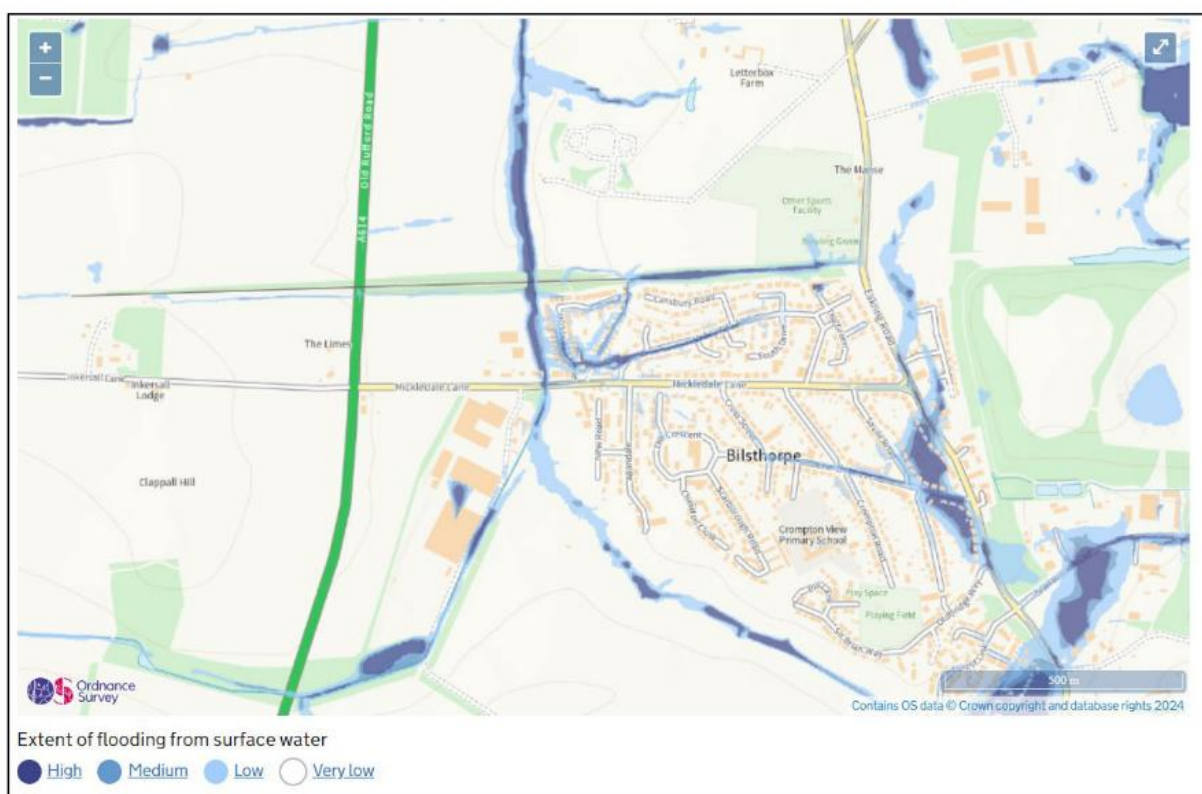


Figure 4. Surface Water Flood Risk Map - Mickledale Lane and Mickledale Close. Data provided by the Environment Agency.

11. Kirklington Road

Flooding affected 2 residential properties on Kirklington Road (Figure 5). The area affected on Kirtlington Road is a natural low spot. Due to intense rainfall during Storm Babet, the highway drainage capacity was exceeded casing water to pool in the low spot on the road which then flooded into properties.



Figure 5. Location Plan – Kirklington Road.

Risk Management Authorities and their responsibilities

12. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

13. Newark and Sherwood 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.

Risk Management Authority Responses to Flood

14. 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:

15. 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.

16. Newark and Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across

- departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
 - e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
 - f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
 - g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
 - h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
 - i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
 - j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
 - k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
 - l) An internal and multi-agency debrief was conducted to identify any lessons learned.
 - m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

Additional Information and Future Actions

- 17. 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.
- 18. As the Lead Local Flood Authority NCC 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.
- 19. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible. A community flood signage scheme is being developed in Bilsthorpe with support from NCC. Officers for the Flood Risk Management team are working with the community to help them develop a local flood action group.
- 20. 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.
- 21. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX D

SECTION 19 REPORT – BLIDWORTH – STORM BABET, OCTOBER 2023

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4. The Risk Management Authorities for this area of Nottinghamshire are Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Blidworth is a village within the District of Newark and Sherwood, Nottinghamshire. It has a population of approximately 4,293 people according to the 2021 census.
7. On the 20th October, during Storm Babet, areas of Blidworth suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 107.6mm of rainfall was recorded at the Newstead Abbey rain gauge with 76.2mm falling within 24

hours on the 20th of October (Figure 1). Consequently, 6 residential properties were subject to internal flooding.

8. 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.

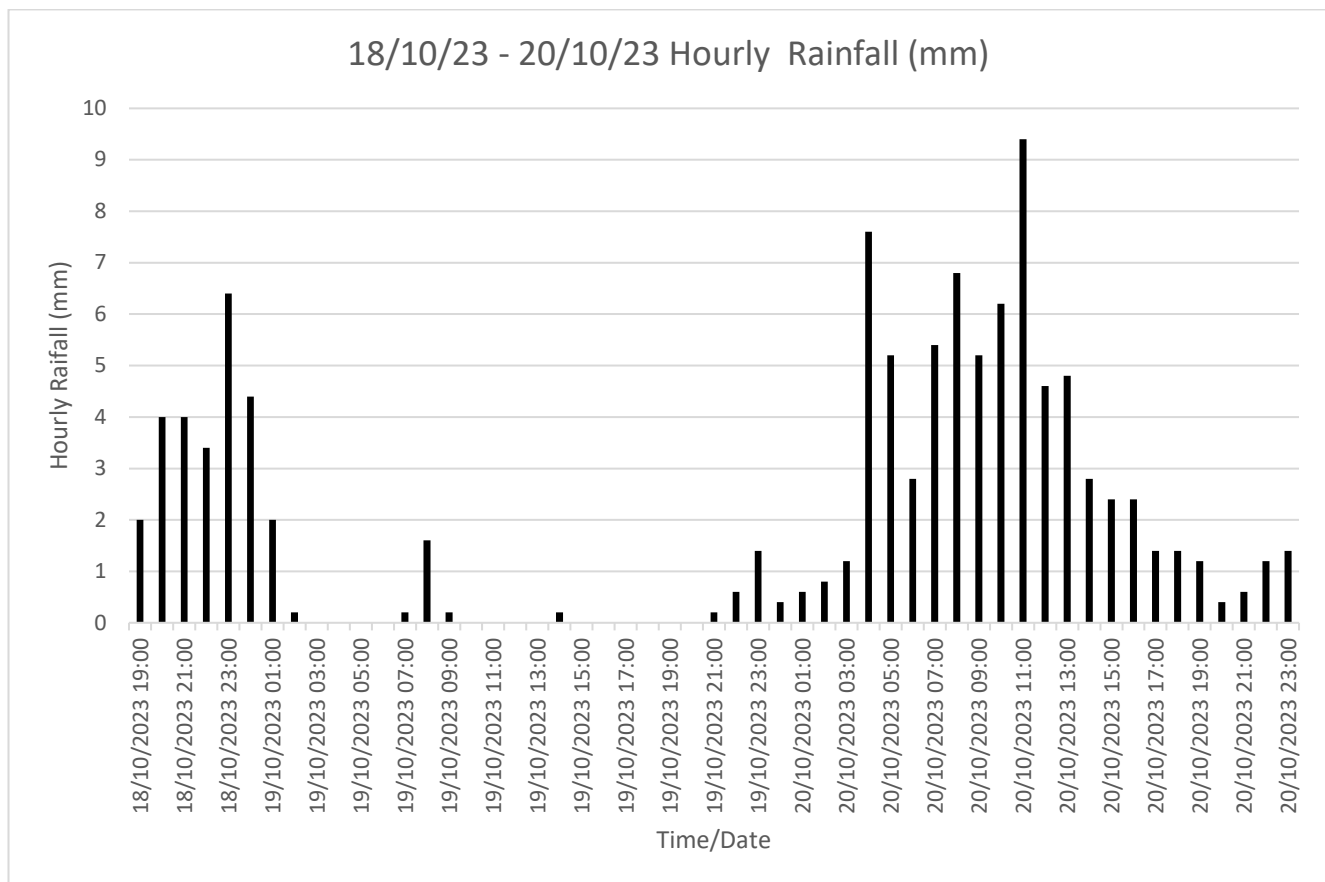


Figure 1. Newstead Abbey Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

9. A view of Blidworth is shown in Figure 2. The areas affected were:
 - Meadow Road (2 properties), Mansfield Road (3 properties), New Road (1 property)



Figure 2. Reference Map for flood affected areas across Blidworth. Meadow Road (1), Mansfield Road (2), New Road (3).

Summary of flooding and its causes

10. Meadow Road, Mansfield Road and New Road.

Areas impacted by flooding on Meadow Road, Mansfield Road and New Road are shown in Figure 3. In total, 2 residential properties were impacted by internal flooding on Meadow Road, 3 properties on Mansfield Road and 1 property on New Road. A surface water flowpath is present which flows through this area from west to east (Figure 4). Due to intense rainfall and resultant overland flow, this flowpath became active with water flowing into properties.



Figure 3. *View of Meadow Road, Mansfield Road and New Road.*

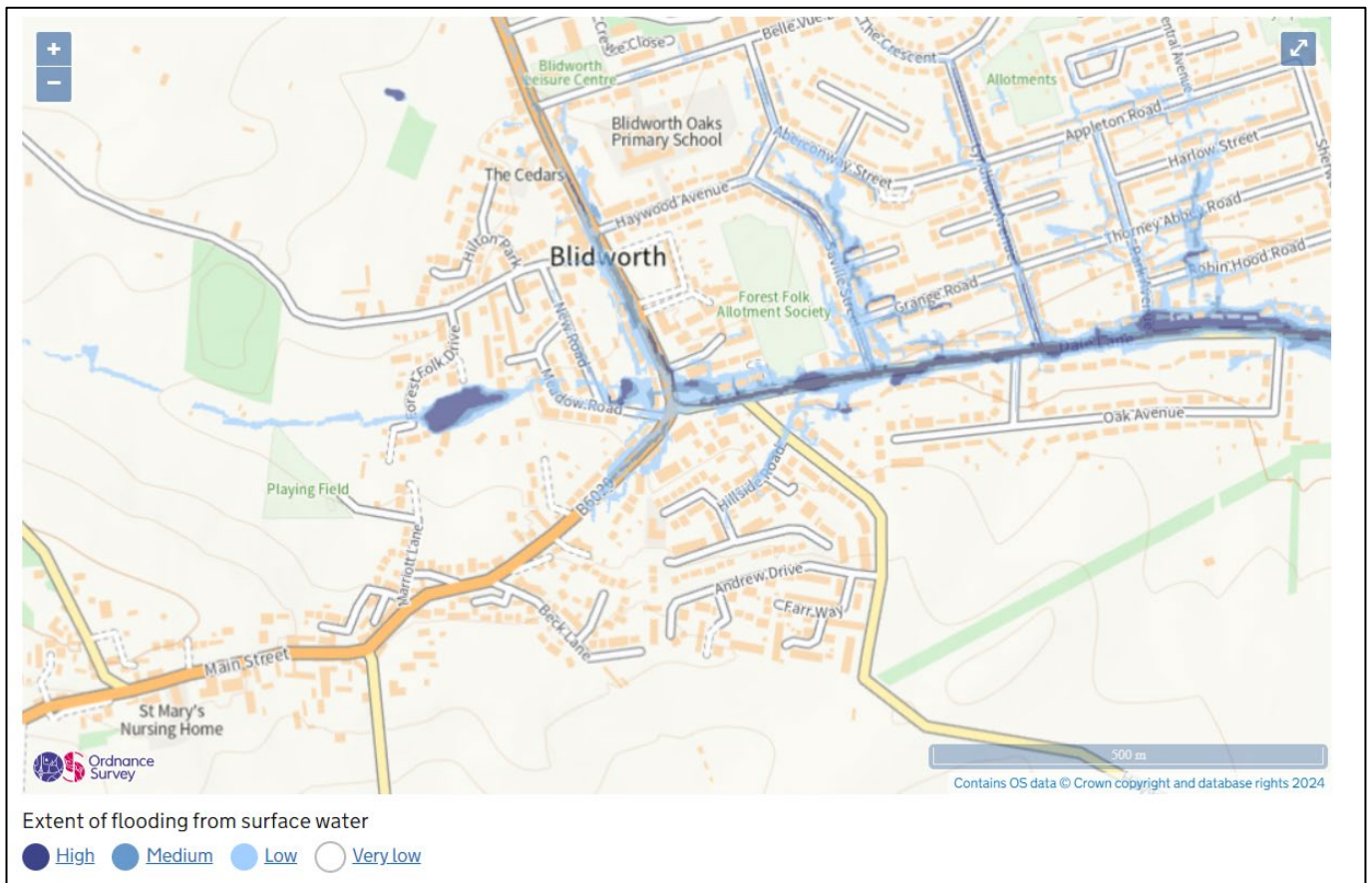


Figure 5. Surface Water Flood Risk Mapping - Meadow Road, Mansfield Road and New Road. Data Supplied by Environment Agency.

Risk Management Authorities and their responsibilities

11. Nottinghamshire County Council.

a) Lead Local Flood Authority.

- Investigate significant local flooding incidents and publish the results of such investigations.
- Play a lead role in emergency planning and recovery after a flood event.
- As the Lead Local Flood Authority, we have a 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.
- By working in partnership with communities, Lead Local Flood Authorities can raise awareness of flood risks.
- Lead Local Flood Authorities should encourage local communities to participate in local flood risk management.

b) Emergency Planning.

- 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

12. Newark and Sherwood 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.

Risk Management Authority Responses to Flood

13. 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:

14. The 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.

15. Newark and Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.

- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

Additional Information and Future Actions

- 16. 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.
- 17. As the Lead Local Flood Authority NCC 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.
- 18. 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.
- 19. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our critical asset inspection process.

APPENDIX E

SECTION 19 REPORT – CARLTON ON TRENT – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: "SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023".

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark and Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA) and Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Carlton on Trent is a village in the Newark and Sherwood District of Nottinghamshire with a population of approximately 229 people according to the 2011 census.
7. On the 20th October, during Storm Babet, Carlton on Trent suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 80mm of rainfall was recorded at the Calverton rain gauge (Figure 1).

8. 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.

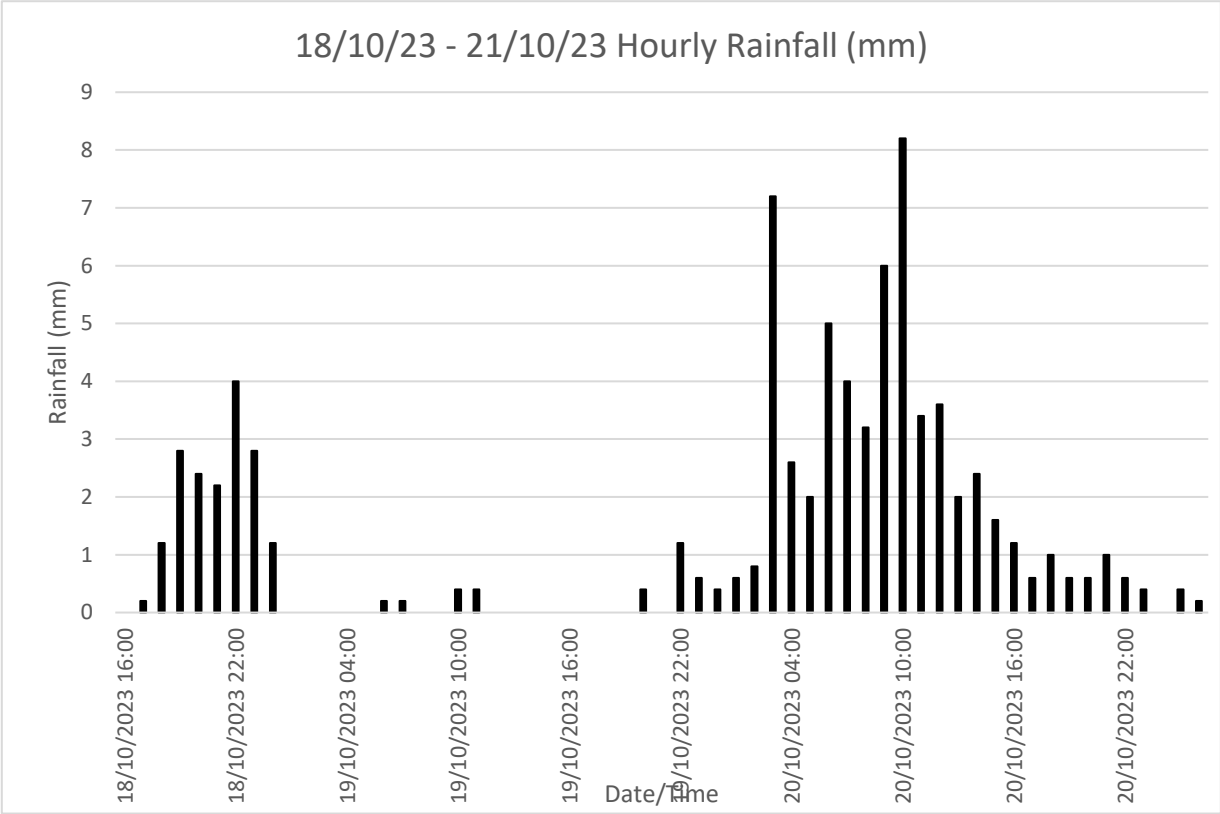


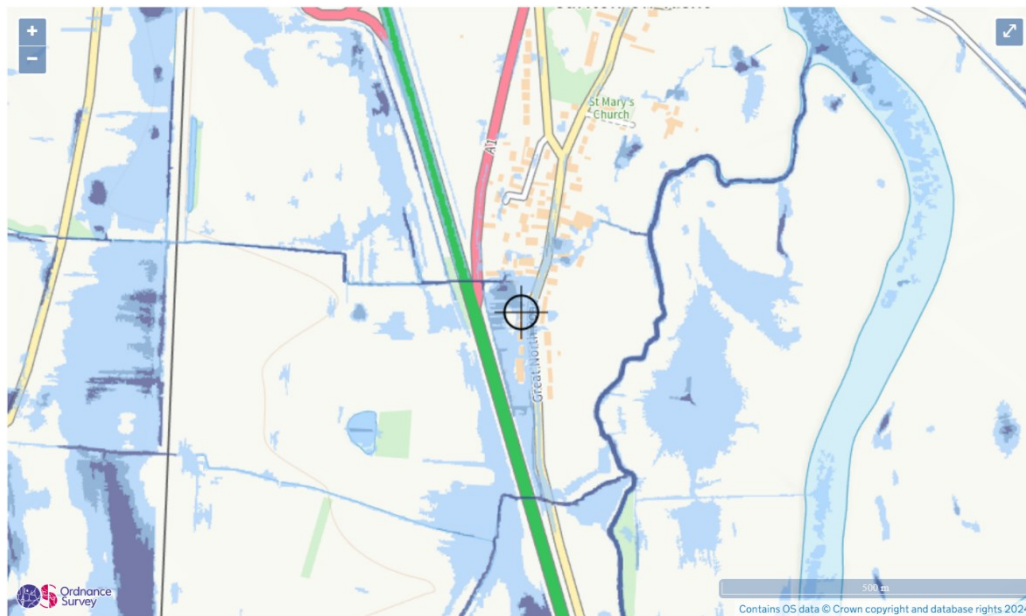
Figure 1. Calverton Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency

9. Figure 2 below shows the affected area within Carlton on Trent, with Old North Road having 8 properties affected by internal property flooding.



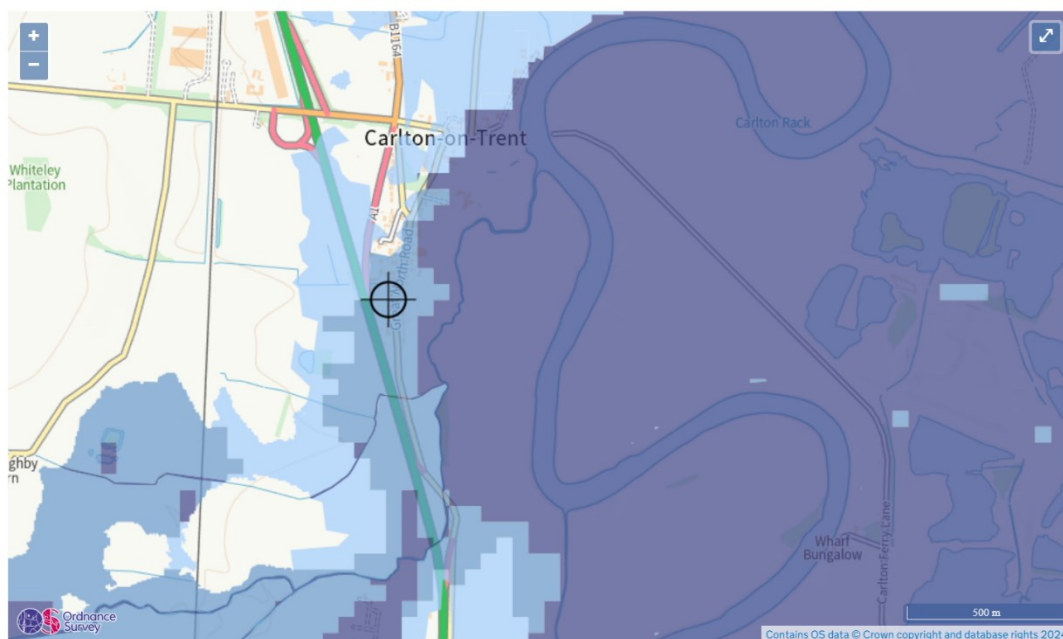
Figure 2: Reference Map for affected area in Carlton on Trent: Old North Road

10. During Storm Babet most highway drainage assets were unable to cope with discharging the amount of water that fell within the small time period. This led to various instance of highway flooding which subsequently flooded properties due to a combination of highway runoff and runoff from adjacent agricultural land.
11. Figures 3 and 4 below are an extract from the Environment Agency's surface water flood risk maps that shows the area to be at risk of surface water flooding. This area has both risk of flooding from pluvial and fluvial sources.



Extent of flooding from surface water

Figure 3: Environment Agency: Surface Water Risk Mapping for Carlton on Trent.



Extent of flooding from rivers or the sea

Figure 4: Environment Agency: Fluvial Flood Risk Mapping for Carlton on Trent.

Risk Management Authorities and their responsibilities

12. 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 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 (VIA East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

13. Newark and Sherwood District Council

- i. 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.

Risk Management Authority Responses to Flood

14. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:

15. 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.

16. Newark and Sherwood District Council:

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads , paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.

- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

Additional information and future actions

- 17. 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 contained within this report.
- 18. 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. NCC will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
- 19. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible. A community flood signage scheme is being developed in Carlton on Trent with support from NCC. Officers for the Flood Risk Management team are working with the community to help them develop a local flood action group.
- 20. 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.
- 21. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX F

SECTION 19 REPORT – CAUNTON – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC, Severn Trent Water Ltd. (STW) and Trent Valley Internal Drainage Board (TVIDB).
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. Caunton is a village within the District of Newark & Sherwood District Council, Nottinghamshire. It has a population of approximately 483 people according to the 2011 census.
7. Between 12:00 noon on the 18 and 23:00 on the 20 October, 124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 6km from Caunton (Figure 1).

8. 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.

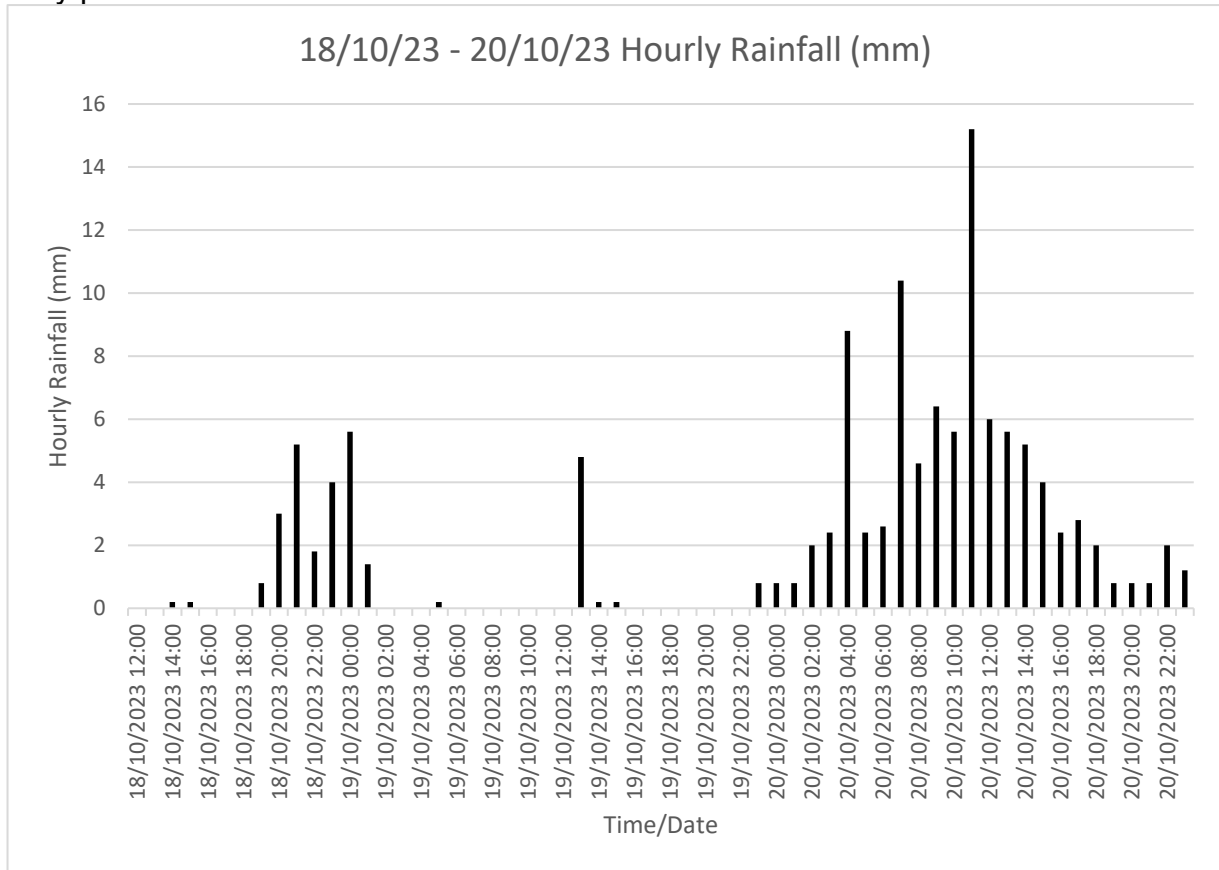


Figure 1. Staythorpe Hourly Rainfall from 12:00 18 to 23:00 20 October 2023. Data supplied by the Environment Agency.

9. During Storm Babet, 38 residential properties in Caunton were subject to internal flooding with more suffering flooding to gardens and outbuildings. The scale of flooding experienced by the village was greater than any on record. Figure 2 highlights the areas that were subjected to internal flooding.



Figure 2. Map of Cauntton highlighting areas affected by internal flooding.

Summary of flooding and its causes

10. Cauntton sits in a natural valley and is served by two watercourses; The Beck – managed by the Trent Valley Internal Drainage Board and an unnamed ordinary watercourse to the south of the village. Figure 3 shows how these two watercourses run through the village.

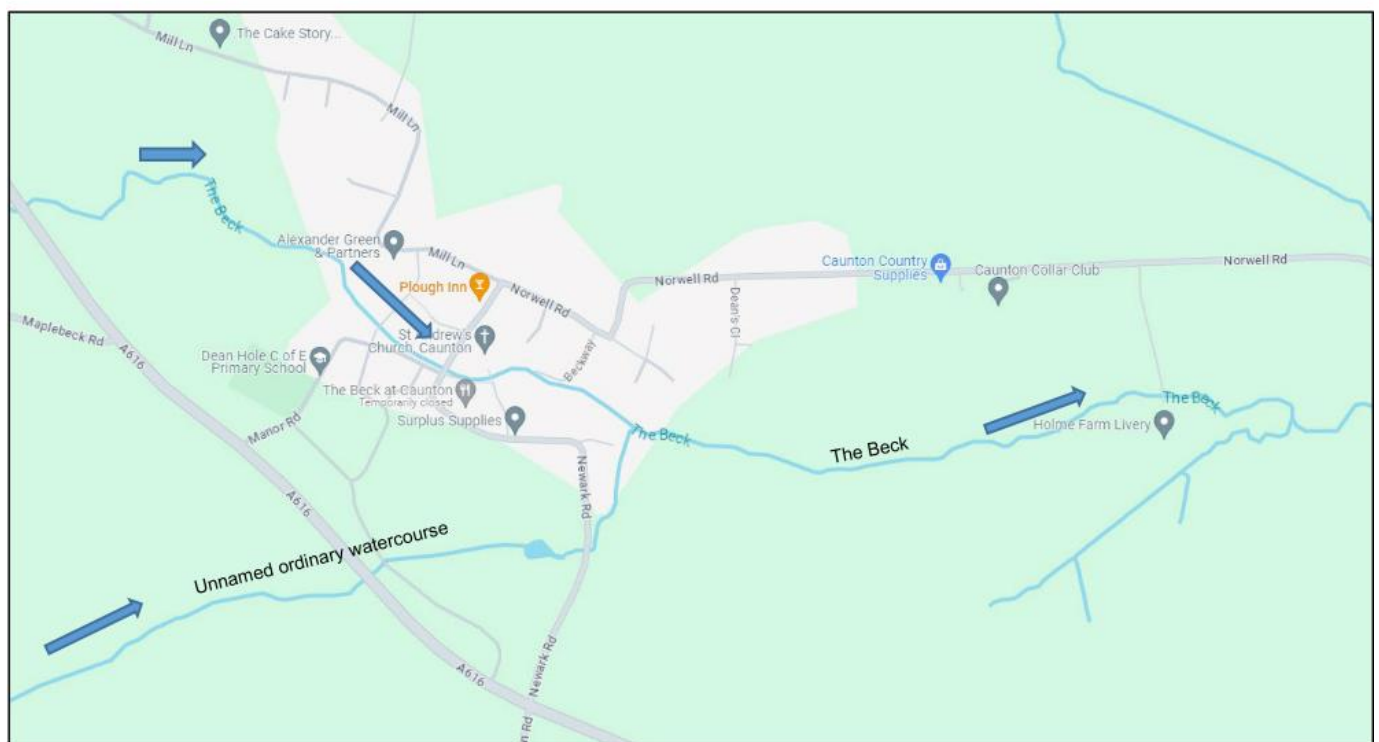


Figure 3. Map of Cauntton showing routes of The Beck and its tributary.

11. These watercourses and the topography of the village combine to create a natural risk of flooding to the area. Figures 4 and 5 show the predicted risk of flooding as published by the

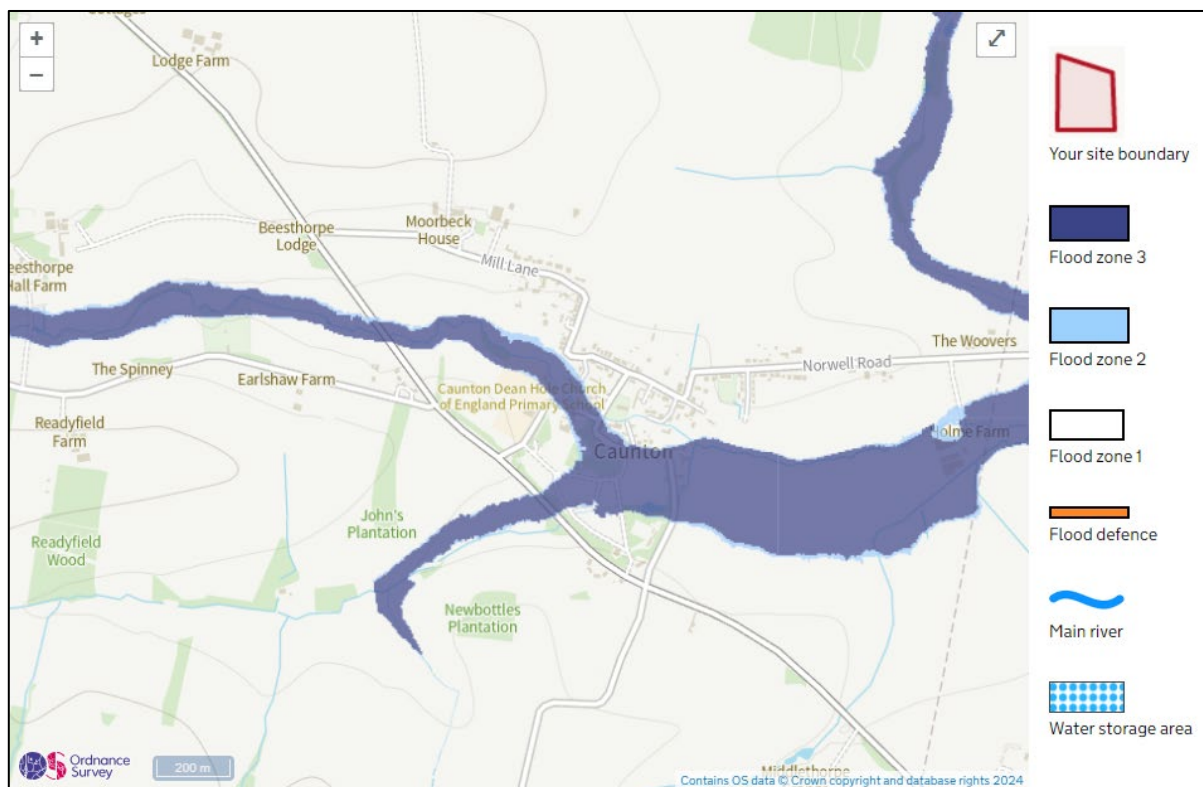


Figure 4. Predicted Flood Zone Extents (FZ3 is darkest area)

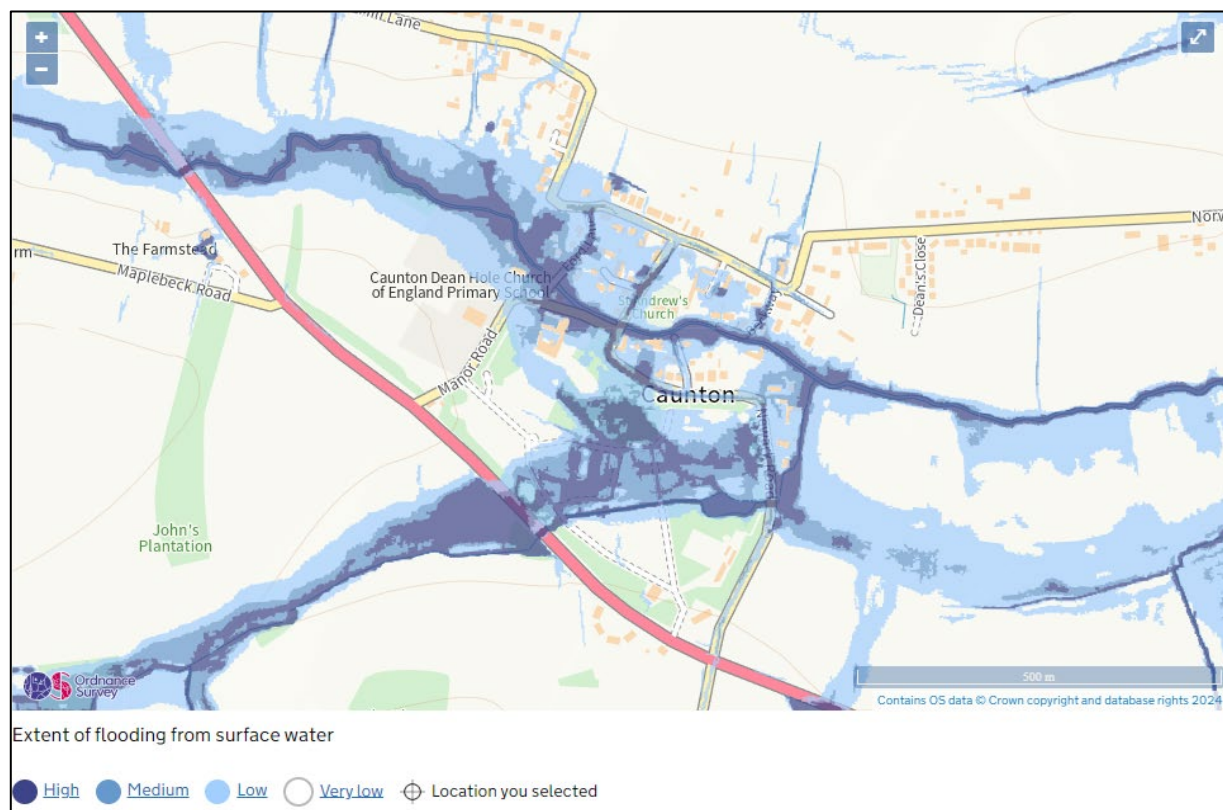


Figure 5. Predicted Surface Water Flood Extents

12. Figures 4 and 5 help to confirm the areas naturally occurring risk of flooding and correlate with the majority of flooding experienced during Storm Babet.

13. At a public meeting held in the village and attended by a representative from NCC's Flood Risk Management Team residents raised concerns regarding the hydraulic capacity of the three bridges that span The Beck in the village. These concerns have been passed to the TVIDB for their consideration and it is expected they will communicate direct with the Parish Council.
14. A number of properties in the Mill Lane area suffered from internal flooding and discussions with members of the community suggested that this was due to surface water runoff from the public highway. During these discussions concerns were raised about the effectiveness of the highway drainage network and it was agreed that an investigation into the condition and connectivity of the drainage system serving Mill Lane to its junction with Main Street / Norwell Road be carried out by NCC. This work was carried out during week 25-29 March and its findings will be used to support localised improvements.
15. During the flooding the resilience and community spirit shown within the village was exceptional and without it the consequences may well have been worse. The community adopts a very positive and proactive approach to flood resilience and the LLFA will continue to work with and support them.

Risk Management Authorities and their responsibilities

16. 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.
- ii. Provided site-based presence and investigations immediately following the event.

17. Newark and Sherwood 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.

18. Trent Valley Internal Drainage Board.
- a) Has a duty to manage flood risk and land drainage within areas of special drainage need in the Trent Valley.
 - b) Has permissive powers to undertake work to provide water level management within their area
 - c) Undertake works to reduce flood risk to people and property and manage water levels for local needs including the maintenance of rivers, drainage channels, outfalls and pumping stations.
19. Severn Trent Water Ltd. (STW).
- a) Maintenance of the public sewerage system.
 - a. As a water and sewerage company, STW manage the risk of flooding from their water supply and sewerage facilities. This includes;
 - i. Surface water sewers – these carry rainfall and surface water away from properties to watercourses;
 - ii. Foul water sewers – these carry wastewater away from properties to be treated;
 - iii. Combined water sewers – these drain both wastewater and surface water from properties along with run off from highways.
 - iv. Managing the impact of flooding to their networks by ensuring their systems have the appropriate level of resilience to flooding.
 - v. Engage with RMAs on how water and sewerage company assets impact on local flood risk.
 - vi. 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 Flooding

20. 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:
21. The 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.
- p) Liaised with the Parish Council in the aftermath of the event.
- q) Commissioned an investigation into the surface water runoff / highway drainage on Mill Lane area.

22. Newark & Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads , paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

23. Trent Valley Internal Drainage Board

- a) Staff attended site during and after the event and cleared the Beck of debris.

- b) Regular maintenance programme was completed prior to the flooding and will continue as planned.
- c) The IDB is working closely with lead partners to identify and deliver appropriate solutions, including supporting securing funding applications and with engineering and design expertise where applicable.
- d) In all parts of the IDB districts (both Trent Valley and Isle of Axholme and Northern Nottinghamshire) the regular annual maintenance regime has been and will continue to be delivered to reduce risk and identify potential risk areas.

Additional Information and Future Actions

- 24. 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 contained within this report.
- 25. Caunton community are considering how best to access and utilise the Governments Property Flood Resilience Repair Grant.
- 26. Caunton Parish Council and its residents have a well- established working relationship with a number of the RMAs including NCCs Flood Risk Management Tea, the Trent Valley Internal Drainage Board and Via East Midlands Ltd. and are committed to continue with that working relationship.
- 27. 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.
- 28. NCC will discuss its Flood Warden / Road Closure training programme with community volunteer groups and develop as appropriate.
- 29. 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.
- 30. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX G

SECTION 19 REPORT – COSSALL – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: "SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023".

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Introduction:

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 - (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 Broxtowe Borough Council (BBC), 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. Cossall is a village in the Broxtowe Borough of Nottinghamshire with a population of approximately 606 people according to the 2021 census.
7. On the 20th October, during Storm Babet, Cossall suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 107mm of rainfall was recorded at the Newstead Abbey rain gauge as shown by figure one below.

8. 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.

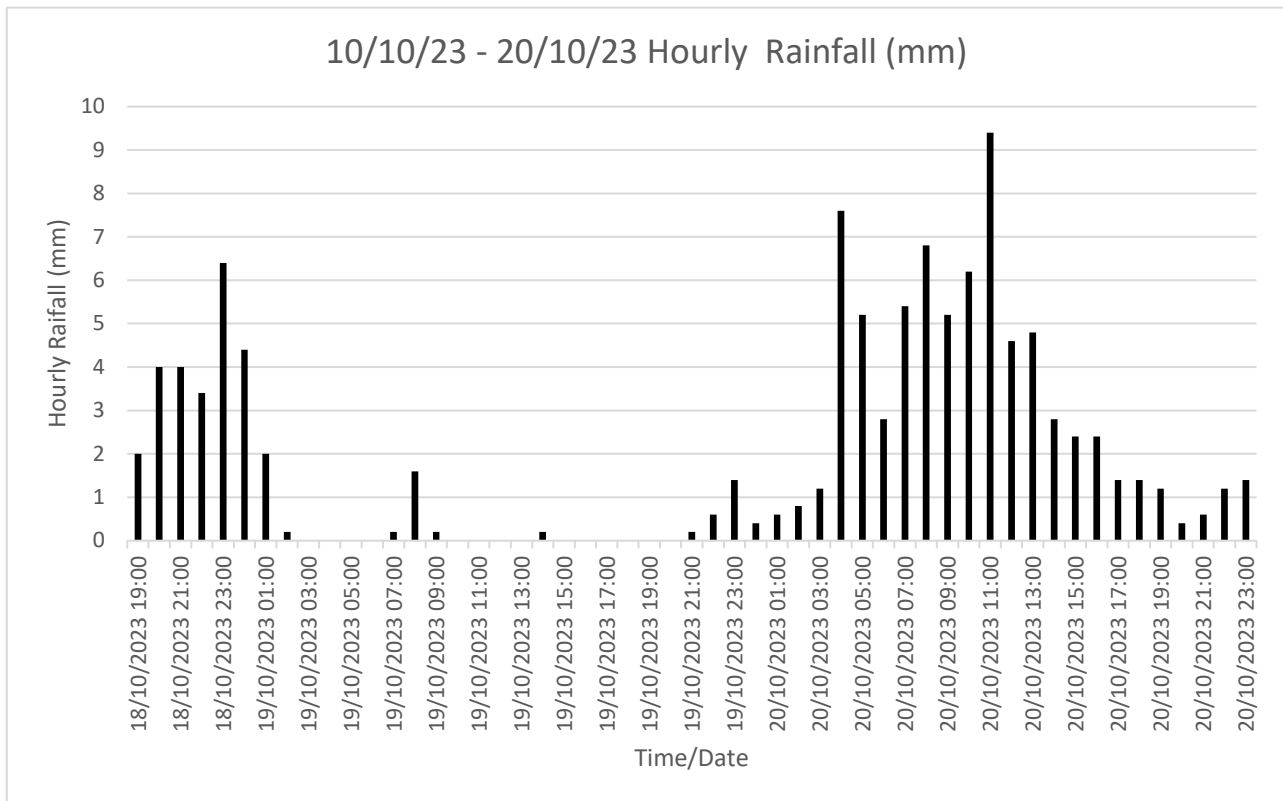


Figure 1. Newstead Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency

9. Internal flooding was localised in Cossall and the affected roads where internal property flooding was present can be seen below.

a) Cossall: Awsworth Lane – 2 properties, Church Lane – 3 properties.



Figure 2: Reference view of affected areas in Cossall.

10. Figure 3 below is an extract from the Environment Agency's surface water flood risk maps that shows the area to be at risk of surface water flooding.



Figure 3: Environment Agency: Surface Water Risk Mapping for Cossall.

11. Evidence supplied by local residents show manholes within both Awsworth Lane and Church Lane surcharging subsequently filling the highway and flowing into adjacent land and properties resulting in localised internal property flooding.
12. During storm event the ordinary watercourse at the rear of properties on Church Lane was at capacity, therefore highway gullies could not operate effectively resulting in localised highway flooding.

Risk Management Authorities and their responsibilities

13. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

14. Broxtowe Borough Council

- i. 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.

15. Severn Trent Water Ltd. (STW).

a) Maintenance of the public sewerage system.

- a. As a water and sewerage company, STW manage the risk of flooding from their water supply and sewerage facilities. This includes;
 - i. Surface water sewers – these carry rainfall and surface water away from properties to watercourses;
 - ii. Foul water sewers – these carry wastewater away from properties to be treated;
 - iii. Combined water sewers – these drain both wastewater and surface water from properties along with run off from highways.
 - iv. Managing the impact of flooding to their networks by ensuring their systems have the appropriate level of resilience to flooding.
 - v. Engage with RMAs on how water and sewerage company assets impact on local flood risk.
 - vi. 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

16. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:

17. 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.

18. Broxtowe Borough Council.

- a) Provided emergency response support in management of flooding event.
- b) Delivered sandbags to affected residents.
- c) Managed and continue to manage recovery in affected Broxtowe communities.
- d) Administered the flood hardship fund.
- e) Administered the council tax and business rate relief grant scheme.
- f) Actively engaged in the Section 19 Flood Investigation.
- g) Distributed sandbags to residents.

Additional information and future actions

- 19. 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 contained within this report.
- 20. 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. NCC will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.

21. 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.
22. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX H

SECTION 19 REPORT – EAST MARKHAM – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Bassetlaw District Council (BDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), and Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. East Markham is a village within the District of Bassetlaw, Nottinghamshire. It has a population of approximately 1,274 people according to the 2021 census.
7. On the 20th October, during Storm Babet, East Markham suffered a flood event caused by sustained heavy rainfall. 103.2mm of rainfall was recorded at the Worksop rain gauge, which is approximately 15km from East Markham, with 75.4mm of this rainfall on the 20th alone (Figure 1).

8. 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.
9. Consequently, 6 residential properties were subject to internal flooding with more suffering flooding to gardens and outbuildings.

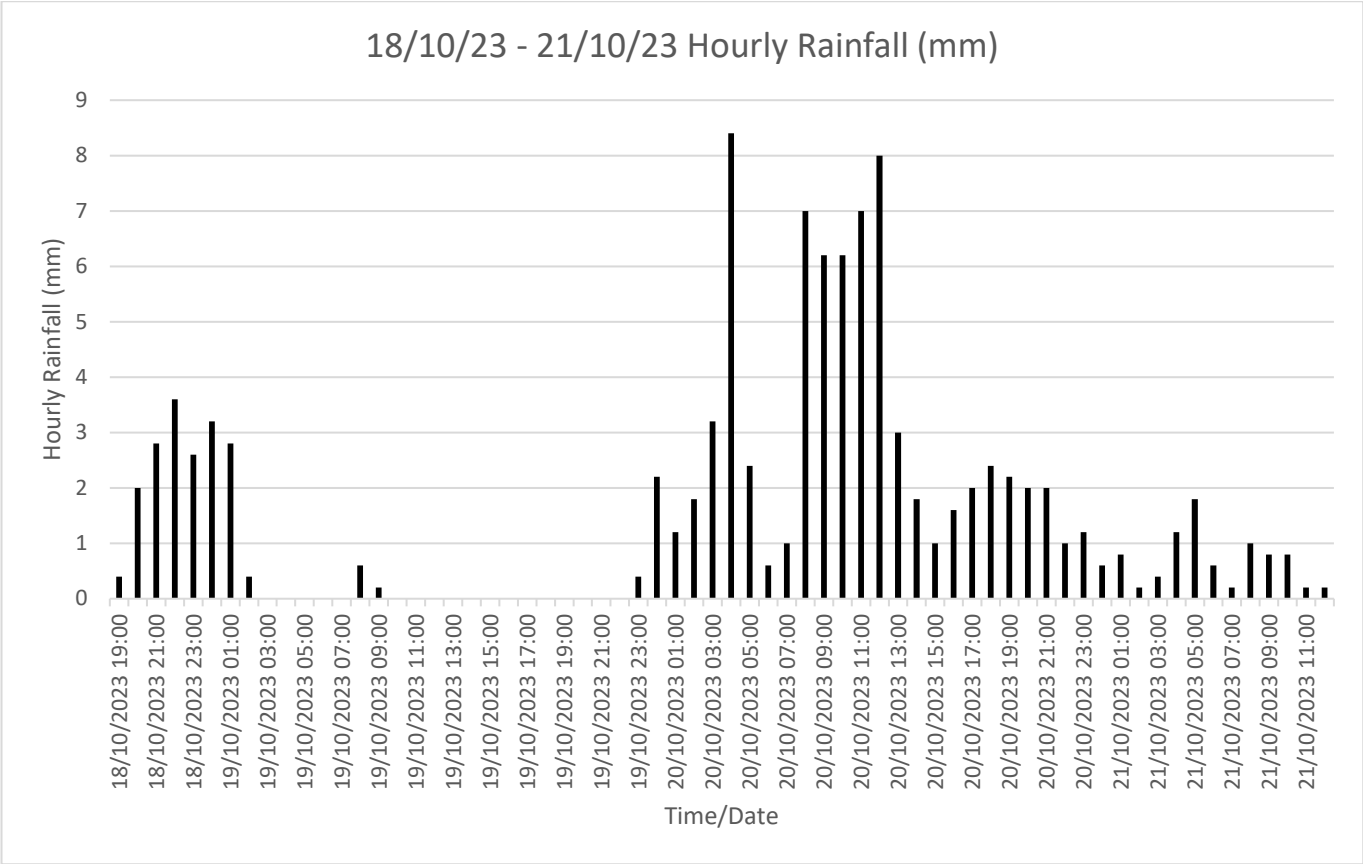


Figure 1. Worksop Hourly Rainfall 19:00 18th October – 12:00 21st October 2023. Data supplied by the Environment Agency.

10. A view of affected areas in East Markham is shown in Figure 2. The areas affected were York Street (4 properties) and York Paddock (2 properties).



Figure 2. View of East Markham flood affected areas.

Summary of flooding and its causes

11. Four residential properties were internally flooded on York Street and two residential properties were flooded on York Paddock, with many more suffering flooding to gardens and outbuildings.
12. An un-named ordinary watercourse flows from higher ground to the west of the village, this then enters a culvert approximately 90 metres to the west of York Street. This culvert then runs underneath a field and York Street, before passing to the rear of York Paddock and returning to an open watercourse.
13. During the event this culvert was overwhelmed and as such water then ran overland from the culvert inlet across the field and onto York Street. This was exacerbated by flooding already present on the highway. Due to the topography of York Street and York Paddock, properties which are lower than the road then had water running down their gardens and into properties.
14. Figure 3 shows predicted surface water flow paths which correlate with those experienced.



Figure 3. Surface Water Flood Risk Mapping. Data provided by the Environment Agency.

Risk Management Authorities and their responsibilities

15. The 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.

16. 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.

Risk Management Authority Responses to Flood

17. 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:

18. 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.

19. 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.

Additional Information and Future Actions

- 20. 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.
- 21. 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.
- 22. 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.
- 23. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.
- 24. Bassetlaw District Council participated in the LRF Storm Babet Debrief and learning review meeting which identified a number of future actions.
- 25. Bassetlaw District Council has undertaken an internal review of the response to Storm Babet which identified a number of future actions.
- 26. 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.
- 27. 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.

APPENDIX I

SECTION 19 REPORT – EASTWOOD – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Broxtowe Borough Council (BBC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Eastwood is a town in the Broxtowe Borough of Nottinghamshire with a population of approximately 18,732 people according to the 2001 census.
7. On the 20th October, during Storm Babet, Stapleford suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 107mm of rainfall was recorded at the Newstead Abbey rain gauge as shown by figure one below.

8. 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.

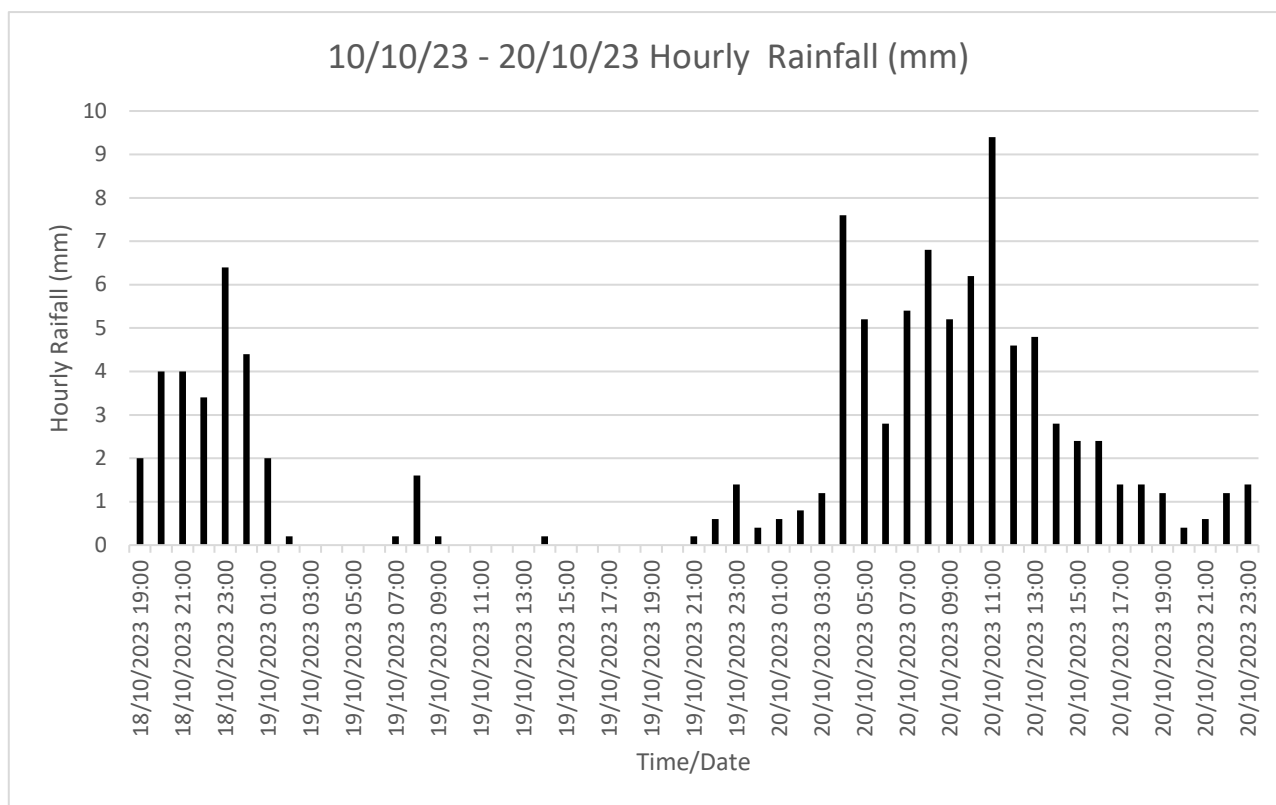


Figure 1. Newstead Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency

9. Internal flooding affected 76 properties in Eastwood; however, this was mainly within one specific area. Figure 2 highlights this area and identifies the affected roads and where internal property flooding was present.

- a) Figure 2: Coach Drive (15 properties), Robey Drive (41 properties), Fryar Road (14 properties), Nether Close (6 properties).



Figure 2: Reference Map for affected area in Eastwood: Coach Drive, Robey Drive, Fryar Road & Nether Close

10. The Beauvale Brook (ordinary watercourse) runs behind properties on Robey Drive, Fryar Road and Nether Close as seen below in Figure 3.



Figure 3: View of Beauvale Brook, Eastwood

11. Figures 4 and 5 below is an extract from the Environment Agency’s flood risk maps that shows the area to be at risk of both fluvial and surface water flooding.



Figure 4: Environment Agency: Flood Risk Mapping for Eastwood



Figure 5: Environment Agency: Surface Water Flood Risk Mapping for Eastwood

12. Evidence from residents suggest that large volumes of water were discharged from Moorgreen Reservoir subsequently into the adjacent pond which discharges into the Beauvale Brook. Video evidence has been provided which shows the overflow weirs of the pond discharging large amounts of water. In previous events this watercourse has been known to have lower water levels, raising concerns of residents with regards to upstream discharge amounts into the watercourse.
13. Whilst the Beauvale Brook did subsequently overtop the bank causing flooding to the rear of several properties, large flows were also seen down Devanshire Drive. Investigations have shown this to be a combination of flows from both the brook and adjacent agricultural land runoff. These flows exacerbated the issues on Coach Drive and Robey Drive.
14. Investigations are continuing with upstream landowners and risk management authorities to ascertain the events and any failure in operational assets.
15. Several sections of the Beauvale Brook have various instances of minor blockages, excessive vegetation growth or protruding pipes and trees into the watercourse, whilst this is not the cause of flooding in this instance it should be noted that this will have exacerbated the rise of water in the brook at certain pinch points.

Risk Management Authorities and their responsibilities

16. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

17. Broxtowe Borough Council

- i. 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.

Risk Management Authority Responses to Flood

18. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:

19. 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.

20. Broxtowe Borough Council:

- a) Provided emergency response support in management of flooding event.
- b) Delivered sandbags to affected residents.
- c) Managed and continue to manage recovery in affected Broxtowe communities.
- d) Administered the flood hardship fund.
- e) Administered the council tax and business rate relief grant scheme.
- f) Actively engaged in the Section 19 Flood Investigation.
- g) Distributed sandbags to residents.

Additional information and future actions

- 21. The local community spirit and resilience during the flooding must be recognised as without their efforts the impacts of the flooding could have been worse.
- 22. 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 contained within this report.
- 23. 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. NCC will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
- 24. NCC will continue to work with local landowner owners and riparian owners to ensure all assets are functioning, and investigations into the upstream catchment will continue.
- 25. 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.

APPENDIX J

SECTION 19 REPORT – EDINGLEY – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC, Severn Trent Water Ltd. (STW) and Trent Valley Internal Drainage Board (TVIDB).
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. Edingley is a small village located approximately 13km to the west of Newark on Trent, Nottinghamshire. Edingley is surrounded by agricultural land and is served by the Edingley Beck and its tributaries. The tributaries run from the south west of the village, through its centre into the Edingley Beck which ultimately discharges into the River Greet some 2km to the north east of the village.
7. The Edingley Beck is managed by the Trent Valley Internal Drainage Board (TVIDB). Figure 3 shows how the watercourses pass through the village.

8. Between 12:00 noon on 18 and 23:00 on 20th October, 124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 7km from Edingley (Figure 1).
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.
10. During Storm Babet, 12 residential properties in Edingley were subject to internal flooding with more suffering flooding to gardens and outbuildings.

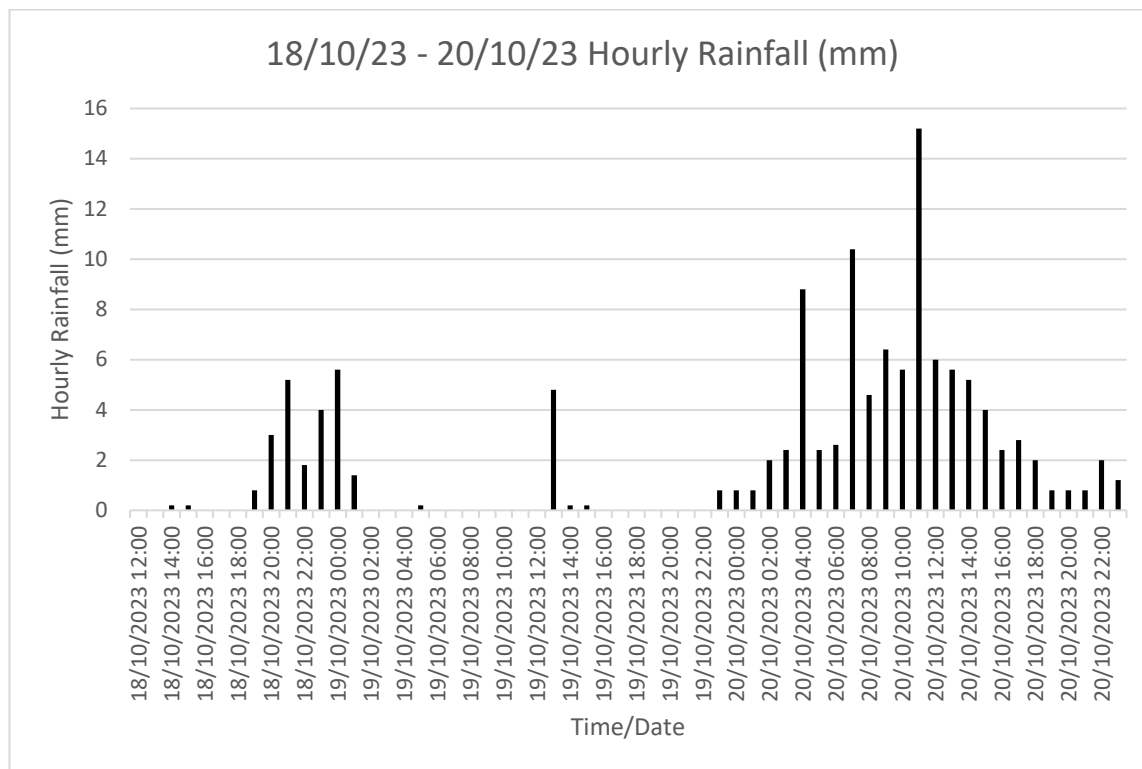


Figure 1. Staythorpe Hourly Rainfall from 12:00 18th to 23:00 20th October 2023. Data supplied by the Environment Agency.

11. Figure 2 highlights the areas where the majority of internal flooding was recorded. It must be noted that internal flooding was recorded outside of the area shown but we have chosen not to identify that area with the owner's agreement.



Figure 2. View of Edingley highlighting areas affected by internal flooding.

Summary of flooding and its causes

12. The flooding that occurred in Edingley during Storm Babet came primarily from surface water runoff from the west of the village. This overwhelmed the various surface water assets including ditches and highway gullies and was unable to enter the Edingley Beck at the junction of Main Street / Edingley Hill / Station Road.
13. At a public meeting held in the village witness statements noted that some of those assets may not be operating effectively and also that Edingley Beck was free flowing downstream of this location. Concerns were also raised regarding the adequacy of the public sewerage system and these have been passed to Severn Trent Water for their consideration.

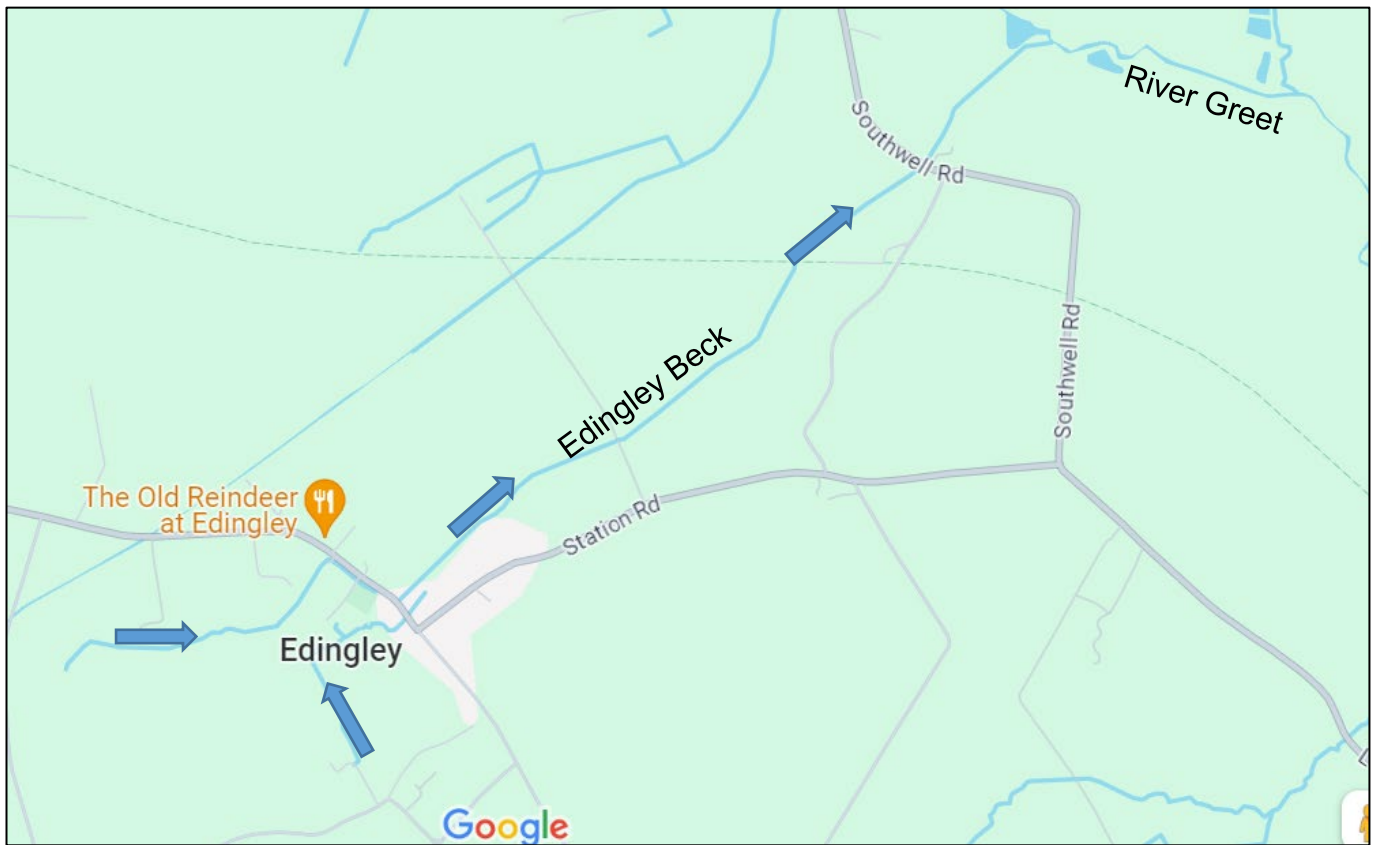


Figure 3. Map of Edingley showing watercourses running through the village

14. These watercourses and the topography of the village combine to create a natural risk of flooding to the area. Figures 4 and 5 show the predicted risk of flooding as published by the Environment Agency's Flood Map for Planning (<https://flood-map-for-planning.service.gov.uk>).

