Summary Reports of Worplesdon S19 Investigations

Annex A

Location 1

Enquiry Reference: 105631

Flood Event Summary:

On January 4, 2024, during Storm Henk, several properties were affected by flooding. Water up to 18 inches (450mm) deep flowed along the highway, inundating properties in lower areas or those with drop kerbs. The affected roads are situated on a shallow hillside, with higher ground to the east and lower ground to the west and are bordered by ditches in need of maintenance. The area experiences surface water runoff from east to west, managed by an interceptor ditch that discharges into a sewer, leading to an open watercourse.

Recommendations:

Surrey County Council Highways: Carry out maintenance of the watercourses under their ownership and once the open sections area clear remove any silt or debris build found within the highway culverts.

Landowners: Continue or commence a regular maintenance schedule of the watercourse in or adjoining their land. Carry out an assessment of flood risk to their properties and implement any mitigation measures to resist or recover from water ingress. It is strongly encouraged that any future incidents.

Flood Risk Maps:

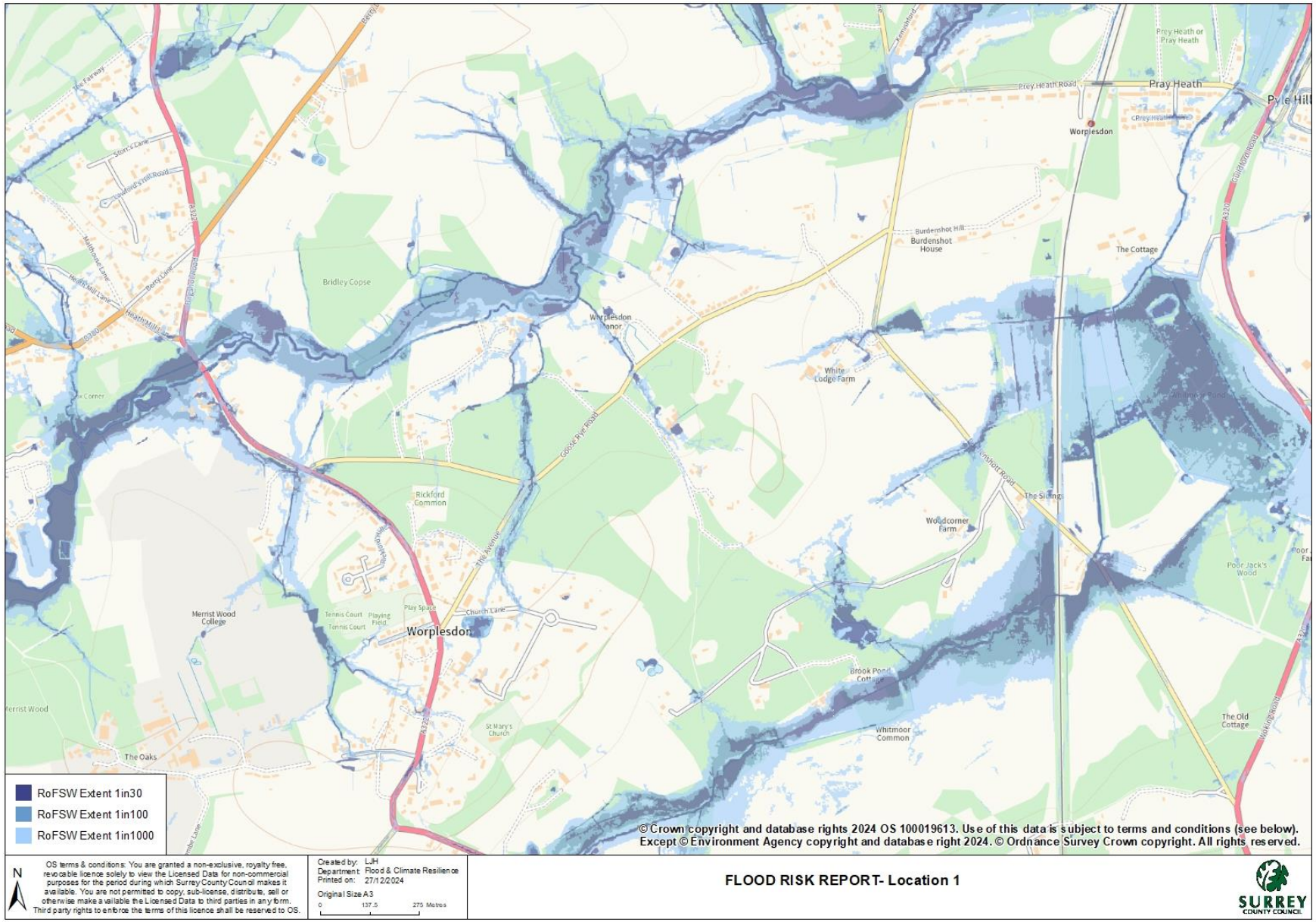

Figure 1: Surface water flood risk map, Location 1

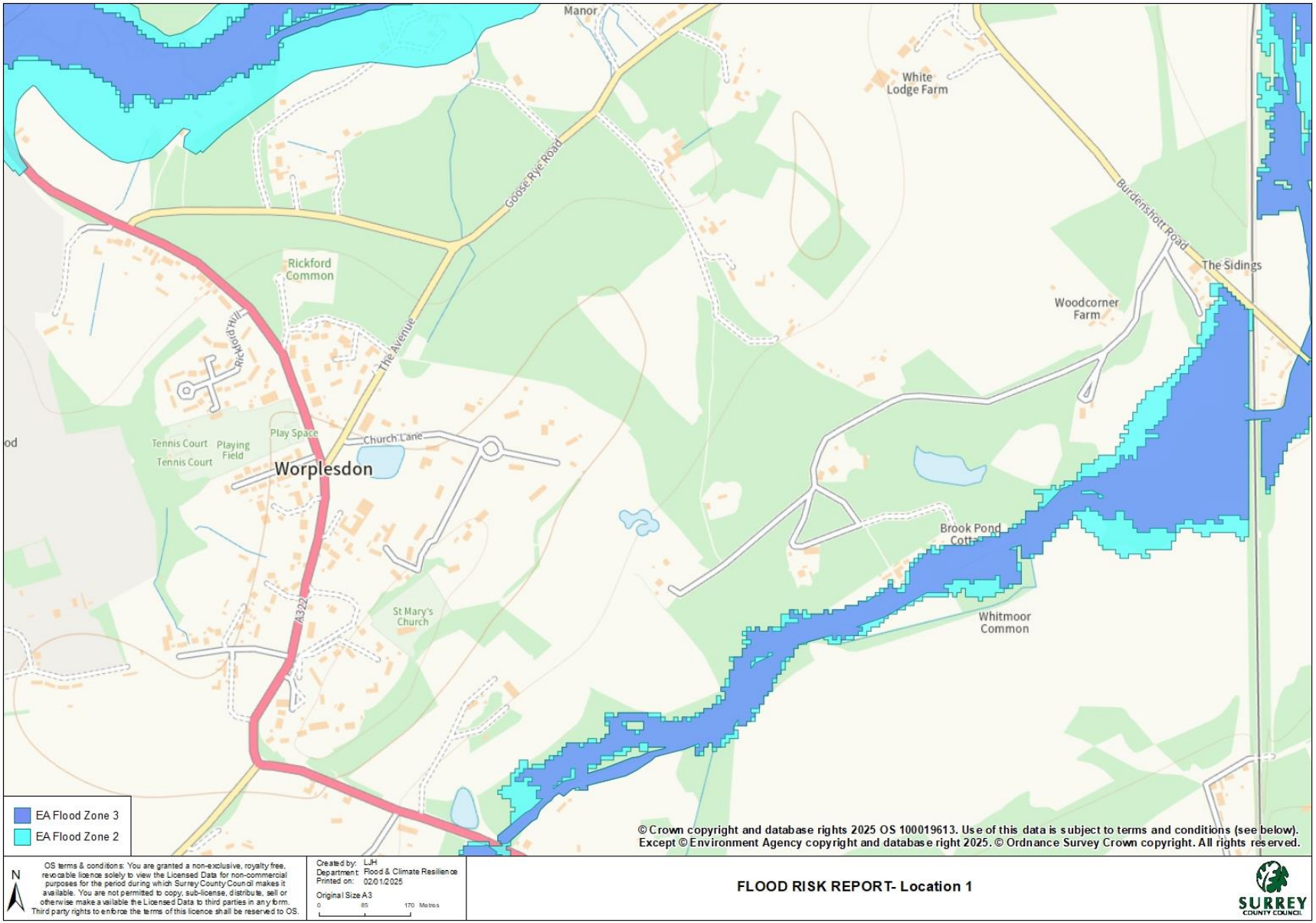

Figure 2: Fluvial flood risk map, Location

Annex B

Location 2

Enquiry Reference: 105265

Flood Event Summary:

Flooding occurred as a result of a surcharging ordinary watercourse, exacerbated by a severe storm that brought heavy rainfall. The watercourse experienced significant obstructions, which contributed to the flooding. The intense rain caused water levels to rise rapidly, and the water eventually overtopped the banks upstream of the property boundaries. As a result, the excess water flowed across the land, crossing under fences and surcharging through inspection chamber lids located in the gardens and driveways of the affected properties. This incident highlighted the importance of maintaining unobstructed watercourses to prevent flooding and protect properties from water ingress.

Recommendations:

Landowners:

- Continue or commence regular maintenance of their sections of watercourse to ensure they are free of obstruction.
- Identify any mitigation measures appropriate to their properties to make them resistant or resilient to the flood risk.

Surrey County Council:

- Continue to work with the landowners to see that the northern – downstream – stream sections of watercourse are maintained and carryout any work required to ensure the highway drainage is free of obstruction.
- Monitor future enquiries for any further issues through business-as-usual reporting processes.

