## **Annex B**

# Summary Reports of S19 Investigations

## **Staines-Upon-Thames**

## Wheatsheaf Lane and Penton Hook Lane, Enquiry Reference: 100713

This report investigates the flooding events occurred in Wheatsheaf Lane and Penton Hook Road during and after Storm Henk in January 2024. The investigation complies with the requirements of Section 19 of the Flood and Water Management Act 2010.

#### **Flood Event Description:**

The most significant cause of this flooding was groundwater due to a wet winter, Storm Henk and the fact that river levels were high (and therefore groundwater had a very minimal pressure gradient down which to flow). The presence of sewage in the flood water in some areas exacerbated the impact of this flooding to residents.

Penton Hook Road and Wheatsheaf Lane are residential streets in Staines, Spelthorne. There are also two commercial units in the area which are 'The Thames Club' – a leisure centre and Brentford Park Football Club. Penton Hook Road is a private road and Wheatsheaf Lane is a publicly maintained highway.

Both roads are maintained by soakaways – those on Wheatsheaf Lane are connected to gullies whilst soakaways on Penton Hook Road are private systems located on driveways. The entire area is at risk of groundwater flooding, this was the main cause of flooding in the area. The fluvial flooding of the Thames meant that the groundwater could not flow towards the river and so flooding remained for 2-3 weeks.

A total of 23 properties were flooded, 13 of these were internal.

#### Recommendations:

Thames Water may consider:

- Investigating the cause of flooding to the sewers and exploring options preventing this occurring in the future.
- Preventing illegal surface water connections to the foul sewers.

Residents and business owners may consider:

• Accessing the property flood resilience grant of up to five thousand pounds if they are eligible; this can be found on Flooding - Surrey County Council (surreycc.gov.uk) under 'Storm Henk Recovery Grant Funding'.

• Continuing to report highway flooding to highways at Surrey County Council, property flooding to flood and climate resilience, and flooding of the sewers to Thames Water after each occurrence. For more information about who to contact, please use the Report Flooding Online page on the Surrey County Council website.

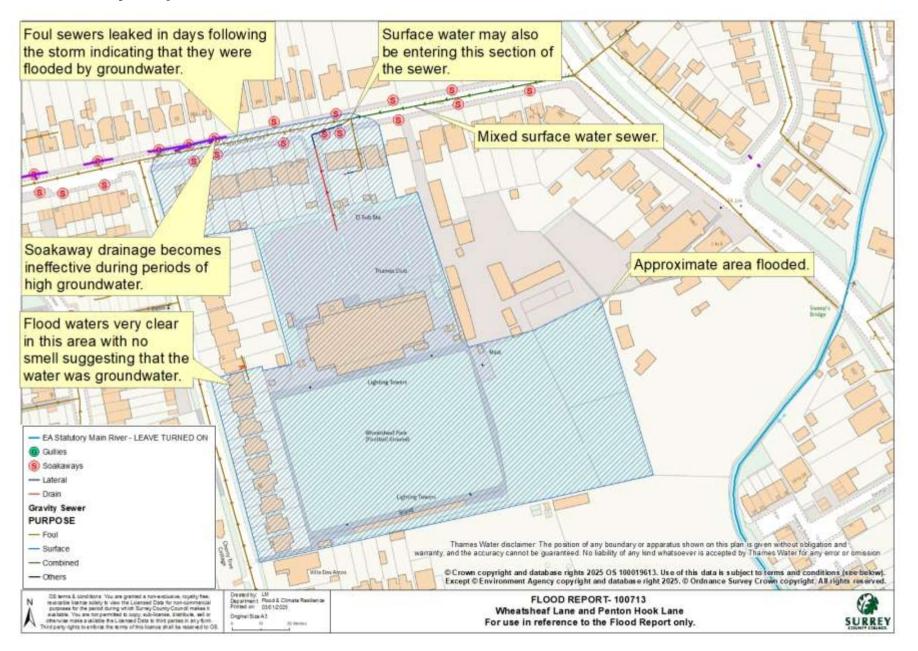
#### Actions taken/to be taken

#### Thames Water:

- Attended site day after flooding was reported to them.
- Attended site and pumped water away from a property. However, they stopped as the water was being recycled around the area and had nowhere to drain away.

