

Section 19 Flood Investigation Report

Date: 7th March 2024

Section 19 Flood Investigation Report: Henley-on-Thames and Goring, South
Oxfordshire, Oxfordshire

Date of Flood Incident: 4th January 2024 (Storm Henk)

Based upon a flood investigation report prepared by

South Oxfordshire District Council (March 2024)

Revision Schedule

Version	Date	Details	Author	Checked	Approved
1	07/03/2024	Draft Section 19 Flood Investigation Report	Leigh Travers	Chris Brown	
2	09/05/2024	Draft Section 19 Flood Investigation Report	Leigh Travers	Chris Brown	
3	10/05/2024	Amendments to text to include flood warning recommendation	Leigh Travers	Chris Brown	Clare Mills

Executive Summary

This investigation has reviewed flooding that occurred to two commercial properties within Henley-on-Thames and Goring on the 4th January 2024.

Flooding from the River Thames, damaged landing stages and flooded the ground floor of both commercial properties.

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, 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).

The business reported that this was the worst flooding they had experienced since 2014. However, the flooding was not as severe as it was in 2003. A review of photographs would suggest that the depth of flooding was under 0.1 m.

Due to the proximity of the commercial properties which lie besides and within the channel of the River Thames, recommendations for reducing the risk in future are limited.

Main Recommendations

Recommendation	Lead Stakeholders
Consideration of Property Flood Resilience (PFR) measures to mitigate internal flooding of the business. Funding in the form of grants, may be available to support the business in delivering PFR measures. Guidance on PFR measures can be viewed through Ciria document (C790F) and a link to this document is provided below: https://www.ciria.org/ItemDetail?iProductCode=C790F&Category=FREEPUBS	Business owner
Sign up for the Environment Agency flood warnings: https://www.gov.uk/sign-up-for-flood-warnings	Business owner

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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, with the relevant criteria for this particular S19 report being highlighted below.

LLFA/Oxfordshire County Council (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

The town of Henley-on-Thames is located approximately 38.5 km to the south east of Oxford and 13.1 km north east of Reading. The village of Goring is located approximately 30.5 km to the south east of Oxford and 16.5 km north west of Reading.

According to the Environment Agency’s Flood Map for Planning, both commercial properties are shown to lie within flood zone 3 (which is land with a 1 in 100 (1%) or greater chance of flooding from the river each year). Neither detailed modelling results nor a topographical survey in AOD have been requested or undertaken but, the likelihood, is that both commercial properties lie within flood zone 3 b. This flood zone is categorised by the Local Planning Authority as functional flood plain (which is land where water has to flow or be stored in times of flood).

The figures below share the aforementioned flood maps for both sites:

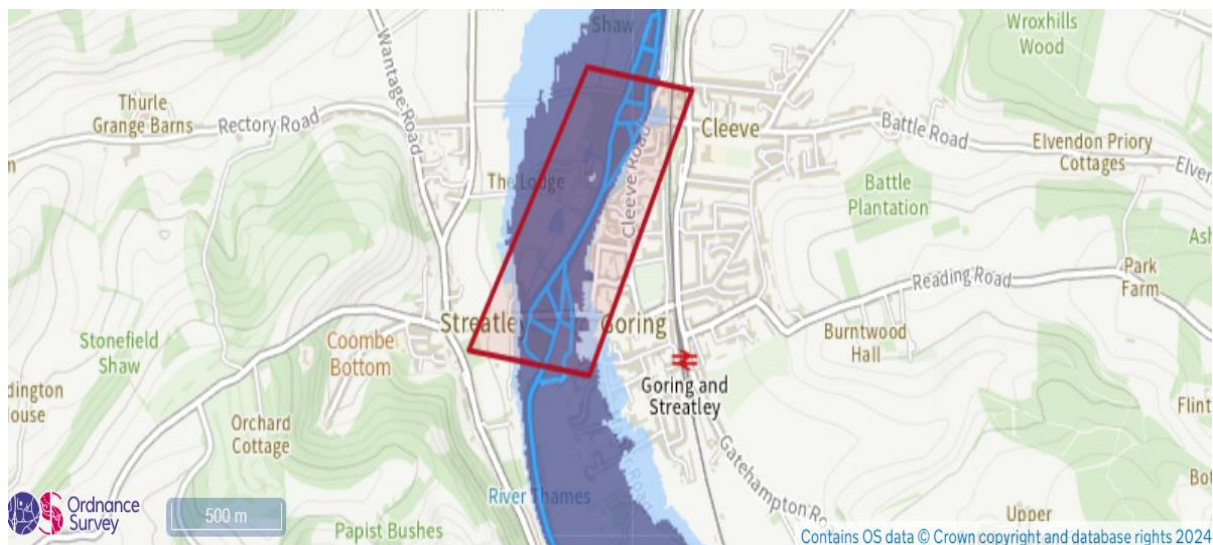


Figure 1 – Environment Agency Flood Map for Planning Goring

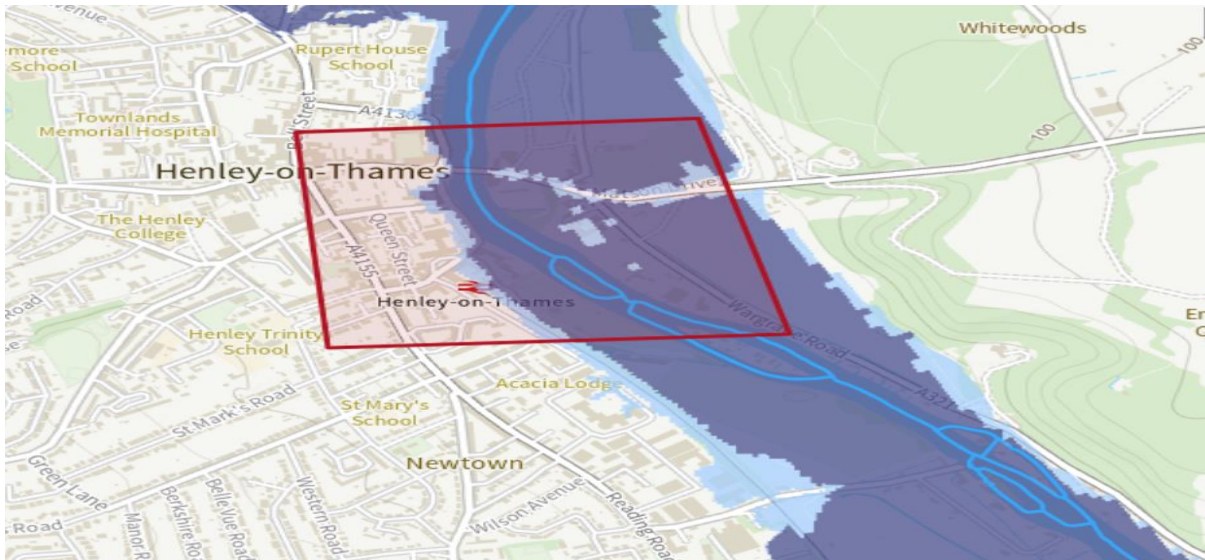


Figure 2 – Environment Agency Flood Map for Planning Henley-on-Thames

1.3. Previous flood events

According to the business owners, the commercial properties were flooded previously in 2003 and 2014. The flooding on the 4th January 2024 was reflective of the flooding experienced in 2014. However, was less significant than the flooding that occurred in 2003.

2. RECENT FLOOD ISSUES AND INVESTIGATION

This investigation has reviewed the source of flooding that occurred to two commercial properties within Henley-on-Thames and Goring on the 4th January 2024.

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, 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).

The business reported that this was the worst flooding they had experienced since 2014. However, the flooding was not as severe as it was in 2003. A review of photographs would suggest that the depth of flooding was under 0.1 m.

Flooding was caused by exceptionally heavy rainfall, where total rainfall during the event was close to the monthly average. This coincided with significant rainfall in the previous months which had already caused the river Thames to flood in various areas. This additional rainfall overwhelmed the channel of the river Thames running beside the commercial properties, resulting in flooding of the commercial properties.

