

# September 2024 flooding

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# Sources of Flooding

## ➔ Sources that we warn for:

- ➔ Fluvial (main river)
- ➔ Tidal
- ➔ Groundwater in certain locations

## ➔ Other Sources of flooding:

- ➔ Surface Water
- ➔ Non-main river
- ➔ Sewer
- ➔ Reservoir
- ➔ Other



# Flood Risk – Who is responsible?

Risk Management Authority	Responsible for
<b>Environment Agency (EA)</b>	<ul style="list-style-type: none"> <li>• the strategic overview of all sources of flooding and coastal erosion</li> <li>• flood and coastal erosion risk management activities on Main Rivers and the coast</li> <li>• regulating reservoir safety</li> <li>• working in partnership with the Met Office to provide flood forecasts and Flood Warnings</li> </ul>
<b>Lead Local Flood Authorities (LLFAs)</b> County Councils and Unitary Authorities	<ul style="list-style-type: none"> <li>• managing local flood risks (from surface water, ground water, and ordinary watercourses)</li> <li>• preparing and maintaining a strategy for local flood risk management in their areas</li> <li>• local Highways - providing and managing highway drainage and roadside ditches</li> </ul>
<b>Water and sewerage companies</b>	<ul style="list-style-type: none"> <li>• managing the risk of flooding to water supply and sewerage facilities</li> <li>• managing the flood risks from the failure of their infrastructure</li> </ul>
<b>Internal Drainage Boards (IDBs)</b> Land Drainage Authorities within their Districts	<ul style="list-style-type: none"> <li>• managing water levels in low-lying areas</li> <li>• supervising land drainage and flood defence works on ordinary watercourses within their Districts</li> </ul>
<b>Riparian Land Owners</b> Although not an RMA, they have the right to protect their property from flooding and erosion	<ul style="list-style-type: none"> <li>• <u>getting permissions to build anything in or around the watercourse</u></li> <li>• not building anything which could divert water and increase flood risk to other people's property, or they may have to pay damages</li> </ul>

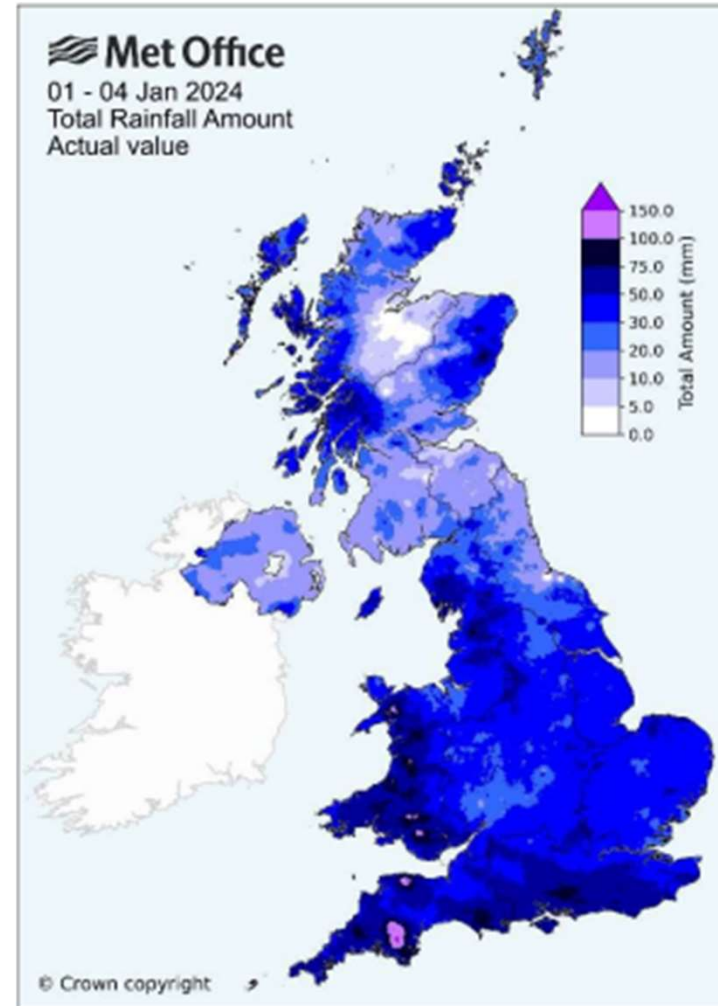
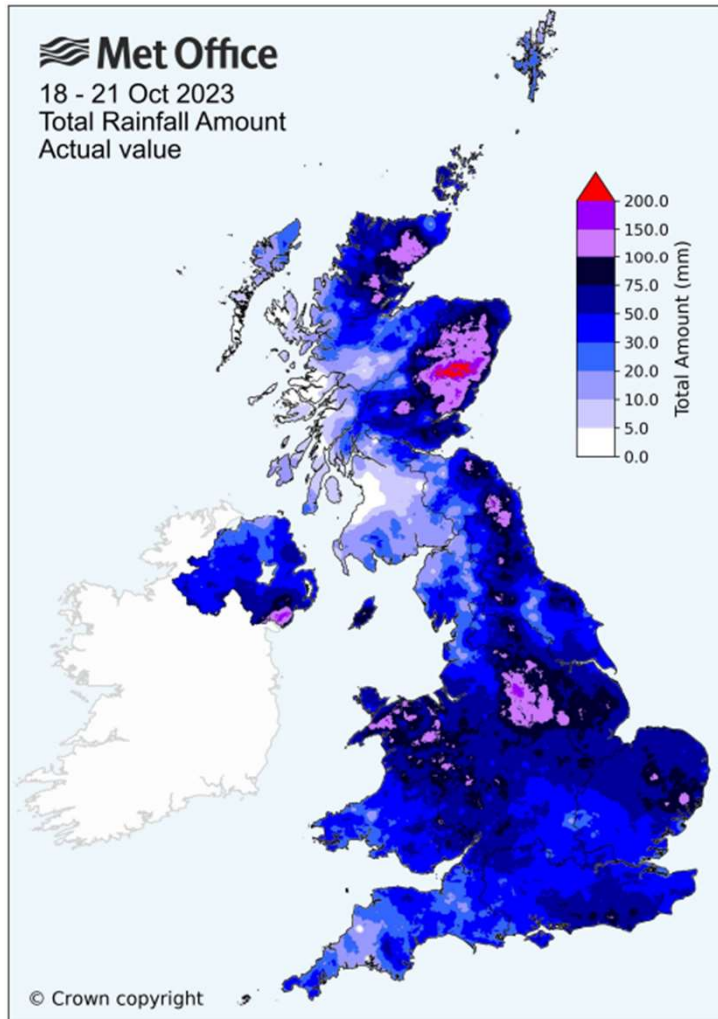
# Significant Flood events:

Year	Flood event	Properties flooded
<b>2024 (Sept)</b>	<b>Northamptonshire September 2024</b>	<b>TBC</b>
<b>2023/2024</b>	<b>Storm Babet, Ciarán, Henk</b>	<b>2000+ (Lincs and Northants)</b>
<b>2020 (23/24 December)</b>	<b>Christmas flooding River Nene - Billing Aquadrome</b>	<b>Properties affected 1500+</b>
2019	Lincolnshire flooding - Wainfleet	100+
<b>2018 (May)</b>	<b>Northampton Surface Water Flooding</b>	<b>200+</b>
<b>Mar-16</b>	<b>River Nene</b>	<b>circa 100</b>
2015/16	Winter Floods December 15 and January 160	10,000+
2013/14	Winter Floods – inc. Lincolnshire (Dec 13 to May 14)	11000
2012	2012 Floods (Mar-Dec)	7900
2010	Cornwall November 2010	250
2009	Cumbria November 2009	1500
2008	Morpeth September 2008	1250
2007	Summer 2007	55000
2006	Thames August 2006	190
2005	Cumbria January 2005	2500
2004	Boscastle August 2004	60 (40 in other Cornish locations)
2003	Thames December 2002 - January 2003	700
2001	Thames October 2001	110
2001	Thames February 2001	120
2000	Thames December 2000	240
2000	Autumn 2000	10000
1998	Easter 1998	4500 & 2 deaths





# Storm Babet and Storm Henk rainfall



# Storm Babet and Storm Henk rainfall statistics:

- October rainfall = 312% long term average
- November rainfall = 113% long term average
- December = 206% long term average (UK average 172%)
- Jan: 80% of river flows are exceptionally high for the time of year

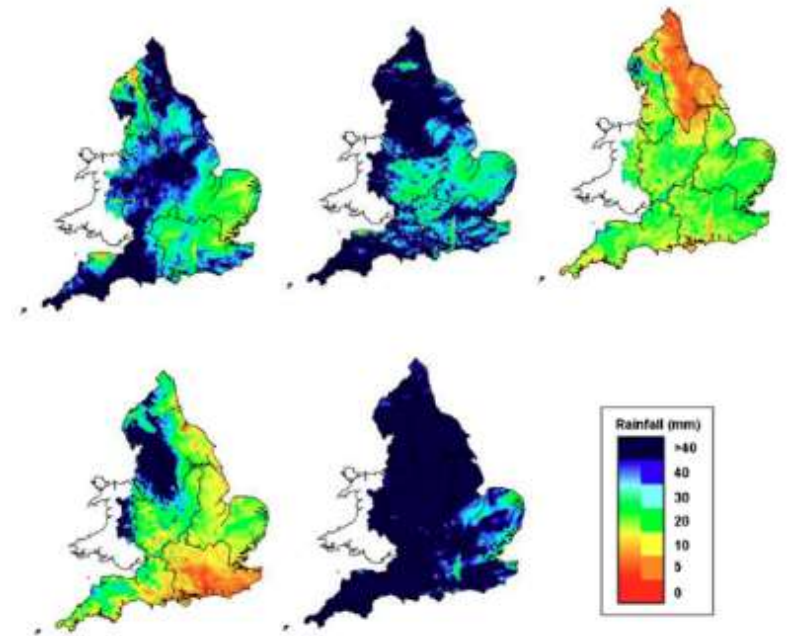
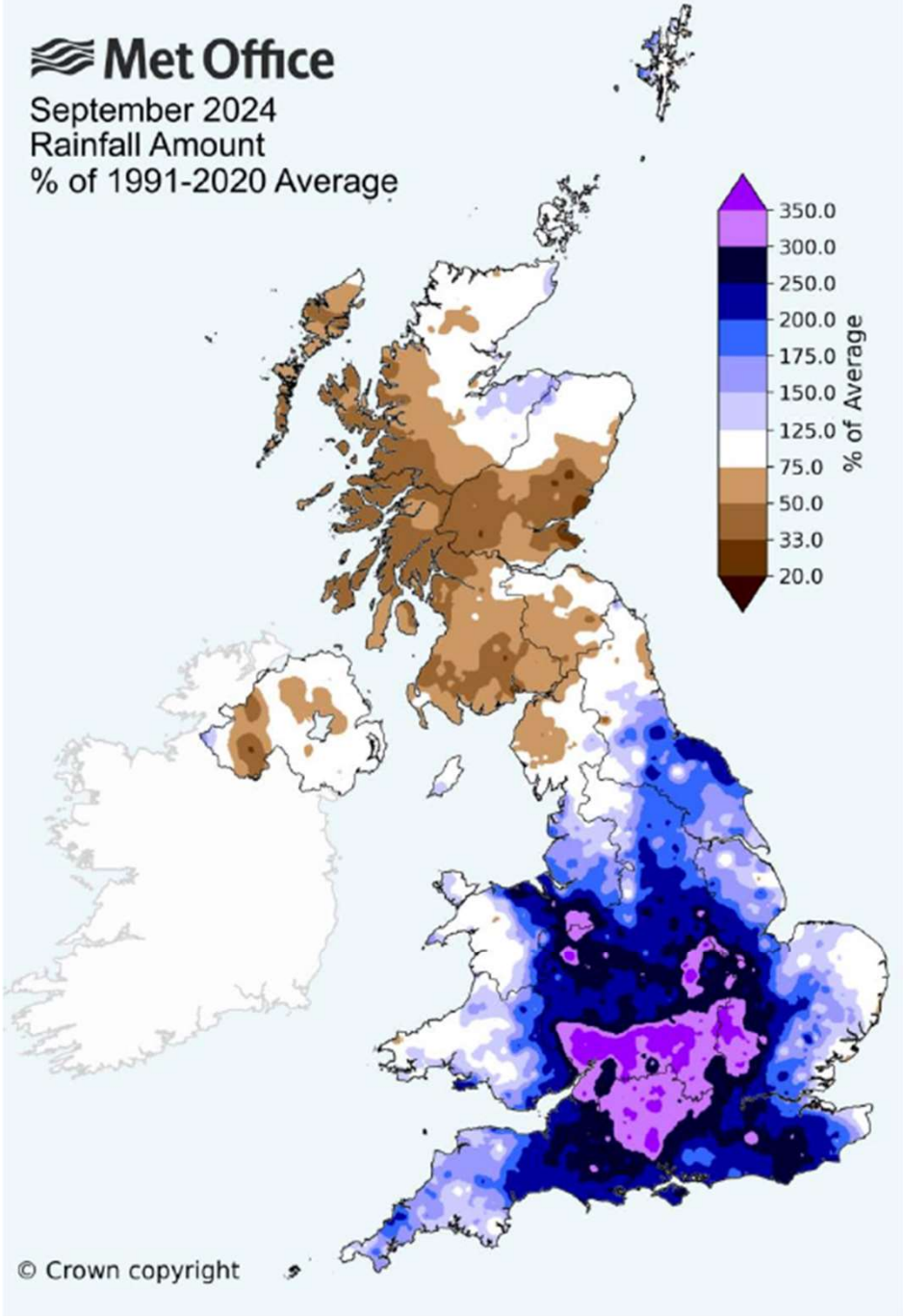


Figure 1 Weekly precipitation across England and Wales for the past 5 weeks. UKPP radar data (Source: Met Office © Crown Copyright, 2023). Note: Images may sometimes include straight lines originating from the centre of the radar, resulting from tall trees and buildings located near the radar installation affecting its performance. This does not reflect actual conditions on the ground. Crown copyright. All rights reserved. Environment Agency, 100024198, 2023