#### Residents:

- Some properties have had Property Flood Resilience measures installed following flooding in previous years, including having concrete floors put in.
- The Thames Club Leisure Centre:
- Closed the building for half a day due to the flooding.



## Riverside Close, Enquiry Reference: 105105

This report investigates the flooding events occurred in Riverside Close during and after Storm Henk in January 2024. The investigation complies with the requirements of Section 19 of the Flood and Water Management Act 2010.

Significant parts of this area are at high risk of surface water, fluvial (river), and groundwater flooding.

#### **Flood Event Description:**

Riverside Close in Staines is a residential private road close to the Thames and was affected by fluvial flooding following Storm Henk.

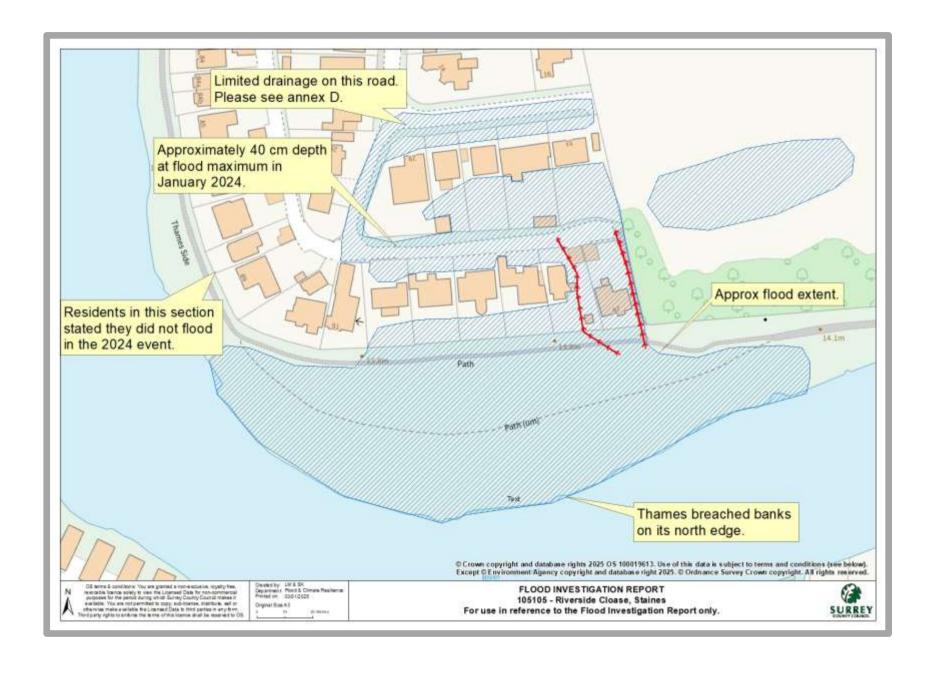
Some residents were not able to use sewage facilities during the flood, but this was not reported by residents to Surrey County Council that the flood water was contaminated. Some of the properties in the area have increased property resilience measures from previous floods.

The Thames breached its banks on the northern side in this area on the 6<sup>th</sup> January 2024. Water extended from the breach point across the flood plain and public path, eventually reaching properties. Flow extended west along the road from this point to low areas.

#### **Recommendations:**

Residents may consider:

- Landowners may consider:
- Property Flood Resilience measures to increase resilience to future floods.
- Signing up to flood warnings from the Environment Agency (if they have not already).
- Reporting any obstructions in the river, such as collapsed trees, to the Environment Agency.



## Budebury Road, Spelthorne, Enquiry Reference: 98600

This report investigates the flooding events occurred in Budebury road, Staines during and after Storm Henk in January 2024. The investigation complies with the requirements of Section 19 of the Flood and Water Management Act 2010.

Budebury Road is a residential street in Staines, Spelthorne. It is bordered on the north-eastern side by the Sweeps Ditch, a main river that flows southeast towards the River Thames. Properties in this area are at risk from surface water flow, groundwater, and overflow from both the Sweeps Ditch and the River Thames.

#### Flood Event Description:

#### Flood Impact:

- 0 external properties were affected by flooding.
- 2 internal properties experienced flooding.
- Obstructions found on Sweeps Ditch; however, the Sweeps Ditch did not flood.