Flood Risk Maps

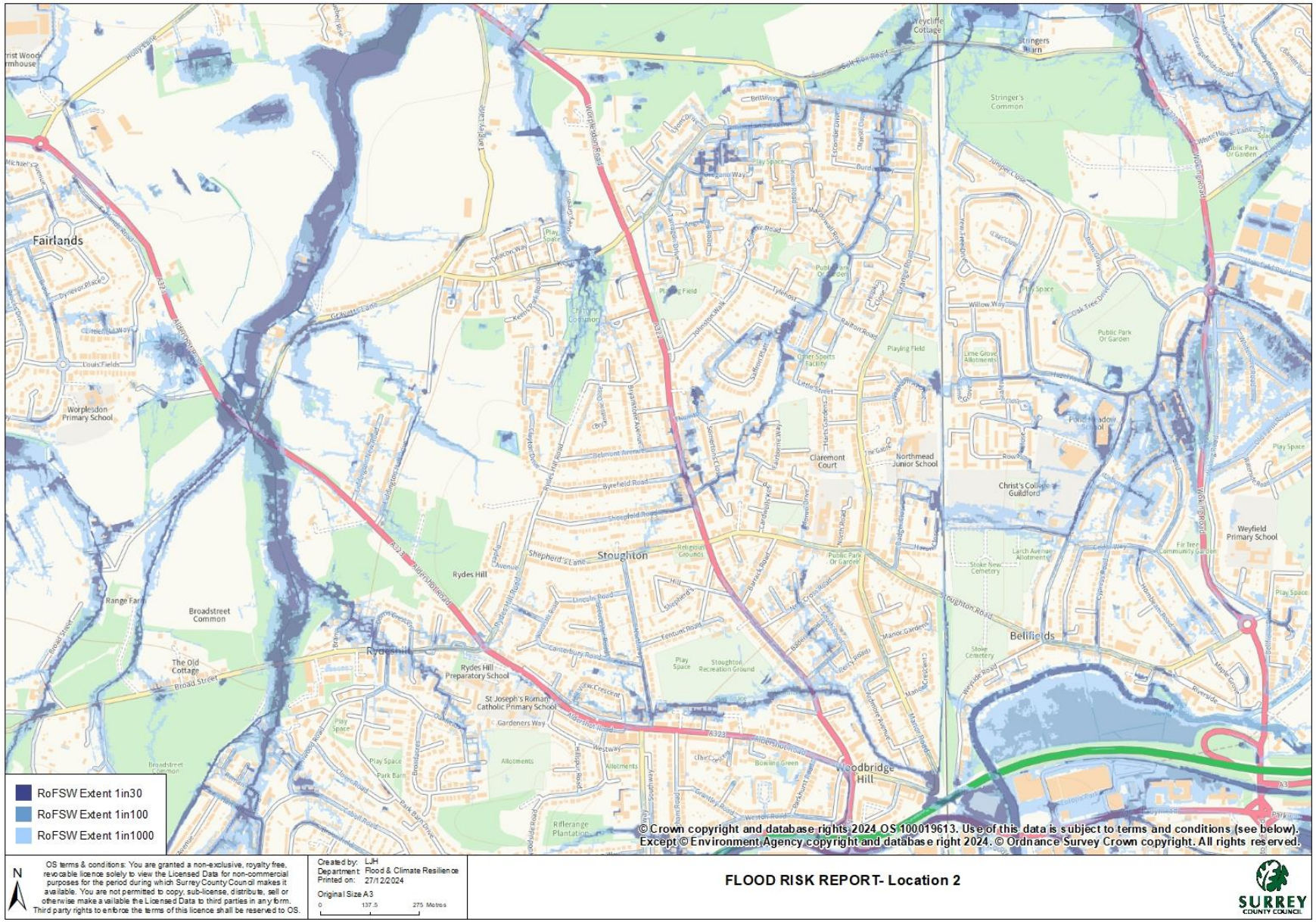

Figure 3: Surface water flood risk map, Location 2

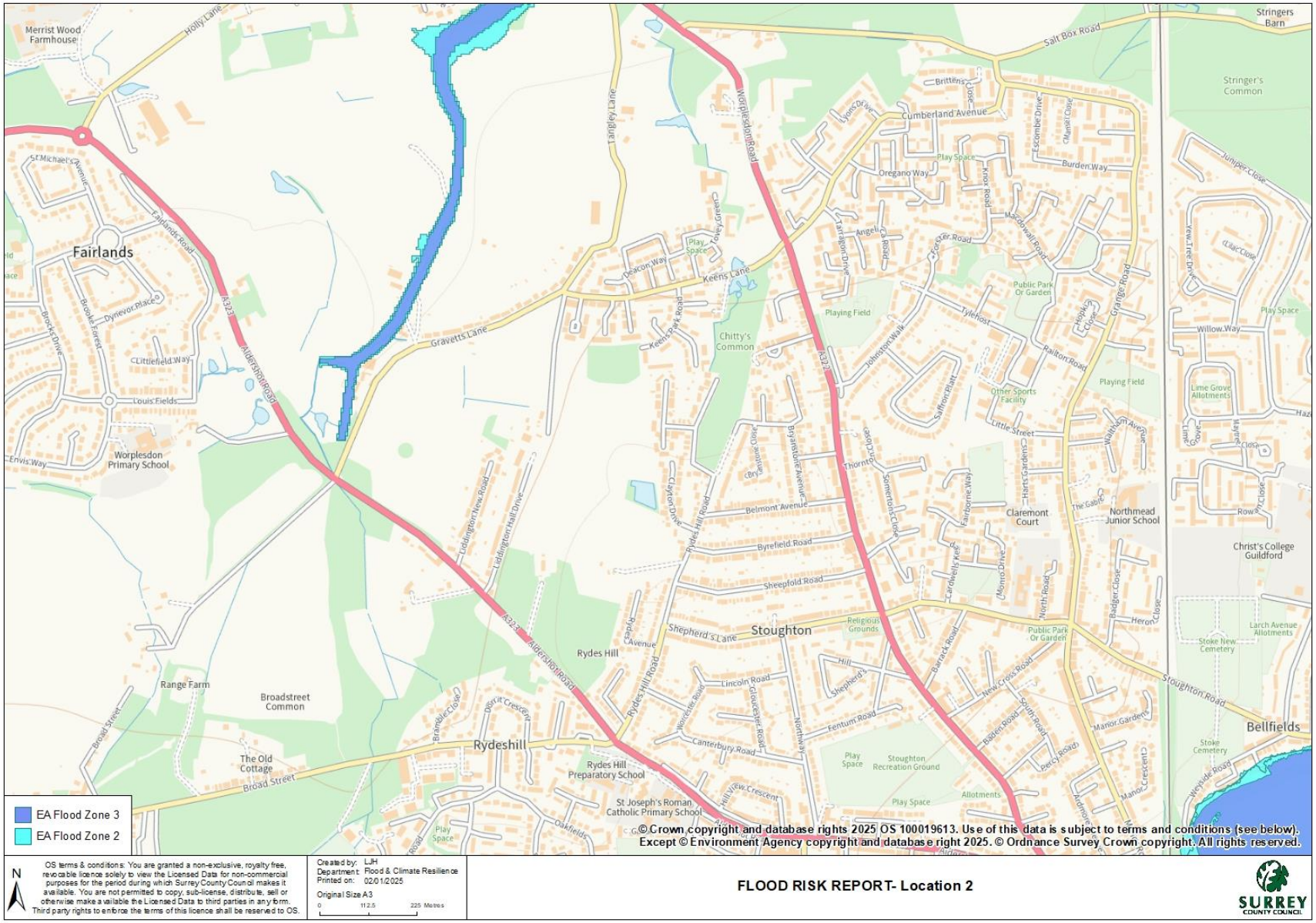

Figure 4: Fluvial flood risk map, Location

Annex C

Location 3

Enquiry Reference: 99280

Flood Event Summary:

On January 4th, a significant blockage in the watercourse led to a substantial backup of water, causing fluvial flooding following heavy rainfall during a named storm, Storm Henk. This resulted in external flooding of several properties and internal flooding in at least four reported cases. It's important to note that while there were no prior reports of flooding in this specific location, there have been frequent instances of flooding further north on Frog Grove Lane due to the main river overtopping. Additionally, on November 27th, Storm Conall caused another severe flood that affected 39 properties internally, which is currently under investigation at the time of writing this report.

Actions:

Upon inspection, it was found that the blockage had been effectively removed, allowing the watercourse to flow freely once more. The swift response helped to mitigate further damage, but the initial flooding had already impacted several properties. Further investigation into flooding from Storm Conall is being carried out.

Recommendations:

- Guildford Borough Council to maintain the ditch and culvert within their property, making sure that the inlet culvert is free from obstructions.
- Guildford Borough Council and Worplesdon Parish Council to promote resilience amongst residents to not fly tip.
- Surrey County Council to maintain ditches and culverts within their land, to ensure the free flow of water.

