SURREY
COUNTY COUNCIL

Lingfield Section 19 Report: 1 August 2024

Contents

Introduction

This report details the flooding that occurred across two sites in Lingfield, Tandridge District, following a period of heavy rainfall on the evening of 1 August 2024: see Annex A for locations. Overall, Surrey County Council (SCC) are aware of 54 properties that had been flooded across these two sites: see Table 1. It is likely this number does not accurately reflect the impact of the flood event as the recoding and investigation of property flooding is triggered by reports directly to SCC.

SCC defines internal property flooding as flooding within the liveable space of the property (including garages within the fabric of the building). External property flooding is defined by SCC as flooding outside of the liveable space, this includes driveways, gardens, and garages adjacent or separate to the main building.

This report will summarise the cause of property flooding, actions of risk management authorities involved, their responsibilities and recommendations moving forward, in addition to ongoing works in the area.

Under the Flood and Water Management Act 2010 the Lead Local Flood Authority (LLFA) must (to the extent that it considers it necessary or appropriate) undertake an investigation upon becoming aware of a flood incident within its area. An LLFA is defined under Section 6(7) of Flood and Water Management Act as being the county council for that area.

This document is not an action plan or an agreement that the recommendations provided in this report will be completed by the relevant RMAs, unless there is a duty to do so. This report focuses solely on the flooding within Lingfield, Surrey. However, the findings of this report will be shared with Risk Management authorities including SCC Highways, Tandridge District and Southern Water in order to work collaboratively and as a part of the duties under Section 13 of the Flood and Water Management Act 2010.

Locations of the Investigations

Table 1. Flood Incident Locations

Location	Internal Flooding Reports	External Flooding Reports (inc. those internally flooded)
Site 1. Saxbys Lane, Bakers Lane, Bakers Close, Ash Close, Little Lullenden, Station Road	28	42
Site 2. Racecourse Road	4	12

Weather Conditions

On the evening of 1 August 2024, Surrey experienced a storm event that prompted the Met Office to issue a yellow weather alert. Between 1730- 2000 approximately 54mm of rainfall was recorded, based on average data from local gauges at Godstone and Eden Vale. Approximately 95% of the monthly average rainfall occurred within this 2.5-hour period.

