



Project No: 25218

Project: The Stables
Chaigley Road
Longridge
PR3 3TQ

Subject: SuDS Drainage Statement

Date: 18 May 2025 (Issue 02)

FLOOD FLOW LTD

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1.0 GENERAL

This drainage statement has been prepared to support the planning application for the erection of 1 no. dormer bungalow detached self-build eco dwelling with an integral garage.

The site is located at The Stables, Chaigley Road, Longridge, PR3 3TQ and is northwest of Higher Road on the periphery of Longridge. The site is currently used for equestrian purposes, including stable buildings, concrete hardstanding, sand, and grass paddocks.



Figure 1 – Site Location Plan

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2.0 DRAINAGE DESIGN

2.1 Surface Water Drainage

2.1.1 Flood Risk

The site lies wholly within the Zone 1 Flood Map. This means the land is assessed as having a low probability of flooding, which is less than 1 in 1000 (<0.1%).

A site-specific flood risk assessment is not required as the site is in Flood Zone 1 and under 1ha.

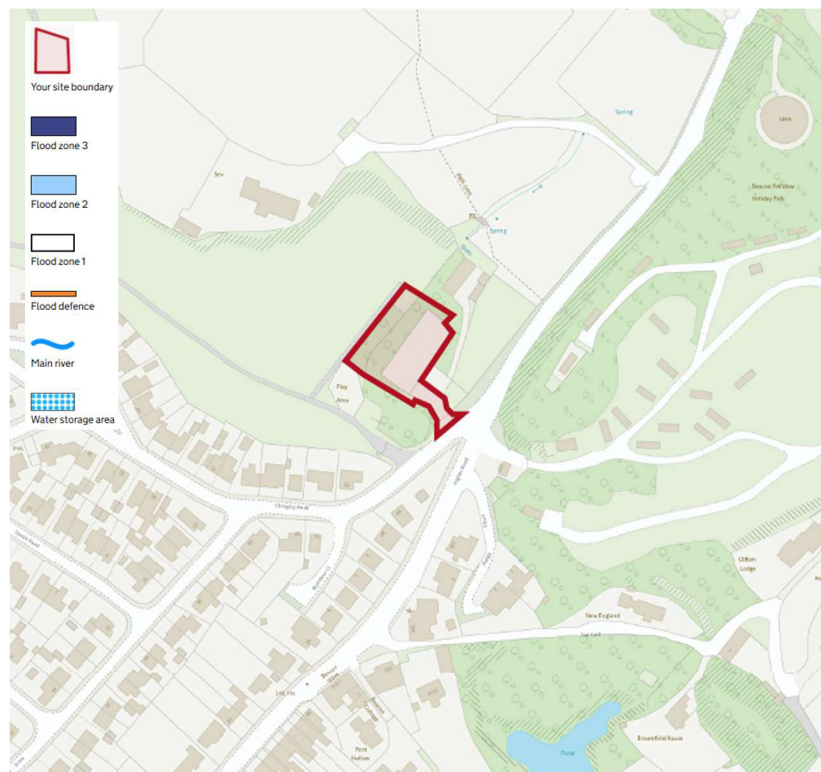


Figure 2 – Flood Map for Planning

2.1.2 Drainage Strategy

1st Choice - Discharge to Soakaway

In accordance with the Building Regulations hierarchy for the disposal of surface water drainage, the initial consideration will be for a soakaway system.

Percolation tests have not been carried out at the development site. From online soil data the site from BGS website states Till, Devensian - Diamicton superficial deposits.

It is likely that there will be poor percolation results and therefore soakaways are not considered viable.