Flood Risk Maps

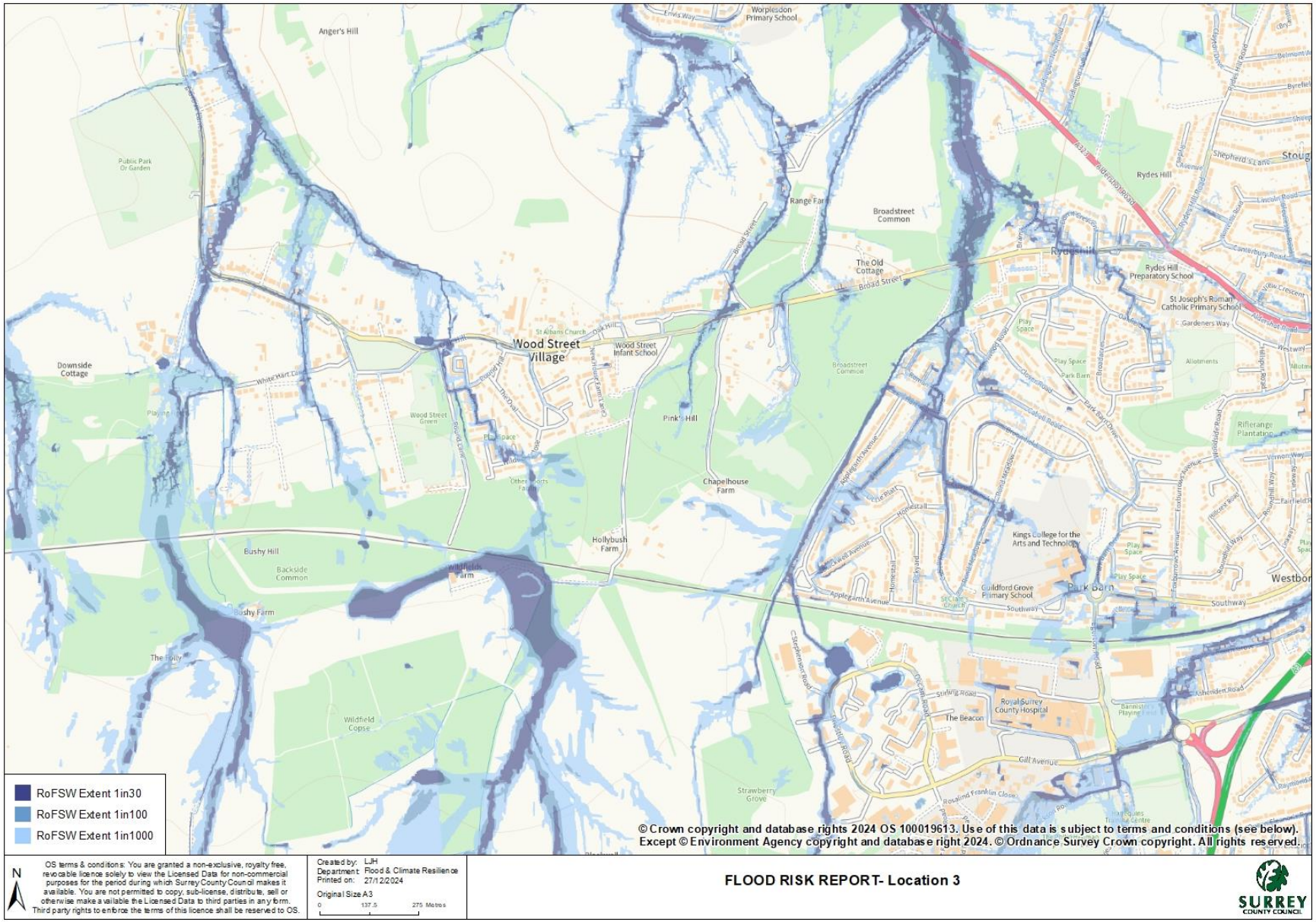

Figure 5: Surface water flood risk map, Location 3

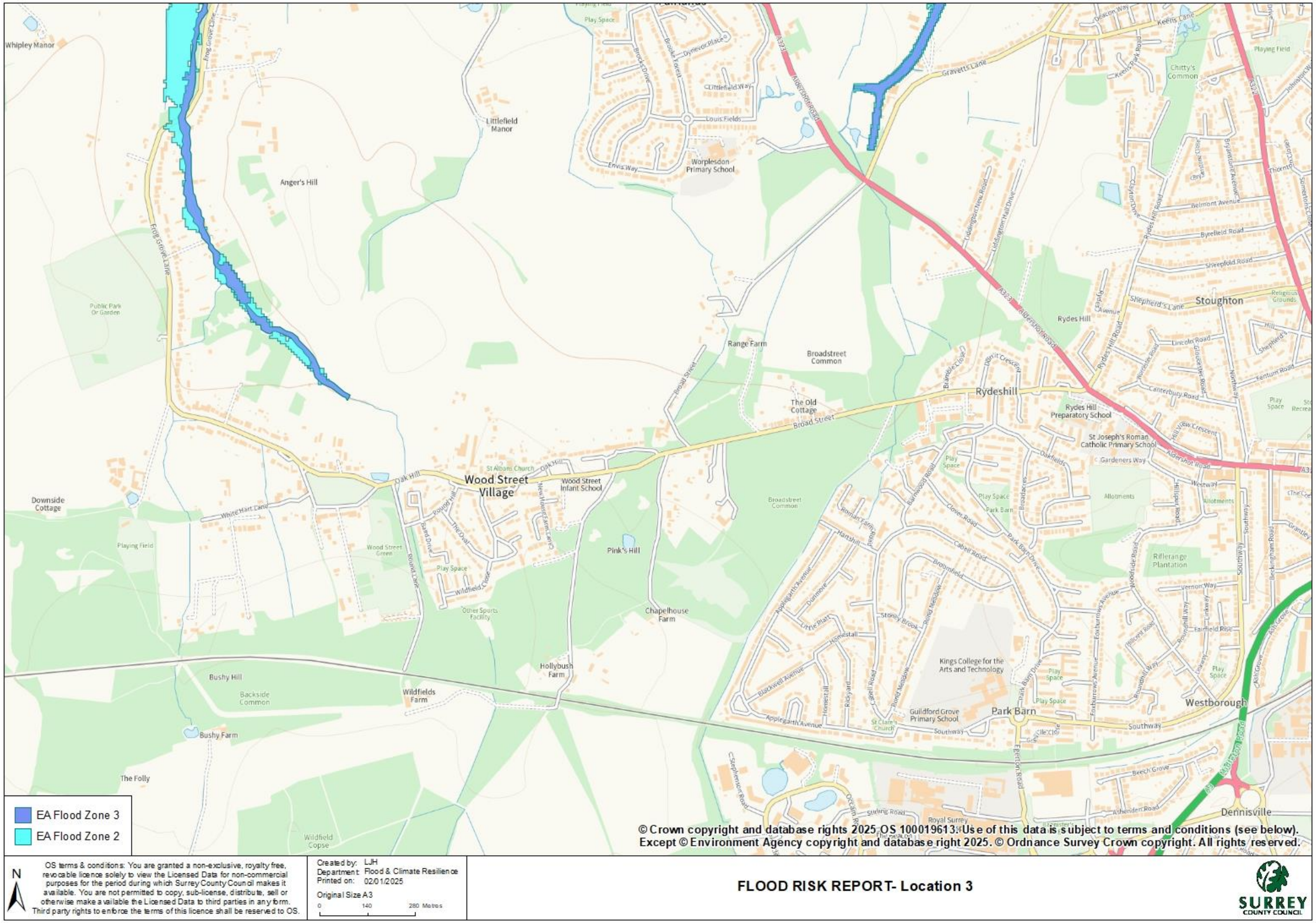

Figure 6: Fluvial flood risk map, Location

Annex D

Location 4

Enquiry Reference: 97081

Flood Event Summary:

On January 4th, water overtopped from the Hoe Stream, leading to significant flooding in the surrounding area. The excess water backed up and discharged from private manholes, causing extensive flooding to several properties. The drainage system was determined to be Thames Water sewers due to the public connections into it. No blockages were observed, but further investigation by Thames Water is required. Additionally, there were no blockages found in the Hoe Stream. Flooding has previously occurred in this location during large storm events, and the area was flooded again after Storm Conall on November 27th, which is currently being further investigated.

Actions:

The ownership of the affected drainage systems was identified to be under Thames Water. This crucial step ensured that the appropriate authorities were notified and could take responsibility for addressing the issues.

Recommendations:

Parish Council: It is recommended that the Parish Council manage the pond plug to allow water to drain during dry periods. This proactive measure will ensure that there is sufficient capacity within the pond during heavy rainfall events, reducing the risk of overflow and subsequent flooding.

Landowners: May wish to consider property flood resilience measures to reduce the impact of flooding to their property.

Thames Water: To include the drainage system within their maps to enable/ ensure future maintenance.

