



Local Plan Part 2: Land and Planning Policies

Housing Allocations Sequential Test

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1. Introduction

- 1.1 This paper sets out the Sequential Test for the proposed development allocations identified in Rushcliffe Borough Council's Local Plan Part 2: Land and Planning Policies (hereafter referred to as Local Plan Part 2). Following the steps outlined in the National Planning Policy Framework (NPPF) and the national Planning Practice Guidance, the sequential approach is designed to ensure that, wherever possible, sites at little or no risk of flooding are developed in preference to sites at higher risk of flooding.
- 1.2 The sequential test covers two main elements:
- Part 1 provides information about the allocations including flood risk, flood defences, proposed and existing uses and the vulnerability classification related to these uses; and
 - Part 2 sets out the sequential test for each location.

2. Context and Background

- 2.1 Rushcliffe's northern boundary is formed by the River Trent, which flows southwest to northeast through the main urban area of Nottingham, pass Newark, Gainsborough and Scunthorpe and finally into the Humber Estuary.
- 2.2 West Bridgford is the largest 'settlement' in Rushcliffe, comprising Nottingham's main urban area south of the River Trent. Given its proximity to the river and the extent of low lying areas within the floodplain, significant areas of West Bridgford are identified as being at risk of river flooding.
- 2.3 North of West Bridgford, the settlements of Holme Pierrepont, Radcliffe-on-Trent and Shelford are located within the River Trent's historical floodplain and therefore contain areas at risk of river flooding.
- 2.4 South of West Bridgford, the settlement of Barton in Fabis and areas of Thrumpton are also in the floodplain and at risk of river flooding.
- 2.5 In addition to the River Trent, land within the catchment of the Fairham Brook (which flows into the Trent at Wilford) is also at risk of fluvial flooding. This includes land to the north and west of Ruddington, a defined 'key settlement' within the Local Plan Part 1: Core Strategy.
- 2.6 These sequential tests of the allocations within the Draft Local Plan Part 2 are informed by the Environment Agency's Flood Maps and, where appropriate, the 2017 Greater Nottingham Strategic Flood Risk Assessment for Rushcliffe and the neighbouring authorities that share boundaries along the River Trent.

(Broxtowe, Erewash, Gedling and Nottingham City). This updated the 2010 SFRA (which informed the Core Strategy) taking into account of new flood risk data provided by the Environment Agency and the Government's climate change allowances that were published in 2016. These indicated that rainfall within the Humber catchment could increase by 10% between 2015 and 2039 and 40% between 2070 and 2115.

2.7 The Local Plan Part 2 identifies three policy allocations which, according to the Environment Agency's flood risk maps, include land within flood zone 2 (between 1 in 100 and 1 in 1000 annual probability of river flooding (medium probability)) or flood zone 3a (having a 1 in 100 annual probability of river flooding (high probability)). These sites are within or on the edge of Radcliffe-on-Trent and Ruddington (see maps in Appendix 1).

- Policy 5.1 – Land North of Nottingham Road (formally site RAD01)
- Policy 5.5 – 72 Main Road (formally site RAD06)
- Policy 6.1 – Land West of Wilford Road (formally site RUD01)

2.8 No potential sites are within flood zone 3b (functional flood plain) where water has to flow or be stored in times of flood.

2.9 Table 1 below identifies the policy allocations within the Draft Local Plan Part 2 (which has been published for consultation prior to its submission to the Secretary State for examination) that are identified as at risk of flooding; the associated flood risk with each site; existing flood defences (where appropriate); and the existing uses as well as proposed new uses with the associated flood vulnerability classification for each use.

Table 1: Analysis of Preferred Options Local Plan Part 2 Allocations

Site/allocation	Environment Agency Flood Zone	Flood Zone within SFRA (with Flood Defences along River Trent)	Existing Uses (with flood vulnerability classification)	Proposed New Uses (with flood vulnerability classification)
Policy 5.1 – Land North of Nottingham Road*	Flood zone 2 Flood zone 3	Flood zone 1 Flood zone 2 (northern area of land adjacent to Holme Lane)	Agriculture (Less vulnerable)	Residential (More Vulnerable) Employment (Less Vulnerable)
Policy 5.5 – 72 Main Road*	Flood zone 2	Flood zone 1	Residential (More vulnerable)	Residential (More vulnerable)
Policy 6.1 – Land West of Wilford Road*	Flood zone 2 Flood zone 3 (adjacent to Packman Dyke and Wilford Road)	Packman Dyke not assessed within SFRA.	Agriculture (Less vulnerable)	Residential (More vulnerable) Open Space (Water compatible development)

