Section 19 Flood Investigation Report

Date: 21st January 2026

Section 19 Flood Investigation Report: Eynsham, Oxfordshire
Date of Flood Incident: 24th November 2024

Revision Schedule

Version	Date	Details	Author	Checked	Approved
1	10/12/2025	Draft Section 19 Flood Investigation Report	JS	JL (OCC)	AD
2	06/01/2026	Eynsham Section 19 Flood Investigation Report	JS	JL (OCC)	AD
3	21/01/2026	Eynsham Section 19 Flood Investigation Report Final	JS	JL (OCC)	AD

Executive Summary

This Section 19 Flood Investigation Report reviews the flooding that occurred at Barnard Gate, a small village outside of Eynsham on the 24th and 25th of November 2024, in accordance with the duties of Oxfordshire County Council (OCC), as the Lead Local Flood Authority (LLFA), under the Flood and Water Management Act 2010.

It was deemed necessary to complete a formal investigation into the flood incidents in Barnard Gate due to the internal flooding of five properties. As such, the flooding that occurred met the OCC threshold for undertaking a formal Section 19 flood investigation (Internal flooding - excluding to basements) to five or more residential properties or businesses within an area of 1km^2).

The flood event was primarily the result of fluvial flooding from Chil Brook, following prolonged and intense rainfall associated with Storm Bert. The Oxfordshire area received around 80%-110% of its monthly average rainfall within a three-day period[1].

The old A40 bridge, located immediately downstream of the affected properties, acted as a pinch point, causing water levels in the Chil Brook to rise and eventually overtop the channel banks. Floodwater then spread across the adjacent floodplain, where properties at Barnard Gate are situated, resulting in flooding to five homes.

This report provides a set of recommendations to address the risks identified, including increased property resilience, improvements to the Thames Water pumping station, and further investigation into longer-term flood mitigation options such as bunding and upstream storage.

[1] Met Office, *Storm Bert, 22 to 25 November 2024 and Storm Conall, 26 to 27 November*, updated 14 February 2025

Main Recommendations

Recommendation	Lead Stakeholders	Consulting stakeholders	Timeframes
General			
Local community volunteer approaches to improve the community's ability to plan, respond and recover from flooding; linked to local community emergency plans	All Communities and residents, Parish Council	OCC JORT	Medium term
Oxfordshire County Council (as Highways Authority and Lead Local Flood Authority) to require emergency plans to be included in contractor method statements for works on watercourses under Ordinary Watercourse Consents.	OCC LLFA and OCC Highways Authority	N/A	On-going
Site-specific			
Explore the willingness to implement property flood resilience measures (PFR) at all hotspot locations. Guidance on PFR measures can be viewed through Ciria document (C790F) Funding in the form of grants, may be available to support the property owners in delivering PFR measures – see Section 5.1	Residents, WODC, OCC LLFA	EA	Medium Term
Encourage residents to register for Environment Agency Flood Alerts. Residents should check whether they are at risk of flooding by using the long term flood risk service and sign up for flood warnings.	Residents, Parish Council, OCC LLFA, EA	N/A	Short Term

Investigate the potential for Natural Flood Management (NFM) measures within the upstream rural catchment of the Chil Brook, to seek opportunities to slow runoff and attenuate flows upstream of Barnard Gate.	EA, OCC LLFA	WODC, Parish Council, Landowners	Medium Term

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1. INTRODUCTION

1.1. Lead Local Flood Authority (LLFA) Investigation

Section 19 of the Flood and Water Management Act (F&WMA) 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 have relevant flood risk management functions, and
   b. whether each of those risk management authorities has exercised, or is
   c. proposing to exercise, those functions in response to the flood.

2) Where an authority carries out an investigation under subsection (1) it must: -
   a. publish the results of its investigation, and
   b. notify any relevant risk management authorities.

The LLFA have a set criteria which determines when a S19 report is required. The criteria is set out below.

LLFA/OCC Criteria

- Internal flooding (excluding to basements) to five or more residential properties or businesses within and area of 1km2.

- Internal flooding of a business premises employing more than 10 people within an area of 1km2.

- Internal flooding (excluding to basements) of at least one property or business for one week or longer.

- Flooding of one or more items of critical infrastructure, which could include hospitals, health centres, clinics, surgeries, colleges, schools, day nurseries, nursing homes, emergency services (police, fire, ambulance) stations, utilities and substations.

Caused a transport link to be impassable:

- Motorways, trunk roads, Class A and B highway closures shall all be investigated.

- Class C highways – 10 hours or more unless the route is the only means of access, or is primary route for critical infrastructure then reduce to 4 hours.

- Class U highways – 24 hours or more unless the route is the only means of access, or is primary route for critical infrastructure then reduce to 4 hours.

- All rail link closures shall be investigated.

Any flooding event that a risk management authority deems significant but does not meet the agreed thresholds should be put forward to the Agency flood group meeting for consideration.

1.2. Site Location and context

Barnard Gate is a hamlet in the civil parish of Eynsham, in the West Oxfordshire district of Oxfordshire. It is located approximately 3 miles (4.8 km) east of Witney and about 1.9 miles (3.0 km) northwest of Eynsham. The parish is rural in nature, forming part of the catchment area for the River Thames (via Chill Brook then the Wharf Stream). The Chil Brook flows through Barnard Gate from north to south. Refer to Figure 1-1 below.

The Chil Brook flows in a southerly direction crossing through the centre of Barnard Gate. The Brook starts in farmland to the northwest of the parish in Eynsham Hall Park where two large lakes containing sluice gates form the head of the watercourse. The brook then flows through Barnard Gate, under the old and new A40 road bridges before turning to a south easterly direction onto Eynsham village.

