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| <b>Doc Ref:</b>     | GHP-1741-01-FRA-001                   |
| <b>Title:</b>       | Flood Risk Technical Note             |
| <b>Date:</b>        | 7 <sup>th</sup> February 2024         |
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| <b>Client:</b>      | GH Preston Ltd.                       |

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## 1.0 INTRODUCTION

- 1.1 This Technical Note has been prepared in accordance with instructions from Stainton Planning, on behalf of GH Preston Ltd., to support their planning application to Chesterfield Borough Council for the proposed demolition of an existing single storey office and construction of a two-storey modern reception and office extension at their premises on Brimington Road North, Chesterfield, S41 9BE.
- 1.2 The purpose of this Technical Note is to assess the flood risk in accordance with the *National Planning Policy Framework (NPPF)*, *Planning Practice Guidance (PPG) – Flood Risk and Coastal Change* and other current guidelines.

### Technical Information

#### ***National Planning Policy Framework (NPPF)***

- 1.3 The NPPF and associated Planning Practice Guidance (PPG) *Flood Risk and Coastal Change* explains how flood risk should be taken into consideration during the planning and development process. It categorises flood risk by *flood zone* and defines the types of development *appropriate* to each flood zone according to *vulnerability*. The flood zones are defined as:
- Flood Zone 1 – Areas with a Low Probability (annual probability less than 0.1% or 1 in 1000-years).
  - Flood Zone 2 – Areas with a Medium Probability of flooding (annual probability between 0.1% (1 in 1000-years) and 1.0% (1 in 100-years) for rivers, 0.1%-0.5% (1 in 1000-years to 1 in 200-years) for coastal areas).

- Flood Zone 3a – Areas with a High Probability of flooding (annual probability greater than 1.0% (1 in 100-years) for rivers, 0.5% (1 in 200-years) for coastal areas).
- Flood Zone 3b – The Functional Floodplain (probability as Zone 3a).

***Environment Agency Flood Maps***

- 1.4 The Environment Agency (EA) predicts the likelihood of flooding via a national series of indicative flood maps, available via the GOV.UK website. The *Flood Map for Planning* shows the flood zones, described above, coloured in different shades of blue.
- 1.5 The *Flood Risk from Surface Water* map at Long Term Flood Risk Information on the GOV.UK website shows potential overland flow routes and accumulation of runoff resulting from rainstorm events based on topography, divided into low, medium, and high-risk scenarios.
- 1.6 The *Flood Risk from Reservoirs* map at Long Term Flood Risk Information on the GOV.UK website shows potential flooding from reservoir and other water infrastructure failure.

***Chesterfield, Bolsover, and North East Derbyshire SFRA***

- 1.7 Local Planning Authorities are required to produce a Strategic Flood Risk Assessment (SFRA) which sets the scene for flood risk in their areas. Chesterfield Borough Council, Bolsover District Council, and North East Derbyshire District Council jointly prepared their Strategic Flood Risk Assessment in 2009.

## 2.0 FLOOD RISK ASSESSMENT

### Fluvial Flooding

- 2.1 According to the EA *Flood Map for Planning*, the application site is wholly within Flood Zone 2 (Medium Probability). This is associated with the potential fluvial flooding event of the River Whitting, 150m to the north east of the development site. As can be seen on the *Flood Map for Planning* (Appendix A), Flood Zone 2 extends to much of the surrounding industrial units adjacent to the application site.
- 2.2 While no historic flooding at the application site has been recorded within the Chesterfield, Boslover, and North East Derbyshire SFRA, historic events have been recorded on Pottery Lane East, approximately, 90m to the east of the application site.
- 2.3 As the site is within Flood Zone 2, with annual probability between 1 in 1000-years and 1 in 100-years, any fluvial flooding affecting the site would likely be infrequent, and very shallow, and therefore not present any significant hazard to personnel.
- 2.4 Furthermore, according to the NPPF, and associated PPG, the proposed development is considered to be within the 'Less Vulnerable' category and therefore is 'Appropriate' within Flood Zone 2.
- 2.5 Notwithstanding the relatively low flood risk, in order to provide assurance to personnel, the site management will operate a Flood Management Plan. By this means, the occupants will be kept safe from fluvial flooding.

