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## 8. Post-Event Response and Recovery

### 8.1 Immediate Responses

In response to flooding during Storm Babet, recovery operations were coordinated by a multi-agency group. This included public transport providers, emergency services, government departments, the Environment Agency, the Met Office, and all affected local authorities.

The sections below outline the immediate responses undertaken across the county by the relevant Risk Management Authorities (RMA). This is not a definitive list of responses by RMAs during Storm Babet.

Response actions undertaken by Derbyshire County Council as the Lead Local Flood Authority included:

- Deploying emergency response staff on-call 24 hours a day;
- Co-ordinating with emergency services to close roads and evacuate people at risk; and
- Co-ordinating communication updates to the wider public by regularly updating its website and social media to provide guidance on how members of the public should respond to the flooding, and to provide information on the available support.

Response actions undertaken by the Environment Agency included:

- Providing flood support via an incident hotline;
- Deploying on-site operational response staff to provide equipment to reduce flooding impacts, support to residents and investigate the flooding incidents; and
- Issuing Flood Alerts and Flood Warnings both directly to individuals who had signed up to receive these warnings and by updating the 'Flood Alerts and Warnings' government website (<https://check-for-flooding.service.gov.uk/alerts-and-warnings>).

The Fire and Rescue Service attended numerous locations to aid with pumping floodwater and assisting with any evacuations. Communities which were attended by the Fire and Rescue Service include Ironville, Lilac Way Gate, Ridgeway, Duffield and Brampton.

Water companies attended communities to respond to immediate issues relating to their infrastructure. For example, Severn Trent completed checks, addressed immediate network operational issues and dispatched tankers across impacted communities. Severn Trent's call centre was open 24/7 during the flood event for communities to report any flooding issues. Incidents were then prioritised for crews to attend and investigate. A similar response was delivered by all water companies.

### 8.2 Post-Event Responses

Public bodies involved in the post-event response to Storm Babet included, but was not limited to, Derbyshire County Council, district and borough councils, the Environment Agency and water companies.

Derbyshire County Council made the case for extra funding from the government to pay for damages to roads, bridges, and pavements. As part of the response to the flooding, financial support schemes became available to homes and businesses affected by the flooding. This was as part of the governments DEFRA Flood Recovery Framework.

Additional post-event response actions undertaken by Derbyshire County Council included:

- Administering the DEFRA Property Flood Resilience (PFR) Scheme, which offers a grant of up to

£5000 per property for the installation of PFR measures.

- Undertaking site visits to affected communities which involved performing flood investigations and engaging with the community.
- Attending multiple community drop-in events across the county.
- Inspecting over 400 structures/assets affected by Storm Babet which are the responsibility of Derbyshire County Council.

The relevant local district or borough council for each community has been responsible for processing other financial support schemes which includes the Community Recovery Grant (up to £500 per flooded household), Council Tax discounts, Business Rates Relief and the Business Recovery Grant (up to £2500 per flooded business).

Post-event response actions undertaken by the Environmental Agency have included:

- Gathering information on individual flood events throughout the county by deploying Community Information Officers to conduct investigations;
- Conducting asset inspections of all of their assets following Storm Babet. The Environment Agency have either undertaken or plan to undertake repair work deemed necessary; and
- Attending community drop-in events to provide guidance and support to those affected.

The Environment Agency have reviewed the river level thresholds which are required to trigger flood warnings for some communities. The results are as follows:

- The Breaston flood warning threshold has been adjusted based on community feedback;
- A request has been made to raise the flood warning threshold at Ambergate, which concerns the Ridgeway community;
- No change to the flood warning thresholds is required at Sandiacre, Langley Mill, Ilkeston, Belper, Jacsdale, Ironville, Duffield, Denby Bottles, Pinxton or Lower Kilburn; and
- Long Eaton flood warning thresholds remain under review.

Water companies undertook investigations into their infrastructure which included CCTV surveys of the drainage networks affected, and reviews of their wastewater treatment works, pumping stations and combined sewer overflow facilities.