# Rainfall Sept 2024:

 **Met Office**

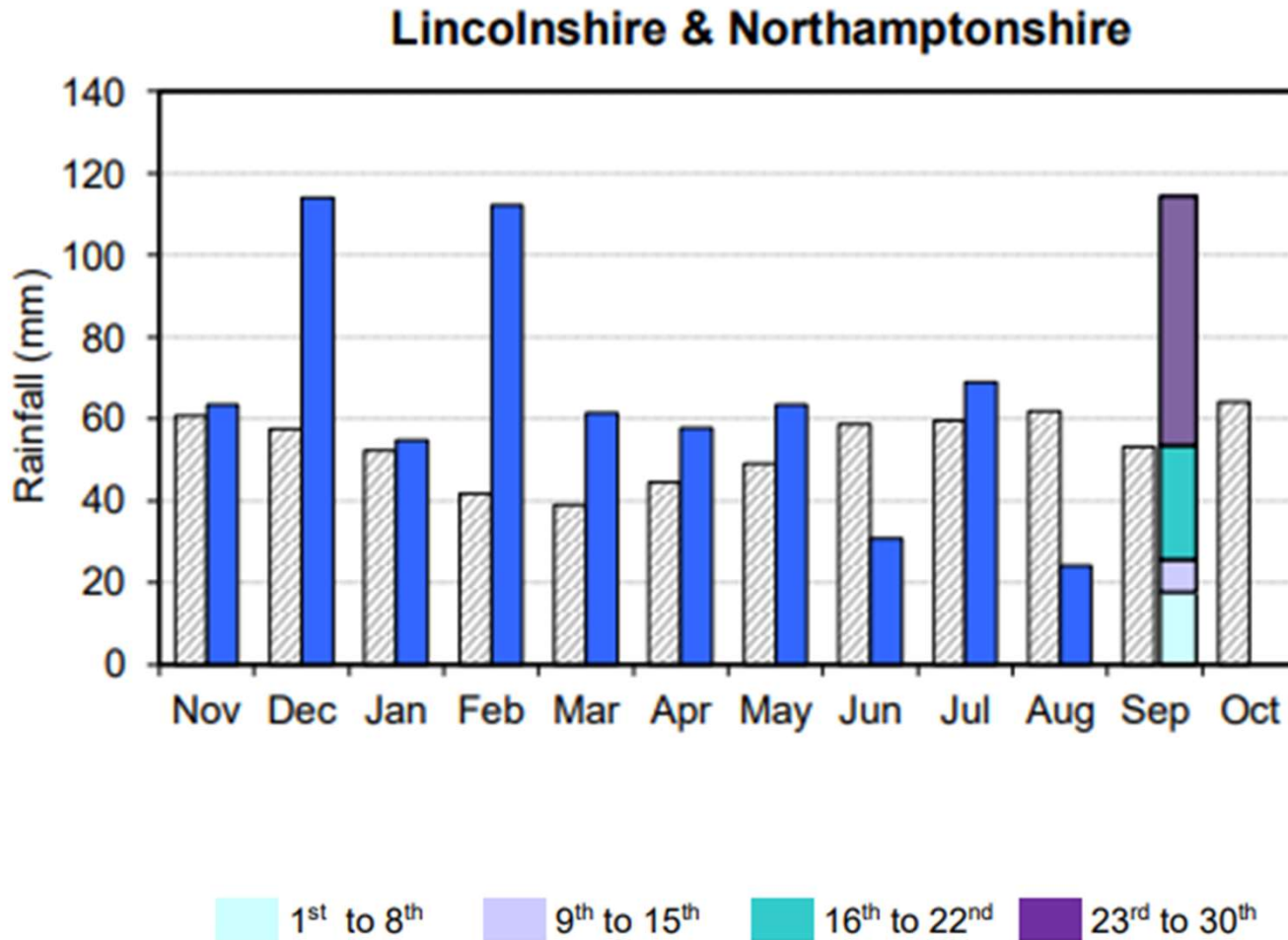
September 2024  
Rainfall Amount  
% of 1991-2020 Average



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# Environment Agency rainfall data – Lincolnshire and Northamptonshire Area



We have seen the highest rainfall totals on record for:

- 3 months (December to February)
- 6 months (August to February)
- 12 months (March to February)

Figure 2.2: Monthly rainfall totals for the past 12 months as a percentage of the 1991 to 2020 long term average for each region and for England.