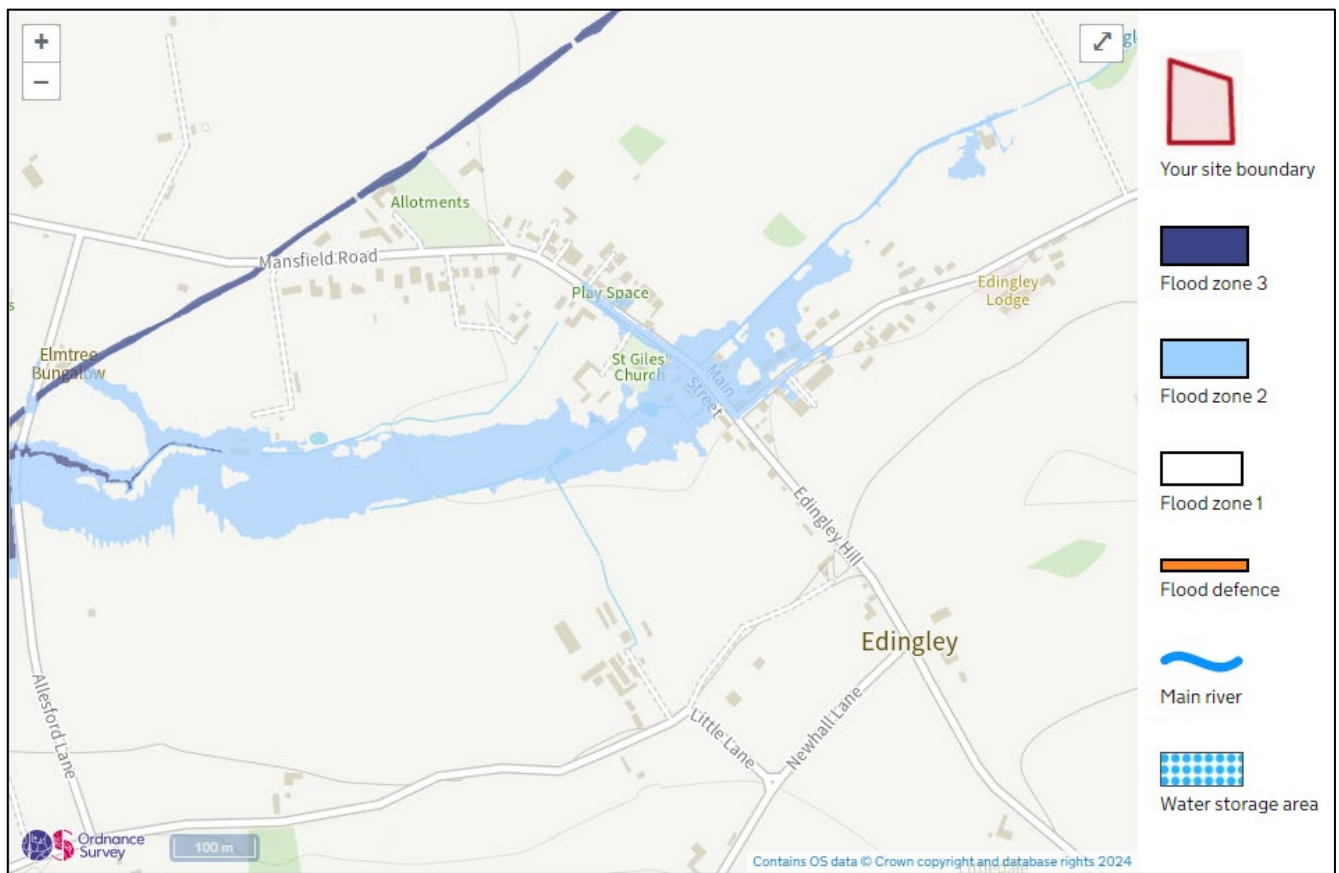


Figure 4. Predicted Flood Zone Extents

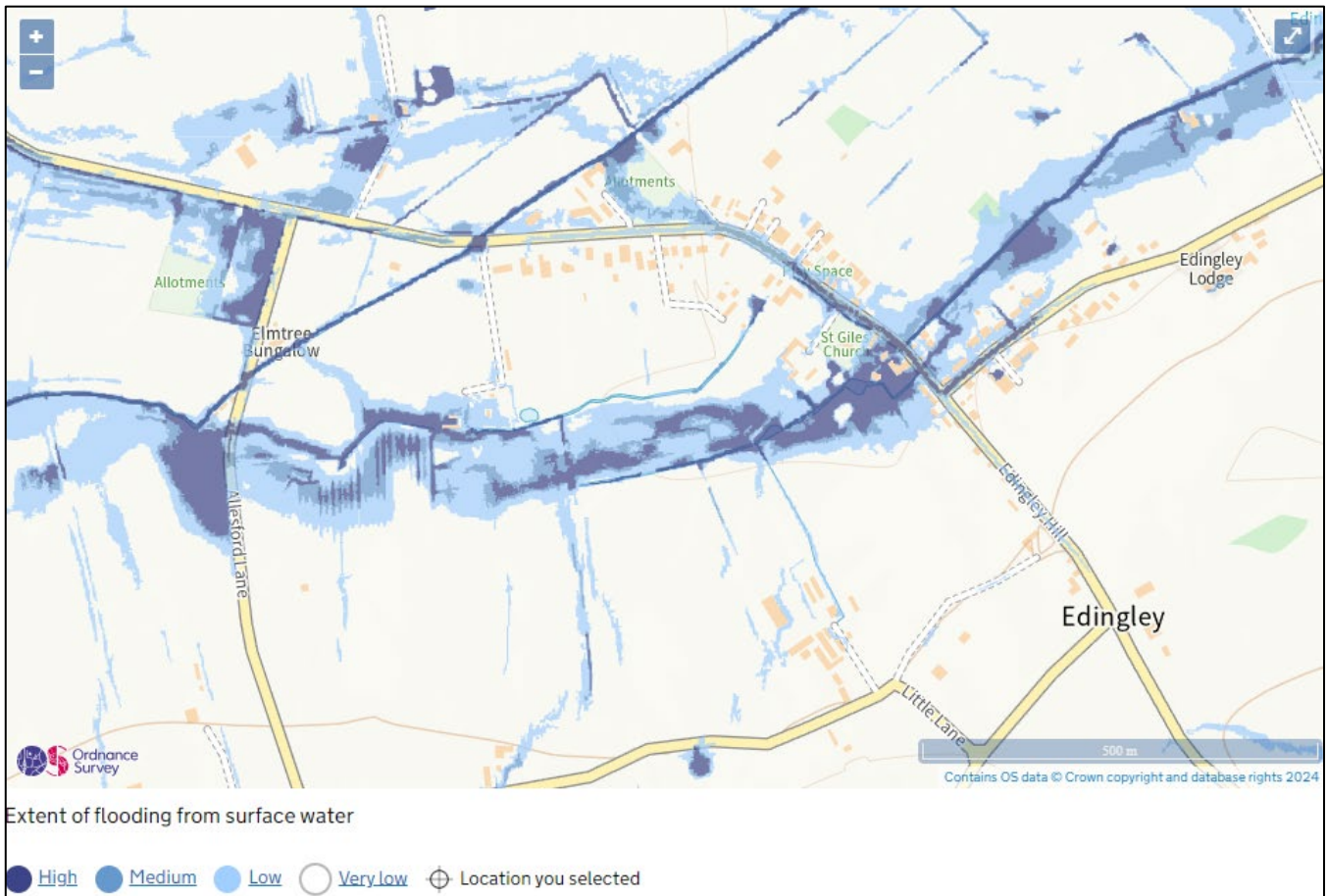


Figure 5. Predicted Surface Water Flood Extents

Figures 4 and 5 help to confirm the areas naturally occurring risk of flooding and correlate with the majority of flooding experienced during Storm Babet.

The village benefits from proactive community and Parish Council that provides support and resilience to their residents. The community adopts a very positive and proactive approach to flood resilience and the LLFA will continue to work with and support them.

Risk Management Authorities and their responsibilities

15. The 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.

16. Newark and Sherwood 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.

17. Trent Valley Internal Drainage Board.

- a) Has a duty to manage flood risk and land drainage within areas of special drainage need in the Trent Valley.
- b) Has permissive powers to undertake work to provide water level management within their area.
- c) Undertake works to reduce flood risk to people and property and manage water levels for local needs including the maintenance of rivers, drainage channels, outfalls and pumping stations.

18. 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 Flooding

19. 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:

20. 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.
- p) Attended public Parish Council meetings to discuss the flooding and agree future actions.
- q) Liaised with residents on flood related concerns.
- r) Commissioned site investigation into various surface water assets in the village with a view to ensuring a clear understanding of condition, performance and ownership.
- s) Initiated discussions with Via East Midlands and TVIDB on feasibility of improving surface water entry to Edingley Beck.
- t) Liaised with STW regarding customer concerns about public sewerage system.

21. Newark & Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.

- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads , paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

22. Trent Valley Internal Drainage Board

- a) Liaising with the Parish Council and will attend a Parish meeting to discuss the flooding and any agreed actions.
- b) The IDB is working closely with lead partners to identify and deliver appropriate solutions, including supporting securing funding applications and with engineering and design expertise where applicable.
- c) In all parts of the IDB districts (both Trent Valley and Isle of Axholme and Northern Nottinghamshire) the regular annual maintenance regime has been and will continue to be delivered to reduce risk and identify potential risk areas.

23. Severn Trent Water Ltd

- a) Will follow up and seek further information to support the concerns raised in paragraph 13.

Additional Information and Future Actions

- 24. 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 contained within this report.
- 25. Edingley Parish Council and its residents are working with NCCs Flood Risk Management Team to develop a mutually beneficial working relationship. The Parish Council will continue to work closely with Via East Midlands and TVIDB.
- 26. 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.
- 27. 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.

28. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.
29. NCC have commissioned site investigation work in order to understand the interaction and performance of surface water assets in the centre of the village and identify possible improvements to the system. This work is scheduled for completion at the end of March 2024.

APPENDIX K

SECTION 19 REPORT – EDWINSTOWE – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC and the Environment Agency (EA).
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. Edwinstowe is a village within the District of Newark and Sherwood, Nottinghamshire. It has a population of approximately 5,318 people according to the 2021 census.
7. On the 20th October, during Storm Babet, areas of Edwinstowe suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 125.8mm of rainfall was recorded at the Sutton in Ashfield rain gauge (Figure 1). Consequently, 8 residential properties were subject to internal flooding.

8. 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

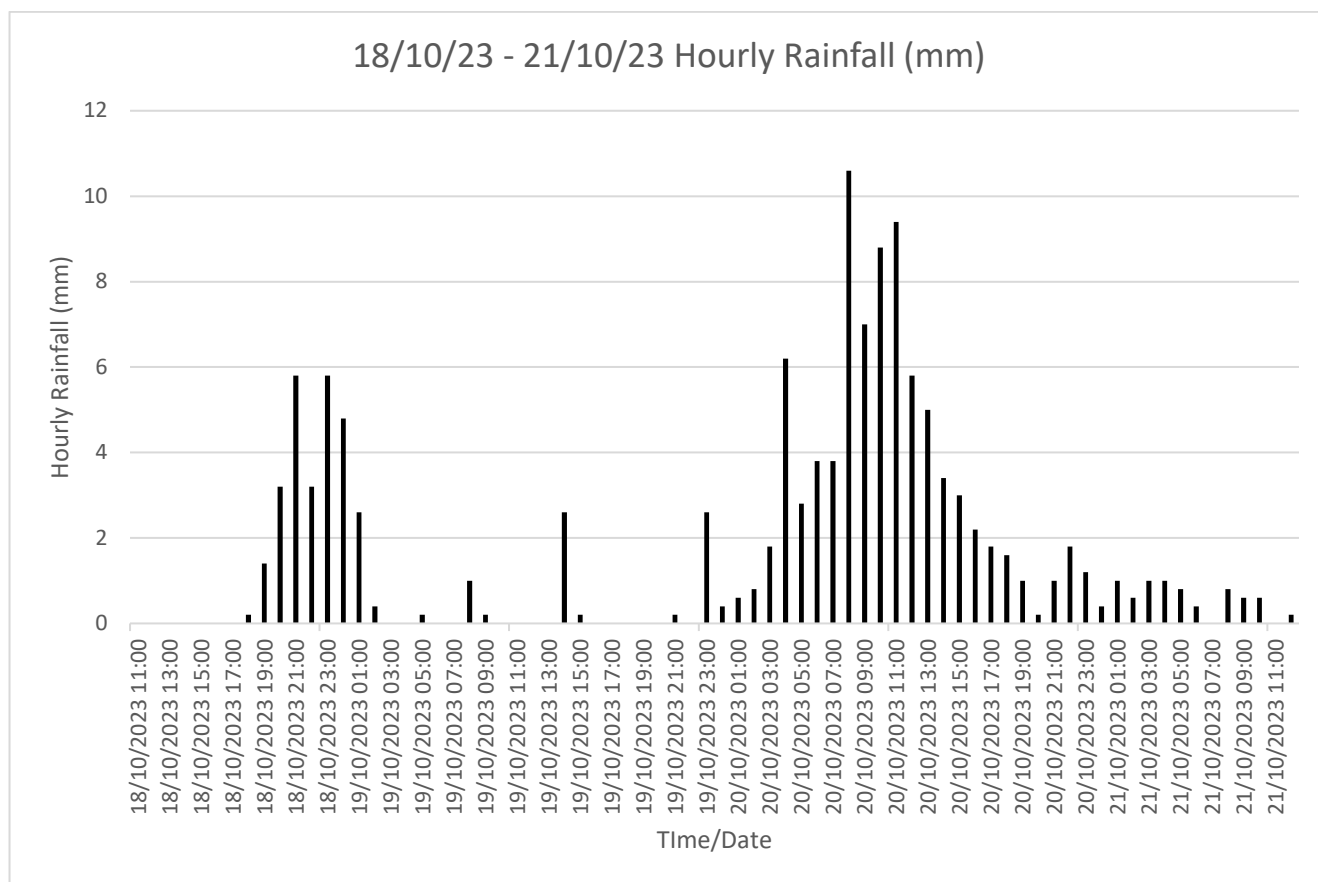


Figure 1. Sutton in Ashfield Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

Summary of flooding and its causes

9. Mill Lane and High Street

Areas impacted by flooding on Mill Lane and High Street are shown in Figure 2. In total, 7 residential properties were impacted by internal flooding on Mill Lane with 1 further property impacted on High Street.

The River Maun flows adjacent to Mill Lane before passing under a bridge at High Street. Downstream of Edwinstowe, at the Whitewater Bridge water level station, a record water level of 1.74m was recorded on the 21st of October. During Storm Babet, due to heavy rainfall over a large catchment, the River Maun flowed out of bank and into properties on Mill Lane and High Street. Two bridges on this reach provide obstructions to flow which may have caused water to flow out of bank during high water levels.



Figure 2. View of Mill Lane and High Street.

Risk Management Authorities and their responsibilities

10. 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 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 (VIA East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

11. 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.
- b) Maintenance and management of main rivers and associated flood risk.

12. Newark and Sherwood 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.

Risk Management Authority Responses to Flood

13. 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:

14. 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.

15. Newark and Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads , paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

16. Environment Agency

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) The Environment Agency warned and informed the community and partners in a timely manner by issuing a Flood Alert for the River Maun in Nottinghamshire on 19/10/2023 and a Flood Warning for the River Maun at Edwinstowe and Ollerton on 20/10/2023.
- e) Instigated flood patrols in accordance with incident response procedures and cleared blockages in the area before and after the peak flows when it was safe to do so.
- f) 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.

Additional Information and Future Actions

17. 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.
18. As the Lead Local Flood Authority NCC 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.
19. The Environment Agency will continue to gather data and evidence to help validate the Flood Warning Service and investigate further options to reduce flood risk in the area.
20. 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.
21. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX L

SECTION 19 REPORT – EPPERSTONE – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA) and Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Epperstone is a village within the District of Newark and Sherwood, Nottinghamshire. It has a population of approximately 600 people according to the 2021 census.
7. On the 20th October, during Storm Babet, areas of Epperstone suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 80mm of rainfall was recorded at the Calverton rain gauge (Figure 1). Consequently, 6 residential properties were subject to internal flooding.

8. 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.

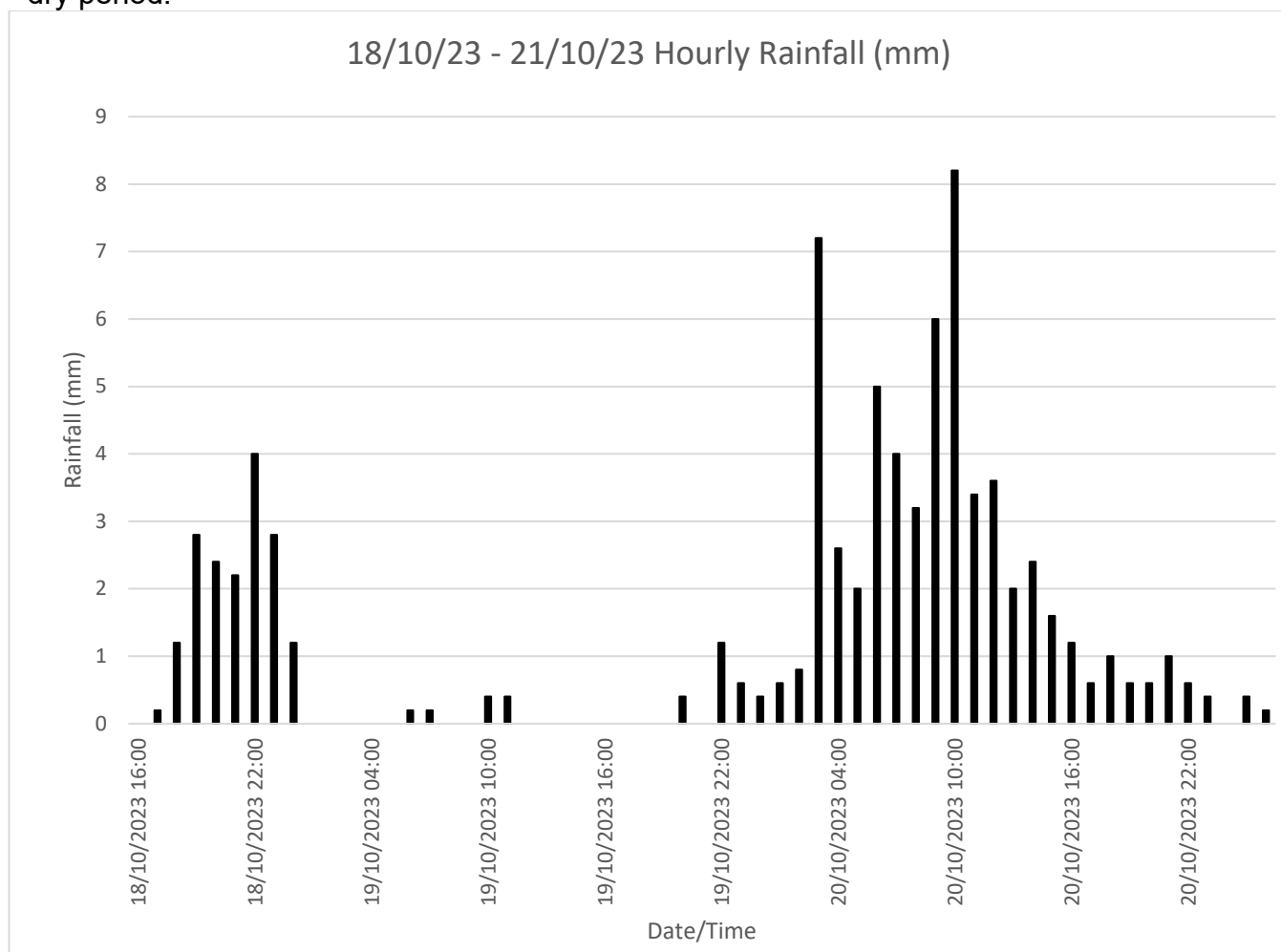


Figure 1. Calverton Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

Summary of flooding and its causes

9. Main Street

Areas impacted by flooding on Main Street are shown in Figure 2. In total, 6 residential properties were impacted by internal flooding. As shown in Figure 3, a surface water flowpath exists which flows across Main Street from the north to the south. During Storm Babet, intense and prolonged rainfall caused excessive overland flow from agricultural land which overwhelmed drainage systems and flooded properties. It has been noted that a separate surface water flowpath which flowed from Hagg Lane to Main Street also contributed to flooding during Storm Babet.



Figure 2. View of Epperstone.

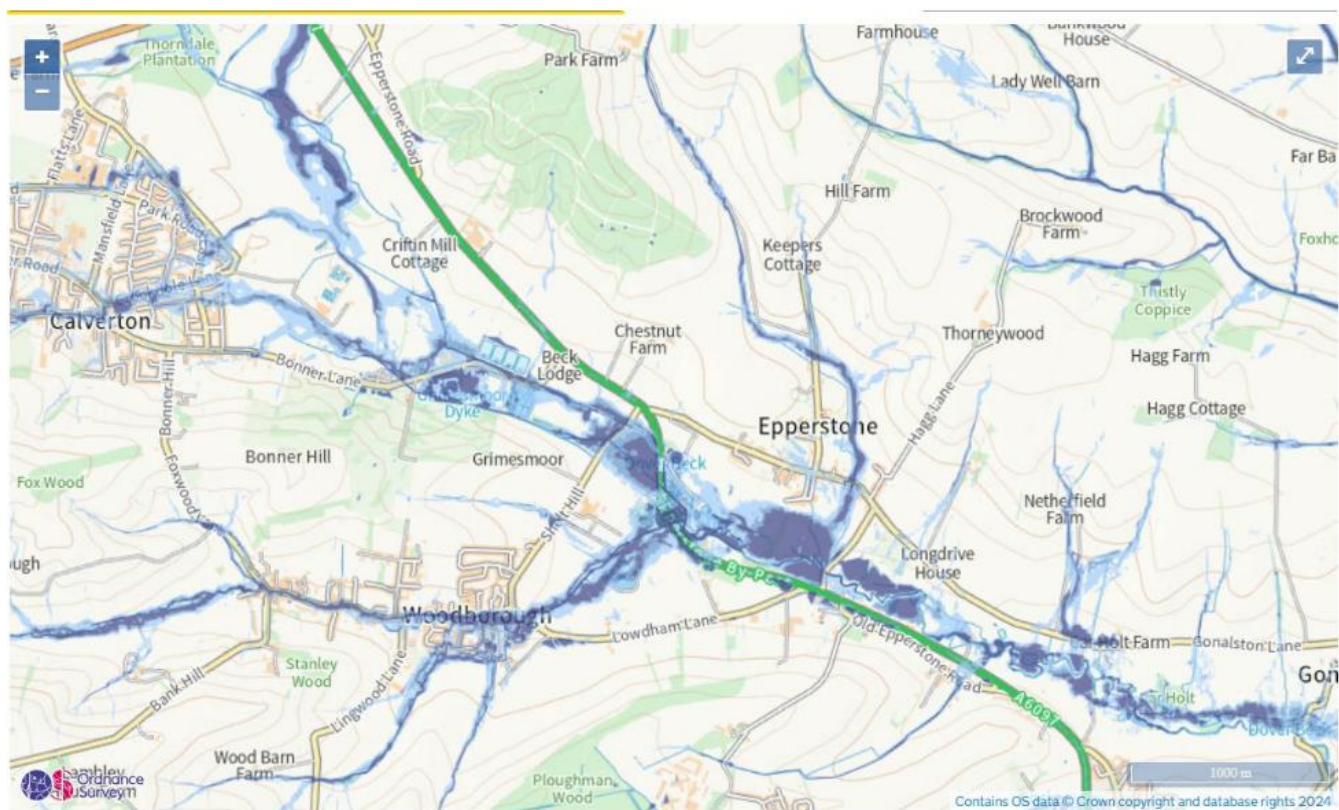


Figure 3. Epperstone Surface Water Flood Risk. Data provided by the Environment Agency.

Risk Management Authorities and their responsibilities

10. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

11. Newark and Sherwood 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.

Risk Management Authority Responses to Flood

12. 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:

13. 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.

14. Newark and Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads , paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.

- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

Additional Information and Future Actions

- 15. 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.
- 16. As the Lead Local Flood Authority NCC 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.
- 17. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible. A community flood signage scheme is being developed in Epperstone with support from NCC. Officers for the Flood Risk Management team are working with the community to help them develop a local flood action group.
- 18. 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.
- 19. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX M

SECTION 19 REPORT – HUCKNALL – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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), Ashfield District Council (ADC), 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. Hucknall is market town located approximately 13km to the north of Nottingham. Hucknall is surrounded on the north, east and west by rural / agricultural land. A number of watercourses run from west to east through the town discharging into the River Leen.
7. The watercourses are a mix of riparian owned and main river (EA managed) Figure 2 shows how the watercourses pass through the town.

8. Between 12:00 noon on 18 and 23:00 on 20 October, 125.8mm of rainfall was recorded at the Sutton in Ashfield rain gauge, which is approximately 9km from Hucknall (Figure 1).
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.
10. During Storm Babet, 92 residential properties and businesses in Hucknall were subject to internal flooding with more suffering flooding to gardens and outbuildings.

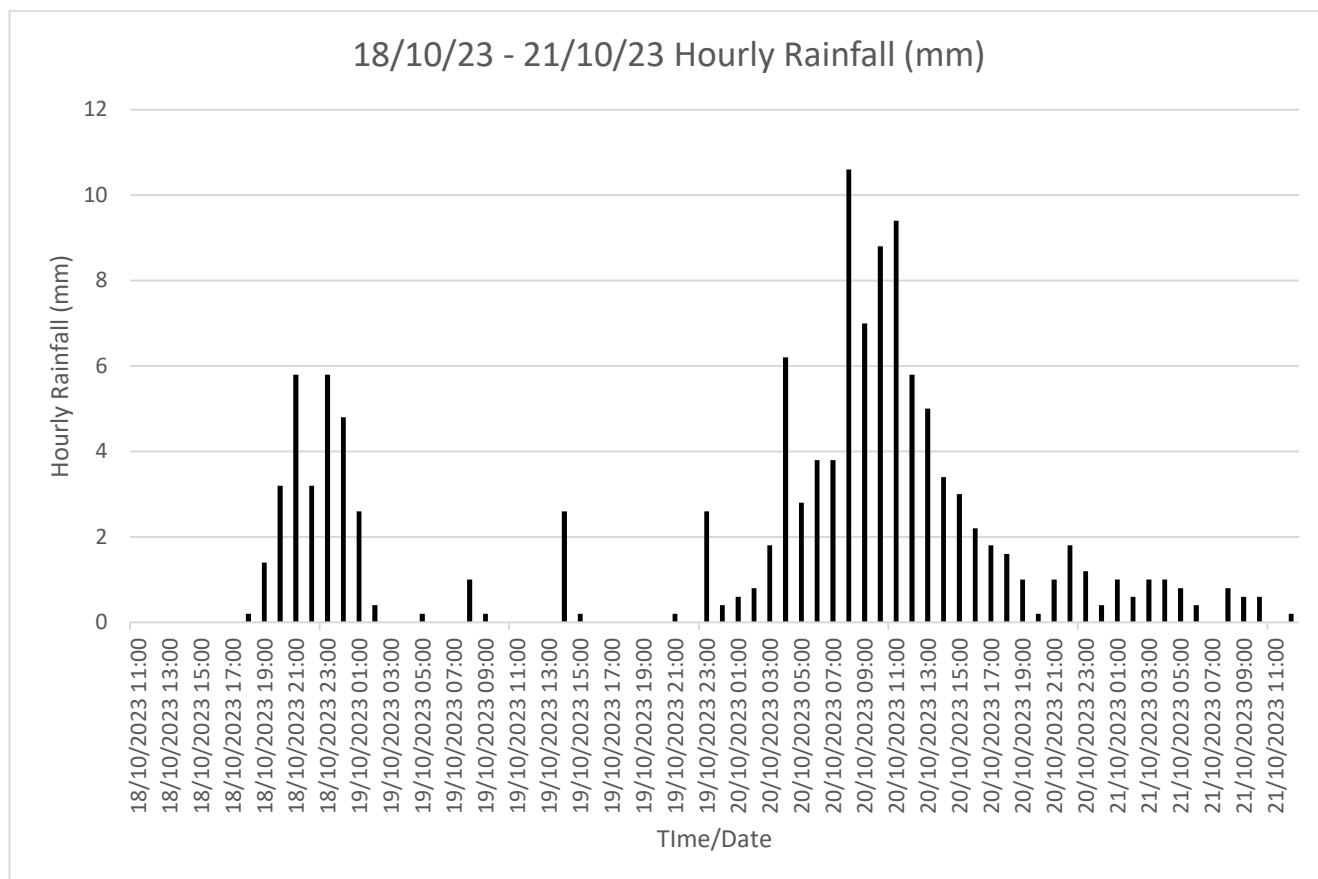


Figure 1. Sutton in Ashfield Hourly Rainfall from 12:00 18 to 23:00 20 October 2023. Data supplied by the Environment Agency.

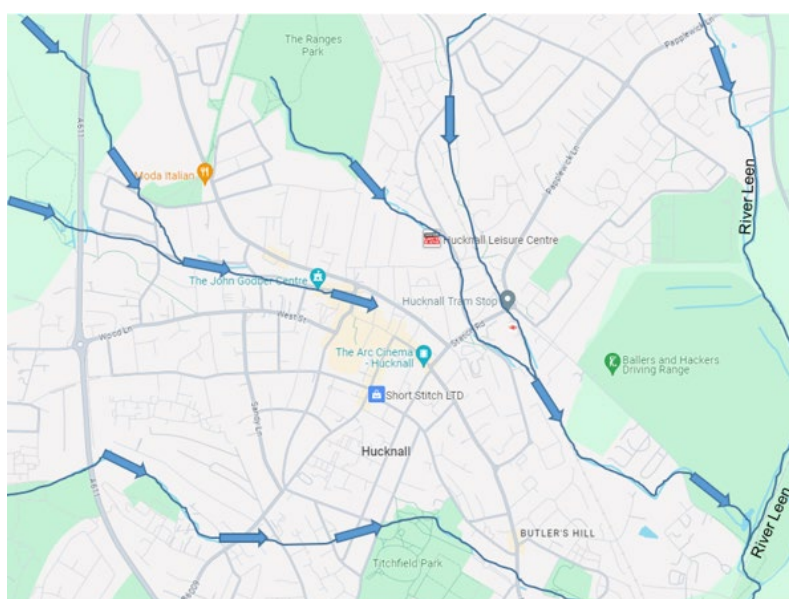


Figure 2. Map of Hucknall showing watercourses running through the town.

11. The flooding in Hucknall was widespread and affected a number of different areas across the town. Figure 3 highlights the areas where internal flooding was recorded.



Figure 3. View of Hucknall highlighting areas affected by internal flooding (number of affected properties shown in brackets).

Summary of flooding and its causes

12. The watercourses and topography of the town combine to create a natural risk of flooding to the area. Figures 4 and 5 overleaf show the predicted risk of flooding as published by the Environment Agency's Flood Map for Planning (<https://flood-map-for-planning.service.gov.uk>).

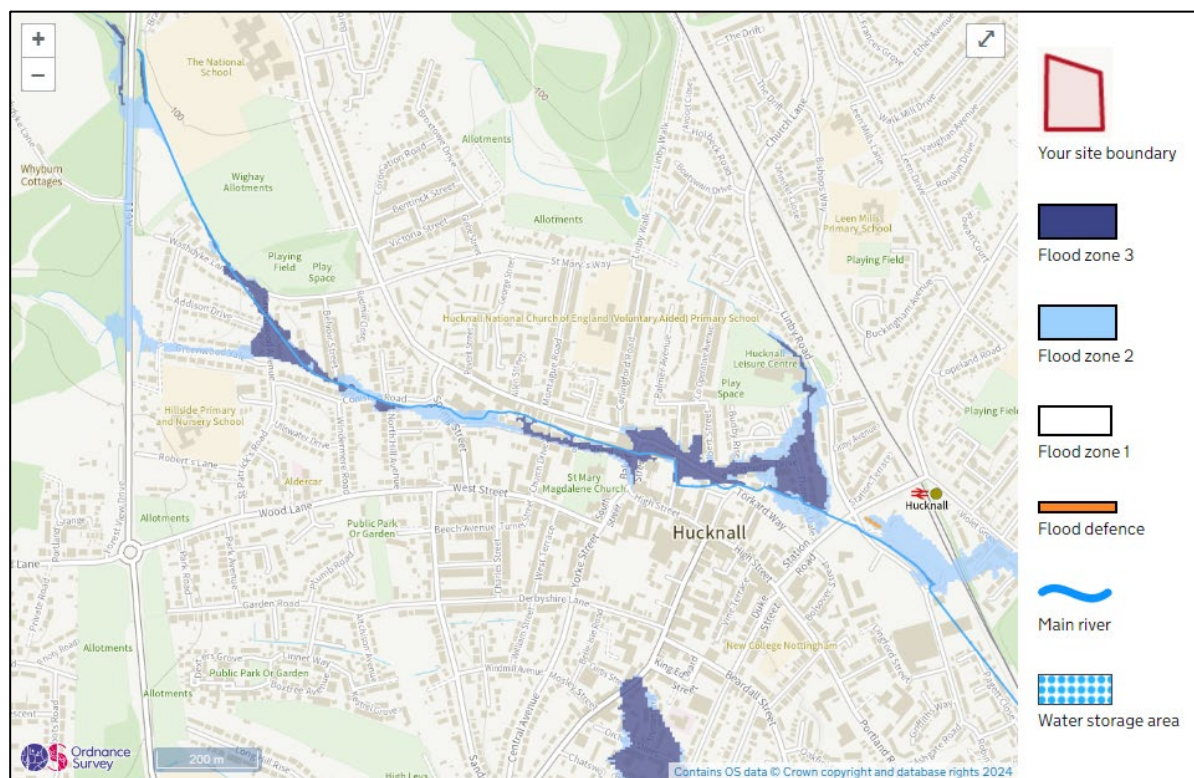


Figure 4. Predicted Flood Zone Extents

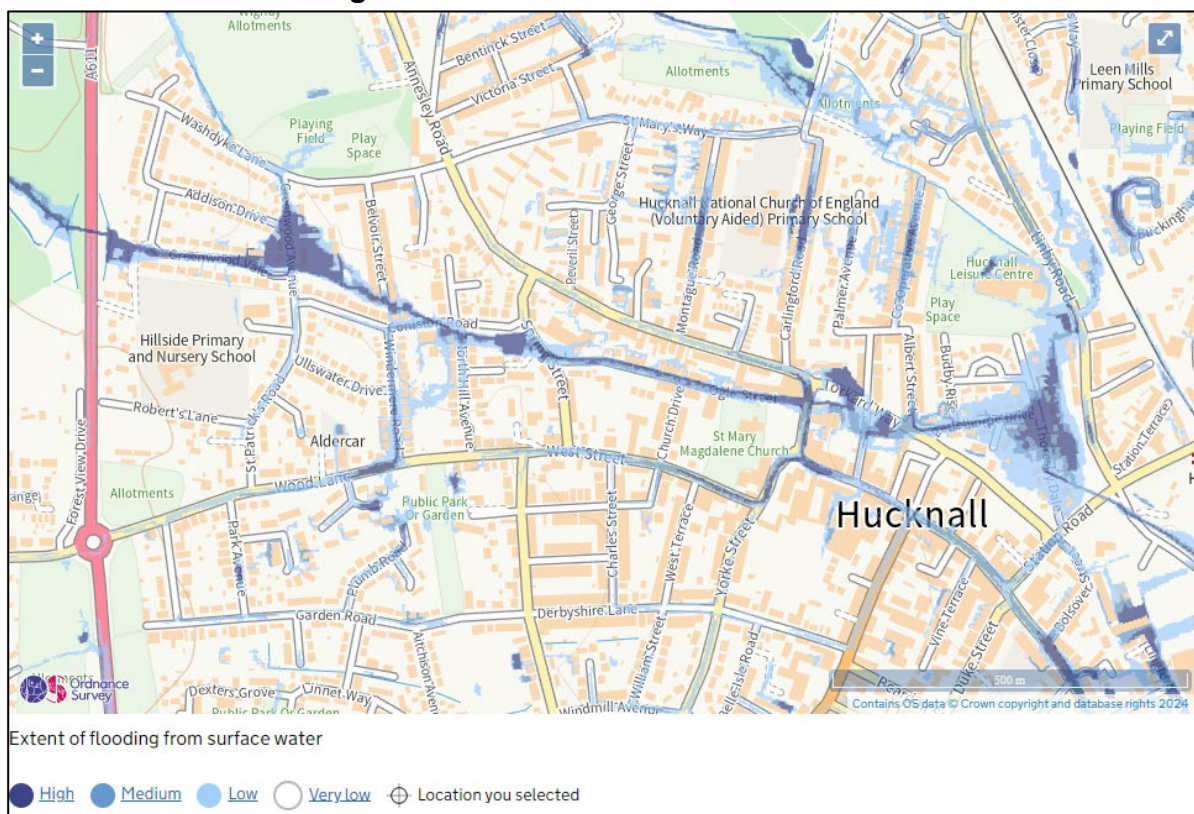


Figure 5. Predicted Surface Water Flood Extents

Figures 4 and 5 help to confirm the areas naturally occurring risk of flooding and correlate with the majority of flooding experienced during Storm Babet.

13. The flooding in Hucknall was widespread and affected a number of different areas across the town. Each of the areas affected sits either adjacent or very near to existing watercourses (open or culverted) or large open spaces. It is assumed that the flooding across the catchment was a direct result of the saturated ground conditions and sheer

volume of rain that Storm Babet delivered. Witness reports acknowledged watercourses spilling over onto roads in numerous areas and this correlates with the assumptions made.

14. One of the worst affected areas of Hucknall in terms of number of properties affected is the Greenwood Vale / Avenue area with 39 properties reported as internally flooded.

The Greenwood Vale / Avenue area is built over a riparian owned culverted watercourse that takes water from a large upstream catchment and flows through the centre of the town. This catchment also includes the Dob Park Balancing Reservoir that was constructed in the early 1990s as part of the A611 Hucknall Bypass Phase 2.

The reservoir was designed to hold 24000m³ of water during storm conditions, holding the water on the western side of the A611 and reducing the risk of flooding to Hucknall.

15. Figure 6 shows the upstream catchment that feeds into Dob Park reservoir.

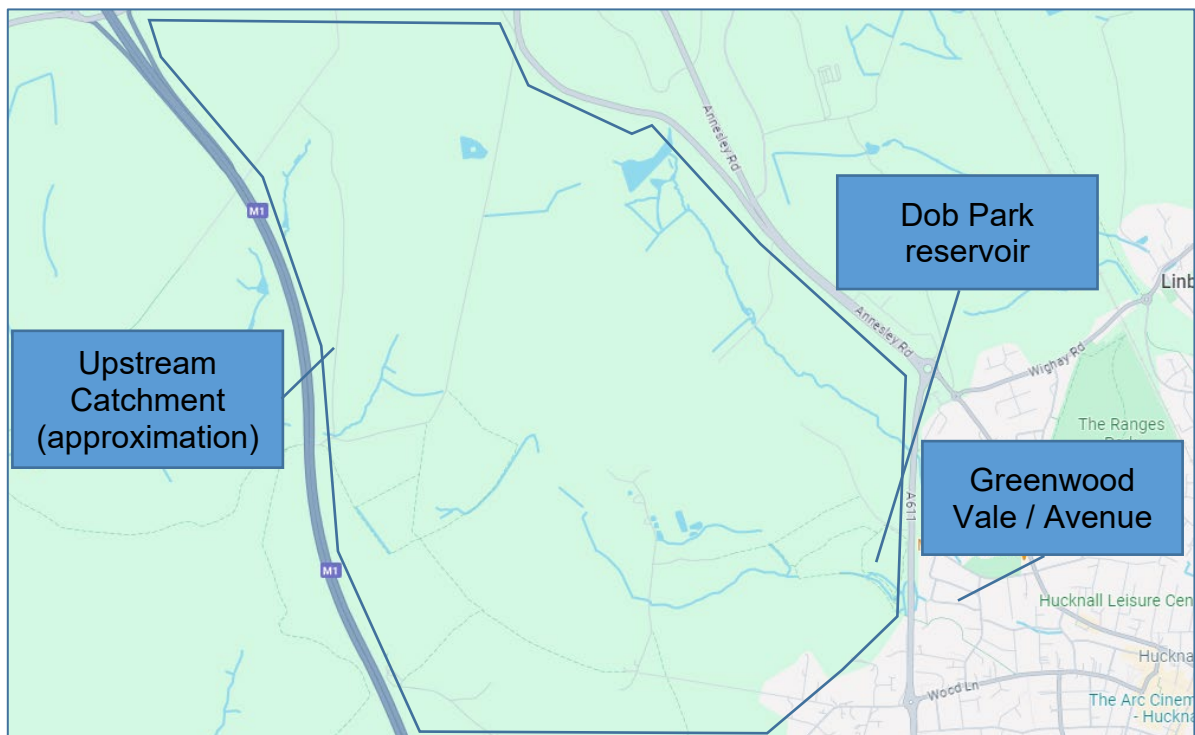


Figure 6 Upstream catchment serving Dob Park reservoir.

16. The reservoir works by catching flows from the upstream catchment and discharging them at a controlled rate into the downstream catchment (east of the A611). The flows come from two watercourses in the catchment. In certain conditions excess flows from the northern watercourse are diverted into the reservoir. This arrangement is controlled by a bifurcation manhole structure located adjacent to the A611 north of Dob Park.
17. The reservoir design includes a spillway which allows excess flows to discharge from the reservoir, bypassing the flow control structure, and preventing water flowing over the A611. This spillway is constructed at approximately 320mm lower than the A611. Figure 7 shows an extract from the original design drawings and the two levels are highlighted.

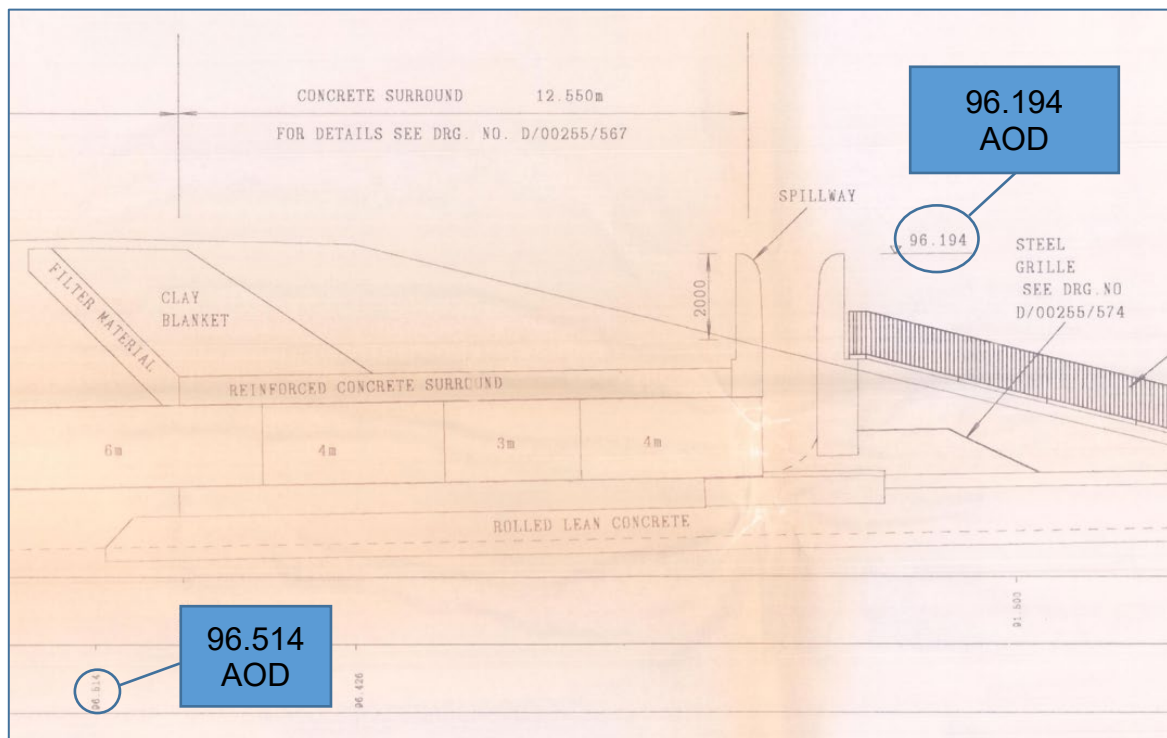


Figure 7. Excerpt from original A611 Phase 2 design drawings showing level differences between A611 and Dob Park spillway (AOD is height above ordnance data).

18. Dob Park reservoir discharge rate is hydraulically controlled by the diameter of the outgoing pipe. This pipe is protected from blocking by a steel grille / trash screen. There are no sluices on this structure. Following the flood event this trash screen was checked and debris that had accumulated was cleared. There was no evidence of any blockages and the trash screen was working effectively.
19. Drone footage of the flooding was provided by a resident local to the flooding and Figure 8 is a still taken from this footage. Stag Communications have given permission for the use of their images in this report. The still shows Dob Park reservoir storing water and surface water pooling in the low point of the A611 Hucknall Bypass.



Figure 8. Drone footage of Dob Park Reservoir and A611 after the flooding (picture courtesy of Stag Communications)

20. Witnesses report significant volumes of water flowing down Greenwood Vale towards Greenwood Avenue resulting in devastating flooding to many properties. Figure 9 shows the impacts of the flooding.



Figure 9. Flooding to Greenwood Vale / Greenwood Avenue

21. Management of surface water flows in the catchment is quite complex and, whilst there is no evidence of operational failure, it is acknowledged that the capacity of the various existing assets must have been exceeded in places. This exceedance may well be due to the unprecedented amounts of rain delivered during Storm Babet, however as part of our response to the flooding we are commissioning a detailed investigation into the current hydraulic performance and interaction of the surface water assets in the area including Dob Park Reservoir. This investigation will help to understand whether the existing assets perform to the required design standards and whether there are any improvements necessary to the system.

Risk Management Authorities and their responsibilities

22. The 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.

23. Ashfield 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.

24. 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;

- i. Surface water sewers – these carry rainfall and surface water away from properties to watercourses;
- ii. Foul water sewers – these carry wastewater away from properties to be treated;
- iii. Combined water sewers – these drain both wastewater and surface water from properties along with run off from highways.
- iv. Managing the impact of flooding to their networks by ensuring their systems have the appropriate level of resilience to flooding.
- v. Engage with RMAs on how water and sewerage company assets impact on local flood risk.
- vi. 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 Flooding

25. 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:

26. 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.
- p) Commissioned investigation into various surface water assets serving the Dob Park catchment with a view to ensuring a clear understanding of condition, performance and ownership.
- q) Liaised with residents and landowner regarding Polperro Way flooding and improvements to be made in the area.

27. Ashfield District Council

- a) From a pro-active aspect, ADC carried out inspections of the watercourses and drainage assets we are responsible for in Hucknall on the 19th October 2023 to ensure grids etc. were clear and water was flowing.
- b) Senior Officers from ADC attended all Nottingham & Nottinghamshire LRF Strategic, Tactical, and Recovery Co-ordinating Group Meetings and the LRF Communication Cell which had also been stood up.
- c) Stood up ADC Internal Incident Management Team in response to the situation.
- d) Made reference to the LRF's Local Flood Plans for guidance (covering Hucknall & Jacksdale areas).
- e) Operationally, provided emergency response support in management of the flood event, working with colleagues from the LLFA prioritising attendance to affected properties, deploying sandbags to prevent internal flooding of domestic premises.
- f) Opened a Rest Centre at Hucknall Leisure Centre for evacuees from severely flooded domestic properties in Hucknall.
- g) Made offer of assistance/mutual aid to Newark & Sherwood District Council in terms of making the Rest Centre available for use for evacuees from Newark & Sherwood.
- h) Scaled back the Rest Centre to a temporary place of safety when considered appropriate to do so once reasonably accurate numbers of evacuees requiring assistance had been established.
- i) Provided flood advice communications to members and other stakeholders through the various social media channels and platforms available to the Authority including a new Flood Advice page on the ADC website with links to well established flood advice resource such as NCC and Environment Agency web pages.
- j) Held an internal Storm Babet debrief identifying several learning outcomes and actions.

- k) Attended the Nottingham & Nottinghamshire LRF Storm Babet debrief meeting at the Environment Agency's Trentside offices – awaiting report and recommendations / learning outcomes.
- l) Actively engaged in the Section 19 Flood Investigation and provided support to the Lead Local Flood Authority.

28. Environment Agency

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.

29. Severn Trent Water Ltd

- a) Mobilised operational crews to areas that were reported as sewer flooding however did not find any sewer related issues..
- b) Actively engaged with LLFA on Section 19 report.

Additional Information and Future Actions

- 30. 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 contained within this report.
- 31. Previous significant capital investment into Flood Risk in Hucknall reduced the impacts of Storm Babet. Dob Park reservoir held 24000m³ of water away from the residential areas of Hucknall. The areas downstream of Titchfield Park reported only one internally flooded property as did the Thoresby Dale area. Both these areas have suffered much wider spread devastation of flooding in previous storm events.
- 32. The following are actions proposed by Ashfield District Council:
 - a) Implementation of learning outcomes/recommendations from ADC's internal Storm Babet debrief including new Flood Advice page on website, Rest Centre review with NCC colleagues, production of Flood Action Card for the ADC Major Emergency Plan, undertake business continuity test/exercise(s), roll out of the LRF's 'Concept of Operations' training course for all ADC Executive and Assistant Directors.
 - b) Implementation of any additional learning outcomes/recommendations from the LRF's Storm Babet debrief applicable to ADC when these are made available.
 - c) Review need to increase internal stock of sandbags.
 - d) Work with LLFA partners in any flood attenuation/prevention works in future.
- 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 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.

35. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX N

SECTION 19 REPORT – JACKSDALE – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Ashfield District Council (ADC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA) and Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Jacksdale is a village located in the Ashfield District of Nottinghamshire close to the Nottinghamshire / Derbyshire boundary. It has a population of approximately 3100.
7. Between 12:00 noon on the 18 and 23:00 on the 20 October, 125.8mm of rainfall was recorded at the Sutton in Ashfield rain gauge, which is approximately 8km from Jacksdale (Figure 1).

- 8. 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.
- 9. During Storm Babet, 6 residential properties in Jacksdale were subject to internal flooding with more suffering flooding to gardens and outbuildings.

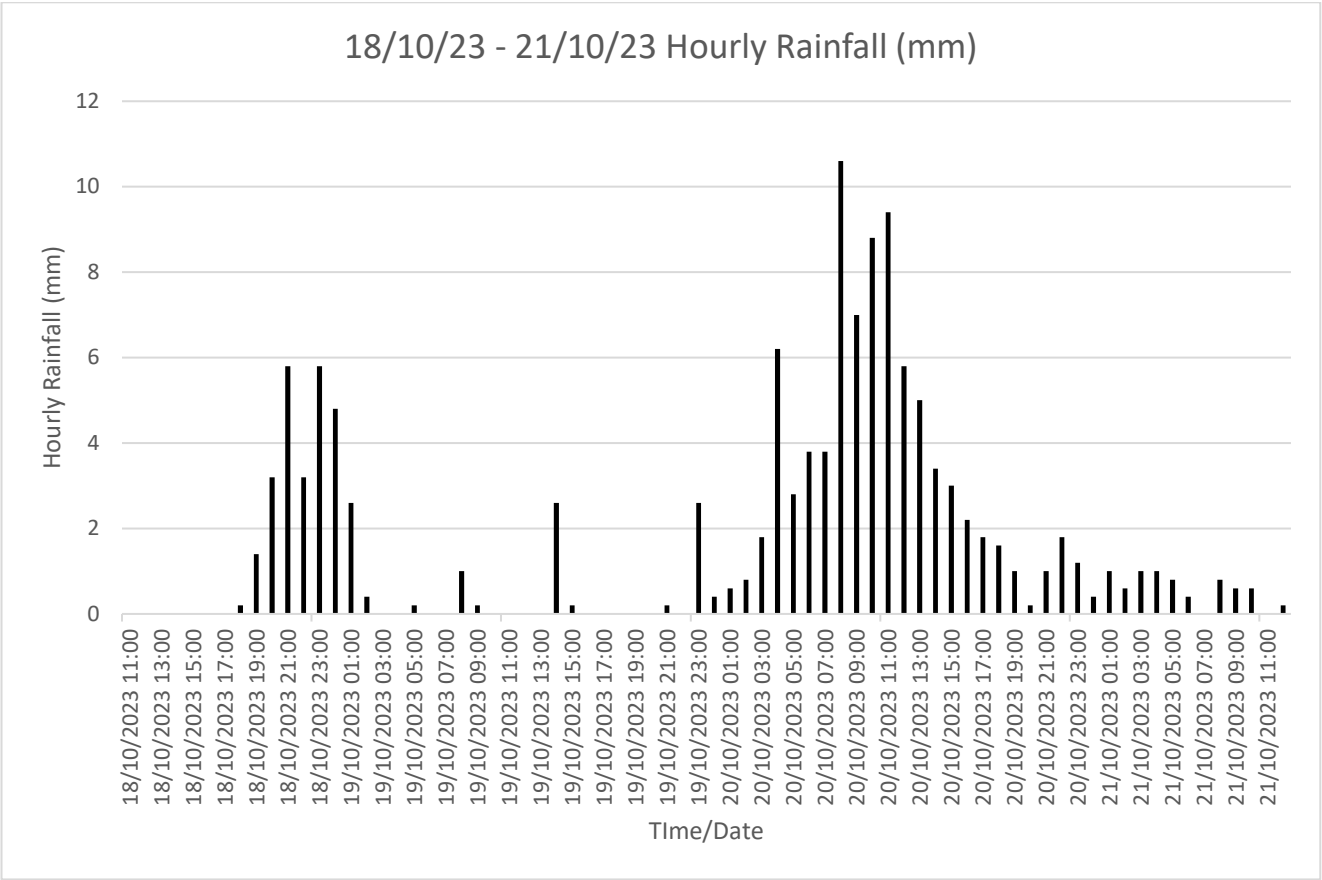


Figure 1. Sutton in Ashfield Hourly Rainfall from 12:00 18 to 23:00 20 October 2023.
Data supplied by the Environment Agency.

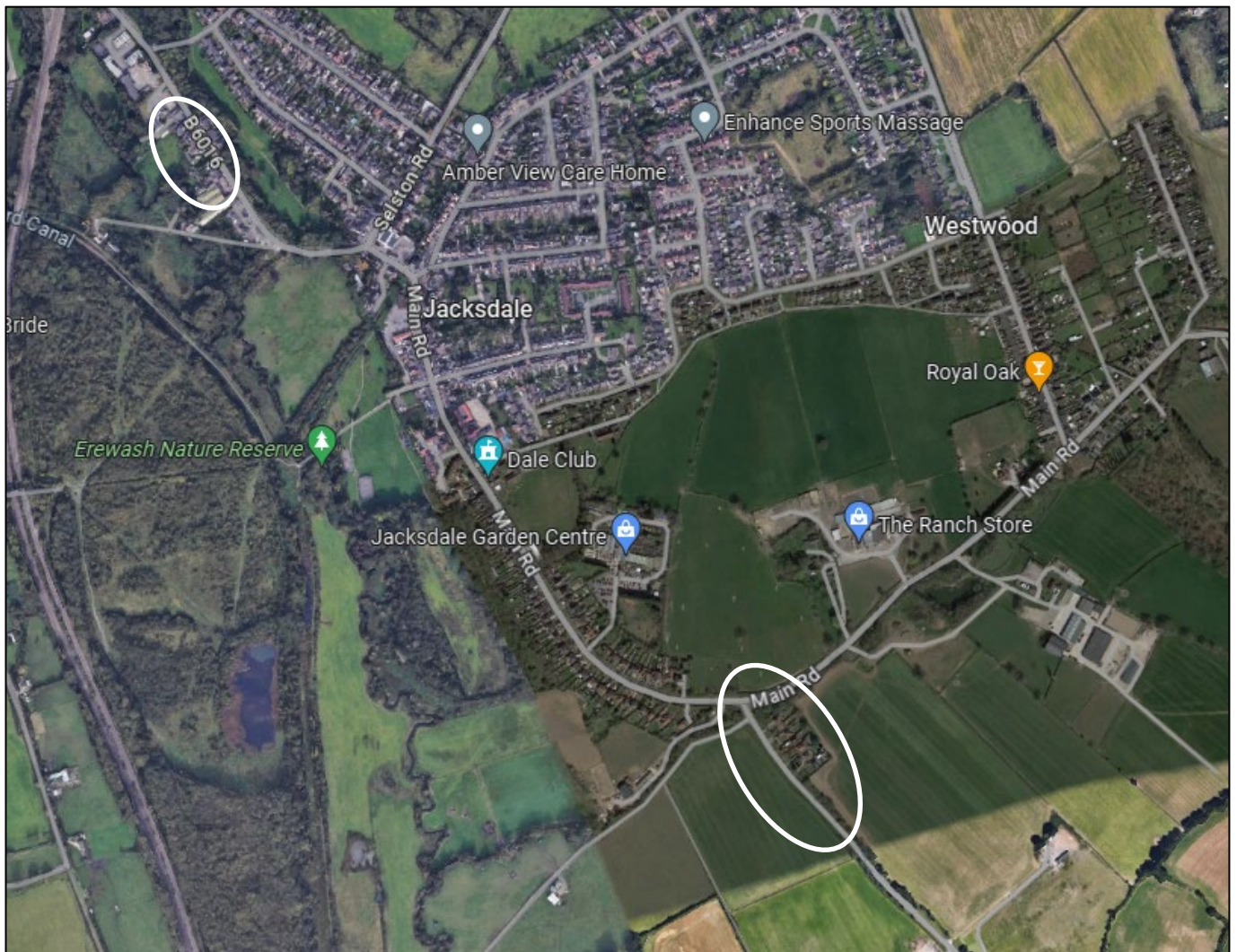


Figure 2. View of Jacksdale highlighting areas affected by internal flooding.

Summary of flooding and its causes

10. The flooding that occurred in Jacksdale during Storm Babet came from overland surface water flows with the Brinsley Hill flooding mimicking previous flood events.
11. Surface water that fell on the catchment, already saturated following the extensive amounts of rainfall that had fallen in the period before the storm, flowed overland resulting in flooding.
12. Figures 3 and 4 show the predicted risk of flooding as published by the Environment Agency's Flood Map for Planning (<https://flood-map-for-planning.service.gov.uk>).

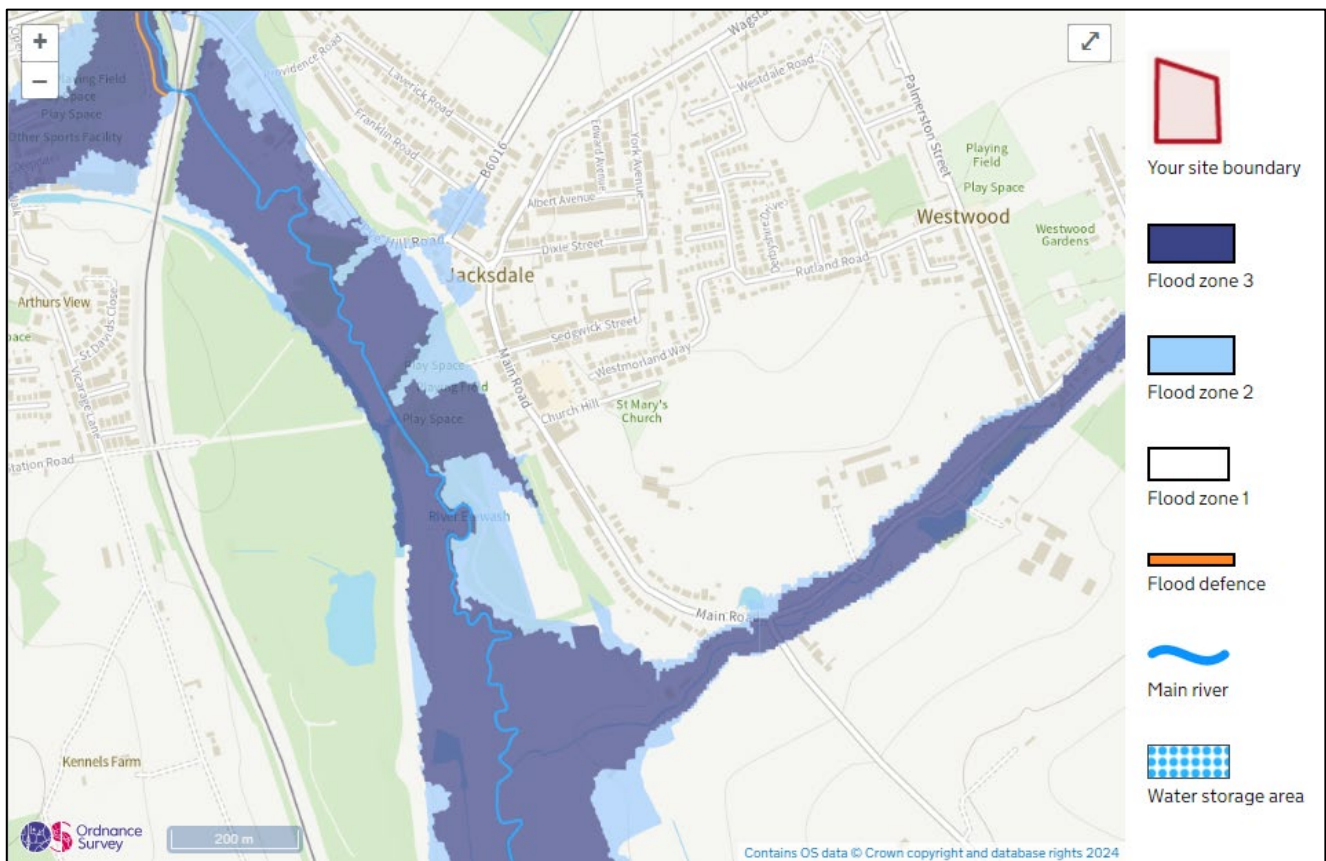


Figure 3. Predicted Flood Zone Extents (FZ3 is darkest area)



Figure 4. Predicted Surface Water Flood Extents

Figures 3 and 4 help to confirm the areas naturally occurring risk of flooding and correlate with the majority of flooding experienced during Storm Babet.

Risk Management Authorities and their responsibilities

13. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

14. Ashfield 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.

Risk Management Authority Responses to Flooding

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

16. 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.

17. Ashfield District Council

- a) From a pro-active aspect, ADC carried out inspections of the watercourses and drainage assets we are responsible for in Sutton, Kirkby and Jacksdale on the 19th October 2023 to ensure grids etc. were clear and water was flowing.
- b) Senior Officers from ADC attended all Nottingham & Nottinghamshire LRF Strategic, Tactical, and Recovery Co-ordinating Group Meetings and the LRF Communication Cell which had also been stood up.
- c) Stood up ADC Internal Incident Management Team in response to the situation.
- d) Made reference to the LRF's Local Flood Plans for guidance (covering Hucknall & Jacksdale areas but principles applied to Sutton and Kirkby response also).
- e) Operationally, provided emergency response support in management of the flood event, working with colleagues from the LLFA prioritising attendance to affected properties, deploying sandbags to prevent internal flooding of domestic premises.
- f) Opened a Rest Centre at Hucknall Leisure Centre for evacuees from severely flooded domestic properties in Hucknall. However this was also available for use by residents from other communities in the District of Ashfield (and other LA areas) should this have been required throughout the flood event.
- g) Provided flood advice communications to members and other stakeholders through the various social media channels and platforms available to the Authority including a new Flood Advice page on the ADC website with links to well established flood advice resource such as NCC and Environment Agency web pages.
- h) Held an internal Storm Babet debrief identifying several learning outcomes and actions.
- i) Attended the Nottingham & Nottinghamshire LRF Storm Babet debrief meeting at the Environment Agency's Trentside offices – awaiting report and recommendations / learning outcomes.
- j) Actively engaged in the Section 19 Flood Investigation and provided support to the Lead Local Flood Authority.