A strategic recovery group was set up in the aftermath of Storm Babet to ensure cooperation between public bodies during the recovery process across Derbyshire. This group includes public transport providers, the emergency services (ambulance, fire and rescue and police), government departments, the Environment Agency, the Met Office and all district and borough councils.

In addition to these response actions undertaken across Derbyshire, some public body post-event responses that are specific to certain communities are listed below.

#### **Lilac Way**

North East Derbyshire District Council conducted a clean-up of silt and blockages from an access chamber. Senior officers coordinated these efforts starting on October 22, 2024. The council clarified they are not responsible for ongoing maintenance and Severn Trent has now taken over this responsibility and will include the chamber in their maintenance programme.

#### **Ridgeway**

Severn Trent responded to reports by visiting the community, investigating issues, and informing residents that the combined sewer network was overwhelmed by high flows originating from the River Amber.

#### **Baslow East**

In the days following the event, Derbyshire Dales District Council carried out welfare checks on affected properties.

The Environment Agency have removed gravel which had accumulated around the Park side area located downstream of bridge at Church Lane.

#### **Little Eaton**

Severn Trent are undertaking investigations into the ordinary watercourse connected to the combined sewer network to understand the impact of this connection and the flap valve.

#### **Denby Bottles**

Following the flood event, the Environment Agency completed inspections of their assets at this community

and confirmed that they operated as normal.

### **Breadsall**

Severn Trent undertook investigations into the combined sewer network and follow up reviews are ongoing at the time this report was published.

### **Stoney Middleton**

Derbyshire County Council conducted a site visit to Stoney Middleton to assess flood damage and gather information, and initiated feasibility studies for implementing natural Flood Risk Management in the area.

### **Castleton**

Severn Trent attended a meeting with residents to address concerns of sewer network issues during the event. Their visit indicated that flooding was the result of Peakshole Water overflowing its banks rather than the sewer network being overwhelmed.

### **Clay Cross**

Derbyshire County Council wrote to residents to confirm their riparian owner responsibilities where watercourse(s) flow through their land.

### **Poolsbrook**

Derbyshire County Council requested that maintenance was undertaken by the riparian landowner of an unnamed ditch, labelled within this report as 'Ditch 1', which passes through Erin Court, to better accommodate floodwater capacity.

Derbyshire County Council also requested that maintenance was undertaken by the riparian landowner of an unnamed ditch, labelled within this report as 'Ditch 2', which passes to the south of Poolsbrook, to better enhance flow and mitigate against blockages which may result in overland flow.

Derbyshire County Council, Chesterfield Borough Council, the Environment Agency and Yorkshire Water have been involved in investigations surrounding the drainage arrangements of the land to the south of the southern ordinary watercourse (south of Erin Court). This is to determine if drainage arrangements at this site contributed to the outflowing of floodwater into Erin Court and down Staveley Road. Investigations are ongoing.

Yorkshire Water is investigating the Poolsbrook drainage issues which may be associated with a pumping station defect.

### **Holymoorside**

North East Derbyshire District Council helped remove debris from the road using a sweeper and communicated with the landowner whose land is thought to be a source of runoff on Loads Road.

### **Chatsworth Road West**

On the 13th of November 2023, the Environment Agency conducted inspections of 18 flood risk assets located in the vicinity of this community. This included engineered high ground, three outfalls and one simple culvert. A retaining wall for an area of high ground had collapsed into the channel, which has been reported to the riparian landowner for them to repair. Sections of high ground showed signs of either movement or erosion of the retaining wall, which the Environmental Agency will monitor. The remaining five lengths of high ground were found to have no issues. One of the inspected outfalls was found to have an outfall flap missing which has been reported to the third party for remediation, whilst the other two outfalls and the simple culvert were found to have no issues.

The Derbyshire County Council Flood Team undertook a meeting to investigate the mechanisms and extent of flooding on Chapel Lane West on the 14th of February 2024, which involved a site inspection and discussions with affected residents and businesses.

