

Divisions Affected - all

PLACE OVERVIEW AND SCRUTINY COMMITTEE

25 September 2024

Flood Event Response

Report by Director of Environment & Highways

RECOMMENDATION

1. **The Committee is RECOMMENDED to**
 - A Note the content of the report around roles and responsibilities with respect to routine work around flooding, and responding to a flooding event.
 - B Note the information regarding flooding events in January and February 2024 and the responses of different agencies to this.
 - C Hear from those agencies their lessons learnt in these responses.
 - D Confirm the report provides the reassurance necessary that the county council has a good level of governance and readiness to respond to and manage flood events.

Executive Summary

2. Climate projections show an increased likelihood of wetter winters and increased frequency and intensity of extreme weather including rainfall events. Flood risk management is an integral part of the emerging approach to climate adaptation in Oxfordshire: it will be a key strand of the Climate Adaptation Routemap which is being funded by the Future Oxfordshire Partnership and due to be consulted on in Autumn 2024. Multiple internal teams and external agencies have roles and responsibilities in flood risk management and event response.
3. Over the winter of 2023/24 there was a sustained period of rainfall, and two named storms – Storm Gerrit in December 2023 and Storm Henk in January 2024. Over this period a significant number of properties in Oxfordshire were flooded internally and externally across the county and primarily in South and Vale districts.
4. There was a multi-agency response to these events with several Oxfordshire County Council teams working together with external agencies. This report aims

to explain the roles and responsibilities of the Council and external agencies in these events, and provide specific details about the response to the flooding at the beginning of 2024. Representative speakers will provide additional insight into what went well in these responses, and what lessons were learnt.

5. This report does not cover the development control and planning process in relation to flood risk management.

Roles and responsibilities

6. There is no single body responsible for managing flood risk and event response. Instead, responsibility is jointly held among several bodies and several pieces of legislation apply including Civil Contingencies Act 2004, Water Resources Act 1991 and the Flood and Water Management Act 2010. The Department for Environment, Food and Rural Affairs (Defra) is the policy lead for flood and coastal erosion risk management in England. These national policies are then delivered by Risk Management Authorities (RMAs) which are listed below. Where these are County Council roles this is also noted.
 - The Environment Agency (EA)
 - A lead local flood authority (LLFA) (County Council)
 - A district council for an area for which there is no unitary authority
 - An internal drainage board
 - A water company (Thames Water)
 - A highway authority (County Council)
7. The Flood and Water Management Act 2010 requires these Risk Management Authorities to co-operate with each other, to act in a manner that is consistent with the National Flood and Coastal Erosion Risk Management Strategy for England developed by the EA, and with the Local Flood Risk Management Strategies developed by LLFAs. OCC have developed and consulted on a new Local Flood Risk Management Strategy which is currently expected to be considered for adoption at Cabinet in mid-October 2024.
8. In addition to the RMAs, the following organisations have a role and interest in managing flood risk and events due to their duties as laid out in the Civil Contingencies Act 2004;
 - Resilience teams (County and Districts)
 - Local resilience forums
 - Fire and Rescue (County Council)
9. Landowners and communities are key stakeholders being both impacted by flooding, and with flood management assets on their properties.
10. Further detail about the responsibilities of each partner is attached in Annex 1. Figure 1 below illustrates the cycle of activity around flooding. The following sections provide further detail on these stages and the roles of the partners and stakeholders.