Flood Risk Maps

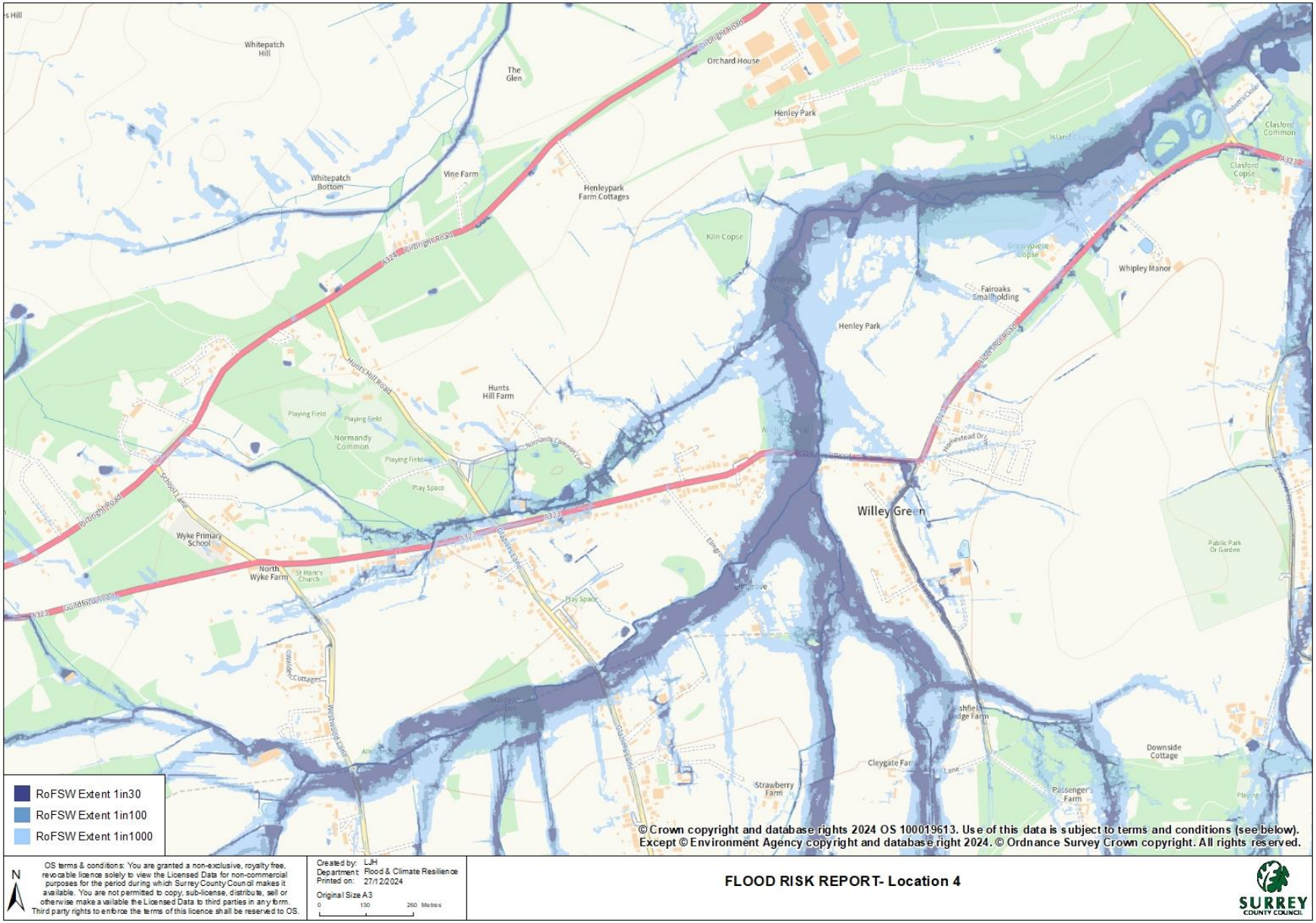

Figure 7: Surface water flood risk map, Location 4

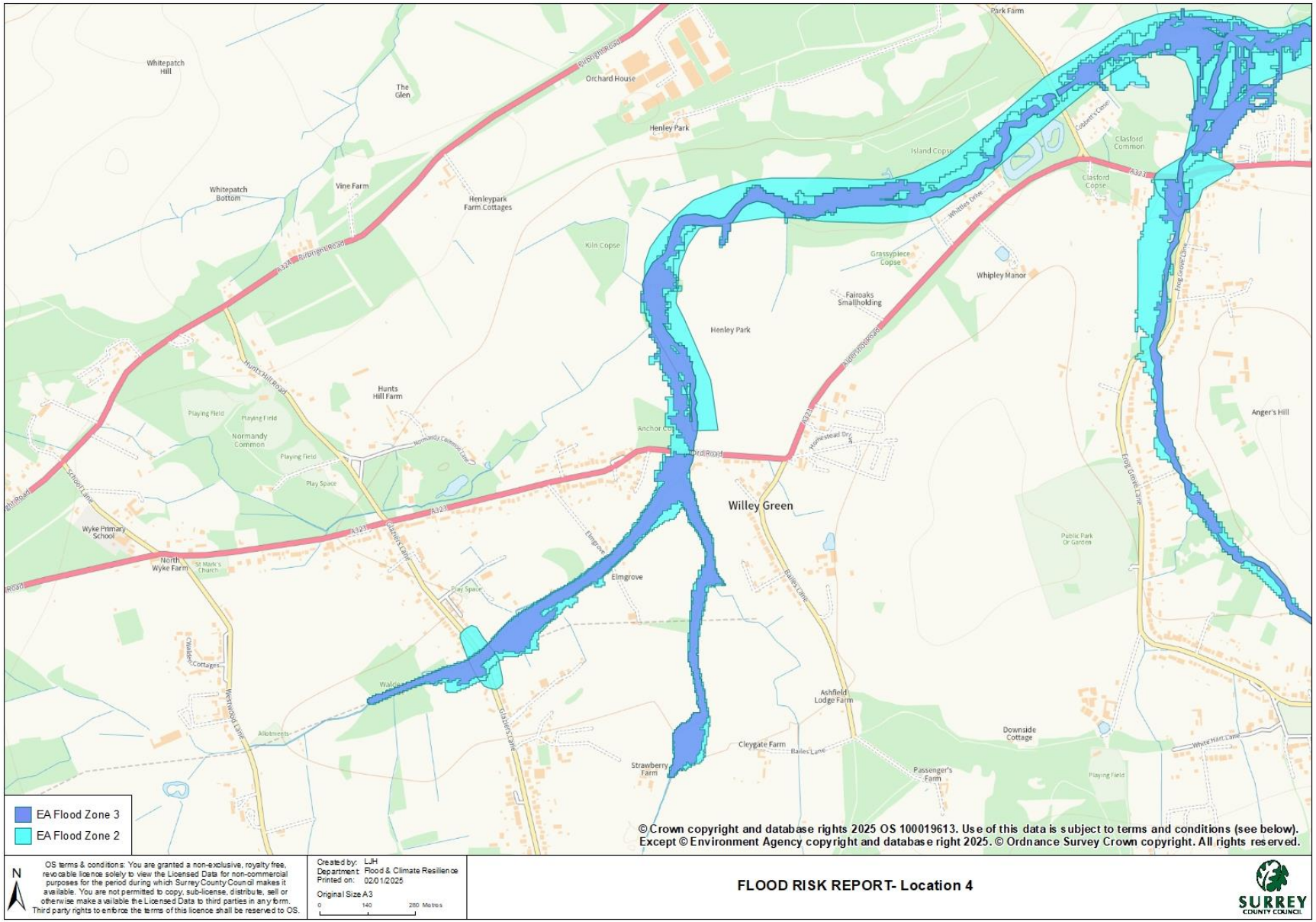

Figure 8: Fluvial flood risk map, Location 4

Annex E

Location 5

Enquiry Reference: 97458

Flood Event Summary:

On January 4th, during the heavy rainfall brought by Storm Henk, there was significant fluvial flooding in the area. The watercourse overtopped due to high river levels and obstructions within the watercourse, causing external flooding. There is a sluice in place that is being managed, and while there is no evidence to suggest mismanagement of the sluice, it is believed that better planning for adverse weather conditions could help mitigate future flooding risks. This incident underscores the importance of proactive measures and effective management of watercourses to prevent similar events in the future.