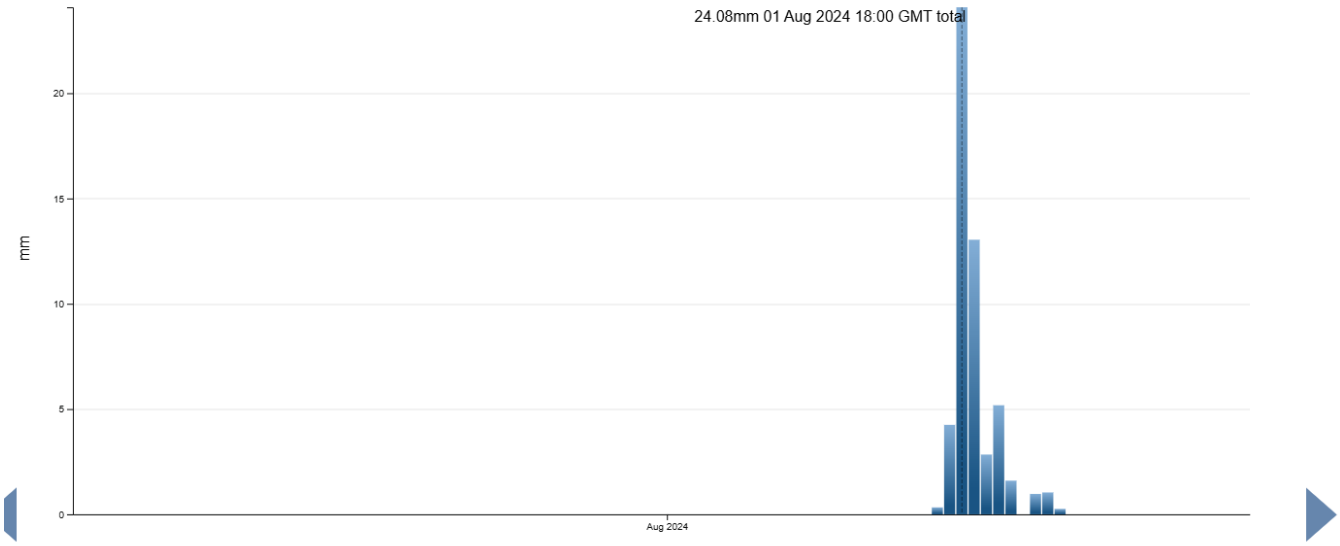


Figure 1. Godstone gauge: Rainfall data for 1 August 2024

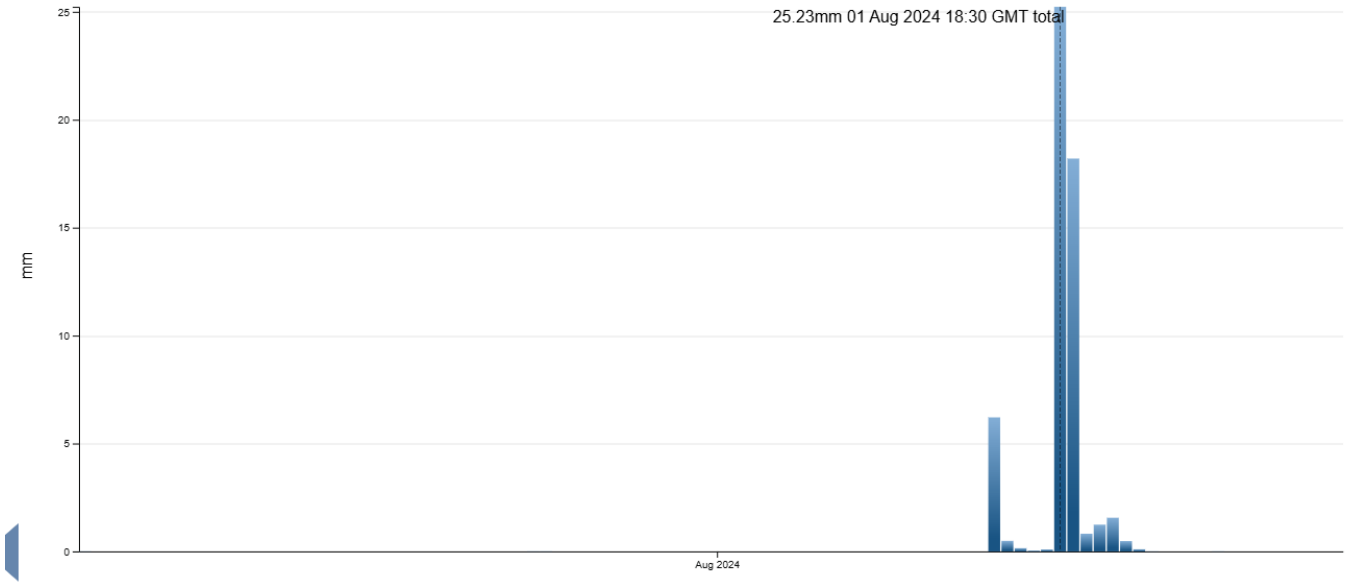


Figure 2. Eden Vale gauge: Rainfall data for 1 August 2024

Background

Lingfield is situated in the southeast of Tandridge District, Surrey, UK. Both sites sit within the Eden Brook Catchment - a tributary of the Medway, with Site 1 draining east and Site 2, north: see Annex A. The properties within both sites range in flood risk from low (1 in 1000) to high (1 in 30) of surface water flooding: see Annexes B and C. The updated National Flood Risk Assessment models indicate that some properties are at high risk to flooding of up to a depth of 300mm.

The bedrock is of Upper Tunbridge Wells sand geology, a permeable sandstone that allows surface water to infiltrate easily. There is a limited potential for groundwater flooding. Although the area is close to the Eden Brook, there is no mapped risk to fluvial (river) flooding.

Residents who live in the area of Site 1 have reported that flooding to the area is common with roads becoming impassable, however, the extent to which properties were flooded on 1 August 2024 has not occurred before. The fields to the east of the railway line (east of Station Road) are noted to frequently flood during heavy rainfall, however on 1 August 2024 this was not observed.