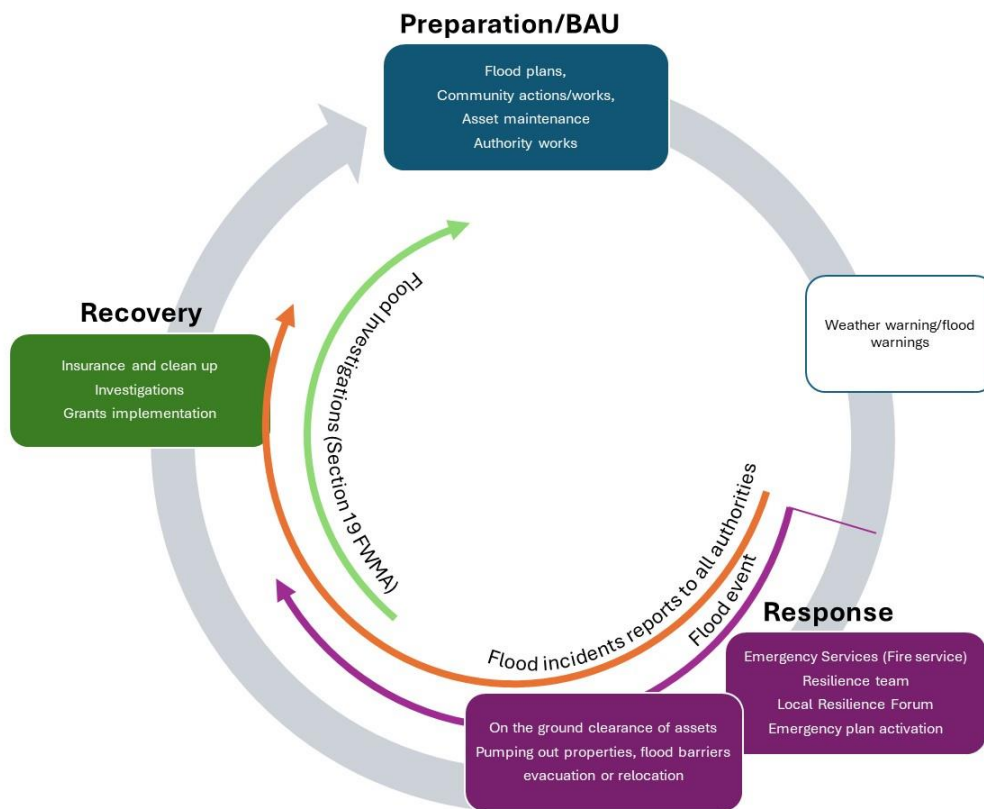


Figure 1 – the flooding cycle (image developed by Clare Mills, Flood Risk Operational Manager Oxfordshire County Council)

Preparation and business as usual

11. RMAs develop, consult on and publish their various statutory flood plans and maps for use by others in decision making including in development of the Local Plans by district councils where land is allocated for development. RMAs liaise regularly to discuss flooding events, risks, issues and plan actions.
12. Owners of assets such as the EA, Thames Water, the Highways Authority, district councils and landowners undertake routine maintenance and repairs to flood and water management assets, construct new assets and ensure their assets are flood resilient. A register of flood assets is maintained.
13. All authorities capture information about flooding and work together to share that information.
14. The LLFA carries out flood investigations where criteria are met, develops a list of recommendations and works with other RMAs to deliver these.
15. The LLFA maintains the [Oxfordshire Flood Toolkit website](#).

16. County Resilience Team and district emergency planners develop multi-agency emergency plans and promote community resilience. The County Resilience Team has developed and maintains a Flood Plan to support the County Councils' response to an incident. Other plans typically activated during flooding include the Incident Management Framework and Humanitarian Assistance Plan. Districts also develop their own plans (the County Resilience Team are paid to do this on behalf of Oxford City and Cherwell). These all feed into the Local Resilience Forum (LRF) and National Plans.
17. The County Resilience Team, district emergency planners and the LLFA promote community resilience by attending events across the county and giving talks to local groups helping them to become more resilient. Abingdon and Witney are two examples of targeted areas in recent years. The teams also help communities to produce emergency plans which include key contacts, local resources and procedures which can be followed to make communities less reliant on emergency services which may be stretched during large-scale incidents.
18. Utilising a funding investment made in the 2023/24 and 2024/25 Medium Term Financial Plan, the LLFA works with local communities to identify and deliver small scale priority actions at a local level to alleviate flood risk and improve resilience, and to provide grant funding to town and parish councils to undertake works they have identified themselves.
19. OCC Climate Change team work with internal and external partners to develop an emerging climate adaptation route map to address, amongst other impacts, a response to increased flood risk.
20. 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.
21. Oxfordshire Fire & Rescue Service (OFRS) have developed a suite of Tactical Fire Plans (TFP's) that detail pre-planned operational tactics, following the learning from historical events. These plans can be evoked to support partnership work during widespread flooding and ensure identified road networks in and out of the city are maintained. Our local crews in the city and our station at Banbury who host our High-Volume pump, train annually against these plans, and for this type of event.

Response

In the event of heavy rainfall and / or flooding the responders are as follows:

22. The Environment Agency work in partnership with the Met Office to provide [flood forecasts and warnings](#) to communities. They also erect any flood barriers for river flooding.
23. Oxford City Council deploy the flood barriers that they own.

