



APPENDIX H

SECTION 19 REPORT – LOWDHAM – STORM HENK, JANUARY 2024

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 22 JULY 2024: “SECTION 19 REPORTS: STORM HENK FLOODING JANUARY 2024”.

<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 January 2024 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 on behalf of NCC as Highways Authority, the Environment Agency (EA) 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 people according to 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 1 shows how the watercourses pass through the village.



Figure 1. 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).

7. These watercourses and the topography of the village combine to create a natural risk of flooding to the area. Figures 2 and 3 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 2. Predicted Flood Zone Extents (FZ3 is darkest area)



Figure 3. Predicted Surface Water Flood Extents

8. Lowdham has a significant history of flooding with recently recorded events as follows; 1999 where 300 properties were flooded, 2007, 2012, 2013, 2019, 2020 and 2023. A number of these events 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.
9. On the 2nd January 2024, Storm Henk brought heavy rain across the East Midlands resulting in widespread flooding across Nottinghamshire. This storm followed an extended period of rain across the county. The Lambley rain gauge, located approximately 3km to the west of Lowdham, measured a total of 23.6mm of rain between 10am and 9pm and a peak of 6.4mm per hour. In the 48 hours prior to the storm another 50mm of rain was recorded. Figure 4 shows the hourly rainfall at Lambley Gauge.
10. Storm Henk resulted in 60 properties and businesses in Lowdham experiencing internal flooding – some of which were repeated incidents with many residents still recovering from Storm Babet when this flooding happened. It is very hard to convey the heartbreak and stress that this situation causes for those directly and indirectly affected.

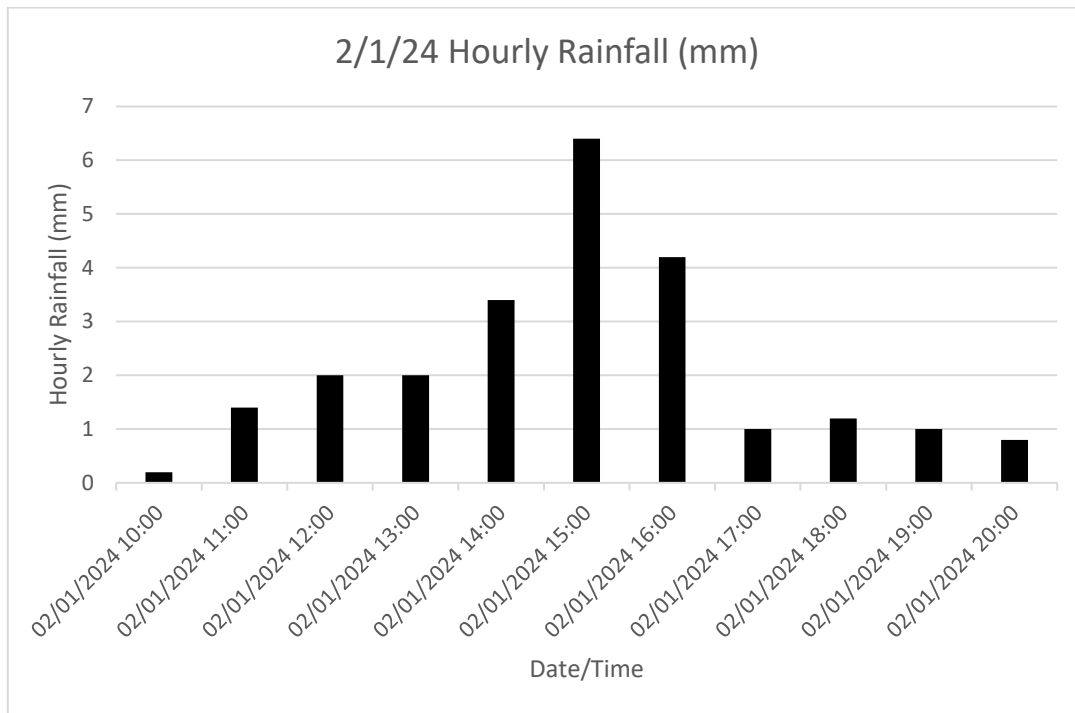


Figure 4. Lambley hourly rainfall. Data supplied by the Environment Agency.