The Chil Brook converges with the Limb Brook to form the Wharf Stream, which then flows into the River Thames.

Figure 1-1– Site location and hydrological context

Parts of Barnard Gate, including the properties affected by the November 2024 flooding, are shown on the Environment Agency *Risk of Flooding from Rivers and the Sea* map as being at medium to low risk (Figure 1-2). This reflects areas with an

annual probability of river flooding of between 1 in 30 (3.33% AEP) and 1 in 100 (1% AEP) (medium risk), and between 1 in 100 (1% AEP) and 1 in 1,000 (0.1% AEP) (low risk).

Areas shown as high risk (defined as having an annual probability of flooding of greater than 1 in 30 (3.3%)) are mostly confined to the watercourse channel. Some limited areas immediately adjacent to the channel are also shown to fall within the high-risk area, showing areas where out-of-bank flooding may occur.

The area most affected by the November 2024 flooding event is shown in Figure 1-2 below.

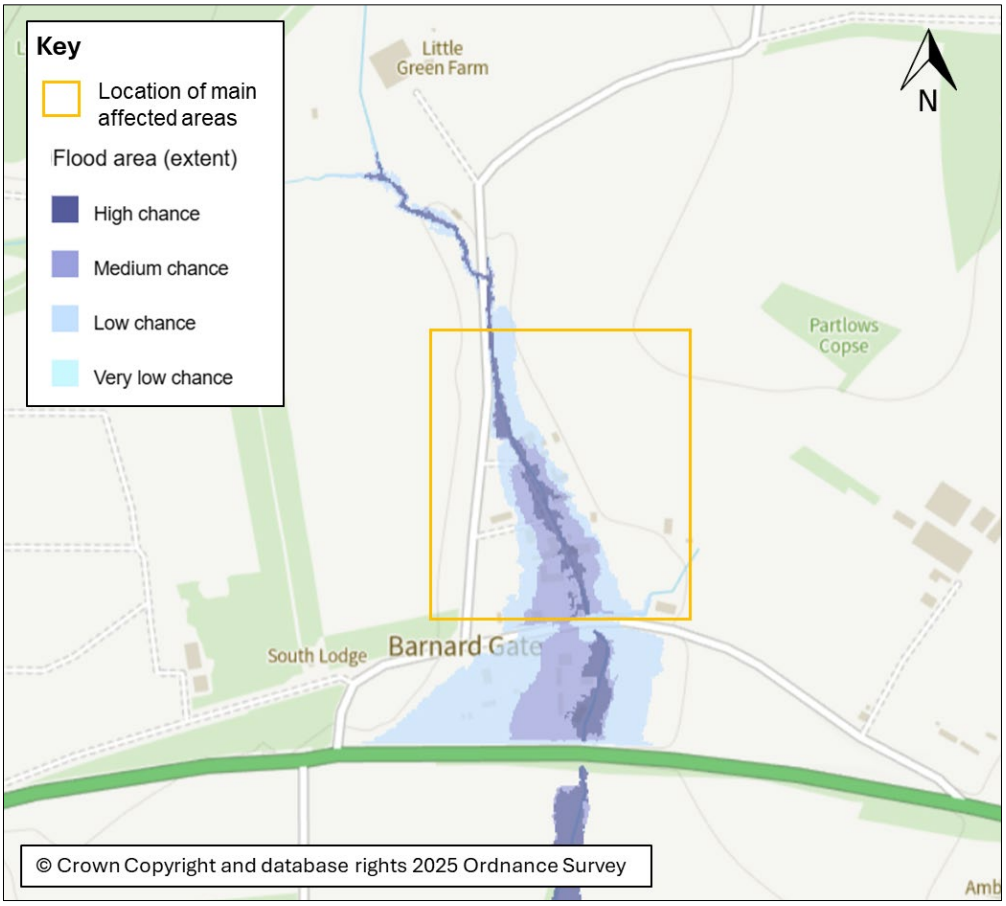

Figure 1-2– Environment Agency Risk of Flooding from Rivers and the Sea map

Surface water flood maps available from the Environment Agency highlight that most of the village is considered to be at low risk, defined as having a chance of flooding between 0.1% and 1% each year. There are also small areas shown at a medium risk of surface water flooding, areas with a chance of flooding of between 1% and 3.3% each year. These areas are shown in blue in Figure 1-3 below.

Figure 1-3 – [Environment Agency Long Term Flood Risk Maps - Risk of flooding from surface water)]

1.3. Previous flood events

Whilst no flood events have been recorded on the Environment Agency's Historic Flood Map, the village has had several known instances of flooding. The most significant occurring in July 2007, which led to the production of the *Parish Flood Report: Eynsham* in May 2008. Flooding was attributed to the Chil Brook which burst its banks and excessive localised overland flow from surrounding farmland. The old A40 road bridge also restricted extreme flows to the downstream watercourse. The event impacted 4 properties. In July 2007, large volumes of surface water were running from the adjacent farmland to these drainage ditches and onto the Chil Brook adding to the flooding at Barnard Gate.

2. RECENT FLOOD ISSUES AND INVESTIGATION

2.1. Recent flood events

Barnard Gate experienced significant flooding on 24th November 2024. Floodwaters entered five residential properties, with reported internal depths of up to 300mm, although some properties may have experienced greater depths that were not formally measured. Richardson Lane (which is the main north-south axis through the village) was flooded and became impassable during the event.