#### Date of Flooding:

West side of Budebury Road flooded on 08/01/2024 following rainfall from Storm Henk on 04/01/2024.

#### **Drainage Issues:**

- Drains on the east side flowed into the Sweeps Ditch, which was able to drain due to lower river height.
- Rising groundwater caused drains to overflow on the west side.

#### Gully Inspection:

• Surrey County Council Highways inspected gullies on 11/01/2024 and found them clear but affected by groundwater and Sweeps Ditch levels.

#### **Property Flooding:**

- A property in Budebury Road flooded on 09/01/2024.
- Basement initially flooded by surface water flow from the road into the garage.
- Extensive flooding caused by rising groundwater through gaps in walls and backed-up pipes.

#### **Recommendations:**

#### The Environment Agency should consider the following:

• Interventions to clear the obstruction in The Sweeps Ditch.

Continue to coordinate with residents and RMAs to fulfil their duty.

#### **Surrey County Council should consider the following:**

- Continue to engage and coordinate with residents and RMAs fulfilling their duty to investigate flood events under section 19.
- Have no plans to carry out works to reduce the risk of ground water flooding
- Continue to record property flooding in this area and SCC to maintain highway assets in this area.

#### Landowners/Residents should consider the following:

- Apply for grants to install property flood resilience measures. See https://www.surreycc.gov.uk/community/emergency-planning-and-community-safety/flooding
- Sign up for flood alerts and warnings. See https://www.gov.uk/sign-up-for-flood-warnings
- Continue reporting property and sewage flooding to relevant authorities.
- Avoid draining surface water into foul sewers without permission and consultation of suitable drainage methods should be sought from a qualified professional.

#### Actions taken/to be taken

#### **Environment Agency**

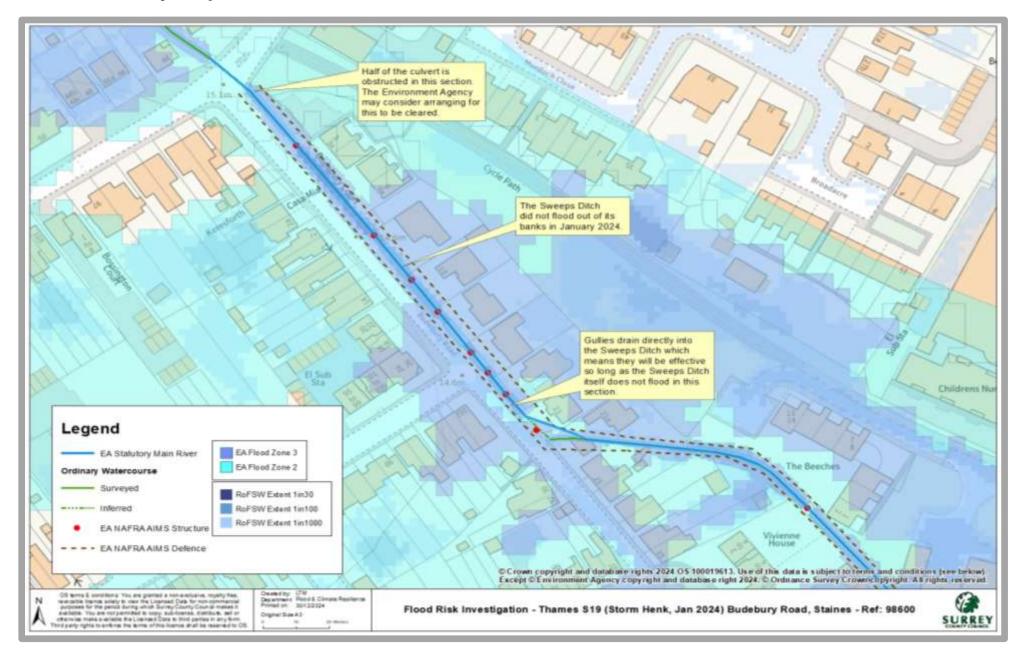
Awaiting response.

