

## Section 19 Flood and Water Management Act 2010

**Report Title: Green Road, Mendlesham Green**

**Report Reference: CR Number 340016**



	Name	Date
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RMA Review:		
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## Introduction

Suffolk County Council, Lead Local Flood Authority (LLFA) has determined that in accordance with our criteria, it is considered necessary and appropriate to carry out an investigation into this flood event.

This is in accordance with Section 19 (1) of the Flood and Water Management Act 2010, and in accordance with Section 19 (2) of the Flood and Water Management Act 2010, to publish the results and notify the relevant risk management authorities (RMAs).

### *Section 19 Local authorities: investigations*

*(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 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*

<b>Criteria for an investigation (as per Appendix D of the Suffolk Flood Risk Management Strategy):</b>	
There was a risk to life because of flooding?	
Internal flooding of one property (domestic or business) has been experienced on more than one occasion?	✓
Internal flooding of five properties has been experienced during one single flood incident	
Where a major transport route was closed for more than 10 hours because of flooding	
Critical infrastructure was affected by flooding	
There is ambiguity surrounding the source or responsibility of a flood incident	

### **1. Road Name, Parish, Postcode**

Green Road, Mendlesham Green, Mendlesham, Stowmarket IP14 5RF  
Road Classification U5235

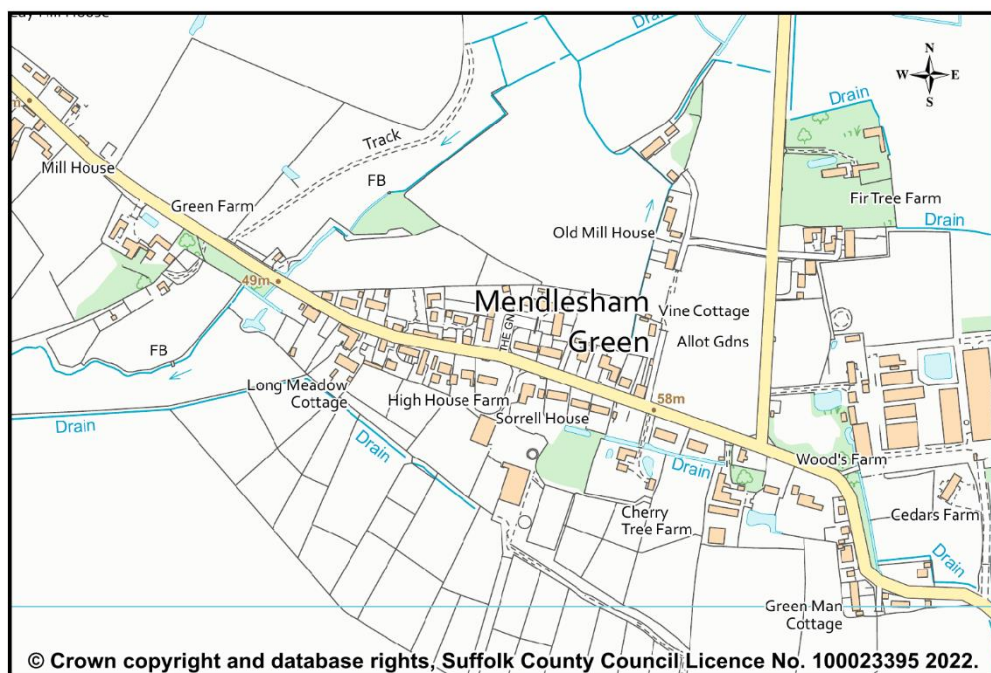
## **2. Location and Effects of Flooding**

- 2.1 Flooding has occurred internally to a single property at this location on multiple occasions resulting in damage to property. These have been recorded as:

5th October 2021  
16th October 2021  
21st October 2021  
28th October 2021  
29th November 2021  
1st December 2021  
6th December 2021  
8th January 2022  
4th February 2022

These events occurred following prolonged periods of heavy rainfall. Surface water runoff in and around the property resulted in water entering the front garden, the house via the front door, and water penetrating the external side wall of the front ground floor living room. The internal flooding on these dates has reached up to 80 millimetres in depth and resulted in re-occurring mould on the inside of external walls and smell in the front room of the ground floor living room. All carpet and floor tiles in the front ground level room have had to be removed.