### **Brampton**

The Environment Agency was involved in post-event channel clearance to ensure flows are not unduly restricted. Following a report of about 60% of the River Hipper being blocked at the culvert immediately north of Dock Walk on the 24th of October 2023, the Environment Agency cleared the debris.

The Environment Agency conducted inspections of thirty-four flood risk assets located in the vicinity of this community on the 13th of November 2023. This included sections of engineered high ground, four simple culverts, one security screen and one outfall. Issues were identified at eleven of the twenty-eight lengths of

natural high ground. This included missing coping stones, wall cracks, vegetation-related issues and missing brickwork. Defect reports were completed for six of these, and the other five were noted for further monitoring. The remaining lengths of natural high ground were found to have no issues.

#### **Renishaw**

Derbyshire County Council has requested that maintenance is undertaken by the riparian landowner of the land upstream of the debris screen. It is currently investigating which properties in the affected community have had PFR installed and how effective they were during this event.

North East Derbyshire District Council and National Highways investigated the impact of drainage from the M1 on the volume of water that flowed through Renishaw along Smithy Brook. There was no evidence to suggest that the drainage from the M1 exacerbated the flooding.

#### **Chesterfield South**

The Avenue Flood Storage Reservoir was patrolled by the Environment Agency with no issues identified although screens were heavily blinded.

#### **Clowne**

Derbyshire County Council investigated and cleared highway drainage blockages.

#### **Central Chesterfield**

The Environment Agency conducted inspections along the River Hipper on the 13th of November 2023. Undermined banks were identified at Ravenside Retail Park, as well as a missing flap valve from an outfall and sections of walls in poor condition. The Environment Agency sent letters to the riparian owners of these assets notifying them to make the necessary repairs and maintain the assets. No issues were identified at any other inspected assets, including those in the vicinity of Clayton Street.

#### **Eckington**

Alongside supporting cleanup efforts in Eckington, North East Derbyshire District Council worked to return the depot to its operating standard, ensuring the provision of statutory functions.

#### **Hilton**

South Derbyshire District Council attended Hilton following the flood event to take records of the flood event and to provide support to the local community.

#### **Breaston**

Severn Trent attended reports of flooding along Festival Avenue and identified one blocked manhole which had been surcharging.

Derbyshire County Council arranged a meeting with a riparian landowner to discuss ownership. It was confirmed that the contractors would attend the site to clear access in January 2024.

#### **Ironville**

Severn Trent confirmed post-event that all systems were operational and functioning as expected at Ironville Sewage Pumping Station.

#### **Pinxton**

Bolsover District Council delivered sandbags, removed effluent and flood-damaged items, and offered temporary accommodation to affected residents during the flooding.

## **8.3 Ongoing Actions**

### **8.3.1 Ongoing and Potential Future Actions Across Derbyshire**

Relevant RMA's have identified the following areas of focus in each community, with the goal of reducing future flood risk.

#### **Lilac Way**

Derbyshire County Council conducted a full condition survey of the culvert. Based on the findings, Derbyshire County Council will contact relevant landowners to inform them of any restrictions within the culvert. Highways have also contacted landowners, where the outfall lies, to clear the ditch. Once this has been done,

any restrictions will be cleared beneath the highway.

### **Ridgeway**

The Environment Agency is looking to complete the flood resilience scheme in the local area, which was due to be carried out in October 2023, but was delayed.

### **Bradwell**

Derbyshire County Council propose to investigate the condition of the highways culverts through the village and assess the flood risk.

The Environment Agency are considering the feasibility of modifications to the middle of Bradwell Brook to increase capacity whilst taking in to consideration ecological constraints.

During this flood investigation, Severn Trent were made aware of issues of potential drainage surcharging on Church Street and so are investigating this issue further.