Additional Information and Future Actions

18. 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 contained within this report.
19. Nottinghamshire County Council have now installed property flood resilience measures to 3 of the 4 properties on Brinsley Hill as part of their Property Flood Resilience programme. This work was planned prior to Storm Babet due to historic flooding and NCC will now consider adding the remaining property onto our programme for consideration.
20. Previous investigations identified the need for improvements to the highway drainage on Brinsley Hill and this work is being considered for inclusion in future highway maintenance programmes.
21. Ashfield District Council have proposed the following actions:
 - a) Implementation of learning outcomes/recommendations from ADC's internal Storm Babet debrief including new Flood Advice page on website, Rest Centre review with NCC colleagues, production of Flood Action Card for the ADC Major Emergency Plan, undertake business continuity test/exercise(s), roll out of the LRF's 'Concept of Operations' training course for all ADC Executive and Assistant Directors.
 - b) Implementation of any additional learning outcomes/recommendations from the LRF's Storm Babet debrief applicable to ADC when these are made available.
 - c) Review need to increase internal stock of sandbags.
 - d) Work with LLFA partners in any flood attenuation/prevention works in future.
22. 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.
23. 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.
24. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX O

SECTION 19 REPORT – KIRKBY IN ASHFIELD – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: "SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023".

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Ashfield District Council (ADC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Kirkby in Ashfield is a market town in Nottinghamshire with a population of approximately 25,265 people according to the 2001 census.
7. On the 20th October, during Storm Babet, Kirkby in Ashfield suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 125mm of rainfall was recorded at the Sutton in Ashfield rain gauge as show by Figure 1 below.

8. 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.

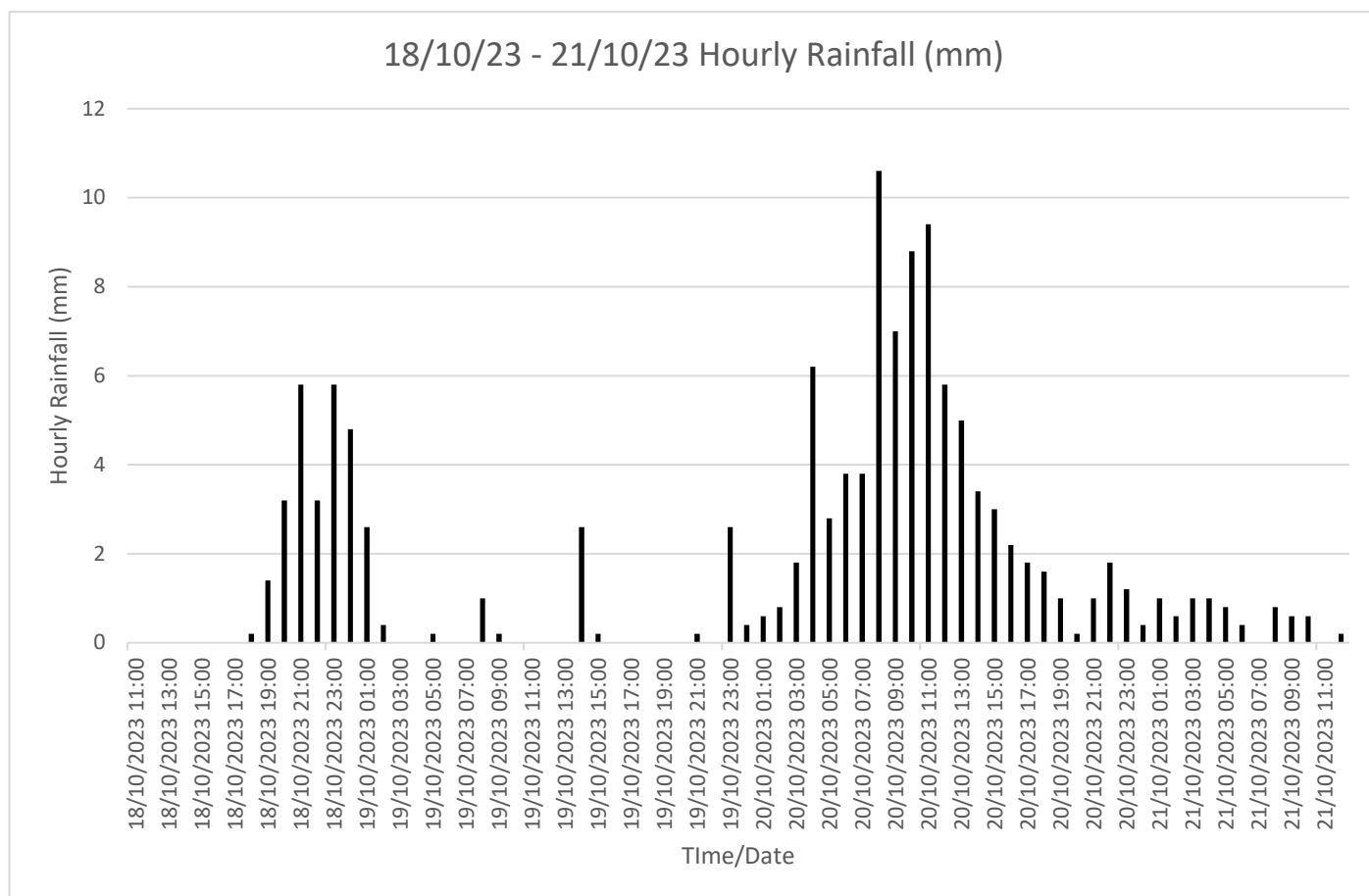


Figure 1. Sutton in Ashfield Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

9. The internal flooding was localised in nature across 4 areas of Kirkby in Ashfield. Figures 3 – 5 highlight these specific areas and identify the affected roads and where internal property flooding was present.
- a) Figure 3:
 - i. Cherry Avenue – 1 property,
 - ii. Sutton Road – 3 properties,
 - b) Figure 4:
 - i. Kirkby Mill View – 1 property,
 - c) Figure 5:
 - i. Lindley's Lane – 1 property.
10. During Storm Babet most highway drainage assets were unable to cope with discharging the amount of water that fell within the small time period, as this was beyond their design

capacity. This led to various instance of highway flooding which subsequently flooded properties due to a combination of run off and bow waves from vehicles driving through the flood water.

11. In some locations across Kirkby in Ashfield these issues were also exacerbated by additional surface water flows from adjacent fields, farmland and green spaces. Figure 2 below shows the affected areas across Kirkby in Ashfield.

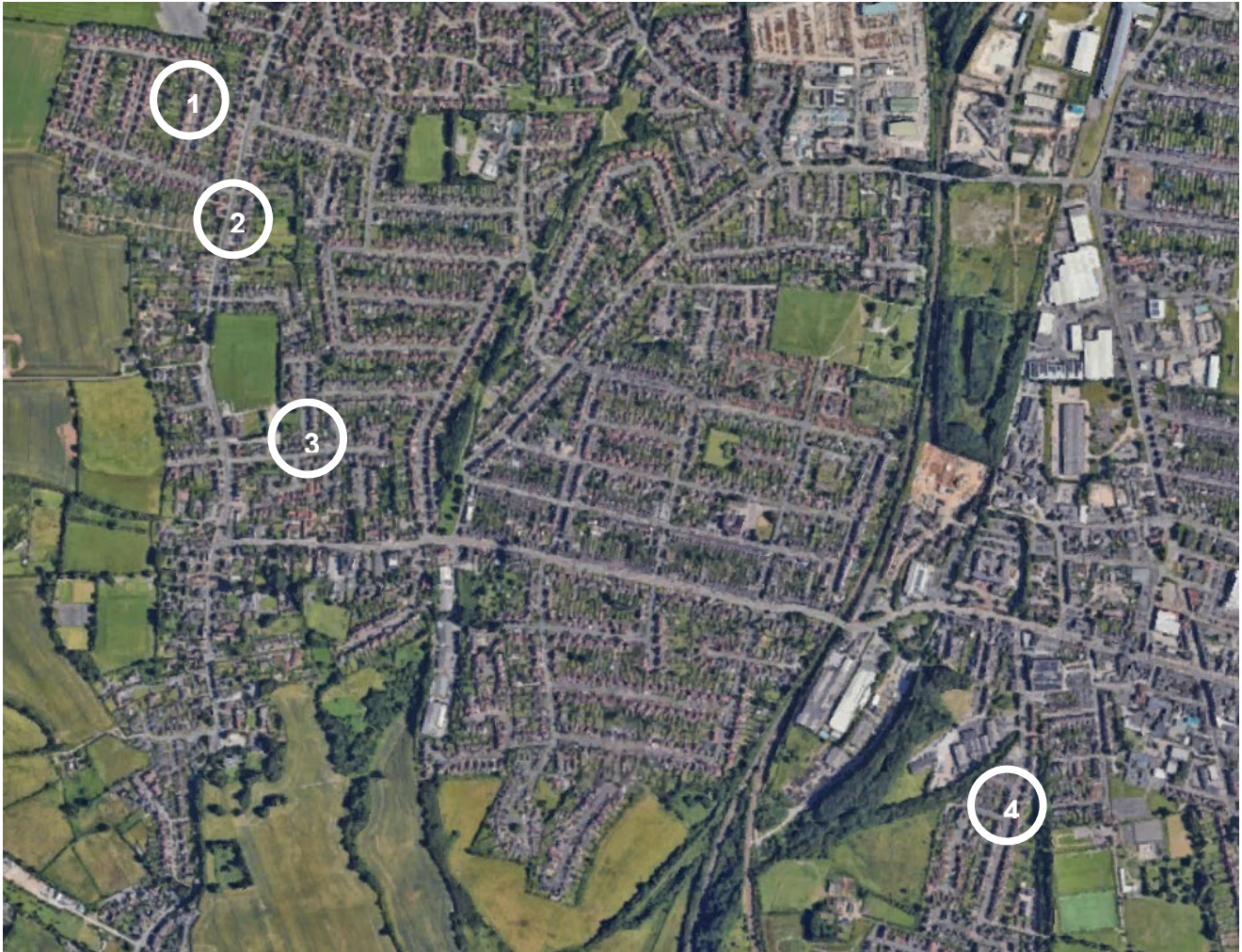


Figure 2: Reference View for affected areas across Sutton in Ashfield. Cherry Avenue (1), Sutton Road (2), Kirkby Mill View (3), Lindley's Lane (4).



Figure 3: Reference View for affected roads: Cherry Avenue & Sutton Road.



Figure 4: Reference View for affected roads: Kirkby Mill View.



Figure 5: Reference View for affected roads: Lindley's Lane.

Risk Management Authorities and their responsibilities

12. 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. Lead Local Flood Authorities also have a 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council)

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

13. Ashfield District Council

- i. 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.

Risk Management Authority Responses to Flood

14. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:

15. 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.

16. Ashfield District Council:

- a) From a pro-active aspect, ADC carried out inspections of the watercourses and drainage assets we are responsible for in Sutton, Kirkby and Jacksdale on the 19th October 2023 to ensure grids etc. were clear and water was flowing.
- b) Senior Officers from ADC attended all Nottingham & Nottinghamshire LRF Strategic, Tactical, and Recovery Co-ordinating Group Meetings and the LRF Communication Cell which had also been stood up.
- c) Stood up ADC Internal Incident Management Team in response to the situation.
- d) Made reference to the LRF's Local Flood Plans for guidance (covering Hucknall & Jacksdale areas but principles applied to Sutton and Kirkby response also).
- e) Operationally, provided emergency response support in management of the flood event, working with colleagues from the LLFA prioritising attendance to affected properties, deploying sandbags to prevent internal flooding of domestic premises.
- f) Opened a Rest Centre at Hucknall Leisure Centre for evacuees from severely flooded domestic properties in Hucknall. However this was also available for use by residents from other communities in the District of Ashfield (and other LA areas) should this have been required throughout the flood event.
- g) Provided flood advice communications to members and other stakeholders through the various social media channels and platforms available to the Authority including a new Flood Advice page on the ADC website with links to well established flood advice resource such as NCC and Environment Agency web pages.
- h) Held an internal Storm Babet debrief identifying several learning outcomes and actions.
- i) Attended the Nottingham & Nottinghamshire LRF Storm Babet debrief meeting at the Environment Agency's Trentside offices – awaiting report and recommendations / learning outcomes.
- j) Actively engaged in the Section 19 Flood Investigation and provided support to the Lead Local Flood Authority.

Additional information and future actions

- 17. 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 contained within this report.
- 18. Ashfield District Council have proposed the following actions:
 - a) Implementation of learning outcomes/recommendations from ADC's internal Storm Babet debrief including new Flood Advice page on website, Rest Centre review with NCC colleagues, production of Flood Action Card for the ADC Major Emergency Plan, undertake business continuity test/exercise(s), roll out of the LRF's 'Concept of Operations' training course for all ADC Executive and Assistant Directors.
 - b) Implementation of any additional learning outcomes/recommendations from the LRF's Storm Babet debrief applicable to ADC when these are made available.
 - c) Review need to increase internal stock of sandbags.
 - d) Work with LLFA partners in any flood attenuation/prevention works in future.
- 19. 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. NCC will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
- 20. 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.

APPENDIX P

SECTION 19 REPORT – KIRKLINGTON – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: "SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023".

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark and Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC & 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. Kirklington is a village in the Newark and Sherwood District of Nottinghamshire with a population of approximately 400 people according to the 2011 census.

7. On the 20th of October, during Storm Babet, Kirklington suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 124mm of rainfall was recorded at the Staythorpe rain gauge (Figure 1).
8. 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.

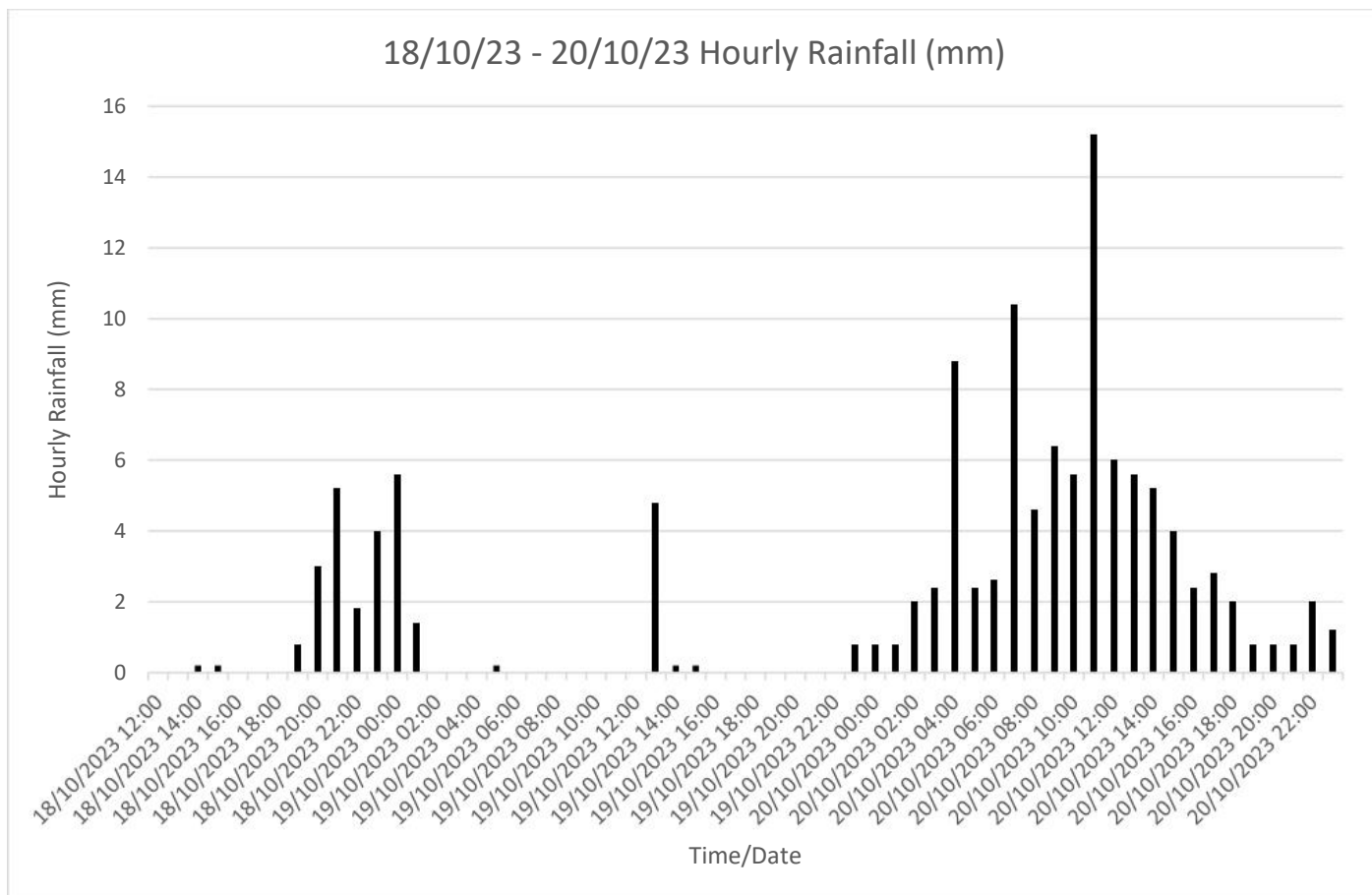


Figure 1: Staythorpe Hourly Rainfall 18th October 2023.
Data supplied by the Environment Agency.

9. Internal property flooding affected different areas with Kirklington; Main Street (4 properties), Church Lane (1 property), Southwell Road (2 properties), and The Crops (2 properties).
10. Figures 2 and 3 highlight the areas affected.



Figure 2: Reference View for affected area in Kirklington: Main Street and Church Lane.



Figure 3: Reference View for affected area in Kirklington: Southwell Road and The Crops.

11. Evidence as to the causes of the flooding have been supplied by the local community. Figure 4 below is an extract from the Environment Agency's surface water flood risk maps that shows specific areas of risk across Kirklington.

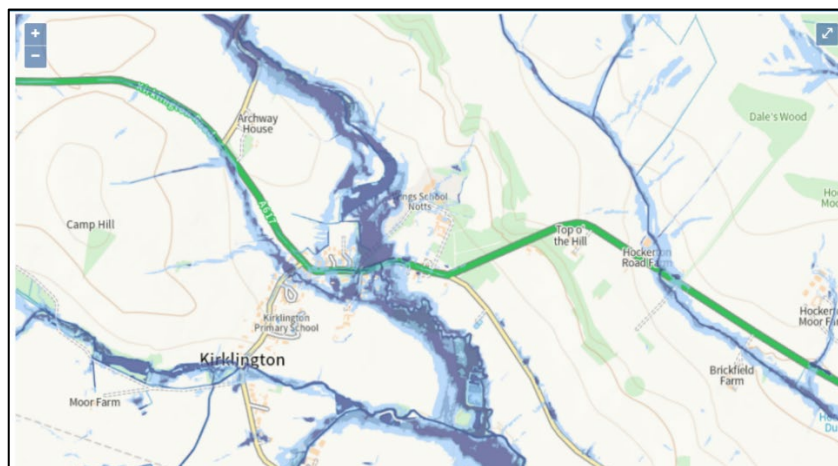


Figure 4: Environment Agency: Surface Water Risk Mapping for Kirklington

12. Main Street (A617 Flooding)

During Storm Babet substantial surface water ran off agricultural land both north and south of the A617, which subsequently flowed down the A617 towards the village. This flow overtopped the highway in areas with low and dropped kerbs resulting in various instance of internal property flooding across Main Street. The flooding was further exacerbated by additional flows from the east of the A617 with further flows from adjacent agricultural land entering the A617. Figure 5 below highlights the flow of surface water during the event.



Figure 5: Surface Water flows in Kirklington.

13. Within Kirklington there are 4 named watercourses: River Greet, Edingley Beck, Northern Drain and Southern Drain. During this event 1 property was affected due to the overtopping of the Northern Drain, 2 properties affected as a result of the Southern Drain, 2 properties affected as a result of the Edingley Beck and 1 property as a result of the River Greet. In all these instances this was caused by the overtopping of watercourses due to the quantity of water falling in and around the catchment.

Risk Management Authorities and their responsibilities

14. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

15. Newark and Sherwood District Council

- i. 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.

16. Severn Trent Water Ltd.

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

- 17. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:
- 18. 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.
- p) Met with community representatives to discuss the flooding and consider ways of supporting the community.

19. Newark and Sherwood District Council:

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.

- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

20. Severn Trent Water

- i. Actively engaged with the Section 19 flood investigations.
- ii. Received reports regarding flooding from foul water sewers and are completing ongoing investigations into the source of the flooding.
- iii. Deployed tankers in January.
- iv. Received reports concerning operation / overloading of the pumping station and are undertaking further investigations into these concerns.

Additional information and future actions

- 21. The local community spirit and resilience during the flooding must be recognised as without their efforts the impacts of the flooding could have been worse. They provided a significant input into the writing of the Section 19 report and their local knowledge and understanding of the flooding will be an essential part of moving forward.
- 22. 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 contained within this report.
- 23. 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. NCC will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
- 24. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible. A community flood signage scheme is being developed in Bilsthorpe with support from NCC. Officers for the Flood Risk Management team are working with the community to help them develop a local flood action group.
- 25. 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.
- 26. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX Q

SECTION 19 REPORT – LANEHAM – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: "SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023".

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 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, Severn Trent Water Ltd (STW) and Trent Valley Internal Drainage Board (TVIDB).
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. Laneham is a village within the District of Bassetlaw, Nottinghamshire. It has a population of approximately 392 people according to the 2021 census.
7. The North Beck is managed by the Trent Valley Internal Drainage Board and runs from west to east through the village.
8. On the 20th October, during Storm Babet, Laneham suffered a flood event caused by sustained heavy rainfall. Between 12:00 noon on the 18th and 23:00 on the 20th October,

124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 22km from Laneham (Figure 1). Consequently, 7 residential 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.

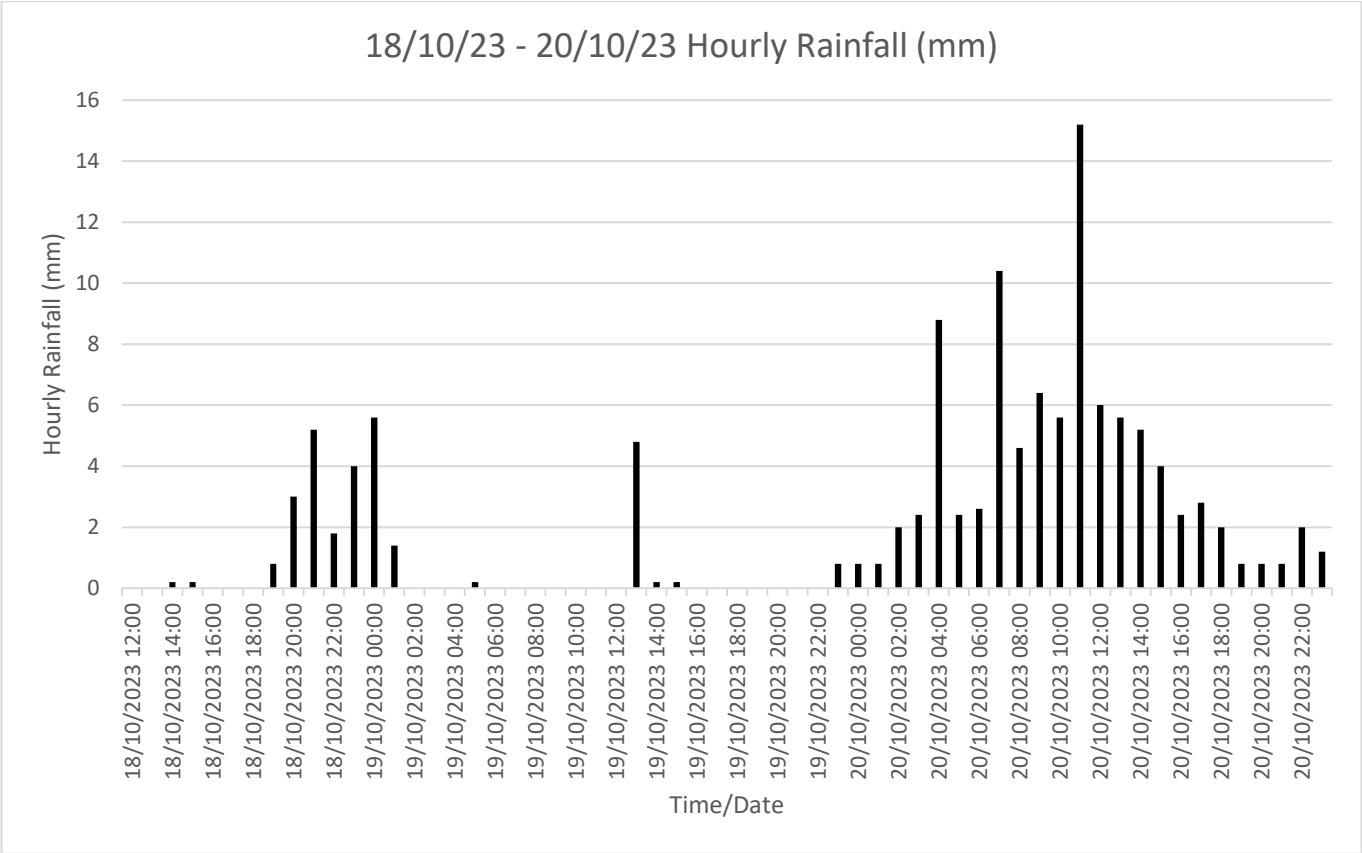


Figure 1. Staythorpe Hourly Rainfall from 12:00 18th to 23:00 20th October 2023. Data supplied by the Environment Agency.

10. A location map of Laneham is shown in Figure 2. The areas affected were:
- Dunham Road (5)
 - Laneham Road (2)

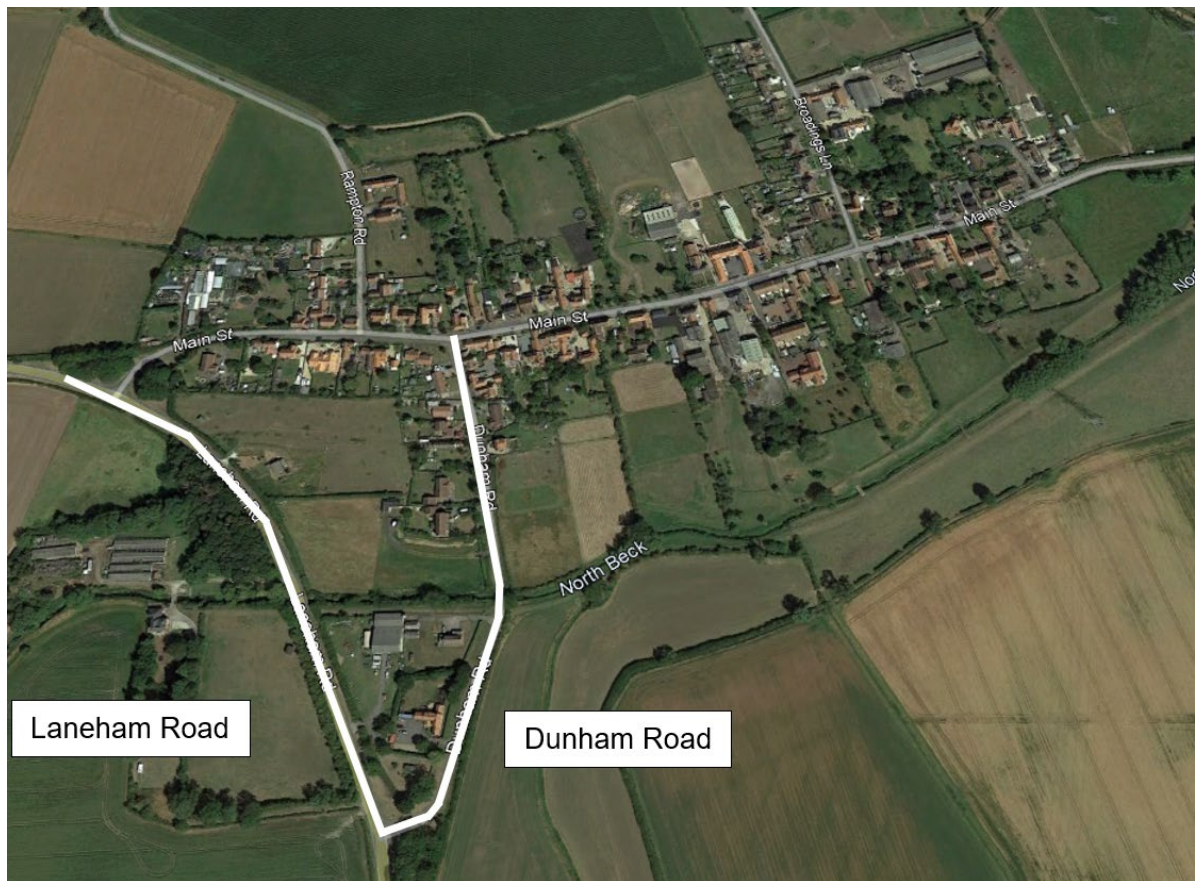


Figure 2. View of Laneham flood affected areas.

Summary of flooding and its causes

11. Due to the prolonged heavy rainfall water levels in the The North Beck rose, ultimately overwhelming the culvert under Dunham Road. Initially the resultant flood water which came out of bank here is described as passing over the road and back into the beck and open fields, however soon after it reached levels where it instead ran down the road itself. This follows the topography of the road as a result of the bridge forming a hump, pushing water to the north and south of the bridge.
12. There was also a significant flow of water identified to be coming directly off fields to the West of Laneham Road, flowing directly onto Dunham Road, with some flowing down the road and some flowing into open fields to the east. This is shown in Figure 4.
13. As a result of the above noted flows from the North Beck and across fields, five residential properties suffered internal flooding on Dunham Road.

(1)

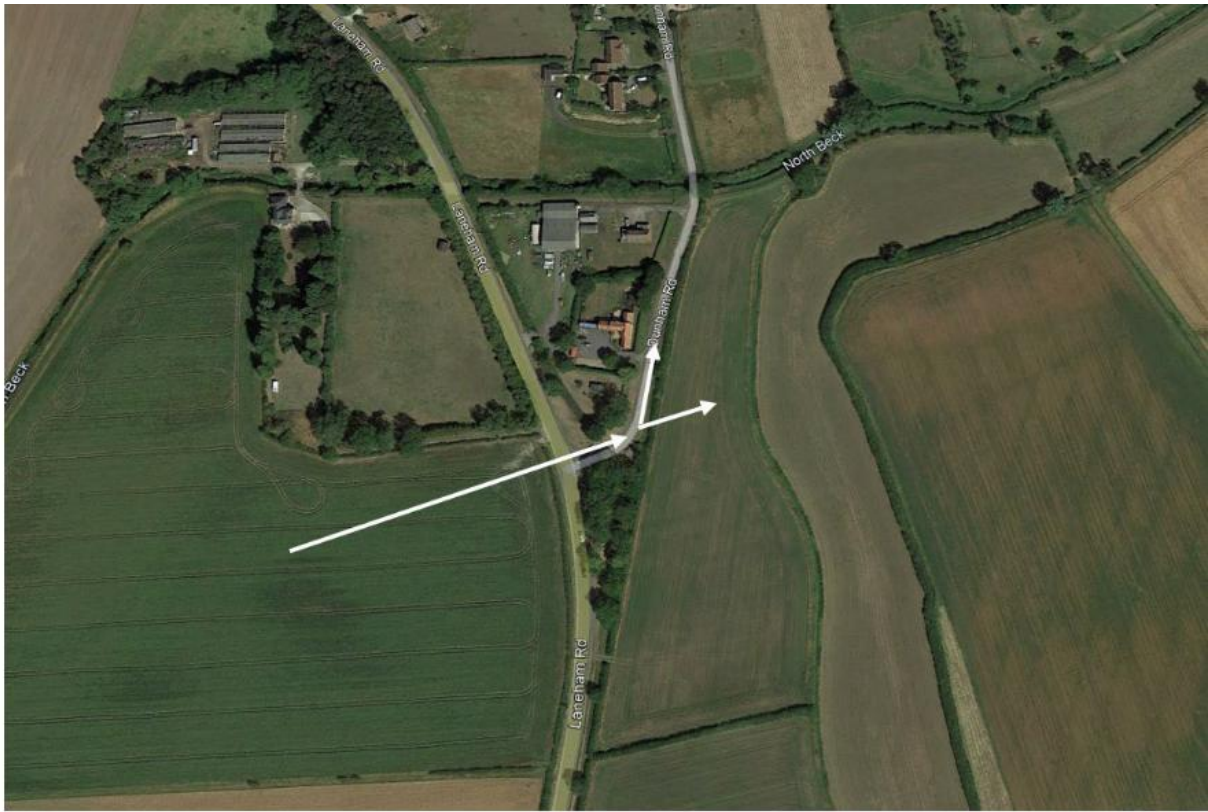


Figure 3. Observed Flow Routes

14. On Laneham Road 2 properties were internally flooded as a direct result of the North Beck bursting its banks. The fluvial flood extent mapping for this area is shown in Figure 4. While this broadly notes the trend of the flooding it does have inaccuracies due to the coarseness of the mapping at this scale.

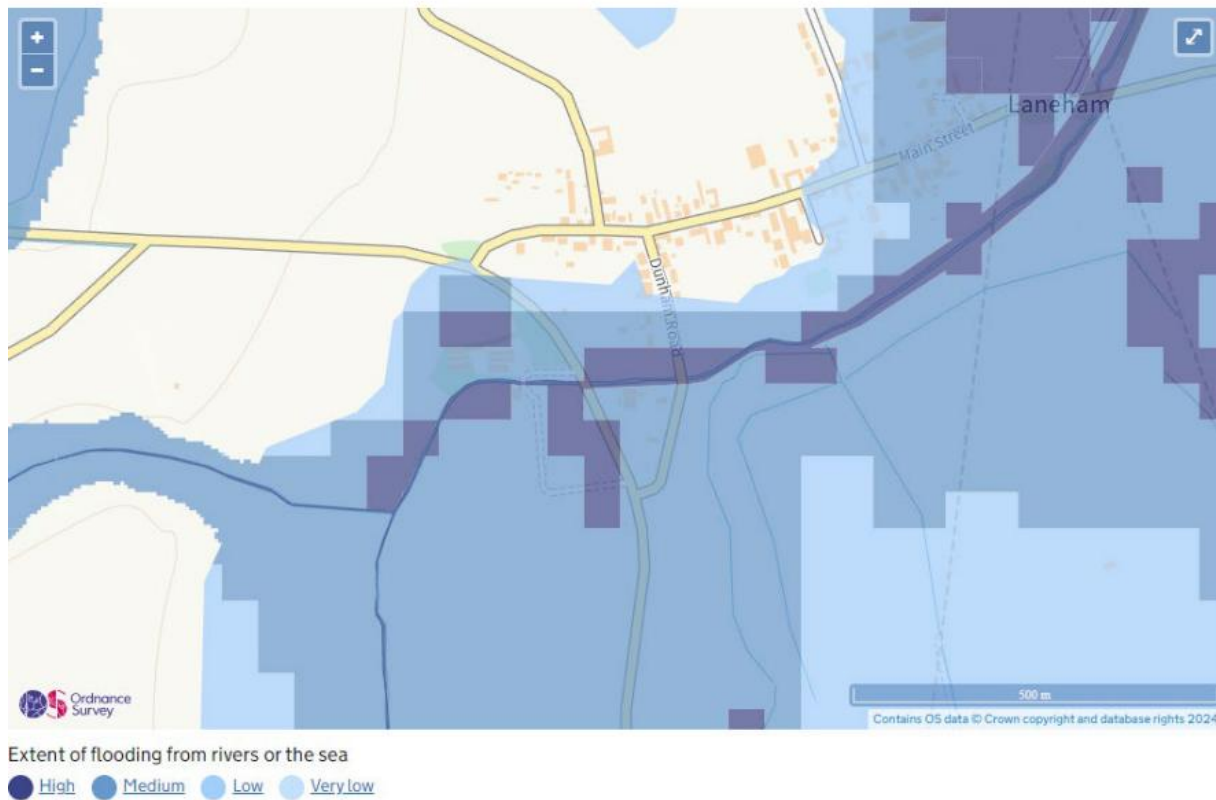


Figure 4. Fluvial Flood Risk Mapping. Data provided by the Environment Agency.

Risk Management Authorities and their responsibilities

15. 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.

16. 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.

17. 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.

18. Trent Valley Internal Drainage Board (TVIDB)

- a) Has a duty to manage flood risk and land drainage within areas of special drainage need in the Trent Valley.
- b) Has permissive powers to undertake work to provide water level management within their area.
- c) Undertake works to reduce flood risk to people and property and manage water levels for local needs including the maintenance of rivers, drainage channels, outfalls and pumping stations.

Risk Management Authority Responses to Flood

19. 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:

20. 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.
- p) Met with the community following the event to understand the nature of the flooding and inform the Section 19 report and next steps.

21. 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.

22. Trent Valley Internal Drainage Board

- a) The IDB is working closely with lead partners to identify and deliver appropriate solutions including supporting funding applications and with engineering and design expertise.
- b) In all parts of the IDB districts the regular annual maintenance regime has been and will continue to be delivered to reduce risk and identify potential risk areas.

Additional Information and Future Actions

- 23. 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.
- 24. 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.
- 25. The LLFA will liaise with Severn Trent Water regarding the reported foul pumping station issues.
- 26. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible.
- 27. 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.

28. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.
29. Bassetlaw District Council participated in the LRF Storm Babet Debrief and learning review meeting which identified a number of future actions.
30. Bassetlaw District Council has undertaken an internal review of the response to Storm Babet which identified a number of future actions.
31. 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.
32. 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.

APPENDIX R

SECTION 19 REPORT – LOWDHAM – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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), Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC, Severn Trent Water Ltd (STW) and Trent Valley Internal Drainage Board (TVIDB).
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. Lowdham is a village in the Newark and Sherwood District of Nottinghamshire and has a population of approximately 2832 at the 2011 census. The village sits in the Trent valley and its centre is approximately 3km from the River Trent. The village is served by a number of watercourses including the Cocker Beck and Dover Beck, both classed as main rivers. The Dover Beck runs to the north of the village whilst the Cocker Beck runs through the village, taking water from the north west to the river Trent in the south east. Figure 3 shows how the watercourses pass through the village.

7. Lowdham has a significant history of flooding with recently recorded events as follows; 1999 where 300 properties were flooded, 2007, 2012, 2013, 2019 and 2020, a number of which have been the subject of previous Section 19 reports. Triggered by this history of flooding The Environment Agency, as lead Risk Management Authority for Main Rivers have secured the necessary funding to construct a £25m flood alleviation project to protect the catchment and construction commenced late 2023. This project will reduce the risk and consequences of future flooding events. Following the significant flooding in 1999 the Environment Agency undertook flood storage works on the Cricket Pitch in 2000 to further reduce the risk in the catchment.
8. Between 12:00 noon on the 18 and 23:00 on the 20 October, 124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 11km from Lowdham (Figure 1).
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.
10. During Storm Babet, 136 residential properties and businesses in Lowdham were subject to internal flooding with more suffering flooding to gardens and outbuildings.

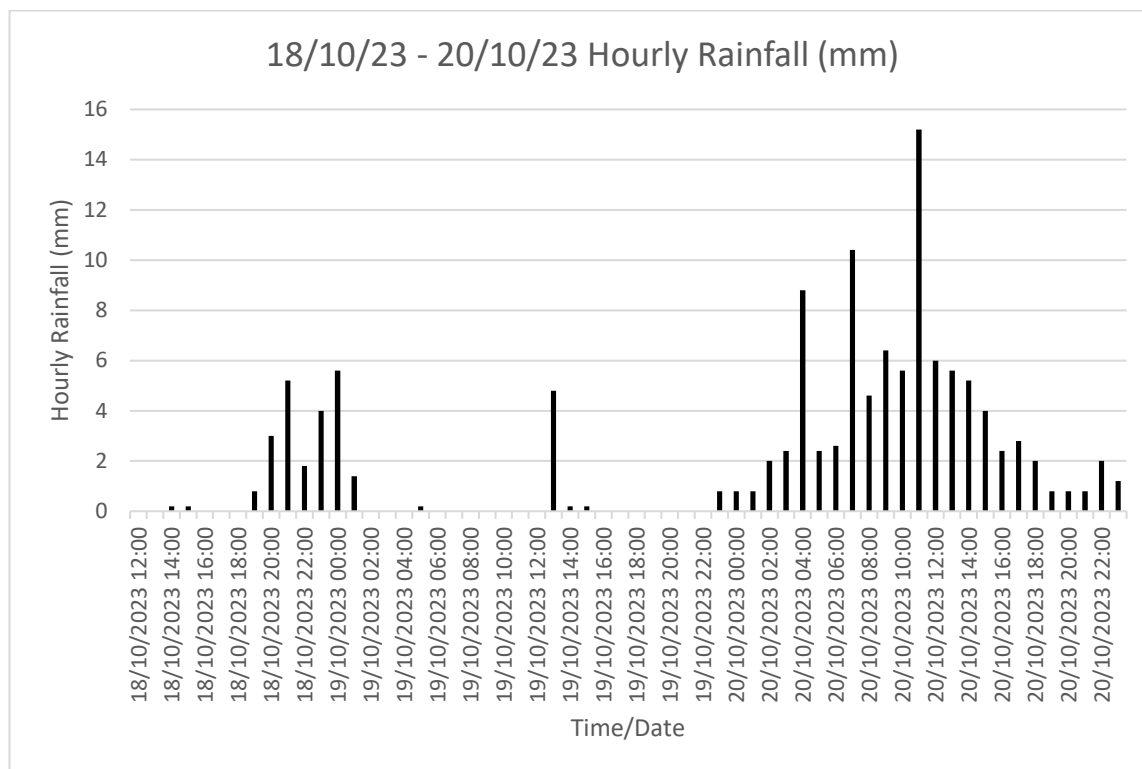


Figure 1. Staythorpe Hourly Rainfall from 12:00 18th to 23:00 20th October 2023. Data supplied by the Environment Agency.

11. Figure 2 highlights the areas that were subjected to internal flooding.

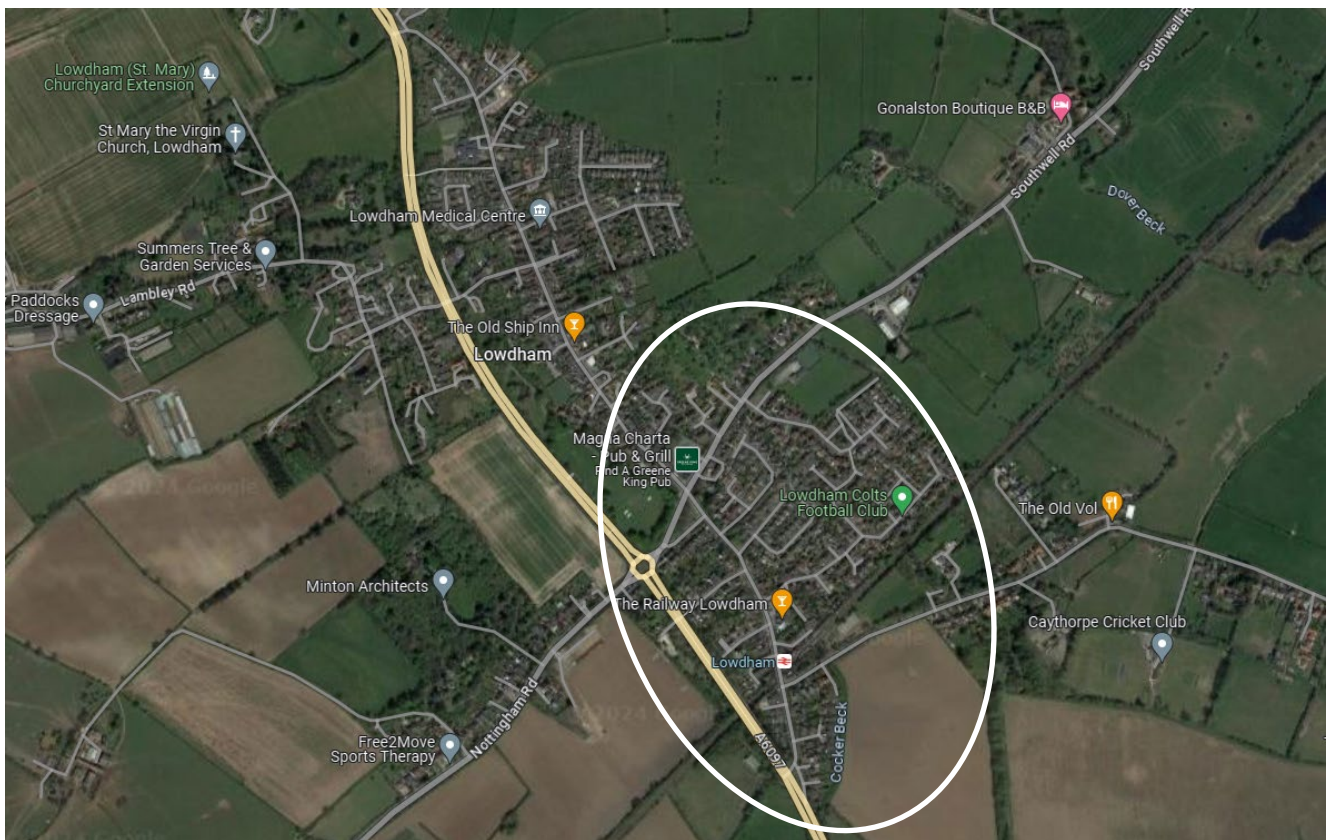


Figure 2. View of Lowdham highlighting areas affected by internal flooding.

Summary of flooding and its causes

12. During Storm Babet flood water came from a mixture of sources; river water from the Cocker Beck over-topping and flooding from surface water, the combination of these resulted in widespread flooding of properties, roads and open spaces across the catchment.
13. Lowdham has a significant history of flooding with recently recorded events in 1999, 2007, 2012, 2013, 2019 and 2020 some of which attributed flooding to similar causes as this event, including the over-topping of the Beck.
14. Lowdham has a steep surrounding topography with hills to the north west and east falling to create a valley which has the Cocker Beck flowing along the bottom of it. Water running off those fields feeds the Beck which runs in a southerly direction through Lowdham between the Epperstone By-Pass and Main Street.
15. Figures 6 & 7 below are extracts from the Environment Agency's flood risk mapping and clearly show how surface water flows and the over-topping of the Cocker Beck will impact on the catchment.
16. Surface water that fell on the fields in the upper catchment, already saturated following the extensive amounts of rainfall that had fallen in the period before the storm, flowed into the Cocker Beck overwhelming it causing over-topping and spilling out at points along its route. The sheer volume of water falling on the catchment resulted in significant overland flows with many of the roads including the Epperstone By-Pass and Main Street acting as channels for the water. The high levels of surface water and river water overwhelmed the existing surface water drainage system in the area resulting in the significant flooding that took place.
17. Witness statements supplied by Lowdham Flood Action Group are stated below. It must be noted that these are the views of the Lowdham Flood Action Group and have yet to

be verified by the responsible RMAs. Where applicable these statements will be used to assist in any further investigations in the catchment:

- i. The repaired left bank piling worked as it should and held the water back in the cricket/football pitch lagoon. There was then so much water that flowed down the beck that the lagoon completely filled and then over topped in all directions. The wall from the roundabout to the Magna was leaking slightly and we have a video of that that we sent to the Environment Agency.
- ii. The first flood in the village though was at 9am and was not caused by the lagoon over topping (circa 2pm) as there was water coming through the Magna car park and flowing towards the cottages on Southwell Road. We're not sure where this water was coming from but are investigating.
- iii. Prior to the beck overtopping significant road surface water was evident on Ton Lane West and Ton Lane East due to foul water rising from the Severn Trent system, the flooding on Ton Lane East required a road closure. This indicates that both pluvial and fluvial factors contributed to the flood and again it appears the Severn Trent sewers lacked capacity to accommodate the rainfall.
- iv. There were also flooding events that occurred after the beck had started to recede. This caused sewage water to come up through the drains in Blenheim. While the new reservoir may solve some of the Fluvial problems the drainage system in Lowdham needs looking at by Severn Trent.
- v. The water was slow in getting away down Old Tannery Dyke primarily because of the double culvert after Harrison's garage which is too high and too small.

18. Work has begun on an Environment Agency led £25m flood alleviation scheme that will see a storage reservoir built upstream of the village. This reservoir will hold water from the Cocker Beck reducing the likelihood of flooding to the village.



Figure 3. View of Lowdham showing approximate routes of The Cocker Beck and other watercourses through the village. (Watercourses shown as white lines with arrows showing direction of flow).

19. These watercourses and the topography of the village combine to create a natural risk of flooding to the area. Figures 4 and 5 show the predicted risk of flooding as published by

the Environment Agency's Flood Map for Planning (<https://flood-map-for-planning.service.gov.uk>).

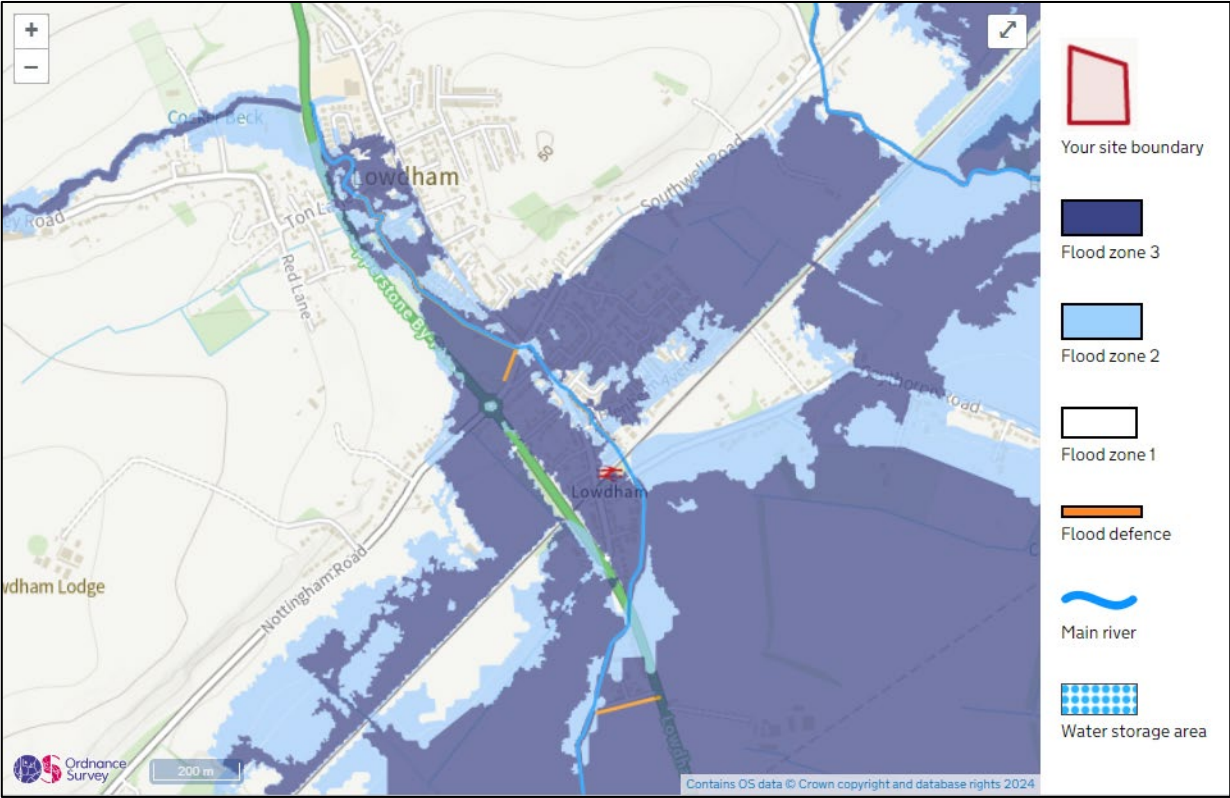


Figure 4. Predicted Flood Zone Extents (FZ3 is darkest area)

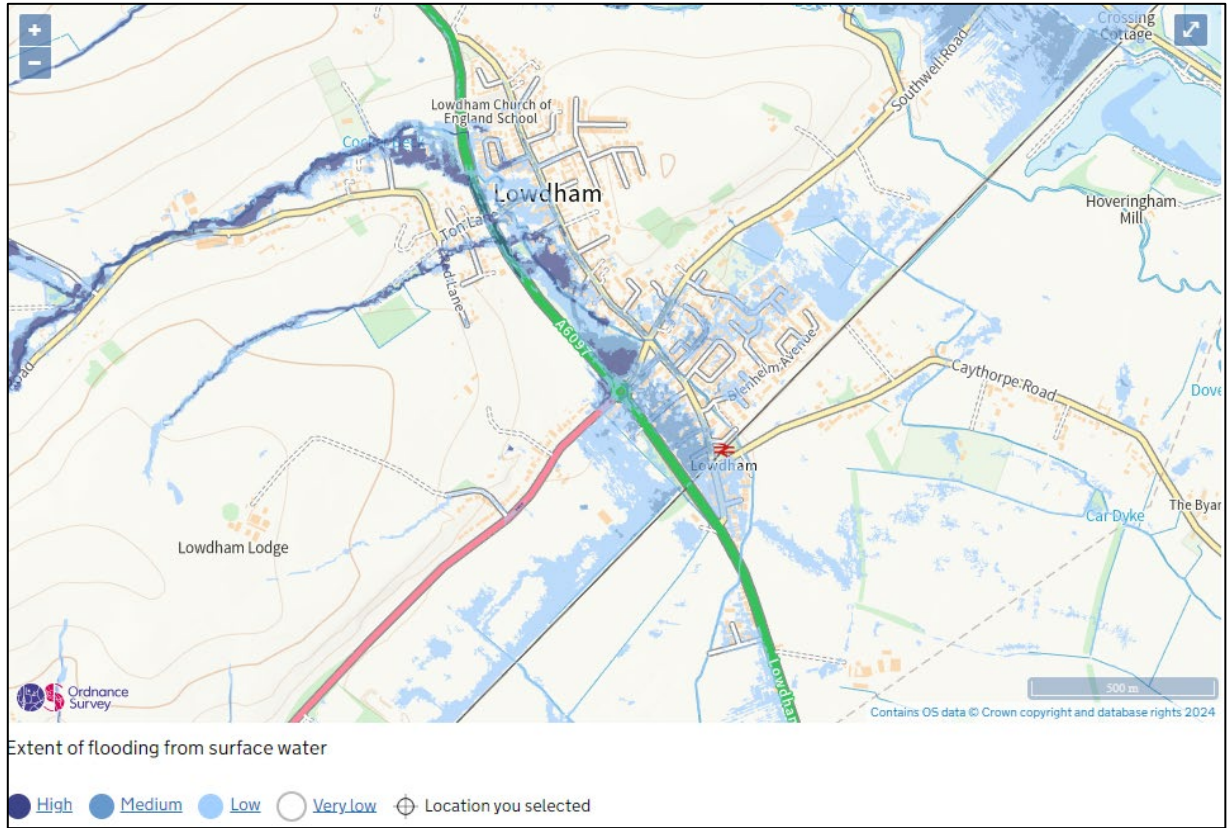


Figure 5. Predicted Surface Water Flood Extents

20. Figures 4 and 5 help to confirm the areas naturally occurring risk of flooding and correlate with the majority of flooding experienced during Storm Babet.

21. In addition to the flooding already identified there is an isolated area of flooding to the north of the catchment shown on Figure 6. This flooding occurs as surface water runoff from the catchment flows along the highway, into and across a residential property then cumulates in a discrete area causing flooding to one property. The cause of this flooding is independent to the flooding in the main village and will not benefit from any increased levels of protection provided by the flood alleviation reservoir.

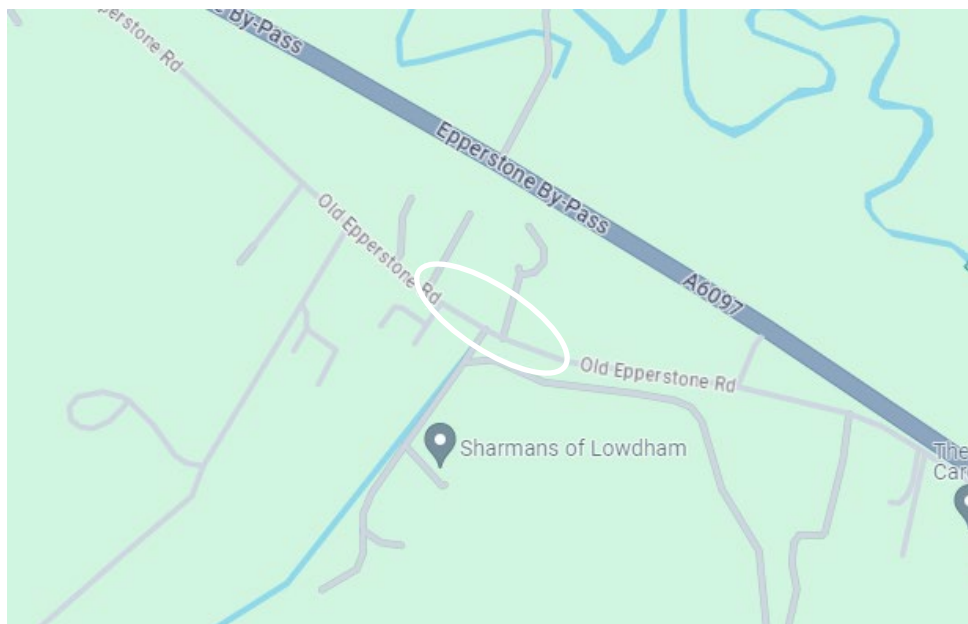


Figure 6. Isolated area of flooding to the north of Lowdham

22. The village benefits from an established and proactive community group that operates under the Lowdham Flood Action Group banner ([Flooding – Lowdham Volunteers](#)). During the flooding the resilience and community spirit shown within the village was exceptional and without it the consequences may well have been worse. The group provided valuable first-hand information on the flooding which has been used to help compile this report. The community adopts a very positive and proactive approach to flood resilience and we will continue to work with and support them.

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. 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.
- b) Maintenance and management of main rivers and associated flood risk.

25. Newark and Sherwood 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.

26. Trent Valley Internal Drainage Board.

- a) Has a duty to manage flood risk and land drainage within areas of special drainage need in the Trent Valley.
- b) Has permissive powers to undertake work to provide water level management within their area
- c) Undertake works to reduce flood risk to people and property and manage water levels for local needs including the maintenance of rivers, drainage channels, outfalls and pumping stations.

27. 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 Flooding

28. 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:
29. 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.
- p) Liaised with the Flood Action Group in the aftermath of the event.
- q) Responded to the isolated flooding on Old Epperstone Road and continue to consider options to reduce the risk of flooding to the area.

30. Newark & Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.

- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

31. The Environment Agency

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) The Environment Agency warned and informed the community of Lowdham in a timely manner by issuing a Flood Alert for the River Trent Tributaries in Nottinghamshire on 19/10/2023 and Flood Warnings for the Cocker Beck at Lowdham on 20/10/2023.
- e) 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.
- f) The Environment Agency commissioned a structural survey of the flood storage area's walls after concerns were raised by residents. The outcome of the survey is that the wall is structurally sound however some minor remedial works have been planned for early 2024.
- g) The Environment Agency organised and attended a multi-agency community drop in event which was attended by Nottinghamshire County Council, Severn Trent Water, Jacksons Construction and members of the Lowdham Flood Action Group. The event was hosted at Lowdham Church of England Primary School and was well attended by the community.
- h) 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.

32. Severn Trent Water

- a) Is carrying out ongoing investigations into reports of flooding from the public sewerage system in the area.
- b) Actively engaged with the Section 19 investigation.
- c) Attended community meetings with other RMAs to discuss the flooding in the area.

33. Trent Valley Internal Drainage Board

The IDB is working closely with lead partners to identify and deliver appropriate solutions, including supporting securing funding applications and with engineering and design expertise. In all parts of the IDB districts (both Trent Valley and Isle of Axholme and Northern Nottinghamshire) the regular annual maintenance regime has been and will continue to be delivered to reduce risk and identify potential risk areas.

Additional Information and Future Actions

- 34. 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 contained within this report.
- 35. Lowdham Parish Council and its residents have a well- established working relationship with a number of the RMAs including NCCs Flood Risk Management Team, the Trent Valley Internal Drainage Board and Via East Midlands and are committed to continue with that working relationship.
- 36. In 2021 Severn Trent Water in partnership with Nottinghamshire County Council completed a scheme to improve the surface water and highway drainage in Southwell Road and Willow Holt areas. NCC are currently pursuing a resolution to ownership concerns with some of the piped system in the Willow Holt area and are working with affected residents.
- 37. Construction has started on the Environment Agency's Lowdham Flood Alleviation Scheme and is due to be completed in late 2025 with final commission and operation in early 2026. This flood storage reservoir will have a storage capacity of 100,000m³ and will provide enhanced flood protection to 191 properties.
- 38. 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.
- 39. NCC will continue to support Lowdham's Flood Warden / Road Closure training programme and community volunteer groups to help ensure they operate as effectively and safely as possible.
- 40. 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.
- 41. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX S

SECTION 19 REPORT – MAPLEBECK – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA) and Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Maplebeck is a small village within the District of Newark & Sherwood District Council, Nottinghamshire. It has a population of approximately 106 people according to the 2021 census. The village sits in a natural bowl and is surrounded by agricultural land.
7. Between 12:00 noon on the 18 and 23:00 on the 20 October, 124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 8km from Maplebeck (Figure 1).

8. 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.
9. During Storm Babet, 5 residential properties in Maplebeck were reported as subject to internal flooding, others suffering flooding to gardens and outbuildings and the public highway becoming unpassable due to the flooding.

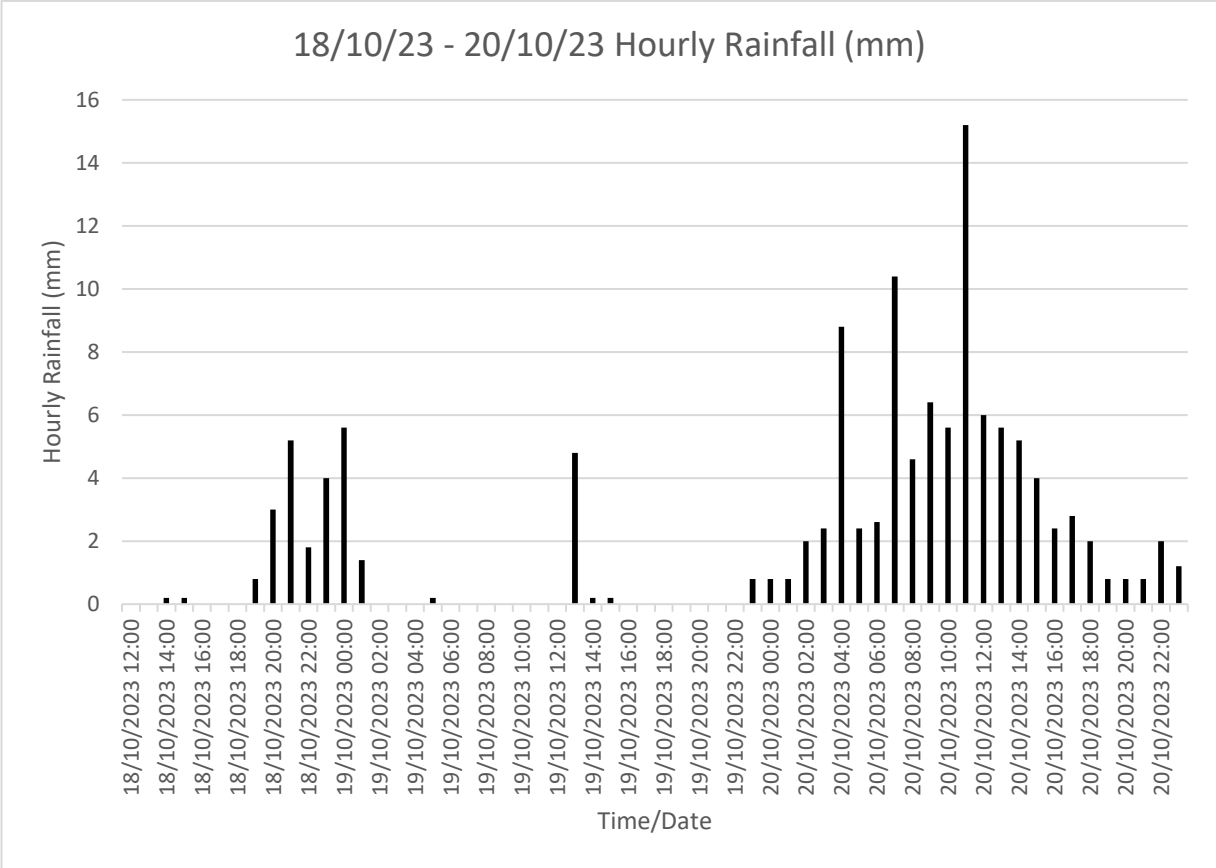


Figure 1. Staythorpe Hourly Rainfall from 12:00 18 to 23:00 20 October 2023. Data supplied by the Environment Agency.