### Surface Water Flooding

- 2.6 According to the EA *Surface Water Flood Map* (Appendix A), the site is categorised as 'Very Low Risk' for surface water flooding. As the site is considered to be out with any area of surface water flooding, it is therefore not considered to be a significant issue.
- 2.7 Furthermore, the proposed development seeks to demolish an existing single storey building, which is to be replaced by a new two-storey office building on the existing footprint. Therefore, the proposed development will have the same impermeable area as the existing building. Surface water runoff will be collected via rainwater pipes and discharged as it does at present.

2.8 Consequently, it is considered that the proposed development will not give rise to increased surface water flood risk, or cause flooding elsewhere.

**Reservoir Flooding**

2.9 According to the EA *Reservoirs Flood Map* (Appendix A), the site would be impacted by potential flooding associated with the failure of the Walton Dam and Linacre Reservoirs.

2.10 Although the EA *Flood Risk from Reservoirs* map shows a risk of reservoir flooding, both the Walton Dam (owned by Chesterfield Borough Council) and the Linacre Reservoirs (owned by Severn Trent Water) are managed in a systematic and responsible manner. Therefore, the risk of flooding from reservoir flooding may be regarded as extremely low. In the unlikely event of infrastructure failure, sufficient warning will be given to facilitate the evacuation of personnel in the area, similarly to the procedure for fluvial or surface water flooding.

**Impact of Flooding**

2.11 Although it will not be possible to defend the proposed development from flooding events, the anticipated flood water depth is likely to be shallow. Subsequent to any flooding event, the site would be cleaned up and normal operations quickly resumed.

### 3.0 FLOOD MANAGEMENT

3.1 As the site may be at risk of flooding in an extreme event, a Flood Management Plan containing the following robust flood management provisions will be prepared and implemented by the Site Management.

#### **Warnings & Evacuation**

3.2 The EA *Floodline Warnings Direct Service* is not available in this location, presumably reflecting the relatively low flood risk in reality. Consequently, regular checks will be made on the online EA's *Flood Alerts and Warnings* service (<https://check-for-flooding.service.gov.uk/alerts-and-warnings>), especially where heavy rainfall events have been forecast.

3.3 Should a flood warning be posted, or a flood event otherwise predicted, personnel will evacuate in good time before any local flooding occurs to higher ground. Personnel may also be able to seek shelter on the upper floor of the proposed development until flood waters recede.

3.4 In the event of a need for urgent evacuation of any personnel, e.g., for medical reasons, attendance by emergency services would not be precluded by the shallow depth of floodwater within the flood zone.

#### **Sequential & Exception Tests**

3.5 As the proposed development is inextricably linked to the existing business and could not be located elsewhere outside of the flood zones, the Sequential Test is deemed to be satisfied.

3.6 The NPPF does not require consideration of the Exception Test for 'Less Vulnerable' uses such as the proposed office building. Nevertheless, in order to ensure the safety of the occupants, a Flood Management Plan will be in operation, as described above.

**4.0 CONCLUSIONS AND RECCOMENDATIONS**

- 4.1 The proposed development site is located within Flood Zone 2 of the EA *Flood Map for Planning*, with an annual probability between 1 in 1000-years and 1 in 100-years. Any fluvial flood water affecting the site would be both very infrequent and very shallow, and therefore would not present any significant harm to personnel.
- 4.2 As the site is located within an area of 'Very Low' surface water flood risk, surface water flooding is not considered a significant issue. The proposed development will occupy the same impermeable area as the existing single-storey building, and therefore will not increase surface water flood risk, or cause flooding elsewhere.
- 4.3 A Flood Management Plan will be prepared and implemented, as set out in Section 3 of this Technical Note. Regular checks of the online *Flood Alerts and Warnings* service will be carried out, and personnel will evacuate to higher ground, or may seek shelter within the upper floor of the proposed office building.
- 4.4 The Sequential Test is considered to be satisfied as the proposed development is inextricably linked to the existing business and could not be located elsewhere outside of the flood zone.
- 4.5 The NPPF does not required consideration of the Exception Test as the proposed development is considered to be within the 'Less Vulnerable' category. Nevertheless, a Flood Management Plan will be implemented in order to ensure safety of the occupants and personnel.
- 4.6 Overall, with regard to flood risk and drainage, the site is suitable for the proposed use. The development may be occupied safely and adequately drained without increasing flood risk on site or elsewhere.