24. The [Thames Valley Local Resilience Forum](#) may be activated to co-ordinate responses across a broad range of partner organisations.
25. District Councils are Category 1 responders and under the Civil Contingencies Act (2004) they have the same emergency planning duties as the County Council.
26. Thames Water may be called to flooded areas where foul water is being discharged from combined foul / surface water assets that have been overwhelmed, or to attend any pumping assets which may fail under flood conditions.
27. The County Council will stand up relevant structures via the Incident Management Framework and put in place suitable gold and silver structures to provide command and control, direct activities and coordinate with others. The Resilience Team will help facilitate those response structures across the county council and wider Thames Valley Resilience Forum.
28. The Oxfordshire Fire and Rescue Service (OFRS) internally set up command and control structures to support the ongoing management of resources and equipment for these protracted type of incidents. OFRS may also be called to co-ordinate and pump flood water out of properties, or to set up the National High-Volume pump asset which is used to ensure key routes are maintained in and out of the city.
29. OFRS use their social media platform to warn and inform residents and to also share messages from partner agencies.
30. The Highway Authority may be called to areas where the highway is flooded and may close roads, pump water away or undertake urgent maintenance of assets. In [specific circumstances](#) sandbags may be provided.
31. Flood asset owners may undertake urgent clearance or maintenance to alleviate the impact of the rainfall in specific areas.
32. Residents and communities report incidents to the relevant authority (ie a foul water problem to the water company, property flooding and need to evacuate to 999, main river flooding to the Environment Agency). Further information for residents is in the Flood Toolkit [it's an emergency! - Oxfordshire Flood Toolkit](#) .

Recovery

In the recovery phase these activities may be undertaken:

33. A local authority will lead the Recovery Coordinating Group covering the Thames Valley area.

34. Property owners will be clearing up, in some cases with assistance from responding authorities and insurance claims may be made by them to repair their property from flood damage.
35. The highway authority has responsibility to ensure that the roads are fit to re-open following severe flooding. Detritus which has been deposited on road surfaces and into highway drains need to be cleaned thoroughly.
36. The LLFA collect information on what happened to aid the determination of whether a section 19 flood investigation is required. The LLFA will co-ordinate RMAs and landowners to progress recommendations coming out of the section 19 reports where possible.
37. In some circumstances central government may make grants available to residents who are impacted by floods. These grants are administered by county and district councils.

Flooding in January and February 2024 including Storm Henk

38. The Met Office named an area of low pressure crossing southern UK as Storm Henk on 2 January 2024. It brought strong wind gusts of up to 80 mph to south-west England and Wales. Storm Henk followed a period of sustained wet weather over the course of winter 2023. The most recent prior storm, Storm Gerrit, which lasted from 27-28 December 2023, brought 30-50mm of rainfall to much of England, meaning that soils were already saturated ahead of Storm Henk arriving. In the first four days of 2024, Storm Henk brought an additional 30-50mm of rainfall to these already saturated soils, with 50mm reported widely across parts of southern England (Met Office, 2024). Further heavy rainfall over the period and particularly in mid-February added to the situation in Oxfordshire. Storm Henk was followed by Storm Isha on 22 January 2024 bringing widespread strong winds.
39. Through the Oxfordshire Flood Toolkit and information coming directly into Oxfordshire County Council the following flood incidents were reported as occurring during Storm Henk:

District	Internally flooded (properties flooded inside)	Externally flooded (flooding in property gardens/garage/outbuilding)
South Oxfordshire	89	12
Vale of White Horse	103	14
Cherwell	8	7
West Oxfordshire	2	5
Oxford City	12	4
Totals	214	42