2.2. Rainfall and River Level data analysis

Rainfall Data

An analysis of Storm Bert (22/11/2024 - 25/11/2024) by the Met Office stated that the Oxfordshire area received circa 80%-110% of its monthly average rainfall within this three-day period[2].

The Environment Agency rain gauge in Eynsham, circa 4.5km southeast of the village (recording data from 1982), recorded 24.2mm of rainfall on November 24th, as shown on Figure 2-1 below. It is worth noting that this data has been checked by DEFRA confirming its accuracy and reliability.

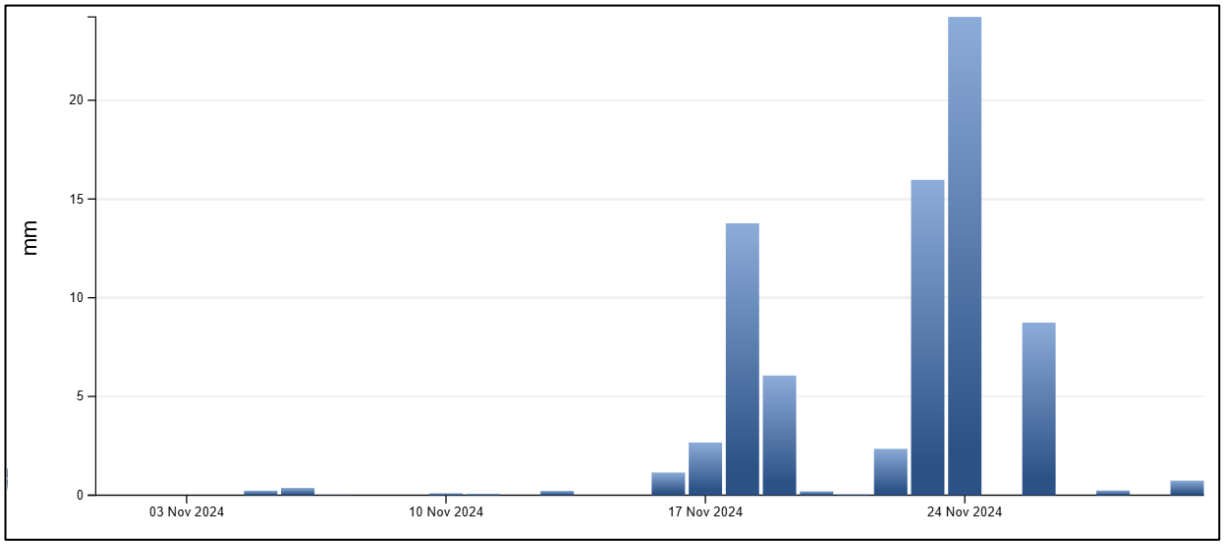

Figure 2-1 Daily rain totals (mm) for November 2024 (Source:DEFRA, Hydrology Data Explorer- Eynsham Rain Gauge)

[2] Met Office, *Storm Bert, 22 to 25 November 2024 and Storm Conall, 26 to 27 November*, updated 14 February 2025

Eynsham Lock Gauging Station at Eynsham

A review of water level records from the Environment Agency's Eynsham Lock gauging station at Eynsham (located 4.5km southeast of Barnard Gate and recording data from 2000 to present) shows that peak river levels have historically risen up to around 0.8-1.0m, particularly during the winter months (refer to Figure 2-2 below). This data is in relation to site datum of the gauge and not metres above ordinance datum. It is worth noting that this data has been checked by DEFRA confirming its accuracy and reliability.