- 2.2 The property owner first reported flooding to Suffolk County Council on 21 October 2021, further information was sought to determine the appropriate course of action. The property was visited by Suffolk Flood and Water Management Team on 7 January 2022, and the formal Section 19 Investigation commenced on 23 February 2022.
- 2.3 Photographic evidence, dates of events and extent of impact of flooding has been collected from the affected property owner. In addition, historic reported flood events in the Mendlesham Green area have been researched and a local consultation of adjacent residents undertaken to establish any unrecorded flood events in the area.



Location Plan

### 3. Records of historical flooding

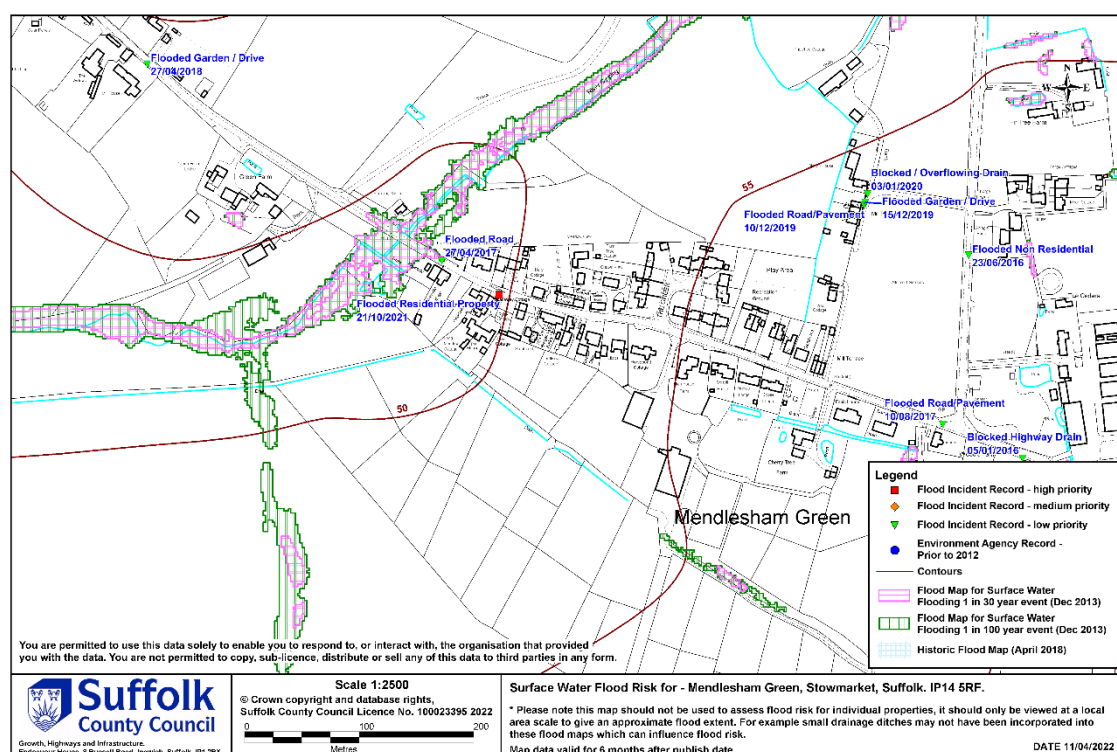
3.1 To better understand the extent of flooding in Green Road, Mendlesham, ten properties (five either side of the flooded property) have been consulted.

Four responses received. These are set out below.

Reply	Have you been flooded?	Type of Flood	Area affected	Description of flood or other comments received
1	No	N/A	N/A	Lived in property 40 years.
2	Yes	Rainfall/overland flow	Outside of house in garden	Occurred during Storm Franklin (Feb 2022) when water cascaded down the road towards the pumping station. Had standing water outside property. Lived in property since 1988 have not had any internal flooding.
3	Yes	Rainfall/overland flow	Outside of house, on shared private driveway leading to property off highway.	Concerned that an extreme event could potentially flood part of the property.
4	No	N/A	N/A	

- 3.2 All consultation respondents are in very close proximity to the property experiencing regular internal flooding. There has only been one report to the County Council of the road flooding in this section of Green Road, and this was in 2017.
- 3.3 There had been no other historic reports to the County Council of property flooding either external or internal prior to this investigation.

All reported flooded road events in the wider area are set out in the map below. This also shows the pluvial flood risk for this area of Mendlesham Green.