Actions:

Prompt action was taken to clear the obstructions from the watercourse. This included removing debris, silt, and other materials that were blocking the flow of water, allowing it to return to its normal course and reducing the risk of further flooding.

Recommendations:

Landowners: To continue maintenance of the watercourse to allow the flow of water
Landowners: To continue managing the flow of water through the use of the sluice gate, seeking further guidance from a suitably qualified professional.

Flood Risk Maps:

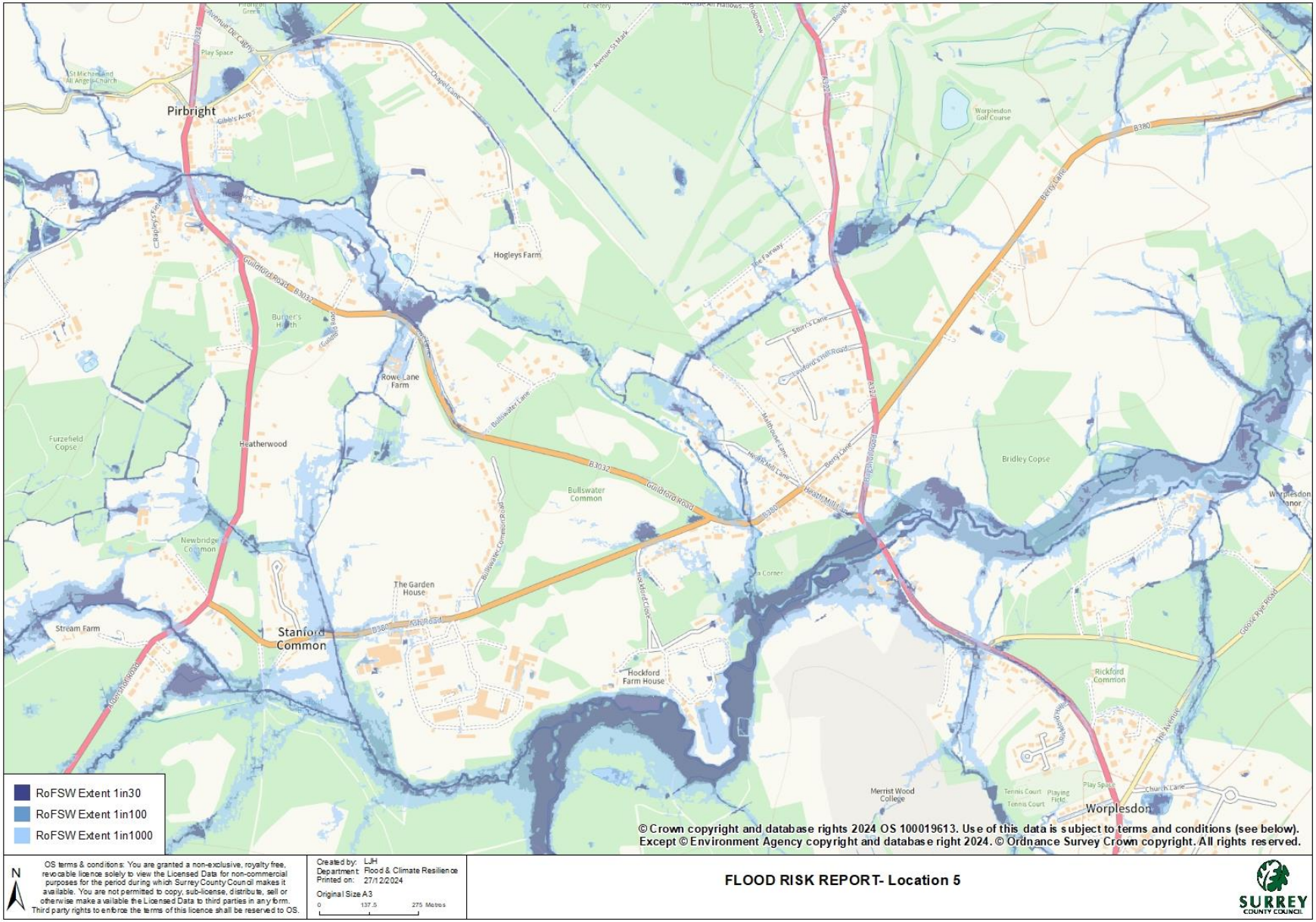

Figure 9: Surface water flood risk map, Location 5

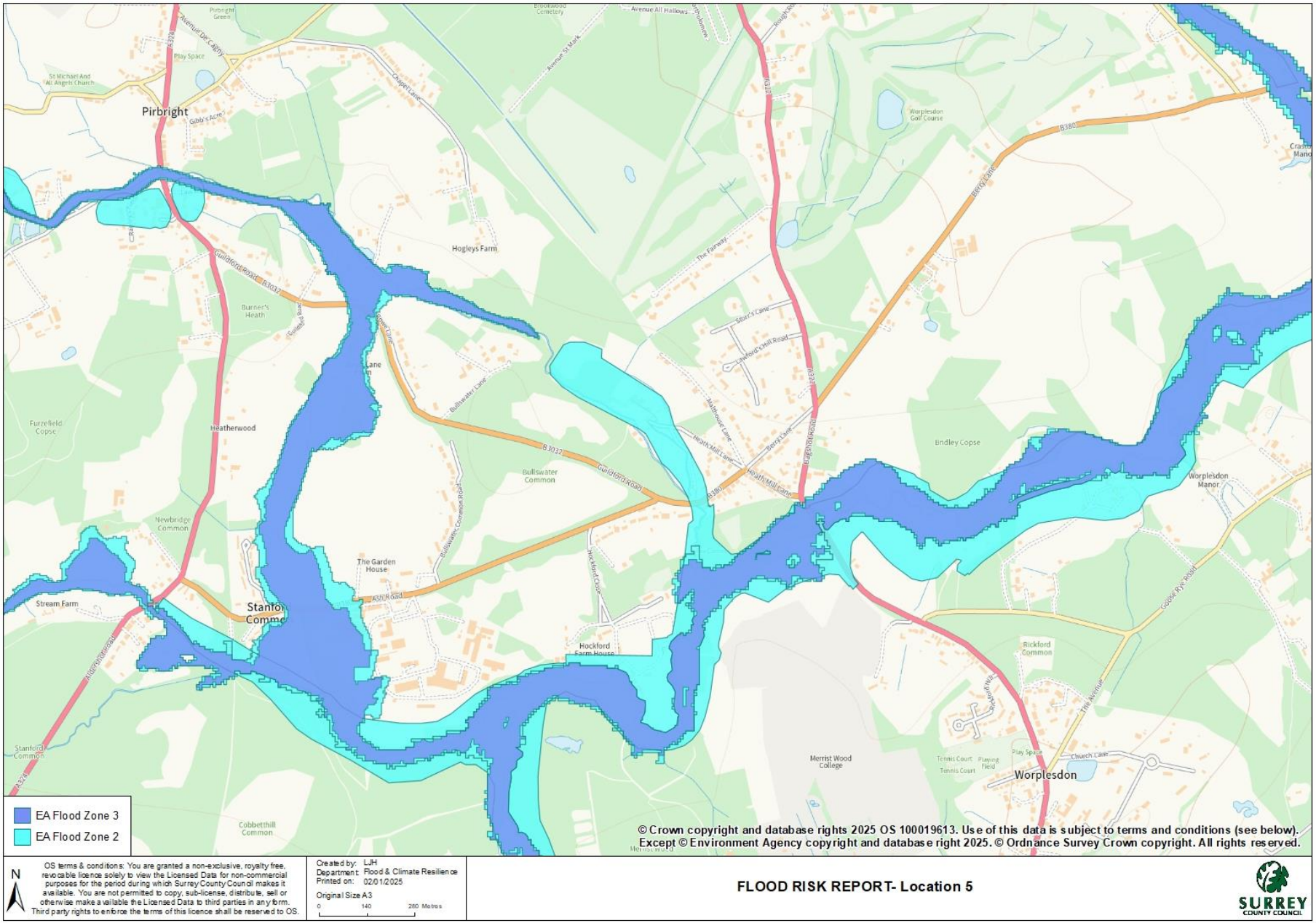

Figure 10: Fluvial flood risk map, Location 5

Annex F

Location 6

Enquiry Reference: 97761

Flood Event Summary:

Five flooding events have affected properties throughout 2024. The first occurred during Storm Henk on 4 January 2024, followed by subsequent floods on 1 August 2024, 8 September 2024, 14 October 2024, and 27 November 2024 during Storm Conall. So far, a total of 86 properties are known to be affected. Flooding in this area was from fluvial (ordinary watercourses and main river sources) as well as surface water runoff. Flood water was contaminated with foul sewage on 4 January 2024 and 27 November 2024.

Flood Event Causes:

- Unapproved connections of highway drainage into the site by developers, which were not accounted for in design or calculations.
- Runoff from the Hogs Back and a nearby new development.
- Overtopping of the main river.
- Blocked highway drainage caused by Landowners.
- Landowners pumping water onto roads, exacerbating flooding.
- Land Raising

Recommendations:

- **Environment Agency (EA):**
    - To work with SCC and GBC to develop a catchment management plan for flood risk from the river, surface water and ordinary watercourse.
    - To consider installation of warning systems for the river to inform residents of flood risk.
    - To consider installation of river gauges to monitor flood depth and inform any future mitigation.

- **Surrey County Council:**
    - To carry out enforcement on unconsented works to watercourses.
    - Administer the PFR (Property Flood Resilience) grant to those properties affected by Storm Henk and are eligible according to the criteria set by DEFRA.
    - To facilitate a conversation with Guildford Borough Council regarding flood risk consideration for new developments.
    - To support local communities in the formation of Flood Action Groups to enable communities to become more resilient to the impact of flooding.
    - To establish a maintenance schedule for watercourses on Surrey County Council owned land at this location.
    - To work with EA and GBC to develop a catchment management plan for flood risk from the river, surface water and ordinary watercourse.

- **Guildford Borough Council:**

- Planning enforcement to investigate a breach of condition 5 of planning permission a recent development.
- Planning enforcement to investigate a breach of condition 2 in relation to the developments drainage not reflecting the as built design.
- Guildford Borough Council planning department to enter a discussion with Surrey County Council to discuss how the consultation process can better mitigate flood risk in the design stages.
- To work with SCC and the EA to develop a catchment management plan for flood risk posed to the site.
- To use their powers and work with RMAs to mitigate the impact of flooding from ordinary watercourses.