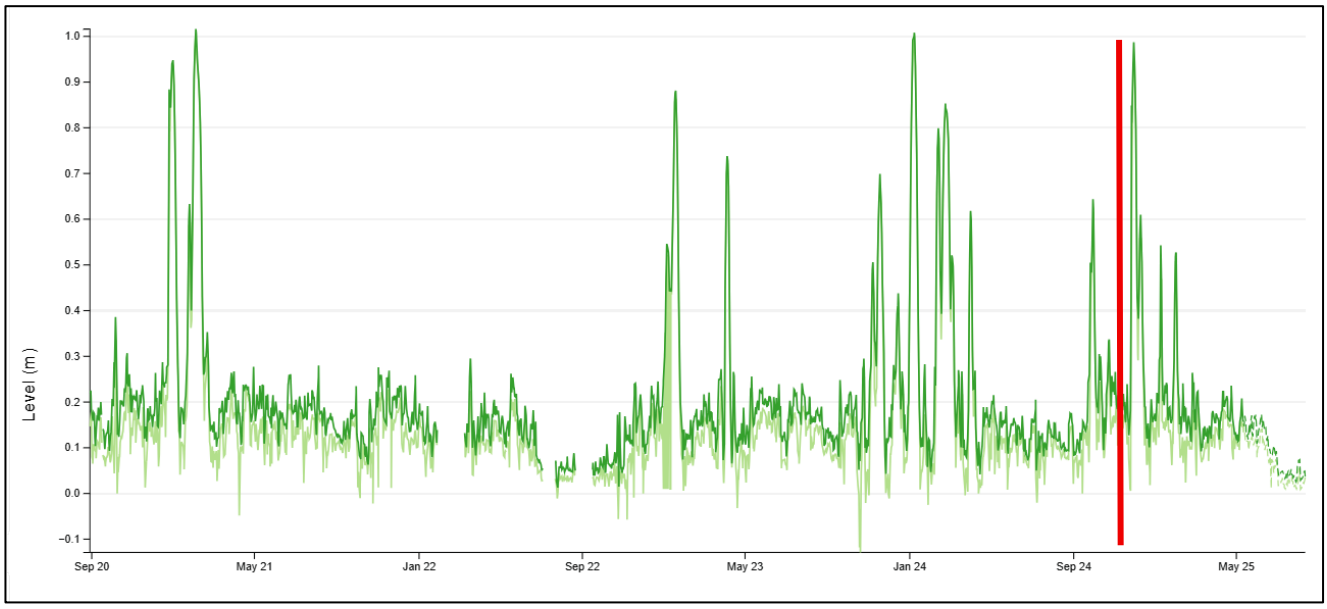

Figure 2-2 Eynsham Lock Gauging Station at Eynsham: Recorded River Levels 2020 to 2025 (Source:DEFRA, Hydrology Data Explorer – Eynsham Lock)

During the November 2024 flood event, river levels rose sharply overnight on the 23rd and throughout the 24th, with levels generally rising over the following four days, reaching a peak of 0.986m at 6:00 AM on the 29th (refer to Figure 2-3), before gradually receding over the following week. The gauging-station datum is 59.68 metres above ordnance datum (mAOD), giving a peak water level of 60.67 mAOD during the event. It is worth noting that this data has been checked by DEFRA confirming its accuracy and reliability.

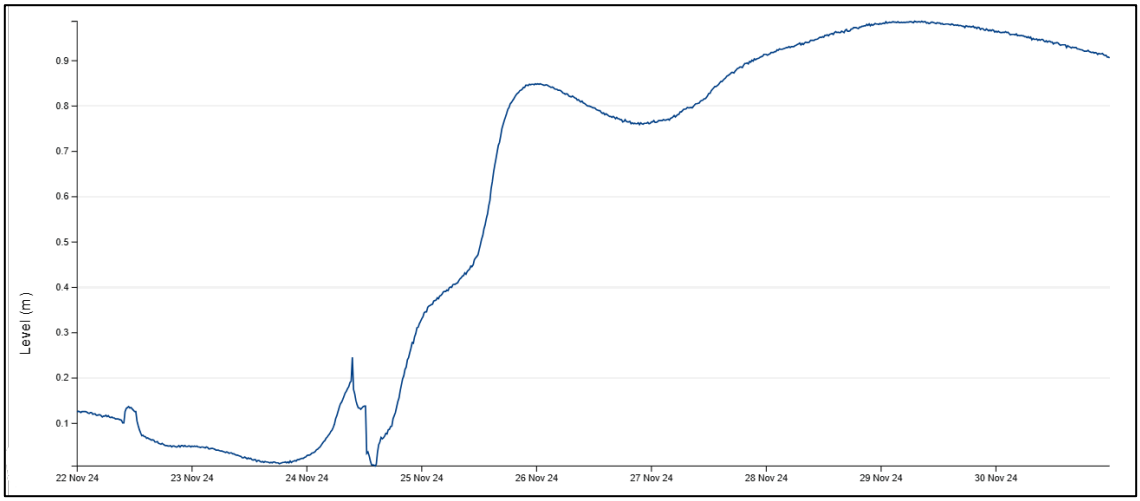

Figure 2-3 Eynsham Lock Gauging Station: Recorded River Levels 22-30 November 2024 (Source: DEFRA, Hydrology Data Explorer, Eynsham gauging station)

2.3. Flood Extents and Mechanisms

Reports from residents indicate that the flood event occurred when ongoing works to the old A40 bridge (immediately downstream of the properties) coincided with a significant fluvial event associated with Storm Bert. The effective capacity of the bridge appears to have been reduced due to temporary works, and this restriction is likely to have contributed to water backing up along the Chil Brook. As river levels rose rapidly in response to the storm, the combined effect of elevated flows and temporary bridge constraints resulted in overtopping of the channel and flooding of adjacent properties.

A number of additional factors influenced the extent and behaviour of flooding:

- Intense rainfall generated overland runoff from surrounding farmland to the rear of the properties, feeding the Chil Brook via field drains.
- Private driveway crossings across the Chil Brook act as pinch-points and constrained channel capacity.
- Saturated ground conditions leading to internal groundwater flooding.

The flood event affected 5 properties internally. One of these properties reported internal flooding with estimated depths of up to approximately 300 mm. Floodwater entered the building through the floor, external doors, walls and toilets. Flood levels reportedly remained high for around eight hours before receding. The property also experienced a loss of power during the event, preventing the use of pumps. Access to and from the dwelling was cut off due to deep flood water along Richardson Lane.

2.4. Site visits and observations

A joint site visit was carried out in September 2025 by an Engineering Consultant acting on behalf of Oxfordshire County Council (OCC) and officers from West Oxfordshire District Council (WODC).

Site observations:

1. It was reported the Bridge at the old A40 crossing, which crosses the Chil Brook, was being replaced at the time of the flood event. The bridge was reportedly blocked due to the ongoing construction works, which caused backflows along the brook.
2. At the time of the site visit, the replacement bridge was fully constructed, in good condition, and providing a clear-span opening with more than adequate capacity under normal flow conditions. Refer to Figure 2-4.

Figure 2-4 Old A40 bridge location immediately downstream of Barnard Gate (Site Visit, September 2025)

3. Several footpaths and private driveways cross the brook upstream of the bridge. These crossings have lower soffit levels and smaller openings than the former A40 structure (refer to Figures 2-5 to 2-7). During the November 2024 flood event, the key contributing factor to out-of-bank flooding appears to be the reduced conveyance at the Old A40 bridge. Now that the bridge has been replaced and full conveyance restored, the private driveway and footpath crossings upstream (which have lower soffit levels and smaller openings) would constitute the new local pinch points along the watercourse. These crossings should therefore be monitored during future high-flow events to assess whether they contribute to high upstream water levels or localised flooding.