10. Figure 2 highlights the areas that were subjected to internal flooding.



Figure 2. View of Maplebeck highlighting areas affected by internal flooding.

Summary of flooding and its causes

11. Maplebeck sits in a natural bowl and as such has a natural risk of flooding from surface water.
12. Figures 3 shows the predicted risk of surface water flooding as published by the Environment Agency's Flood Map for Planning (<https://flood-map-for-planning.service.gov.uk>)

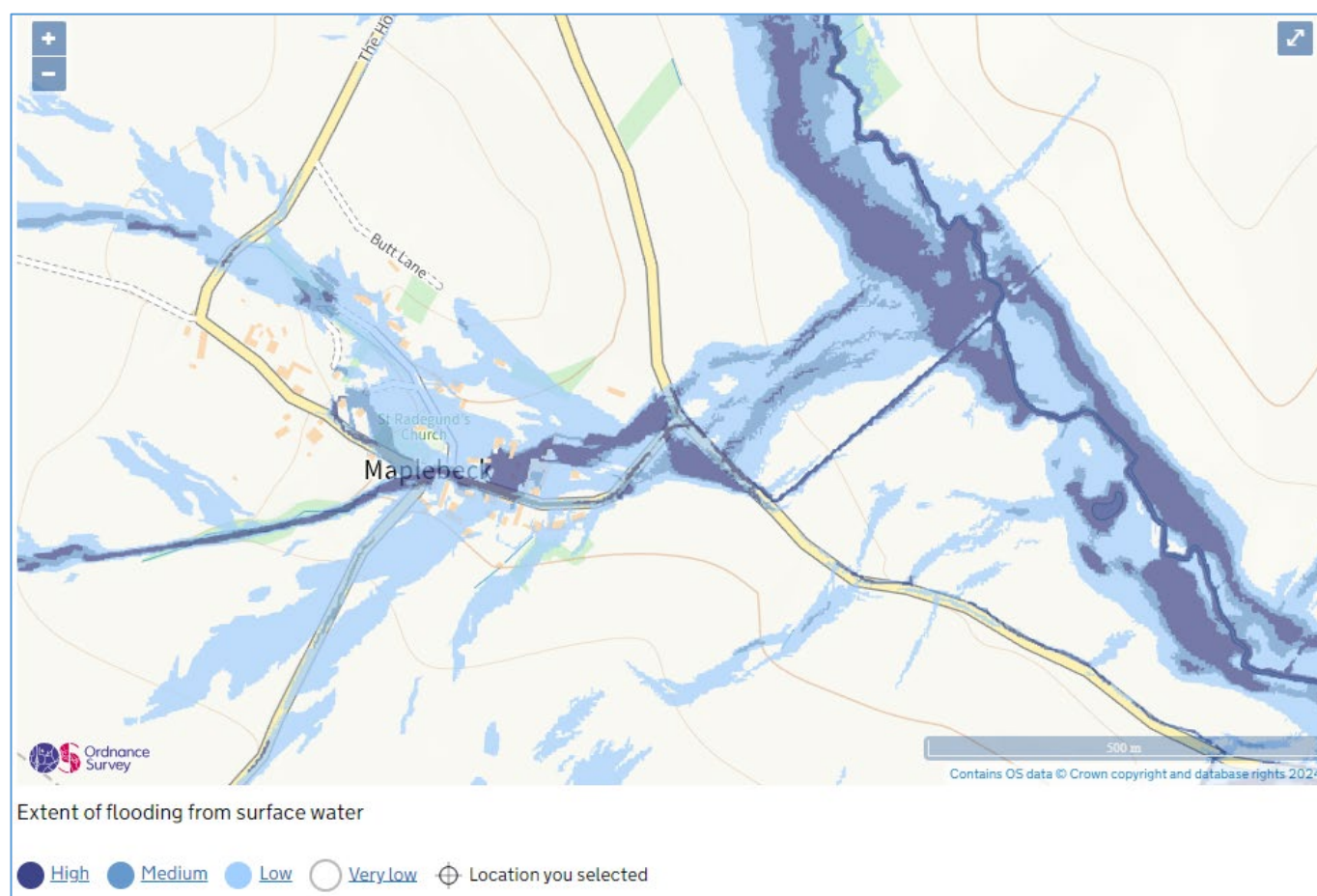


Figure 3. Predicted Surface Water Flood Extents

13. Figure 3 helps to confirm the areas naturally occurring risk of flooding and correlates with the flooding experienced during Storm Babet.
14. At a meeting held in the village and attended by representatives from the Parish Council, residents and NCC's Flood Risk Management Team concerns were raised regarding the hydraulic effectiveness of the surface water assets serving the village. These assets include trash screens on culverts, highway gullies and below ground piped systems. As part of NCCs follow up to the flooding an investigation into these concerns has been commissioned and the results will be shared with the community group and used to identify ways of reducing the risk of future flooding in the village.
15. Discussions also took place regarding the potential use of Natural Flood Management techniques in the catchment to control the flows coming off the surrounding fields into the

village. This idea is being considered within NCCs Flood Risk Management team and if feasible will be considered for inclusion in the future capital programme.

Risk Management Authorities and their responsibilities

16. 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.
- ii. Provided site-based presence and investigations immediately following the event.

17. Newark and Sherwood 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.

Risk Management Authority Responses to Flooding

18. 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:

19. The 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.
- p) Considered the feasibility of including the catchment for a Natural Flood Management project.

20. Newark & Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.

- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

Additional Information and Future Actions

- 21. 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 contained within this report.
- 22. NCC will review the findings of the on-site investigation and consider any actions identified. NCC will also develop the feasibility of Natural Flood Management techniques for the catchment and share / develop these with the community group and parish council.
- 23. 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.
- 24. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible. A community flood signage scheme is being developed in Maplebeck with support from NCC. Officers for the Flood Risk Management team are working with the community to help them develop a local flood action group.
- 25. 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.
- 26. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX T

SECTION 19 REPORT – MAYTHORNE – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC and Trent Valley Internal Drainage Board (TVIDB).
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. Maythorne is a village within the District of Newark and Sherwood, Nottinghamshire. It has a population of approximately 426 people according to the 2021 census. It sits in close proximity to the River Greet which runs along the northern boundary of the Village.
7. On the 20th October, during Storm Babet, areas of Maythorne suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 124mm of rainfall was recorded at the Staythorpe rain gauge with 95.6mm recorded on the 20th of

October alone (Figure 1). Consequently, 6 residential properties and 1 business were subject to internal flooding.

8. 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.

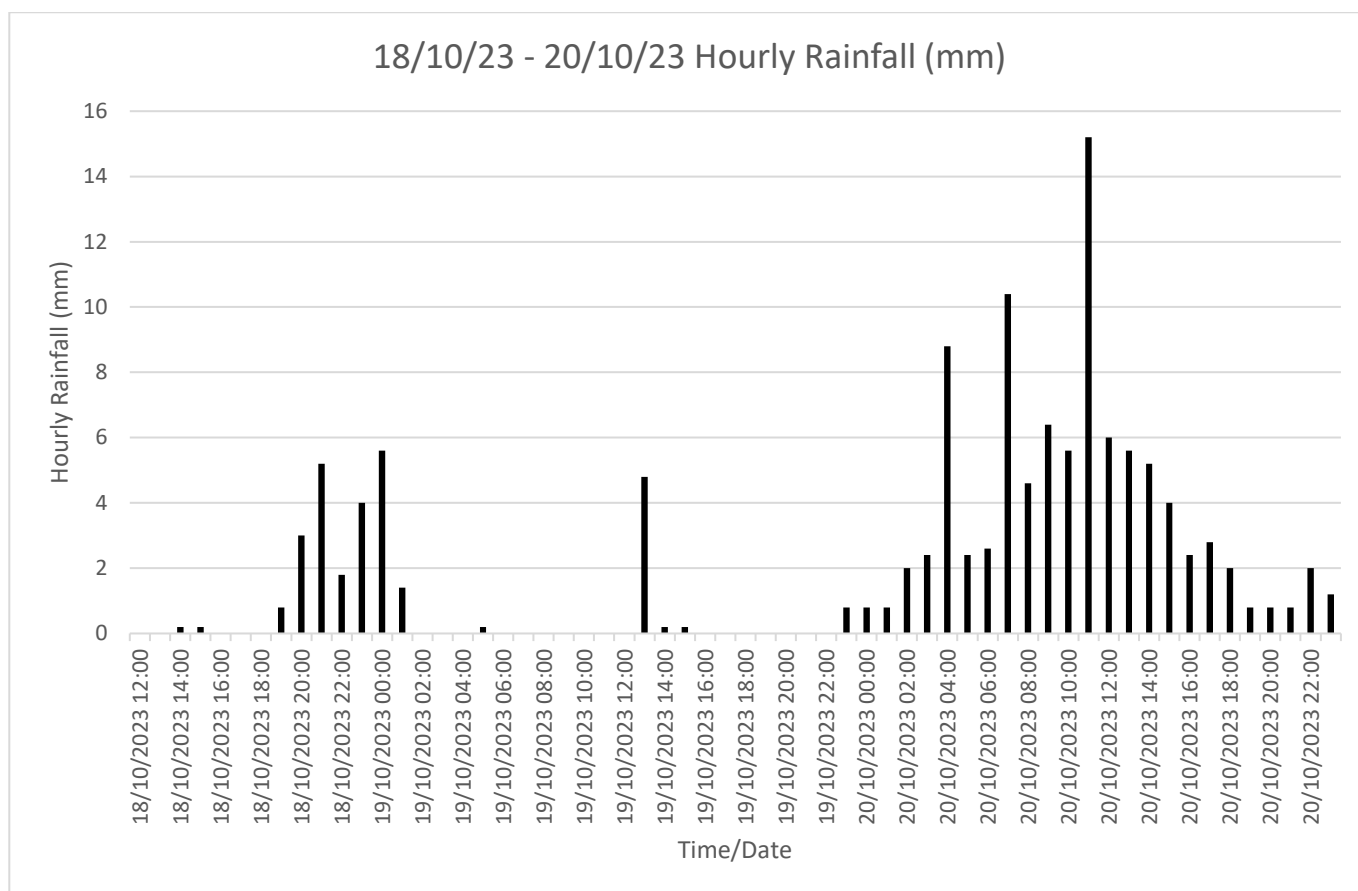


Figure 1. Staythorpe Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

Summary of flooding and its causes

9. Maythorne Lane

Areas impacted by flooding on Maythorne Lane are shown in Figure 2. In total, 6 residential properties and 1 business were impacted by flooding.

A watercourse flows along the southeast side of Maythorne Lane before entering the Greet. The watercourse has multiple pinch points including road crossings and culverts. As a result of high water levels experienced during storm Babet, the watercourse flowed out of bank and onto Maythorne Lane due to flow reductions at pinch points. The water then entered properties on Maythorne Lane. Capacity within the watercourse may have also been reduced by high water levels in the Greet which could have caused the watercourse to back up and flood out of bank.



Figure 2. View of Maythorne Lane.

Risk Management Authorities and their responsibilities

10. 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 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 (VIA East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

11. Newark and Sherwood 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.

12. Trent Valley Internal Drainage Board.

- a) Has a duty to manage flood risk and land drainage within areas of special drainage need in the Trent Valley.
- b) Has permissive powers to undertake work to provide water level management within their area.
- c) Undertake works to reduce flood risk to people and property and manage water levels for local needs including the maintenance of rivers, drainage channels, outfalls and pumping stations.

Risk Management Authority Responses to Flood

13. 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:

14. 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 RMAs and partners.
- d) Collated flood impact data from other RMAs 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 RMAs, 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.

15. Newark and Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

16. Trent Valley Internal Drainage Board

- a) Cleared the Southwell Trail trash screen following reports of a blockage.
- b) Will assess the access the capacity of the culvert further downstream of the trash screen.

Additional Information and Future Actions

17. 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.
18. As the Lead Local Flood Authority NCC 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.
19. 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.
20. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX U

SECTION 19 REPORT – NEWARK-ON-TRENT – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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), Newark & Sherwood District Council (NSDC), 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. Newark-on-Trent is a town within the District of Newark & Sherwood, Nottinghamshire. It has a population of approximately 30,433 people according to the 2021 census.
7. The River Trent (main river) runs from through the north-western edge of the Town, flowing in a generally north-easterly direction. The River Devon (main river) also runs through part of the town before out-falling into the River Trent at Newark Marina.

8. On the 20th October, during Storm Babet, Newark-on-Trent suffered a flood event caused by sustained heavy rainfall. Between 12:00 noon on the 18th and 23:00 on the 20th October, 124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 3.5km from Newark-on-Trent (Figure 1).
9. Consequently, 15 residential properties and 2 businesses were subject to internal flooding with more suffering flooding to gardens and outbuildings.
10. 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.

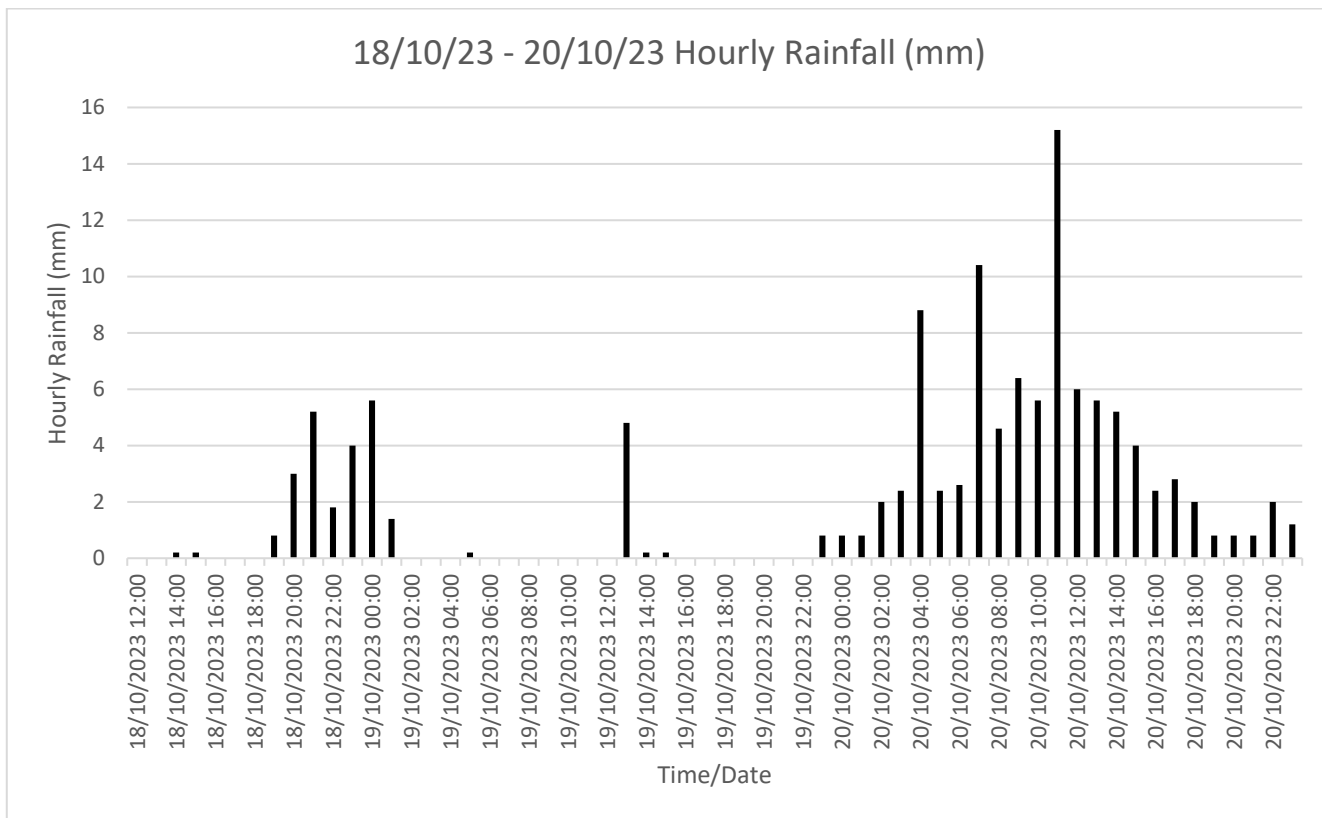


Figure 1. Staythorpe Hourly Rainfall from 12:00 18th to 23:00 20th October 2023. Data supplied by the Environment Agency.

11. A view of Newark-on-Trent is shown in Figure 2. The areas affected were Beacon Heights (2 properties), Bowbridge Road (1 property) and Farndon Road (14 properties).

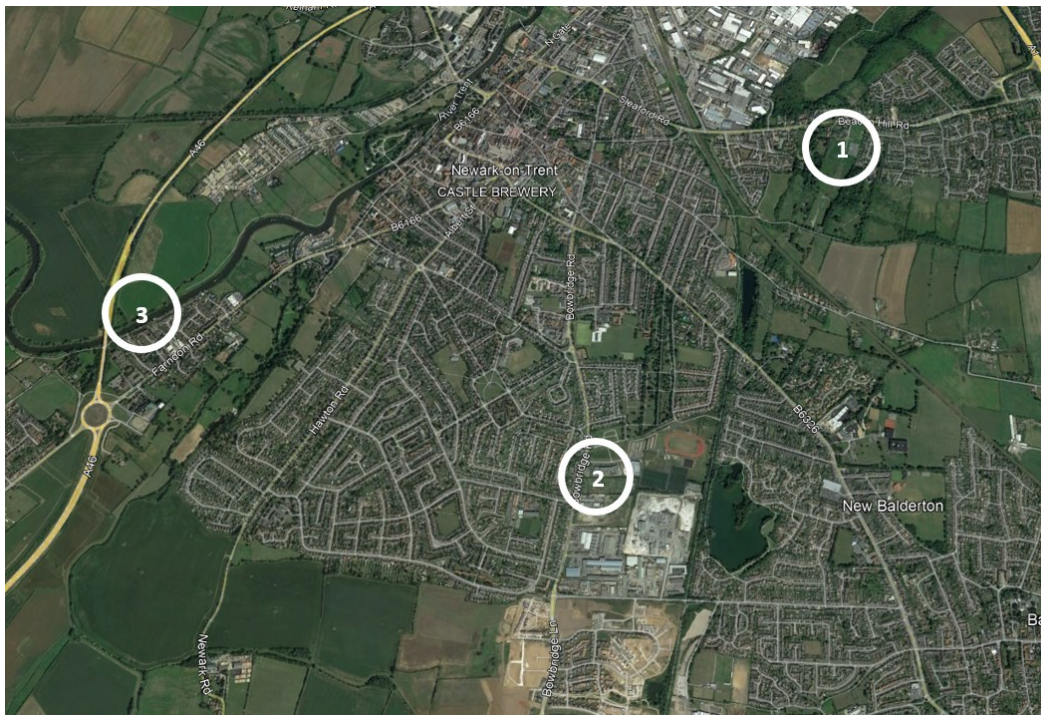


Figure 2. View of Newark-on-Trent flood affected areas. 1. Farndon Road, 2. Bowbridge Road, 3. Beacon Heights.

Summary of flooding and its causes

12. Beacon Heights

Two residential properties were internally flooded on Beacon Heights, shown in Figure 3.

Due to the sustained heavy rainfall, surface water was noted as running down both Beacon Way and Beacon Heights, following the topography of the area and the channelling nature of the highways. This flow path is predicted by Environment Agency surface water mapping shown in figure 4.



Figure 3. Beacon Heights.

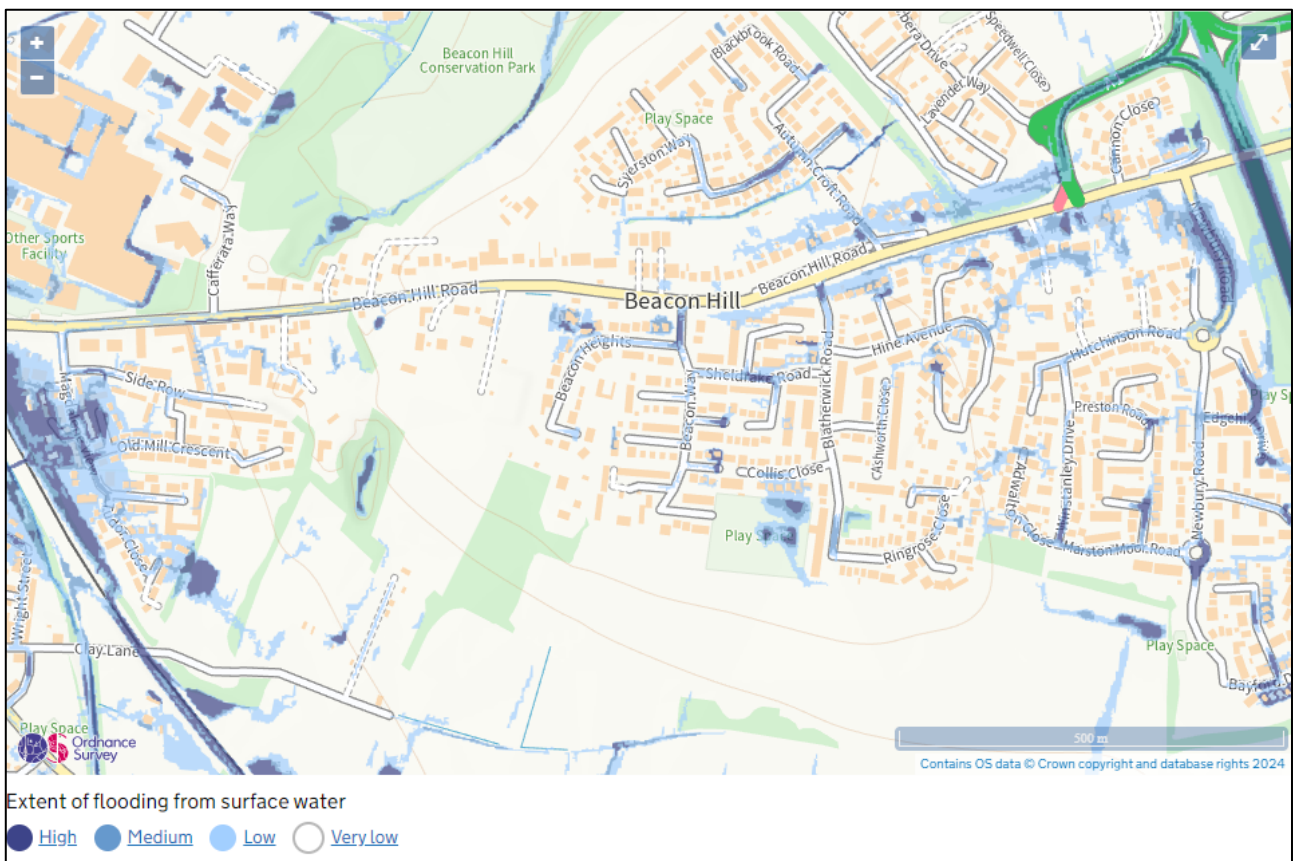


Figure 4. Surface Water Flood Risk Mapping. Data Provided by the Environment Agency.

13. Bowbridge Road

One business property was internally flooded on Bowbridge Road, shown in Figure 5. Flooding here was a result of a localised surface water flow path and ponding.



Figure 5. Bowbridge Road.

14. Farndon Road

At Farndon Road thirteen residential and one business property were internally flooded, shown in Figure 6.

Resident statements to NCC Flood Risk Management Team stated that as a result of the heavy sustained rainfall during Storm Babet the River Devon (Main River) overtopped its banks, initially flooding out into rear gardens but continuing to rise until flooding reached into properties. However, resident statements to the Environment Agency stated that the River Devon did not overtop the defences.

Figure 7 shows that the area is predicted to be at High and Medium risk of Fluvial flooding in relation to the River Devon.

Further properties on Farndon Road were flooded from groundwater rising in cellars.



Figure 6. Farndon Road.

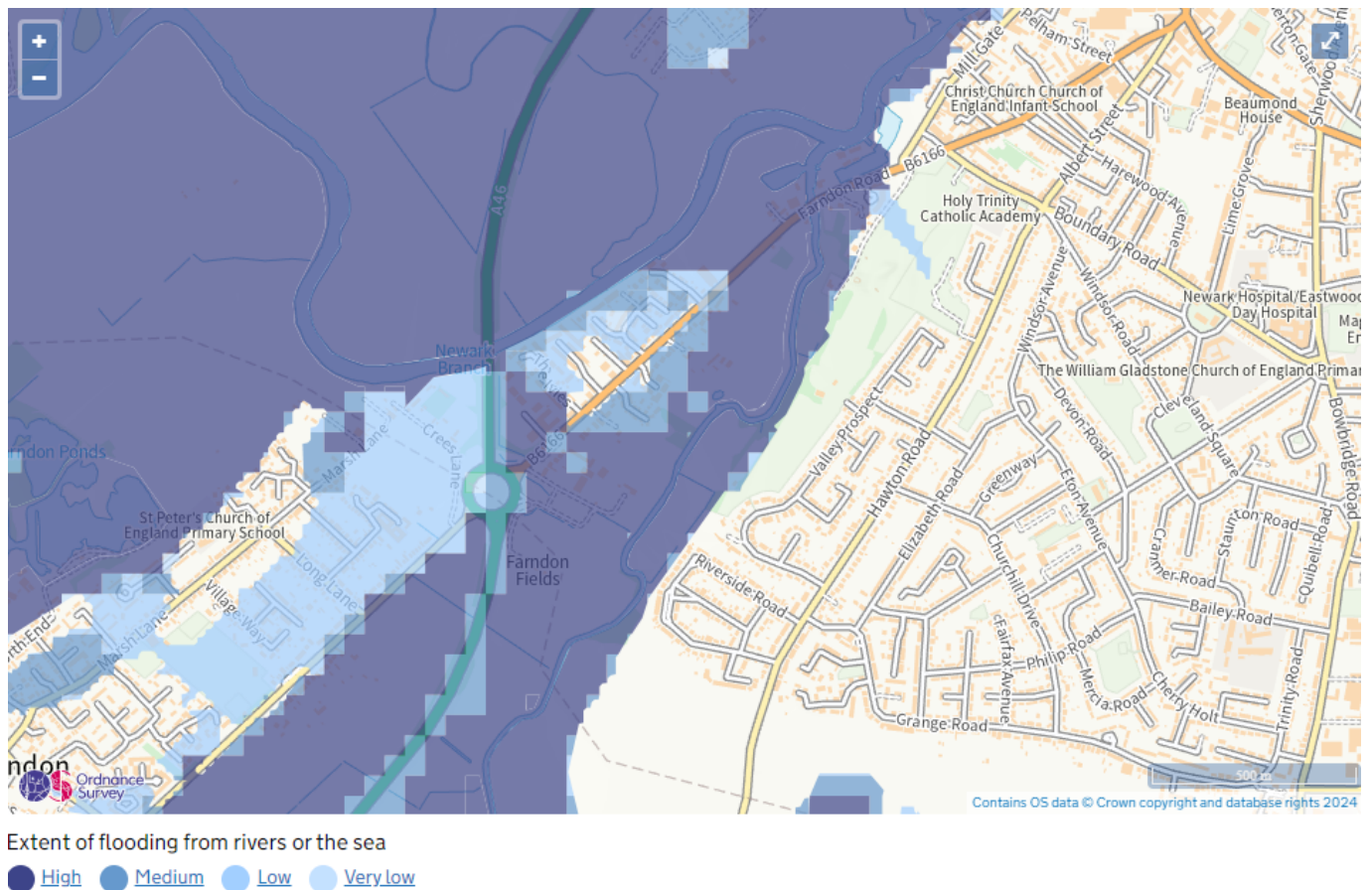


Figure 7. Fluvial Flood Risk Mapping. Data Provided by the Environment Agency.

Risk Management Authorities and their responsibilities

15. Nottinghamshire County Council.

a) Lead Local Flood Authority.

- Investigate significant local flooding incidents and publish the results of such investigations.
- Play a lead role in emergency planning and recovery after a flood event.
- 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.
- By working in partnership with communities, Lead Local Flood Authorities can raise awareness of flood risks.
- Lead Local Flood Authorities should encourage local communities to participate in local flood risk management.

b) Emergency Planning.

- 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).

- Maintenance of the public highways including highway drainage assets.

16. Newark & Sherwood 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.
17. 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.
18. 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

19. 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:

20. 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 RMAs, 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.
- p) Met with the community following the event to understand the nature of the flooding and inform the Section 19 report and next steps.

21. Newark & Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

22. Environment Agency

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) The Environment Agency warned and informed the community and partners by issuing a Flood Warning for the River Devon at Bottesford, Easthorpe, Muston and Woolsthorpe on 20/10/2023, the River Trent at Newark Sugar Factory and Kelham Bridge, River Trent at Farndon riverside properties including Dorner Avenue and Wyke and Marsh Lane, River Trent at Newark for riverside properties and the River Trent at Newark Tolney Lane and Riverside Marina on the 21/10/2023.
- e) 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.
- f) A temporary pump was installed at Brewers Wharf, pumping water which was backflowing past leaking EA and Severn Trent Water assets.
- g) 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.

23. Severn Trent Water Ltd (STW)

- 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 of flooding.
- b) Severn Trent actively engaged with the Section 19 Flood investigation.

Additional Information and Future Actions

- 24. 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.
- 25. 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.
- 26. The LLFA will liaise with the Environment Agency in relation to the flooding from the River Devon.
- 27. The Environment Agency is organising a flood drop in event to be held in March 2024 where partner organisations will also be in attendance.
- 28. 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.
- 29. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX V

SECTION 19 REPORT – OMPTON – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

Introduction

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

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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 Newark & Sherwood District Council (NSDC), The Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA) and Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Ompton is a village within the District of Newark & Sherwood, Nottinghamshire. Population data for the village is not available as for census purposes, its population count is included together with the civil parishes of Laxton and Moorhouse, and Ossington.
7. The Gallow Hole Dyke (Ordinary Watercourse) runs through the village from North to South, passing through a culvert under Newark Road. Approximately 150 metres further downstream an unnamed Ordinary Watercourse outfalls into the Gallow Hole Dyke, adjacent to Flash Lane.

8. On the 20th October, during Storm Babet, Ompton suffered a flood event caused by sustained heavy rainfall. Between 12:00 noon on the 18th and 23:00 on the 20th October, 124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 14km from Ompton (Figure 1).
9. Consequently, 5 residential properties were subject to internal flooding with more suffering flooding to gardens and outbuildings.
10. 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.

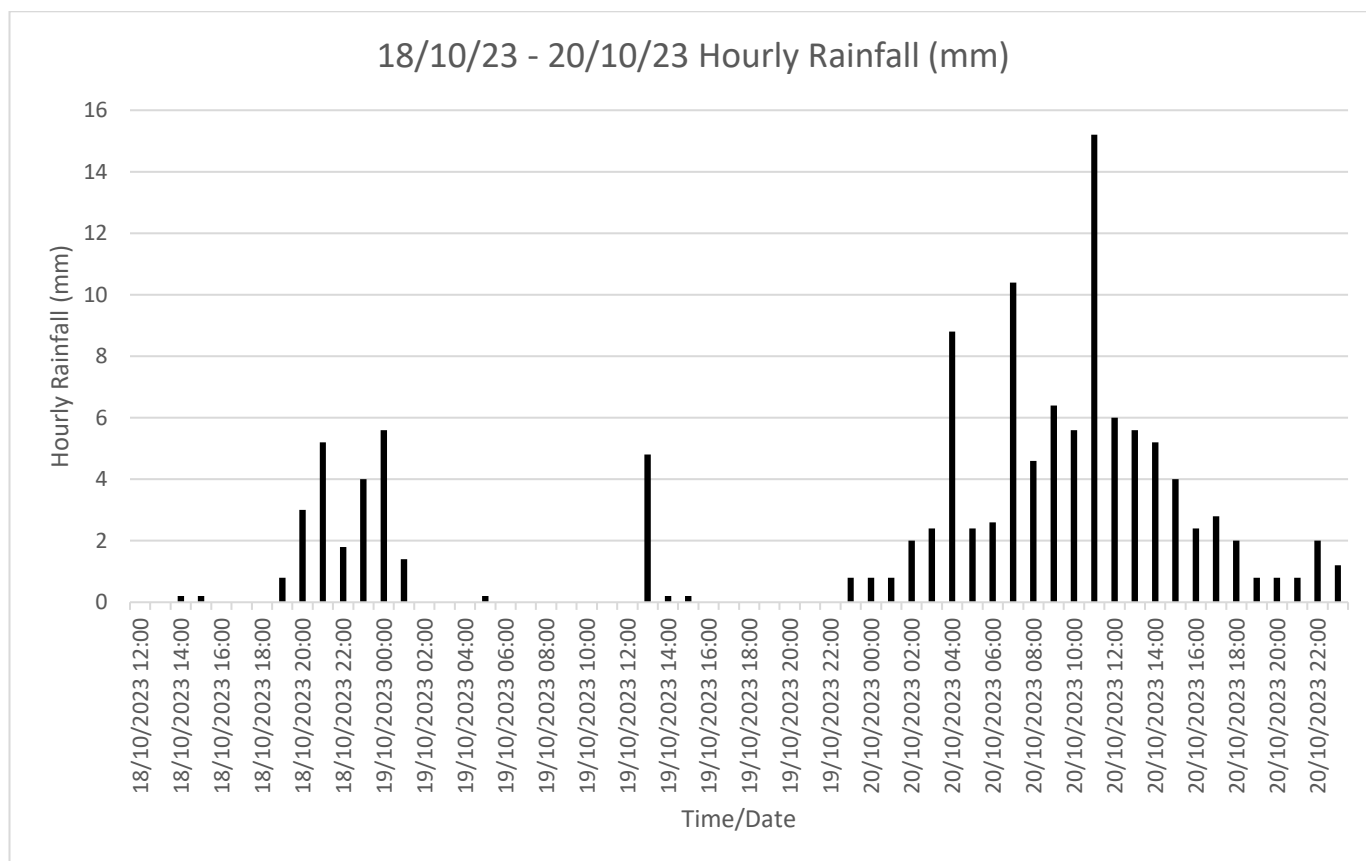


Figure 1. Staythorpe Hourly Rainfall from 12:00 18th to 23:00 20th October 2023. Data supplied by the Environment Agency.

11. View of Ompton is shown in Figure 2. The areas affected were:

- Flash Lane, Newark Road and Shortwood Lane.



Figure 2. View of Ompton flood affected areas.

Summary of flooding and its causes

12. Five residential properties suffered internal flooding with more properties suffering flooding to gardens and outbuildings.
13. The topography around Ompton rises to the north, west and east, to varying gradients and distances, with the Gallow Hole Dyke passing under Newark Road and the junction of Newark Road/Flash Lane/Shortwood Lane forming the low points of the catchment. As a result runoff from the fields to the north all falls towards Newark Road.
14. During the event the predominant visual flow path was the highway. As a result this water on the highway then flowed both northerly affecting properties on Shortwood Lane, and also south affecting properties on Flash Lane. The nature of the flow paths observed are identified on the predicted surface water flood extents mapping, shown in figure 3.
15. There were also properties affected both as a joint result of the Gallow Hole Dyke rising and bursting its banks, combined with runoff directly from fields towards the properties. This was observed to much higher levels than a previous flood event in 2019.

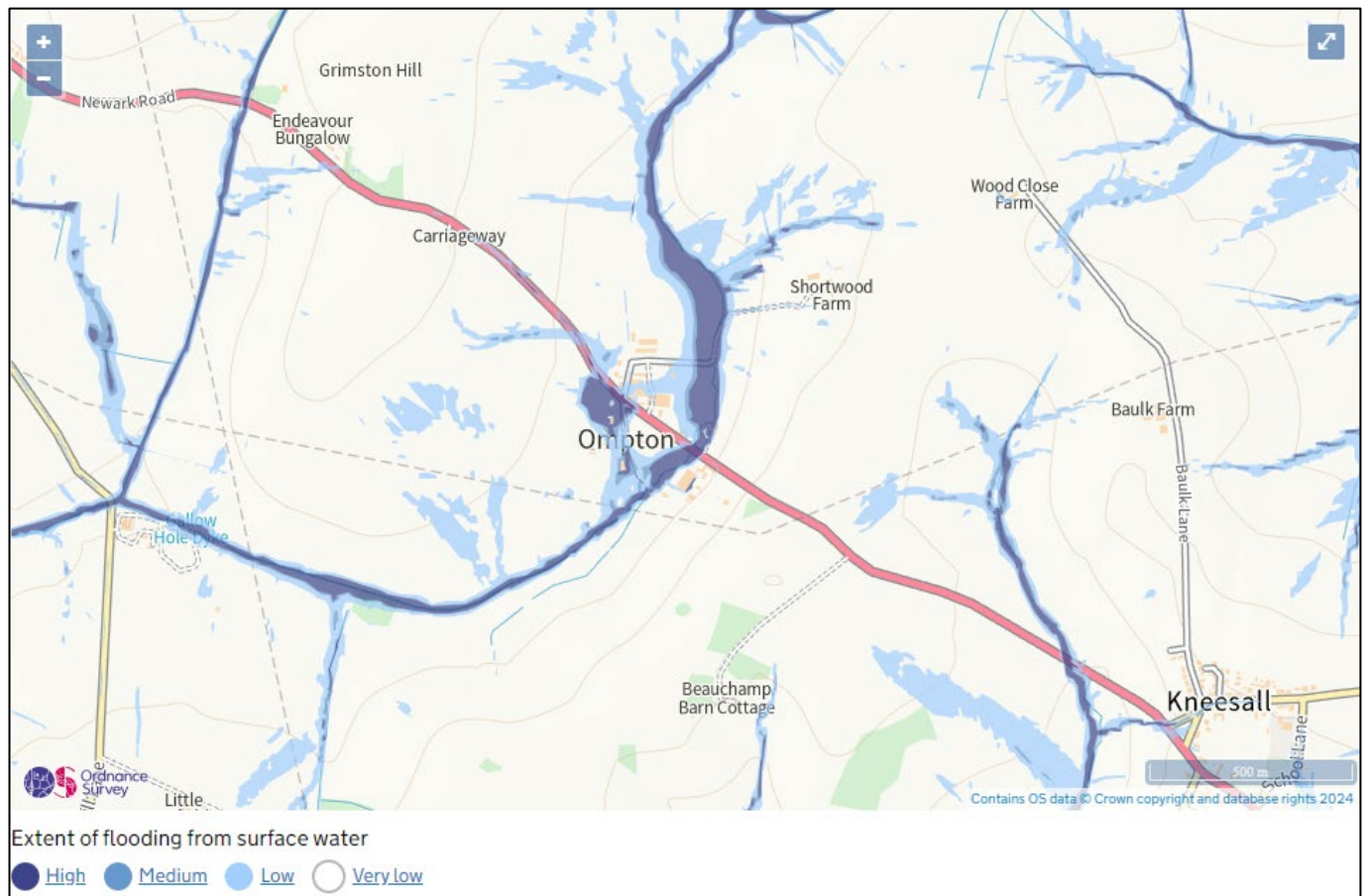


Figure 3. Surface Water Flood Risk Mapping. Data Provided by the Environment Agency

Risk Management Authorities and their responsibilities

16. 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.

17. Newark & Sherwood 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.

Risk Management Authority Responses to Flood

18. 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:

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- 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 RMAs and partners.
- d) Collated flood impact data from other RMAs 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.
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- 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.

- p) Met with the community following the event to understand the nature of the flooding and inform the Section 19 report and next steps.

20. Newark & Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

Additional Information and Future Actions

- 21. 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.
- 22. 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.
- 23. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible.
- 24. 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.

25. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.
26. NCC are working with the community and landowners to understand how surface water in the catchment is currently managed and identify possible improvements to reduce the risk of flooding.

APPENDIX W

SECTION 19 REPORT – ORDSALL – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: "SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023".

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 - (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), Bassetlaw District Council (BDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), and Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Ordsall is a village within the District of Bassetlaw, Nottinghamshire. It has a population of approximately 14,194 people according to the 2011 census.
7. The River Idle (main river) runs from south to north through Ordsall, passing under a bridge on Goosemoor Lane.
8. On the 20th October, during Storm Babet, Ordsall 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, which is approximately 9km from Ordsall (Figure 1).

9. Consequently, 10 residential properties and 1 business were subject to internal flooding with more suffering flooding to gardens and outbuildings.
10. 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.

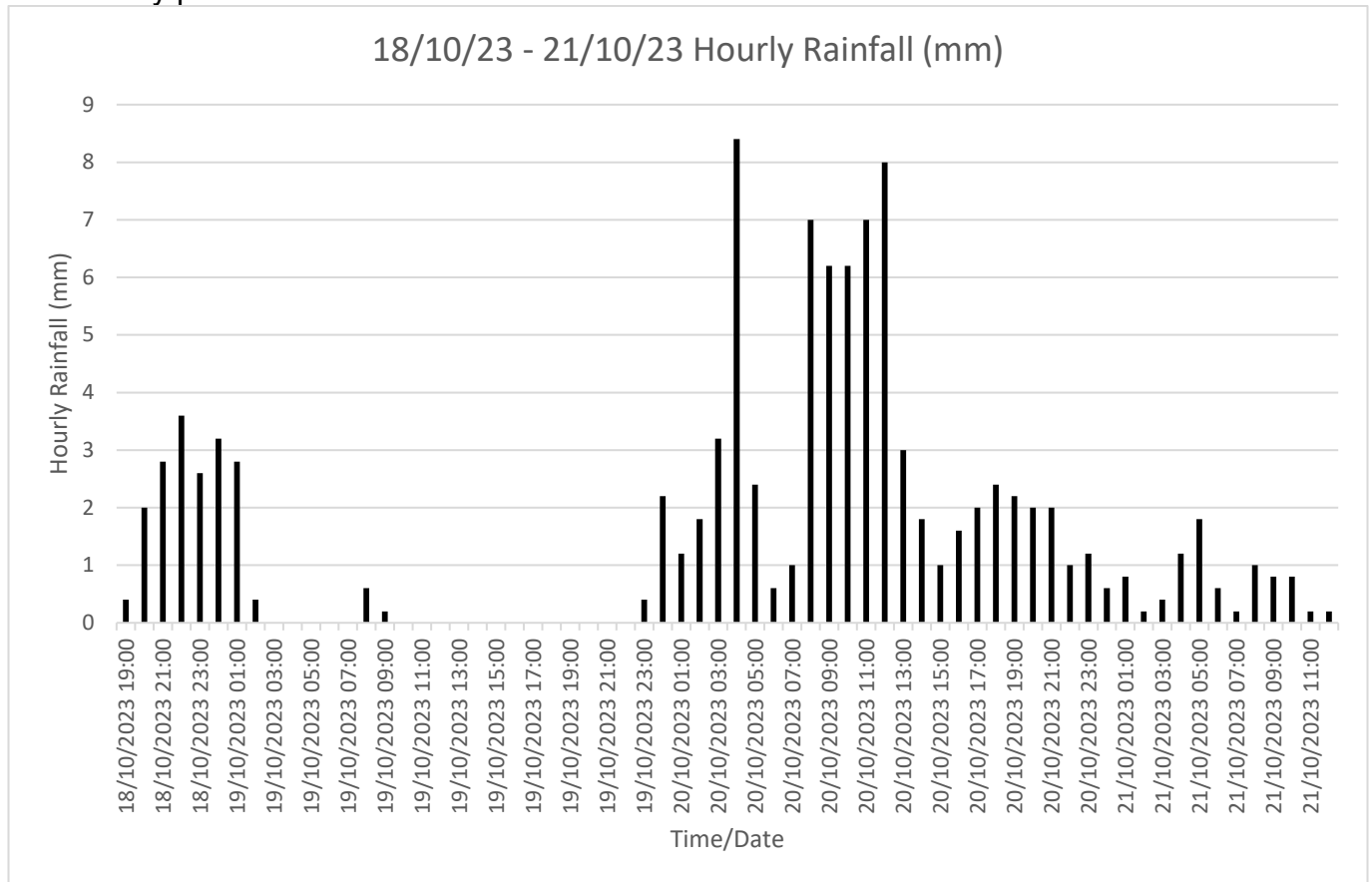


Figure 1. Worksop Hourly Rainfall 19:00 18th October – 12:00 21st October 2023. Data supplied by the Environment Agency.

11. A view of Ordsall is shown in Figure 2. The affected areas were: (Internally flooded property numbers given in brackets)
 - All Hallows Street (5)
 - Goosemoor Lane (3)
 - Sunningdale (3)



Figure 2. View of Ordsall flood affected areas. 1. All Hallows Street, Goosemoor Lane. 2. Sunningdale

Summary of flooding and its causes

All Hallows Street and Goosemoor Lane

12. As a result of the heavy sustained rainfall, the River Idle rose through the 20th, 21st, 22nd and early morning of the 23rd of October. At its peak the river reached a level of 1.79m (shown in figure 4.), substantially higher than the previous highest level on record of 1.65m set in June 2007.



Figure 3. All Hallows Street and Goosemoor Lane

River Idle level at Ordsall

[Map](#) [Downstream](#) [Nearby levels](#)

Latest at 6:30am on 24 October ⓘ

Height
1.11m ⓘ

Trend
Steady ⓘ

State
High ⓘ

Normal range 0.19m to 0.85m

Height in metres over the last 5 days

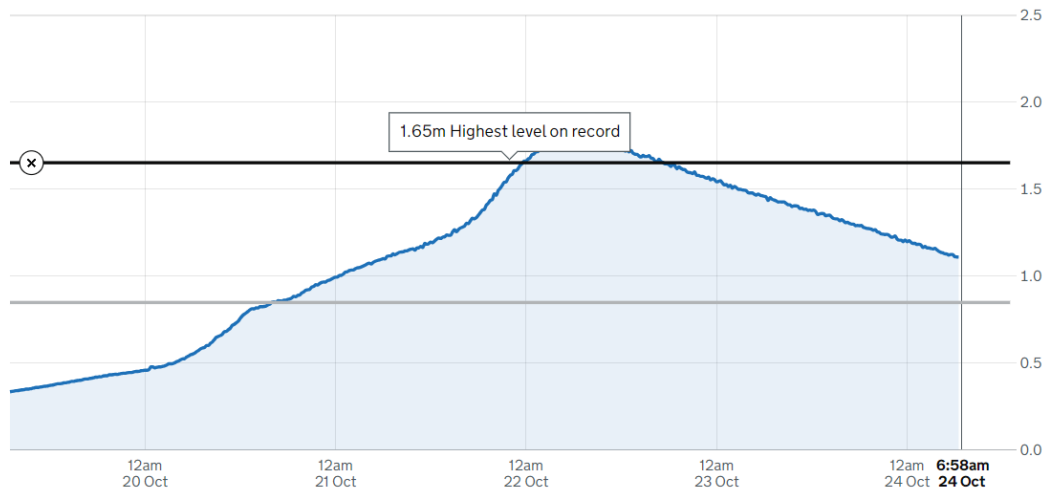


Figure 4. River Level gauge data for the River Idle at Ordsall. Data supplied by the Environment Agency.

13. Accounts from residents on All Hallows Street note that once the River Idle had reached a level whereby it overtopped defences to the south side of the bridge that water poured out from the River Idle onto the highway. Following the gradient of the road this then flowed across the front of Goosemoor Lane, however it could not flow back into the River due to defences on the north side of the bridge (Concrete Blocks and Metal Gates). As a result the water then flowed further down All Hallows Street, flowing off the highway and flooding properties. It is also noted that as river levels continued to rise that All Hallows Street was flooded completely across the carriageway to a depth of approximately 2 foot, causing further internal flooding. As a result four residential and one Business were internally flooded on All Hallows Road with more suffering flooding to gardens and outbuildings.
14. Due to the rising River Idle, properties on Goosemoor Lane were surrounded both by flood water on All Hallows Street as described previously, but also from the River Idle overtopping into adjacent fields, flooding these and Goosemoor Lane to the east. This reached levels which caused internal flooding to Three residential properties on Goosemoor Lane and outbuildings and gardens of more, with the nature of the flooding isolating properties.

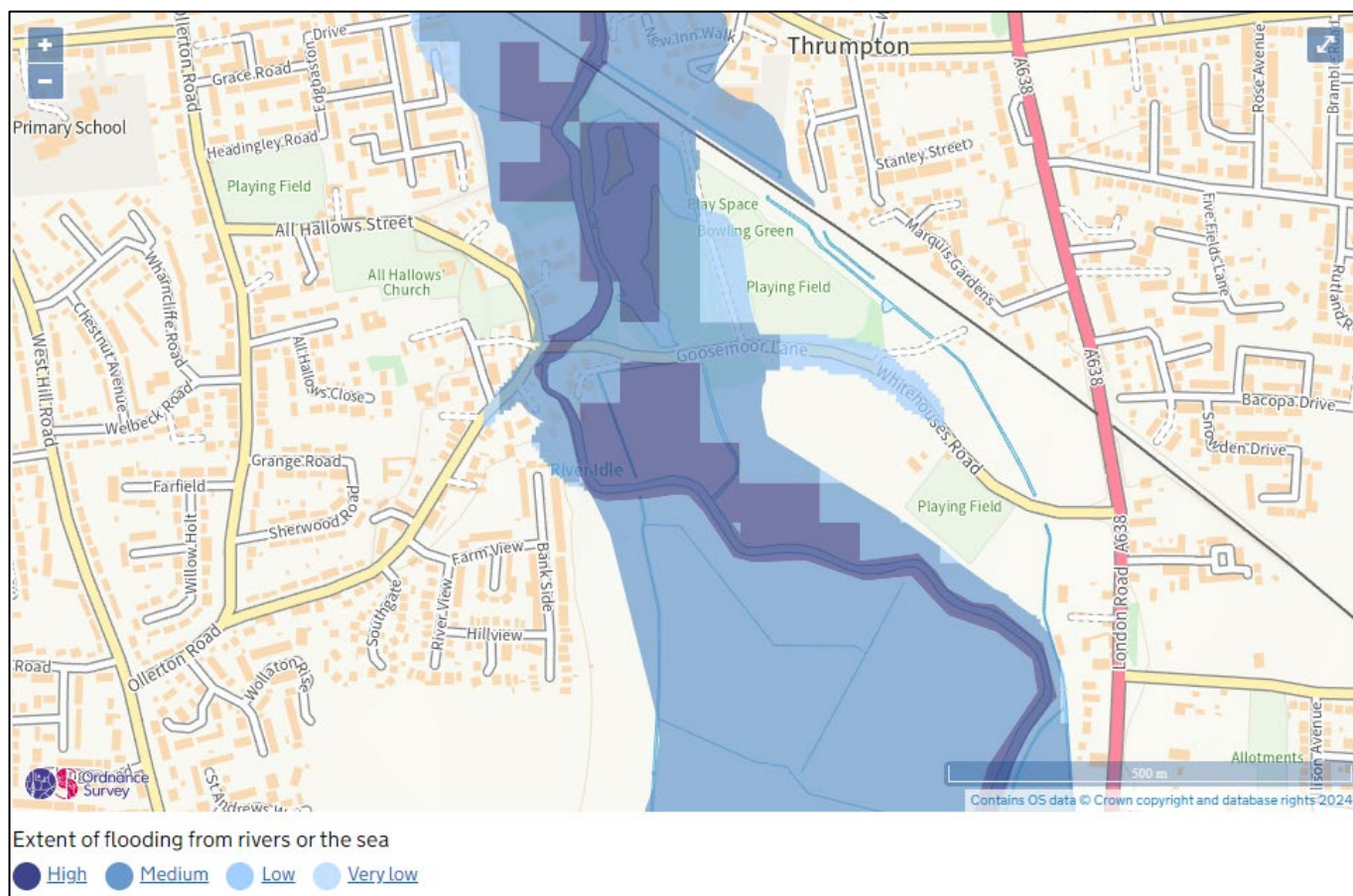


Figure 5. Fluvial Flood Risk Mapping. Data provided by the Environment Agency.

Sunningdale

- Three residential properties were flooded on Sunningdale. As shown in Figure 6. Sunningdale has open land to the west, and further to the south.



Figure 6. Sunningdale

16. The flooding here was a result of localised surface water. The area is highlighted by Surface Water Flood Risk Mapping (shown in figure 7), particularly identifying a ditch which runs along this boundary.



Figure 7. Surface Water Flood Risk Mapping. Data provided by the Environment Agency.

Risk Management Authorities and their responsibilities

17. 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.

18. 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.

19. 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.

Risk Management Authority Responses to Flood

20. 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:

21. 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.

22. 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.

23. The Environment Agency (EA)

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) The Environment Agency warned and informed the community and partners by issuing a Flood Alert for the River Idle in Nottinghamshire Flood Alert on 19/10/2023 and a Flood Warning for the River Idle at West Retford and Ordsall on 21/10/2023.
- e) The Environment Agency issued 2 Severe Flood Warnings for the River Idle at West Retford and Ordsall and also River Idle at Retford, Eaton and Gamston on 22/10/2023.
- f) The Environment Agency instigated flood patrols on 19/10/2023 to operate structures in accordance with incident response procedures. The Environment Agency cleared blockages in the area before and after the peak flows when it was safe to do so, installing flood gates at Ordsall and setting up pumps in advance of the storm.
- g) The Environment Agency liaised with Nottinghamshire Police and Fire and Rescue Services to evacuate residents as conditions worsened.
- h) 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.
- i) The Environment Agency along with partner organisations, have been working with Bassetlaw District Council extensively since Storm Babet.

Additional Information and Future Actions

24. 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.
25. 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.
26. The Environment Agency will explore the option of targeted de-silts along the River Idle through the town centre and downstream and work to carry out tree works to improve flow in this location. Repairs will also be carried out to the Thrumpton/Poulter flood wall.
27. The Environment Agency will organise a multi-agency drop in event for Retford & Ordsall.
28. The Environment Agency are investigating options for upstream flood storage that may benefit both Ordsall and Retford in reducing flooding from the River Idle.
29. 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 Members later this year for consideration.
30. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.
31. Bassetlaw District Council participated in the LRF Storm Babet Debrief and learning review meeting which identified a number of future actions.
32. Bassetlaw District Council has undertaken an internal review of the response to Storm Babet which identified a number of future actions.
33. 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.
34. 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.

APPENDIX X

SECTION 19 REPORT – OXTON – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), 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 (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. Oxtun is a village within the District of Newark and Sherwood, Nottinghamshire. It has a population of approximately 565 people according to the 2021 census.
7. On the 20th October, during Storm Babet, areas of Oxtun suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 80mm of rainfall was recorded at the Calverton rain gauge (Figure 1). Consequently, 28 residential properties and 1 business were subject to internal flooding.

8. 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.

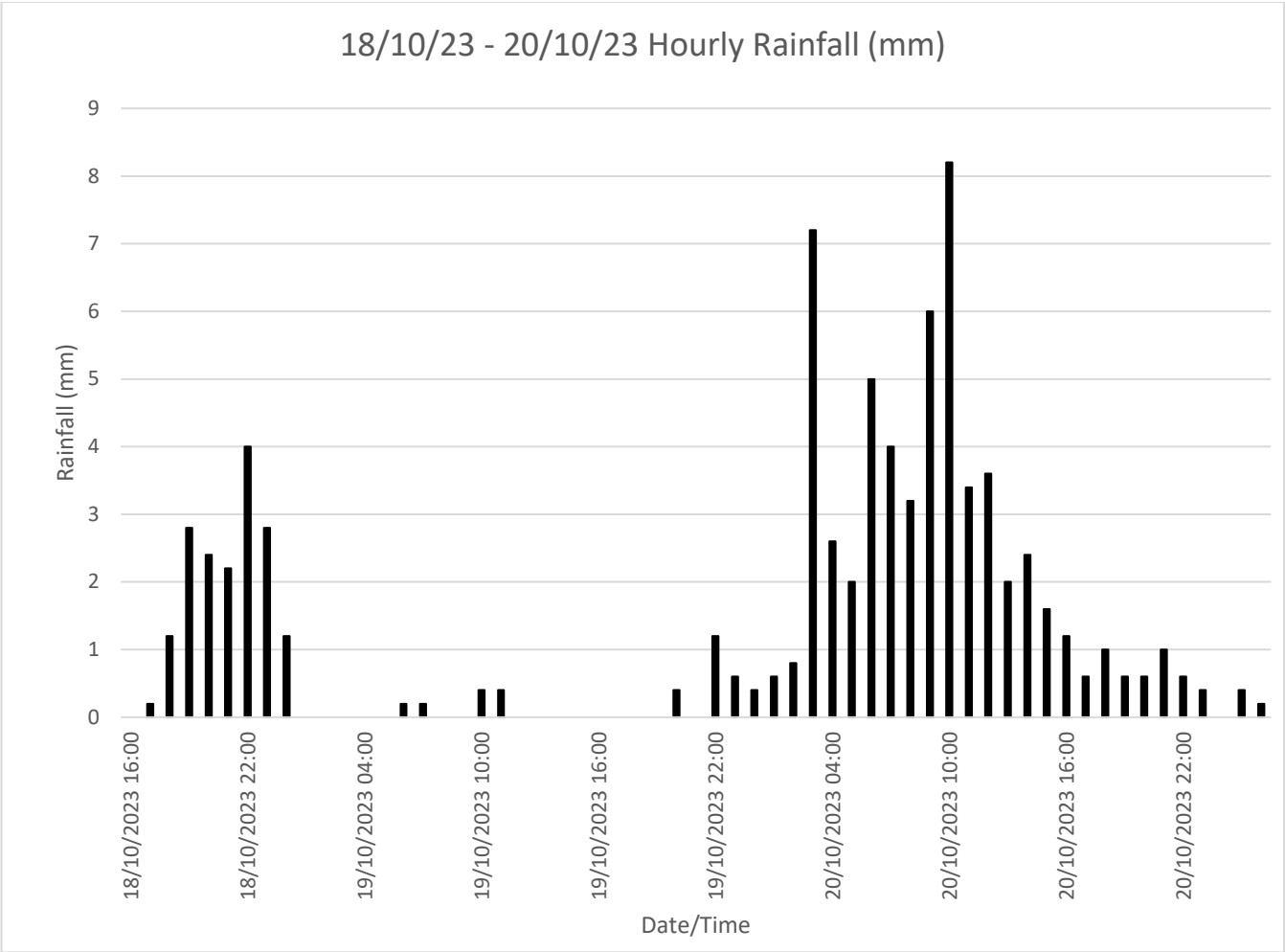


Figure 1. Calverton Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

9. A view of Oxtun is shown in Figure 2. The areas affected were Nottingham Road (2 properties), Sandy Lane (5 properties), New Road (9 properties), Water Lane (7 properties) and Main Street (6 properties).



Figure 2. View of Flood Affected Areas across Oxtun. Nottingham Road (1), Sandy Lane (2), New Road (3), Water Lane (4), Main Street (5).

Summary of flooding and its causes

(1)

10. Nottingham Road

Areas impacted by flooding on Nottingham Road are shown in Figure 3. In total, 2 residential properties were impacted by internal flooding on Nottingham Road. A watercourse flows adjacent to the southeast side of Nottingham Road. Due to the heavy rainfall during Storm Babet across the large catchment above Oxtun, high flows caused the watercourse to flow out of bank into properties.

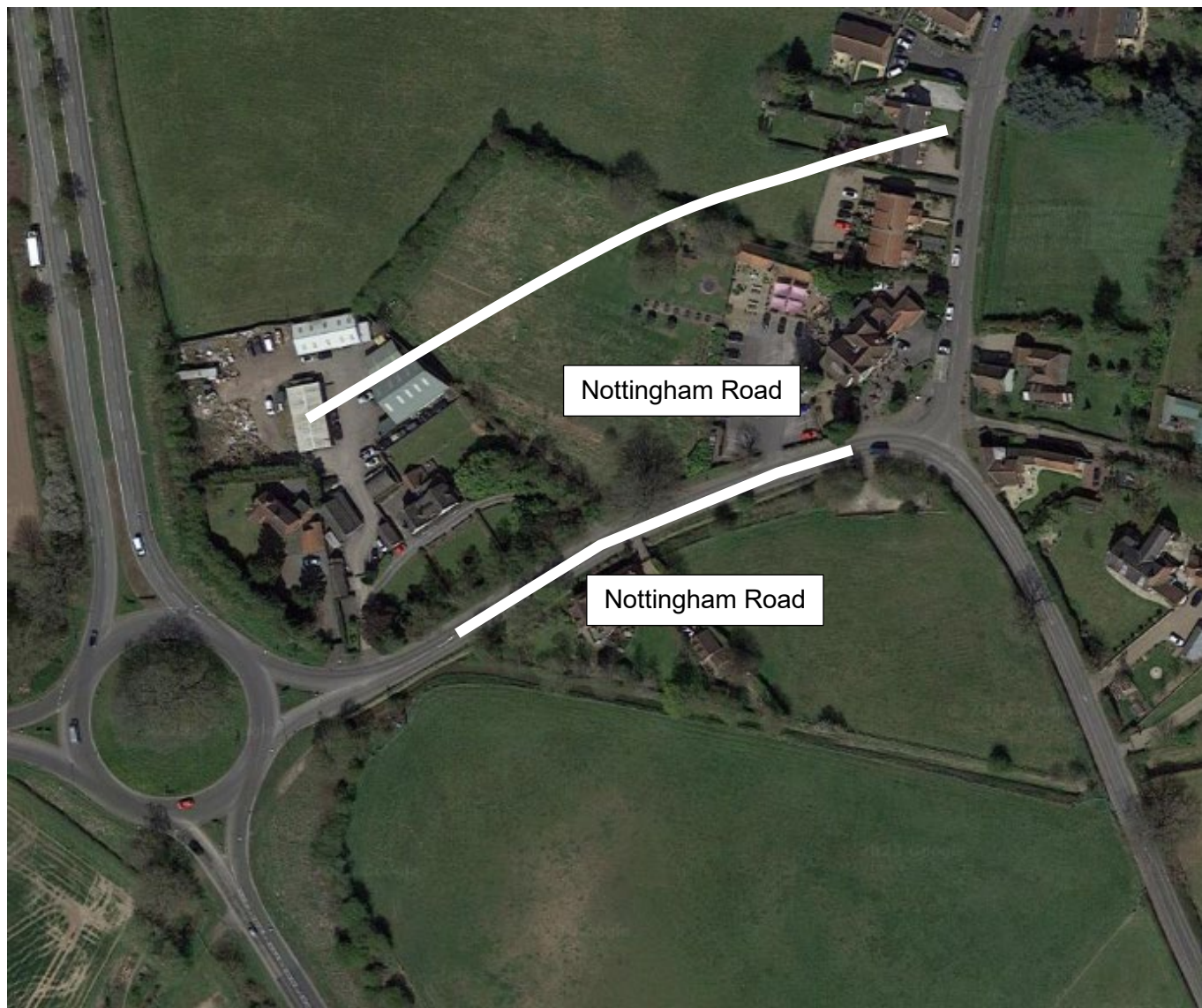


Figure 3. Nottingham Road.

11. Sandy Lane, New Road and Water Lane

In total, 5 residential properties on Sandy Lane, 9 residential properties on New Road and 8 residential properties on Water Lane were internally flooded (Figure 4).

A watercourse flows from the northern side of New Road before passing through a ford and flowing adjacent to Water Lane. As can be seen in Figure 5, the properties adjacent to the watercourse have some associated flood risk. The watercourse has various pinch points and engineered obstructions. Due to the heavy rainfall during Storm Babet across the large catchment above Oxton, high flows caused the watercourse to flow out of bank in into properties. Many properties affected have low thresholds which are lower than the road. A flood relief channel exists which flows along Sandy Lane before flowing south across the agricultural fields, although

this was utilised during Storm Babet, it is not fully understood if this flow was optimal and so further investigation is required.



Figure 4. *Sandy Lane, New Road and Water Lane.*

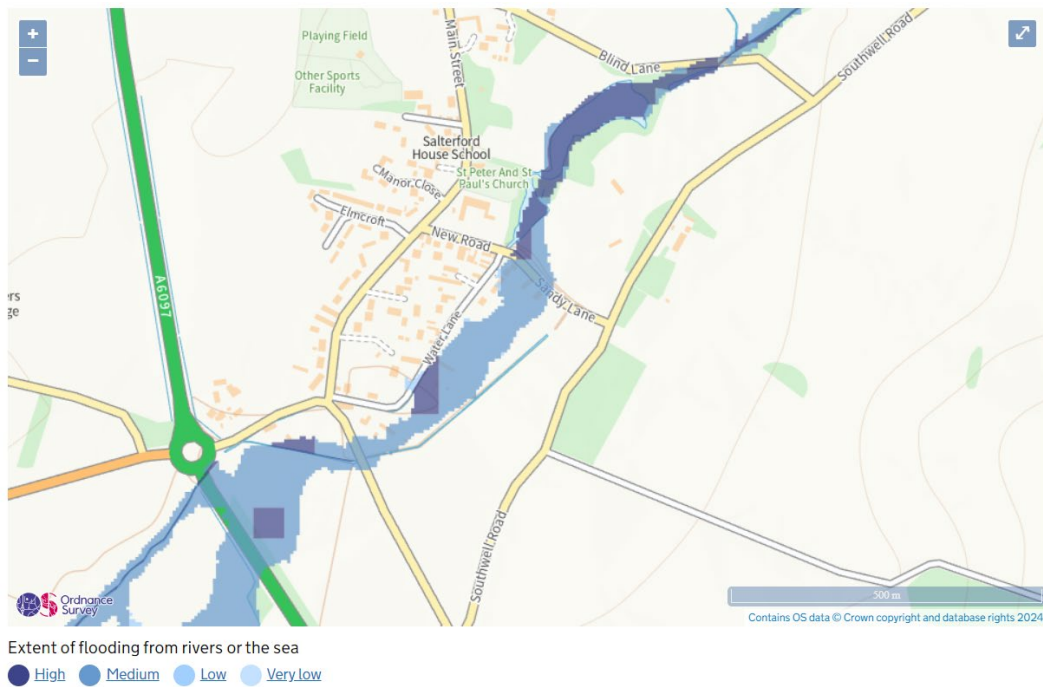


Figure 5. Risk of Flooding from Rivers – Sandy Lane, New Road and Water Lane. Data Supplied by Environment Agency.