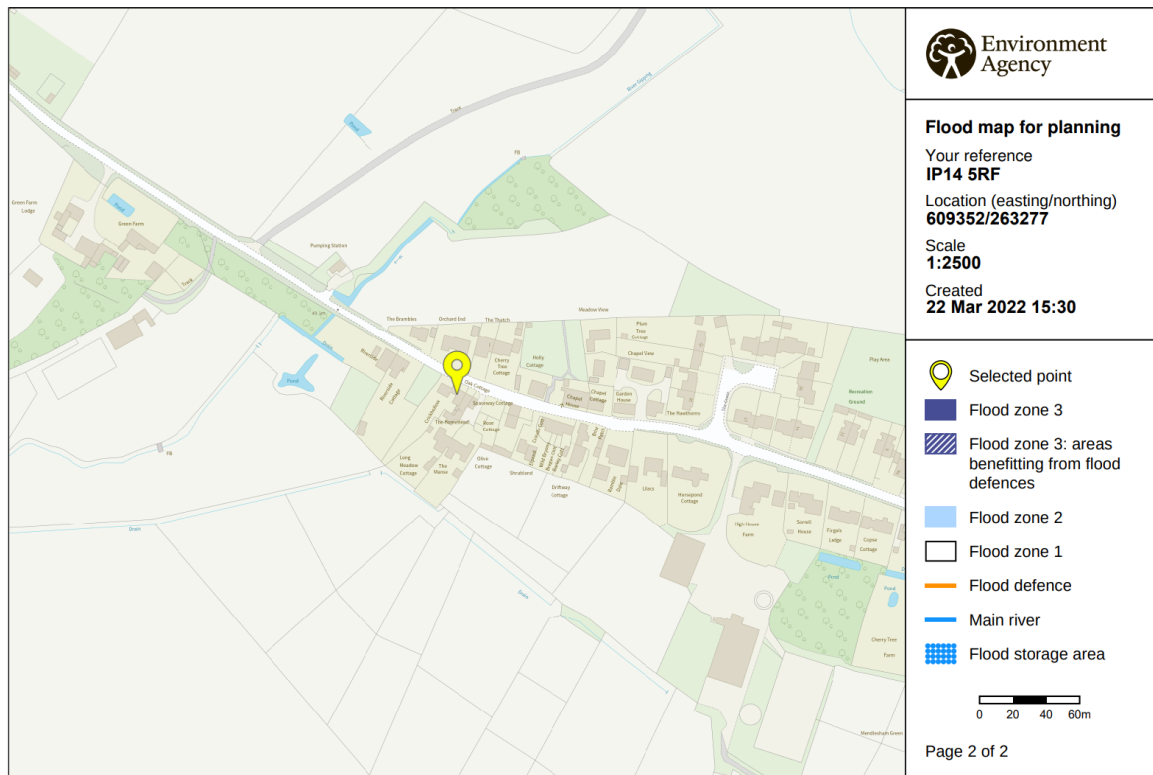


Map of Pluvial Flood Risk and Reported Flood Incidents

#### 4. Predicted Flood Risk

The national government indicative 'flood risk for planning' map identifies that neither tidal (sea), fluvial (river) nor reservoir flooding represent a significant risk in this location. Pluvial (surface water) flooding is recorded to be a flood zone 1, an area with a low probability of flooding.





## 5. Photographs of flooding

The following photographs show the impact of the internal and external flooding on the property.

### External views of property



Front entrance to property, showing external step down at threshold



Images of front door threshold and effect of repeated events of surface water breaching the threshold, as well as having prolonged periods of standing water in this external low area.



View of surface water on Green Road, running onto private drive at the front of the property



View of private drive with surface water collecting adjacent to property.

Images of flood damage to property:



External wall at front of property, viewed from inside front room.



View into front room from outside front door, showing extent of where all floor coverings including floor tiles have lifted (and had to be removed) because of repeated internal flooding.





Front door, viewed from inside, floor tiles lifted (due to flood) and removed.



View of floor of front ground floor room showing water saturation of the foundation level.