- Conditions not discharged till 3rd party verification report carried out to verify drainage scheme has been conducted according to the approved design.
- Ensure watercourses within the boundary of their land is maintained to allow the free flow of water.

- **Landowner:**
  - To reinstate the ditch network to the south and west of the site.
  - May wish to consider additional drainage to intercept surface water runoff from hard surfaces.
  - To confirm the purpose of the tanks and what the maintenance and operation plan is.

- **Landowners of the Development Site to:**
  - Inspect the pump for defects.
  - To continue maintenance and management of pump discharge.
  - To reinstate the watercourse.
  - Confirm the condition of the 210mm watercourse passing to the east of the site from the flower bed next to the road.
  - Carry out remedial work to mitigate flood risk on the site and from the development of the site including any change in risk caused by ground level raising.

- **Residents:**
  - May wish to consider the formation of a flood action group.
  - Apply for property flood resilience grants through Surrey County Council Website by 31 March 2025.

Actions taken:

This section describes some of the work carried out by residents and authorities in response to the flood incidents. It is not a comprehensive record of the work completed by all parties in the area.

- **SCC Highways**

- Drainage investigation conducted following flooding on 4 January 2024. Asset found nonfunctional due to developers removing it.
- Worked with SCC Land and Property to clear ditches.
- Reinstated the watercourse to connect to the existing watercourse to allow the flow of water, working with SCC Land and Property Team, work completed on 1 August 2024.
- On 27 November 2024, unauthorized obstructions (wood and earth bunds) were placed on the highway gullies and in front of a watercourse by a local resident, redirecting floodwater towards properties. Despite removal by Surrey County Council, similar actions were repeated and observed on 10 December 2024.

- **SCC Land and Property:**
  - Cleared overgrown vegetation to allow the flow of water through the watercourses on SCC land.
  - Reinstated the ordinary watercourse to allow the flow of water, working with SCC Highways, work completed on 1 August 2024.

- **SCC Flood and Climate Resilience Team**
  - Between 15 August 2024 to 7 January 2025, SCC have requested comment from GBC and requested to facilitate discussions for mitigation measures in the area.
  - Reported planning breaches to GBC for further investigation.
  - Surveyed the drainage to confirm it connects to the site's drainage system
  - Used powers to work with the managers of the new development, requiring reinstatement of the watercourse that was disconnected.
  - Administer the grants on offer through the Flood Recovery Framework and collect data and provide to the Flood and Climate Resilience team to administer the Property Flood Resilience (PFR) Grant on offer from DEFRA.

- **Guildford Borough Council (GBC):**
  - Plans to investigate land raising at the new development.
  - Plans to arrange a meeting with developers to discuss the drainage design.

- **Developers**
  - Carried out remedial work to pumped discharge on site.
  - CCTV drainage and update drawing and assess mitigation measures for the flood risk on site cause by the watercourse connection.