### **Castleton**

The Environment Agency is looking into developing a new flood warning system. It will continue to monitor gravel build-up within the channel and assess if it is feasible to remove any where there is a tangible flood risk benefit, whilst considering ecological constraints.

### **Central Chesterfield and Tupton Terrace**

Derbyshire County Council, in partnership with the Environment Agency, is looking to identify potential sites for flood storage within the Spital Brook Catchment to slow its flow into the River Rother.

### **Brampton, Central Chesterfield, Tupton Terrace**

Derbyshire County Council is looking to identify potential sites for flood storage within the Holme Brook Catchment, including at Linacre Reservoir, to slow the flow of Holme Brook.

### **Tupton Terrace**

Derbyshire County Council are exploring the feasibility of removing the bridge at Crow Lane near Tupton terrace.

The Environment Agency is investigating whether an updated dredging assessment is required on the Rother near Tupton Terrace.

### **Chesterfield South**

Derbyshire County Council are looking to identify the ownership of bridge at River View Cottages. Works to be progressed by the Environment Agency at this community include the introduction of an upstream flood wall with a return to it to stop water passage past it.

### **Central Chesterfield**

Yorkshire Water is investigating the feasibility of a storage measure at Horns Bridge to be introduced during the next asset maintenance programme period.

### **Holymoorside, Chatsworth Rd West, Brampton, Central Chesterfield, Tupton Terrace**

The Environment Agency is exploring options to be able to progress a scheme to deliver upstream flood storage on the River Hipper, which would also reduce flood risk to downstream communities in Chesterfield.

### **Station Road**

The Environment Agency is investigating the performance of the raised flood defences in this area to assess options, and the feasibility, to reduce flood risk further through alterations to the existing flood defences.

### **Meadow Close**

A channel bypass is currently in place to allow excess water in the ordinary watercourse to flow into Barkley Wetlands rather than through the culvert beneath Meadow Close. Chesterfield Borough Council will reduce the height of the weir wall to allow water to be diverted into the existing channel bypass earlier during high. Derbyshire County Council is looking into the feasibility of introducing a bypass channel around Meadow Close and Natural Flood Risk Management in the upper reaches of the catchment.

### **Poolsbrook**

Derbyshire County Council are planning to investigate flood mechanisms in more detail and consider any potential solutions.

### **Renishaw**

Derbyshire County Council, in partnership with the Don Catchment Rivers Trust, are exploring opportunities for Natural Flood Management in the upper reaches of the catchment. Derbyshire County Council is also working with landowners to improve both maintenance and land management techniques to mitigate future flood risk.

### **Ashbourne**

The Environment Agency has plans to:

- raise the lowest sections of the defences at Coachmans Close to a consistent level, equal to the highest part of the existing wall;
- raise the access ramps and embankment to match the coping stone level to give an additional level of protection in the short term; and
- undertake desilting works and vegetation clearance works at School Lane Bridge to help flood water pass through more easily.

The Environment Agency is investigating whether they can lower a bank downstream of the affected area to allow flood water to flow into the floodplain earlier, which may lower flood levels in the School Lane area.

The Environment Agency is working on new a flood model for Henmore Brook to establish the standard of protection defences now provide.

### **Hilton**

South Derbyshire District Council plan to contact the relevant riparian landowner to discuss the possibility of watercourse bed level management flows.

### **Clowne**

Liaison has occurred between Derbyshire County Council and riparian landowners, including Bolsover District Council, regarding the maintenance of the watercourse, with the aim to remove restrictions and improve capacity in the unnamed watercourse adjacent to properties on Station Road. Once this has been completed, the Highways Team will clear blockages within the twin culvert beneath Creswell Road.

### **Breaston**

There is ongoing multi-agency coordination to investigate catchment characteristics and mitigate railway flooding and flooding from ordinary watercourses in upper catchment. Derbyshire County Council is involved with on-going investigations into surface water drainage systems and the condition of ordinary watercourses within the community to identify maintenance needs of Breaston and Draycott.