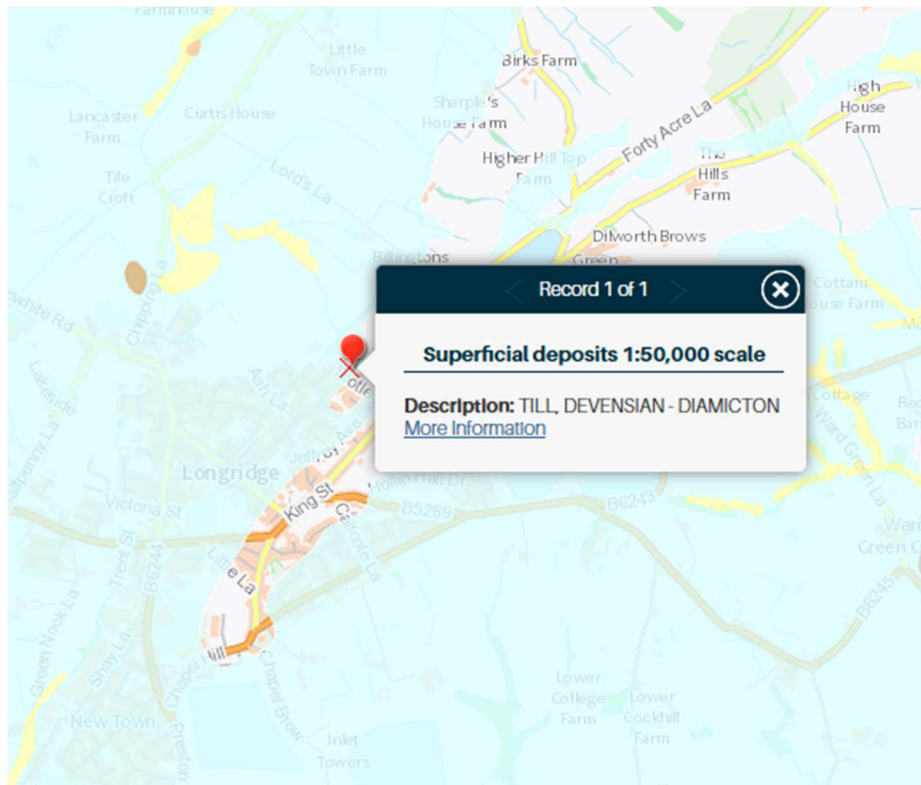


Figure 3 – Superficial Deposits

2nd Choice - Discharge to Watercourse

There is a dyke approximately 12 metres to the north of the proposed development. This presents a potentially viable option for surface water discharge. Subject to landowner consent and confirmation of appropriate connectivity and outfall capacity, discharge to this nearby watercourse may be pursued as the preferred method.

3rd Choice - Discharge to Surface Water Sewer

The third option in the drainage hierarchy is to discharge into the existing surface water sewers. There is an existing surface water sewer recorded in Chaigley Road, however, the surface water sewer is not shown directly adjacent to the proposed development. There is evidence of typical highways drainage (manholes and gullies), which could be used for the proposed drainage system - see Appendix A and Figure 4 below. This is not the preferred discharge option for surface water discharge.

4th Choice - Discharge to Combined Sewer

The fourth option in the drainage hierarchy is to discharge into the existing combined sewers. There are no existing combined water sewers recorded in close proximity of the development site, see Appendix A and Figure 4 below. This is not the preferred discharge option for surface water discharge.



Figure 4 – Extract from United Utilities records

The surface water runoff generated from the existing site has been calculated at $Q=3.001/s$ based on an approximate area of $966m^2$, using the greenfield runoff calculations. See Appendix D for further details).

The proposed impermeable area has been calculated at approximate $590m^2$, which is more to the existing impermeable area. The flow rate proposed above has been used to restrict the flow and estimate the required attenuation.