Due to the locality of the commercial properties being on a functional flood plain, the recommendations are limited to the owner considering Property Flood Resilience (PFR) measures.

3. RIGHTS AND RESPONSIBILITIES

3.1. 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

3.2. 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.

3.3. 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.

3.4. 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.

3.5. South Oxfordshire District Council (SODC)

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.

South 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.

3.6. 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.maps.arcgis.com/apps/webappviewer/index.html?id=17cd53dfc524433980cc333726a56386>

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)

3.7. 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.
www.oxfordshirefloodtoolkit.com/planning/developers/

4. RECOMMENDATIONS

4.1. General

Listed below in section 4.2 are the recommendations emanating from this formal Section 19 Flood Investigation Report. All the actions are initial recommendations that require further work to establish 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.

There were no recommendations identified for organisations or individuals other than the business owner. Authorities undertake actions related to their responsibilities but these are not specific to this FIR. These are 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.

4.2. Main Recommendations

Recommendation	Lead Stakeholders
Consideration of Property Flood Resilience (PFR) measures to mitigate internal flooding of the business. Funding in the form of grants, may be available to support the business in delivering PFR measures. Guidance on PFR measures can be viewed through Ciria document (C790F) and a link to this document is provided below: https://www.ciria.org/ItemDetail?iProductCode=C790F&Category=FREEPUBS	Business owner
Sign up for the Environment Agency flood warnings: https://www.gov.uk/sign-up-for-flood-warnings	Business owner

4.3. Communities and Residents

This section covers Town/Parish Council, Flood Forum, Community Group, land owners and affected residents.

Information on Flood Prevention Measures for Home Owners, Communities and Businesses can be found on the Flood Toolkit:
www.oxfordshirefloodtoolkit.com/risk/prevention

Residents should check whether they are at risk of flooding by using the long term flood risk service <https://www.gov.uk/check-long-term-flood-risk> they are at risk of

flooding they should sign up for flood warnings by visiting [sign up for flood warnings-gov.uk](https://www.floodwarnings.gov.uk).

Continue to report flood incidents to the Lead Local Flood Authority at: <https://www.oxfordshirefloodtoolkit.com/emergency/report-flood/>. 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 Can Flood Re help me? <https://www.floodre.co.uk/>

5. 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 South 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 South 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.

South 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.

ACRONYMS

SODC South Oxfordshire District Council
OCC Oxfordshire County Council
EA Environment Agency
TW Thames Water
FIR Flood Investigation Report
F&WMA Flood and Water Management Act 2010
LLFA Lead Local Flood Authority
WRA Water Resources Act 1991

USEFUL LINKS

Highways Act 1980:

www.legislation.gov.uk/ukpga/1980/66/contents

Water Resources Act 1991:

www.legislation.gov.uk/ukpga/1991/57/contents

Land Drainage Act 1991:

www.legislation.gov.uk/ukpga/1991/59/contents

EA - Prepare your Property for Flooding:

How to reduce flood damage Flood protection products and services

www.gov.uk/government/publications/prepare-your-property-for-flooding

EA - Long term flood risk service:

<https://www.gov.uk/check-long-term-flood-risk>

EA - Sign up for flood warnings:

<https://www.gov.uk/sign-up-for-flood-warnings>

EA - Up to date information on flood alerts & warnings:

<https://www.gov.uk/check-flooding>

Oxfordshire County Council Flood and Water Management Web Pages:

www.oxfordshirefloodtoolkit.com

<https://www.oxfordshire.gov.uk/residents/fire-and-public-safety/emergency-planning/community-resilience>

Flood and Water Management Act 2010

<http://www.legislation.gov.uk/ukpga/2010/29/contents>

USEFUL CONTACTS

Oxfordshire County Council Highways:

Tel: 0345 310 1111

Website: <https://fixmystreet.oxfordshire.gov.uk/>

Environment Agency:

General Tel: 08708 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: <https://www.thameswater.co.uk/contact-us/report-a-problem/report-a-problem-online>