Residents who have lived in the area of Site 2 also confirmed that flooding has been an ongoing issue as far back as 1976 (earliest account). However, changes to the highway including the installation of pavements had kept the water to the road whereas previously water could easily drain into an adjacent watercourse.

Main Causes of flooding:

Flooding across Lingfield on 1 August 2024 was primarily caused by heavy rainfall that exceeded the capacity of local drainage systems and ordinary watercourses. Specific areas experienced significant flooding beyond anticipated levels due to a combination of natural and human factors. The flooding was concentrated in two distinct areas, outlined in Annex A.

It was noted that at Site 1, although there were some obstructions to road gully grates, the rate at which rain fell would have likely overwhelmed the systems even if they had been clear. The connections of the highway drainage systems are poorly understood; however, surveys are due to be undertaken at the time of writing to better understand these.

It is important to note that although the geology of Site 1 and 2 makes for good drainage, much of this land has been built over with hard standing area, decreasing the rate of permeability and increasing the rate of surface runoff.

Method of Investigation

This investigation has been undertaken using a combination of desk and site-based studies to the determine the causes and frequency of flooding; these are detailed in the sub sections below.

This investigation included correspondence with relevant Risk Management Authorities including Tandridge District Council, The Upper Medway Internal Drainage Board, Southern Water, Network Rail and Surrey County Council Highways.

Roles and Responsibilities

There are a range of Risk Management Authorities (RMAs) which together cover all sources of flooding.

The Environment Agency (EA) is responsible for taking a strategic overview of the management of all sources of flooding and coastal erosion in England and Wales. They have prepared strategic plans which set out how to manage risk, provide evidence (for example their online flood maps), and provide advice to the Government. They provide support to the other RMAs through the development of risk management skills and provide a framework to support local delivery. The EA also has operational responsibility for managing the risk of flooding from main rivers, reservoirs, estuaries and the sea, as well as being a coastal erosion RMA. Main Rivers are defined through a map which is updated annually. These tend to be the rivers which pose a significant risk to property in the country and the EA have permissive powers to carry out maintenance works on them.

Lead Local Flood Authorities (LLFAs) are responsible for developing, maintaining and applying a strategy for local flood risk management in their areas. As part of this, the LLFA liaises regularly with the EA as well as the other RMAs. They need to produce reports when there is a reported flood, and they have to keep a register of flood risk management assets. They also have responsibility for managing the risk of flooding from surface water and groundwater.

District and Borough Councils can carry out flood risk management works on ordinary watercourses. Ordinary watercourses are rivers which are not designated as ‘Main Rivers’. Through the planning processes, they control development in their area, ensuring that flood risks are effectively managed.

Water and sewerage companies are responsible for managing the risks of flooding from their drainage systems, including both their surface water only systems and combined sewer systems.

Highway Authorities are responsible for providing and managing highway drainage and roadside ditches and must ensure that road projects do not increase flood risk.

Site 1. Saxbys Lane, including Bakers Lane, Bakers Close, Ash Close, Little Lullenden and Station Road, Enquiry Reference: 161866

This report examines the flooding caused by the storm event on 1 August at Site 1, this investigation complies with the requirements of Section of the Flood and Water Management Act 2010.

There was a secondary flood incident during the night of 22 September 2024, however, this was not as significant as the 1 August. Flooding had occurred in the same way as had done during the earlier rainfall event.

Causes of flooding:

- Storm event: high rainfall event given a yellow warning by the Met Office. Rainfall began on the evening on 1 August 2024 and persisted throughout the night.
- Surface water flooding:
    - Exceedance of highway drainage systems compounded by obstructions to road gullies.
    - Lack of private drainage including water discharging from hard standing areas (driveways) directly onto roads; private guttering discharging onto ground.
    - Obstructions to surface water flow routes including fencing and buildings, creating a damming effect which increased flood depth.
    - Obstructions to piped watercourses as well as silt build up within open watercourses
- Sewage flooding: Surface water infiltration into foul system caused surcharging from these systems causing flooding to properties along the eastern end of Bakers Lane. Possible diluted sewage presence on Station Road.

Flood Event Impact:

- 28 properties were affected by flooding internally, and 40 externally (this number is inclusive of the properties flooded internally). These numbers are likely to be higher due to lack of reporting.
- Residents had taken some reactionary measures to mitigate flooding including the lifting of fence panels to allow for continuation of flow, and the pumping of surface water out of properties. This is likely to have reduced the number of properties that flooded.
- Sections of Station Road were inaccessible to road users and foot traffic.