2.1.3 Climate Change

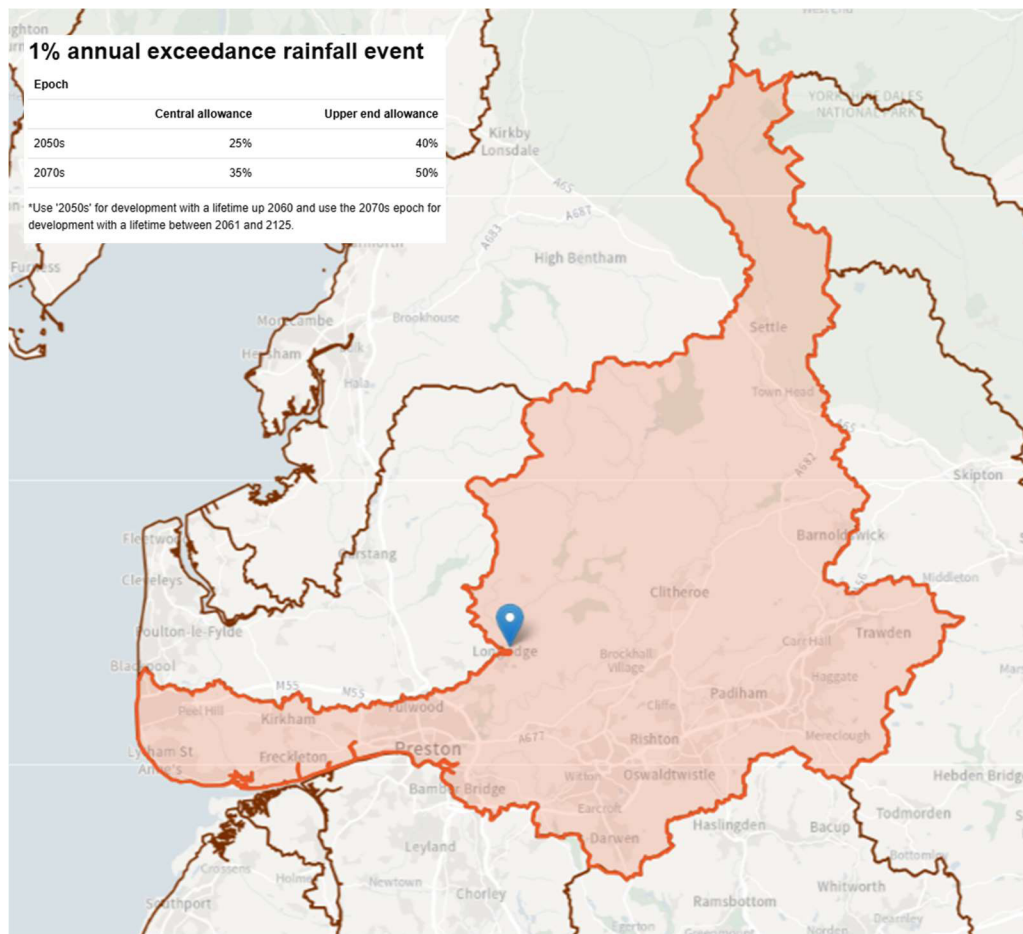


Figure 5 – Climate Change

The design criteria for network modelling to be used for the site is:

- 1 in 30 year no surcharging of the surface water network.
- 1 in 100 year (+ 50% climate change, see Figure 5 above) will be contained within the attenuation, and the volume has been indicated for the development site.
- The roof water for the proposed development will also enter the existing ditch.
- A bypass separator upstream of the proposed attenuation structure is not considered a requirement due to the limited number of parking bays for the proposed development.

2.2 Foul Drainage

The foul drainage for the proposed development is to be connected into a proposed Bio Disc sewage treatment plant as shown on the drainage layout.