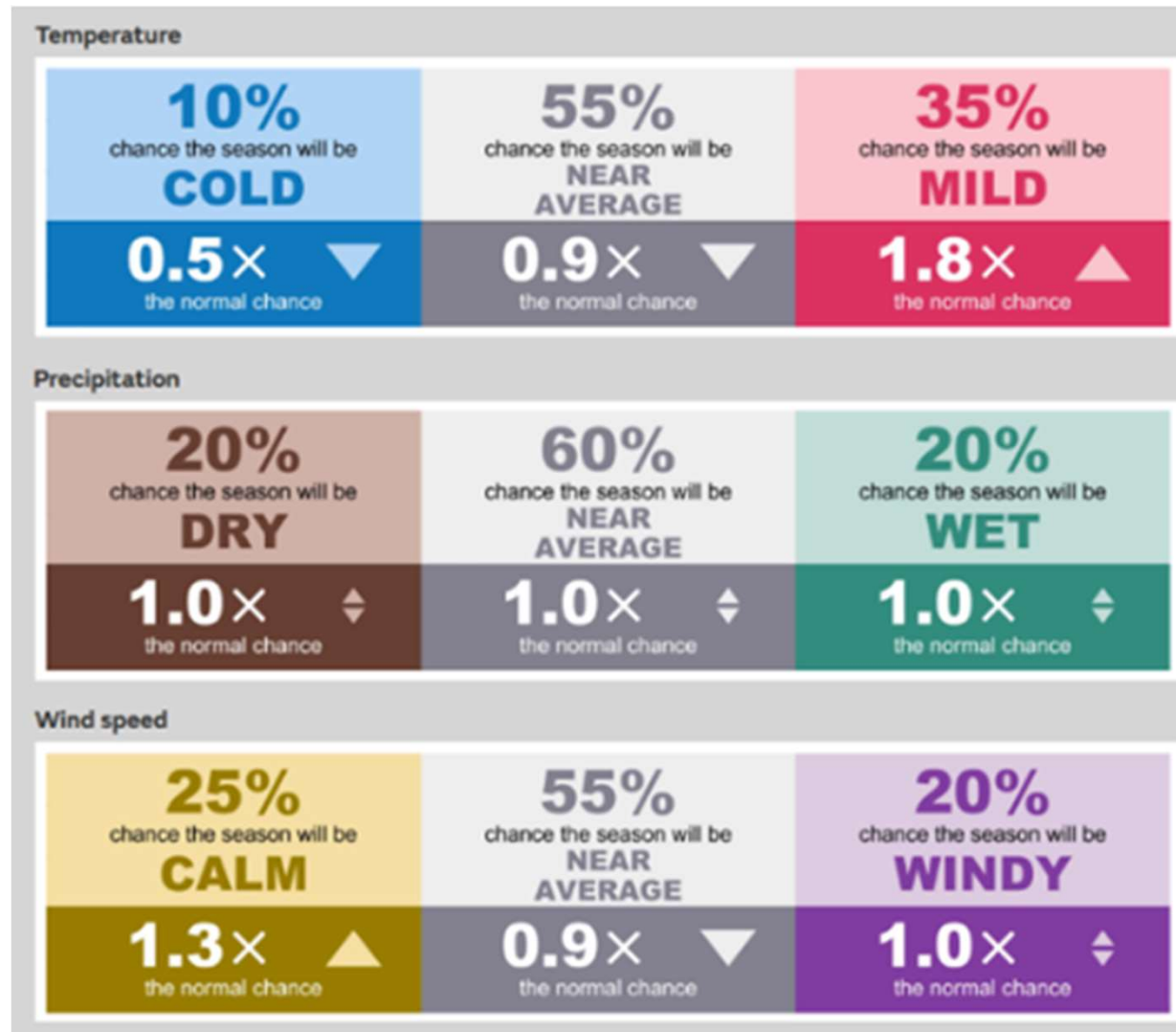


# Northamptonshire's September statistics:

- ➔ Rainfall by morning of 30 September: 148.6mm
- ➔ 3 times the average rainfall for the month
- ➔ The wettest September on record was September 1876 when there was 137.4mm.
- ➔ The current long term average for the month is 56.2mm



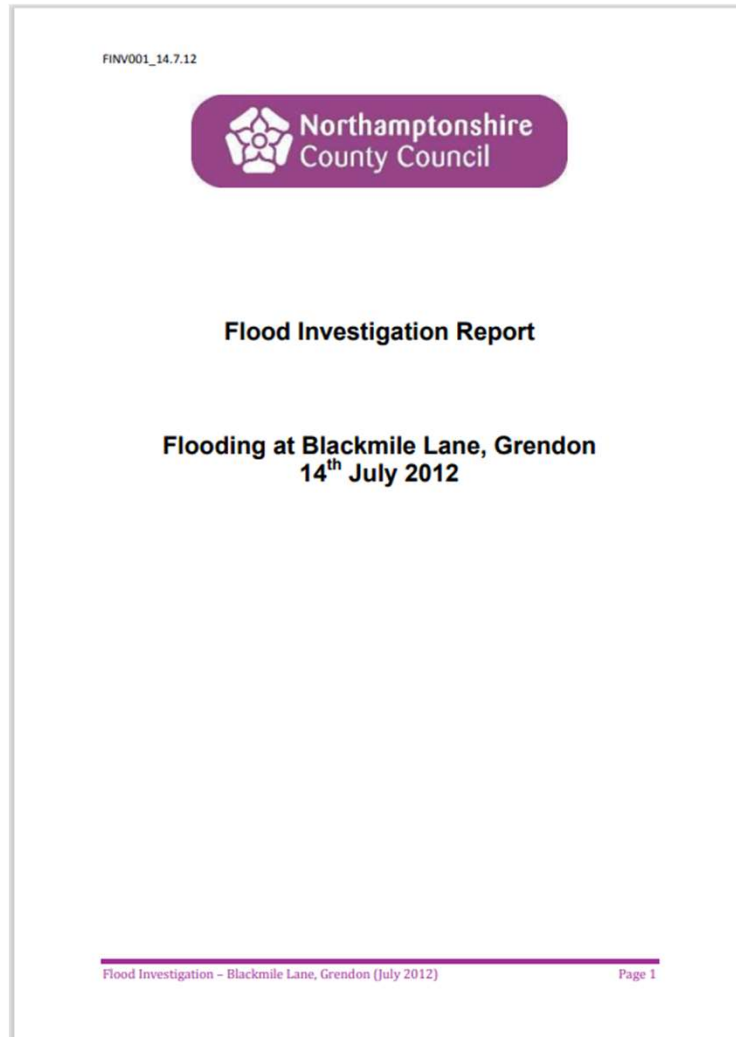
# Winter 24/25



Updated 15/10/24

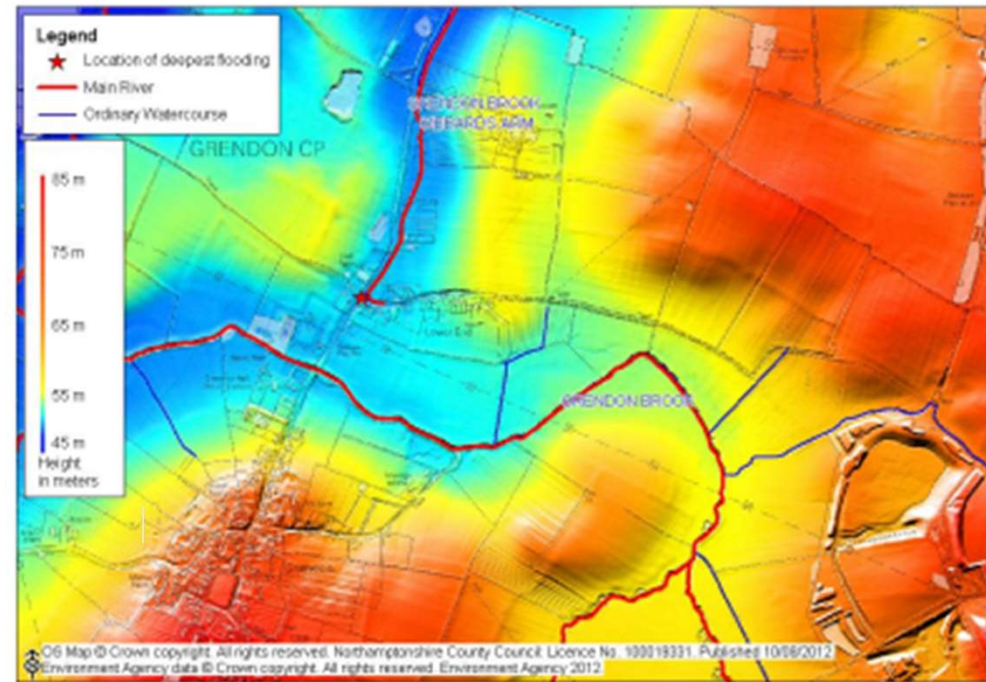


# Previous Grendon flood history:



- 2024
- 2012
- 1998
- 1980s

Map 3. LIDAR Data



## 6. Recommendations

- 6.1.1. The method for prioritising flood risk management works varies for each risk management authority involved, dependant on factors such as resources available, operational area, and interpretation of flood risk.
- 6.1.2. NCC as the LLFA is in a position to facilitate sharing of information between risk management authorities. We also suggest that the following recommendations are considered:
1. NCC Highways to undertake drain clearing in Blackmile Lane Area;
  2. EA to consider clearing of river channel of Gibbards Arm;
  3. NCC and EA to investigate damage to assets at Easton Maudit;
  4. NCC to consider contacting residents at Yardley Hastings to obtain more detail on the flooding that occurred in this location;
  5. NCC to write to owners of drainage ditches between Grendon Brook and Blackmile Lane to ensure they are being properly maintained;