Figure 2-5 Example 1 of private driveway or footway crossings over the Chill Brook upstream of the Old A40 Bridge (Site Visit, September 2025)

Figure 2-6 Example 2 of private driveway or footway crossings over the Chill Brook upstream of the Old A40 Bridge (Site Visit, September 2025)

Figure 2-7 Example 3 of private driveway or footway crossings over the Chill Brook upstream of the Old A40 Bridge (Site Visit, September 2025)

4. Several drainage outfalls were seen to discharge from adjacent properties into the Chil Brook.

Other observations:

- Two resident questionnaires obtained by West Oxfordshire District Council after the flooding event indicate that neither household was registered to receive flood alerts through the EA flood warning service. The Barnard Gate area is covered by the flood alert services for *'the River Thames and tributaries from Buscot Wick down to Kings Lock*", meaning that the community is able to receive early alerts when flooding is possible within the catchment area. It is important that residents are made aware of this service and sign up to receive alerts.

3. CONCLUSIONS

The flooding experienced at Barnard Gate on 24th–25th November 2024 was a significant event, primarily caused by fluvial flooding from the Chil Brook following prolonged and intense rainfall associated with Storm Bert.

Resident accounts indicate that this storm event coincided in timing with works being carried out at the Old A40 bridge, located immediately downstream of the affected properties. The presence of temporary works in the channel reportedly reduced the effective capacity of the structure during the event.

Other factors also influenced how the flooding developed. Heavy rainfall fell onto surrounding agricultural land, generating additional overland runoff that drained towards the Chil Brook upstream of the Old A40 bridge. A number of private crossings along the brook created local pinch points, which may have further limited conveyance of water downstream. Groundwater ingress through property floors was also reported during the event. In total, five residential properties were reported to have experienced internal flooding.

Given that fluvial flooding was the main cause of the event, the recommendations in Section 5 of this report are focused on addressing this type of risk. As this part of the village falls within Flood Zones 2 and 3, and due to the complexities related to fluvial flooding, the focus should be on increasing property-level resilience and community awareness and preparedness.

4. RIGHTS AND RESPONSIBILITIES

4.1. Communities and Residents

Communities may consist of the Town or Parish Council, Flood Forum, Community Group and affected residents, amongst others.

Communities and residents who are aware that they are at risk of flooding should take action to ensure that they and their properties are protected.

Community resilience is important in providing information and support to each other if flooding is anticipated. Actions taken can include subscribing to MET Office email alerts for weather warnings, nominating a Community Flood Warden, producing a community flood plan, implementing property level protection and moving valuable items to higher ground. Finally, individual households can create their own personal flood plans, such as collating important documents for quick removal from the property, torches, waterproof clothing etc.

Oxfordshire County Council has produced a number of flood guides covering various subjects, some of which relate to this type of flood incident. The relevant guides have been identified and are available at: www.oxfordshirefloodtoolkit.com

4.2. Lead Local Flood Authority (LLFA)

As stated within the introduction section, OCC as the LLFA has a responsibility to investigate flood incidents under Section 19 of the F&WMA.

The LLFA also has a responsibility to maintain a register of assets which have a significant effect on flooding from surface runoff, groundwater or ordinary watercourses (non-Main River) as detailed within Section 21 of the F&WMA. The register must contain a record about each structure or feature, including the ownership and state of repair. OCC is also required to keep a record of flooding hotspots across the county.

OCC's practices relating to third party assets is to notify third party owners of their asset forming part of a flood risk system, and assist by advising those third party owners on the condition of their assets and their maintenance responsibilities.

As Lead Local Flood Authority, OCC will be looking for support from other risk management authorities, communities and individual home owners to ensure flood incidents are reported, and any assets which have a significant effect on flood risk are recorded on the asset register.

While OCC can suggest possible causes of flooding, and make recommendations to ensure flood risk is mitigated as far as possible, the F&WMA does not provide OCC with the mandate or funding to act on identified causes of flooding or force risk management authorities to undertake any recommended actions.

4.3. Highway Authority (Oxfordshire Highways)

Oxfordshire Highways have a duty to maintain the highway under Section 41 of the Highway Act 1980 but subject to the special defence in Section 58.

New highway drainage systems are designed to Highways England's Design Manual for Roads and Bridges (Volume 4, Section 2). They are only required to be constructed to drain surface water runoff from within the highway catchment rather than from the wider catchment.

There are historic drainage systems in historic highways which can become the responsibility of the Highway Authority due to dedication, as opposed to adoption. These drainage systems may not have been designed to any standard.

Oxfordshire Highways undertake regular highway drainage cleansing. Identify and develop a detailed plan of their assets.

If flooding occurs OCC will assess the capacity of the highway assets and identify any areas with insufficient capacity for draining runoff from the highway. Where this leads to flood risk to properties improvement works should be considered.

Oxfordshire highways should assess the suitability of third party drainage systems accepting discharge from Highway Drainage systems and report any unsatisfactory areas to the relevant Risk Management Authorities.

4.4. Water Authority - Thames Water Utilities (TW)

Water and sewerage companies are responsible for managing the risks of flooding from surface water, foul water or combined sewer systems. Public sewers are designed to protect properties from the risk of flooding in normal wet weather conditions. However, in extreme weather conditions there is a risk that sewer systems can become overwhelmed and result in sewer flooding.