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Appendices

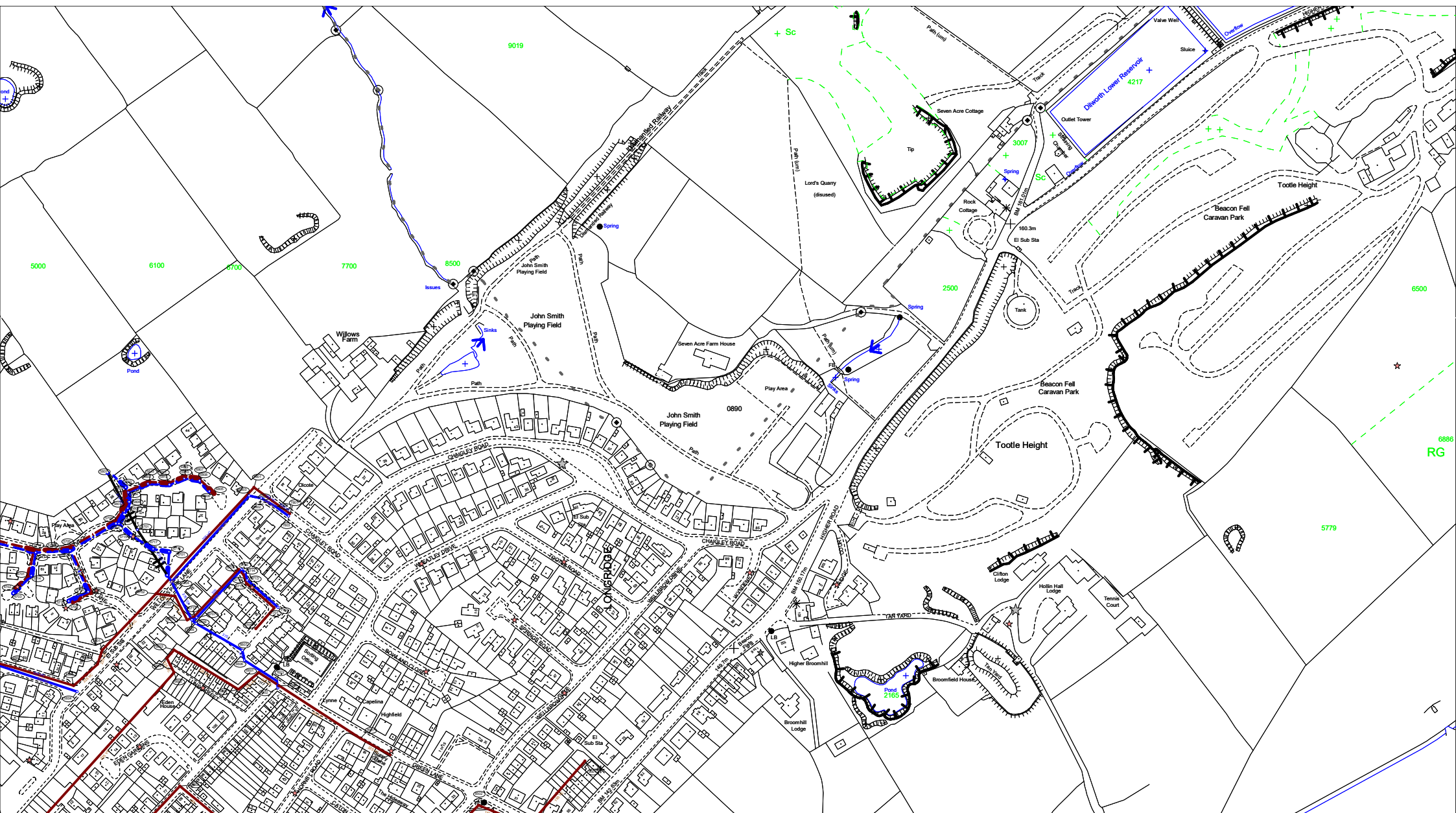
- Appendix A - United Utilities Drainage Records
- Appendix B - Flood Flow Drawing Number 25218.001B – Drainage Layout.
- Appendix C - Flood Map for Planning
- Appendix D – Attenuation Calculations

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APPENDIX A





APPENDIX B



APPENDIX C

Flood map for planning

Your reference
25218

Location (easting/northing)
361139/437853

Created
5 Mar 2025 9:29

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following:**

- bigger than 1 hectare (ha)
- In an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