*See maps in Appendix 1

3. Sequential Test

- 3.1 Government guidance in the NPPF and the Planning Practice Guidance do not prevent all development on sites at risk of flooding. It accepts that some form of development may have to take place on such sites. Due to the obvious risks of developing on land liable to flooding, the intention is to minimise risks to people and property.
- 3.2 The overall aim of the Local Plan should be to steer new development to Flood Zone 1. Where there are no reasonably available sites in flood zone 1, decision-makers should take into account the flood risk vulnerability of land uses and consider reasonably available sites in flood zone 2, applying the Exception Test if required. Only where there are no reasonably available sites in flood zones 1 or 2 should decision-makers consider the suitability of sites in flood Zone 3, taking into account the flood risk vulnerability of land uses and applying the Exception Test if required.
- 3.3 Within each flood zone, new development should be directed first to sites at the lowest probability of flooding and the flood vulnerability of the intended use matched to the flood risk of the site i.e. higher vulnerability uses should be located on parts of the site at lowest probability of flooding.

- 3.4 The Draft Local Plan Part 2 includes proposed development allocations in Flood Zones 2 and 3. The following tests consider those locations in sequence.

Preferred Options Sites within Flood Zone 2	
Could development proposed within Policy 5.5 (formally RAD06) (72 Main Road) be located within flood zone 1?	
No	<p>The Environment Agency’s flood risk map identifies the entire site within flood zone 2.</p> <p>Radcliffe is identified as a Key Settlement in the adopted Core Strategy, at which a minimum of 400 homes should be delivered on land that is currently in the Green Belt. The Draft Local Plan Part 2 proposes that around 920 homes should be delivered on land currently within the Green Belt. This reflects the sustainability of the settlement (which has primary schools and a secondary school, doctor’s surgery, retail centre, library, regular bus services to Nottingham and a rail service), but also the need to deliver enough housing development to support the delivery of a new primary school.</p> <p>RAD06 is located within Radcliffe on Trent, adjacent to the main bus route which connects the village to the City of Nottingham. It is also in close proximity to the village centre. As such it is considered one of the most sustainably located allocations in the borough. There are no reasonable alternatives which are consistent with the wider sustainability objectives as set out in the Core Strategy and Neighbourhood Plan. The sequential test is therefore passed.</p> <p>As a ‘more vulnerable’ development in flood zone 2, no exception test is required. In accordance with national guidance, it would however require a flood risk assessment of surface water management, access and evacuation and floor levels.</p>
Preferred Options Sites within Flood Zone 2 and Flood Zone 3	
Could development proposed within Policy 5.1 (formally RAD01) (Land North of Nottingham Road) be located within flood zone 1 or 2?	
No	<p>The Environment Agency’s flood risk map identifies the entire site within flood zone 2 and small area in the south west corner, either side of a stream which feeds into nearby Polser Brook, within flood zone 3.</p> <p>Given the limited area within flood zone 3 and its location in the south west corner of the site, development in this area that is vulnerable to flooding can be avoided. In addition, the requirement to provide a 10m buffer either side of this stream will prevent development in this flood zone. Avoidance of Flood Zone 3 is assured through part b) of policy 5.1 which states that <i>vulnerable development within flood zone 3 (within a small area of the site’s south western corner) must be avoided.</i></p>

Regarding the remainder of site which is within flood zone 2 and the sequential assessment of reasonable alternatives in flood zone 1, Radcliffe on Trent is identified as a Key Settlement in the adopted Core Strategy, at which a minimum of 400 homes should be delivered on land that is currently in the Green Belt. The Local Plan Part 2 Preferred Housing Sites proposes around 920 homes should be delivered on land currently within the Green Belt. This reflects the sustainability of the settlement (which has primary schools and a secondary school, doctor's surgery, retail centre, library, regular bus services to Nottingham and a rail service), but also the need to deliver enough housing development to support the delivery on a new primary school.

Land allocated within policy 5.1 is located adjacent to Nottingham Road, west of the village. It is sustainably located close to the village centre and adjacent to the bus route. Critically the site can be easily accessed of the A52 without increasing traffic and congestion within the village. The recently adopted Radcliffe on Trent neighbourhood plan (part of the Borough's development plan) identifies land between the railway embankment and the village (including this land) as a preferred location for new housing.

The site is not identified as being of significant importance to Green Belt purposes, unlike alternatives sites to the east which protrude further into the open countryside and have greater impacts on the wider landscape.

Furthermore, RAD01 is proposed as a mixed use allocation for both residential and employment development, with the latter located west of the existing national grid power lines.

Given the type of development and its location, there are no reasonable alternative locations for mixed use employment and residential development identified within flood zone 1 which are consistent with the wider sustainability objectives as set out in the Core Strategy and Neighbourhood Plan.