12. Main Street

On Main Street 5 residential properties and 1 business were impacted by internal flooding (Figure 6). The area affected on Main Street is a natural low spot. Due to intense rainfall during Storm Babet, the drainage capacity was exceeded causing water to pool in the low spot on the road which then flooded into properties. There also may have been some interaction with the watercourse which flows along Water Lane which exacerbated the flooding on Main Street.



Figure 6. Location Plan – Main Street.

Risk Management Authorities and their responsibilities

13. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

14. Newark and Sherwood 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.

15. Severn Trent Water

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

16. 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:

17. 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.
- p) NCC met with the Parish Council on site and have arranged regular meetings to agree and move forward with ways to reduce risk and consequences of flooding in the village.

18. Newark and Sherwood District Council.

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.

- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

19. Severn Trent Water.

- a) A confirmed report of internal flooding has been recorded. STW will work with the LLFA to investigate this further.
- b) Actively engaged with the LLFA on the Section 19 investigation.

Additional Information and Future Actions

- 20. 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.
- 21. As the Lead Local Flood Authority, NCC 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.
- 22. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible. A community flood signage scheme is being developed in Oxtun with support from NCC. Officers for the Flood Risk Management team are working with the community to help them develop a local flood action group.
- 23. 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.
- 24. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX Y

SECTION 19 REPORT – PLEASLEY – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: "SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023".

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Mansfield District Council (MDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC and the Environment Agency (EA).
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. Pleasley is a village within the District of Mansfield, Nottinghamshire. It has a population of approximately 2,590 people according to the 2021 census. The river Meaden flows through Pleasley under Chesterfield Road.
7. On the 20th October, during Storm Babet, areas of Pleasley suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 125.8mm of rainfall was

recorded at the Sutton in Ashfield rain gauge (Figure 1). Consequently, 12 residential properties and 5 businesses were subject to internal flooding.

8. 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.

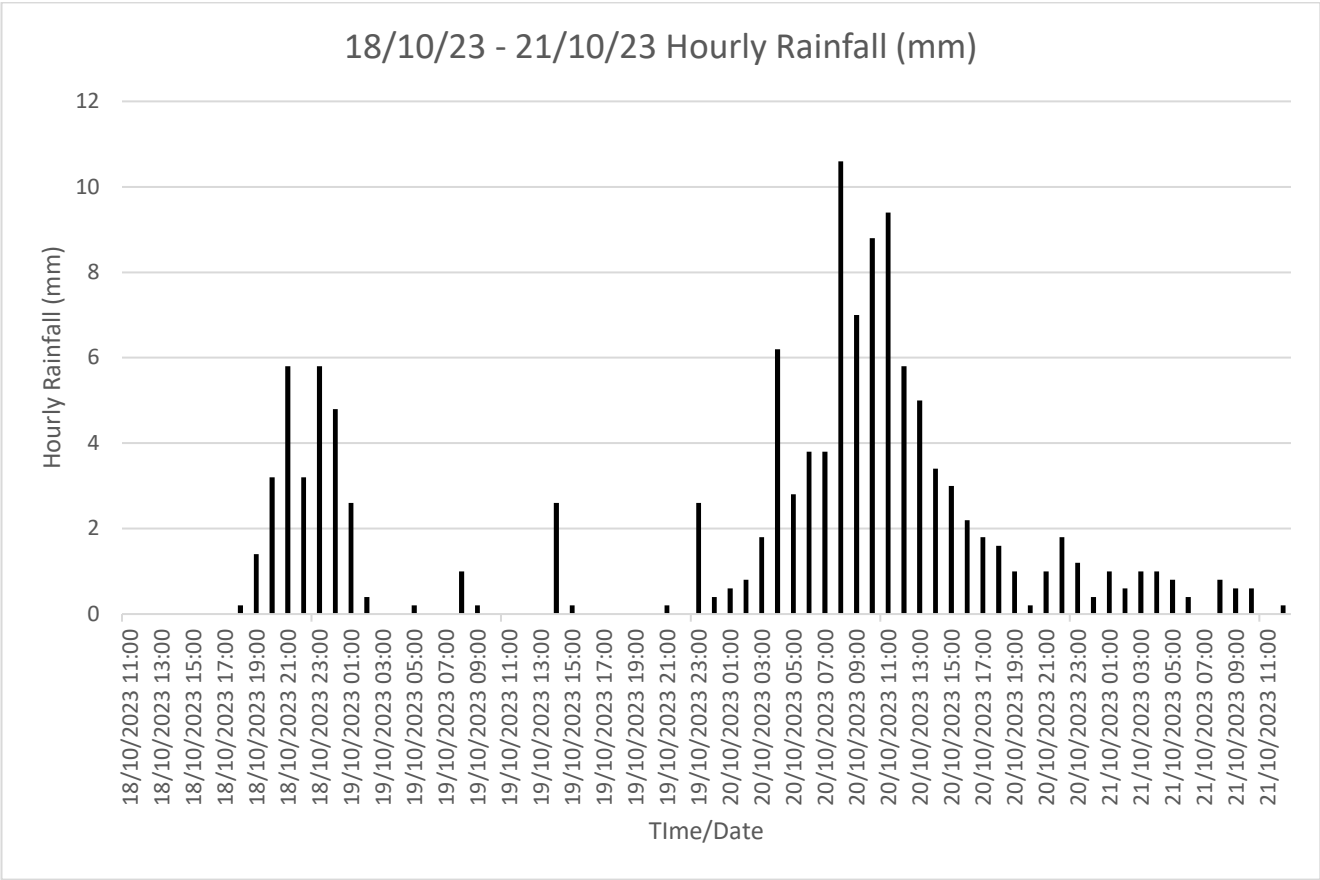


Figure 1. Sutton in Ashfield Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

9. A view of Pleasley is shown in Figure 2. The areas affected were Chesterfield Road (15 properties) and Meden Square (2 properties)



Figure 2. View of flood affected areas across Pleasley. Chesterfield Road (1), Meden Square (2).

Summary of flooding and its causes

10. Chesterfield Road and Meden Square

Areas impacted by flooding on Chesterfield Road and Meden Square are shown in Figure 3. In total, 12 residential properties and 3 businesses were impacted by flooding on Chesterfield Road with 2 business impacts on Meden Square. The River Meden, which is a Main River, flows under Chesterfield Road. As can be seen in Figure 4, the areas of Meden Square and Chesterfield Road are located within the high and medium river flood risk areas.

During Storm Babet at the River Meden measuring station at Pleasley, water reached the highest ever level recorded at the station with the water level peaking at 3.34m. It should be noted that the water level record for this gauge is limited with monitoring commencing in 2021. The water depth was significant enough for the river to flood onto Meden Square and Chesterfield Road with water consequently flooding properties.

Eyewitness reports suggest that Meden Square flooded from the south side of Chesterfield Road before water came out of bank from the millpond on the north side of Chesterfield Road.



Figure 3. *Chesterfield Road and Meden Square.*

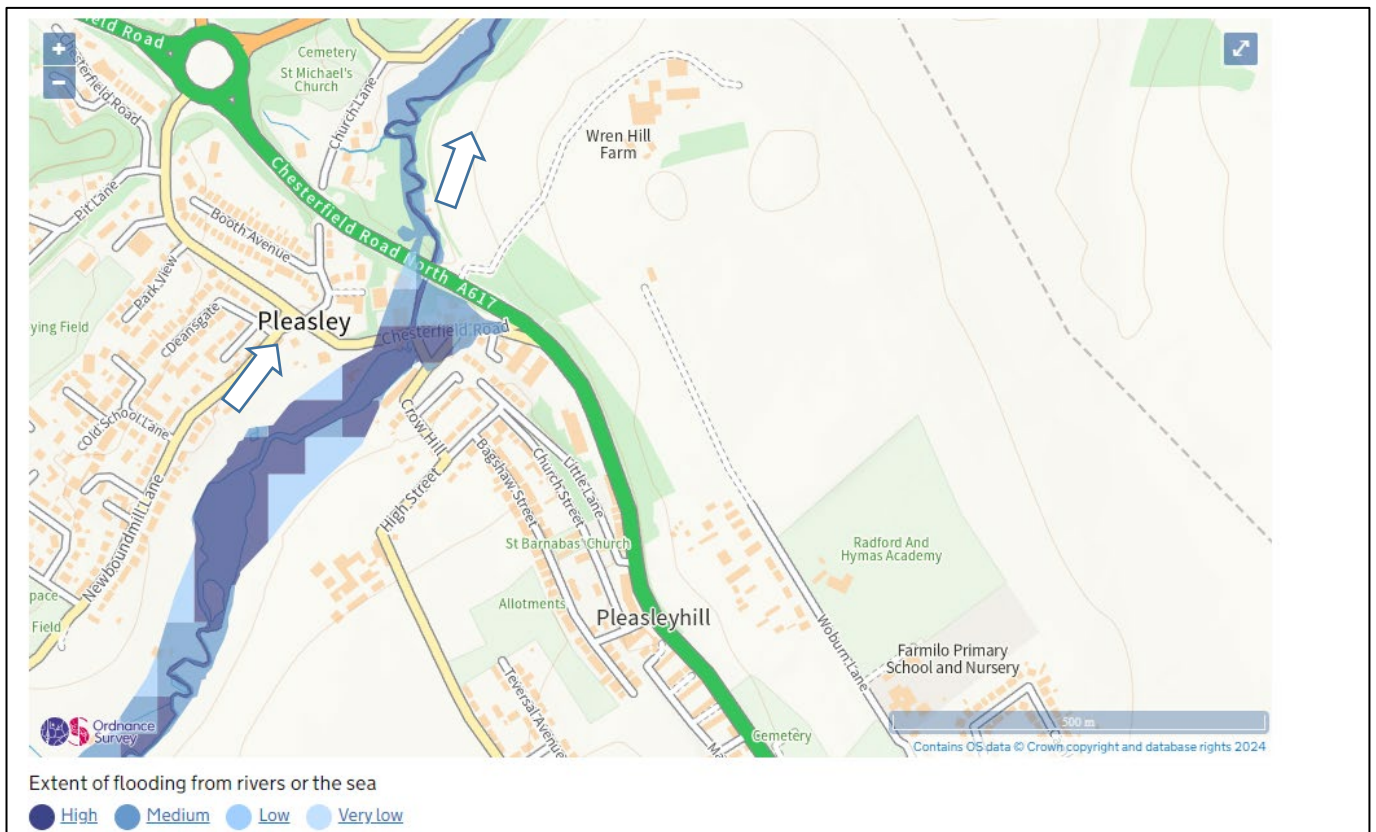


Figure 4. EA Flood Risk from Rivers mapping for Pleasley. Data supplied by Environment Agency.

Risk Management Authorities and their responsibilities

11. Nottinghamshire County Council.

a) Lead Local Flood Authority.

- Investigate significant local flooding incidents and publish the results of such investigations.
- Play a lead role in emergency planning and recovery after a flood event.
- As the Lead Local Flood Authority, we have a 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.
- By working in partnership with communities, Lead Local Flood Authorities can raise awareness of flood risks.
- Lead Local Flood Authorities should encourage local communities to participate in local flood risk management.

b) Emergency Planning.

- 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

- Maintenance of the public highways including highway drainage assets.

12. 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.
- b) Maintenance and management of main rivers and associated flood risk.

13. Mansfield 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.

Risk Management Authority Responses to Flood

14. 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:

15. Nottinghamshire County Council.

Officers from across the NCC 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.
- p) Met with members of the Parish Council to gather information which was used to inform this report.

16. Mansfield District Council

- a) Established an Incident Management Team and supported the wider LRF response to flooding.
- b) Offered housing to displaced residents.
- c) Collected bulky items & debris cleaning.
- d) Liaised directly with the local Ward councillor who provided the link with the community.
- e) Provided advice and signposted to community to relevant support e.g. requests for sand bags.
- f) Signposted local businesses and people living in domestic properties who suffered from internal flooding to support grants and funding.

17. Environment Agency

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) The Environment Agency warned and informed the Community and Partners, instigated flood patrols in accordance with incident response procedures and cleared blockages in the area before and after the peak flows when it was safe to do so.
- e) The Environment Agency warned and informed the community of Pleasley in a timely manner by issuing a Flood Alert for the River Meden in Nottinghamshire on 19/10/2023 and issued the Flood warning for the River Meden at Pleasley on 20/10/2023.
- f) 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.
- g) In the Summer of 2023, a large desilt was carried out on the River Meden downstream of Pleasley Square.

Additional Information and Future Actions

- 18. 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.
- 19. 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.
- 20. Mansfield District Council aim to:
 - a) Support Pleasley develop a Flood Resilience Store and Pleasley Flood Plan.
 - b) Support Pleasley volunteers work with the EA and NCC on signing up to be Flood Warnings / Flood Signage Scheme.
 - c) Development of web pages with advice on flooding.
 - d) Development of customer services protocol for response to flooding.
 - e) Environment health support the businesses affected by flooding.
- 21. The Environment Agency will continue to gather data and evidence to help validate the Flood Warning Service and investigate further options to reduce flood risk in the area.

22. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible. A community flood signage scheme is being developed in Pleasley with support from NCC. Officers for the Flood Risk Management team are working with the community to help them develop a local flood action group.
23. 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.
24. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX Z

SECTION 19 REPORT – RADCLIFFE ON TRENT – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Rushcliffe Borough Council (RBC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Radcliffe on Trent is a village in Rushcliffe Borough of Nottinghamshire with a population of approximately 8145 people according to the 2021 census.
7. On the 20th October, during Storm Babet, Radcliffe on Trent suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 75mm of rainfall was recorded at the Colwick rain gauge (Figure 1).

8. 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.

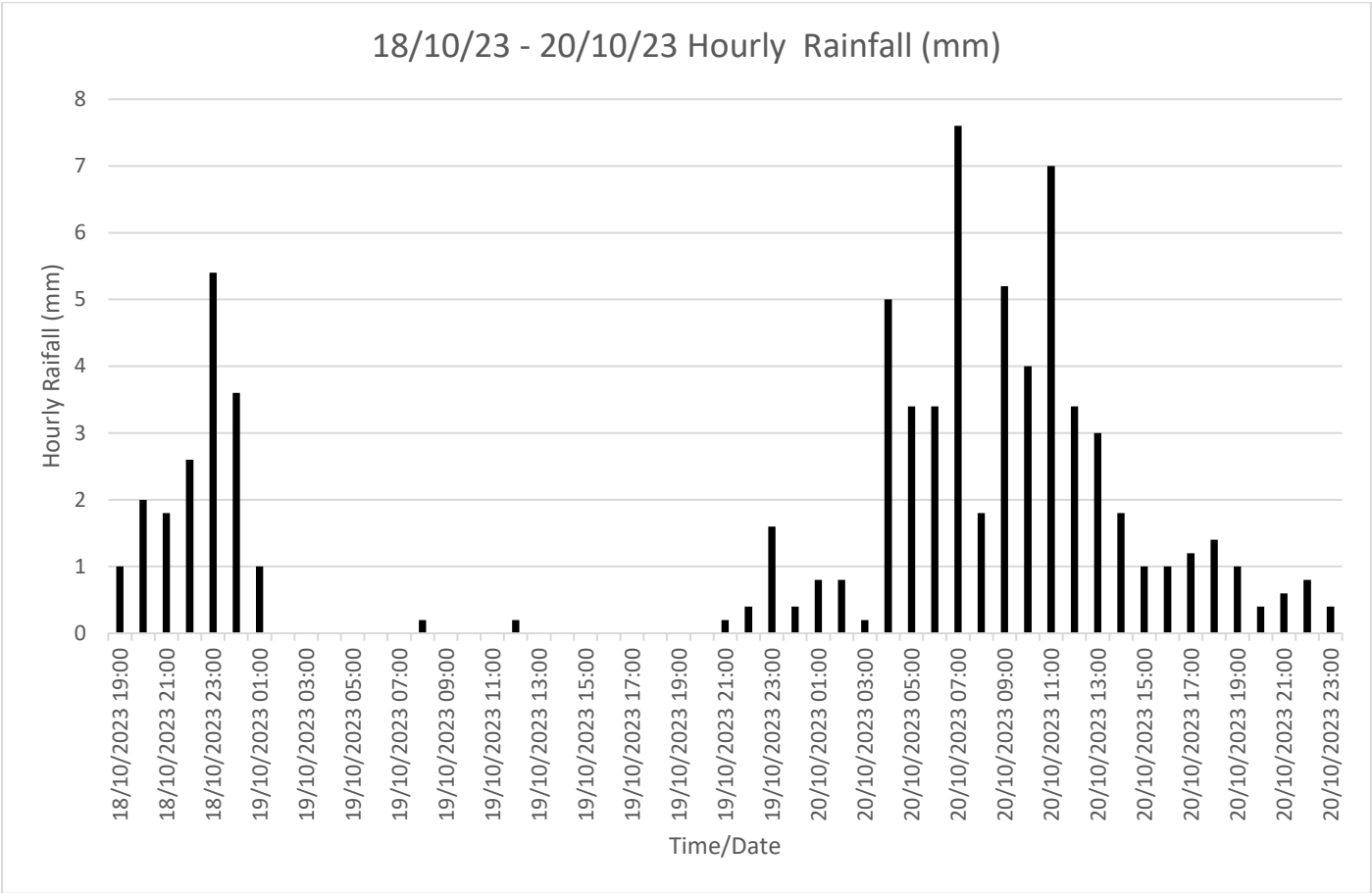


Figure 1. Colwick Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency

9. Figure 2 below shows the affected areas within Radcliffe on Trent.



Figure 2: View of affected area in Radcliffe on Trent.

10. The internal flooding was very localised in nature in Radcliffe on Trent and the affected roads where internal property flooding occurred are listed below.
 - a) Radcliffe on Trent
 - i. Clumber Drive – 14 properties,
 - ii. Penrith Avenue – 3 properties,
 - iii. Bingham Road – 1 property.
11. The area affected lies along the line of the Sykes Drain, an ordinary watercourse that serves a rural area to the east of Radcliffe and ultimately flows into the centre of the village via a largely culverted route.
12. Figure 3 below is an extract from the Environment Agency's surface water flood risk maps that shows the area to be at risk of surface water flooding. This area has suffered flooding events previously, in 1977 and 2020. The cause of flooding in 2020 was evidenced to be due to a blockage on the trash screen behind the boundary of 87 Clumber Drive. In this instance the flooding during Storm Babet does not appear to have been caused by a blockage but rather by the volume of water.



Figure 3: Environment Agency: Surface Water Risk Mapping for Radcliffe on Trent.

13. Evidence from members of the local community shows Sykes Drain surcharging the trash screen located behind the boundary of 87 Clumber Drive, this water then follows the natural topography of the area subsequently flowing down Clumber Drive towards Penrith Avenue.

Risk Management Authorities and their responsibilities

14. 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. Lead Local Flood Authorities also have a 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

15. Rushcliffe Borough Council

- i. 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.

Risk Management Authority Responses to Flood

16. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:

17. 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.
- p) Liaised with site development owner to ensure assets were functioning.

18. Rushcliffe Borough Council:

- a) Provided emergency response support in management of flooding event.
- b) Delivered sandbags to affected residents.
- c) Managed and continue to manage recovery in affected Rushcliffe communities.
- d) Actively engaged in the Section 19 Flood Investigation.
- e) Liaised with affected residents on site.

Additional information and future actions

- 19. The local community spirit and resilience during the flooding must be recognised as without their efforts the impacts of the flooding could have been worse.
- 20. NCC are currently working with the developer to provide additional flood water storage in the location of the site to allow for overflow during large storm events. Further details of these works will be shared to the community as they are available.
- 21. 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. NCC will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
- 22. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible. A community flood signage scheme is being developed in Radcliffe on

Trent with support from NCC. Officers for the Flood Risk Management team are working with the community to help them develop a local flood action group.

23. NCC is currently working to install bespoke Property Flood Resilience measures to affected properties as part of its Property Flood Resilience capital programme.
24. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX AA

SECTION 19 REPORT – RETFORD – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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), Bassetlaw District Council (BDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC, Severn Trent Water Ltd. (STW) and the Isle of Axholme Internal Drainage Board (IOAIDB).
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. Retford is a town within the District of Bassetlaw, Nottinghamshire. It has a population of approximately 23,740 people according to the 2021 census.
7. On the 20th October, during Storm Babet, Retford 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, which is approximately 9.5km from Retford (Figure 1). Consequently, 120 residential properties and 4 businesses were subject to internal flooding with more suffering flooding to gardens and outbuildings.

8. 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.

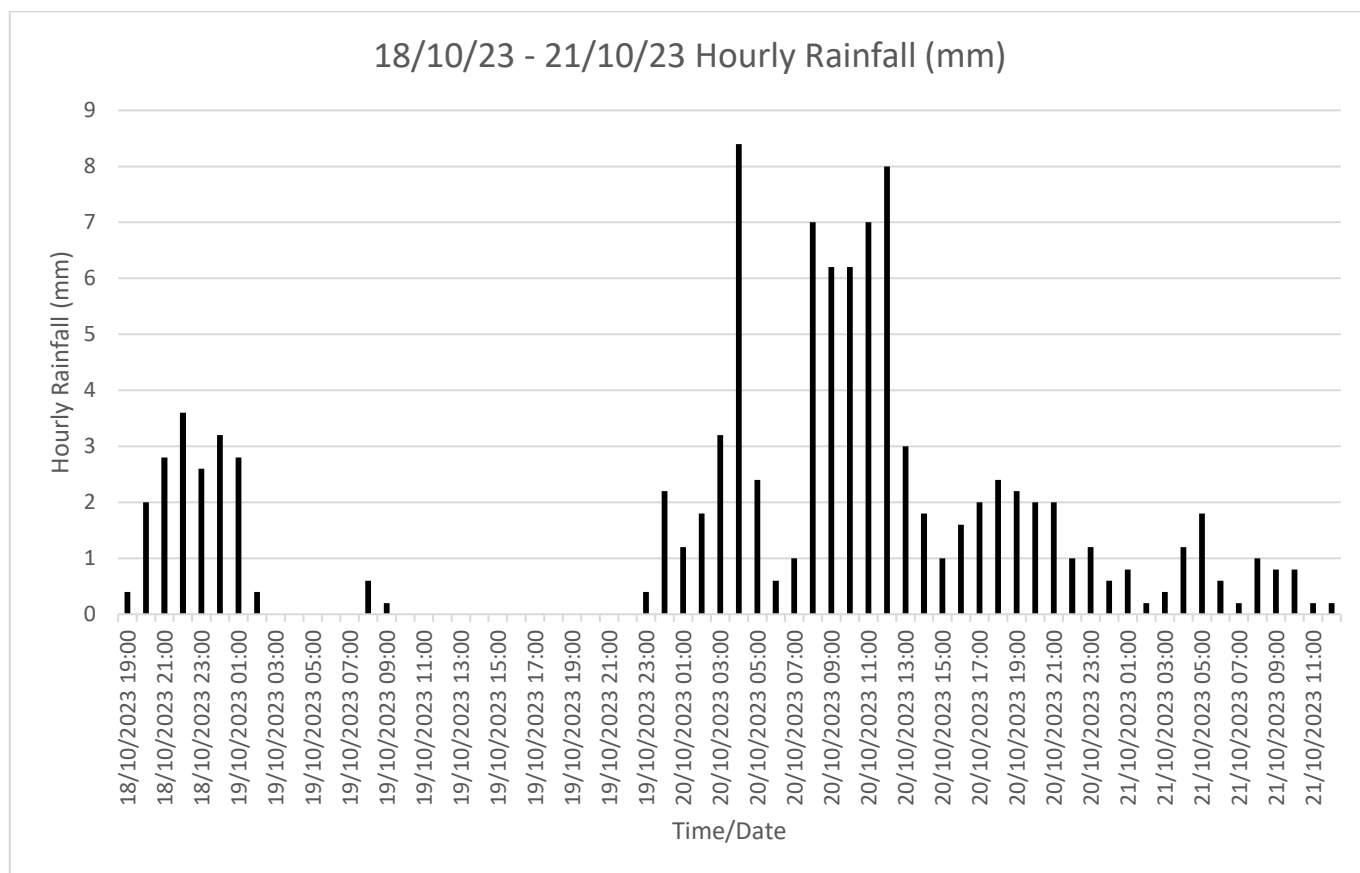


Figure 1. Worksop Hourly Rainfall 19:00 18th October – 12:00 21st October 2023. Data supplied by the Environment Agency.

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

- Blackstope Lane (12)
- Claters Close (2)
- Darrel Road (25)
- Grove Lane (10)
- Hallcroft Road (1)
- Leverton Road (5)
- Maun Close (10)
- Meden Way (26)
- Poulter View (5)
- Station Terrace (1)
- Thrumpton Close (15)
- Victoria Road (2)
- West Street (1)
- Whitehall Court (9)

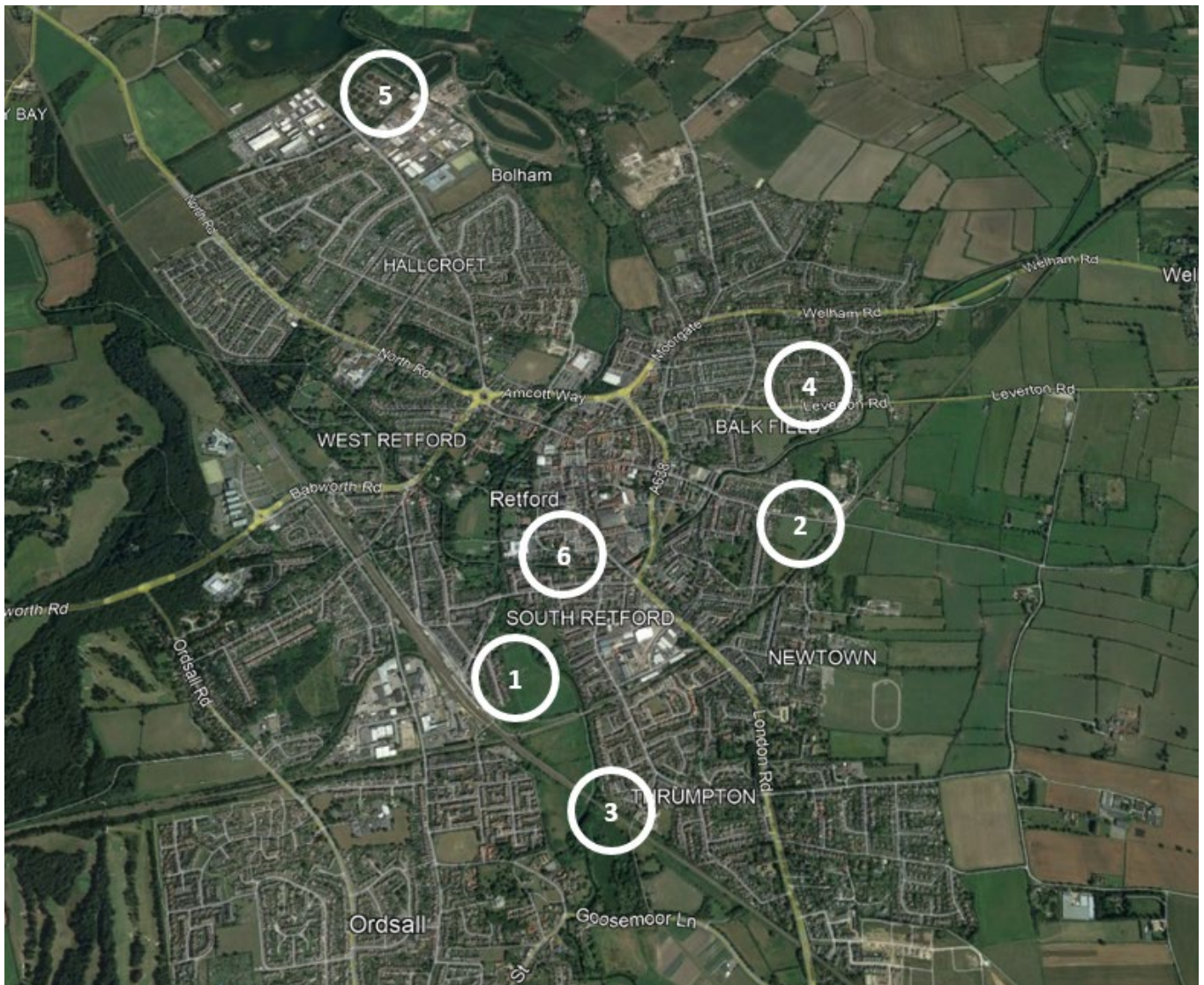


Figure 2. View of Retford flood affected areas. 1. Darrel Road and Victoria Road 2. Blackstope Lane and Grove Lane. 3. Maun Close, Meden Way, Poulter View, Station Terrace, Thrumpton Close and Whitehall Court 4. Claters Close and Leverton Road 5. Hallcroft Road 6. West Street.

Summary of flooding and its causes

Darrel Road and Victoria Road

10. The Carr Dyke (IDB managed watercourse) and River Idle (main river) are both located to the east of Darrel Road and Victoria Road and flow in a northerly direction, as shown in Figure 3. Due to the sustained heavy rainfall during Storm Babet, levels in the Carr Dyke and River Idle rose, with the River Level gauge at Ordsall showing the River Idle to rise through the 20th, 21st and early morning of the 22nd of October (shown in figure 4.). At its peak the River Idle recorded a new record level of 1.79m, substantially higher than the previous highest level on record of 1.65m set in June 2007.
11. Eyewitness reports from residents note the Carr Dyke to initially come out of bank and flood gardens and outbuildings. During the event the River Idle also overtopped its banks, filling adjacent fields to the south of the railway line. This subsequently flowed into the Carr Dyke via a culvert under the railway embankment, where a throttle was overtopped, and by flowing over a lower area of land just to the north of the railway bridge. The exact interactions between the Carr Dyke and River Idle and the timeline of these in relation to the observed flooding is unclear, however as a result of water levels continuing to rise through the flood event properties then suffered internal flooding and further damage to gardens and outbuildings.

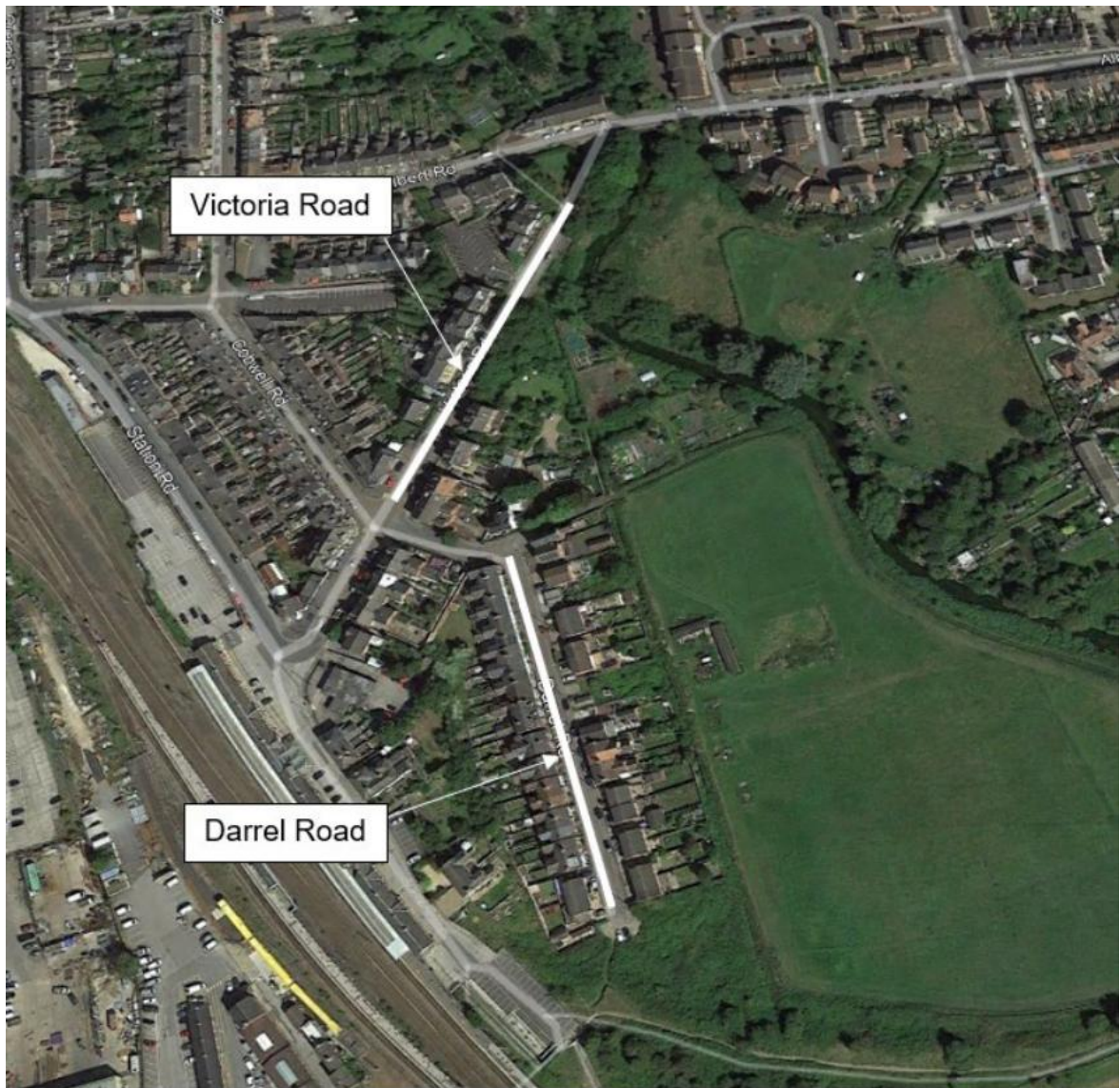


Figure 3. Darrel Road and Victoria Road.

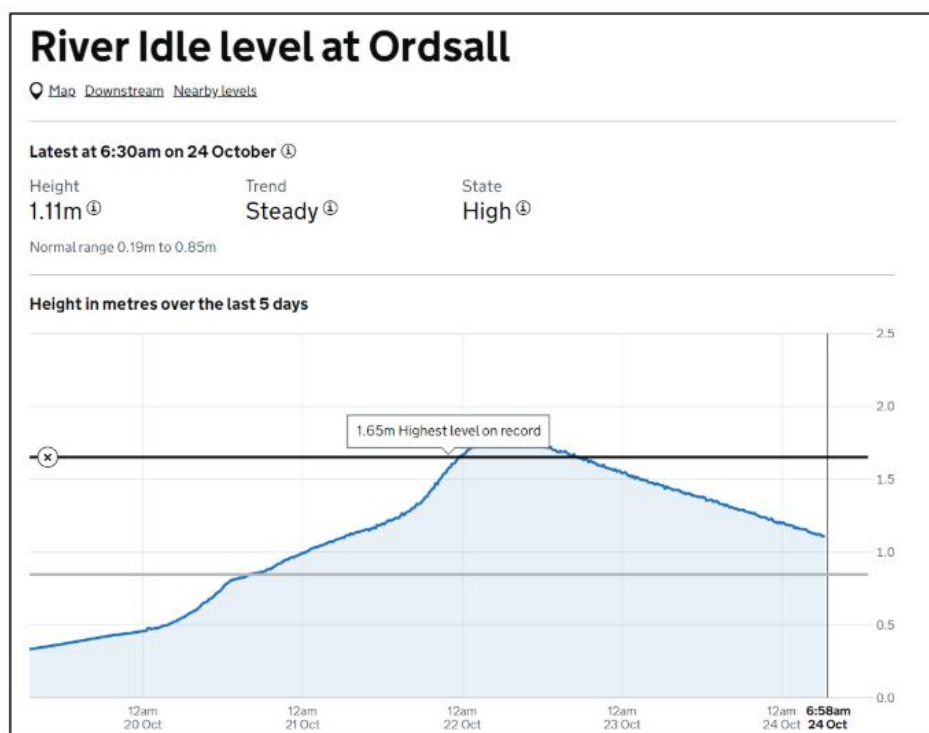


Figure 4. River Level gauge data for the River Idle at Ordsall.

12. While the Fluvial Flood Risk Mapping (Figure 5) broadly indicates this trend of flooding, it should be noted that not the entire field to the east of Darrel Road was flooded during the event. The additional flood flows from the River Idle, combined with the already high water levels in the Carr Dyke, resulted in water levels to rise along the western edge of the field and rear gardens, which increased enough to cause internal flooding to properties. As a result, twenty-five residential properties suffered internal flooding on Darrel Road and two residential properties suffered internal flooding on Victoria Road with more properties suffering from external flooding.

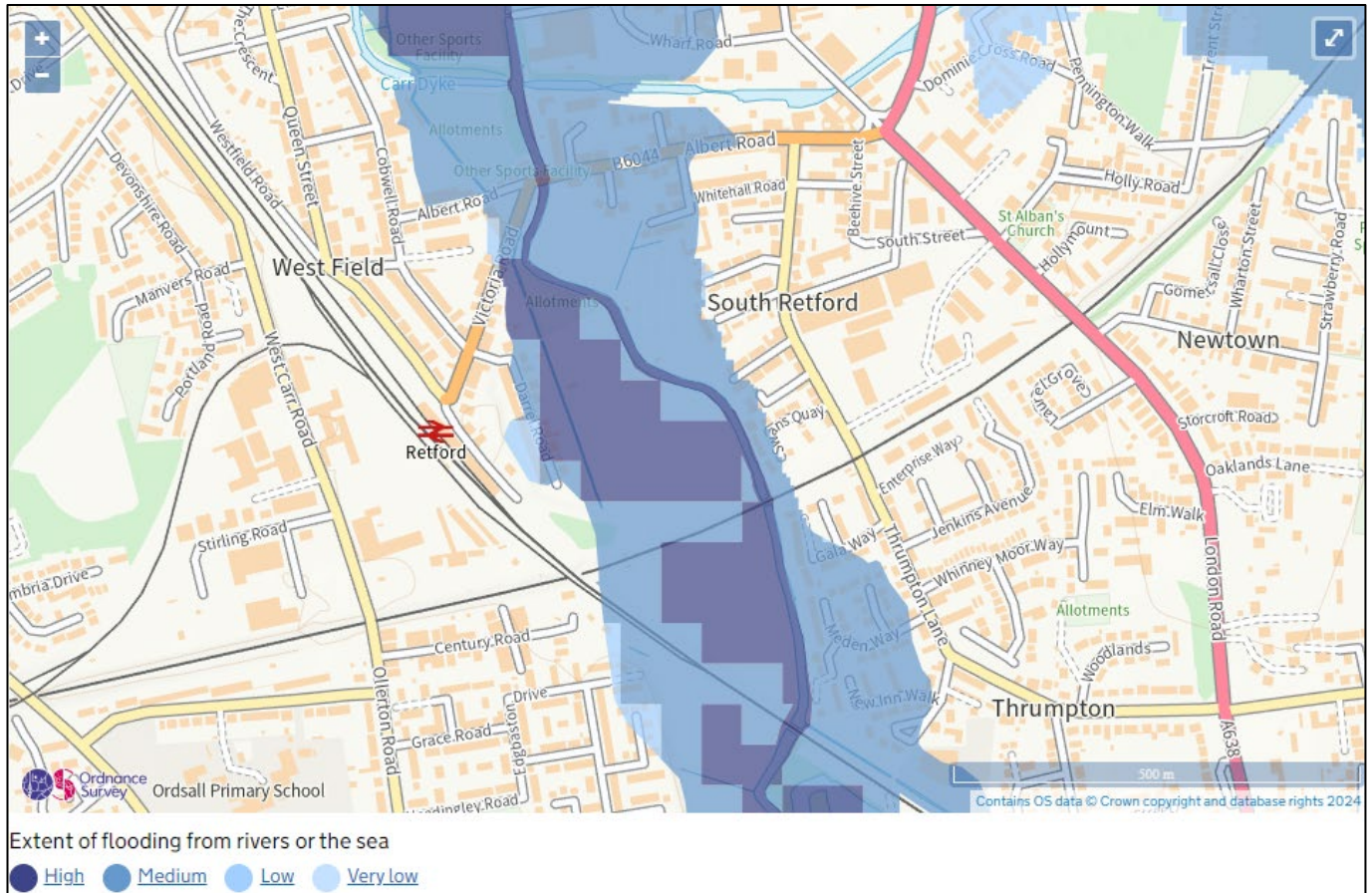


Figure 5. Fluvial Flood Risk Mapping. Data provided by the Environment Agency.

Blackstope Lane and Grove Lane

13. Blackstope Lane and Grove Lane, shown in figure 6, are located on the eastern edge of Retford between the Chesterfield Canal and the Retford to Gainsborough railway line. The Retford Beck originates to the south-east of Retford and flows in a generally northerly direction, until it reaches Grove Lane where it heads west. This and an un-named watercourse on Blackstope Lane receive runoff from land to the east of Retford and convey this under the Chesterfield Canal to its outfall into the River Idle. Due to the rising land to the east of Retford these watercourses respond quickly to heavy rainfall. This has caused flooding on Blackstope Lane and Grove Lane on previous occasions.
14. In anticipation of the forecasted rainfall the Environment Agency deployed pumps which were operated 24 hours a day for 5 days. During Storm Babet however the heavy sustained rainfall caused these watercourses to rapidly rise and despite the pumping efforts, overwhelm the culverts on Grove Lane and Blackstope Lane. As a result, twelve residential properties were internally flooded on Blackstope Lane and eight residential properties and two business properties were internally flooded on Grove Lane.



Figure 6. Blackstope Lane and Grove Lane

15. Figure 7 shows the Flood Risk Mapping for this area, which generally correlates with the flooding observed.

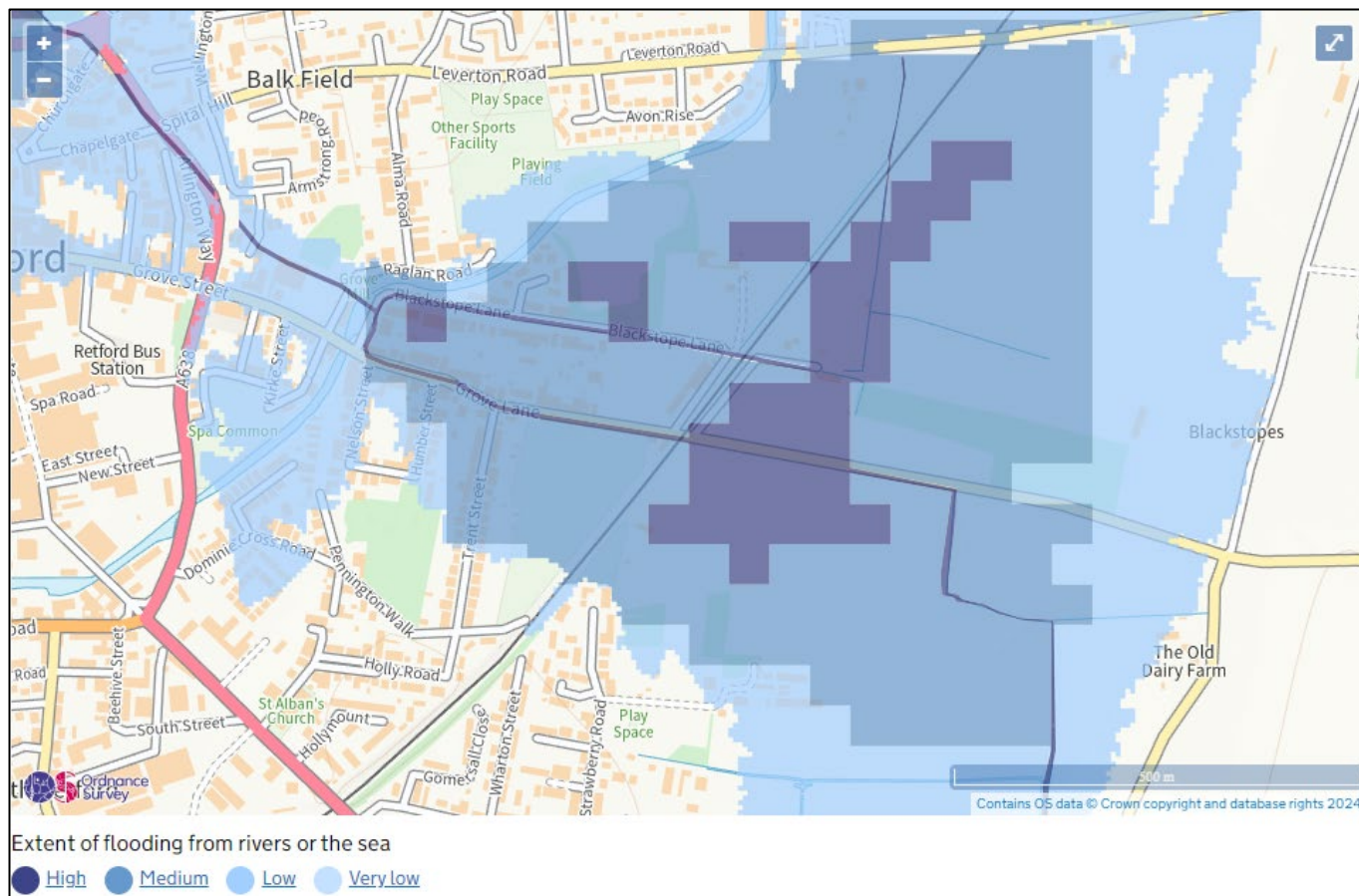


Figure 7. Fluvial Flood Risk Mapping. Data provided by the Environment Agency.

Maun Close, Meden Way, Poulter View, Station Terrace, Thrumpton Close, Whitehall Court

16. The below streets are all located in the Thrumpton area of Retford, identified in Figure 8. Internally flooded property numbers are given in brackets.

- Maun Close (10)
- Meden Way (26)
- Poulter View (5)
- Station Terrace (1)
- Thrumpton Close (15)
- Whitehall Court (9)

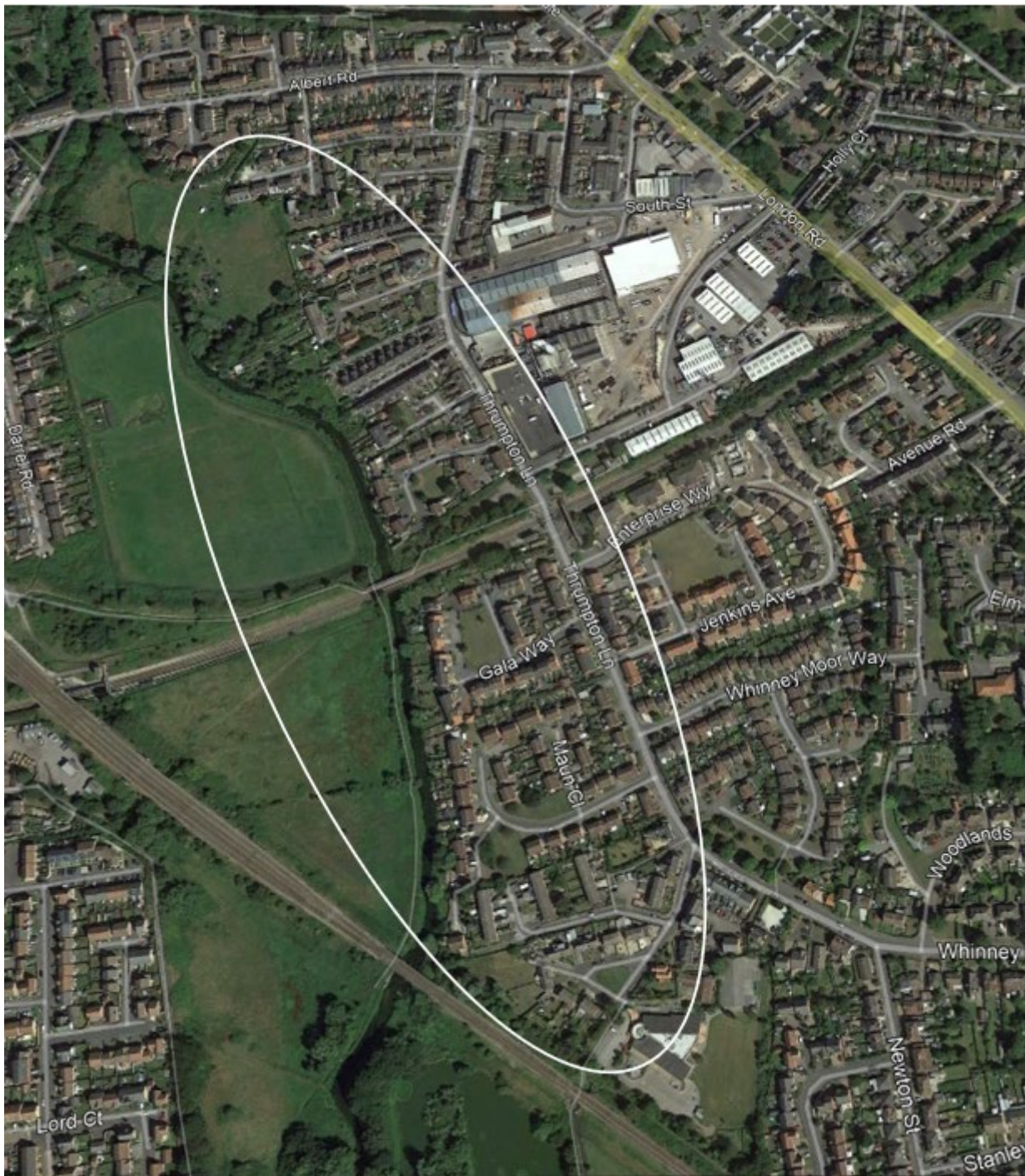


Figure 8. *Maun Close, Meden Way, Poulter View, Station Terrace, Thrumpton Close, Whitehall Court*

17. The River Idle runs to the east of this area. The sustained heavy rainfall saw the river level rise through the 20th, 21st and early morning of the 22nd of October. At its peak the River Level gauge at Ordsall recorded a new record level of 1.79m (shown in figure 4.)
18. As a result, the River Idle overtopped its banks and a section of flood wall causing internal flooding, also resulting in a section of flood wall being damaged on Poulter View. It is also understood that as a result of the high levels in the River Idle, and subsequent overtopping, that the highway drainage would have been unable to outfall, and would then have subsequently been overwhelmed by flood water from the river.
19. Figure 9 shows the predicted fluvial flood risk for the area which correlates with the flooding observed in this area.

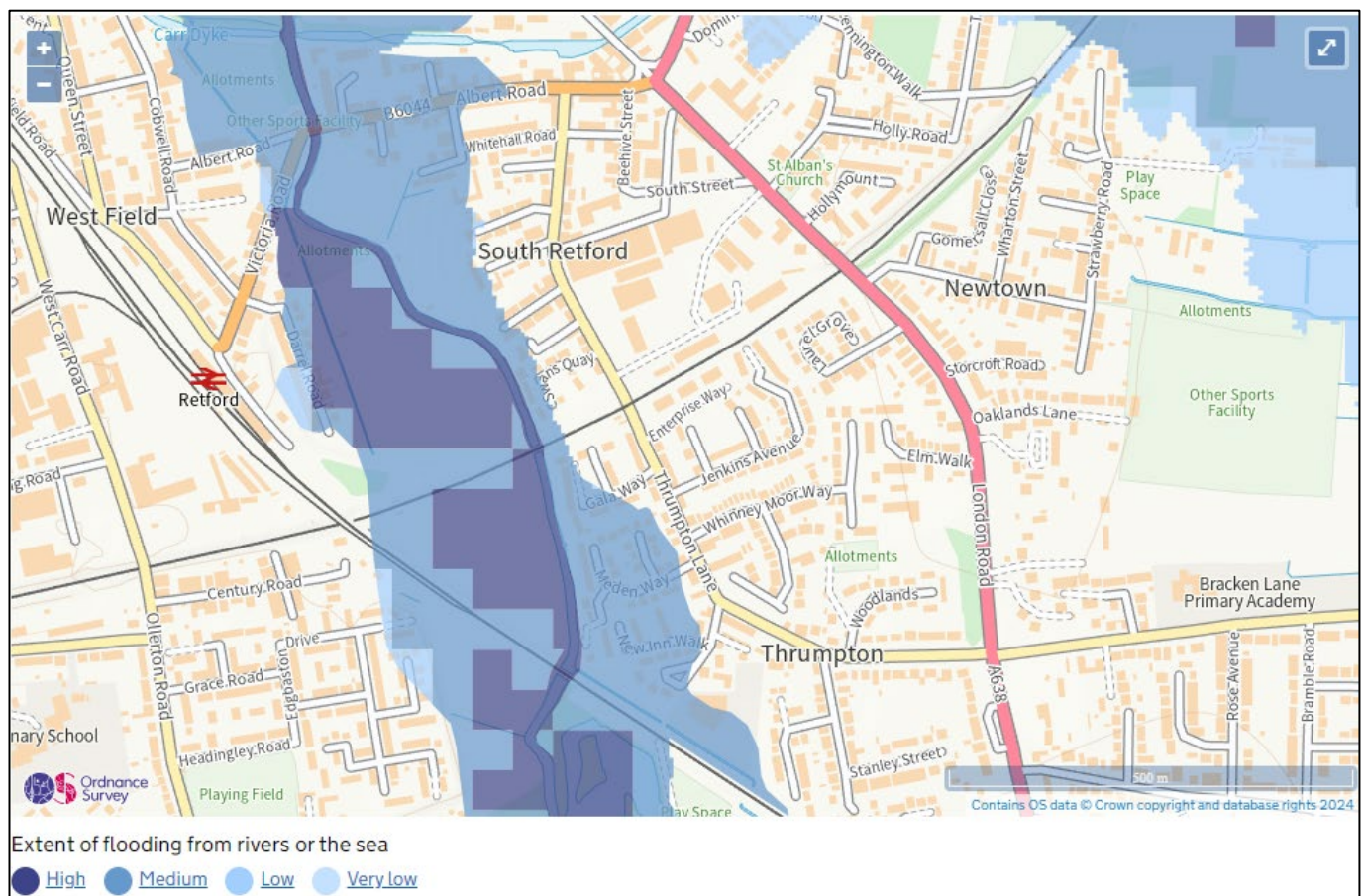


Figure 9. Fluvial Flood Risk Mapping. Data provided by the Environment Agency.

Claters Close and Leverton Road

20. Claters Close and Leverton Road are located in the north east of Retford, to the west of the Chesterfield Canal. Two residential properties on Claters Close and five residential properties on Leverton Road suffered internal flooding due to surface water running down the highways towards properties.
21. This surface water flooding correlates with the predicted surface water extents as shown in figure 11 below. There is also understood to be interaction with a Severn Trent pumping station in the area which may have contributed to the flooding and will need to be assessed to fully understand the cause of the flooding in this location.



Figure 10. Claters Close and Leverton Road



Figure 11. Surface Water Flood Risk Mapping. Data provided by the Environment Agency.

Hallcroft Road

22. Hallcroft Road is located in the north of Retford, shown in Figure 12, and has the River Idle to the east. Due to the sustained heavy rainfall, levels rose until the river came out of banks, filling the adjacent lakes. River levels continued to rise and as a result one business property suffered internal flooding.

23. River levels recorded at the gauge at Ordsall reached a new record level of 1.79m (shown in figure 4.). Figure 13. Shows the predicted fluvial flood risk for this area, which correlate with the observed flooding.



Figure 12. Hallcroft Road.

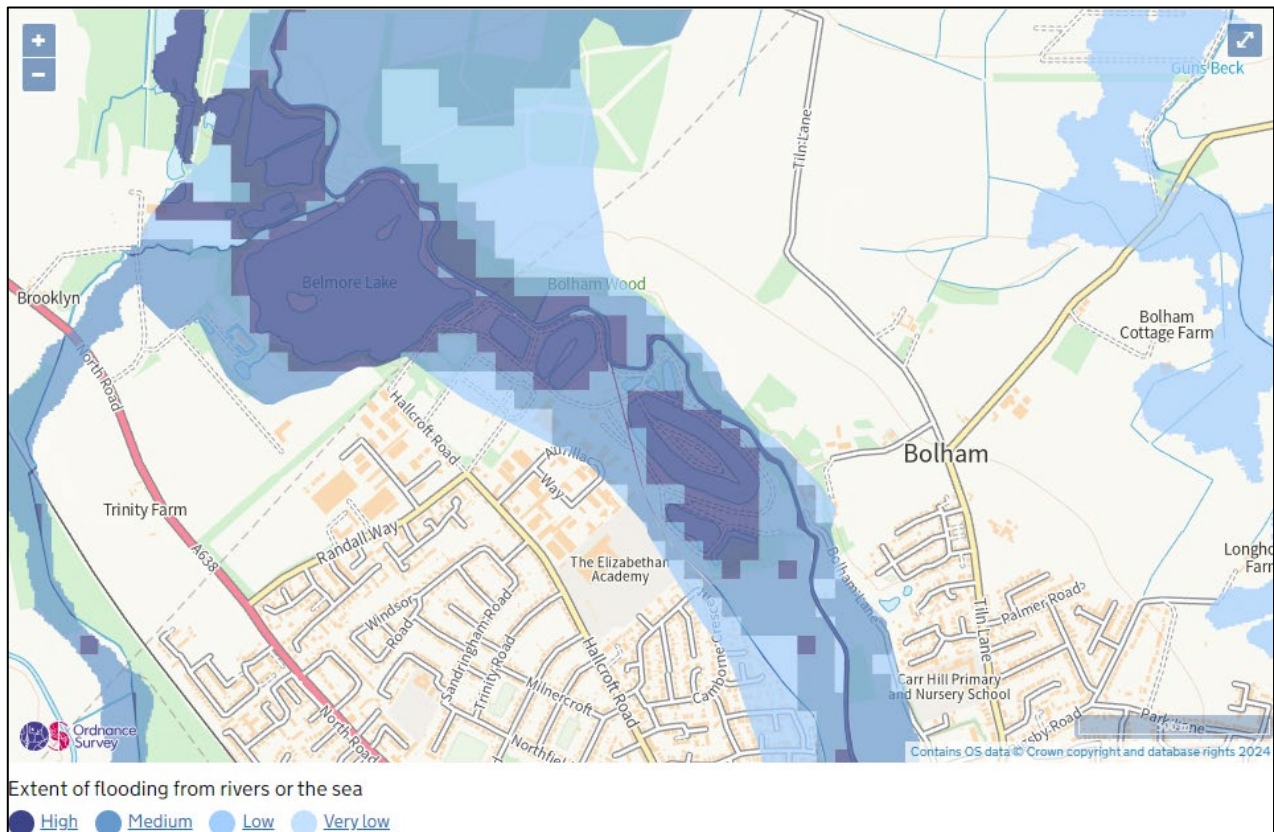


Figure 13. Fluvial Flood Risk Mapping. Data provided by the Environment Agency.

West Street

24. One business property suffered internal flooding on West Street as a result of Storm Babet. The River Idle is located approximately 125 metres to the west, which due to the sustained heavy rainfall recorded a record level of 1.79m at the gauge at Ordsall (shown in figure 4.).
25. As a result, the river exceeded its channel capacity and flooded onto Wharf Road and Chancery Lane. This reached levels where it also flowed onto West Street.



Figure 14. West Street

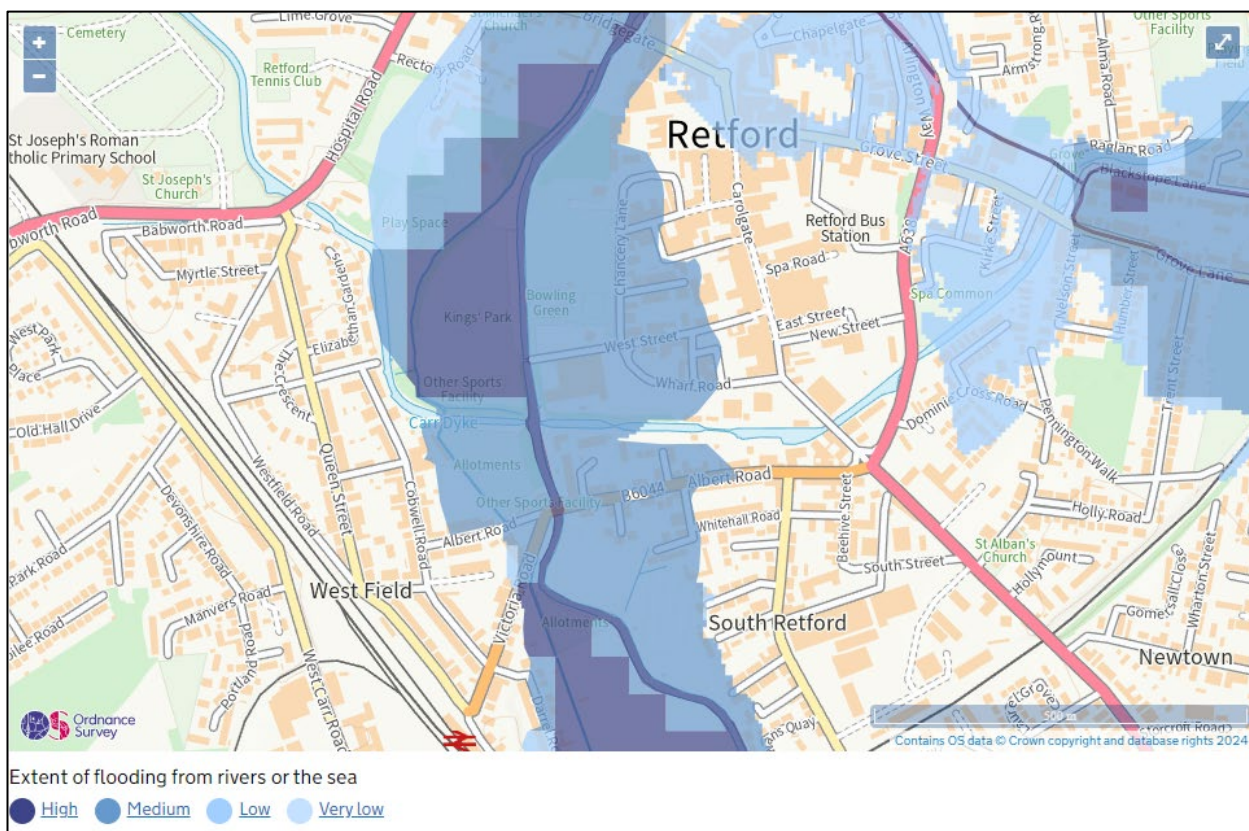


Figure 15. Fluvial Flood Risk Mapping. Data provided by the Environment Agency.

Risk Management Authorities and their responsibilities

26. 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.

27. 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.

28. 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.

29. 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.

30. Isle of Axholme Internal Drainage Board (IOAIDB).

- a) Has a duty to manage flood risk and land drainage within areas of special drainage need in the Trent Valley.
- b) Has permissive powers to undertake work to provide water level management within their area.
- c) Undertake works to reduce flood risk to people and property and manage water levels for local needs including the maintenance of rivers, drainage channels, outfalls and pumping stations.

Risk Management Authority Responses to Flood

31. 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:

32. 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.

33. 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.

34. The Environment Agency.

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) The Environment Agency warned and informed the community and partners by issuing a Flood Alert for the River Idle in Nottinghamshire Flood Alert on 19/10/2023 and a Flood Warning for the River Idle at West Retford and Ordsall on 21/10/2023.
- e) The Environment Agency issued 2 Severe Flood Warnings for the River Idle at West Retford and Ordsall and also River Idle at Retford, Eaton and Gamston on 22/10/2023.
- f) The Environment Agency instigated flood patrols on 19/10/2023 to operate structures in accordance with incident response procedures. The Environment Agency cleared blockages in the area before and after the peak flows when it was safe to do so, installing flood gates at Ordsall.
- g) The Environment Agency installed pumps on 19/10/2023 at Grove Lane and Blackstope Lane in anticipation of the forecasted rain. These were operated 24 hours a day for 5 days when the flood water receded, pumping 399,120m³ in partnership with the Fire and Rescue Service.
- h) The Environment Agency liaised with Nottinghamshire Police and Fire and Rescue Services to evacuate residents as conditions worsened.
- i) 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.

- j) 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.

35. 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 of flooding.
- b) Severn Trent actively engaged with the Section 19 Flood investigation.

36. Isle of Axholme Internal Drainage Board.

- a) The IDB is working closely with lead partners to identify and deliver appropriate solutions including supporting funding applications and with engineering and design expertise.
- b) In all parts of the IDB districts the regular annual maintenance regime has been and will continue to be delivered to reduce risk and identify potential risk areas.
- c) The IDB is undertaking checks to ensure the temporary throttle placed at the head of Carr Dyke, to reduce the flooding impacts from previous inundation of the lowland system by main river – River Idle, remains in good working order.