#### **Surrey County Council**

- Surrey Fire and Rescue services attended during the flood event, assessing and evacuating residents.
- Site Visits and Coordination: SCC flood and climate resilience officers have conducted site visits and coordinated with the residents, documenting concerns and information as per Section 19.
- Surrey County Council Highways inspected gullies.

#### Landowners/ Residents

Residents have reported flooding to SCC.



## Commercial Road, Parkside Place, Knightsbridge Crescent, Enquiry Reference: 99466

This report investigates the flooding events occurred in Commercial Road, Parkside Place and Knightsbridge Crescent during and after Storm Henk in January 2024. The investigation complies with the requirements of Section 19 of the Flood and Water Management Act 2010. Commercial Road is located in south Staines and its mainly a residential area with various housing types. These roads are public highways maintained by Surrey County Council. Drainage in the area includes gullies leading to soakaways and main rivers, particularly Sweep's Ditch. The local geology contains gravels which facilitate the movement of water into the river Thames. Thames, Sweep's Ditch and groundwater levels are therefore related. The area experienced more severe flooding in 2014 compared to 2024, with higher water levels and more internal property damage reported by residents.

#### **Flood Event Description**

#### Flood Impact:

- 3 external properties were affected by flooding.
- 1 internal properties experienced flooding.
- Properties affected by nonfunctional sewage systems during floods.
- Groundwater reached the surface, affecting Thames Water sewers.
- Thames River and Sweep's Ditch levels rose from 7<sup>th</sup> January, peaking on 10<sup>th</sup> January 2024.
- Submerged highway drainage outfalls, prolonging road flooding

#### Groundwater:

• High rainfall from Storm Henk (2<sup>nd</sup>-12<sup>th</sup> January 2024) saturated the soil, raising groundwater levels. The Thames River and Sweep's Ditch also rose, preventing groundwater from draining until river levels decreased post the flood.

#### Highway Drainage:

• Soakaways and pipes draining into the Thames tributaries and Sweep's Ditch became ineffective as outfalls were submerged. This caused water to back up onto Knightsbridge Crescent, with flooding lasting about a week.

#### Sewers:

• Groundwater infiltrated sewers through small gaps in the pipework, causing temporary malfunctions. Some residents couldn't use sewers for up to two weeks, though impacts varied where some residents experienced no issues.

#### Recommendations

#### The Environment Agency should consider the following:

• Reviewing the condition of the Sweeps Ditch in some areas. This would be to prevent the obstruction of flow in certain areas during a storm event.

#### **Surrey County Council should consider the following:**

• Continue to engage and coordinate with residents and RMAs fulfilling their duty to investigate flood events under section 19.

#### **Thames Water may consider:**

Improving the resilience of sewers to groundwater flooding.

#### Landowners/ Residents should consider the following:

- Apply for grants to install property flood resilience measures. See https://www.surreycc.gov.uk/community/emergency-planning-and-community-safety/flooding
- Sign up for flood alerts and warnings. See https://www.gov.uk/sign-up-for-flood-warnings
- Continue reporting property and sewage flooding to relevant authorities.
- Avoid draining surface water into foul sewers without permission and consultation of suitable drainage methods should be sought from a qualified professional.

#### Actions taken/to be taken

#### **Environment Agency**

· Awaiting response.