Flood Risk Maps

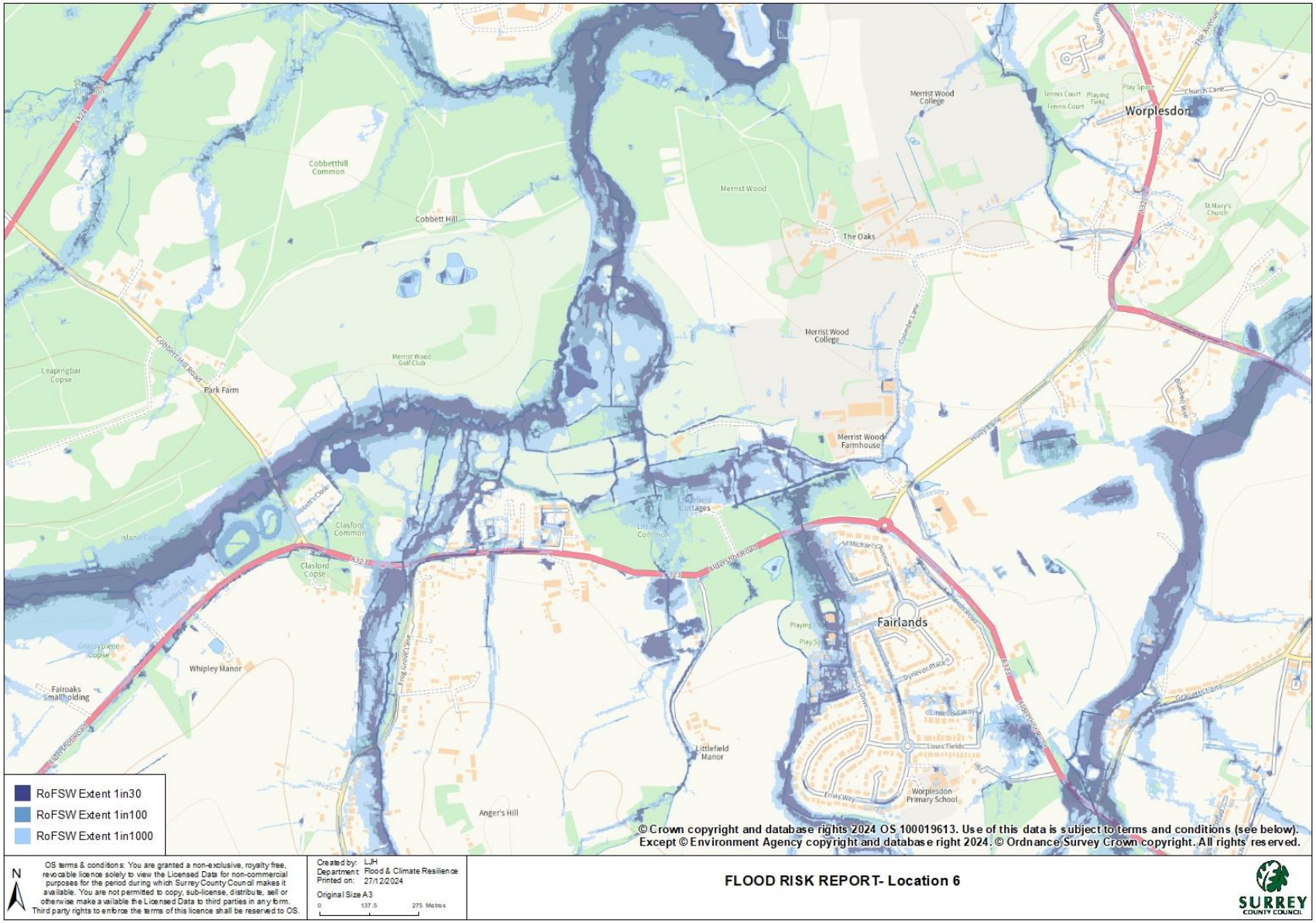

Figure 11: Surface water flood risk map, Location 6

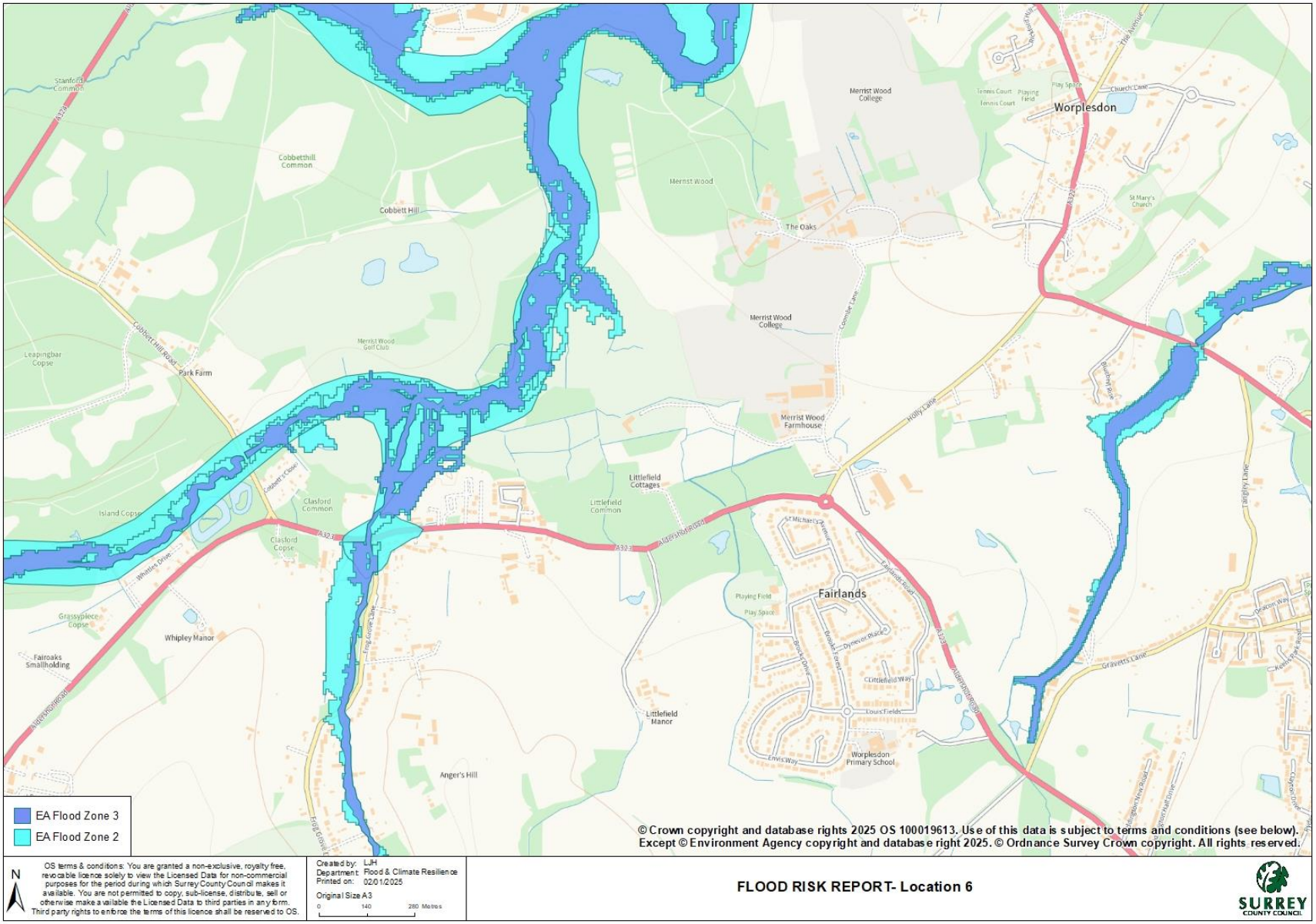

Figure 12: Fluvial flood risk map, Location 6