Summary of flooding and its causes

11. Figures 5 and 6 show the areas affected by internal flooding.

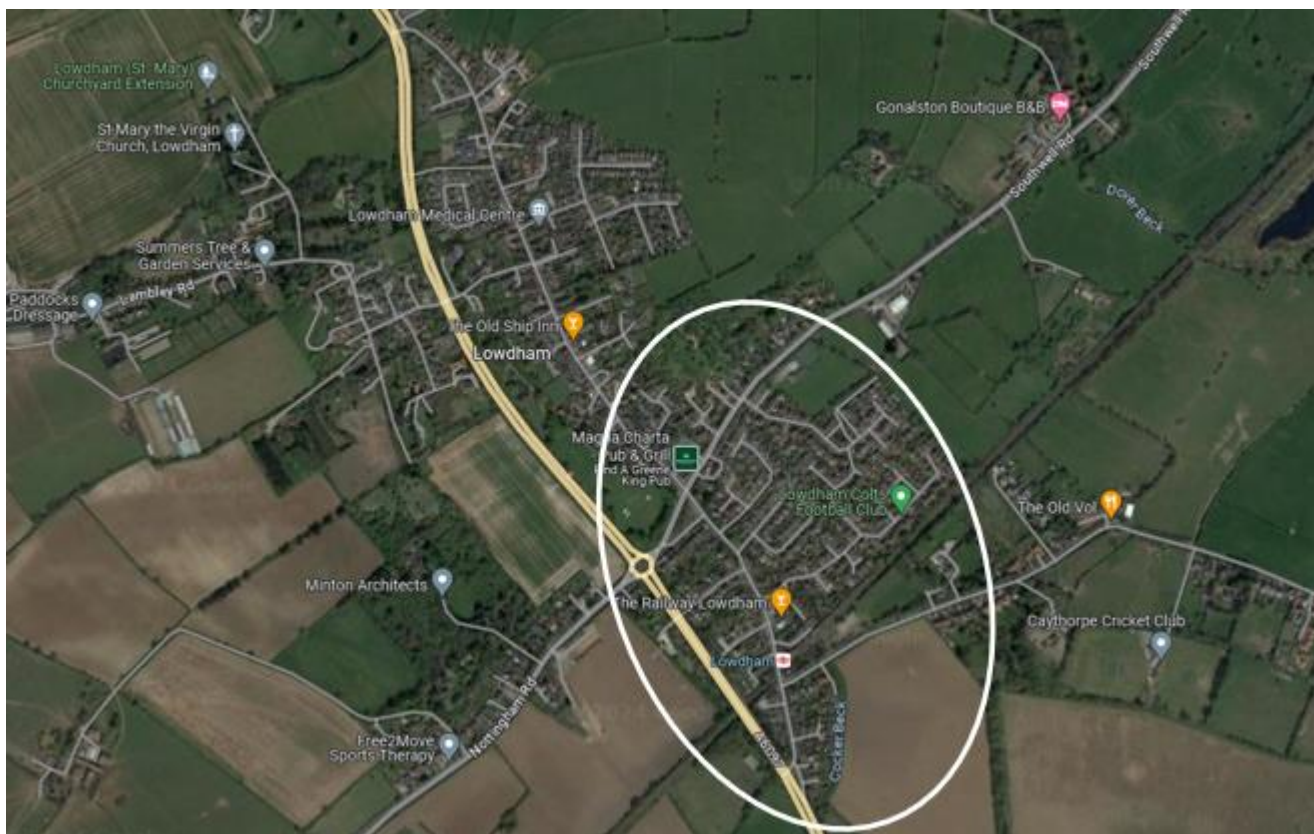


Figure 5. View of Lowdham highlighting areas affected by internal flooding.



Figure 6. View of Lowdham highlighting areas of isolated internal flooding.