Recommendations:

Recommendations are not instructions and need to be examined by the relevant Risk Management Authority or individual and for them to decide on whether action the recommendation or not. The LLFA cannot require a third party to deliver a recommendation action.

Landowners:

- To consider installing property flood protection measures which could include flood doors and waterproof air bricks to mitigate internal property flooding.
- To consider installing and/or improving private drainage. This might include aco-drains and water butts.
- To consider working with other neighbours to ensure water is able to flow freely by lifting fence panels and other obstructions prior to storm events.
- To consider forming a flood action group.

Surrey County Council:

SCC Flood and Climate Resilience:

- Inform landowners of maintenance required on watercourses.

- To consider the feasibility of Natural Flood Risk management or other infrastructure investment to reduce the risk of flooding from surface water.
- Inform partner authorities of the results of this investigation.

Surrey Highways:

- To review the extent of highway drainage including a survey of the piped network to identify its locations, confirm if it is a highway drain or surface water sewer and identify any obstructions within the network.
- As part of the survey, to consider jetting road gullies where obstructions are found.
- Review and update the wetspots details where the highway is impassable so that this can be assessed for work if required.

Tandridge District Council:

- To consider review of street cleaning cycle to prioritise roads vulnerable to flooding, prior to storms.
- To consider working with residents to develop an emergency plan to respond to flooding, and exercise this plan.
- Work with SCC to consider this area for flood risk management investment.

Network Rail:

- To undertake maintenance of culverts beneath railway to ensure free flow of water through channel as per riparian responsibility under Section 25 of the Land Drainage Act 1991.

The Upper Medway Internal Drainage Board:

- May consider frequently monitoring the watercourses that are within the River Medway catchment to ensure landowners are undertaking necessary maintenance works as per riparian responsibility to ensure free flow of water.

Actions taken:

Surrey County Council:

- SCC Flood and Climate Resilience officers have conducted site visits as part of the Section 19 Investigation.
- SCC Highways have undertaken survey and jetting works on the gullies of Saxbys Lane to identify blockages to these assets and their connections. Gullies are now functional.
- SCC Fire & Rescue blue light response on evening of flooding to dig relief ditch allowing for water to drain into watercourse.

Upper Medway Internal Drainage Board:

- Have undertaken a site visit to land east of the railway to review condition of ordinary watercourse. Found on this investigation were obstructions to Network Rail assets, prompting the action below.

Network Rail:

- Obstructions to Network Rail assets have been flagged by their maintenance team. SCC will be updated when works will take place.

Southern Water:

- Responded to foul sewage flooding on day of flooding.
- Informed SCC on SW assets held in the area.

Site 2. Racecourse Road. Enquiry reference number: 163218

Causes of Flooding:

- Storm event: High rainfall event given a yellow warning by the Met Office. Rainfall began on the evening on 1 August 2024 and persisted throughout the night.
- Surface water flooding:
    - Obstructions to open ordinary watercourses downstream of connected highway drainage prevented water from draining away. This caused water to back up and surcharge through connected road gullies.
    - Obstructions to the inlets of culverted sections of watercourse.
    - Obstructions to some highway gully grates keeping water to the road.

Impact of Flood Event:

- 4 properties flooded internally and 12 externally (this number is inclusive of the properties flooded internally).
- Flooding affected road and pavements making it dangerous for both vehicle and foot traffic.

Recommendations:

Landowners:

- To maintain watercourses within or adjacent to their property as per riparian responsibility stipulated under Section 25 of The Land Drainage Act 1991.
- Might consider implementing additional flood protection to help protect their land and property such as property flood management (PFR) measures. Consultation of suitable drainage methods should be sought from a qualified professional.

Surrey County Council Highways:

- May wish to consider investigating the area to establish if it is eligible for capital investment under the wetspot programme.

Tandridge District Council:

- May consider this area being logged as high risk to surface water flooding to aide in mitigative measures to reduce flooding such as sandbag distribution.
- To consider reviewing frequency of street cleaning cycle.