Sewerage undertakers have a duty, under Section 94 of the Water Industry Act 1991, to provide sewers for the drainage of buildings and associated paved areas within property boundaries. Since the 1st October 2011 the majority of private sewers and lateral drains in England and Wales were transferred into public ownership, meaning they are now the responsibility of the relevant sewerage undertaker.

A public sewer is a conduit, normally a pipe that is vested in a Water and Sewerage Company or predecessor, that drains two or more properties and conveys foul, surface water or combined sewage from one point to another, and discharges via a positive outfall.

There is no automatic right of connection for other sources of drainage to the public sewer network. Connection is therefore discretionary following an application to connect.

4.5. West Oxfordshire District Council

District Councils have powers under Section 14 of the Land Drainage Act 1991 (LDA) to undertake flood risk management works on ordinary watercourses (non Main River) where deemed necessary.

Under Section 20 of the LDA, District Councils have the powers to (by agreement of any person and at that person's expense) carry out any drainage work which that person is entitled to carry out. Agreement may not be required in certain emergency or legally upheld situations.

West Oxfordshire District Council also has delegated authority from OCC/LLFA to serve notice on persons requiring them to carry out necessary works to maintain the flow of ordinary watercourses under Section 25 of the LDA and receives funding from the LLFA to do this.

The District Council is the Planning Authority and has a role in Building Control and the Building Regulations.

4.6. Environment Agency (EA)

The EA is responsible for taking a strategic overview of the management of all sources of flooding and coastal erosion. This includes setting the direction for managing the risks through national and strategic plans; providing evidence and advice to inform Government policy and support others; working collaboratively to support the development of risk management skills and capacity; and providing a framework to support local delivery.

The EA also has operational responsibility for managing the risk of flooding from main rivers. Main rivers are usually larger river and streams and include all watercourses defined on the main river map which can be accessed at https://environment.data.gov.uk/DefraDataDownload/?mapService=EA/StatutoryMainRiverMap&Mode=spatial

The responsibility for maintenance and repair of rivers lies with the riparian owner, but the EA have permissive powers to carry out maintenance work on main rivers under Section 165 of the Water Resources Act 1991 (WRA).

The EA encourage third party asset owners to maintain their property in appropriate condition and may take enforcement action on a prioritised basis where it is appropriate. They may also consider undertaking maintenance or repair of third party assets only where it can be justified in order to safeguard the public interest and where other options are not appropriate.

Further remit of the EA includes;

- preparing preliminary flood risk assessments and flood risk management plans for flooding from main rivers, reservoirs and the sea (Flood Risk Regulations 2009)
- warning and informing (Ministerial Direction to the National Rivers Authority, 1996)

- regulating activities that may affect the risk of flooding from main rivers (Environmental Permitting Regulations (England and Wales) Regulations 2016)
- Carrying out surveys and mapping (Flood Risk Regulations 2009, Water Resources Act 1991)
- reporting to the minister on flood and coastal erosion risk and how the national and local strategies are being applied by all of the authorities involved (FWMA, 2010)
- acting as a statutory consultee for planning authorities providing advice on planning applications, local plans and environmental assessments regarding flood risk from main rivers and the sea (Town and Country Planning (Development Management Procedure) (England) Order 2015)

4.7. Landowners and Developers

Landowners are responsible for the drainage of their land and controlling any movement of sediment from their land. Legally, owners of lower-level ground have to accept natural land drainage from adjacent land at a higher level. The exception to this is where the owner of the higher level land has carried out “improvements” such that the runoff from the land cannot be considered “natural”.

Agricultural practices by landowners can be considered as “improvements” to the land, so that cultivation of crops or other land uses can take place. Mitigation works are required on improved land to account for the change in natural land drainage and changes to surface water runoff this can create.

Landowners and developers are responsible for working with the Local Planning Authority to ensure that their development is completed in accordance with the planning permission and all conditions that have been imposed.

Advice for developers is available on the Oxfordshire Flood Toolkit.

5. RECOMMENDATIONS

5.1. General

Listed below are the recommendations emanating from this formal Section 19 Flood Investigation Report. All the actions are initial recommendations that require discussing in detail to determine their feasibility.

It is important to note that it is for the relevant responsible body or persons to assess each recommendation in terms of the legal obligation, funding, resource implications, priority and cost/benefit analysis of undertaking such action.

The recommendations may be included within the action plan linked to the Local Flood Risk Management Strategy or in the relevant risk management authority's future work programmes, as appropriate.

Authorities should work together Look into funding opportunities to carry out the listed actions. There are multiple funding sources which could contribute to schemes and improvement works going forward. The majority of schemes will require elements of partnership working and contributions to be successfully funded. They are likely to need to provide multiple benefits such as improving flood resilience whilst also managing water levels, reducing drought risks, helping nature recovery as well as climate adaptation.

There are several funding options available which can be explored through multi agency working groups such as:

- Flood & Coastal Erosion Risk Management (FCERM)
- Flood Defence Grant in Aid (FDGiA)
- Local Levy Regional Flood and Coastal Committee (RFCC)
- DEFRA Natural Flood Management Funding
- Woodland Creation Grants
- Agricultural & Environmental Schemes (Countryside Stewardship)
- Funding sources relating to development and regeneration, such as section
- 106 agreements, Community Infrastructure Levy (CIL) and New homes bonus
- Non-government organisations and charitable trusts
- Community fundraising and events
- Lotteries (Heritage Lottery Fund, Big Lottery, Arts Council
- Volunteering
- Grants from other government departments, such as MHCLG, DfT, DfE (for example, Flood Resilient Schools)
- UKRI – the research councils funding
- Business in the community
- Green recovery challenge fund Partnership funding (for example, contributions from partners, local authorities, businesses and communities etc.