**APPENDIX A EA FLOOD MAPS**

# Flood map for planning

Your reference  
**GH Preston**

Location (easting/northing)  
**438730/373602**

Created  
**23 Jan 2024 16:39**

**Your selected location is in flood zone 2, an area with a medium probability of flooding.**

## This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see [www.gov.uk/guidance/flood-risk-assessment-standing-advice](http://www.gov.uk/guidance/flood-risk-assessment-standing-advice))

## 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 2022 OS 100024198. <https://flood-map-for-planning.service.gov.uk/os-terms>



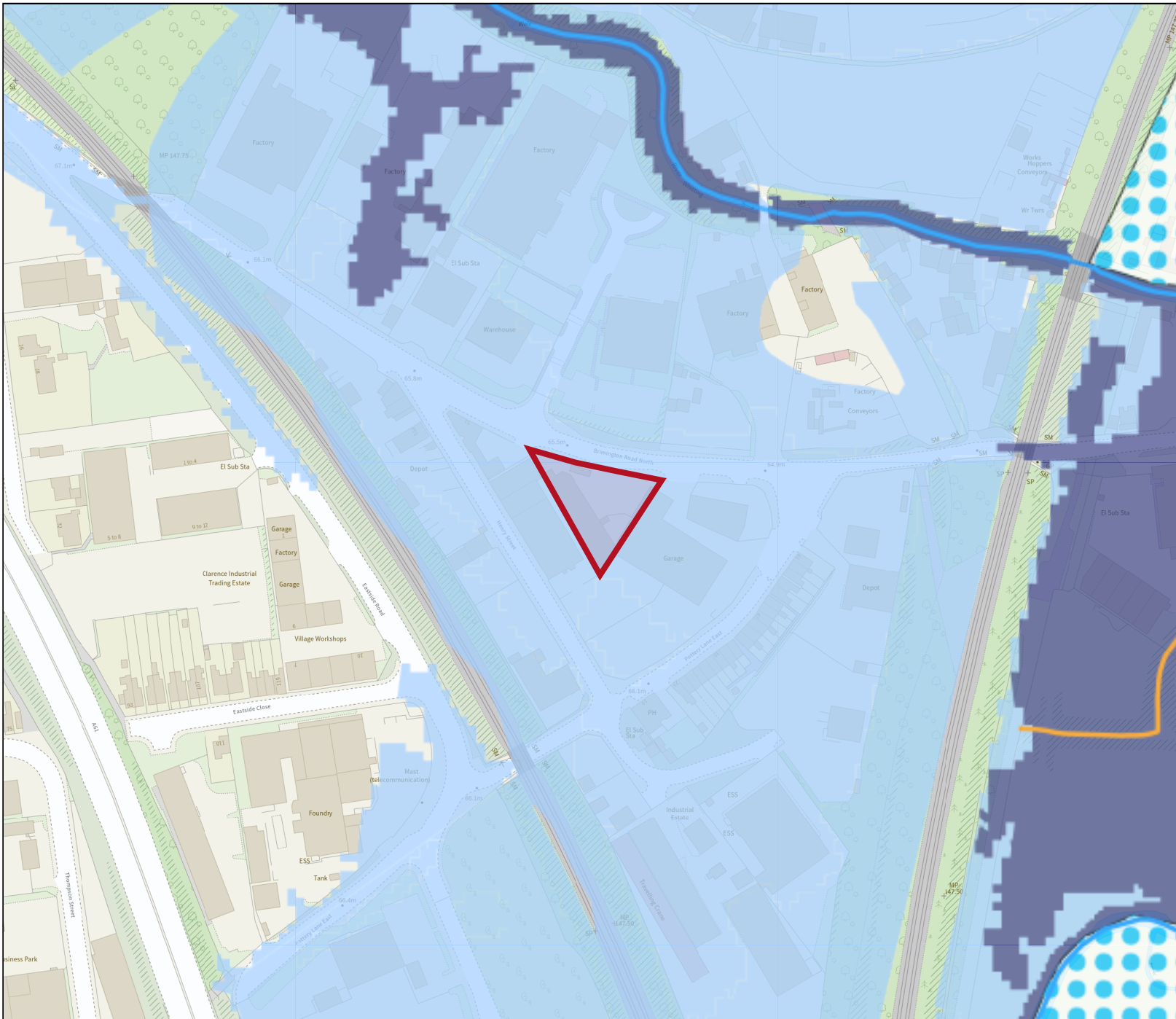
## Flood map for planning






Your reference  
**GH Preston**

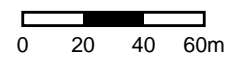
Location (easting/northing)  
**438730/373602**