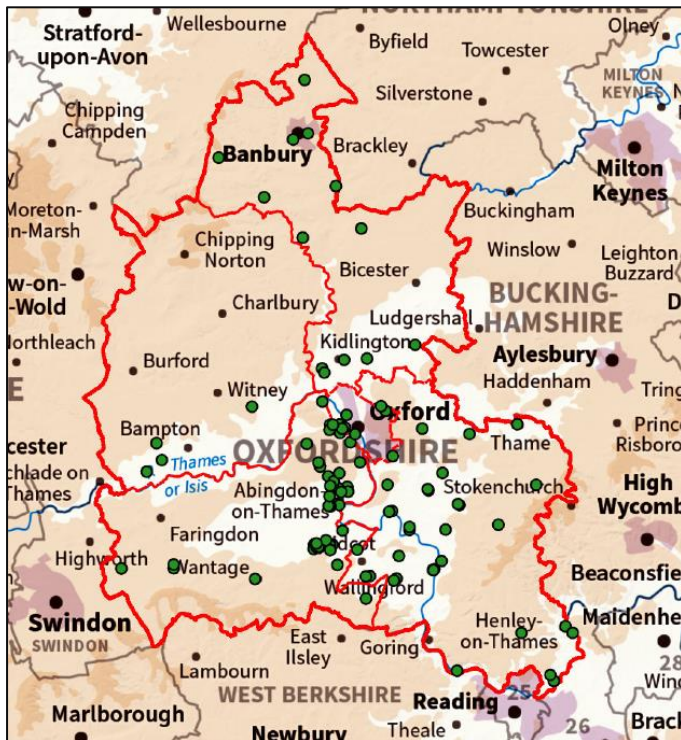


Figure 1: Locations of flood incidents recorded from Storm Henk

40. The Thames Valley Local Resilience Forum moved to Major Incident status on Thursday 4 January 2024 and escalated to Tactical Coordinating Group (TCG) on Friday 5 January 2024. The Major Incident status was stood down on Wednesday 10 January and both the SCG and TCG were stood down on Thursday 11 January 2024. This structure coordinated the response to flooding across Thames Valley including on the Great Ouse and the River Thames. The majority of impacts were experienced on the River Thames following the head of water as it moved downstream from Oxfordshire, through to Berkshire and Buckinghamshire.
41. Highways response in this period included:
 - From 1 to 19 January, taking in Storms Henk and Isha
 - Total of 888 2hr and 24hr call outs
 - Of which 338 were 2 hr responses, and 133 of those were flood related calls.
 - Deployment of “Flood Warning” and “Road Closed” signs
 - Management of highway network when road closures were in place
 - Liaison with media team
 - Provision of sandbags where properties were at immediate risk of flooding from highway surface water
 - Provision of drain cleaning plant to ease surface water drainage systems
42. A Resilience On-Call Officer (ROCO) was available 24/7 and responded to multiple phone calls and emails including requests for sandbags. The Joint Oxfordshire Resilience Team (JORT) attended the Thames Valley Local Resilience Forum (TVLRF) Tactical, Strategic and Recovery Groups to support

county and district responses. JORT coordinated and facilitated with blue light services across the response phase and specifically between Oxfordshire Fire and Rescue Service (OFRS), OCC Highways and Oxford City for the Abingdon Road Tactical Flood plan.

43. Our ROCO coordinated between the Environment Agency and OFRS when a request for mutual aid was made - the South Hinksey flood barrier was unable to be deployed and a request for mutual aid went out across the TVLRF for a suitable forklift truck to enable barrier deployment. This request came through the TVLRF Everbridge system. Our ROCO officer coordinated between OFRS and Environment Agency to deploy a suitable piece of equipment from Hook Norton to South Hinksey which enabled the barrier to be deployed in time. Following the debrief, an action report is published on Resilience Direct.
44. OFRS established the Oxford City Flood Plan for the Abingdon Rd and set up the National High-Volume pump asset to ensure water levels were managed, preventing widespread flooding to many properties and to maintain emergency access in and out of the city. Fire crews attended many villages in and around the county where they worked with homeowners to pump out their properties and move vulnerable residents to a safe place.
45. The LLFA identified 15 locations which met the threshold for a formal flood investigation and report. Seven of these are in South Oxfordshire, 6 in Vale of White Horse and 2 in Oxford. Eight of these investigations have been completed and published to date and can be found on the [Oxfordshire Flood Toolkit](#).
46. National Government announced funding for those affected specifically during Storm Henk between 2 and 12 of January 2024 under the Flood Recovery Framework [Government payments for communities affected by flooding](#). There were a number of schemes available, with eligibility criteria needing to be met to access the funding. The County Council was responsible for administering the Property Flood Resilience Grant. Specific eligibility criteria were set out by Defra and 70 expressions of interest were received. The deadline for applications is 30 November 2024. Other grants were administered by the district councils.

Corporate Policies and Priorities

47. Climate impacts are a key strategic risk for the council. The multi partner response to flood risk and event response supports the strategic priority of putting action to address the climate emergency at the heart of our work by working in partnership to make Oxfordshire resilient to climate change. Climate projections show an increased likelihood of wetter winters and increased frequency and intensity of extreme weather including rainfall events. Flood risk management is an integral part of the emerging approach to climate adaptation in Oxfordshire.

48. Effective flood risk management and response also supports many of the other corporate priorities in supporting residents, communities and businesses in Oxfordshire to be resilient to the impacts of flooding.

Financial Implications

49. Flood event response is funded from within existing budgets. Additional funding has been made available in the Medium Term Financial Strategy for the LLFA team to undertake proactive small scale physical work with communities to reduce the impact of flooding and improve resilience.

50. There are no financial implications to this report.

Comments checked by:

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Legal Implications

51. As Lead Local Flood Authority under the Flood and Water Management Act 2010 and as highway authority under the Highways Act 1980, it is appropriate for officers to report to Committee on the approach to flooding generally and the response to Storm Henk. There are no legal implications to this report.

Comments checked by:

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Annex 1 Detailed roles and responsibilities.

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September 2024

Annex 1 Detailed roles and responsibilities

Lead Local Flood Authority (LLFA)

OCC as the LLFA has a responsibility to investigate flood incidents under Section 19 of the Flood and Water Management Act 2010 (FAWMA).

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 homeowners 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.

Highway Authority (Oxfordshire County Council)

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.

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.

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.

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.

District Councils

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.

In Oxfordshire the 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.

Environment Agency

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 [EA Main River Map](#).

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;

- 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 main river 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)

Land Owners and Developers

Land owners 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 land owners 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.

Land owners 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.

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