## 6. Flooding Sources & Likely causes:

- **Significant and frequent rainfall:** one cause of the flooding was the occasions of heavy rainfall during the period October 2021 and February 2022. The table below provides selected daily rainfall records in millimetres for days on and before the property experienced internal flooding. This information is collected by Environment Agency at the three sites closest to Mendlesham. Data published in accordance with [Open Government Licence \(nationalarchives.gov.uk\)](https://nationalarchives.gov.uk)

Dates	Gt. Finborough	Needham Market	Eye
4/10/2021	22.8	26	26.96
<b>5/10/2021</b>	6.6	4.8	8.93
15/10/2021	0.2	0	0
<b>16/10/2021</b>	0	0.4	0
19/10/2021	9.6	8	13.01
20/10/2021	20.2	22.2	15.63
<b>21/10/2021</b>	0	0	0.01
27/10/2021	0.2	0	0
<b>28/10/2021</b>	0	0	0
27/11/2021	11.6	10.4	13.74
28/11/2021	0	0	0
<b>29/11/2021</b>	0.6	0.4	0.21
30/11/2021	0.2	0	0.09
<b>1/12/2021</b>	0.4	2.2	2.51
5/12/2021	0.4	1	1.82
<b>6/12/2021</b>	5	4.2	5.32
7/1/2022	0.8	1.2	8.94
<b>8/1/2022</b>	4.2	4.8	0.44
9/1/2022	0	0	13.79
3/2/2022	2.4	--	2.41
<b>4/2/2022</b>	2.6	0	3.08

*Dates in bold are reported flood events at the property*

The average daily rainfall at the three sites between 1/10/2021 and 28/2/2022 are Gt. Finborough 1.5mm, Needham Market 1.2mm and Eye 1.9mm. The table demonstrates how there is some correlation between days of significant rainfall in the area and the reported property flood events. There are also some reported flood events where records of rainfall in the area is low. Where rainfall has been significant some of these volumes of rainfall could have overwhelmed any public and private drainage systems in the area.

- **Highway drainage:** there is little on-site evidence of positive highway drainage features on this part of Green Road, and in particular immediately in front of the private driveway. Looking at the topography in the area and shape of the road, surface water will naturally drain off both the highway and adjacent private land in a generally southerly direction. The access to the private driveway, offers some of this surface water run off a route to drain away over ground. Further information is required to establish how surface water drains away at this location, and whether new highway or private drainage at this location is possible and could capture enough surface water to reduce flood risk.
- **Absence of property level flood resilience:** it should be noted that resilience measures could have prevented ingress of water to the depth reported (80 mm) and may have been able to re-route surface water runoff away from the property. The threshold at the front door of the property, and the gradient of the front garden, dropping towards the

front door, are likely to have contributed to the volume of surface water entering the property. Similarly, an apparent absence of measures to deflect surface water from reaching and collecting at the external side wall of the property may have allowed the ingress of water into the external wall, resulting in mould forming on it internally. Further information is required to establish what actions could be taken and measures introduced to make this property more waterproof and flood resilient.

## 7. Risk Management Authorities, Non-Risk Management Authority and flood risk function(s)

<b>Risk Management Authority</b>	<b>Relevant Flood Risk Function(s)</b>
Suffolk County Council	Lead local Flood Authority, Highways Authority & Asset Owner
Babergh & Mid Suffolk District Council	Local Planning Authority
<b>Non-Risk Management Authority</b>	<b>Relevant Flood Risk Function(s)</b>
Property Owner / Occupants	Property Protection

## 8. LLFA Recommended Action(s):

<b>Action</b>	<b>Risk Management Authority</b>	<b>Timescale for response</b>	<b>Latest Progress Update for Actions</b>
Clean, plot and investigate existing drainage infrastructure either side of the affected property	SCC - HA	August 2022	
Improve existing drainage if required, and where appropriate add to drainage within the affected area		To be added to the SCC Highways prioritisation list for future works within six months, and its priority reviewed regularly, at no greater than six monthly intervals	
Review requirements for Flood Re & Property Flood Resilience measures with support from SCC LLFA & National Flood Forum	Property Owner	August 2022	

## 9. Reviews

This report will be reviewed and updated every 6 months until actions are marked as complete

Reviewer	Date of Review

### Disclaimer

This report has been prepared and published as part of Suffolk County Council's responsibilities under Section 19 of the Flood and Water Management Act 2010. It is intended to provide context and information to support the delivery of the local flood risk management strategy and should not be used for any other purpose.

The findings of the report are based on a subjective assessment of the information available by those undertaking the investigation and therefore while all reasonable efforts have been made to gather and verify such information 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.

The opinions, conclusions and recommendations in this Report are based on assumptions made by Suffolk County Council when preparing this report, including, but not limited to those key assumptions noted in the Report, including reliance on information provided by third parties.

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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 Suffolk County Council highlighting flooding to properties at a street level. Property owners and prospective purchasers or occupiers of property are advised to seek and rely on their own surveys and reports regarding any specific risk to any identified area of land.

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