#### **Surrey County Council**

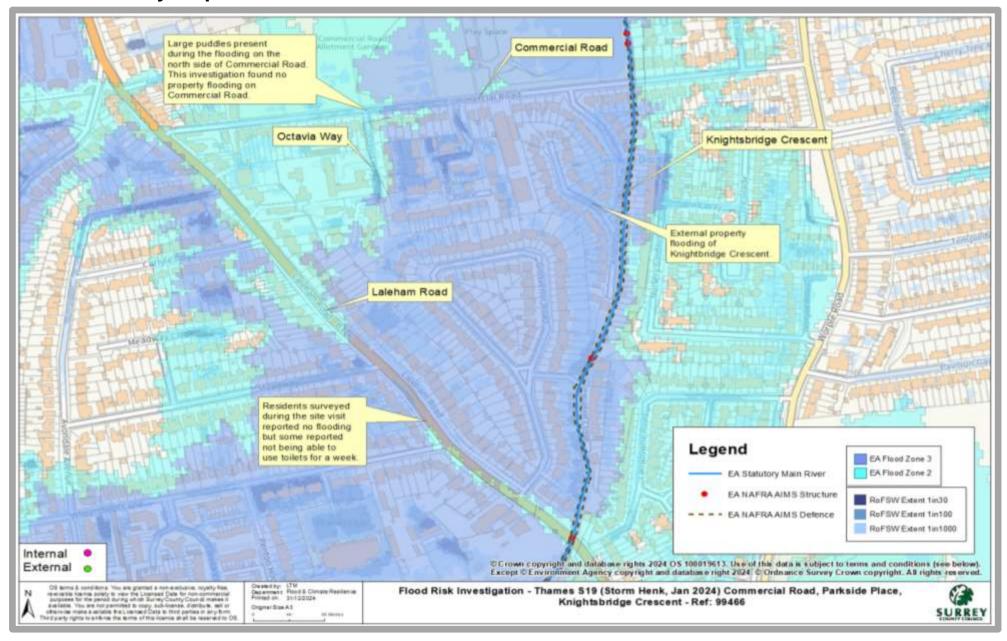
- Surrey Fire and Rescue services attended during the flood event, assessing and evacuating residents.
- SCC flood and climate resilience officers have conducted site visits and coordinated with the residents and the EA, documenting concerns and information as per Section 19.

#### **Thames Water**

- Awaiting response.
- Thames Water request that, flooding from a sewer, is reported at the time to our customer service centre via the following number 0800 316 9800. This will allow an initial response to the flooding. It is then requested that after the flooding from the sewer has subsided the Sewer Flooding Questionnaire, that can be found on our website at: https://www.thameswater.co.uk/media-library/home/help/emergencies/flooding/sewer-flooding-questionnaire.pdf is completed to formalise the report and allow collation of further data about the event.

#### Landowners/ Residents

Residents have reported flooding to SCC.



## Church Street, Enquiry Reference: 99658

This report investigates the flooding events occurred in Church Street during and after Storm Henk in January 2024. The investigation complies with the requirements of Section 19 of the Flood and Water Management Act 2010.

#### **Flood Event Description**

The southeast section of Church Street, Staines, is a side street off Staines High Street that features various commercial properties including services, businesses, restaurants and shops. These properties do not have front gardens but rather shop fronts which open directly onto a think pavement.

High levels of rainfall associated with Storm Henk caused surface water to accumulate outside properties. The drainage on the road is thought to have malfunctioned due to a broken pipe connection. The convexity of the road shape concentrated the water onto the north side of the road.

The flooding affected properties and impacted businesses. At least two businesses moved away from the area.

#### Recommendations

Residents may consider:

- Applying for the property flood resilience grant (storm Henk recovery grant funding) https://www.surreycc.gov.uk/community/emergency-planning-and-community-safety/flooding
- Implementing property flood resilience

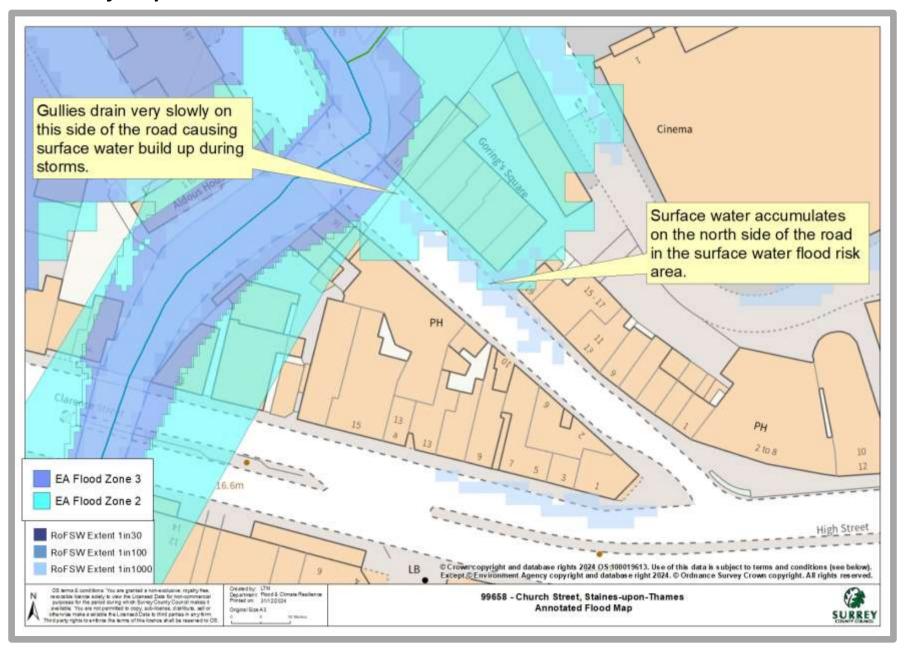
Surrey County Council Highways:

• Suspected broken pipe to be located, excavated and repaired.

#### Actions taken/ to be taken

**Surrey County Council Highways:** 

• Have located, excavated and repaired the suspected broken pipe. They have also cleared the gullies and carrier up to Bridge Street



## Guildford Street, Enquiry Reference: 99974

This report examines the flooding events caused by Storm Henk in January 2024 in the Ash Estates area. The investigation complies with the requirements of Section 19 of the Flood and Water Management Act 2010.

This relates to the area of Guildford Street, as well as some of the properties along Laleham Road. This area is approximately 300m from the River Thames and largely falls with the EA Flood Zone 2. Guildford Street sits lower than the surrounding areas and the low spot in the centre is shown by the surface water flood risk maps.

#### **Flood Event Description**

Source of flooding:

The main source of the flooding comes from the rising groundwater, which first begins infiltrating into the foul sewer and, as the groundwater levels rise, backs up out of the soakaway and highway gullies, flooding the road. With the surface water drainage unable to function, all additional surface water reaching the location exacerbates the existing flood on the highway.

#### Receptors of flood water:

Major flooding of the highway occurred as water seemed to discharge out of the highway gullies and the extent of this flooding closely matched what is shown by the surface water flood risk maps. This restricted vehicle access to the properties on the eastern half of Guildford Street and some of the footway was flooded on the south side at the lowest point. Some front gardens were partially flooded but no internal property flooding was reported. The properties along Guildford Street, as well as some in Edgecumbe Court, lost access to foul services during the flood event, as the groundwater rose and began infiltrating into the foul main.

#### Recommendation

#### Landowners/Residents should consider the following:

- Develop/maintain Community Flood Action Plans
- Applying for the property flood resilience grant of up to five thousand pounds if they are eligible; this can be found on under 'Storm Henk Recovery Grant Funding' https://www.surreycc.gov.uk/community/emergency-planning-and-community-safety/flooding
- Signing up for flood warnings if they haven't already https://www.gov.uk/sign-up-for-flood-warnings
- Continue reporting issues with the foul sewers to Thames Water (See main catchment report for further details).

#### The Environment Agency should consider the following:

• Review the Staines Groundwater Study and work with Surrey County Council to better understand the interactions between fluvial and groundwater flooding for the area.

#### **Spelthorne Borough Council should consider the following:**

• Making sandbags available to residents during future flood events to mitigate the impact of bow waves when vehicle drive through flood water.

#### Thames Water should consider the following:

- Lining the main foul system along Guildford Street to reduce infiltration from groundwater and make foul services more resilient to future groundwater flooding.
- Monitor the effects of groundwater on the foul system after it has been lined.

#### **Surrey County Council should consider the following:**

- Surrey Highways to check gullies after a flood event and record silt levels this is needed to differentiate between blockages and periods of high groundwater.
- Surrey Highways to arrange parking suspensions ahead of cyclic gully cleaning to ensure are gullies are accessible.