12. During Storm Henk flood water came from a mixture of sources; river water from the Cocker Beck over-topping, flooding from surface water and water surcharging from some of the underground drainage systems; the combination of these resulted in widespread flooding of properties, roads and open spaces across the catchment.
13. 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.
14. 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 and 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.
15. Lowdham Flood Action Group (FLAG) have provided the following statements / observations for inclusion in the report. These statements are the Flood Action Group's views and, whilst not verified by any of the responsible RMAs, it is considered important to recognise the FLAG volunteers views:
 - a) Storm Henk was more severe than the forecast and EA Alerts and Warnings had predicted. As a consequence, some flood defences were not erected such as the barrier opposite the Magna Charta on A612 beside the hairdresser.
 - b) The recently repaired left bank defence was overtopped at 1745 hours flooding The Corner and properties in 7 – 11 Main Street, before heading down Southwell Road around and into The Cottages, and into Willow Holt and Merevale. Here flood water flooded a further 30 properties, including several in Lime Tree Gardens. At this time, the lagoon was only partially filled raising concerns about the height of the spill weir and whether the left bank repair 'as built' height is identical to the wall on Nottingham Road.

- c) There had been a partial collapse of a structure at Station Road into the Cocker Beck in October 2023. The EA placed pumps inside the Cocker Beck at Lime Tree Gardens in order to pump water around the collapsed structure to Blenheim Bridge, to try to prevent further collapsing of debris into the Beck. These pumps may have been a contributory factor to the early and significant over topping of the wall on Station Road which was around 100m upstream. The six pumps, of which only two were operational, prevented the full capacity of the Beck being used to see water out of Lowdham. As a consequence, it backed up and overtopped Station Road much earlier than in any previous flood event. Some of this water flooded properties in Victoria Avenue, Longmoor Avenue, Station Road and The Orchards.

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. 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.

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.

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

20. 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:
 - 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

21. 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:

22. 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, Elected Members, 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 69 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 Lowdham, and met with the local flood volunteer group (FLAG).
- q. Met with resident affected by the isolated flooding outside main residential area of Lowdham.

23. The Environment Agency.

- a) The Environment Agency warned and informed the community of Lowdham in a timely manner by issuing a Flood Warning for the Cocker Beck at Lowdham at 19:01 on 1st January 2024.
- b) The Environment Agency also instigated flood patrols to operate their structures in accordance with their incident response procedures and cleared blockages in the area before and after the peak flows.
- c) The Environment Agency organised and attended a multi-agency community drop in event which was attended by Nottinghamshire County Council, Severn Trent Water, and Jacksons Civil Engineering.
- d) The Environment Agency coordinated community information officers to gather information and visit affected communities to understand the impact of flooding on affected communities and collect data. This information is used to validate and improve the Flood Warning Service.
- e) The Environment Agency put in place temporary pumps to mitigate against the potential collapse of a riparian channel side and property. These were removed when the water levels had receded to an appropriate level.

24. 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.

25. Severn Trent Water.

- a) Attended and supported the EA led community drop-in session in Lowdham with other Risk Management Authorities following Storm Henk.
- b) Received reports of flooding from sewers in this area and have undertaken extensive investigations into the causes of the flooding.
- c) Contacted and followed up with affected residents and the Flood Action Group directly about any sewer related issues.

Additional Information and Future Actions

- 26. 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.
- 27. The Lowdham Community Flood Signage Scheme became activated during Storm Henk, with volunteers closing several roads within the village to limit the impact of bow wave flooding on properties.
- 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.
- 29. The Flood Risk Management team will look at the suitability of its Property Flood Resilience Programme for communities affected by Storm Henk 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.
- 31. Lowdham Cocker Beck Flood Alleviation Scheme – this project will construct a new flood storage reservoir upstream of Lowdham. Main construction works started after Storm Babet in October 2023, both Storm Babet and Storm Henk demonstrated the need for a large-scale Flood Alleviation Scheme to protect Lowdham.

Key Facts:

- a) 191 properties better protected from flooding.
- b) 1% Annual Exceedance Probability Standard of Protection.
- c) 20% Biodiversity Net Gain target.
- d) Enabling works started – 30/01/2023.
- e) Main construction start – 30/10/2023.
- f) Completion – Spring 2026.

Further information can be found on the Lowdham Flood Alleviation Scheme Project Citizens Space page at the link below:

[Lowdham Information Page - Environment Agency - Citizen Space \(environment-agency.gov.uk\)](https://environment-agency.gov.uk/lowdham-information-page-environment-agency-citizen-space)

32. 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.