5.2. Main Recommendations

Recommendation	Lead Stakeholders	Consulting stakeholders	Timeframes
General			
Local community volunteer approaches to improve the community's ability to plan, respond and recover from flooding; linked to local community emergency plans	All Communities and residents, Parish Council	OCC JORT	Medium term
Oxfordshire County Council (as Highways Authority and Lead Local Flood Authority) to require emergency plans to be included in contractor method statements for works on watercourses under Ordinary Watercourse Consents.	OCC LLFA and OCC Highways Authority	N/A	On-going
Site-specific			
Explore the willingness to implement property flood resilience measures (PFR) at all hotspot locations. Guidance on PFR measures can be viewed through Ciria document (C790F) Funding in the form of grants, may be available to support the property owners in delivering PFR measures – see Section 5.1	Residents, WODC, OCC LLFA	EA	Medium Term

Encourage residents to register for Environment Agency Flood Alerts. Residents should check whether they are at risk of flooding by using the long term flood risk service and sign up for flood warnings.	Residents, Parish Council, OCC LLFA, EA	N/A	Short Term
Investigate the potential for Natural Flood Management (NFM) measures within the upstream rural catchment of the Chil Brook, to seek opportunities to slow runoff and attenuate flows upstream of Barnard Gate.	EA, OCC LLFA	WODC, Parish Council, Landowners	Medium Term

Note: Timeframe (from publication date) definition: *Short term – delivered within 6 months, Medium term – 1 - 2 years, Long term - 2 years +, On-going - Continuous activities*

5.3. Communities and Residents

These include Town/Parish Council, Flood Forum, Community Group, landowners and affected residents.

Nominate Community Flood Wardens to help coordinate the following:

- Preparing Household Emergency Plans for vulnerable properties in this area.
- Regularly inspecting ditches and pipework in the area of flood risk. Report blockages or other issues to the landowner and the LLFA.
- Explore options for property level protection and implement any recommendations. This could include additional drainage at the rear of properties, self-sealing air bricks and flood barriers.
- More information is available on the Flood Warden page.

Information on property flood resilience measures for Home Owners, Communities and Businesses can be found on the Flood Toolkit's Prevention page.

Residents should check whether they are at risk of flooding by using the long term flood risk service. If they are at risk of flooding they should sign up for flood warnings. Additionally residents could call Floodline on 0345 988 1188 to register for flood alerts and warnings.

Permanent measures such as installing floodgates, raising electrical sockets and using flood resistant material when doing building work should be considered. West Oxfordshire District Council, Oxfordshire County Council and the Environment Agency can provide advice on these matters, and more information can be found at the Flood Toolkit's preparation page, or the National Flood Forum.

Explore community wide solutions (e.g. attenuation areas, overflow routes, tree planting). Use the Flood Toolkit Funding Tool to find sponsors who may be willing to help fund improvement projects.

Continue to report flood incidents to the Lead Local Flood Authority. Endeavour to obtain as much evidence of flood events as possible, such as photographic and video evidence.

Residents to explore obtaining Government subsidised flood insurance via FloodRe.

5.4. Lead Local Flood Authority (LLFA)

LLFA team to work with the Oxfordshire County Council Joint Oxfordshire Resilience Team (JORT) and the EA to set up and support a community based Flood Warden Network.

Assist the Oxfordshire County Council Joint Oxfordshire Resilience Team (JORT), the EA and other flood management authorities to support the community in the production of a Community Flood Plan and provide advice to residents on how to explore options for property level protection.

Inform owners of the drainage systems and watercourses within the overall surface water catchment area of their legal responsibilities.

Re-establish the Agency flood group meetings to discuss problems and to look at strategies to combat flooding due to Climate Change. Have periodic meetings with the local flood group to discuss the issues and recommendations with representatives from key authorities.

Work with WODC in looking at opportunities for schemes to manage flows upstream such as nature based solutions through partnership working.

LLFA to add any new or previously unrecorded assets that have a significant effect on flood risk to the OCC asset register.

5.5. Highway Authority (Oxfordshire Highways)

Regularly check and maintain highway assets through Eynsham in line with their current maintenance regimes.

Assess the capacity of the highway assets with support from the LLFA and WODC to identify any areas with insufficient capacity for draining runoff from the highway. Where this leads to flood risk to properties improvement works must be considered.

Assess the suitability of third party drainage systems accepting discharge from Highway Drainage systems and report any unsatisfactory areas to the relevant Risk Management Authorities. Work with the community and LLFA to clarify ownership and maintenance responsibilities for watercourses, particularly where these are located within or near to the highway.

5.6. Water Authority Thames Water Utilities (TW)

Assess the sources of water entering the public sewerage system. Foul sewers to be checked for surface water connections, blockages and capacity issues. Remedial works to be carried out as necessary to minimise surface water entering the system and increase capacity.

Assess the capacity of their assets and identify any areas of insufficient capacity. Where this leads to flood risk to properties improvement work must be considered.

Ensure the existing foul system is not compromised from future development proposals.

5.7. West Oxfordshire District Council

Continue to consult with the Environment Agency and Lead Local Flood Authority as required in respect of planning applications for new developments to reduce flood risk. Aim to ensure that all works are carried out in accordance with the approved plans and documents.