Flood Investigation - Blackmile Lane, Grendon (July 2012)

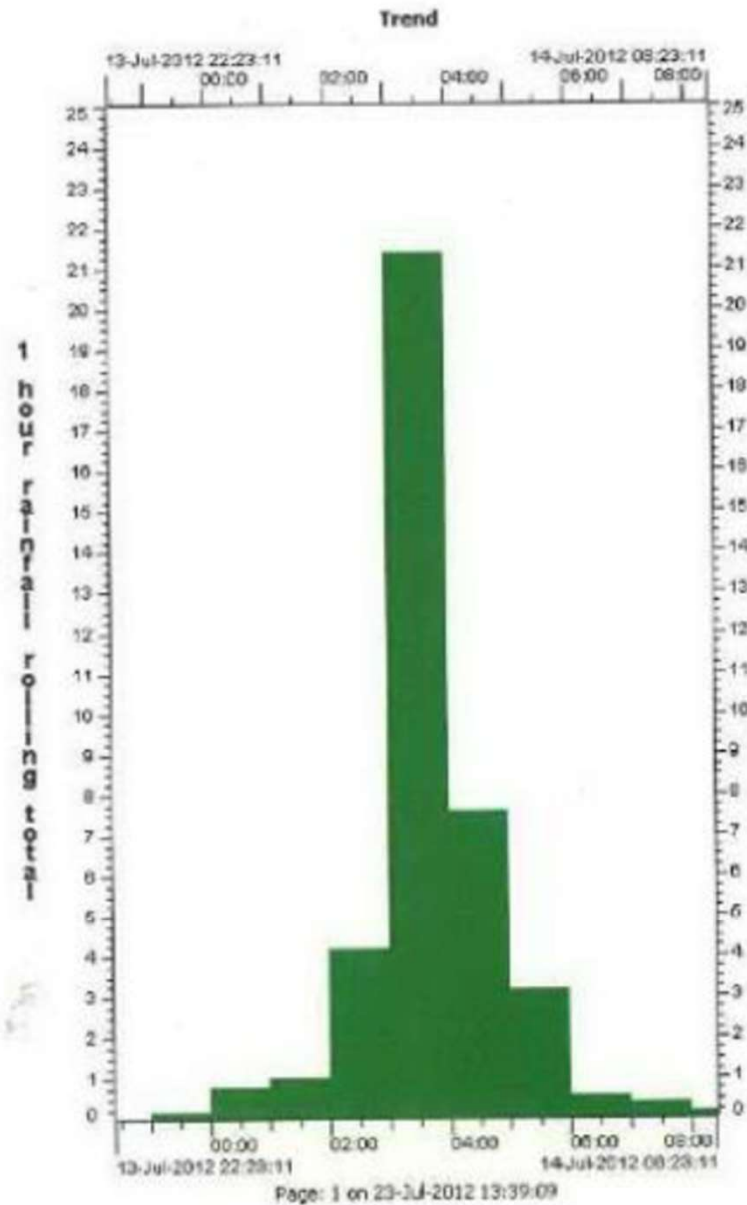
Page 14

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6. NCC to consider undertaking further enquiries to obtain information in relation to the historical flood event referred to by residents over 30 years ago;
7. NCC to provide advice to residents on property level protection, liaise with the flood warden and update the village emergency plan.



# Previous Grendon flood history:



## 2.2. Rainfall Analysis

2.2.1. The period up to 14<sup>th</sup> July 2012 saw regular periods of intense rainfall, which saturated the catchment. Between midnight and 04:30 hours on 14<sup>th</sup> July

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Flood Investigation - Blackmile Lane, Grendon (July 2012)