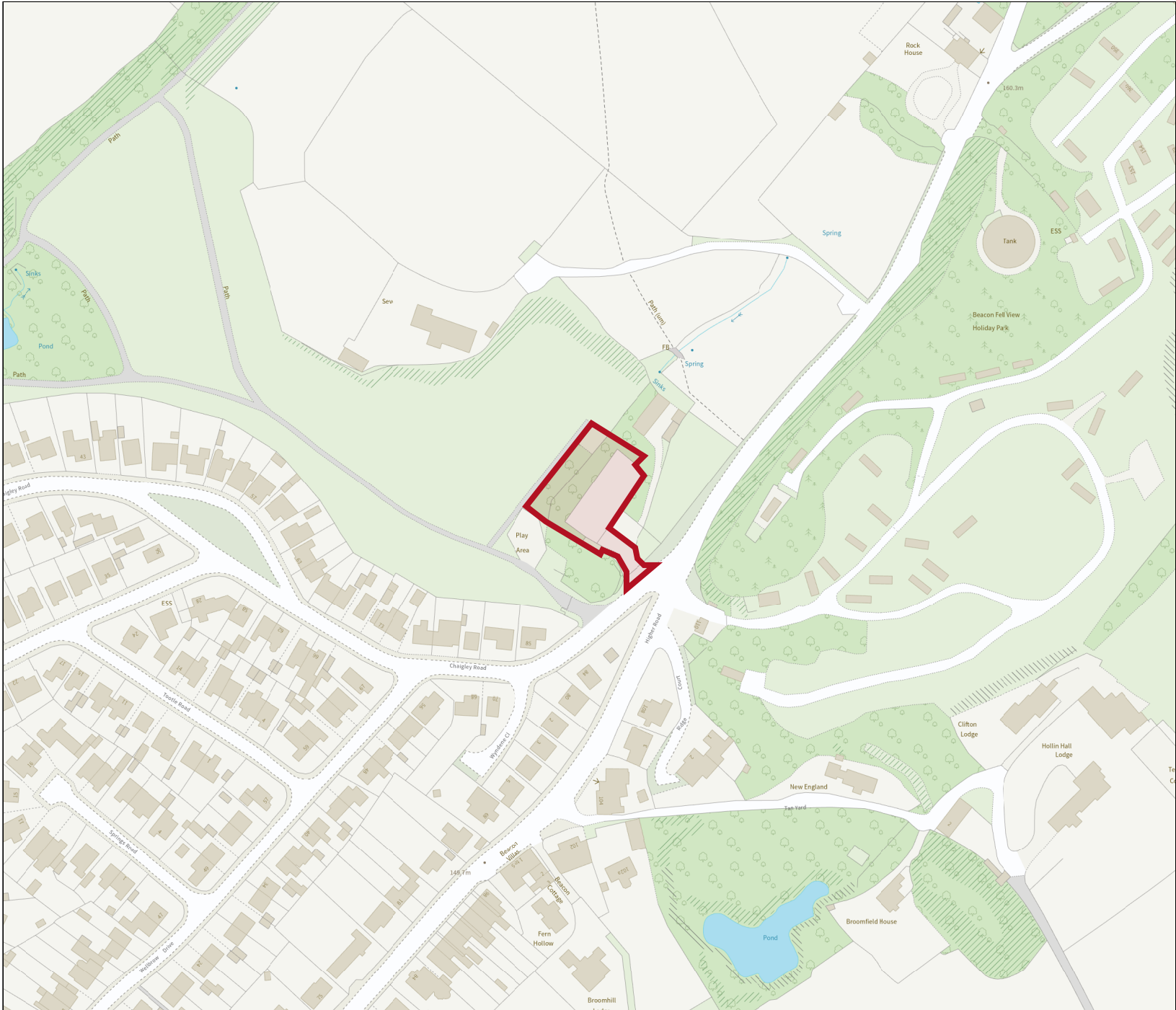
Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

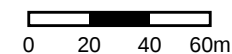
Flood risk data is covered by the Open Government Licence **which** sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2024 OS AC0000807064. <https://flood-map-for-planning.service.gov.uk/os-terms>



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5 Mar 2025 9:29

-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area





APPENDIX D

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25218 The Stables, Chaigley Road, Longridge, PR3 3TQ

Greenfield runoff calculations

Qsave

ICP SUDS Mean Annual Flood

Input

Return Period (years)	100	Soil	0.450
Area (ha)	0.097	Urban	0.000
SAAR (mm)	968	Region Number	Region 10

Results l/s

QBAR Rural 0.6

QBAR Urban 0.6

Q100 years 1.3

Q1 year 0.5

Q30 years 1.1

Q100 years 1.3

A minimum discharge rate of 3 l/s has been established, as lower flow rates pose maintenance challenges for the flow control device.

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Microdrainage Attenuation Calculations

Quick Storage Estimate

Results

Global Variables require approximate storage of between 17 m³ and 30 m³.

Variables
Results
Design
Overview 2D
Overview 3D
Vt

Analyse OK Cancel Help

Enter Climate Change between -100 and 600

Quick Storage Estimate

Variables

FSR Rainfall Cv (Summer)
 Return Period (years) Cv (Winter)
 Region Impervious Area (ha)
 Map M5-60 (mm) Maximum Allowable Discharge (l/s)
 Ratio R Infiltration Coefficient (m/hr)
 Safety Factor
 Climate Change (%)

Analyse OK Cancel Help

Enter Climate Change between -100 and 600

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