Actions taken:

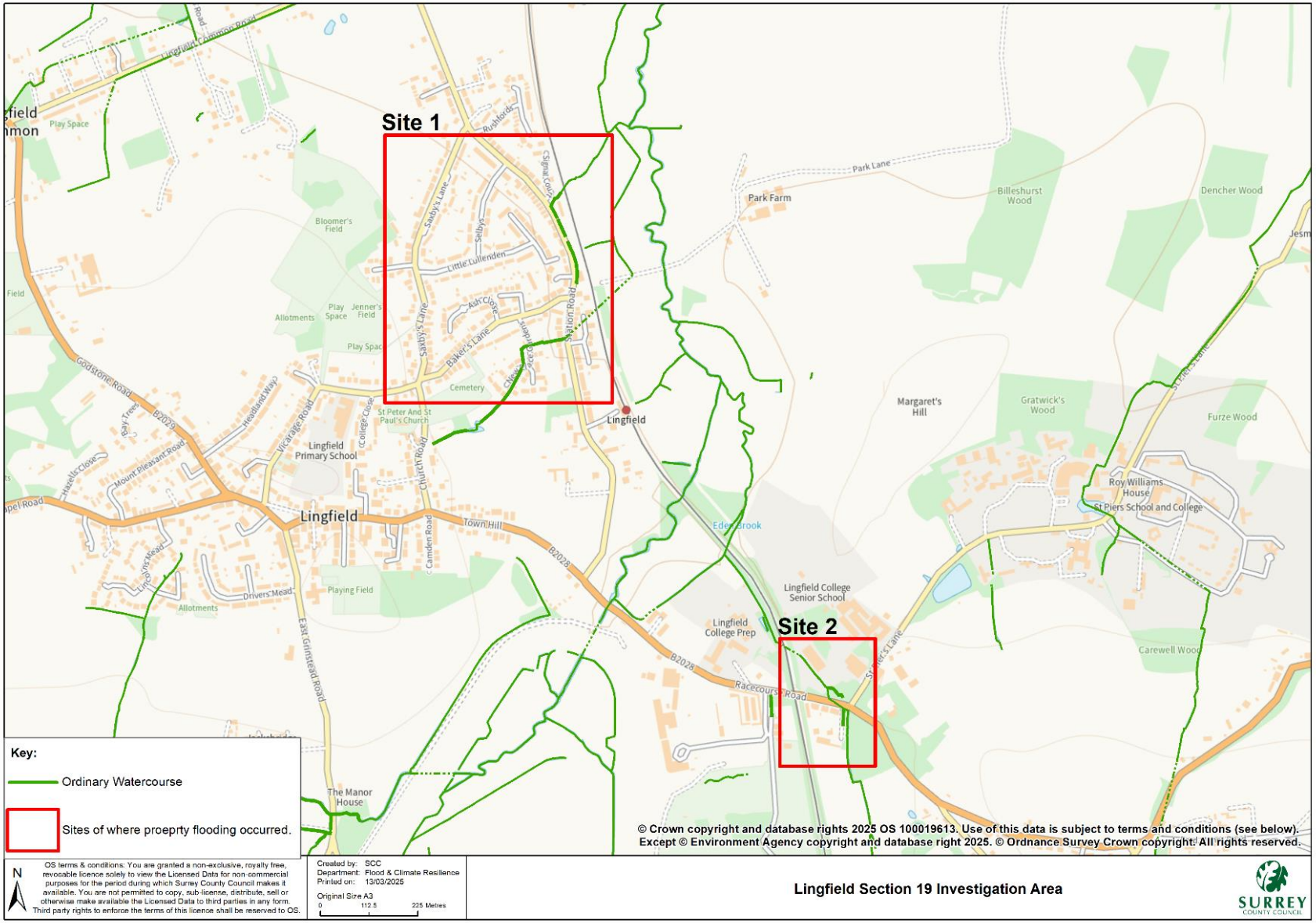
Surrey County Council:

- SCC Flood and Climate Resilience Officers have undertaken a site visit to the area to assess the causes of flooding as part of the Section 19 Investigation.
- SCC have informed landowners informed of riparian responsibilities and instructed on sections of ordinary watercourse that require maintenance.
- SCC Highways have undertaken gully jetting works on highway drainage assets.