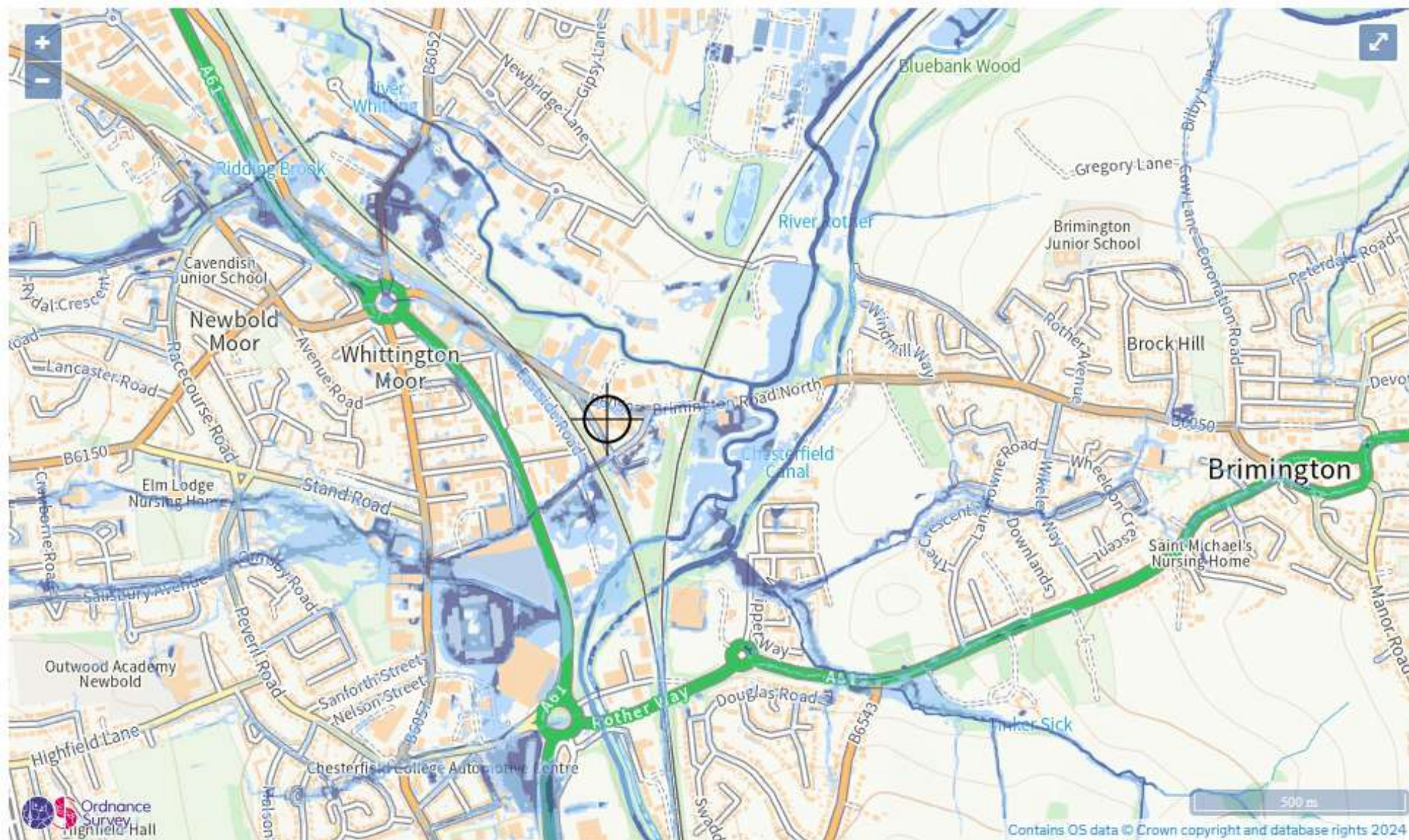
Scale  
**1:2500**

Created  
**23 Jan 2024 16:39**



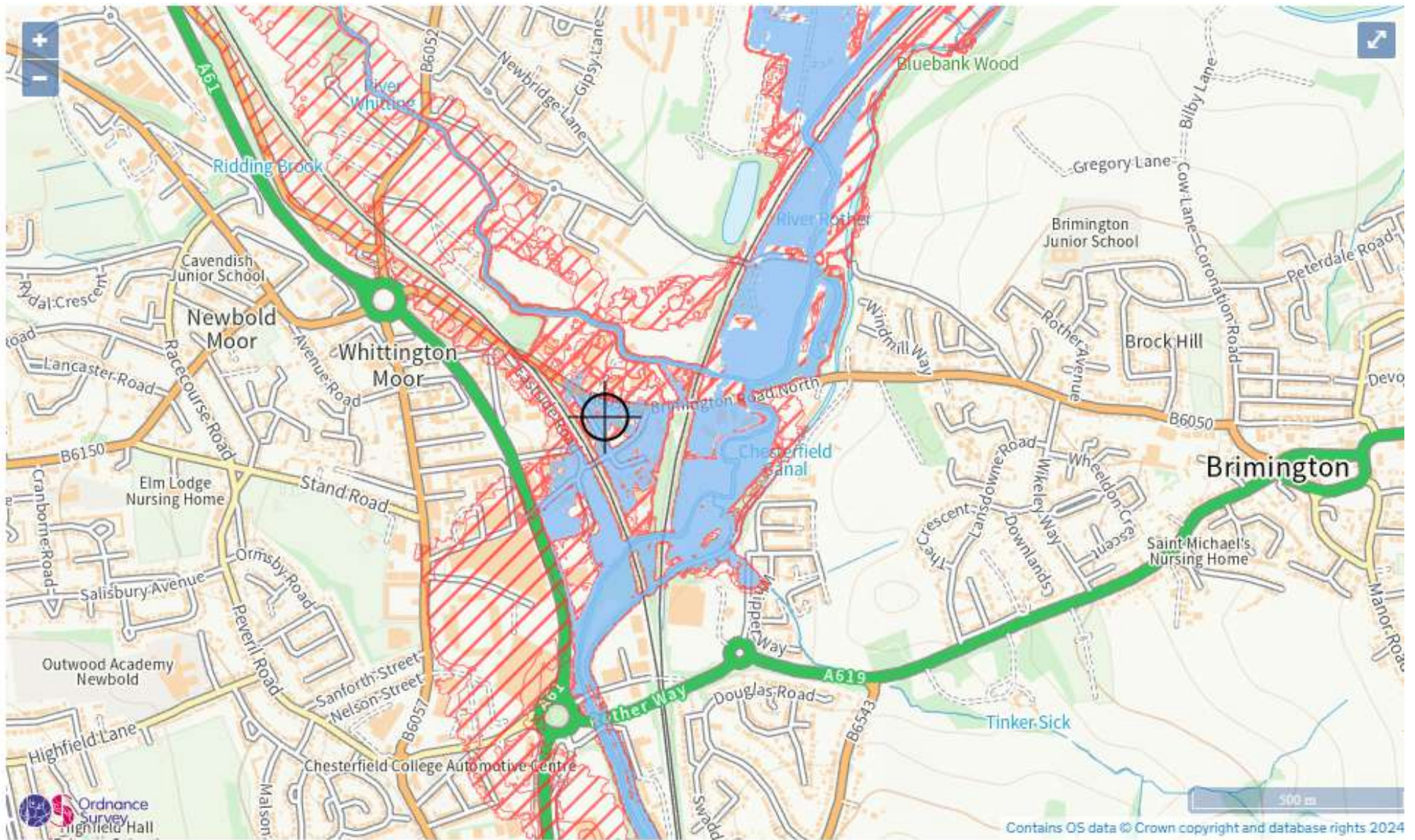
-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area





Extent of flooding from surface water

- [High](#)
- [Medium](#)
- [Low](#)
- [Very low](#)
- Location you selected



Maximum extent of flooding from reservoirs:

- when river levels are normal
- when there is also flooding from rivers
- +
 Location you selected