#### Actions taken/ to be taken

#### **Surrey County Council:**

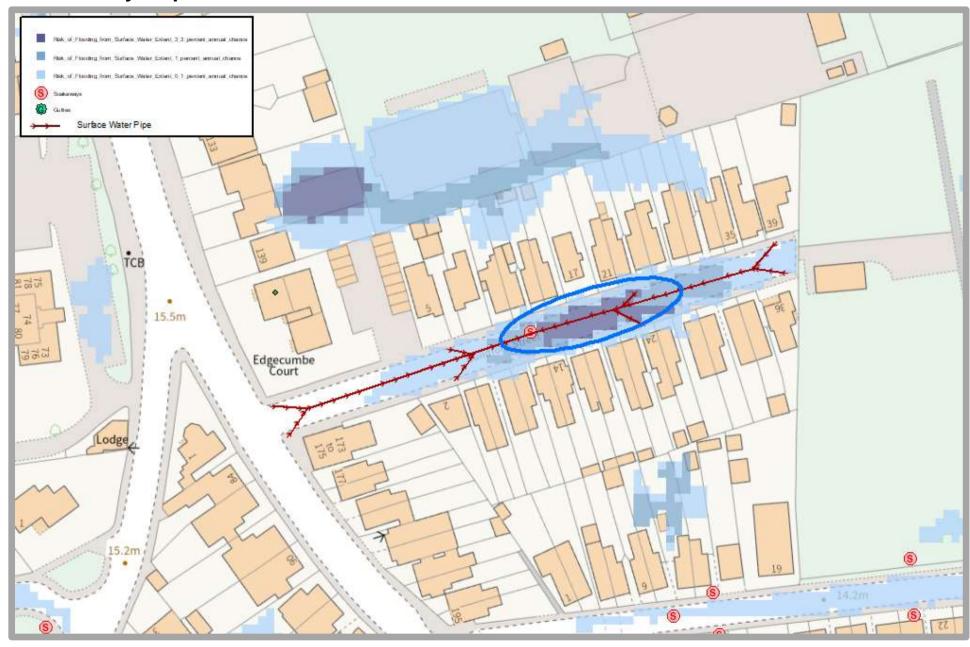
- Surrey Highways attended site during flooding.
- Surrey Highways carried out additional gully cleansing after the flood event on dates 00/07/2024 and 23/07/2024.
- Surrey Highways undertook drainage surveys of the surface water system after the flood event.

#### **Spelthorne Borough Council:**

• Liaison undertaken with residents by senior officers.

#### **Thames Water:**

- Directed an available tanker to suck up the surface water during the flooding.
- Carried out a survey of the foul system along Guildford Street.
- Attended multiple site meetings with residents and other Risk Management Authorities.



# Chertsey Lane, including Timsway, Bundys Way and Mayfield Gardens, Enquiry Reference: 106475

This report examines the flooding events caused by Storm Henk in January 2024 in Chertsey Lane, including Timsway, Bundys Way and Mayfield Gardens and immediate area. The investigation complies with the requirements of Section 19 of the Flood and Water Management Act 2010.

#### **Flood Event Description**

Chertsey Lane in Staines is a residential area on the west side of the Thames in Runnymede. The area is in flood zone 3 and at high risk of fluvial flooding, with some parts at high risk of surface water (pluvial) flooding. Mayfield Gardens, Bundys Way, and Timsway, are residential roads coming east off Chertsey Lane. Flooding was reported in this area between the 2<sup>nd</sup>-12<sup>th</sup> January 2024.

Some properties back onto the River Thames and were affected directly by rising river levels. However, many residents at Mayfield Gardens, Timsway, and Chertsey Lane were affected by flooding from Chertsey Lane. The river broke bank at a low section of bank at Bundys Way, subsequently flooding Chertsey Lane, Mayfield Gardens, and Timsway.

#### Recommendations

#### Residents may consider:

- Applying for the property flood resilience grant https://www.surreycc.gov.uk/community/emergency-planning-and-community-safety/flooding
- Signing up for flood alerts and warnings if they haven't already.

#### Surrey County Council:

Consider implementing a Flood Action Group in this area.

#### **Environment Agency:**

• May consider examine the opportunities to identify impacts of the flood path which originates at a low point in Bundys Way.

#### **Actions Taken**

#### **Environment Agency:**

- PFR scheme for the River Thames Scheme delivered around 2017 in this area.
- Flood alert from Datchet to Shepperton Green.
- Flood warning for properties closest to the river from Runnymede Please Grounds to Penton Hook.
- Officers attended Timsway and Chertsey Lane.

#### Runnymede Borough Council:

• Opened up a rest centre for residents displaced by flooding, conducted welfare calls, supported partners with reports of property flooding.

#### Thames Water:

• Blockage investigation and external investigation of sewer flooding at Chertsey Lane.