### **Duffield**

Derbyshire County Council are investigating flooding mechanisms from ordinary watercourses upstream of Duffield Meadows School to determine if any maintenance actions are required.

### **Langley Mill**

During this investigation Severn Trent were made aware of drainage issues at Deans Street and are investigating this issue further.

The above ongoing actions are by no means exhaustive of all the ongoing works and investigations that Derbyshire County Council, the Environment Agency and other RMAs either have or are currently undertaking.

Following Storm Babet, all RMAs have undertaken a significant volume of; site visits, meetings, engagement sessions with communities, investigations, maintenance and repair works. Collaboratively RMAs are also considering how they can plan and develop future flood mitigation for all of Derbyshire's residents.

### **Ashton-on-Trent**

Derbyshire County Council are investigating flooding mechanisms from ordinary watercourses in Aston-on-Trent to identify maintenance needs.

## **8.3.2 Next Steps**

At this stage, the actions listed are recommendations only, and their delivery is likely to depend on the RMAs likelihood of securing funding through the DEFRA Flood Defence Grant in Aid (FDGiA) funding programme, and other sources of funding. Funding will be dependent on the cost benefit of potential solutions and is

prioritised on a national basis.

Derbyshire County Council, as LLFA, will continue to work proactively with the Environment Agency, water companies and other RMAs to engage with the communities affected to ensure that flood mitigation is a key part of their present and future programme of works.

Derbyshire County Council will be setting up a 'Derbyshire Flood Risk Partnership', which will include all key RMAs and partners. The aim of this partnership will be to improve the planning, prioritisation and co-ordination of Flood Risk Management across the whole of Derbyshire.

It is likely that due to climate change, intense storm events such as Storm Babet will become more frequent. Communities need to become more resilient and prepared for flooding, and although Derbyshire County Council, the Environment Agency and other RMAs will always be there to support, plan and mitigate the impacts of any future flooding events, it is important that communities are also better prepared to deal with any such events. RMAs will continue to assist and support communities in developing and improving their resilience, so when the next event does happen, the impact and recovery of communities is reduced.

To improve the resilience of a community against severe flood events certain actions can be taken by residents to make sure they are prepared. Actions that people can do right now to protect themselves and their community from flooding include:

- If you are in a flood risk area, have you signed up to the EA's flood warning service?
- If you are a landowner and have riparian landowner responsibilities, have you undertaken basic maintenance on these streams and rivers to help to reduce flood risk?
- Have you considered joining a "Flood Warden Group" or even setting one up in your community?
- If you live in a flood risk area or have been flooded, do you have an emergency plan as to how to deal with that flooding event?
- Have you considered Property Flood Resilience Measures on your property or business?

The information sources listed below should assist residents in getting the advice they need on all of the above:

- Environment Agency's flood warning service:
  - Sign-up website: <https://www.gov.uk/sign-up-for-flood-warnings>.
  - Telephone: 0345 988 1188
  - Textphone: 0345 602 6340
  - Open 24 hours a day, 7 days a week
- Current flood warnings can be viewed here: <https://check-for-flooding.service.gov.uk/alerts-and-warnings>).
- The National Flood Forum provides guidance on protecting your property from flooding (e.g. <https://nationalfloodforum.org.uk/about-flooding/reducing-your-risk/protecting-your-property/> and <https://nationalfloodforum.org.uk/about-flooding/preparing/checklist-action-plan/>).
- Various district, town and parish councils in Derbyshire have published useful information on being a flood warden (e.g. <https://littleeatonparishcouncil.gov.uk/news/volunteer-flood-wardens-needed>, <https://www.bakewelltowncouncil.gov.uk/flood-warden-scheme> and <https://matlock.gov.uk/matlock-flood-warden-scheme/>).
- The Flood Hub provides a useful guide on riparian landowner responsibilities (<https://thefloodhub.co.uk/wp-content/uploads/2019/11/Riparian-Ownership-basic-guide-to-owning-and-managing-a-watercourse.pdf>).