Additional Information and Future Actions

- 37. 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.
- 38. 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.
- 39. The Environment Agency will review and make improvements to the pumping strategy for Retford.
- 40. The Environment Agency will organise a multi-agency drop in event for Retford & Ordsall.
- 41. The Environment Agency are investigating options for upstream flood storage that may benefit both Ordsall and Retford in reducing flooding from the River Idle.
- 42. Subject to funding availability and 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:
 - Retford Beck culvert renewal / replacement for Grove Lane and Blackstope Lane.
 - Modelling to better understand the interaction between the River Idle and the Carr Dyke to see whether it may be possible to reduce flooding in the area
 - River Idle targeting de-silts through the town centre and downstream.
 - River Idle conveyance and tree works through town centre and downstream.
 - Thrumpton/Poulter View wall repair.

43. NCC will discuss its Flood Warden / Road Closure training programme with community volunteer groups.
44. 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.
45. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.
46. Bassetlaw District Council participated in the LRF Storm Babet Debrief and learning review meeting which identified a number of future actions.
47. Bassetlaw District Council has undertaken an internal review of the response to Storm Babet which identified a number of future actions.
48. 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.
49. 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.

APPENDIX AB

SECTION 19 REPORT – SELSTON – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: "SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023".

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Ashfield District Council (ADC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA) and VIA East Midlands Ltd as Highways Authority on behalf of NCC.
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. Selston is a large village located in the Ashfield District of Nottinghamshire close to the Nottinghamshire / Derbyshire boundary. It has a population of approximately 12,240 people according to the 2021 census.
7. Between 12:00 noon on the 18 and 23:00 on the 20 October, 125.8mm of rainfall was recorded at the Sutton in Ashfield rain gauge, which is approximately 7km from Selston (Figure 1).
8. 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.

9. During Storm Babet, 4 residential properties and 1 business in Selston were subject to internal flooding with more suffering flooding to gardens and outbuildings.

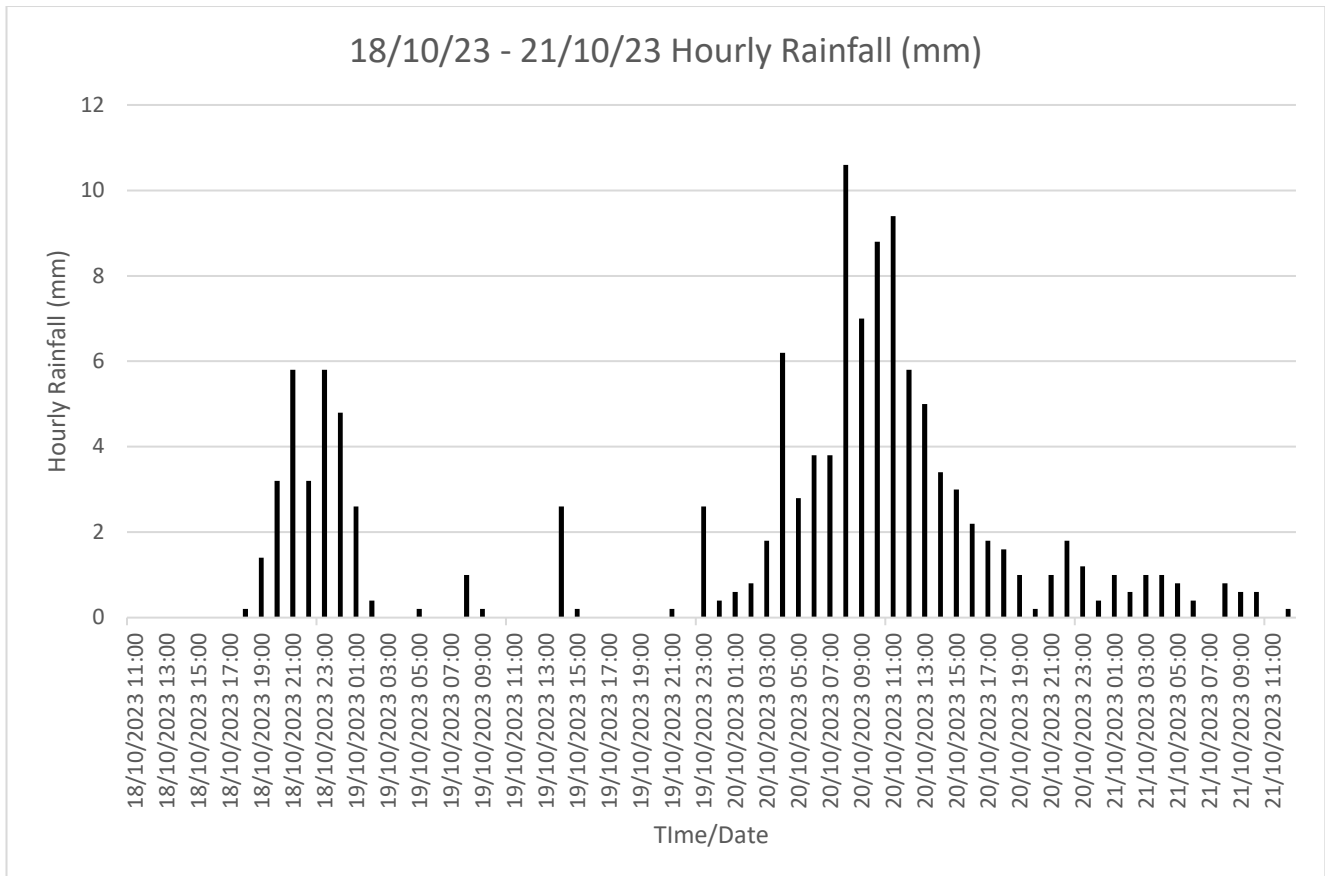


Figure 1. Sutton in Ashfield Hourly Rainfall from 12:00 18 to 23:00 20 October 2023. Data supplied by the Environment Agency.



Figure 2. View of Selston, highlighting areas affected by internal flooding.

Summary of flooding and its causes

10. The localised flooding that occurred in Selston during Storm Babet appears to have been caused by overland surface water flows. There is no supporting evidence at present that allows any further detailed comments to be made on the cause of the flooding.
11. It is likely that surface water that fell on the catchment, already saturated following the extensive amounts of rainfall that had fallen in the period before the storm, flowed overland resulting in flooding.

Risk Management Authorities and their responsibilities

12. 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 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 (VIA East Midlands Ltd. on behalf of Nottinghamshire County Council).
 - i. Maintenance of the public highways including highway drainage assets.
13. Ashfield 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.

Risk Management Authority Responses to Flooding

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

15. 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.

16. Ashfield District Council

- a) Senior Officers from ADC attended all Nottingham & Nottinghamshire LRF Strategic, Tactical, and Recovery Co-ordinating Group Meetings and the LRF Communication Cell which had also been stood up.
- b) Stood up ADC Internal Incident Management Team in response to the situation.
- c) Operationally, provided emergency response support in management of the flood event, working with colleagues from the LLFA prioritising attendance to affected properties, deploying sandbags to prevent internal flooding of domestic premises.
- d) Opened a Rest Centre at Hucknall Leisure Centre for evacuees from severely flooded domestic properties in Hucknall. However this was also available for use by residents from other communities in the District of Ashfield (and other LA areas) should this have been required throughout the flood event.
- e) Provided flood advice communications to members and other stakeholders through the various social media channels and platforms available to the Authority including a new Flood Advice page on the ADC website with links to well established flood advice resource such as NCC and Environment Agency web pages.
- f) Held an internal Storm Babet debrief identifying several learning outcomes and actions.

- g) Attended the Nottingham & Nottinghamshire LRF Storm Babet debrief meeting at the Environment Agency's Trentside offices – awaiting report and recommendations / learning outcomes.
- h) Actively engaged in the Section 19 Flood Investigation and provided support to the Lead Local Flood Authority.

Additional Information and Future Actions

- 17. 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 contained within this report.
- 18. Ashfield District proposed the following actions:
 - a) Implementation of learning outcomes/recommendations from ADC's internal Storm Babet debrief including new Flood Advice page on website, Rest Centre review with NCC colleagues, production of Flood Action Card for the ADC Major Emergency Plan, undertake business continuity test/exercise(s), roll out of the LRF's 'Concept of Operations' training course for all ADC Executive and Assistant Directors.
 - b) Implementation of any additional learning outcomes/recommendations from the LRF's Storm Babet debrief applicable to ADC when these are made available.
 - c) Review need to increase internal stock of sandbags.
 - d) Work with LLFA partners in any flood attenuation/prevention works in future.
- 19. 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.
- 20. 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.
- 21. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX AC

SECTION 19 REPORT – SHIREOAKS – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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), Bassetlaw District Council (BDC), 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. Shireoaks is a village within the District of Bassetlaw, Nottinghamshire. It has a population of approximately 1,779 people according to the 2021 census.
7. The River Ryton (Main River) runs from West to East through the village, passing under a bridge on Thorpe Lane first and then under a bridge on Spring Lane approximately 350 metres downstream.

8. On the 20th October, during Storm Babet, Shireoaks suffered a flood event caused by sustained heavy rainfall. 103.2mm of rainfall was recorded at the Workstop rain gauge, with 75.4mm of this on the 20th alone, which is approximately 2km from Shireoaks (Figure 1).
9. Consequently, 8 residential properties were subject to internal flooding with more suffering flooding to gardens and outbuildings.

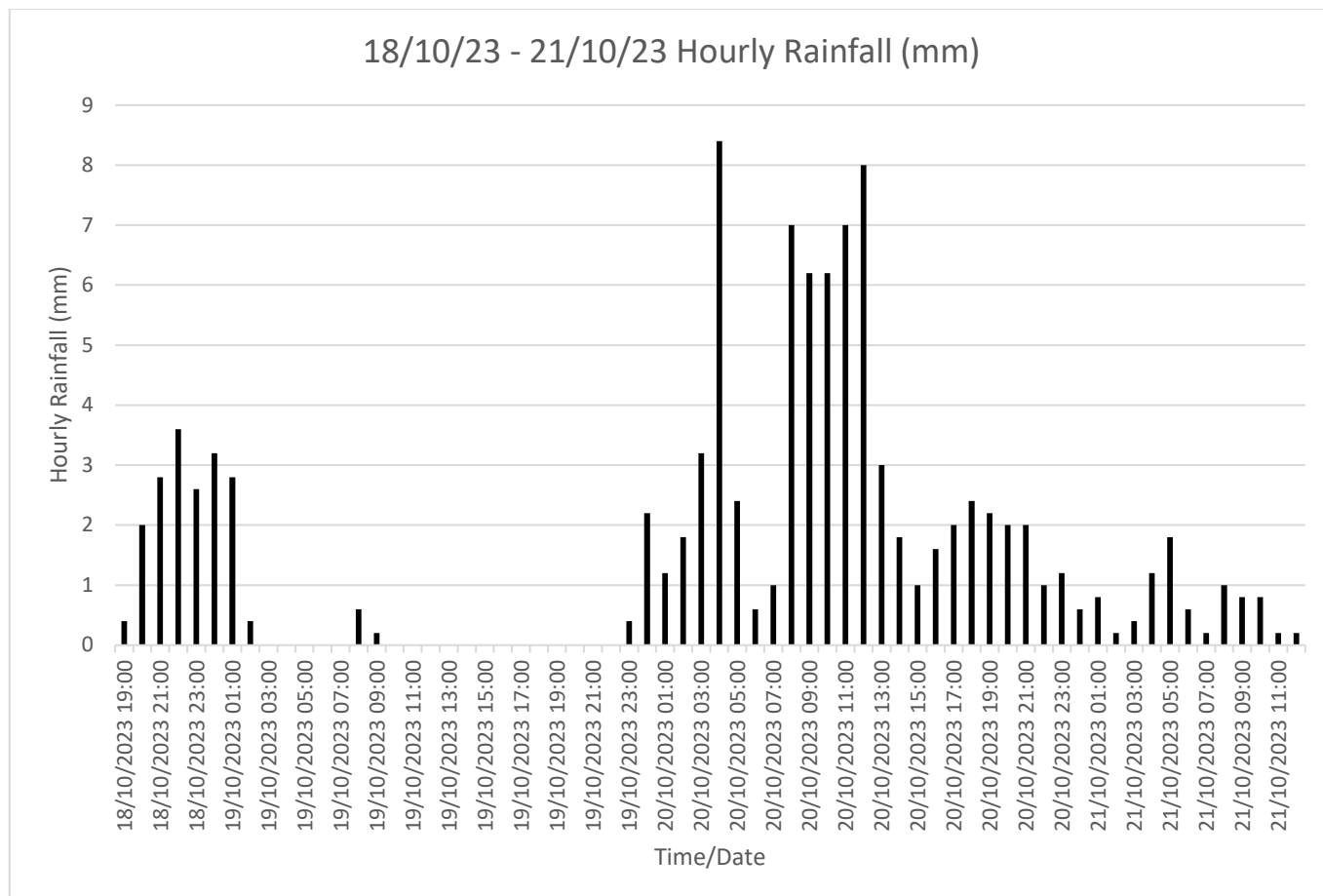


Figure 1. Workstop Hourly Rainfall 19:00 18th October – 12:00 21st October 2023. Data supplied by the Environment Agency.

10. A location map of Shireoaks is shown in Figure 2. The areas affected were Shireoaks Road (4 properties), Bethel Terrace (2 properties) and Spring Lane (2 properties).

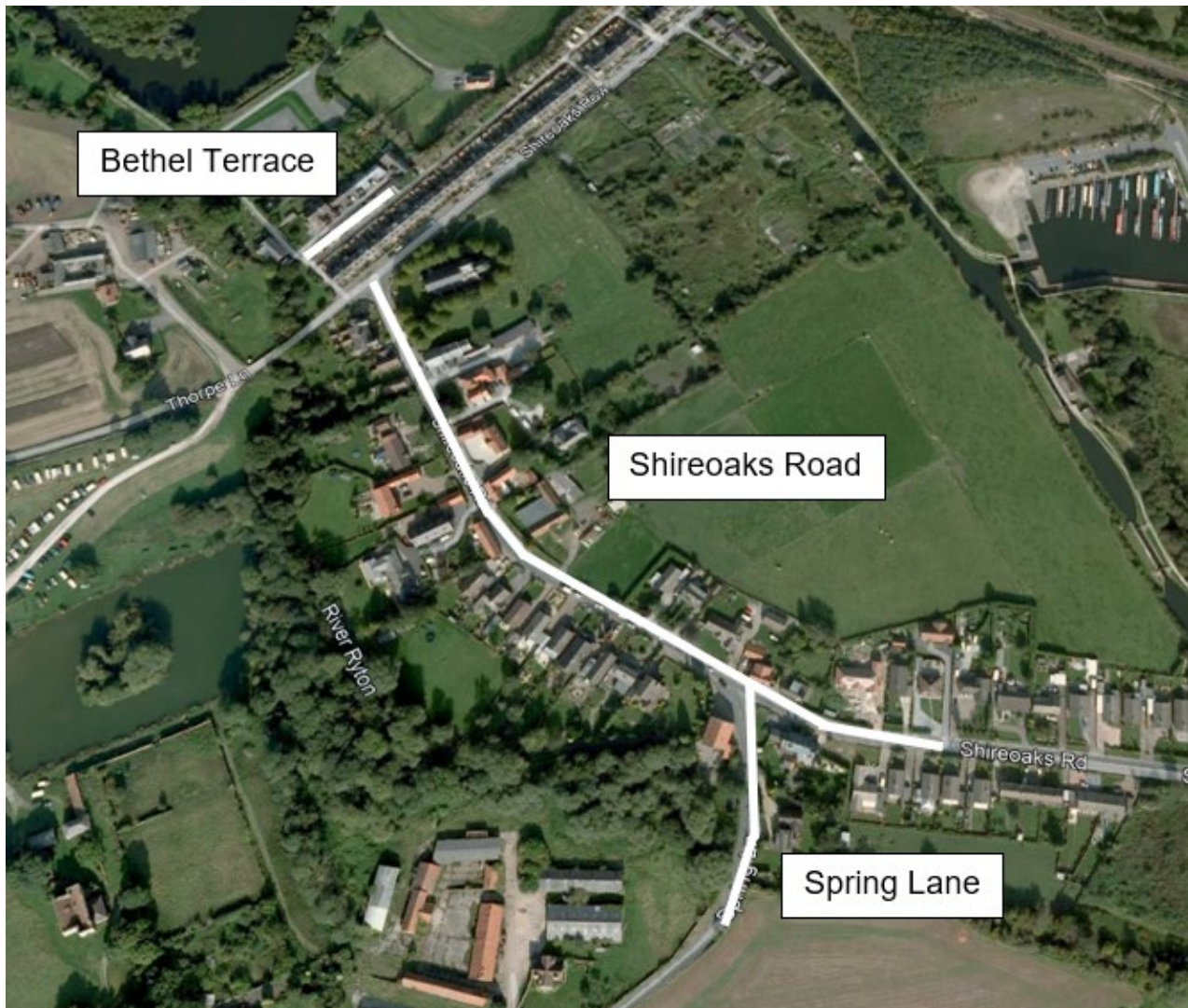


Figure 2. View of Shireoaks flood affected areas.

Summary of flooding and its causes

11. Due to the sustained heavy rainfall the River Ryton (main river) rose quickly from approximately 10am on the 20th, reaching a peak level of 2.11m at 11pm on the 20th at the Worksop river gauge. This was the 3rd highest level on record following 2.16m in November 2019 and 2.19m in June 2007. The peak level remained steady until gradually falling from approximately 9am on the 21st. Figure 3 shows the recorded levels on the River Ryton at Worksop, approximately 2.5km away.

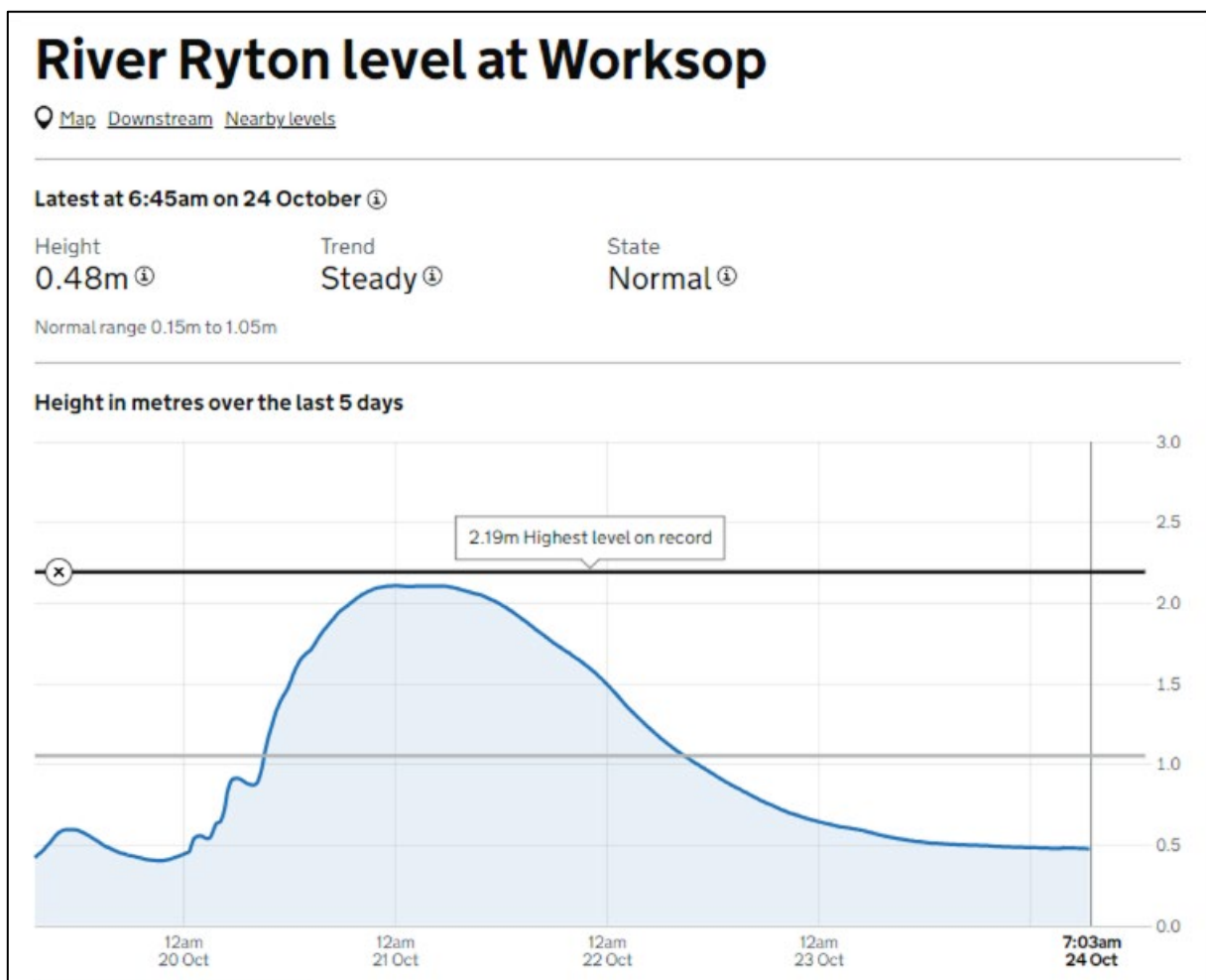


Figure 3. River Ryton level gauge at Worksop from 19th to 24th October. Data supplied by the Environment Agency.

12. As a result the river overtopped its banks through Shireoaks. This directly caused flooding to many of the properties affected. Properties on Bethel Terrace were also aware of pumping interaction from the local fishing lakes to the River Ryton. There is no further evidence at present that allows any further detailed comment on this interaction.
13. On Spring Lane it was observed that water levels were deep enough that cars which had attempted to drive through were left stranded in the floodwater.
14. The flooding broadly follows that predicted by the fluvial flood extents shown in Figure 4, albeit to a slightly enlarged area.

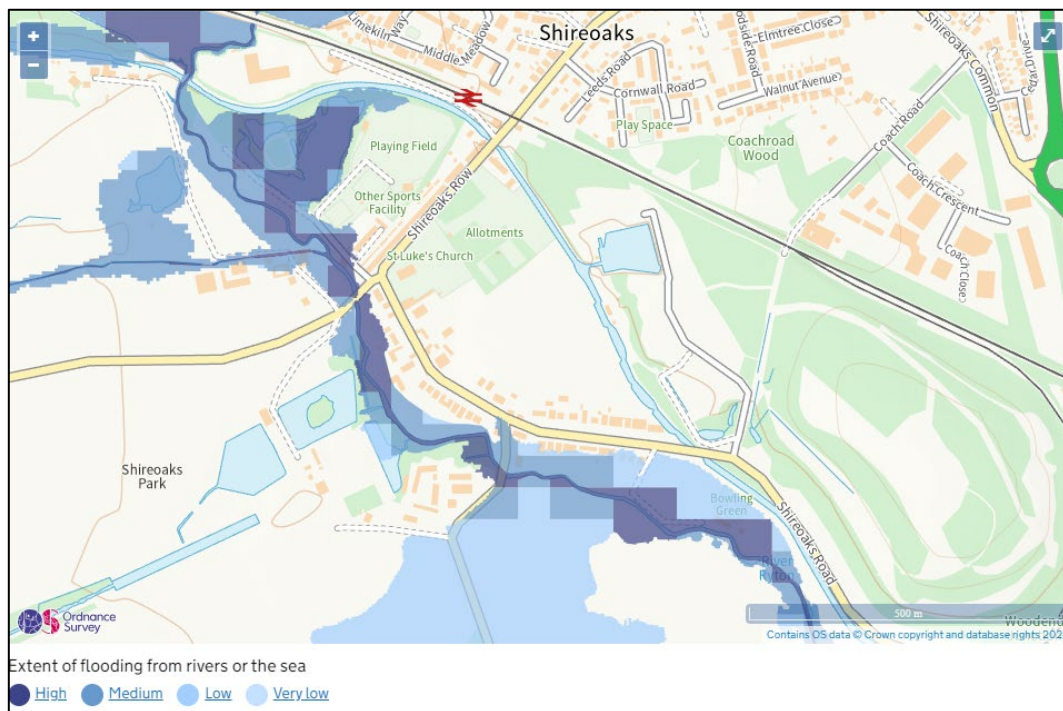


Figure 4. Fluvial Flood Risk Mapping. Data Provided by the Environment Agency – Main Road.

15. It must also be noted that flooding on Shireoaks Road was evident during the event which had now come from the River Ryton coming out of bank, and led to internal flooding of at least one residential property.

Risk Management Authorities and their responsibilities

16. 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.

17. 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.
18. 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.
19. 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

20. 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:

21. 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.

22. 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.

23. The Environment Agency

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) The Environment Agency warned and informed the community of Shireoaks in a timely manner by issuing a Flood Alert for the Ryton Oldcotes catchment on

20/10/2023 and issuing a Flood Warning for the River Ryton at Worksop Town Centre including Shireoaks on 20/10/2023.

- e) The Environment Agency also instigated flood patrols in accordance with their incident response procedures and cleared blockages in the area before and after the peak flows.
- f) The Environment Agency has no operational structures in the area.

24. 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 of flooding.
- b) Severn Trent actively engaged with the Section 19 Flood investigation.
- c) Severn Trent have been in contact with affected residents post flood event to further investigate sewer flooding issues.

Additional Information and Future Actions

- 25. 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.
- 26. 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.
- 27. NCC will liaise with the Environment Agency to further understand the interactions between the fishing lakes and the River Ryton which was observed by residents.
- 28. The Environment Agency will continue to gather data and evidence to help validate the Flood Warning Service and investigate further options to reduce flood risk in the area.
- 29. The Environment Agency will organise a multi-agency drop in event for Worksop & Shireoaks.
- 30. 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.
- 31. 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.
- 32. Bassetlaw District Council participated in the LRF Storm Babet Debrief and learning review meeting which identified a number of future actions.
- 33. Bassetlaw District Council has undertaken an internal review of the response to Storm Babet which identified a number of future actions.
- 34. 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.

35. 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.

APPENDIX AD

SECTION 19 REPORT – SOUTHWELL – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA) and Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Southwell is a town within the District of Newark & Sherwood District Council, Nottinghamshire. It has a population of approximately 7491 people according to the 2021 census.
7. Between 12:00 noon on the 18th and 23:00 on the 20th October, 124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 6km from Southwell (Figure 1).

8. 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.
9. During Storm Babet 14 residential properties in Southwell were subject to internal flooding.

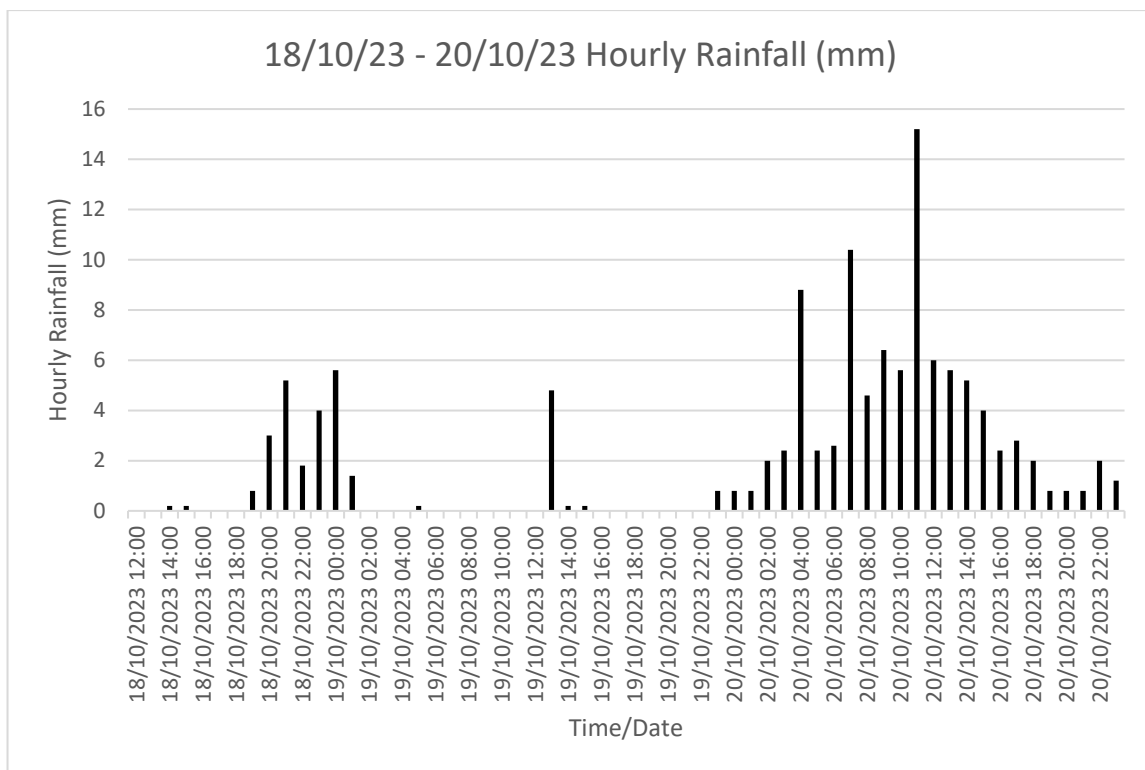


Figure 1. Staythorpe Hourly Rainfall from 12:00 18th to 23:00 20th October 2023. Data supplied by the Environment Agency.

10. Figure 2 highlights the areas that were subjected to internal flooding.

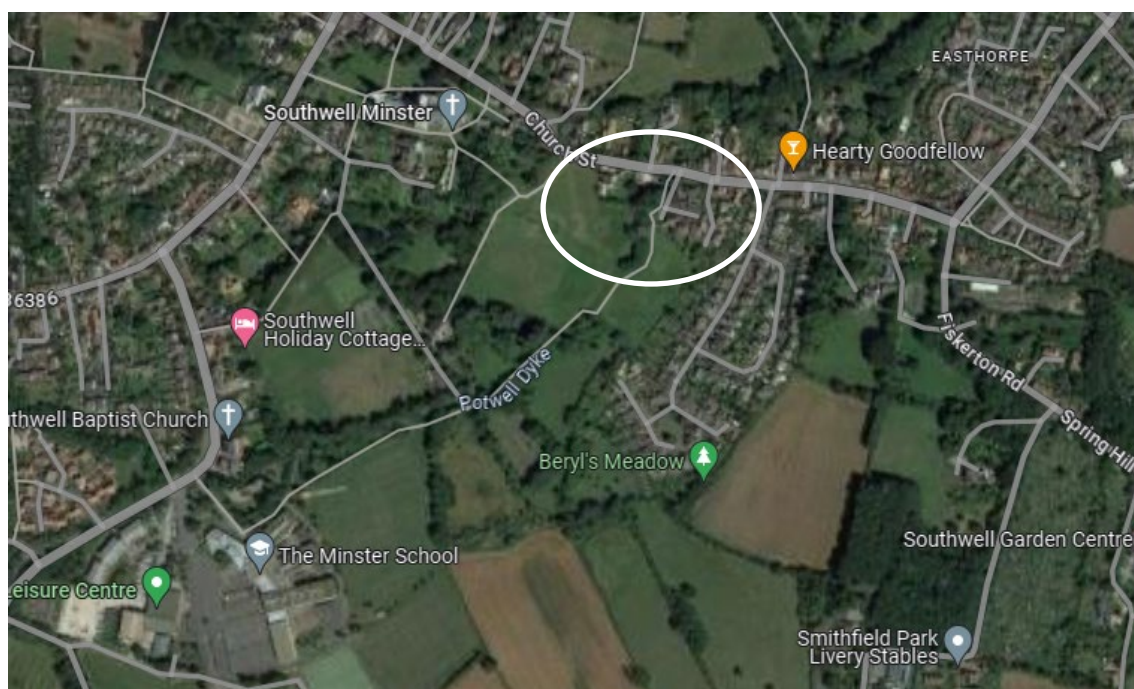


Figure 2. View of Southwell highlighting areas affected by internal flooding.

Summary of flooding and its causes

11. Southwell has a history of flooding which ultimately led to Nottinghamshire County Council leading a £5m flood alleviation project for the catchment. Southwell sits in a natural valley surrounded by agricultural land and is served by several watercourses including the Potwell Dyke. Subsequently the catchment has several areas that are naturally prone to flooding.
12. The Potwell Dyke runs through the centre of the town as shown on Figure 3 and runs underneath Church Street. During Storm Babet this area experienced flooding that manifested itself in a manner similar to previous flood events.
13. The area has been identified as a key point for flooding and part of the £5m capital investment is to facilitate the construction of a storage reservoir upstream of the Church Street crossing and install property flood resilience on properties on Church Street. The reservoir and property flood resilience will reduce the risk and consequences of flooding in the area. The storage reservoir is currently in the feasibility stage with planning submission programmed for summer 2024.

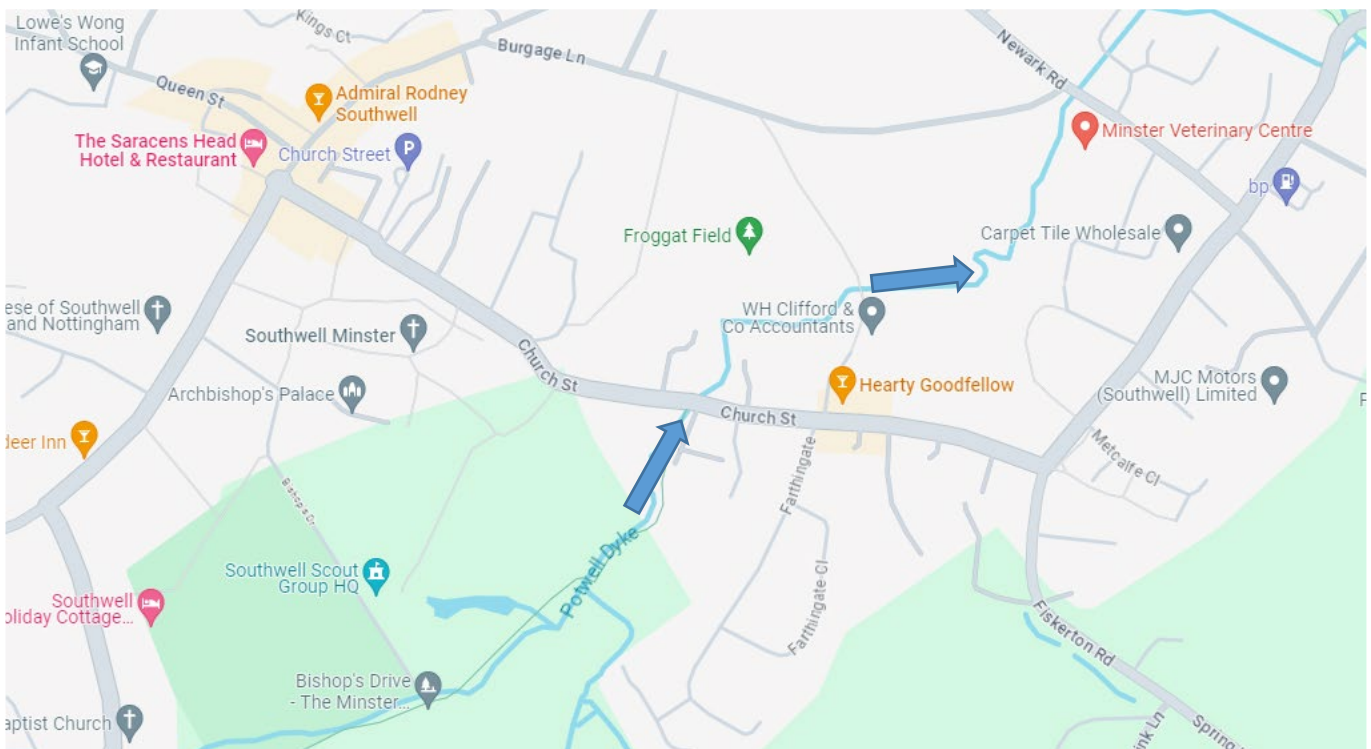


Figure 3. Map of Southwell showing routes of the Potwell Dyke and its crossing with Church Street and its tributary.

14. These watercourses and the topography of the village combine to create a natural risk of flooding to the area. Figures 4 and 5 show the predicted risk of flooding as published by the Environment Agency's Flood Map for Planning (<https://flood-map-for-planning.service.gov.uk>)

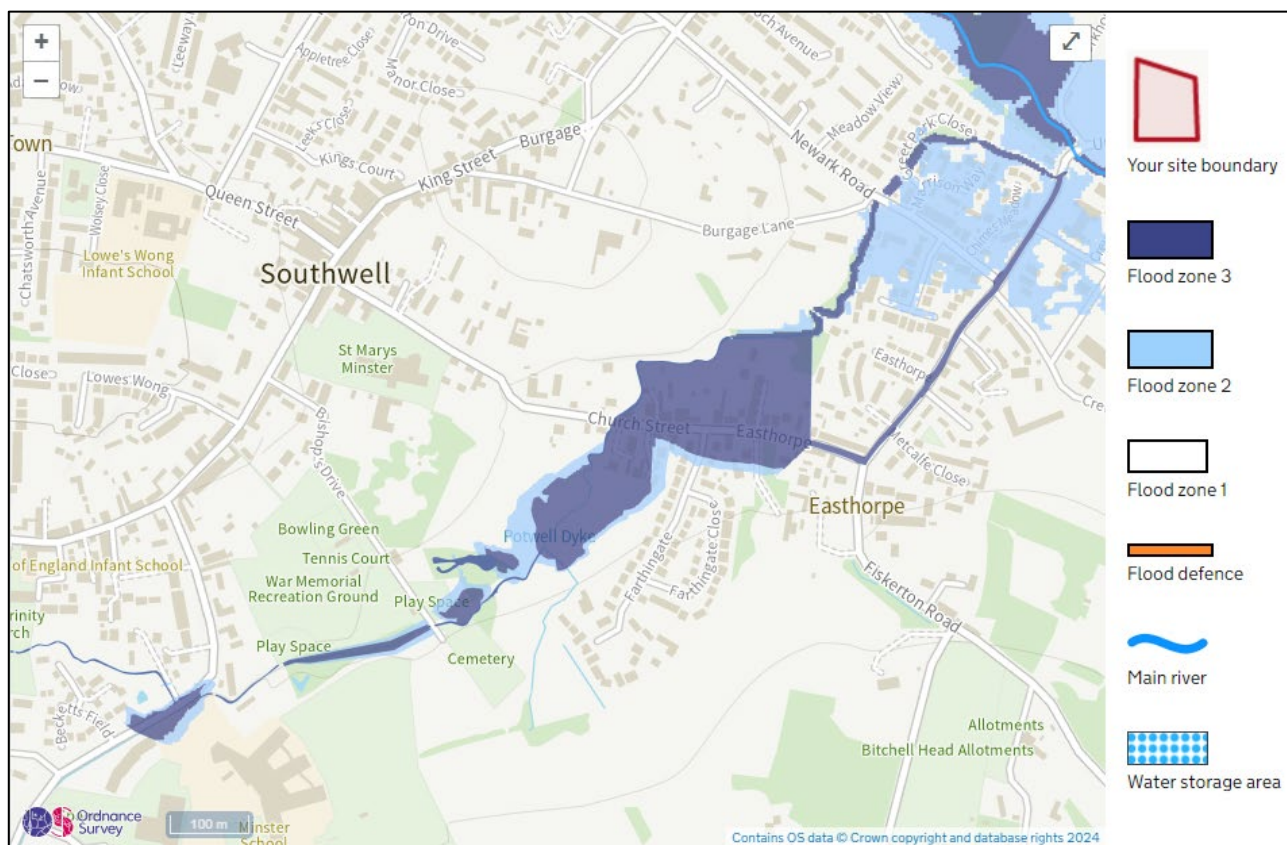


Figure 4. Predicted Flood Zone Extents (FZ3 is darkest area)

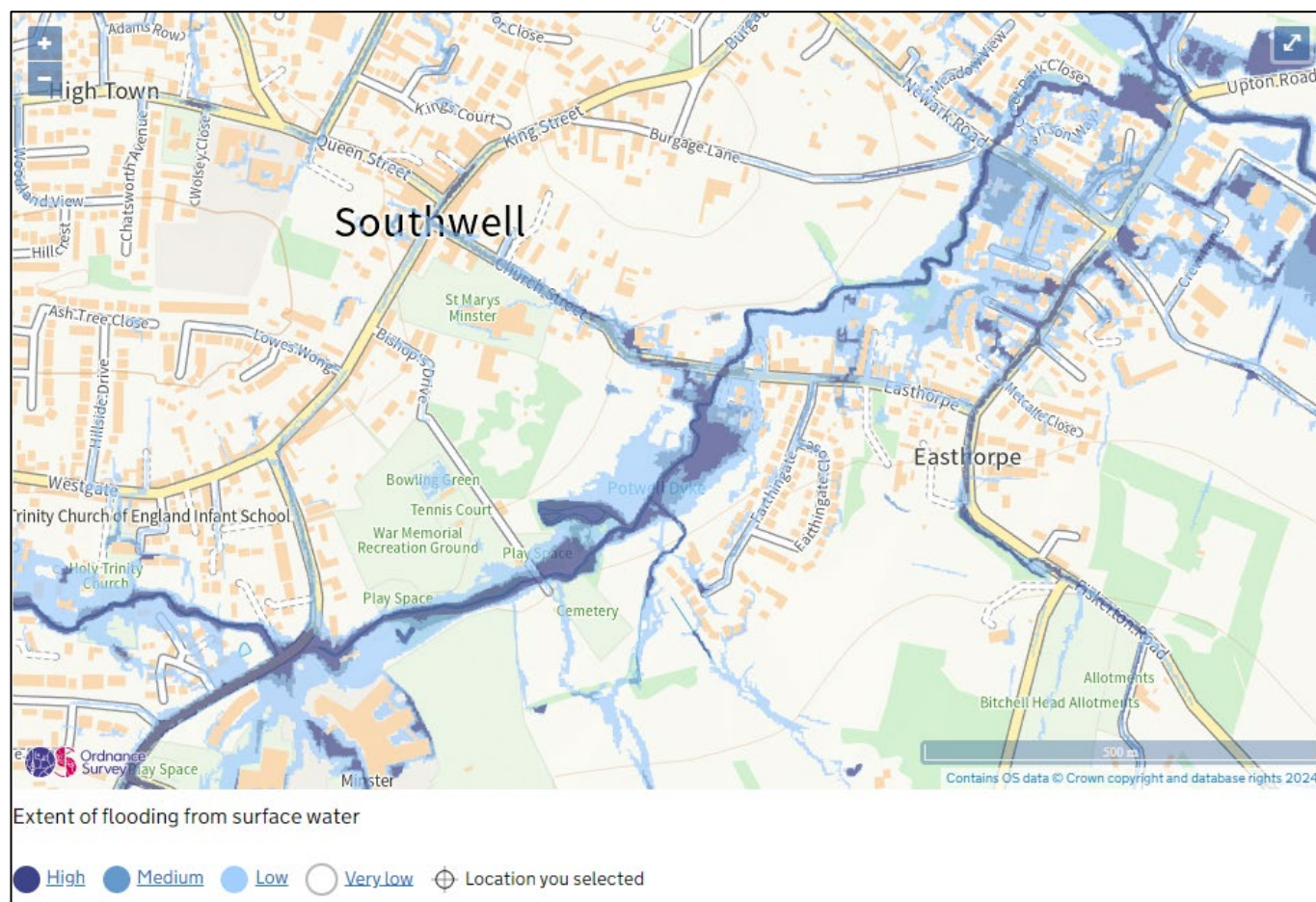


Figure 5. Predicted Surface Water Flood Extents

Figures 4 and 5 help to confirm the areas naturally occurring risk of flooding and correlate with the majority of flooding experienced during Storm Babet.

Southwell benefits from a well-established Flood Forum ([Southwell Flood Forum ~ Community Protection & Support](#)) who provide exceptional support and advice to their community. They adopt a very positive and proactive approach to flood resilience and we will continue to work with and support them.

The work carried out as part of the Southwell Flood Alleviation scheme and Southwell Flood Forum to date has clearly reduced the likelihood of flooding on other parts of the catchment as several areas that had experienced flooding in the past were not affected by Storm Babet.

Risk Management Authorities and their responsibilities

15. The Nottinghamshire County Council.

- 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.
- vi. 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.

b) Highway Authority (NCC/Via East Midlands Ltd).

- i. Maintenance of the public highways including highway drainage assets.
- ii. Provided site-based presence and investigations immediately following the event.

16. Newark and Sherwood 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.

Risk Management Authority Responses to Flooding

- 17. 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:
- 18. 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.
- p) Liaised with Southwell Flood Forum in the aftermath of the event.
- q) Responded to highway flooding in the catchment and carried out ditch clearance. to reduce the risk of flooding in the Nottingham Road / Minster School area.

19. Newark & Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.

- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

Additional Information and Future Actions

- 20. Nottinghamshire County Council continue to progress with the proposals to construct a surface water reservoir in the catchment and deliver property flood resilience measures as part of the Southwell Flood Alleviation Scheme.
- 21. Southwell Flood Forum have a well- established working relationship with a number of the RMAs including NCC's Flood Risk Management Team, and Via East Midlands and are committed to continue with that working relationship.
- 22. 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.
- 23. 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.
- 24. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX AE

SECTION 19 REPORT –STAPLEFORD – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Broxtowe Borough Council (BBC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC & the Environment Agency (EA).
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. Stapleford is a town in the Broxtowe Borough of Nottinghamshire with a population of approximately 15,241 people according to the 2001 census.

7. On the 20th October, during Storm Babet, Stapleford suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 107mm of rainfall was recorded at the Newstead Abbey rain gauge as shown by figure one below.
8. 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.

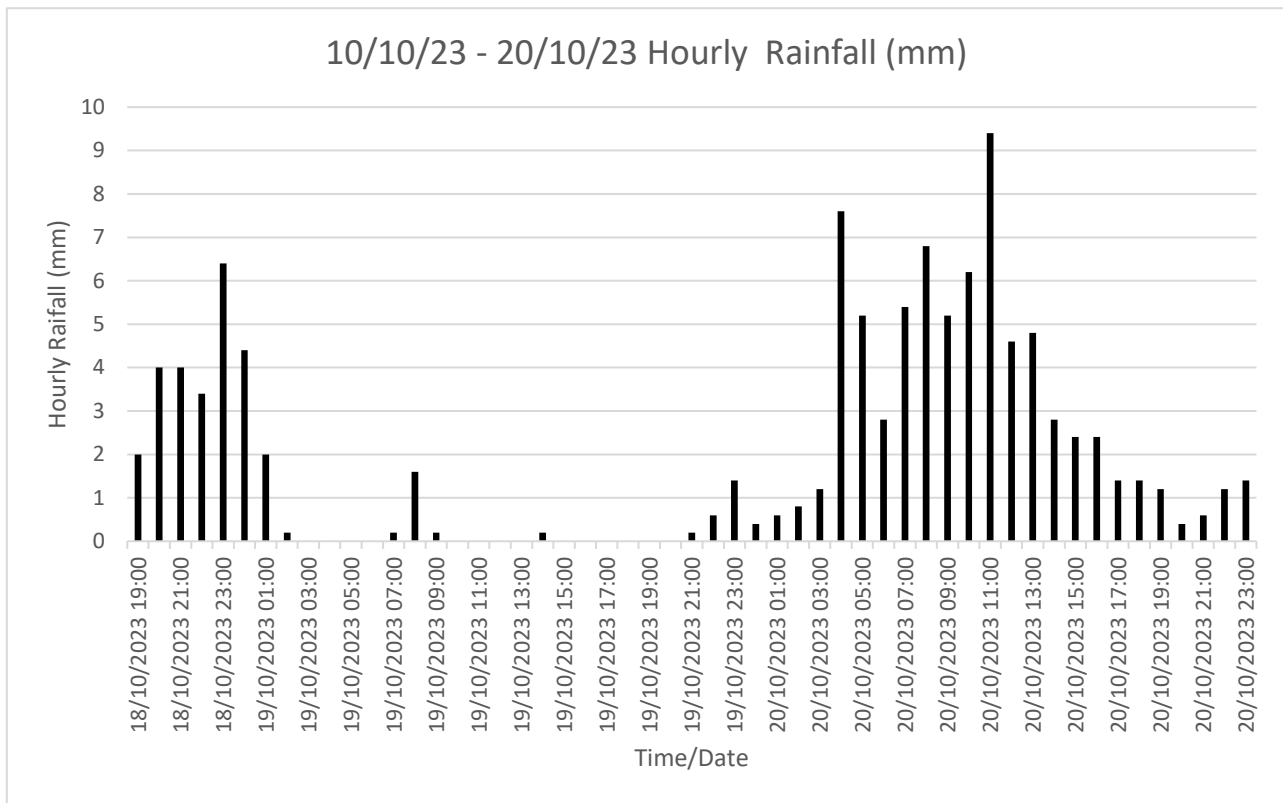


Figure 1. Newstead Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency

9. Internal flooding affected 174 properties across Stapleford. Figures 2 – 5 highlight these specific areas and identify the affected roads and where internal property flooding was present.
 - a) Figure 2:
 - i. Mill Road – 6 properties,
 - b) Figure 3:
 - i. Horace Avenue – 6 properties,
 - ii. Park Street – 9 properties,
 - iii. Lower Park Street – 22 properties,
 - iv. Sandiacre Road – 5 properties,
 - v. Wellington Street – 55 properties,
 - c) Figure 4:
 - i. Wellington Street (cont.) – 55 properties (cont.),
 - ii. Bailey Street – 13 properties,
 - iii. West End Street – 11 properties,
 - iv. Derby Road – 6 properties,
 - d) Figure 5:
 - i. Bessell Lane – 35 properties,
 - ii. Kelvin Close – 1 property.

- e) Figure 6:
 - i. Moorbridge Lane – 5 properties,

10. Figure 2 - Mill Road:

6 properties were affected on Mill Road with evidence suggesting they were affected by an ordinary watercourse which runs behind the properties. With a large amount of rainfall falling on already saturated ground the watercourse surcharged at the point of culverting under Mill Road. This water then subsequently followed the route of the highway affecting 6 properties.



Figure 2: Mill Road, Stapleford.

11. Figure 3 & 4 – Horace Avenue, Park Street, Lower Park Street, Sandiacre Road, Wellington Street, Bailey Street, West End Street and Derby Road.

Residents provided accounts of the flooding which indicate that whilst they were not directly affected by the River Erewash (main river) where it runs behind their properties, they found that the river overtopped its banks downstream. This flooded the road network and subsequently followed the topography of the land and highway to flood the properties from both the front and the back.



Figure 3: *Affected Areas: Horace Avenue, Park Street, Lower Park Street, Sandiacre Road & Wellington Street.*



Figure 4: *Affected Areas: Wellington Street, Bailey Street, Derby Road & West End Street.*

12. Figure 5 – Bessell Lane and Kelvin Close.

Various reports were provided by local businesses in this area that there were a large number of blocked gullies. Whilst this may have slowed down the release of water in the area, due to the high level in the River Erewash these gullies would not have been able to discharge effectively. A combination of overland flows from the River Erewash and surface water appear to be the main contributing factor to the flooding in this instance.



Figure 5: *Affected Areas: Bessell Lane & Kelvin Close.*



Figure 6: *Affected Areas: Moorbridge Lane.*

13. Figure 6 – Moorbridge Lane

Details provided by the residents show that water subsequently breached the Erewash at this location and flowed across the green space to the North of the properties. This overland flow then found its way towards the properties internally flooding and flowing towards the highway which then moved east affecting further properties on Moorbridge Lane.

Risk Management Authorities and their responsibilities

14. 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. Lead Local Flood Authorities also have a 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council)
 - i. Maintenance of the public highways including highway drainage assets.

15. Broxtowe Borough Council

- i. 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.

16. Environment Agency (EA)

- i. 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.

Risk Management Authority Responses to Flood

17. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:

18. 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.
- p) Attended a public meeting concerning flood risk in Stapleford.

19. Broxtowe Borough Council:

- a) Provided emergency response support in management of flooding event.
- b) Delivered sandbags to affected residents.
- c) Managed and continue to manage recovery in affected Broxtowe communities.
- d) Administered the flood hardship fund.
- e) Administered the council tax and business rate relief grant scheme.
- f) Actively engaged in the Section 19 Flood Investigation.
- g) Distributed sandbags to residents.

20. Environment Agency:

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) The Environment Agency warned and informed the community of Stapleford in a timely manner by issuing a Flood Alert for the River Erewash in Derbyshire and Nottinghamshire on 19/10/2023. Flood Warnings were issued for the River Erewash and Boundary Brook at Trowell and Stapleford Moorbridge Lane on 20/10/2023 and the River Erewash around Stapleford Oakfield Road on 20/10/2023. Instigated flood patrols to operate their structures, removing blockages from watercourses and facilitating the conveyance of water through the main river systems.
- e) Attended a public meeting concerning flood risk in Stapleford. Coordinated community information officers and surveyors to gather information. Visited affected communities and residents.

21. Severn Trent Water

- a) Severn Trent has received reports of flooding in this area and are completing ongoing investigations into the source of flooding.
- b) Severn Trent actively engaged with the Section 19 Flood investigation.
- c) Attended MP / public meeting.

Additional information and future actions

- 22. The local community spirit and resilience during the flooding must be recognised as without their efforts the impacts of the flooding could have been worse.
- 23. 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 contained within this report.

24. 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. NCC will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
25. 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.
26. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX AF

SECTION 19 REPORT – SUTTON IN ASHFIELD – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Ashfield District Council (ADC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC.
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. Sutton in Ashfield is a market town in Nottinghamshire with a population of approximately 48,527 people according to the 2019 census.
7. On the 20th October, during Storm Babet, Sutton in Ashfield suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 125mm of rainfall was recorded at the Sutton in Ashfield rain gauge as show by Figure 1 below.

8. 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.

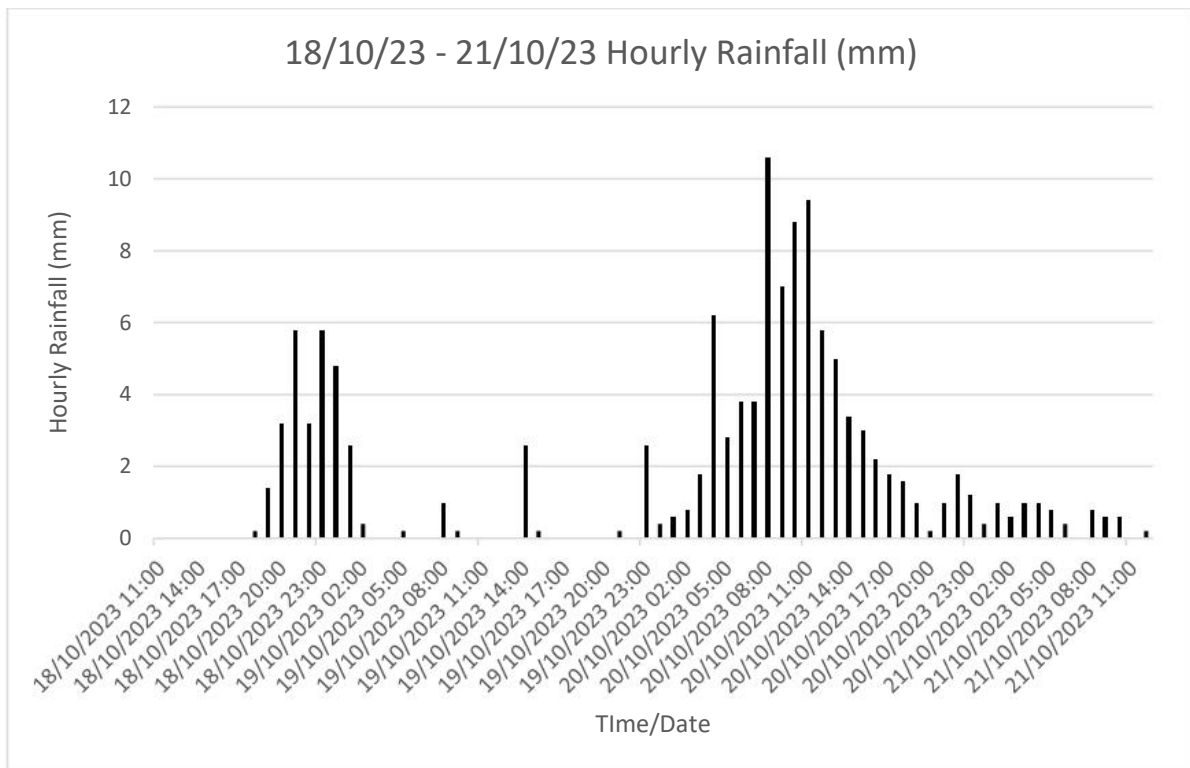


Figure 1. Sutton in Ashfield Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

9. During Storm Babet most highway drainage assets were unable to cope with discharging the amount of water that fell within the small time period. This led to various instance of highway flooding which subsequently flooded properties due to a combination of run off and bow waves from vehicles driving through the flood water.
10. In some locations across Sutton in Ashfield these issues were also exacerbated by additional surface water flows from adjacent fields, farmland and green spaces. Figure 2 below shows the affected areas across Sutton in Ashfield.

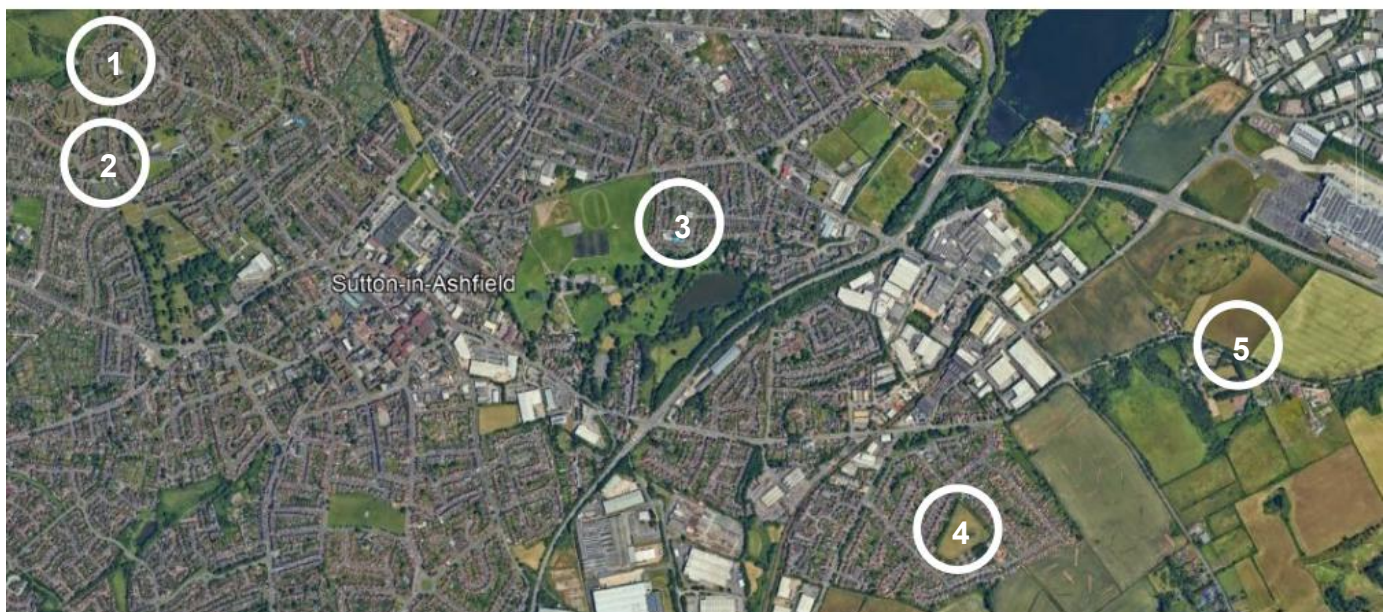


Figure 2: Affected areas across Sutton in Ashfield. The Oval (1), Ashgate (2), Peel Street (3), Searby Road, Sotherby Avenue, Farndon Road & Cardinal Court (4), Cauldwell Road (5).

11. The internal flooding was very localised in nature across 5 different areas of Sutton in Ashfield. Figures 3 – 6 highlight these specific areas and identify the affected roads and where internal property flooding was present.
- a) Figure 3:
 - i. Searby Road – 5 properties
 - ii. Sotherby Avenue – 2 properties
 - iii. Farndon Road – 1 property
 - iv. Cardinal Court – 3 properties
 - b) Figure 4:
 - i. Peel Street – 2 properties
 - c) Figure 5:
 - i. The Oval – 1 property
 - ii. Ashgate – 1 property
 - d) Figure 6:
 - i. Cauldwell Road – 1 property



Figure 3: Affected roads: Searby Road, Sotherby Avenue, Farndon Road & Cardinal Court.



Figure 4: Affected roads: Peel Street.



Figure 5: Affected roads: The Oval & Ashgate.

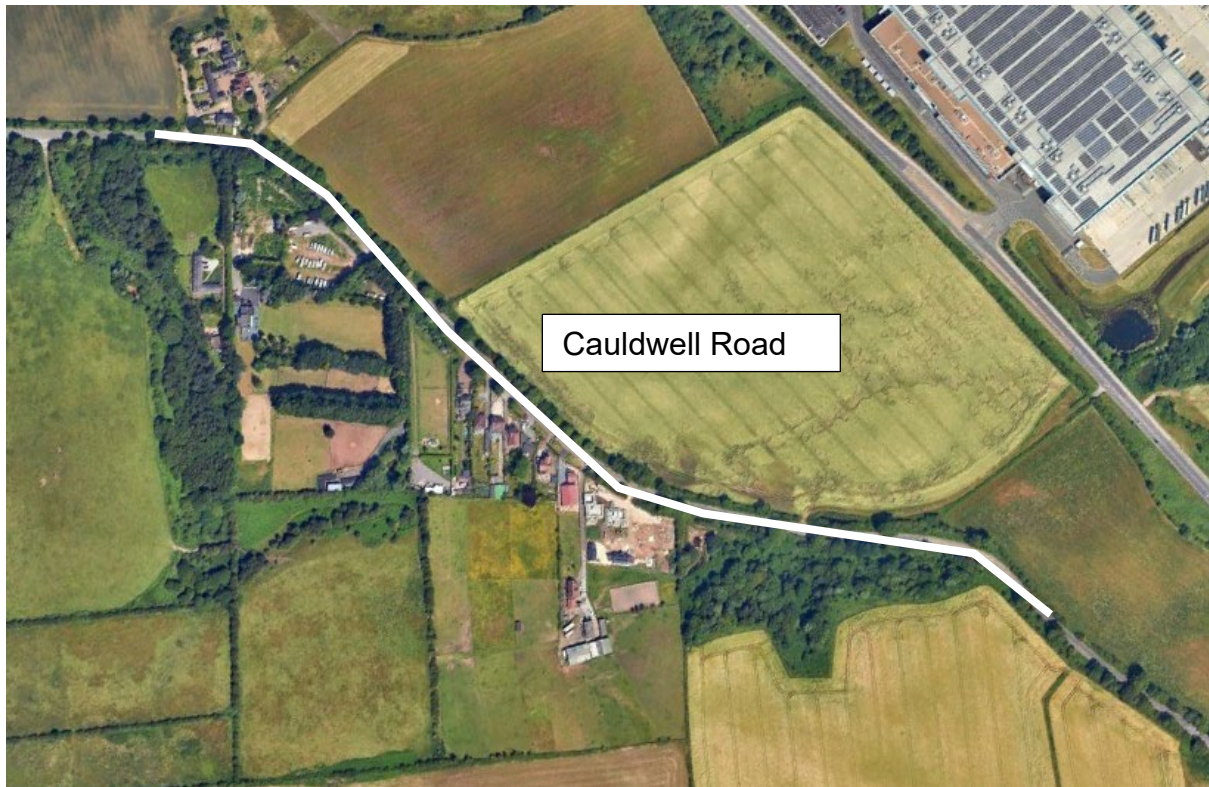


Figure 6: Affected roads: Cauldwell Road

Risk Management Authorities and their responsibilities

12. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

13. Ashfield District Council

i. 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.

Risk Management Authority Responses to Flood

14. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:

15. 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.

16. Ashfield District Council:

- a) From a pro-active aspect, ADC carried out inspections of the watercourses and drainage assets we are responsible for in Sutton, Kirkby and Jacksdale on the 19th October 2023 to ensure grids etc. were clear and water was flowing.
- b) Senior Officers from ADC attended all Nottingham & Nottinghamshire LRF Strategic, Tactical, and Recovery Co-ordinating Group Meetings and the LRF Communication Cell which had also been stood up.
- c) Stood up ADC Internal Incident Management Team in response to the situation.
- d) Made reference to the LRF's Local Flood Plans for guidance (covering Hucknall & Jacksdale areas but principles applied to Sutton and Kirkby response also).
- e) Operationally, provided emergency response support in management of the flood event, working with colleagues from the LLFA prioritising attendance to affected properties, deploying sandbags to prevent internal flooding of domestic premises.
- f) Opened a Rest Centre at Hucknall Leisure Centre for evacuees from severely flooded domestic properties in Hucknall. However this was also available for use by residents from other communities in the District of Ashfield (and other LA areas) should this have been required throughout the flood event.
- g) Provided flood advice communications to members and other stakeholders through the various social media channels and platforms available to the Authority including a new Flood Advice page on the ADC website with links to well established flood advice resource such as NCC and Environment Agency web pages.
- h) Held an internal Storm Babet debrief identifying several learning outcomes and actions.
- i) Attended the Nottingham & Nottinghamshire LRF Storm Babet debrief meeting at the Environment Agency's Trentside offices – awaiting report and recommendations / learning outcomes.
- j) Actively engaged in the Section 19 Flood Investigation and provided support to the Lead Local Flood Authority.