Page 8

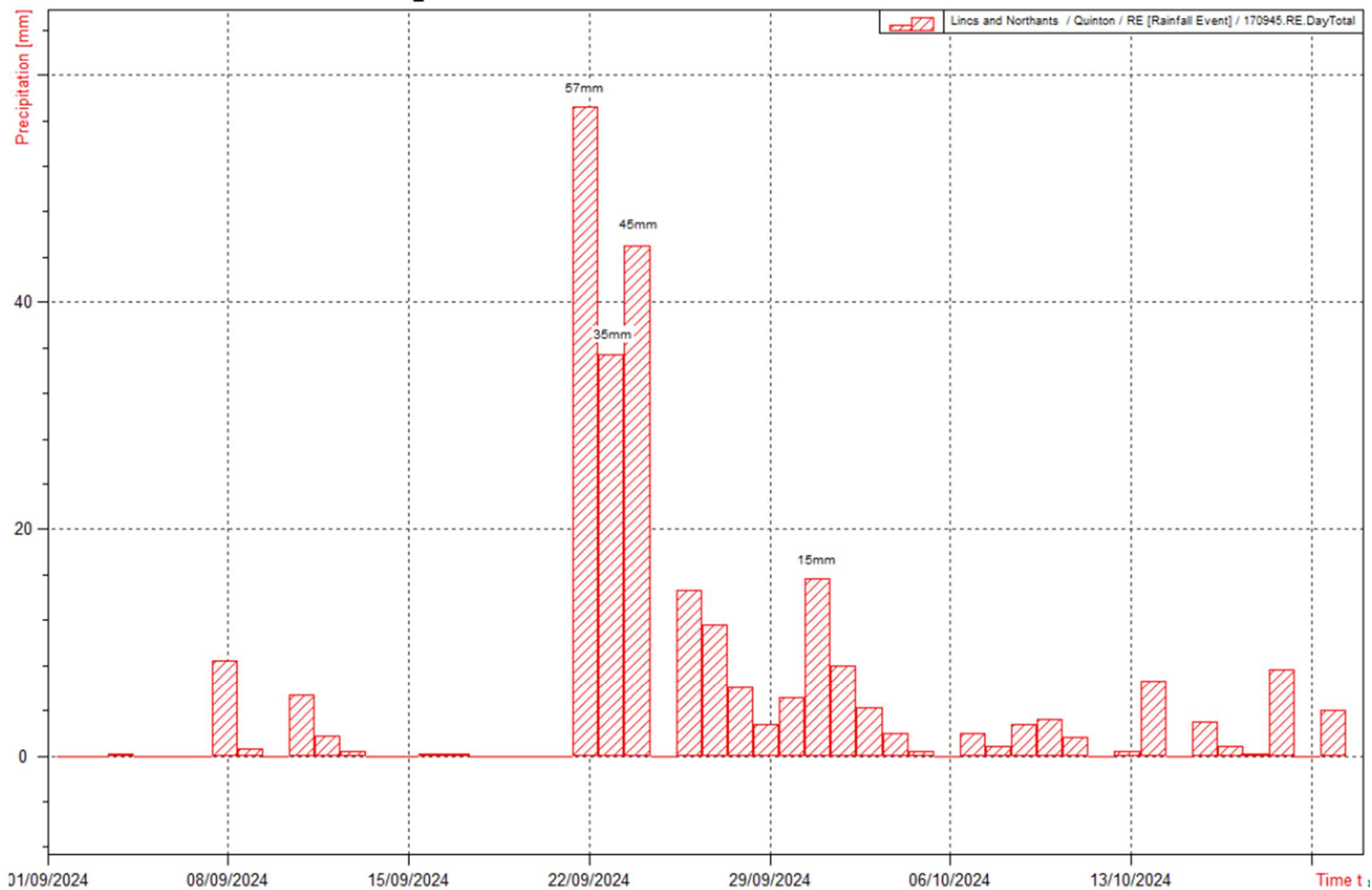
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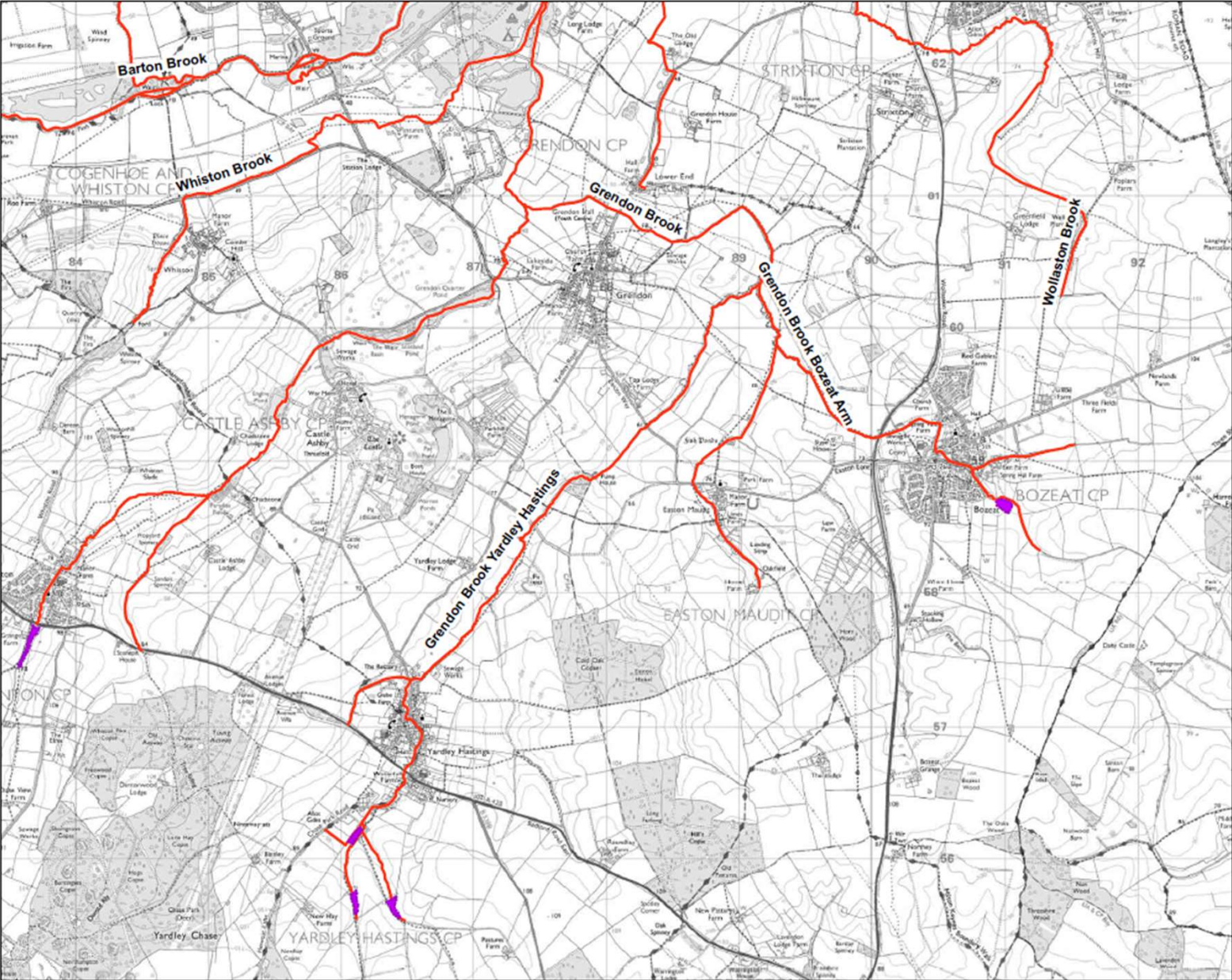
2012, 44mm of rain fell in the Grendon area. The rainfall chart for Yardley Hastings Rain Gauge is shown below (source: Environment Agency).