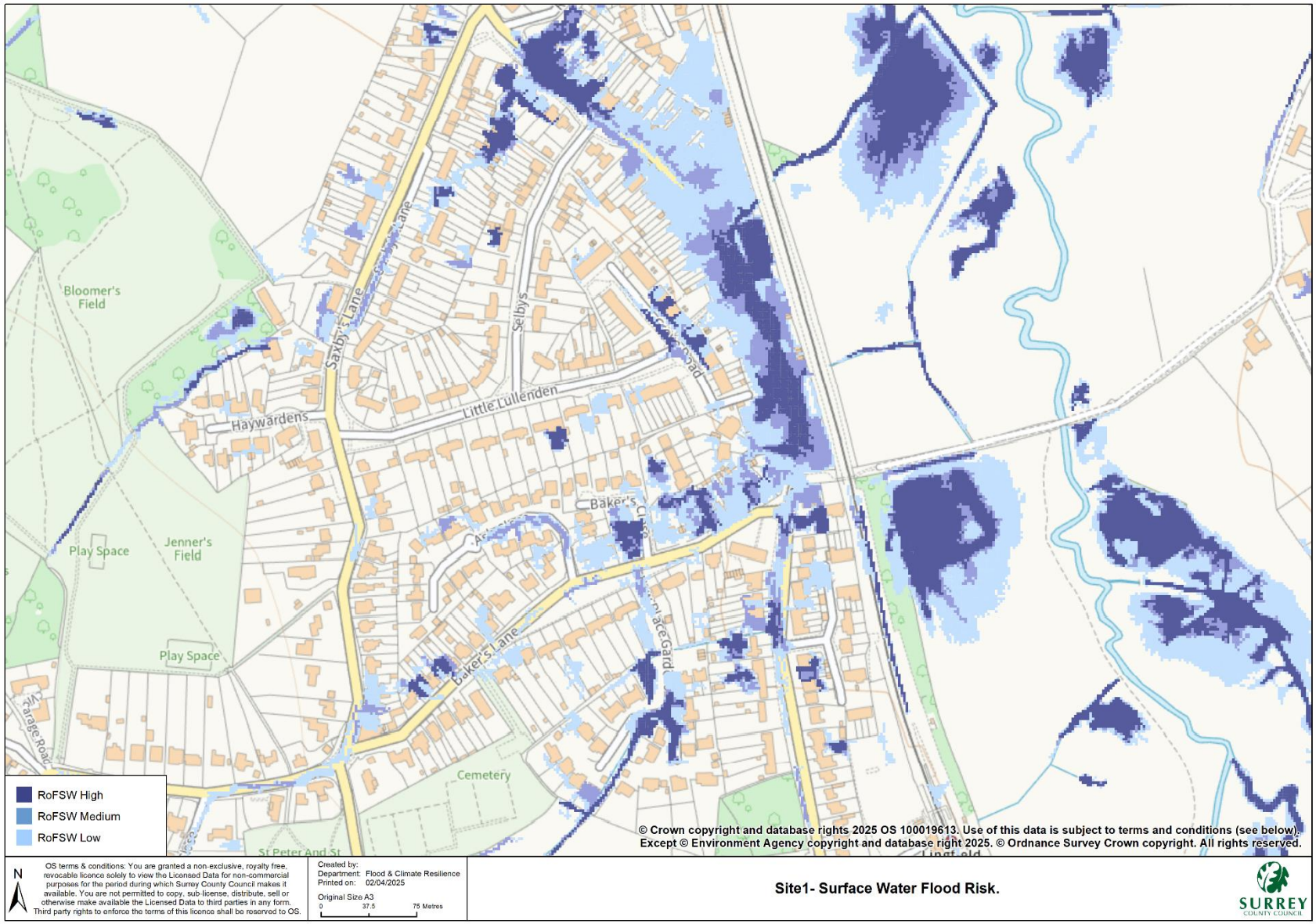
Landowners:

- Have reported flooding to SCC.
- Have undertaken necessary ordinary watercourse maintenance works on their properties. Water can now drain away from the highway drainage via the watercourse however the condition of the watercourse should be monitored.

Annex A. Site Locations



Annex B. Site 1- Surface Water Flood Risk



Annex C. Site 2- Surface Water Flood Risk