17. Severn Trent Water Ltd

- a) Severn Trent has received reports of flooding in this area and are completing ongoing investigations into the source of flooding.
- b) Severn Trent actively engaged with the Section 19 Flood investigation.
- c) Since the flood event, Severn Trent have completed CCTV work on the surface water system.

Additional information and future actions

- 18. 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 contained within this report.
- 19. Ashfield District Council proposed the following actions:
 - a) Implementation of learning outcomes/recommendations from ADC's internal Storm Babet debrief including new Flood Advice page on website, Rest Centre review with NCC colleagues, production of Flood Action Card for the ADC Major Emergency Plan, undertake business continuity test/exercise(s), roll out of the LRF's 'Concept of Operations' training course for all ADC Executive and Assistant Directors.
 - b) Implementation of any additional learning outcomes/recommendations from the LRF's Storm Babet debrief applicable to ADC when these are made available.

- c) Review need to increase internal stock of sandbags.
- d) Work with LLFA partners in any flood attenuation/prevention works in future.

- 20. 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. NCC will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
- 21. 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.
- 22. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX AG

SECTION 19 REPORT – SUTTON ON TRENT – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC and Trent Valley Internal Drainage Board (TVIDB).
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. Sutton-on-Trent is a rural village located 8 miles north of Newark-on-Trent that sits between the Great North Road (A1) and the west bank of the River Trent. It is surrounded primarily by agricultural land and is served by a number of watercourses, some of which are maintained by the Trent Valley Internal Drainage Board (TVIDB). Figure 3 shows how the watercourses pass through the village. According to the 2021 census it has a population of approximately 3195 people.

7. Between 12:00 noon on the 18th and 23:00 on the 20th October, 124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 12km from Sutton on Trent (Figure 1).
8. 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.
9. During Storm Babet, 17 residential properties in Sutton on Trent were subject to internal flooding with more suffering flooding to gardens and outbuildings.

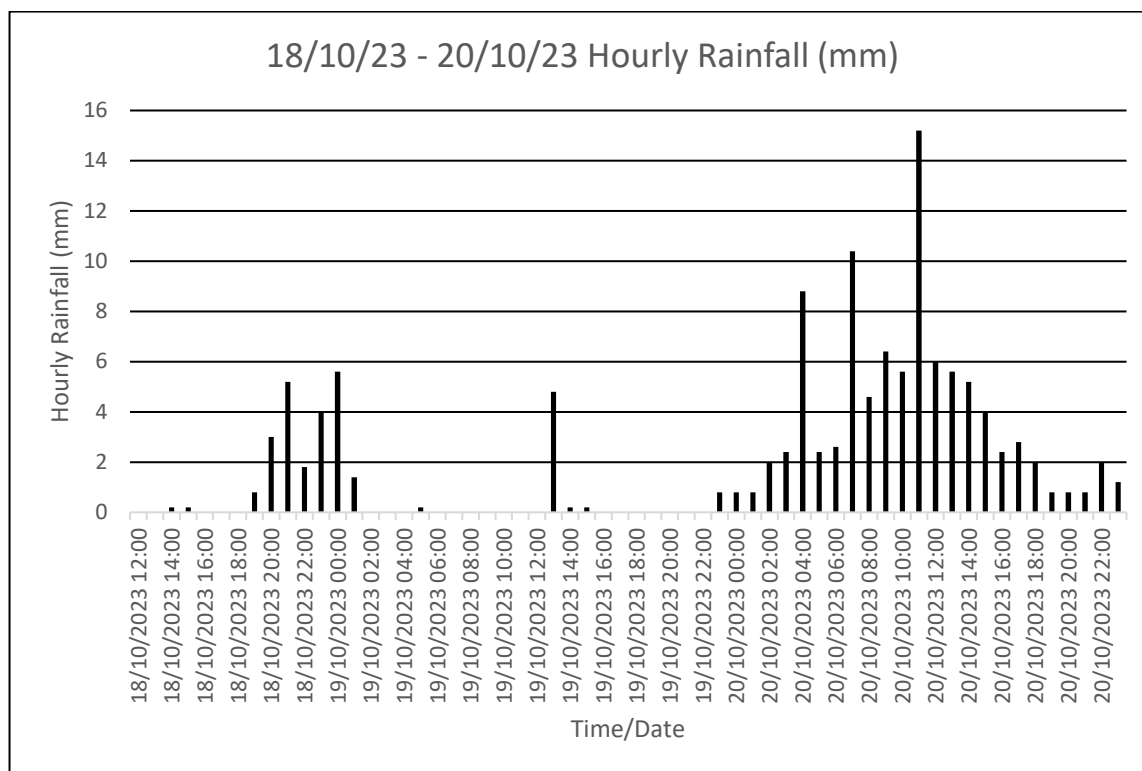


Figure 1. Staythorpe Hourly Rainfall from 12:00 18th to 23:00 20th October 2023. Data supplied by the Environment Agency.

10. Figure 2 highlights the areas that were subjected to internal flooding.

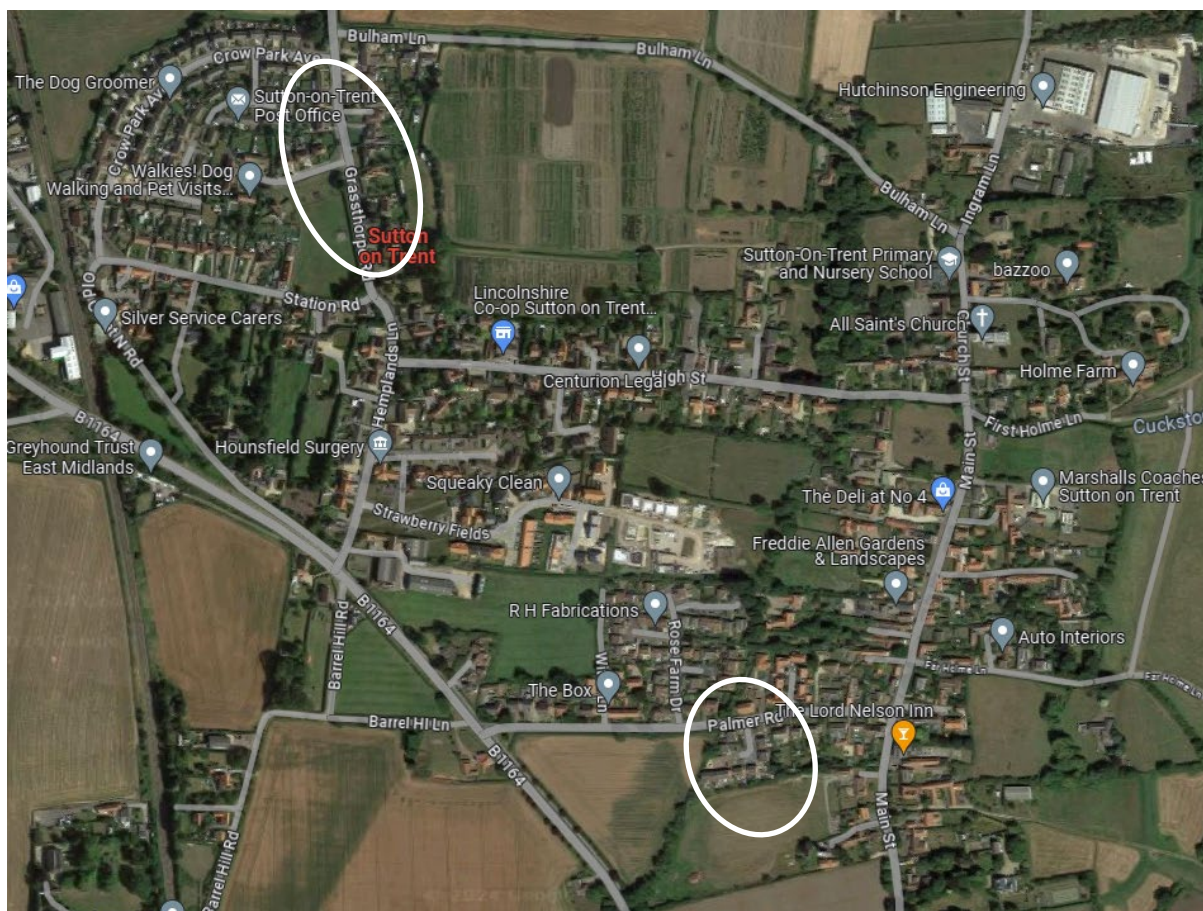


Figure 2. View of Sutton on Trent highlighting areas affected by internal flooding.

Summary of flooding and its causes

11. The flooding that occurred in Sutton on Trent during Storm Babet came from a mixture of sources; surface runoff is understood to have caused the flooding in the northern area (Grassthorne) whilst the flooding in the Mill Close area was described by witnesses as coming from the watercourse adjacent to the area. The flow of water was such that it was unable to follow its natural path and came out of bank, flooding the area. Residents also reported ground water coming up through the floors of their properties.
12. Figures 6 & 7 below are extracts from the Environment Agency's flood risk mapping and clearly show how surface water flows and the over-topping of the Cocker Beck will impact on the catchment.
13. Surface water that fell on the catchment, already saturated following the extensive amounts of rainfall that had fallen in the period before the storm, flowed into the watercourse overwhelming it resulting in it over-topping and spilling out of bank. The sheer volume of water falling on the catchment resulted in overland flows in the area causing flooding.

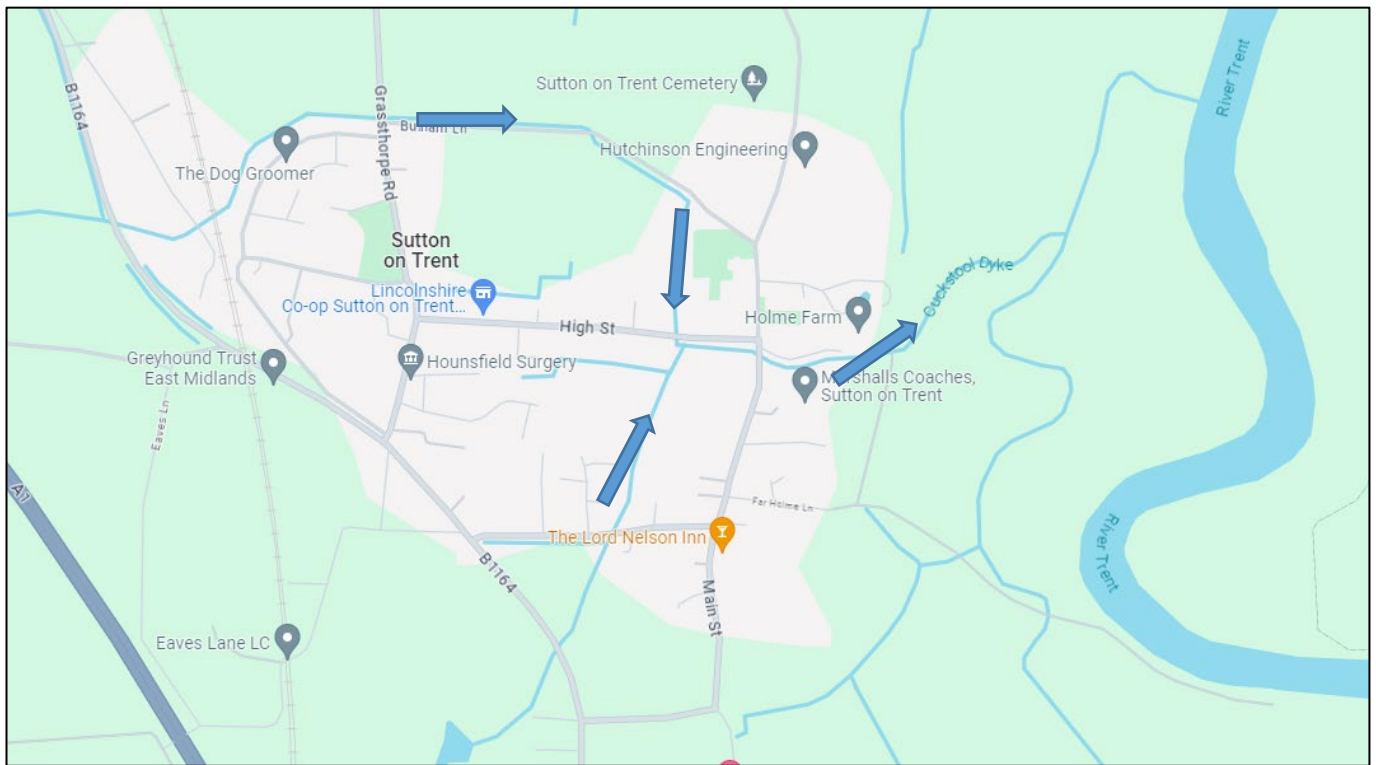


Figure 3. Map of Sutton on Trent showing watercourses running through the village

14. These watercourses and the topography of the village combine to create a natural risk of flooding to the area. Figures 4 and 5 show the predicted risk of flooding as published by the Environment Agency's Flood Map for Planning (<https://flood-map-for-planning.service.gov.uk>)

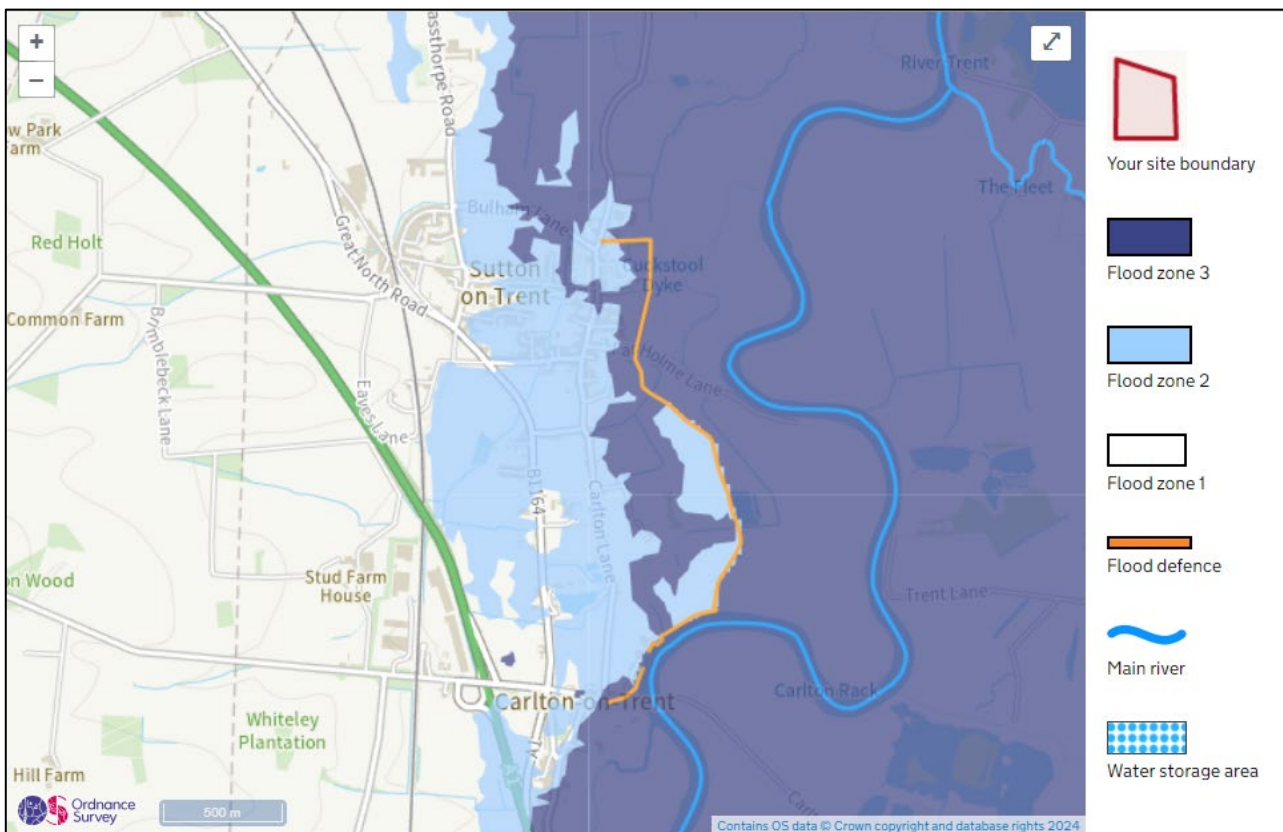


Figure 4. Predicted Flood Zone Extents (FZ3 is darkest area)

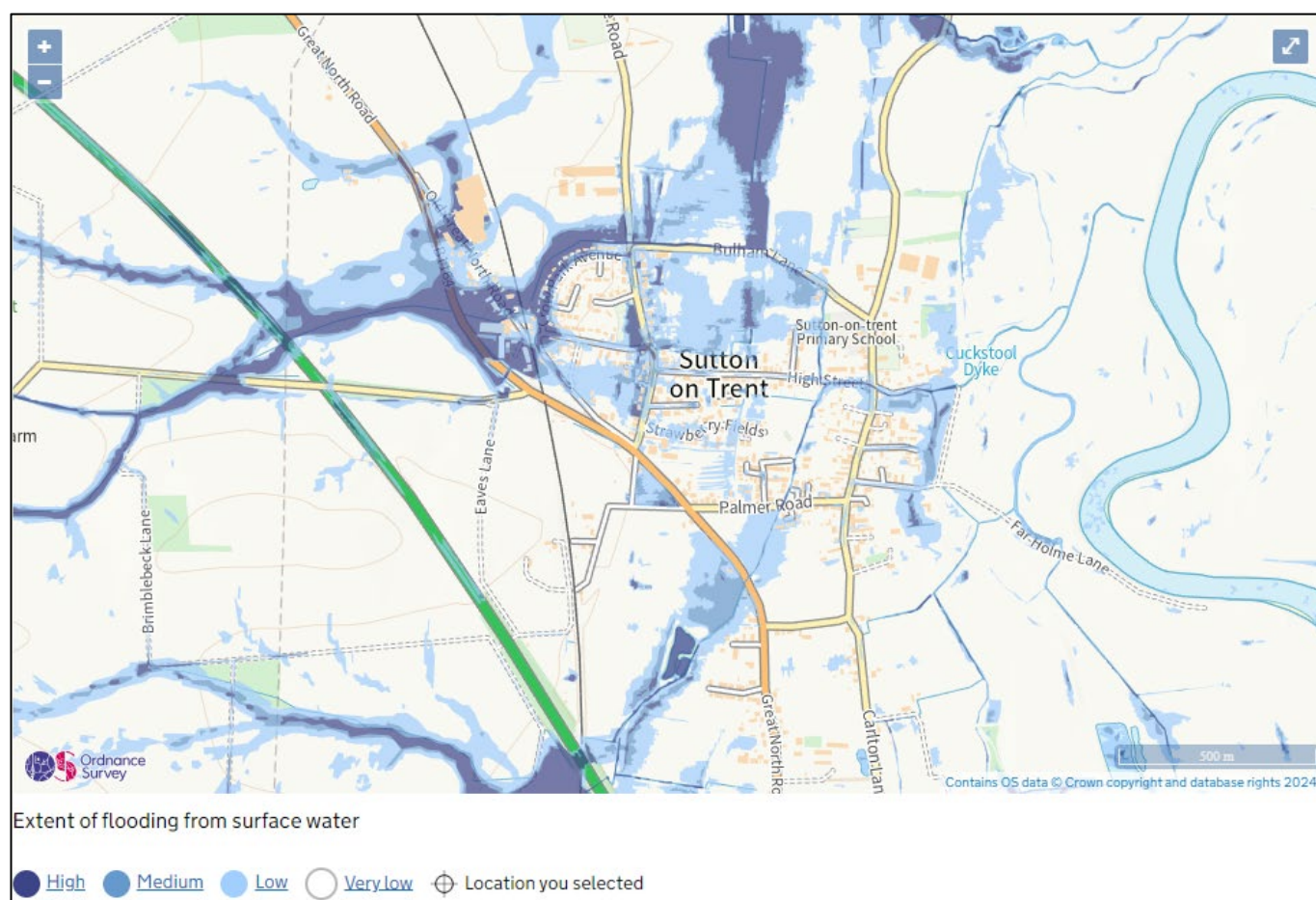


Figure 5. Predicted Surface Water Flood Extents

15. Figures 4 and 5 help to confirm the areas naturally occurring risk of flooding and correlate with the majority of flooding experienced during Storm Babet.
16. The village benefits from proactive community and Parish Council that provides support and resilience to their residents. The community adopts a very positive and proactive approach to flood resilience and we will continue to work with and support them.

Risk Management Authorities and their responsibilities

17. 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.

18. Newark and Sherwood 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.

19. Trent Valley Internal Drainage Board.

- a) Has a duty to manage flood risk and land drainage within areas of special drainage need in the Trent Valley.
- b) Has permissive powers to undertake work to provide water level management within their area
- c) Undertake works to reduce flood risk to people and property and manage water levels for local needs including the maintenance of rivers, drainage channels, outfalls and pumping stations.

Risk Management Authority Responses to Flooding

20. 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:

21. 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.

22. Newark & Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads , paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

23. Trent Valley Internal Drainage Board

- a) The IDB is working closely with lead partners to identify and deliver appropriate solutions, including supporting securing funding applications and with engineering and design expertise.
- b) In all parts of the IDB districts (both Trent Valley and Isle of Axholme and Northern Nottinghamshire) the regular annual maintenance regime has been and will continue to be delivered to reduce risk and identify potential risk areas.

24. Severn Trent Water Ltd.
 - a) Investigating reports of sewer flooding on Grassthorpe.
 - b) Actively engaged with the Section 19 investigation.

Additional Information and Future Actions

25. 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 contained within this report.
26. Information on the overtopping of the watercourse has been passed to the IDB for their consideration as they are responsible for managing the watercourse.
27. Sutton on Trent Parish Council and its residents have a well- established working relationship with a number of the RMAs including NCCs Flood Risk Management Team, the TVIDB and Via East Midlands and are committed to continue with that working relationship.
28. 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.
29. 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.
30. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX AH

SECTION 19 REPORT – THURGATON – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC and Trent Valley Internal Drainage Board (TVIDB).
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. Thurgaton is a small village located on the A612 (Nottingham Road) between Lowdham and Southwell in Nottinghamshire. It is surrounded primarily by agricultural land and the Thurgaton Beck runs from west to east through the centre of the village. The catchment ultimately discharges to the River Trent 2km to the east of the village. The majority of the residential area of the village sits to the east of the A612. Watercourses between the A612 and the River Trent are managed by the Trent Valley Internal Drainage Board (TVIDB). Figure 2 shows how the watercourses pass through the village.

7. Between 12:00 noon on the 18th and 23:00 on the 20th October, 124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 7km from Thurgaton (Figure 1).
8. 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.
9. During Storm Babet, 18 residential properties in Thurgaton were subject to internal flooding with more suffering flooding to gardens and outbuildings.

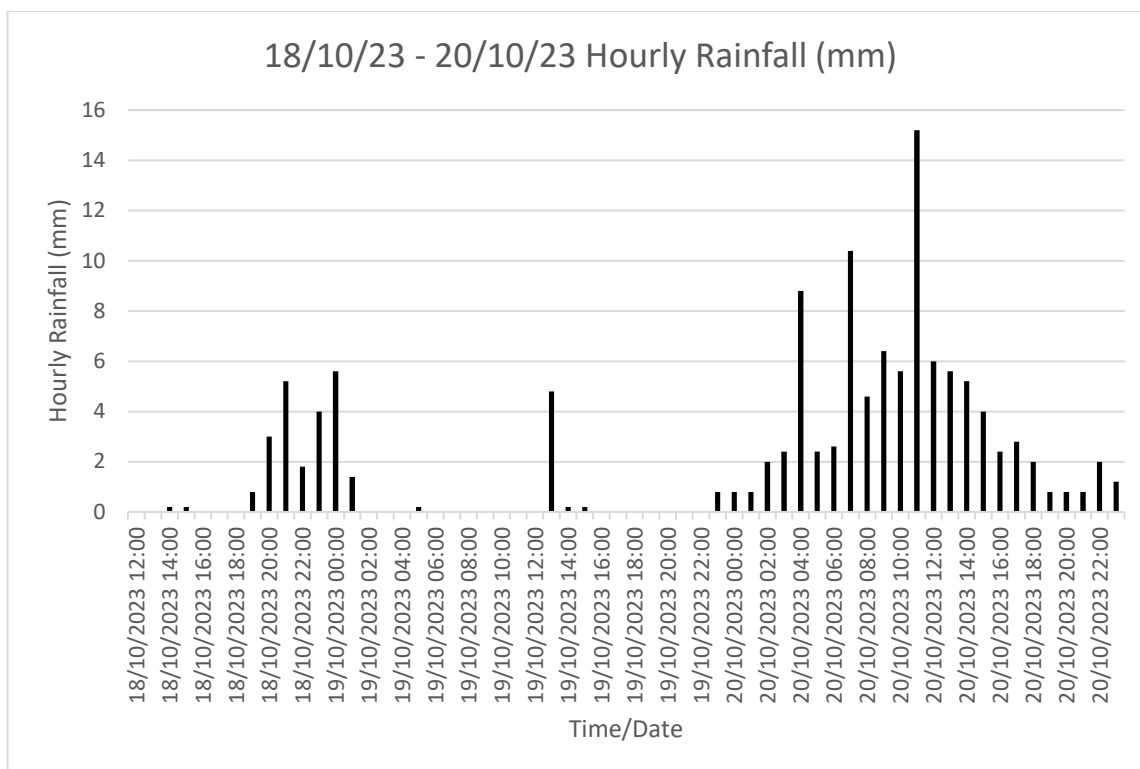


Figure 1. Staythorpe Hourly Rainfall from 12:00 18th to 23:00 20th October 2023.
Data supplied by the Environment Agency.



Figure 2. Map of Thurgaton showing watercourses running through the village

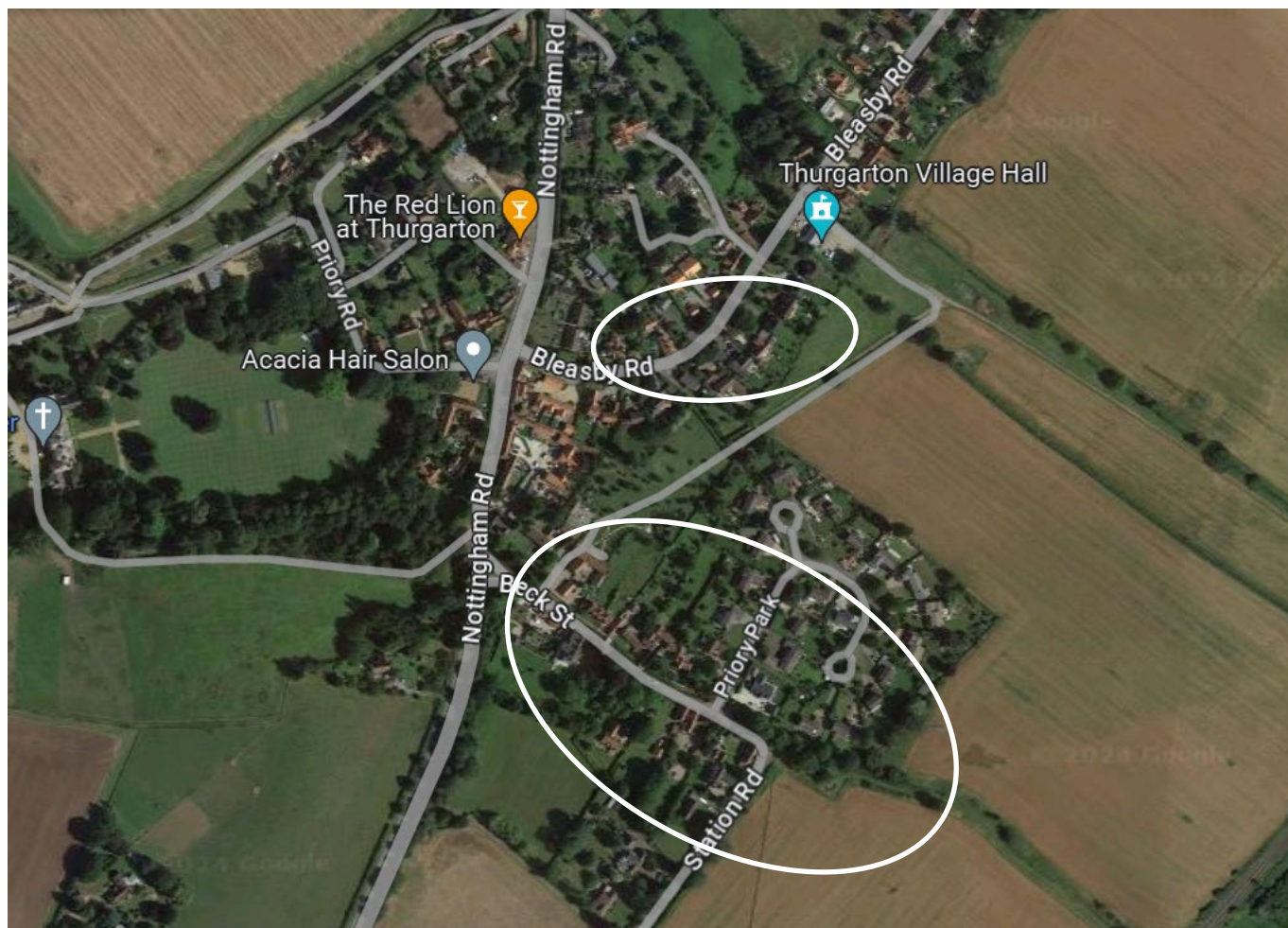


Figure 3. View of Thurgarton highlighting areas affected by internal flooding.

Summary of flooding and its causes

10. The flooding that occurred in Thurgarton during Storm Babet came from a mixture of sources but primarily caused by the Thurgarton Beck bursting its banks and flooding the area around Beck Street / Station Road and Priory Park. There are some surface water runoff concerns that contribute to the flooding however the key issue is the hydraulic performance of the Thurgaton Beck.
11. Surface water that fell on the catchment, already saturated following the extensive amounts of rainfall that had fallen in the period before the storm, flowed into the watercourse overwhelming it resulting in over-topping and spilling out of bank.
12. These watercourses and the topography of the village combine to create a natural risk of flooding to the area. Figures 4 and 5 show the predicted risk of flooding as published by the Environment Agency's Flood Map for Planning (<https://flood-map-for-planning.service.gov.uk>).

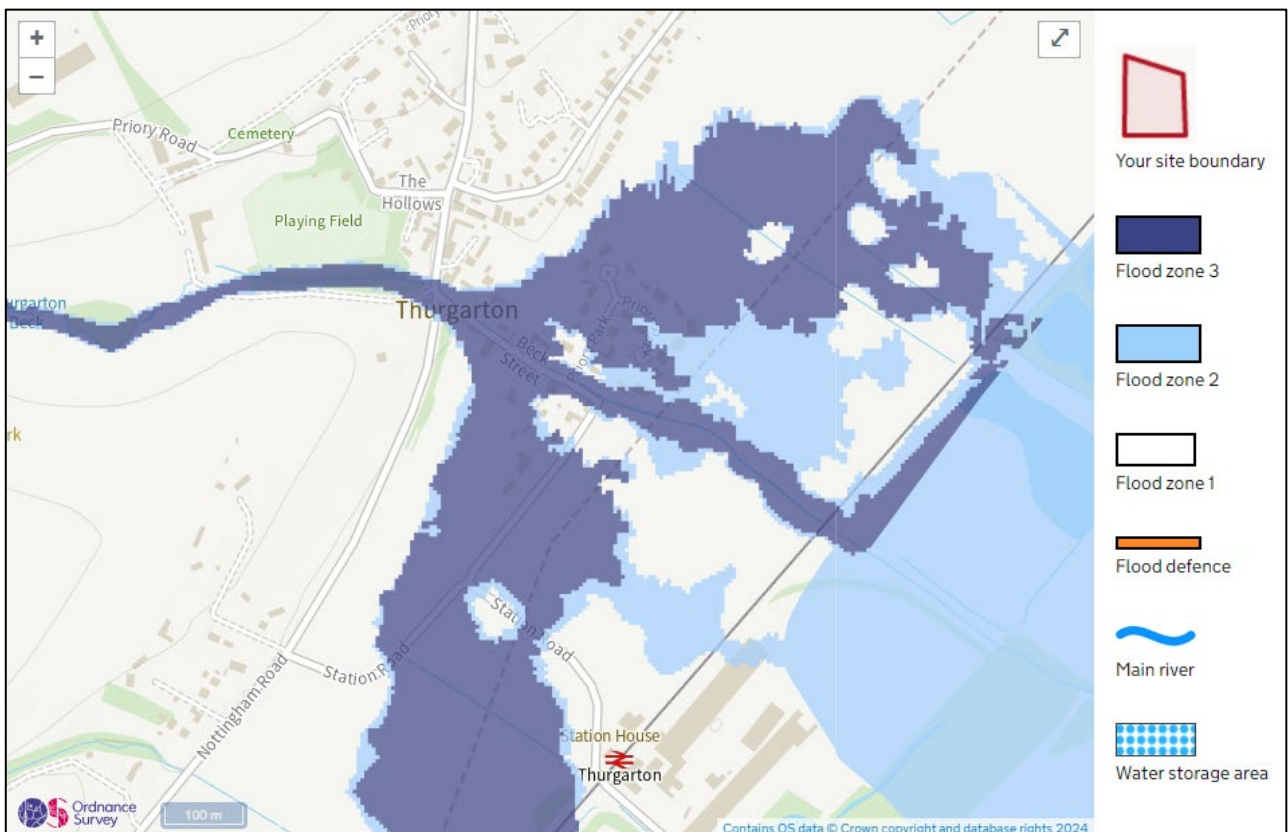


Figure 4. Predicted Flood Zone Extents (FZ3 is darkest area)

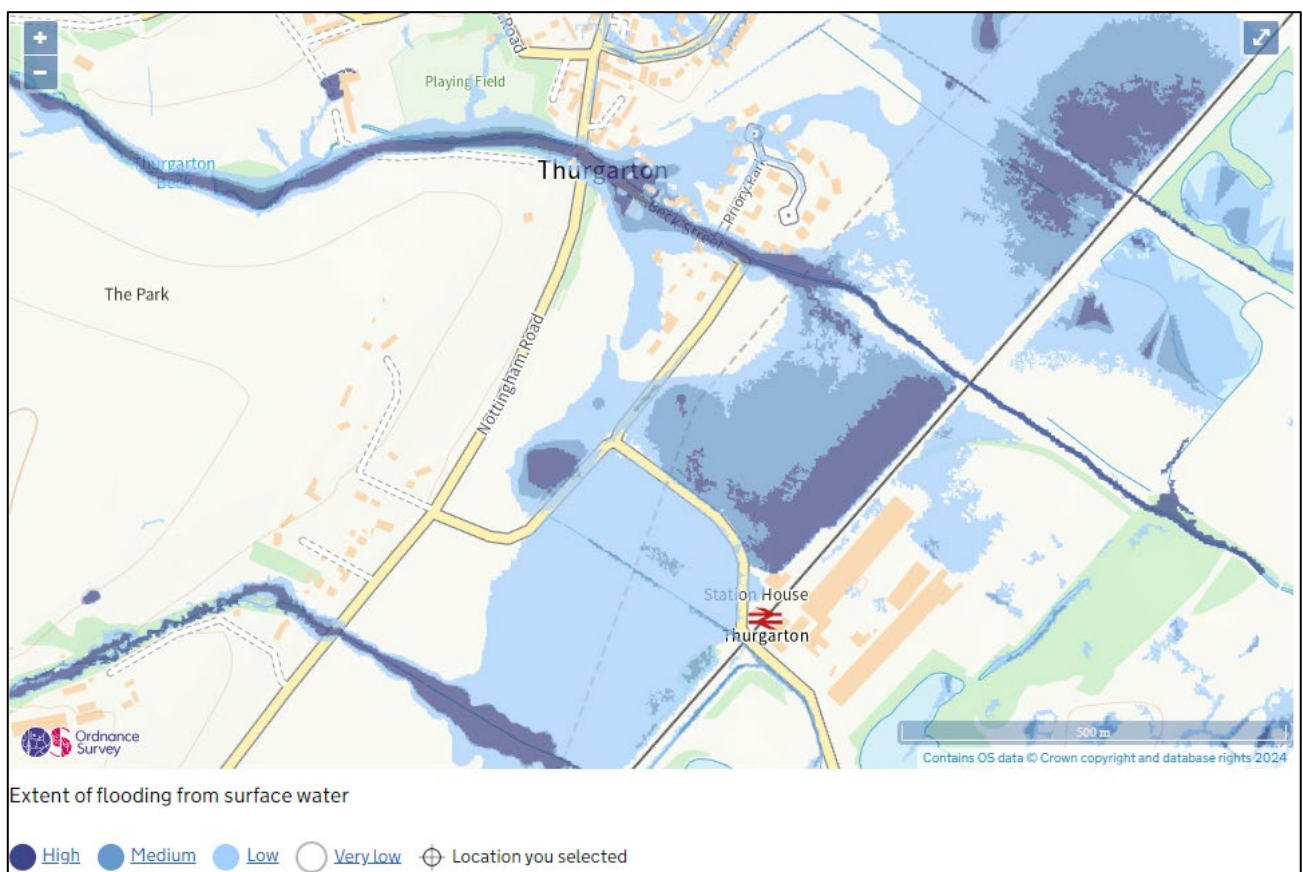


Figure 5. Predicted Surface Water Flood Extents

13. Figures 4 and 5 help to confirm the areas naturally occurring risk of flooding and correlate with the majority of flooding experienced during Storm Babet.

14. The village benefits from proactive community and Parish Council that provides support and resilience to their residents. The community adopts a very positive and proactive approach to flood resilience and the LLFA will continue to work with and support them as best we can.

Risk Management Authorities and their responsibilities

15. 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 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 (VIA East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

16. 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.
- b) Maintenance and management of main rivers and associated flood risk.

17. Newark and Sherwood 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.

18. Trent Valley Internal Drainage Board.

- a) Has a duty to manage flood risk and land drainage within areas of special drainage need in the Trent Valley.
- b) Has permissive powers to undertake work to provide water level management within their area.

- c) Undertake works to reduce flood risk to people and property and manage water levels for local needs including the maintenance of rivers, drainage channels, outfalls and pumping stations.

Risk Management Authority Responses to Flooding

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

- 20. 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.
- p) Attended and presented at Parish Council community meeting on 7 February.

- 21. Newark & Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.

- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.
- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

22. Trent Valley Internal Drainage Board

- a) TVIDB had staff on site during and after the flood event.
- b) The Thurgaton Flood Alleviation Scheme is due to start on site in October 2024.
- c) The IDB is working closely with lead partners to identify and deliver appropriate solutions, including supporting securing funding applications and with engineering and design expertise where applicable.
- d) In all parts of the IDB districts (both Trent Valley and Isle of Axholme and Northern Nottinghamshire) the regular annual maintenance regime has been and will continue to be delivered to reduce risk and identify potential risk areas.

Additional Information and Future Actions

- 23. 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 contained within this report.
- 24. The TVIDB continue to pursue approvals and funding to progress with a flood alleviation scheme for the village. Nottinghamshire County Council have allocated a £50k capital contribution to the project.
- 25. Residents affected by the flooding are looking to pool the Governments £5k Flood Resilience Grant and use it as a contribution to the TVIDB project funding requirements.
- 26. Thurgaton Parish Council and its residents have a well- established working relationship with a number of the RMAs including NCCs Flood Risk Management Team, the TVIDB and Via East Midlands and are committed to continue with that working relationship.

27. 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.
28. 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. NCC have procured data monitoring equipment that will allow the flood group to remotely monitor levels in the beck and respond accordingly.
29. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX AI

SECTION 19 REPORT – TOTON – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: "SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023".

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Broxtowe Borough Council (BBC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC & Environment Agency (EA).
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. Toton is a large suburban settlement in the Broxtowe Borough of Nottinghamshire with a population of approximately 8,238 people according to the 2011 census.
7. On the 20th October, during Storm Babet, Stapleford suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 107mm of rainfall was recorded at the Newstead Abbey rain gauge as shown by figure one below.

8. 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.

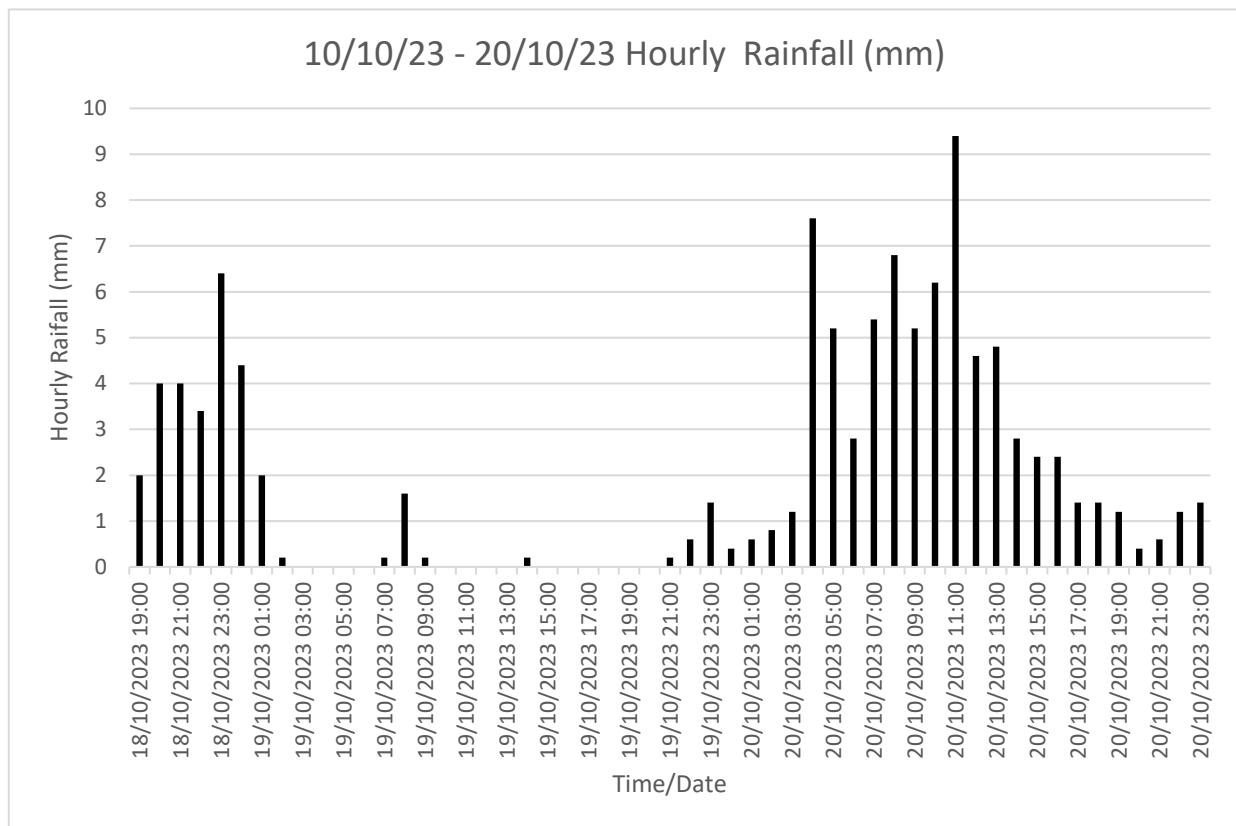


Figure 1. Newstead Abbey Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency

- i. Localised flooding occurred in Toton at Nottingham Road and Portland Road, with a total of 15 properties suffering internal flooding. Figure 2 highlights this area and identifies the affected roads and where internal property flooding was present. Nottingham Road (14 properties), Portland Road (1 property).



Figure 2: Affected area in Toton: Nottingham Road & Portland Road.

9. Evidence from local community identify that the properties on Nottingham Road were effected from the rear of the properties from the River Erewash (main river). As you can show below in Figure 3, the River Erewash recorded it's highest ever peak at 2.25m.

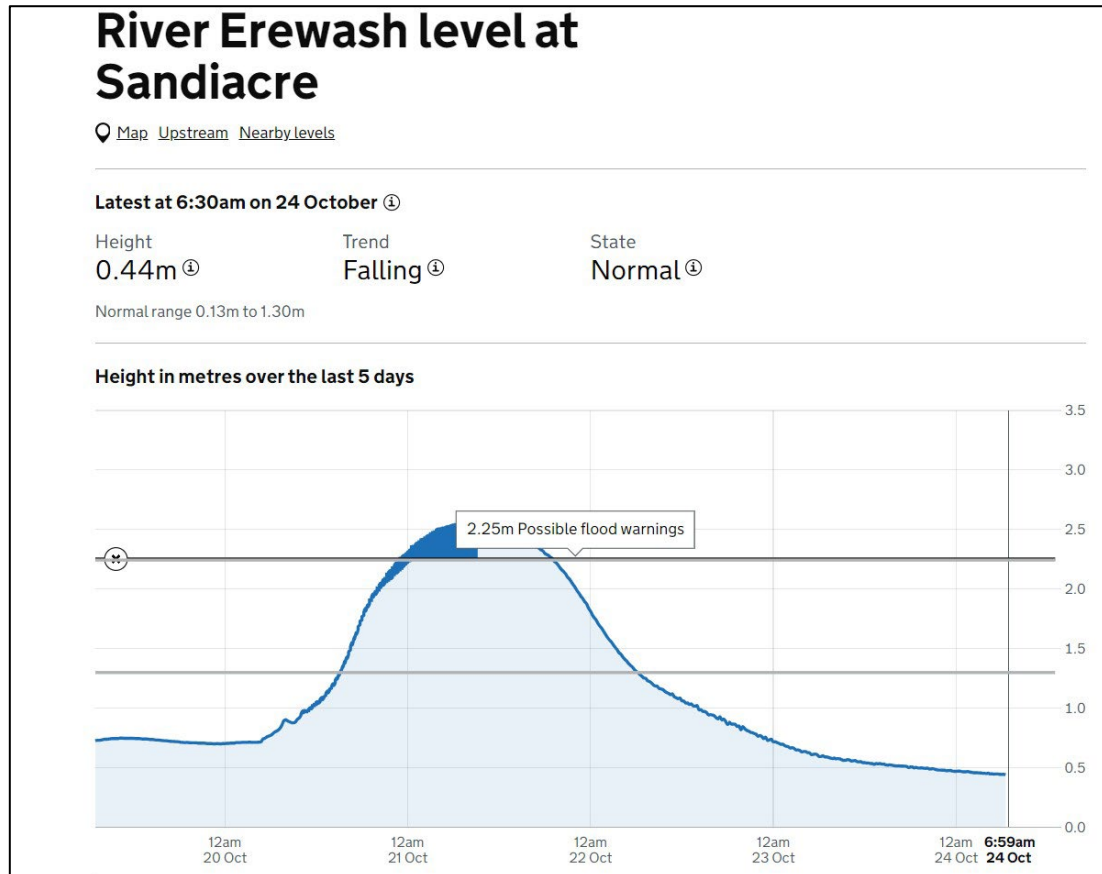


Figure 3: Environment Agency River Level Gauge – River Erewash at Sandiacre

10. The Environment Agency provided the following information for inclusion in this report:
- "The flooding seen in Toton was a result of the Erewash coming out of bank upstream of Nottingham Road in the Manor Farm open space recreational area, left bank. The water then moved across this area, through the carpark where the entrance is lower than surrounding level allowing water to flow through on to Nottingham Road. The road slopes away to the east and the water flowed toward the Manor Pub and row of semi-detached properties on Nottingham Road on the left bank of the Erewash. The Erewash runs behind these properties and comes out of bank here, causing flooding from both sides. The properties further east are lower lying and flooded from the road and back internally. Those further west nearer the bridge over the Erewash sit higher and more likely to have flooded from behind and experienced external flooding. Residents reported water from road, surface water, and Erewash at the back, with car bow waves making the flooding from the road worse."*

11. Figure 4 below is an extract from the Environment Agency's flood risk maps that shows the area to be at risk of fluvial flooding. For the properties on Nottingham Road they are situated with Flood Zone 3 and for the property on Portland Road they are situated within Flood Zone 2 & 3.

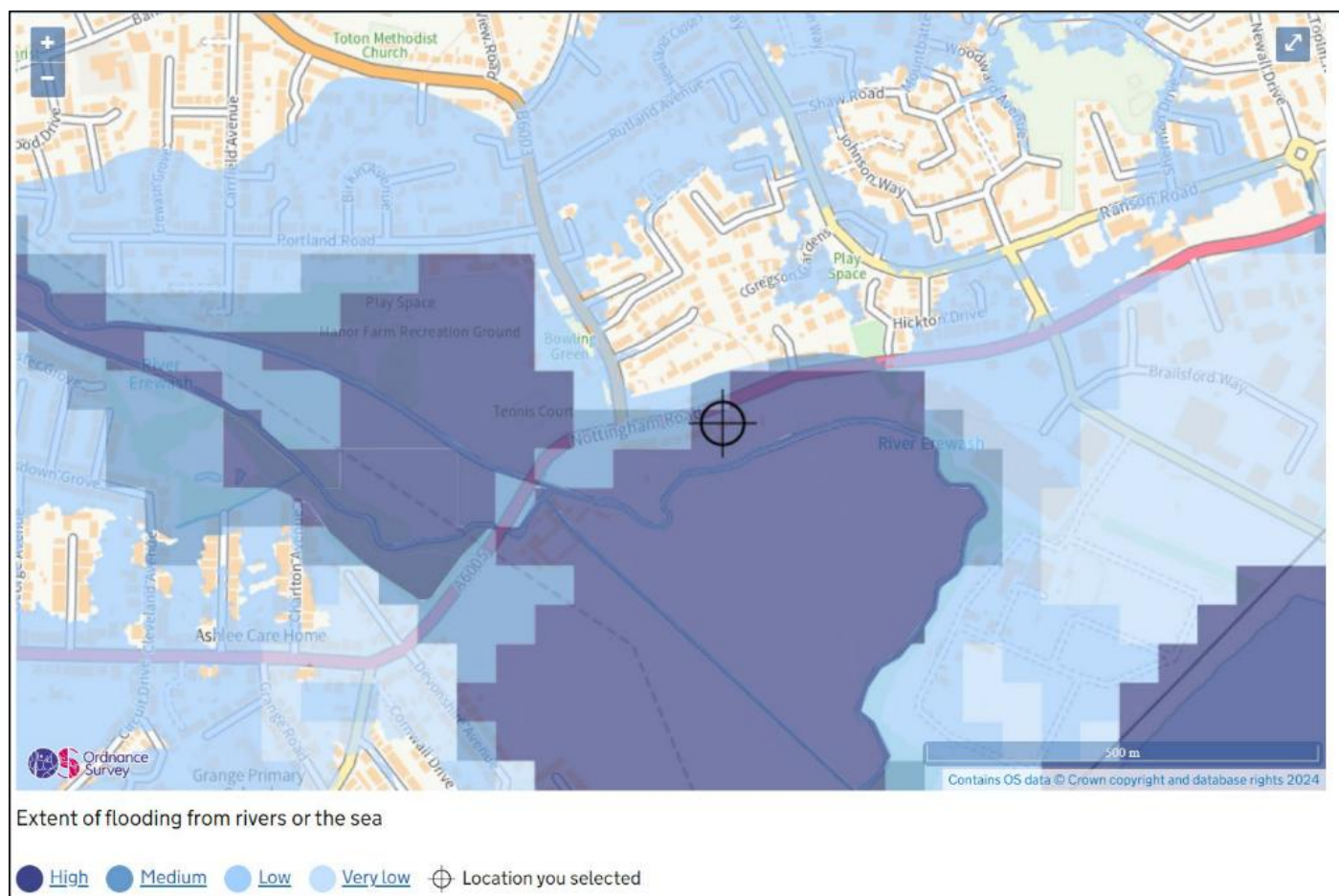


Figure 4: *Environment Agency: Flood Risk Mapping for Eastwood*

Risk Management Authorities and their responsibilities

12. 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. Lead Local Flood Authorities also have a 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council)
 - i. Maintenance of the public highways including highway drainage assets.

13. Broxtowe Borough Council

- i. 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.

14. Environment Agency (EA)

- i. 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.

Risk Management Authority Responses to Flood

- 15. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:
- 16. 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.

17. Broxtowe Borough Council:

- a) Provided emergency response support in management of flooding event.
- b) Delivered sandbags to affected residents.
- c) Managed and continue to manage recovery in affected Broxtowe communities.
- d) Administered the flood hardship fund.
- e) Administered the council tax and business rate relief grant scheme.
- f) Actively engaged in the Section 19 Flood Investigation.

18. Environment Agency:

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) Issued Flood Alerts for the River Erewash.
- e) Instigated flood patrols to operate their structures, removing blockages from watercourses and facilitating the conveyance of water through the main river systems.
- f) Coordinated community information officers and surveyors to gather information.

Additional information and future actions

- 19. The local community spirit and resilience during the flooding must be recognised as without their efforts the impacts of the flooding could have been worse.
- 20. 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 contained within this report.
- 21. 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. NCC will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
- 22. 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.
- 23. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX AJ

SECTION 19 REPORT – TRESWELL – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 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. Treswell is a village within the District of Bassetlaw, Nottinghamshire. It has a population of approximately 225 people according to the 2021 census.
7. The Lee Beck (ordinary watercourse) runs from west to east through the village, before outfalling into the Catchwater Drain (IDB managed watercourse) at the junction of Cottam Lane and Rampton Lane.

8. On the 20th October, during Storm Babet, Treswell 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, which is approximately 18km from Treswell (Figure 1).
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.
10. Consequently, 5 residential properties were subject to internal flooding with more suffering flooding to gardens and outbuildings.

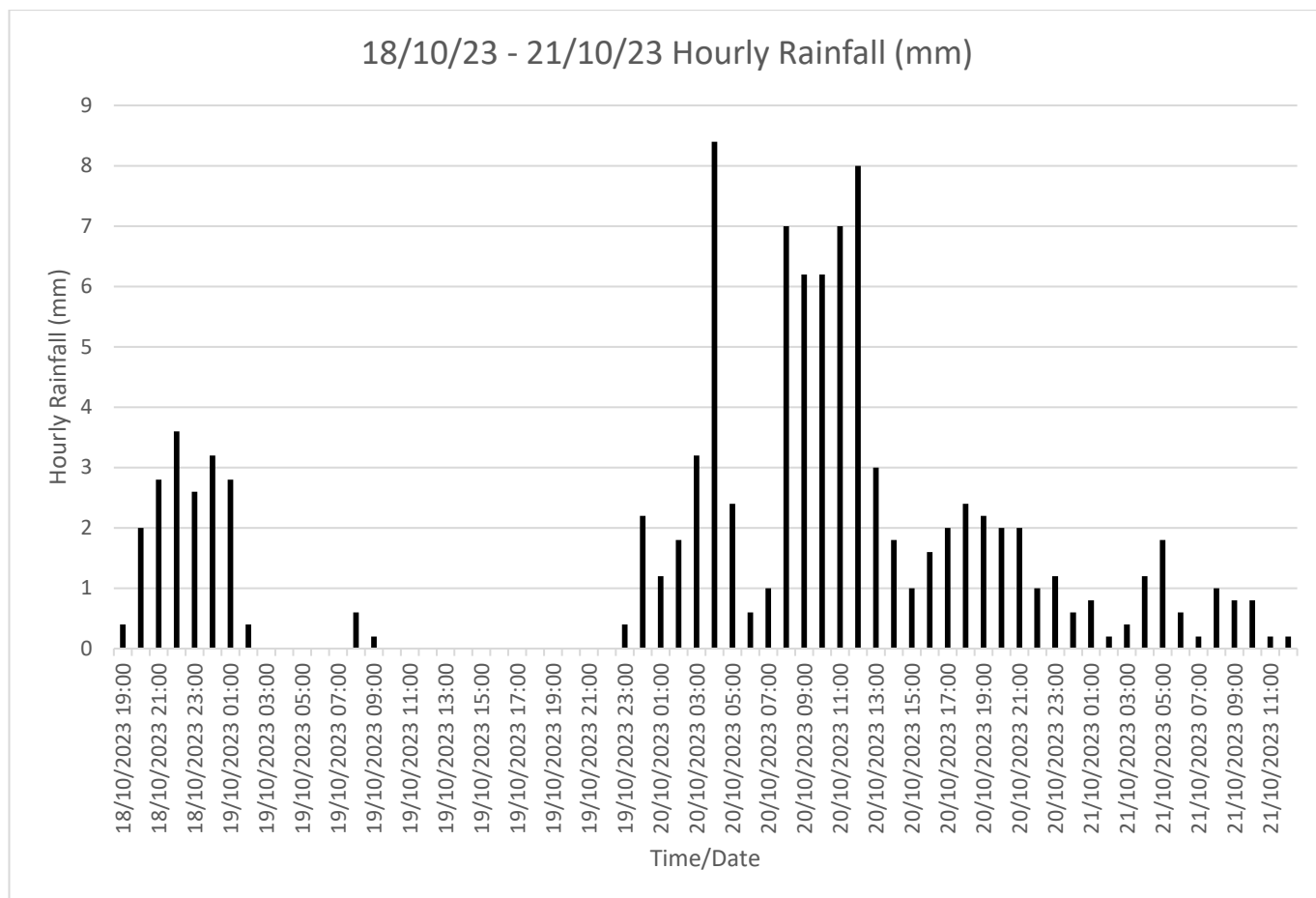


Figure 1. Worksop Hourly Rainfall 19:00 18th October – 12:00 21st October 2023. Data supplied by the Environment Agency.

11. View of Treswell is shown in Figure 2. The areas affected were Townside Lane and Town Street.



Figure 2. View of Treswell flood affected areas.

Summary of flooding and its causes

12. The Lee Beck (ordinary watercourse) meanders from Leverton Road, between a storage yard, residential properties and fields and passes underneath Townside Lane to Town Street. Due to the heavy sustained rainfall the water levels in the Lee Beck rose quickly, ultimately resulting in the water coming out of channel.
13. Reports and video footage of the event show water flowing out of the channel at the end of Townside Lane and flowing along the Lane. This flooded the Lane to a depth of around 1-2ft. As a result five residential properties were internally flooded on Townside Lane and Town Street with more properties suffering from external flooding. Figure 3. shows predicted fluvial flood extents which broadly align with the flooding experienced.

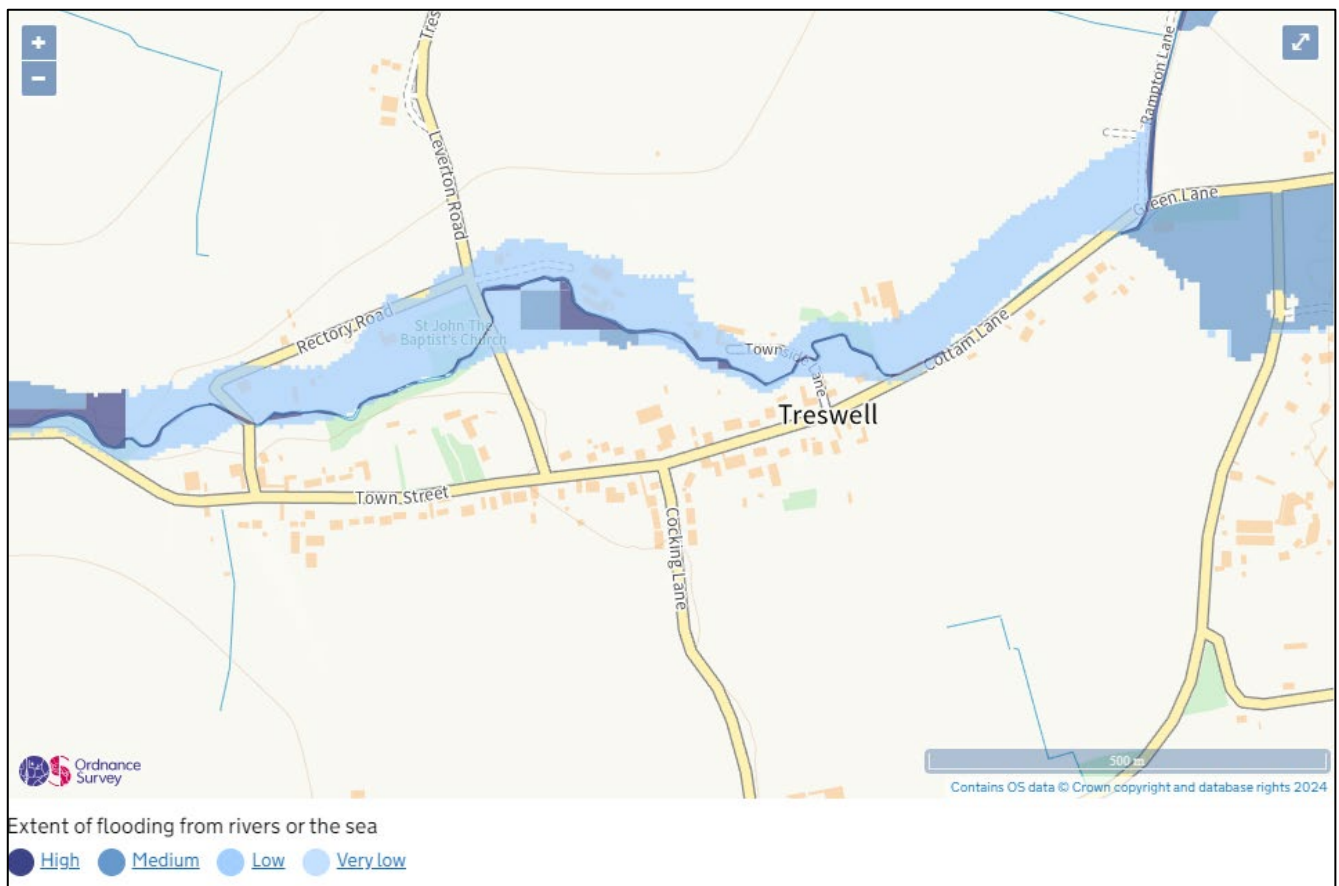


Figure 3. Fluvial Flood Risk Mapping. Data Provided by the Environment Agency.

14. While Townside Lane had been flooded by the Lee Beck there was also water observed running down Town Street, which then reached the low point and flowed down Townside Lane, further affecting properties.

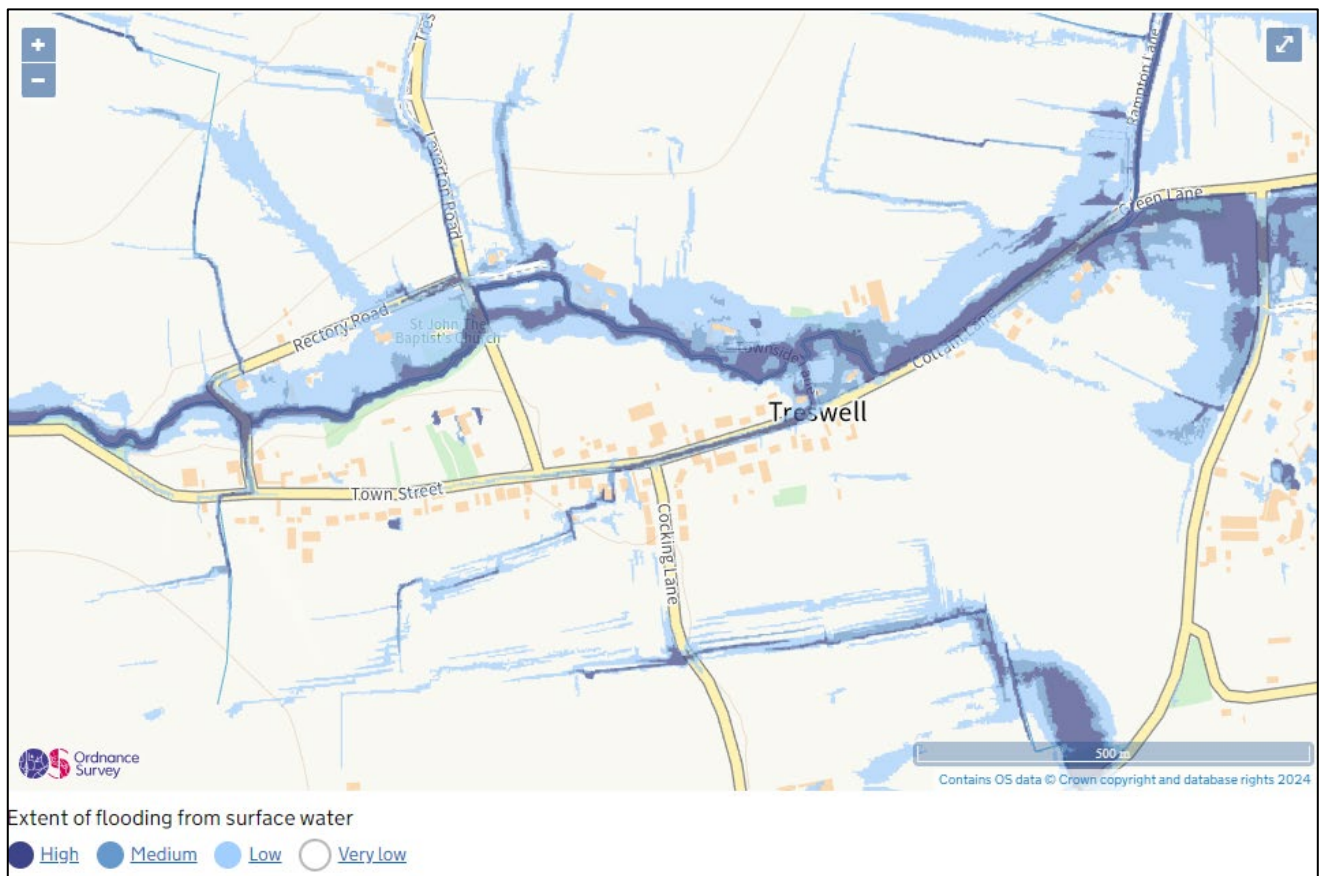


Figure 4. Surface Water Flood Risk Mapping. Data provided by the Environment Agency.