# Rainfall Sept 2024:



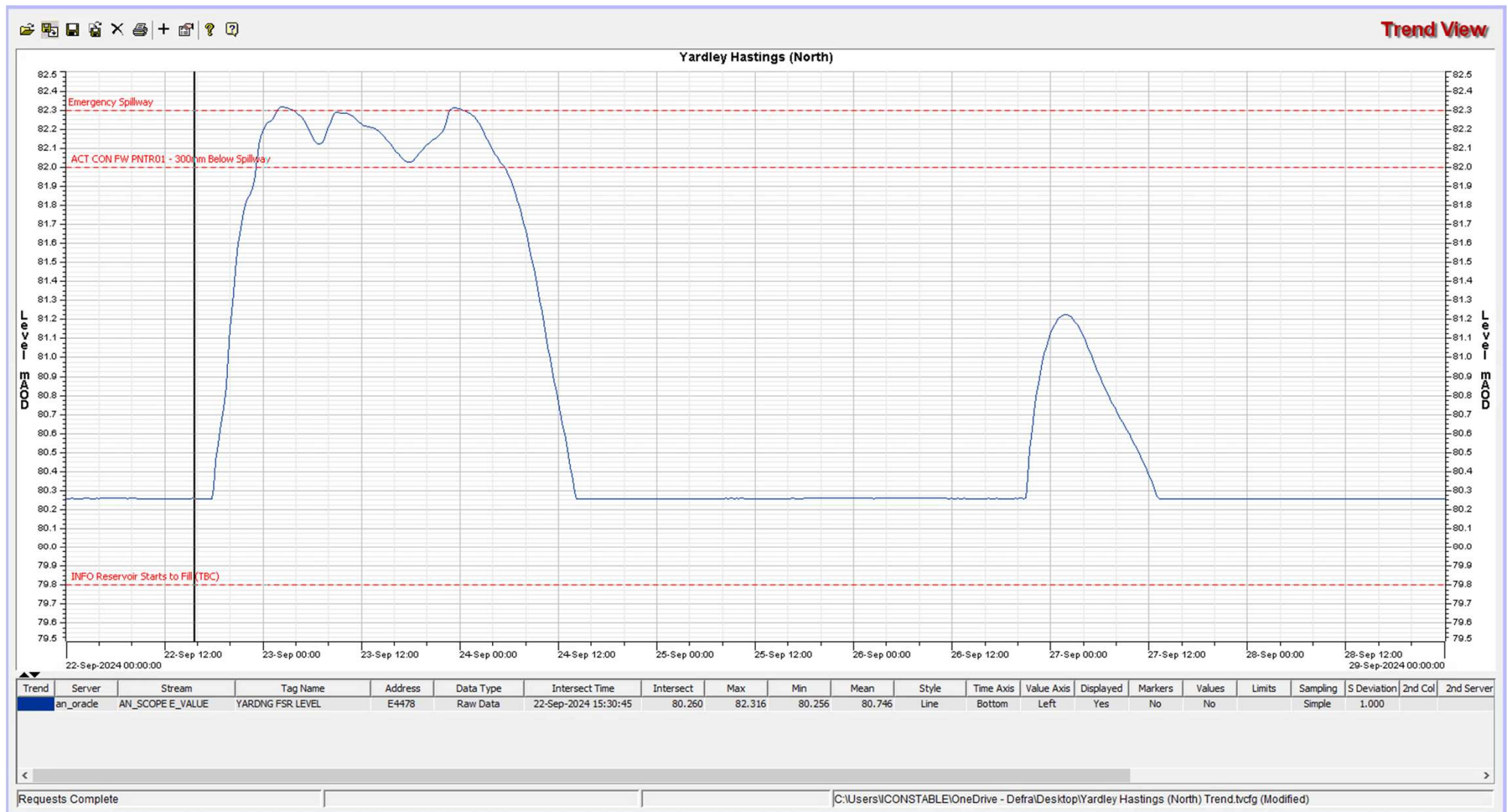
# Flood Storage Areas – Grendon Brook



- Legend**
-  Flood Storage Areas
  -  Main River



# Flood Storage Areas – Grendon Brook



Were any overflow emergency spillways used?  
 Yes - Yardley Hastings East and North