Review the planning policies relating to developments in the vicinity of the flooding incident, together with any flood risk assessments and drainage designs. Consider

contacting the developers to take action in the event that any items relating to surface water drainage and flood risk are not evident or ineffective in the final developments or in the construction period.

Utilise their enforcement powers under Section 25 of the Land Drainage Act 1991 where it is considered that riparian owners are failing to maintain ordinary watercourses in their ownership.

Continue regular maintenance of their Ordinary watercourse Assets, in line with current maintenance regimes.

Endeavour to assist other flood risk management authorities and land owners in the preparation of a detailed plan of assets relating to drainage and flood risk, to share with the LLFA and the community.

Support landowners to investigate private drainage and check for blockages and defects with remedial works to be carried out where necessary.

Continue to support homeowners and businesses in providing individual property level protection.

5.8. Land Owners and Developers

Developers should work with local authorities to ensure all development is completed in accordance with approved plans and documents, and planning policy.

Land owners should undertake regular inspection and maintenance of their drainage systems in accordance with a defined maintenance regime. Further, they should identify and develop a detailed plan of their assets to share with the LLFA, other flood risk management authorities and the community.

Land owners should assess the capacity of their drainage systems and identify any areas with insufficient capacity for the collection, conveyance, storage and disposal of surface water. Where this could lead to runoff to the public highway or nuisance to third party private property, improvement works should be considered.

Landowners who are riparian owners are responsible for carrying out work to maintain the natural flow of water in the relevant watercourse. Such work will include the removal of significant blockages and the removal of vegetation if it is causing premature flooding to third party land and or property.

Review the library of flood guides on the Oxfordshire Flood Toolkit.

Agricultural landowners should carry out work to their land to reduce surface water runoff. These include following principles of good soil husbandry and providing land drainage systems such as ditches.

These works help to retain the natural land drainage regime and provide the best soil conditions for the continued agricultural use of the land. Examples of good practice for reducing surface water runoff from agricultural land are:

- Ploughing fields in a perpendicular direction to the slope of the land, reducing the effect of channelling of water over the land when it rains
- Using techniques and machinery to limit compaction of soils
- Growing crops that match the capability of the land, particularly in relation to the timings of activities and not overworking soils through the year
- Providing new ditches, sub-soil drainage and outfalls, and reinstating and regularly maintaining existing ditches. Old existing ditches may be completely filled and difficult to see. The type of soil make-up, type of flora and overall lie of the land can help to determine the routes of filled in historic ditches
- Preventing changes to the levels of the land that would cause channelling of surface water to a single point where this would not naturally occur.

It should be noted that following good practice for managing surface water runoff cannot completely remove the risks of natural land drainage and the associated quantities and flow routes of runoff that can cause flooding.

6. DISCLAIMER

The findings of the report are based on a subjective assessment of the information available by those undertaking the investigation and therefore may not include all relevant information. As such it should not be considered as a definitive assessment of all factors that may have triggered or contributed to the flood event.

Any recommended actions outlined in this FIR will be for the relevant responsible body or persons to assess in terms of resource implications, priority and cost/benefit analysis of the proposal. Moving forward, these may be included in the Action Plan linked to the Local Flood Risk Management Strategy or in the relevant risk management authority's future work programme as appropriate.

The opinions, conclusions and any recommendations in this Report are based on information provided to West Oxfordshire District Council and Oxfordshire County Council.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the time of preparation and West Oxfordshire District Council and Oxfordshire County Council expressly disclaims responsibility for any error in, or omission from, this report arising from or in connection with those opinions, conclusions and any recommendations.

The implications for producing Flood Investigation Reports and any consequences of blight have been considered. The process of gaining insurance for a property and/or purchasing/selling a property and any flooding issues identified are considered a separate and legally binding process placed upon property owners and this is independent of and does not relate to the information in this report highlighting flooding to properties at a street level.

West Oxfordshire District Council or Oxfordshire County Council do not accept any liability for the use of this report or its contents by any third party.

7. ACRONYMS

OCC Oxfordshire County Council
EA Environment Agency
TW Thames Water
RMA Risk Management Authority
FIR Flood Investigation Report
F&WMA Flood and Water Management Act 2010
JORT Joint Oxfordshire Resilience Team
LDA Land Drainage Act 1991
LLFA Lead Local Flood Authority
WRA Water Resources Act 1991

8. USEFUL LINKS

- EA – Check your long-term flood risk service
- EA - How to reduce flood damage by adapting property
- EA - Prepare your Property for Flooding
- EA - Sign up for flood warnings
- EA - Up to date information on flood alerts & warnings
- Flood and Water Management Act 2010
- Highways Act 1980
- Land Drainage Act 1991
- Oxfordshire County Council Community Resilience
- Oxfordshire County Council Community Resilience
- Oxfordshire County Council Flood Toolkit
- Oxfordshire County Council Flood Toolkit
- Water Resources Act 1991

9. USEFUL CONTACTS

Oxfordshire County Council – Lead Local Flood Authority:
Email: floodmanagement@oxfordshire.gov.uk
Website: Flood Toolkit

Oxfordshire County Council Highways:
Tel: 0345 310 1111
Website: FixMyStreet

Environment Agency:
General Tel: 03708 506 506 (Mon-Fri 8-6) Call charges apply. Incident Hotline: 0800 807060 (24 hrs)
Floodline: 0345 988 1188
Email: enquiries@environment-agency.gov.uk

Thames Water:
Emergency Tel: 0800 316 9800 (select option 1)
Website: Thames Water Report a Problem