Risk Management Authorities and their responsibilities

15. 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.

16. 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.

17. 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.

18. Trent Valley Internal Drainage Board (TVIDB).

- a) Has a duty to manage flood risk and land drainage within areas of special drainage need in the Trent Valley.
- b) Has permissive powers to undertake work to provide water level management within their area.
- c) Undertake works to reduce flood risk to people and property and manage water levels for local needs including the maintenance of rivers, drainage channels, outfalls and pumping stations.

Risk Management Authority Responses to Flood

19. 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:

20. 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.
- p) Met with the community following the event to understand the nature of the flooding and inform the Section 19 report and next steps.

21. 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.

22. Severn Trent Water Ltd

- a) Actively engaged with the Section 19 investigation.
- b) Carried out a CCTV survey of surface water sewers and confirmed there are no issues with the public sewerage system.

Additional Information and Future Actions

- 23. 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.
- 24. 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.
- 25. The LLFA will liaise with Severn Trent and the Trent Valley Internal Drainage board to further understand the condition and role of their assets in the area.
- 26. 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.
- 27. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.
- 28. Bassetlaw District Council participated in the LRF Storm Babet Debrief and learning review meeting which identified a number of future actions.
- 29. Bassetlaw District Council has undertaken an internal review of the response to Storm Babet which identified a number of future actions.
- 30. 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.
- 31. 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.

APPENDIX AK

SECTION 19 REPORT –TROWELL – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Broxtowe Borough Council (BBC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC & Environment Agency (EA).
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. Trowell is a village in the Broxtowe Borough of Nottinghamshire with a population of approximately 2,378 people according to the 2001 census.
7. On the 20th October, during Storm Babet, Trowell suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 107mm of rainfall was recorded at the Newstead Abbey rain gauge as shown by figure one below.

8. 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.

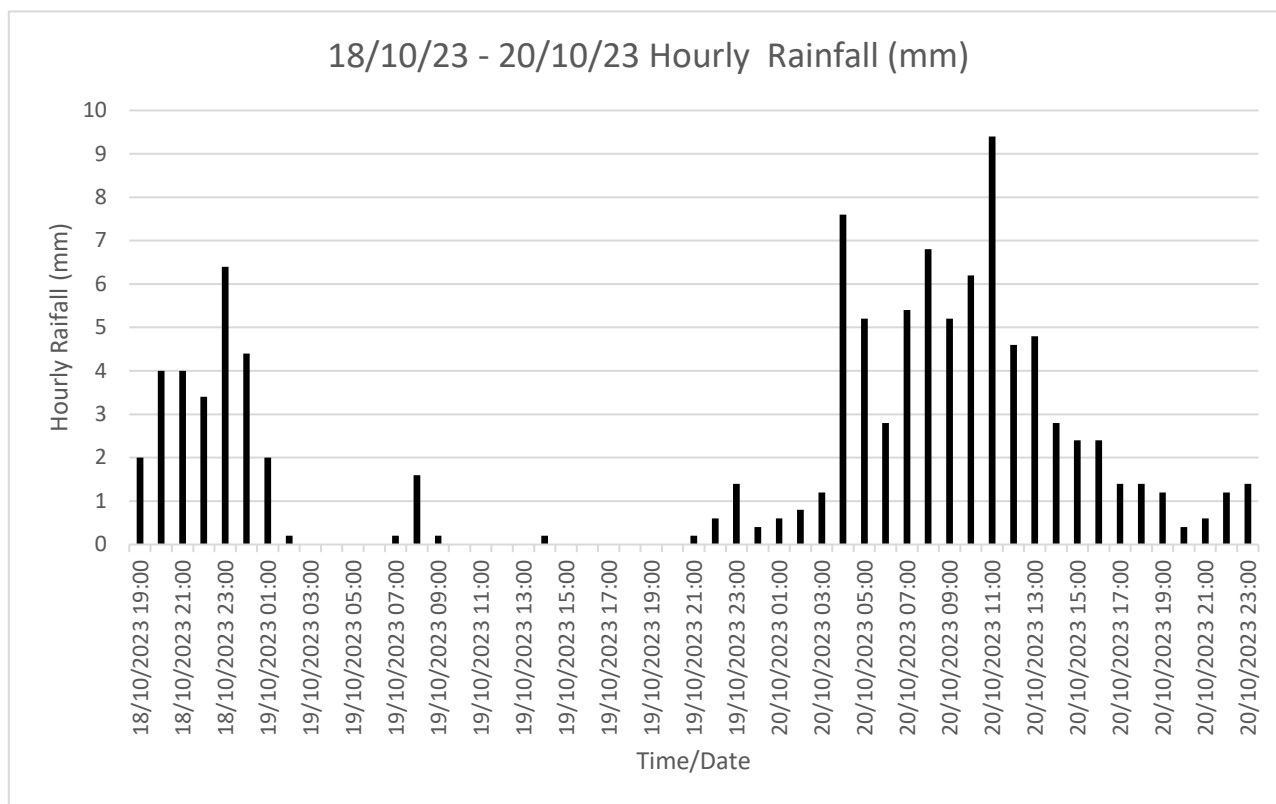


Figure 1. Newstead Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency

9. Internal flooding was very localised in nature in Trowell and the affected roads and where internal property flooding was present are detailed below, with a total of 25 properties suffering from internal flooding.
- Cranbourne Close – 7
 - Needwood Avenue – 6
 - Dawn View – 9
 - Trowell Park Drive – 2
 - Roehampton Drive – 1



Figure 2: Reference Map for affected area in Trowell.

10. Figure 3 below is an extract from the Environment Agency's surface water flood risk maps that shows the area to be at risk of surface water flooding. It is worth noting that the indicated line of risk as shown below is the route of the Boundary Brook. To the north east of Trowell Road the brook is designated as an ordinary watercourse to the south west it is designated as a main river.

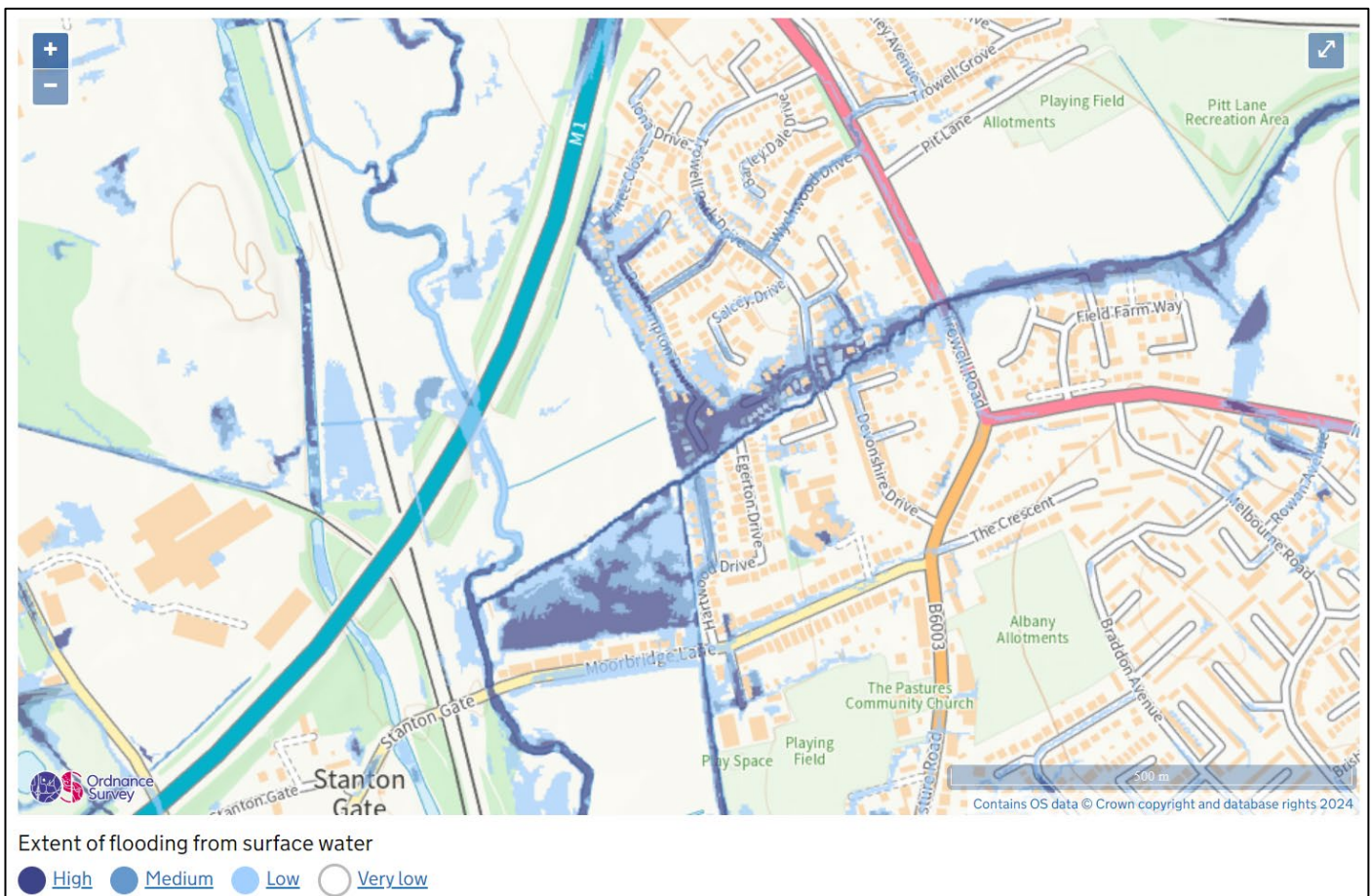


Figure 3: Environment Agency: Surface Water Risk Mapping for Radcliffe on Trent.

Summary of flooding and its causes

11. Evidence supplied by local residents show the mechanism for flooding in this instance, to be different to that of previous events. Information supplied by the community highlight that water from the Boundary Brook overtopped Trowell Road (A6007). Underneath this section of road is a culvert owned and maintain by NCC as Highways Authority. Information from the Environment Agency also noted the Boundary Brook to overtop banks downstream of the A6007. The water subsequently flowed through the gardens of the adjacent properties and flowing towards Cranbourne Close.
12. Water quantities by residents were described as a “torrent” raising concerns about upstream developments holding back water. To date there is no evidence that a release of water happened, but ongoing conversations will be held with all upstream developments to ensure that industry water management practices are met.

Risk Management Authorities and their responsibilities

13. 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. Lead Local Flood Authorities also have a 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council)

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

14. Broxtowe Borough Council

- i. 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.

15. Environment Agency (EA)

- i. 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.

Risk Management Authority Responses to Flood

16. The following lists the actions taken by each Risk Management Authority in response to the flooding both in the immediate aftermath as well as in the longer term:

17. 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.
- p) Attended a public meeting concerning flood risk in Trowell.

18. Broxtowe Borough Council:

- a) Provided emergency response support in management of flooding event.
- b) Delivered sandbags to affected residents.
- c) Managed and continue to manage recovery in affected Broxtowe communities.
- d) Administered the flood hardship fund.
- e) Administered the council tax and business rate relief grant scheme.
- f) Actively engaged in the Section 19 Flood Investigation.

19. Severn Trent Water Ltd.

- a) Actively engaged with the Section 19 investigation.
- b) Investigating concerns and issues relating to the surface water pumping station in the area.
- c) Attended a public meeting with MP and other RMAs.

20. Environment Agency:

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.

- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) The Environment Agency warned and informed the community of Trowell in a timely manner by issuing a Flood Alert for the River Erewash Tributaries in Derbyshire and Nottinghamshire on 19/10/2023 and Flood Warnings for the River Erewash and Boundary Brook at Trowell and Stapleford Moorbridge Lane on 20/10/2023.
- e) The Environment Agency instigated flood patrols to operate their structures in accordance with their incident response procedures and clear blockages in the area before and after the peak flows.
- f) Attended a public meeting concerning flood risk in Trowell.
- g) Coordinated community information officers and surveyors to gather information.
- h) Visited affected communities and residents.
- i) Commissioned effectiveness surveys into installed PRF measures.
- j) Commissioning repairs to Property Flood Resilience installations in collaboration with Framework Contractors.

Additional information and future actions

- 21. The local community spirit and resilience during the flooding must be recognised as without their efforts the impacts of the flooding could have been worse.
- 22. 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. NCC will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
- 23. EA is undertaking a detailed walkover of the Boundary Brook to see if there are any opportunities for enhanced maintenance and will continue to gather data and evidence to help validate the Flood Warning Service.
- 24. NCC will continue to liaise with developers upstream via the planning process to ensure that any further flows into the Boundary Brook are restricted as per industry water management standards.
- 25. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible. A community flood signage scheme is being developed in Trowell with support from NCC. Officers for the Flood Risk Management team are working with the community to help them develop a local flood action group.
- 26. 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.
- 27. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX AL

SECTION 19 REPORT – WOODBOROUGH – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Gedling Borough Council (GBC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC and the Environment Agency (EA).
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. Woodborough is a village within the Borough of Gedling, Nottinghamshire. It has a population of approximately 1,648 people according to the 2021 census.
7. The Woodborough Brook flows through the village directly adjacent to Main Street. It has two tributaries, one flowing from the west and the other from the southwest. The Woodborough Brook itself is designated as a Main River. The upper catchment of the Brook features clay soils with steep topography and a mainly agricultural land use. These

characteristics influence increased overland flow rates and areas of high hydrological connectivity.

8. On the 20th October, during Storm Babet, Woodborough suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 80mm of rainfall was recorded at the Calverton rain gauge (Figure 1). A peak water level of 1.115m was recorded at the Woodborough Brook Level Gauge at 11:45. Consequently, 49 residential 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.

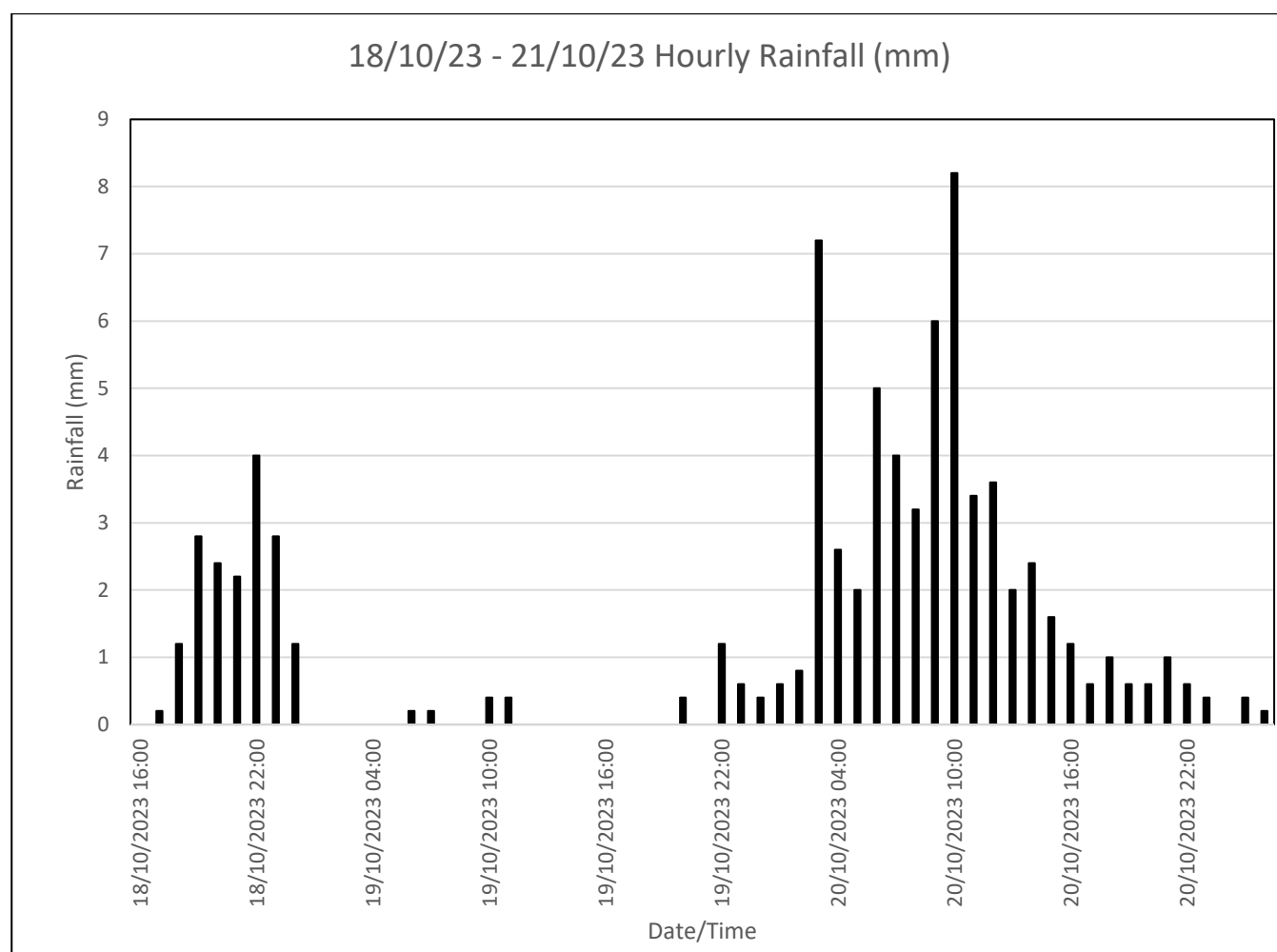


Figure 1. Calverton Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

10. A location map of Woodborough is shown in Figure 2. The areas affected were:
 - Main Street (30 properties)
 - Smalls Croft (11 properties)
 - Pinfold Crescent (2 properties)

- Shelt Hill (2 properties)
- Bank Hill (3 properties)
- Pinfold Close (1 property)



Figure 2. Flood affected areas across Woodborough. Main Street (1), Smalls Croft (2), Pinfold Crecent (3), Shelt Hill (4), Bank Hill (5), Pinfold Close (6).

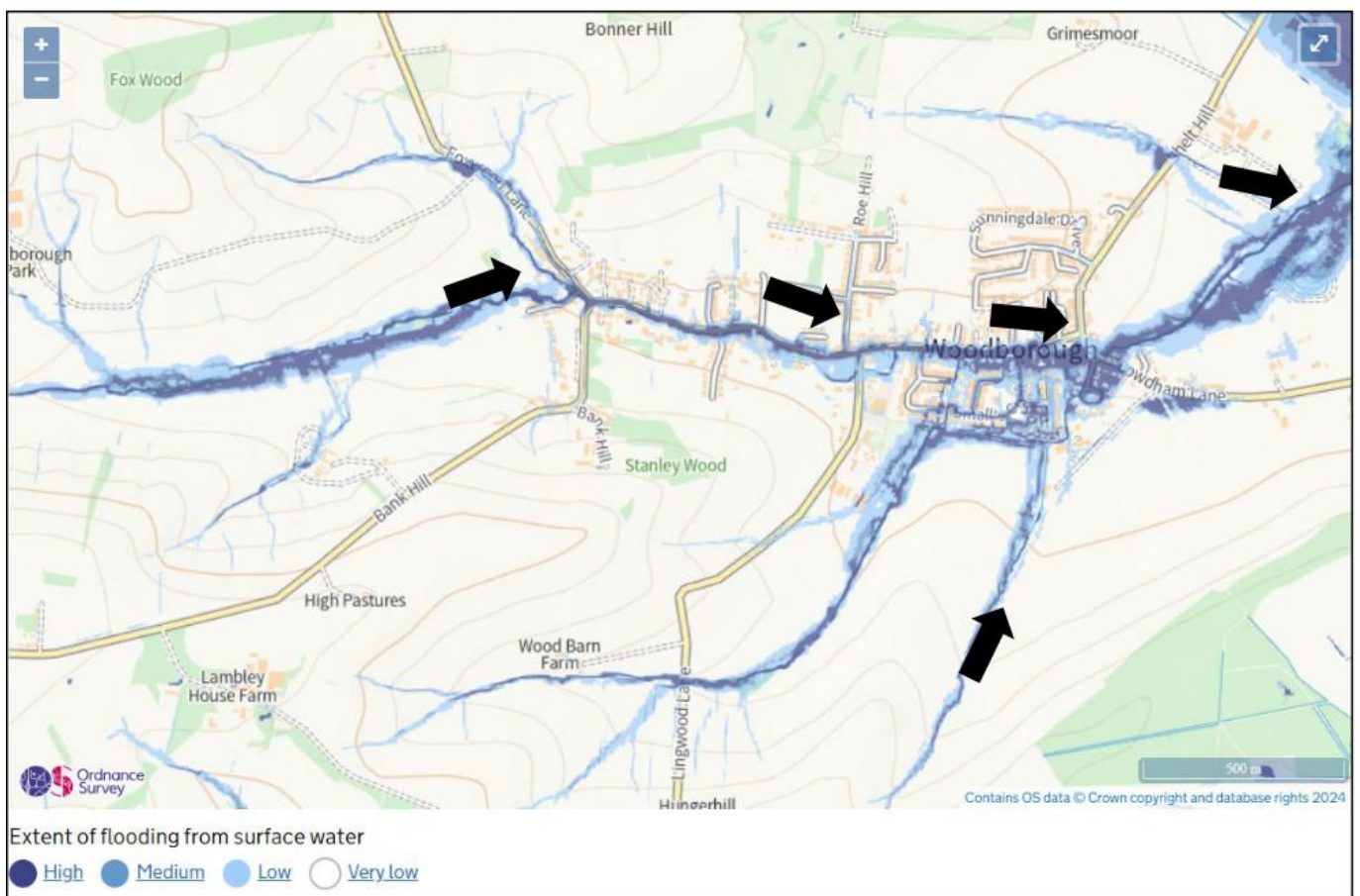


Figure 3. Surface Water Flood Risk Mapping for Woodborough. Main Street (1), Smalls Croft (2), Pinfold Crecent (3), Shelt Hill (4), Bank Hill (5), Pinfold Close (6).

Summary of flooding and its causes

11. Main Street

Areas impacted by flooding on Main Street are shown in Figure 4. In total, 28 residential properties and 2 businesses were impacted by flooding.

The Woodborough Brook flows along the south side of Main Street and is joined on Main Street by two tributaries originating from the south of the catchment.

During Storm Babet, upper catchment runoff influenced by intense rainfall caused a record water level to be recorded at the Woodborough Brook water level gauge. During the event, the watercourse channel capacity was exceeded resulting in water flowing eastward along Main Street which is shown as a surface water flow path in Figure 3. The water entered several properties as it flowed along the road. Some properties along Main Street are built at a lower elevation than the road itself. As a result, water flowing along the highway flowed through property boundaries and into some properties.

The flooding along Main Street also cut off many residents in Woodborough who were unable to get out of or into the village for many hours.



Figure 4. Main Street.

12. Smalls Croft

On Smalls croft, 11 residential properties were internally flooded by water from the Woodborough Brook which came out of bank and flowed down Main Street. A location plan is shown in Figure 5. Due to its lower topography, water pooled on Smalls Croft which was observed to be of a depth of roughly 1m in some places.



Figure 5. *Smalls Croft.*

13. Pinfold Crescent

On Pinfold Crescent, two residential properties were internally flooded (Figure 6). A ditch is present to the South of Pinfold Crescent which joins a tributary of the Woodborough Brook. A surface water flowpath is also present which flows across the field from the South. Intense rainfall and significant upper catchment runoff caused the ditch to flood some properties on Pinfold Crescent.



Figure 6. *Pinfold Crescent.*

14. Shelt Hill

Two residential properties suffered internal flooding on Shelt Hill (Figure 7). A surface water flowpath is present which flows from the west of Shelt Hill to the East (Figure 3). The water is managed by a drainage ditch system in the field which then flows under the road of Shelt Hill. Due to intense rainfall and enhanced overland flow, the culvert was overwhelmed and water pooled on the western side of the road as the road is higher than the properties. This caused internal flooding to properties adjacent to the road.



Figure 7. Shelt Hill.

15. Bank Hill

Three residential properties were flooded on Bank Hill (Figure 8). A drainage ditch on the south of Bank Hill flows into a culvert which was reported to be overwhelmed during Storm Babet. Water then flowed into properties after flowing along the highway.



Figure 8. Bank Hill.

16. Pinfold Close

On Pinfold Close, one residential property was internally flooded by water from the Woodborough Brook when the channel capacity was exceeded and water flowed down Main Street (Figure 9). Due to its lower topography, water pooled in areas of Pinfold Close which then affected the property.

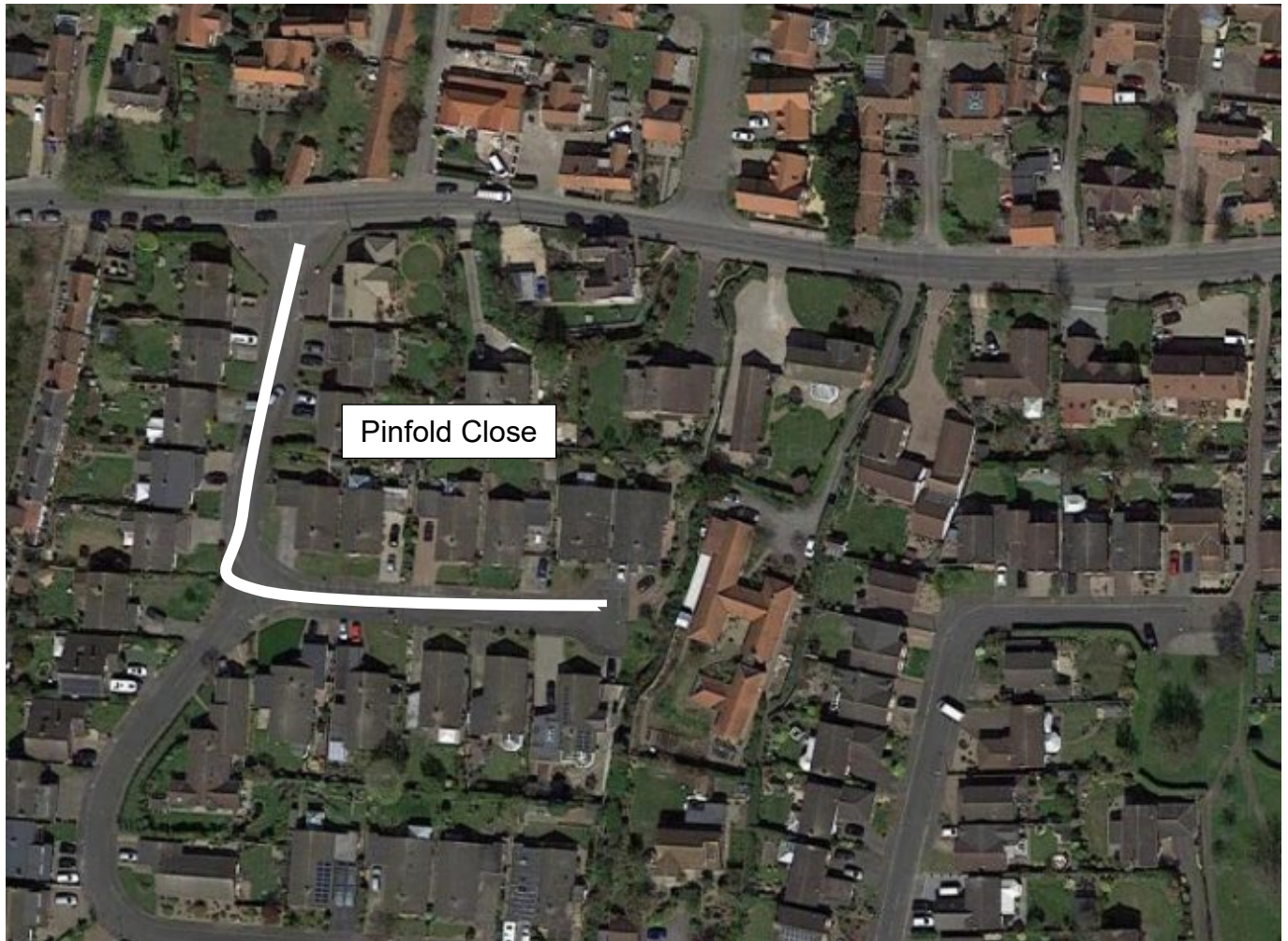


Figure 9. Pinfold Close.

Risk Management Authorities and their responsibilities

17. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

18. 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.
- b) Maintenance and management of main rivers and associated flood risk.

19. Gedling Borough 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.

Risk Management Authority Responses to Flood

20. 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:

21. 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.
- p) Attended a public meeting coordinated by the local Member of Parliament concerning flood risk in Woodborough.

22. Gedling Borough Council

- a) Delivered 1200 sandbags across Gedling Borough to residents who required them.
- b) Coordinated clean-up activities including cleansing and road sweeping in flood impacted areas.
- c) Took an active role in the Section 19 Investigation.

23. Environment Agency

- a) The Environment Agency was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) The Environment Agency warned and informed the community of Woodborough and partners in a timely manner by issuing a Flood Alert for River Trent Tributaries in Nottinghamshire on 20/10/2023.
- e) The Environment Agency also instigated flood patrols to operate their structures in accordance with their incident response procedures and clear blockages in the area before and after the peak flows.
- f) The Environment Agency attended a public meeting coordinated by the local Member of Parliament concerning flood risk in Woodborough.

- g) 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.

Additional Information and Future Actions

24. 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.
25. The Woodborough Flood Action Group have collated information on flooding mechanisms impacts within the village. This was shared with NCC officers and has informed this report. The Flood Action Group has a strong working relationship with RMA's including NCC, the EA, Via EM Ltd. and Severn Trent Water.
26. At the time of writing, a natural flood management project is being delivered within the upper catchment of Woodborough. Delivery of the scheme will continue with an aim to create storage to temporarily attenuate water during flood events and reduce flood risk.
27. Investigations by NCC into flooding on Bank Hill and Shelt Hill are ongoing. Meetings with residents have been held to discuss the flooding experienced.
28. 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.
29. The Environment Agency will support other Risk Management Authorities to hold community drop-in sessions for those affected to share their experiences and to get help and advice.
30. The Environment Agency will continue to gather data and evidence to help validate the flood warning service.
31. 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.
32. 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.
33. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.

APPENDIX AM

SECTION 19 REPORT – WORKSOP – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: “SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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, 94 residential properties and 38 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.

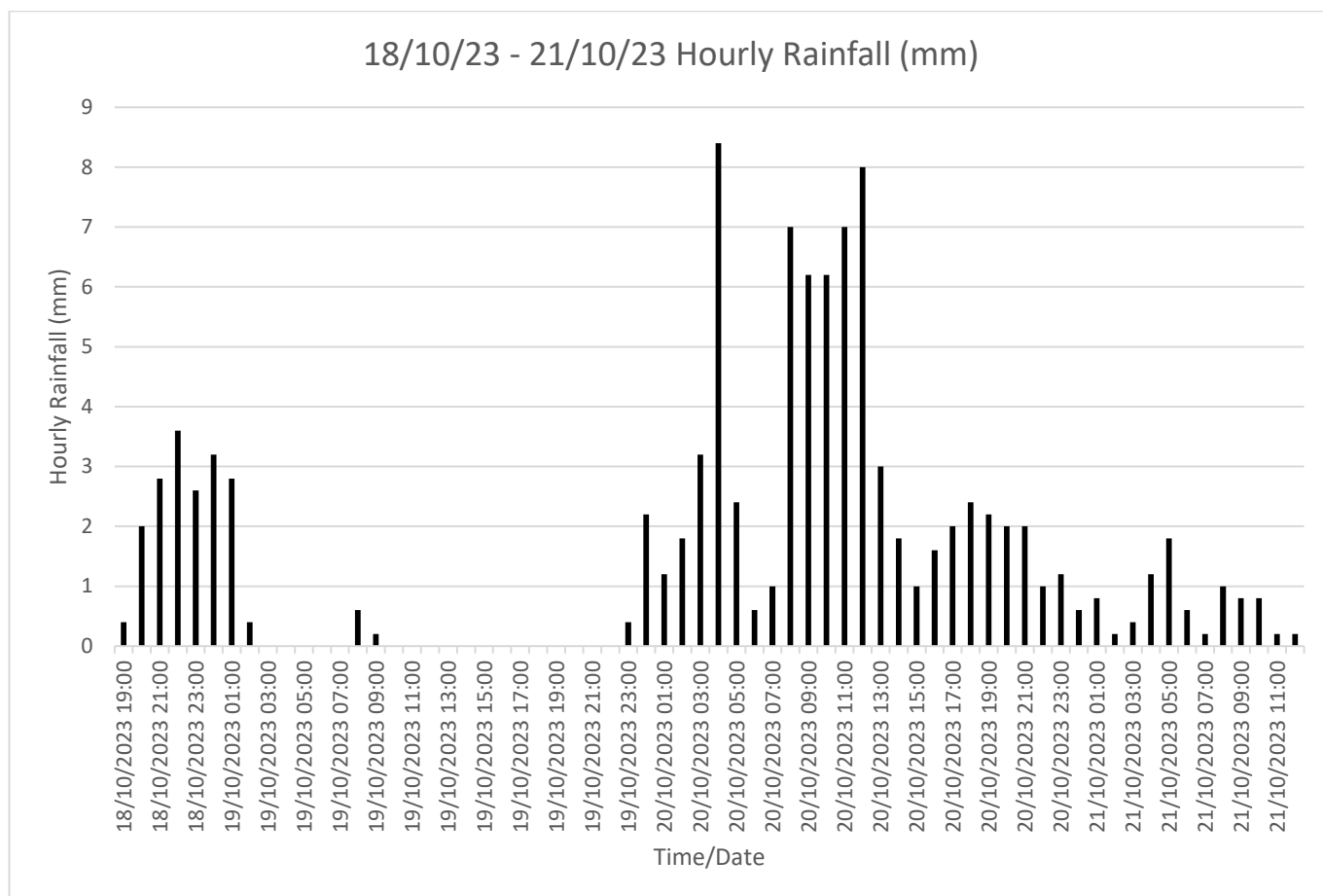


Figure 1. Worksop Hourly Rainfall 19:00 18th October – 12:00 21st October 2023. Data supplied by the Environment Agency.

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 (33)
 - Chapel Walk (1)
 - Devonshire Street (1)
 - Dunlin Court (1)
 - Hardy Street (8)
 - King Street (20)
 - Lady Walk (2)
 - Newcastle Avenue (21)
 - 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, Old Bakery Yard, Stubbing Lane and The Willows
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, Devonshire Street, Hardy Street, King Street, Newcastle Avenue and Stubbing Lane

- 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.
- Allen Street, Central Avenue, Chapel Walk, Devonshire Street, 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 of 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.

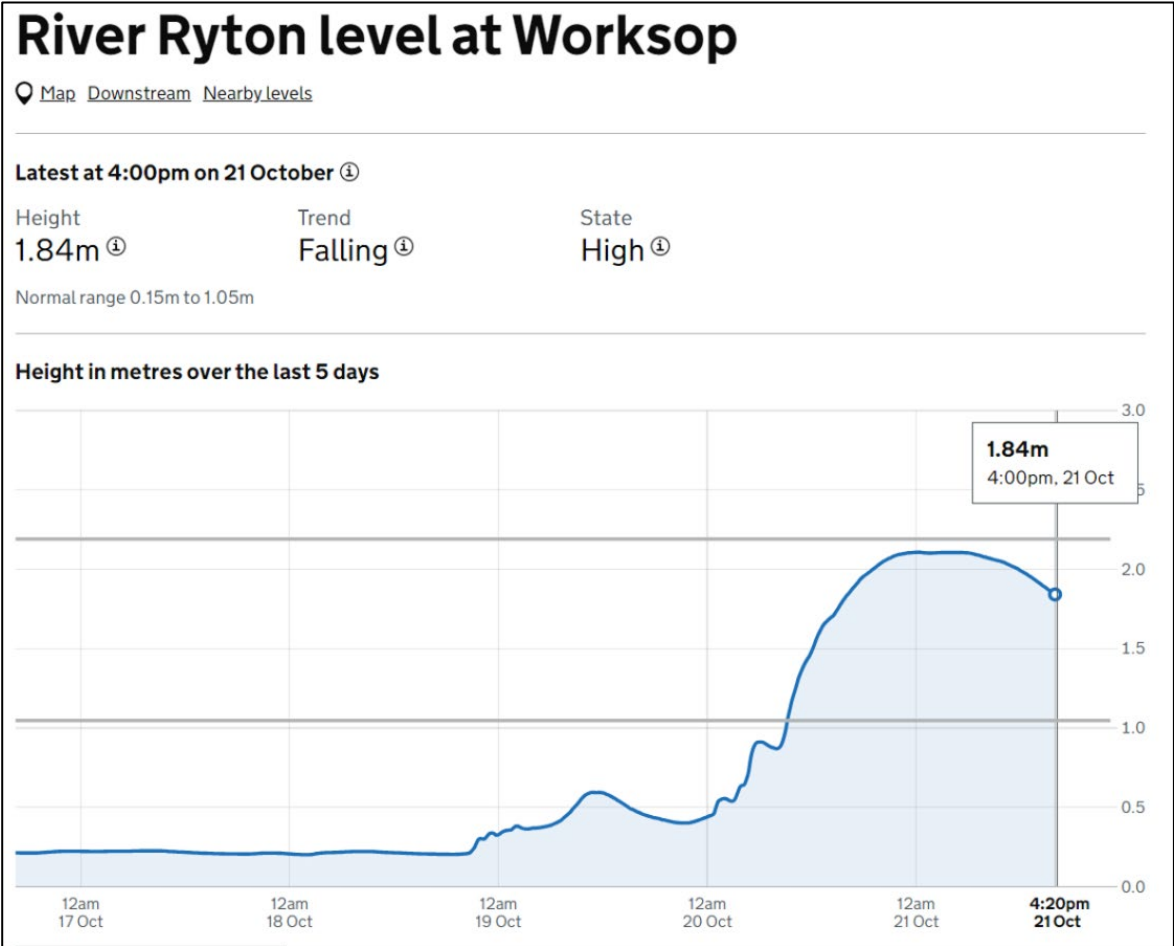


Figure 3. River Level gauge data for the River Ryton at Worksop.



Figure 4. Allen Street, Central Avenue, Chapel Walk, Devonshire Street, 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

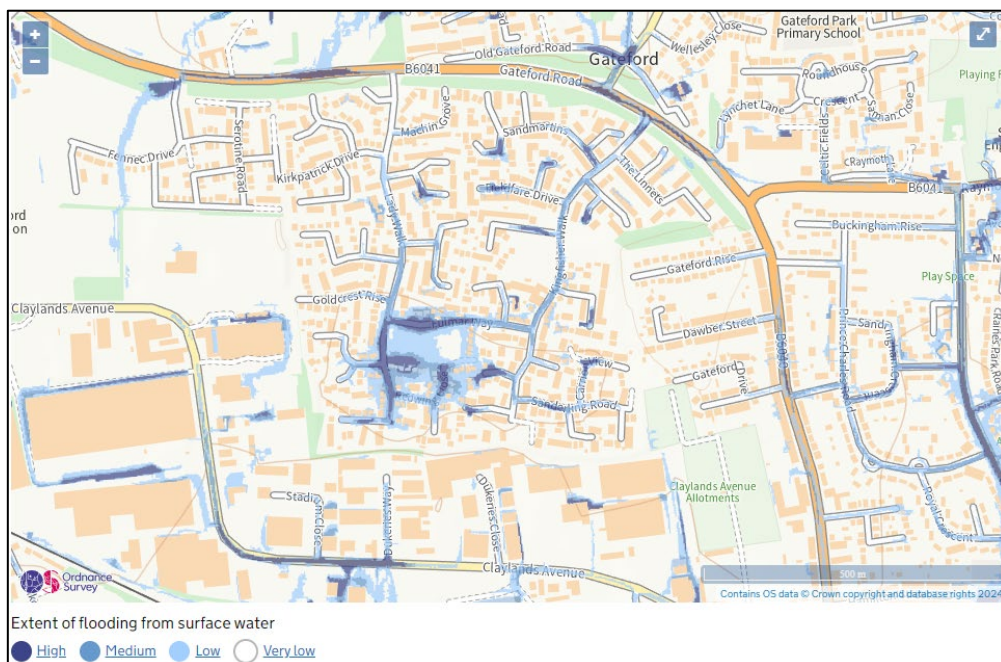


Figure 6. Surface Water Flood Risk Mapping. Data provided by the Environment Agency.

Watson Road

17. At Watson Road, 2 residential properties and one business property were 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

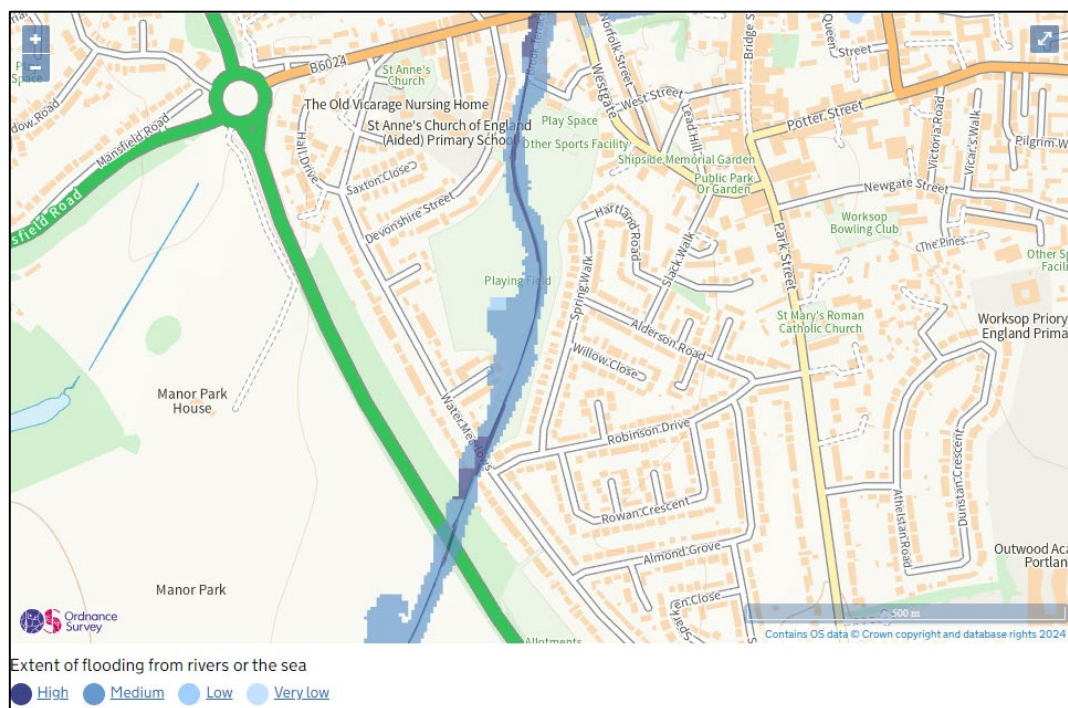


Figure 9. Surface Water Flood Risk Mapping. Data provided by the Environment Agency.

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 was in contact with professional partners from the 16/10/2023 to warn of potential heavy rain from the 19/10/2023 onwards.
- b) Played an active role in Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- c) Operated incident support rosters on a 24/7 basis throughout the incident.
- d) 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.
- e) 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.
- f) 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.
- g) 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.
- h) 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. Subject to funding availability and 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.

APPENDIX AN

SECTION 19 REPORT – EGMANTON – STORM BABET, OCTOBER 2023

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 27 MARCH 2024: "SECTION 19 REPORTS: EASTWOOD FLOODING SEPTEMBER 2023 & STORM BABET FLOODING OCTOBER 2023".

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 Newark & Sherwood District Council (NSDC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd as Highways Authority on behalf of NCC and Trent Valley Internal Drainage Board (TVIDB).
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. Egmanton is a small rural village located 1 mile south of Tuxford and west of the A1 in the north of the County. It is surrounded by agricultural land and is served by two watercourses that run from west to east, converging in the centre of the village before leaving the village along the line of Weston Road. These watercourses are managed by the Trent Valley Internal Drainage Board (TVIDB). Figure 2 shows how the watercourses pass through the village.

7. Between 12:00 noon on the 18th and 23:00 on the 20th October, 124mm of rainfall was recorded at the Staythorpe rain gauge, which is approximately 15km from Egmonton (Figure 1).

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.

During Storm Babet, 18 residential properties in Egmonton were subject to internal flooding with more suffering flooding to gardens and outbuildings.

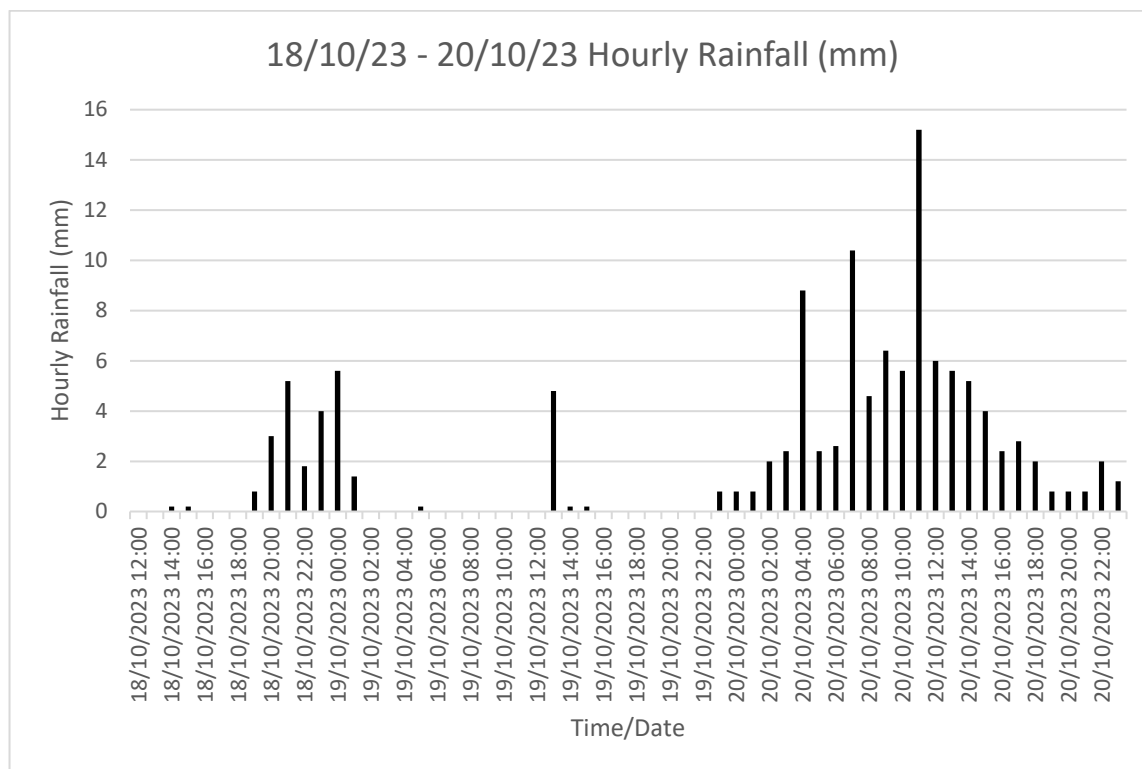


Figure 1. Staythorpe Hourly Rainfall from 12:00 18th to 23:00 20th October 2023.
Data supplied by the Environment Agency.

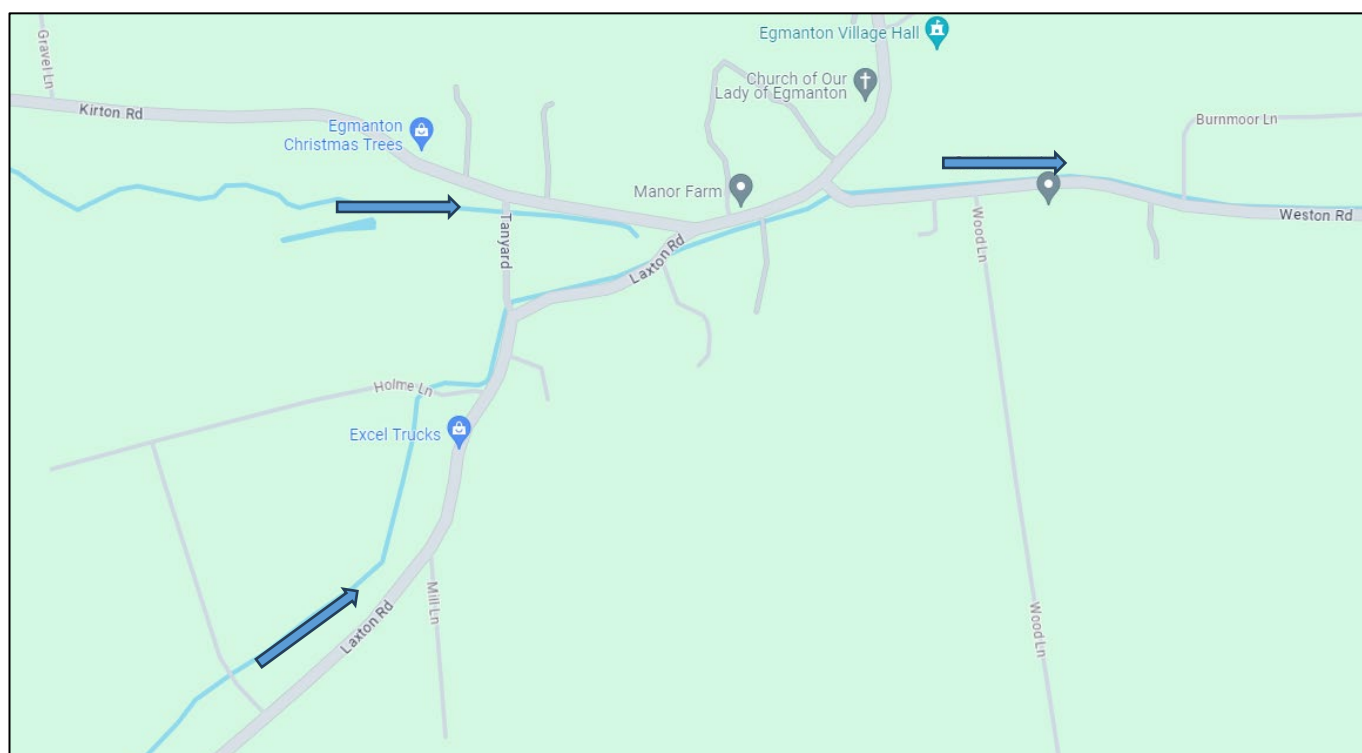


Figure 2. Map of Egmonton showing watercourses running through the village

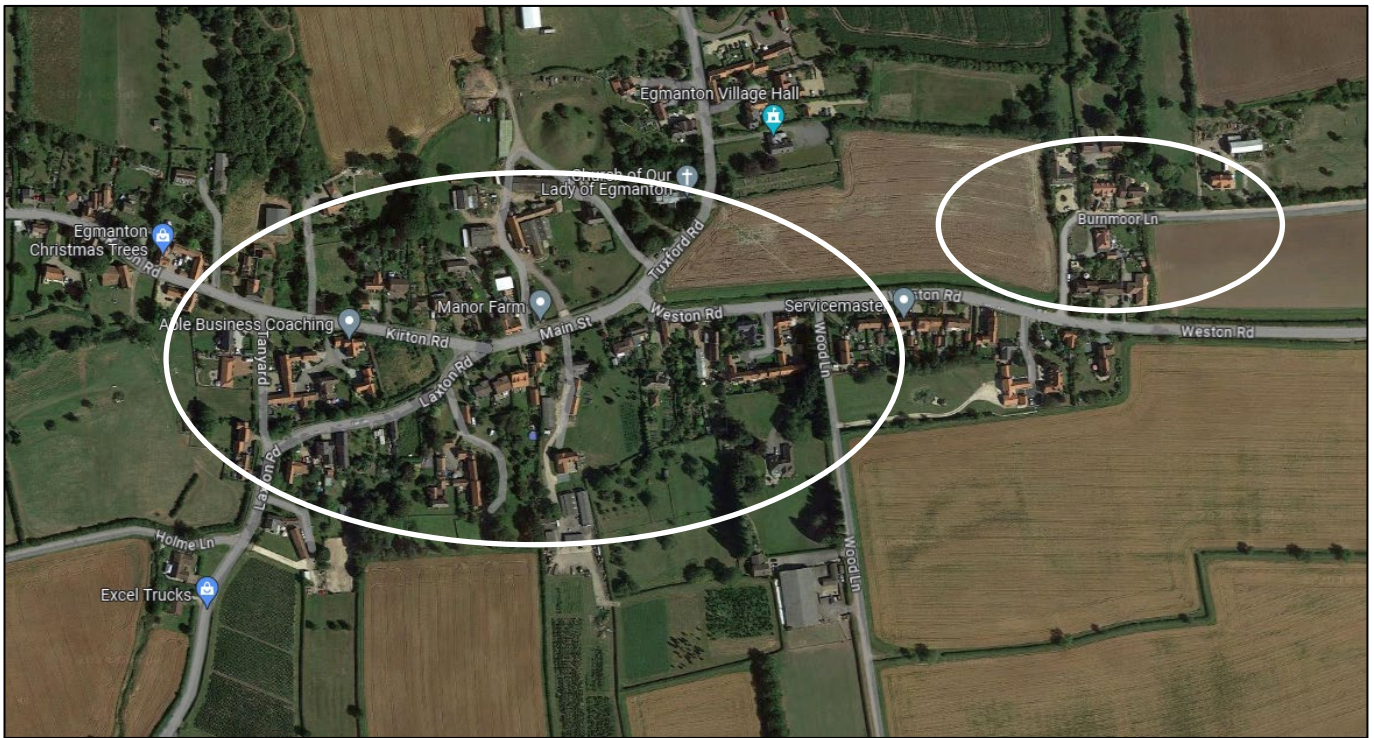


Figure 3. Map of Egmonton highlighting areas affected by internal flooding.

Summary of flooding and its causes

8. The flooding that occurred in Egmonton during Storm Babet came from a mixture of sources but primarily caused by the watercourses bursting their banks. Witness statements referenced significant flows entering the village from the roads to the west of the village which exacerbated the flooding.
9. The watercourses and the topography of the village combine to create a natural risk of flooding to the area. Figures 4 and 5 show the predicted risk of flooding as published by the Environment Agency's Flood Map for Planning ([Flood map for planning - GOV.UK \(flood-map-for-planning.service.gov.uk\)](https://flood-map-for-planning.service.gov.uk)).

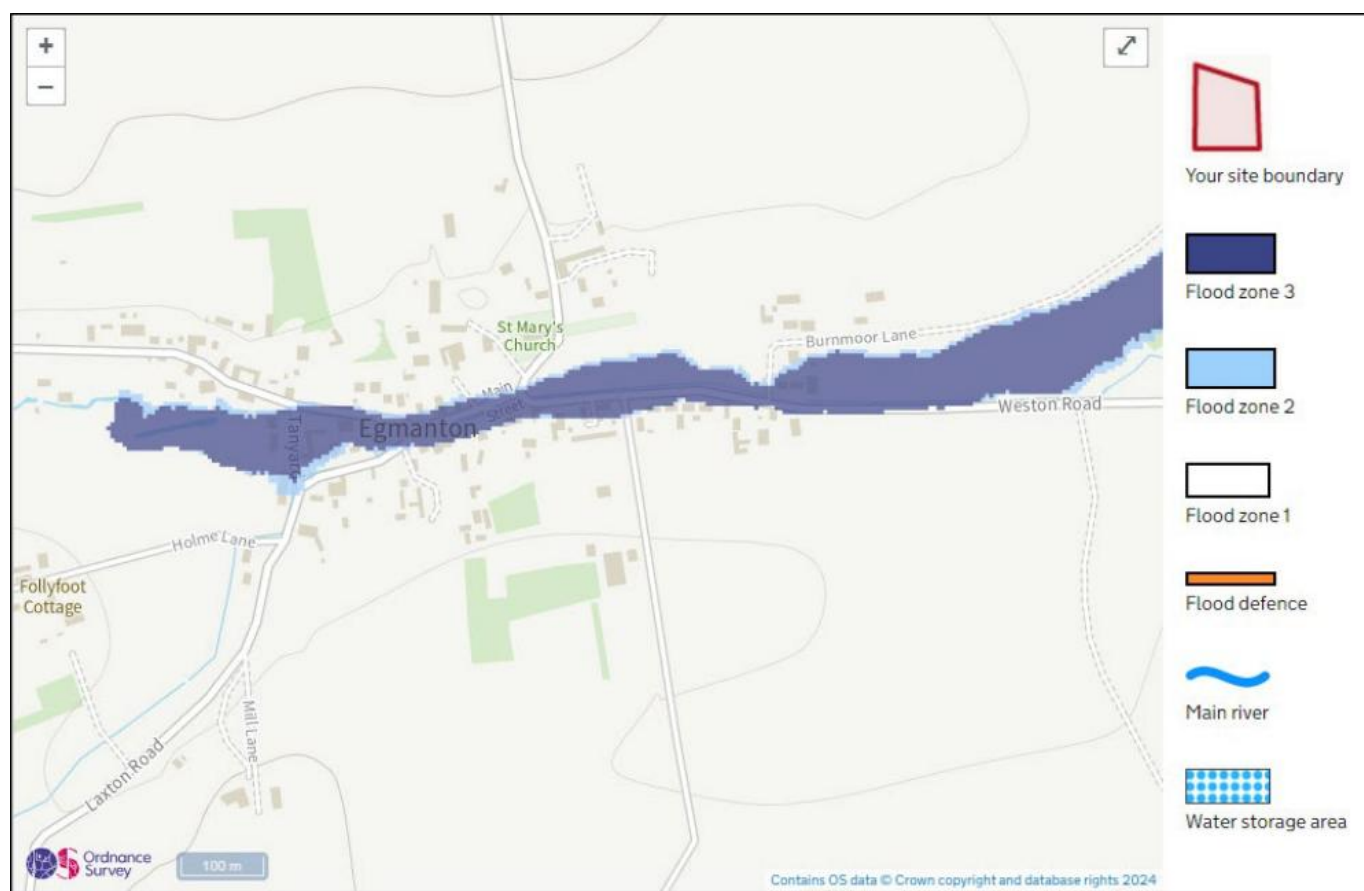


Figure 4. Predicted Flood Zone Extents

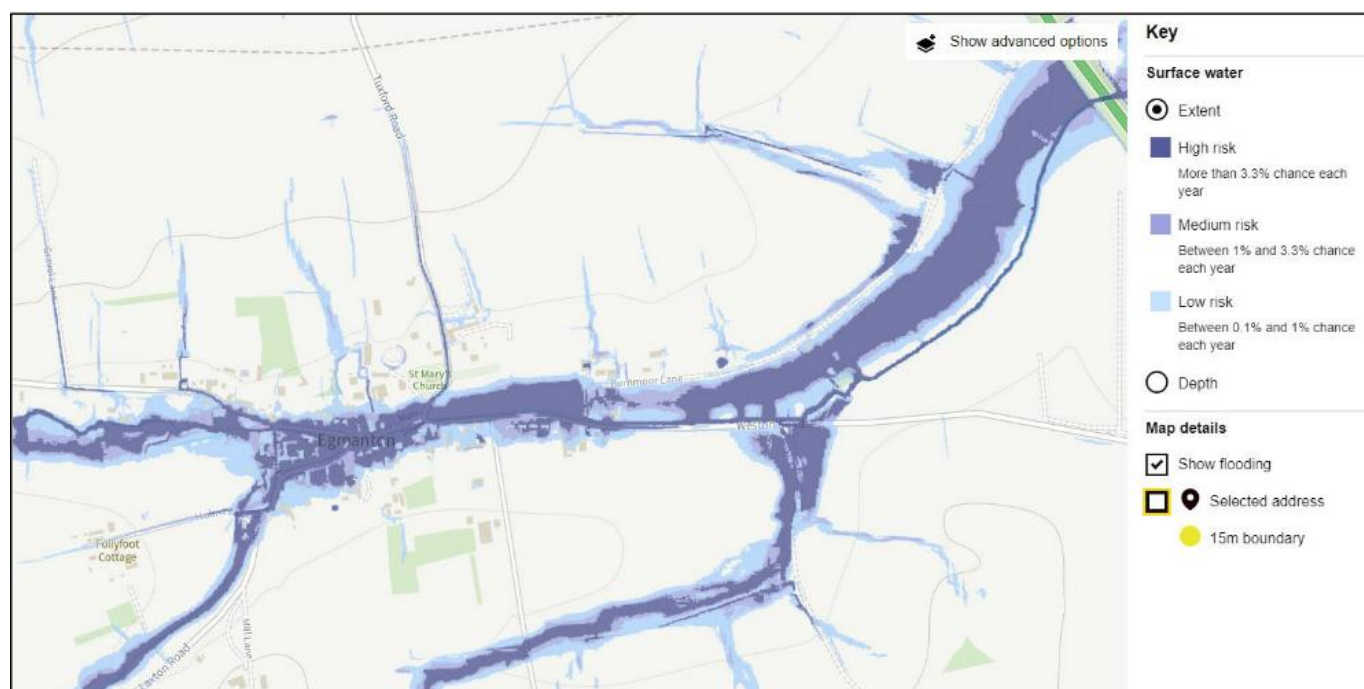


Figure 5. Predicted Surface Water Flood Extents

10. Figures 4 and 5 help to confirm the areas naturally occurring risk of flooding and correlate with the majority of flooding experienced during Storm Babet.
11. The village benefits from proactive community and Parish Council that provides support and resilience to their residents. The community adopts a very positive and proactive approach to flood resilience and we will continue to work with and support them as best we can.

Risk Management Authorities and their responsibilities

12. 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 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

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

13. Newark and Sherwood 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.

14. Trent Valley Internal Drainage Board.

- a) Has a duty to manage flood risk and land drainage within areas of special drainage need in the Trent Valley.
- b) Has permissive powers to undertake work to provide water level management within their area.
- c) Undertake works to reduce flood risk to people and property and manage water levels for local needs including the maintenance of rivers, drainage channels, outfalls and pumping stations.

Risk Management Authority Responses to Flooding

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

16. 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.
- p) Due to attend Parish Council community evening meeting on 27 March.

17. Newark & Sherwood District Council

- a) Played a full and intensive role alongside other agencies and community representatives.
- b) Worked to deliver whatever support was possible from the skills and resources available.
- c) Ahead of the storm the council stood up a team of managers to prepare for potential impacts across the district. A large team of staff was formed from across departments prioritising the flood response. Staff worked throughout the flood event, working beyond the normal working hours and days.
- d) Staff visited impacted communities and vulnerable individuals.
- e) Many hundreds of aqua sacs were delivered and people were helped to evacuate their homes.
- f) The council prepared to support evacuated residents and provided emergency accommodation when necessary.
- g) The communications officers worked with other agencies to warn and inform the public of the risks and the support that was available. Daily briefings were also provided to councillors and community leaders.

- h) As the flood event changed from the surface water flooding to the continued risk of river flooding the council commenced actions to help clean up roads, paths and remove bulky waste from flooded homes.
- i) Staff contacted affected individuals to identify humanitarian needs and offer direct support or liaised with other agencies to find the appropriate assistance.
- j) Due to the predicted extreme levels for the River Trent, the council coordinated in person visits to communities at high risk of flooding to reinforce the need to take immediate action to prepare for potential flooding.
- k) Once the risk of further flooding had passed the council commenced its role in meeting the recovery needs of impacted communities and individuals. Grant funding is being delivered to those eligible.
- l) An internal and multi-agency debrief was conducted to identify any lessons learned.
- m) Since the flood the council has worked with parish and town councils to restock stores of aqua sacs.

18. Trent Valley Internal Drainage Board

- a) TVIDB had staff on site during and after the flood event.
- b) Due to attend Parish Council community evening meeting on 27th March.
- c) The IDB is working closely with lead partners to identify and deliver appropriate solutions, including supporting securing funding applications and with engineering and design expertise where applicable.
- d) In all parts of the IDB districts (both Trent Valley and Isle of Axholme and Northern Nottinghamshire) the regular annual maintenance regime has been and will continue to be delivered to reduce risk and identify potential risk areas.

Additional Information and Future Actions

- 19. 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 contained within this report.
- 20. Egmanton Parish Council and its residents have a well- established working relationship with the TVIDB and are committed to continue with that working relationship.
- 21. 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.
- 22. NCC will continue to develop its Flood Warden / Road Closure training programme and support given to community volunteer groups to help ensure they operate as effectively and safely as possible.
- 23. The Flood Risk Management team will look at the suitability of its Property Flood Resilience Programme for communities affected by Storm Babet and Henk and will take recommendations through Committee later this year for consideration.
- 24. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.