# Flood Storage Areas – Grendon Brook

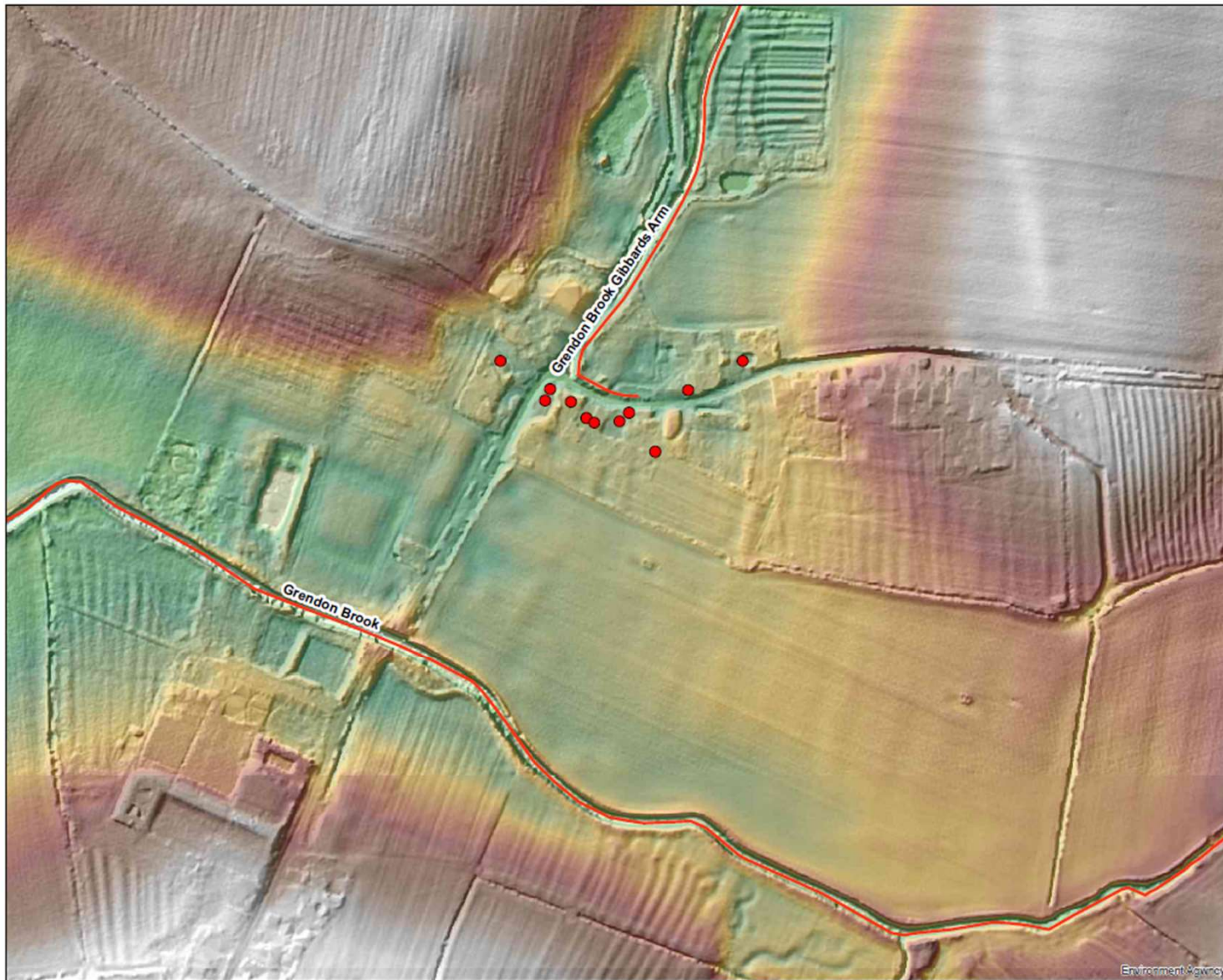


Yardley Hastings





# LIDAR - Lower End, Grendon



Scale 1:3,000



### Legend

— Main River

● DRAFT Flooded Properties - September 2024

LIDAR Composite 2022 1m DTM: Elevation

Value

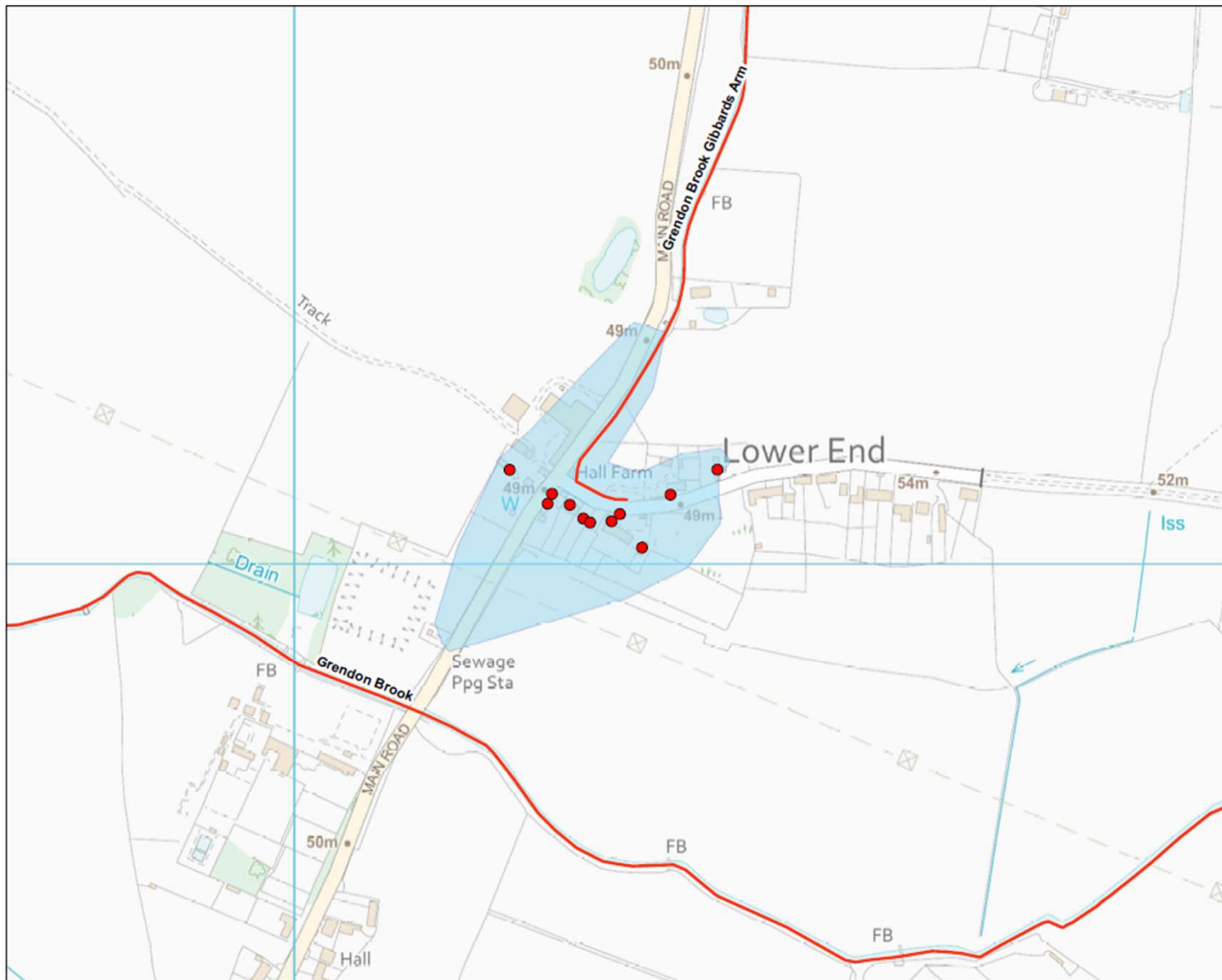
· High : 54.2943

· Low : 46.9653

Created by the Partnerships and Strategic Overview Team,  
Kettering



# Draft Flood Event Outline - Lower End, Grendon



Scale 1:3,500



### Legend

- Main River
- DRAFT Flooded Properties - September 2024
- DRAFT Flood Event Outline - September 2024

Created by the Partnerships and Strategic Overview Team, Kettering



# Our Incident Management role

- ➔ As a **Category 1 Responder under the Civil Contingences Act 2004** (CCA 2004), we are responsible for managing a wide variety of environmental incidents.
- ➔ Strong working relationships with other professional partners, through the **Local Resilience Forum (LRF)**
- ➔ Incident Management is one of our **corporate priorities**
- ➔ 24/7 monitoring and incident response capability
- ➔ Flood Warning Service
- ➔ Mutual aid



## Would you know what to do in a flood?



**FLOOD  
ALERT**

**PREPARE**

- Prepare a bag that includes medicines and insurance documents
- Visit [www.gov.uk/check-flooding](http://www.gov.uk/check-flooding)

**Flood Alert:** flooding on lowlying land, roads and gardens



**FLOOD  
WARNING**

**ACT**

- Turn off gas, water and electricity
- Move things upstairs or to safety
- Move family, pets and car to safety

**Flood Warning:** property could be flooded



**SEVERE  
FLOOD  
WARNING**

**SURVIVE**

- Call 999 if in immediate danger
- Follow advice from emergency services
- Keep yourself and your family safe

**Severe Flood Warning:** Imminent risk to life

Flood plan templates for your home, community or business are here:  
[www.gov.uk/prepare-for-flooding](http://www.gov.uk/prepare-for-flooding)

Creating a better place for people and wildlife

Floodline 0345 988 1188



# Sign up for flood warnings:

## Stay up to date using the following methods:

- **Sign up to the Flood Warning Service** online to get advance notice of when river or sea flooding is expected: [www.gov.uk/sign-up-for-flood-warnings](http://www.gov.uk/sign-up-for-flood-warnings). You can also do this by calling Floodline on 0345 988 1188.
- You can see **current flood warnings** issued and **monitor local river, sea, groundwater and rainwater levels** online here <https://www.gov.uk/check-flooding>
- An explanation about what flood warnings are and what they do is available here [www.gov.uk/guidance/flood-alerts-and-warnings-what-they-are-and-what-to-do](http://www.gov.uk/guidance/flood-alerts-and-warnings-what-they-are-and-what-to-do)
- **Find river, sea, groundwater and rainfall levels** - <https://check-for-flooding.service.gov.uk/river-and-sea-levels>
- You could **prepare an Emergency Bag** of essential items. This might include spare glasses, waterproof coat, medication and a copy of any recent prescription, water, food, insurance documents and pet food.



# Owning a watercourse - Riparian responsibilities

## • Report incidents

Call the Environment Agency [Incident hotline](#) to report:

- flooding
- blockages which could cause flooding to [main rivers](#)
- pollution
- unusual changes in the flow of water
- collapsed or badly damaged banks

## • Let water flow naturally

They must let water flow naturally.

They may have to remove blockages, fallen trees or overhanging branches from their watercourse, or cut back trees and shrubs on the bank, if they could:

- obstruct or affect a public right of navigation
- reduce the flow or cause flooding to other landowners' property – they may have to pay damages if they do

They should:

- leave all other trees, branches and shrubs - they can help prevent flooding by varying the shape and flow of the channel, and reduce erosion
- If they own it; keep any trash screen, weir, mill gate or other structure clear
- Don't go inside a culvert.

## • Prevent pollution

They must not pollute the water. Don't throw waste water, chemicals or anything else which could cause pollution on the banks or in the water.

They must [apply to use herbicides within one metre from the top of the bank of the watercourse](#).

Find out how to prevent rainwater carrying topsoil into the watercourse and polluting it in the [Think Soils publication](#).

They should:

- remove litter from the banks
- remove animal carcasses - contact their [local council](#) if they need advice
- not put garden waste, including grass cuttings, on the banks or into the water

## • Protect wildlife

They must:

[not disturb certain species or their habitats](#), including the bed and banks

[not disturb birds and their nests](#)

not disturb the spawning or eggs of salmon, trout or other fish

[prevent invasive species](#) such as Japanese knotweed from spreading into the wild or onto neighbours' land.

<https://bluepages.org.uk/>



# WELCOME TO THE BLUE PAGES

THE UK'S LEADING INDEPENDENT  
FLOOD DIRECTORY



**Any questions?**