Whilst the SFRA does not form part of the sequential assessment (it would inform subsequent flood risk assessment for more vulnerable development in flood zone 2, and Sustainability Appraisal), it determines that the disused railway embankment provides flood defence and reduces areas within flood zone 2 to land adjacent to Holme Lane (north of the site where the lane through the embankment allows the ingress of water) and identifies the risk of flooding according to climate change scenarios.

Opportunities exist to create open space within this northern area of the site, which is a water compatible land use.

	<p>As a 'more vulnerable' development in flood zone 2, no exception test is required. In accordance with national guidance, it would however require a flood risk assessment of surface water management, access and evacuation and floor levels.</p>
<p>Could development proposed within Policy 6.1 (previously RUD01) (Land West of Wilford Road) be located within flood zone 1 or 2?</p>	
<p>No</p>	<p>Site contains areas within flood zone 2 and 3, notably along the Packman Dyke which flows into the Fairham Brook and adjacent to Wilford Road.</p> <p>Ruddington is identified as a Key Settlement in the adopted Core Strategy, at which a minimum of 250 homes should be delivered on land that is currently within the Green Belt. The Draft Local Plan Part 2 proposes that around 410 homes should be delivered on land that is currently within the Green Belt. This reflects the sustainability of the settlement and the capacity of local services to accommodate additional housing.</p> <p>Whilst alternative allocations which do not contain land within flood zones 2 of 3 do exist on the edge of Ruddington, these sites are not considered reasonable alternatives as they are constrained by environmental (landscape), heritage issues (impacts on the Conservation Area and/or listed buildings) or their contribution to Green Belt purposes (notably the prevention of merging). In addition, the development of this site, would lead to less congestion within the village itself than some other options.</p> <p>Given the size of the site, opportunities exist to locate more vulnerable housing outside of flood zone 3 (within flood zones 1 and 2). This area could comprise water compatible open space adjacent to Packman Dyke and Wilford Road. The prevention of development within a 10m buffer either side of would, if included within the emerging Local Plan Part 2, ensure vulnerable development adjacent to Packman Dyke is prevented. Avoidance of Flood Zone 3 is assured through part a) of policy 6.1 which states that: <i>vulnerable development should not be located within flood zone 3.</i></p> <p>As a 'more vulnerable' development in the remaining area of flood zone 2, no exception test is required. In accordance with national guidance, it would however require a flood risk assessment of surface water management, access and evacuation and floor levels.</p>

Summary of Sequential Test

Policy 5.5

- 3.5 There are no reasonable alternative sites that are consistent with wider sustainability objectives. Land allocated within policy 5.5 is located within Radcliffe on Trent and is considered one of the most sustainable allocations

within the emerging Local Plan part 2. It therefore passes the sequential test. Furthermore, as a 'more vulnerable' use in flood zone, no exception test is required.

Policy 5.1

- 3.6 The proposed mixed use development within policy 5.1 (in flood zone 2 and limited area in flood zone 3) cannot be relocated to a reasonable alternative site within flood zone 1. Alternative sites are limited and have either been identified as allocations in the emerging plan or are located in less sustainable locations, would have a greater impact on the Green Belt, or adversely affect landscape or biodiversity. Critically it accords with the distribution of development sought by the adopted Core Strategy and adopted neighbourhood plan. It therefore passes the sequential test.
- 3.7 More vulnerable (housing) and less vulnerable development (employment) within policy 5.1 can be located outside of flood zone 3 within flood zone 2 and therefore no exception test is required.
- 3.8 Any subsequent flood risk assessment would be informed by the updated SFRA which indicates that, provided developments are not breached existing defences currently reduce areas within flood zone 2 to those adjacent to Holme Lane. This position would remain with of the climate change scenarios.

Policy 6.1

- 3.9 The site passes the sequential test and, in accordance with the Planning Practice Guidance, as a 'more vulnerable' and 'less vulnerable' forms of development will be within flood zone 2, no exception test is required.
- 3.10 Land allocated within policy 6.1 cannot be relocated to alternative locations within flood zone 1 or 2 that are 'reasonable' sites. Alternative sites are limited and are either located in less sustainable locations (impacting on heritage assets) or would have a greater impact on the Green Belt. The site therefore passes the sequential test.
- 3.11 As policy 6.1 is a residential allocation (a 'more vulnerable' development) and includes land within flood zone 3, it should be subject to the exception test. However there are opportunities to avoid development within flood zone 3 and this is set out in part a) of policy 6.1. With this policy requirement included there is no requirement to undertake the exception test.

Appendix 1: Preferred Housing Sites within Flood Zones 2 and 3

Radcliffe on Trent

Sites RAD01 (Policy 5.1), RAD02 (Policy 5.2), RAD03 (Policy 5.3), RAD05a (Policy 5.4), RAD06 (Policy 5.5) and RAD13 (Policy 5.6) are identified as housing allocations within the draft Local Plan Part 2.

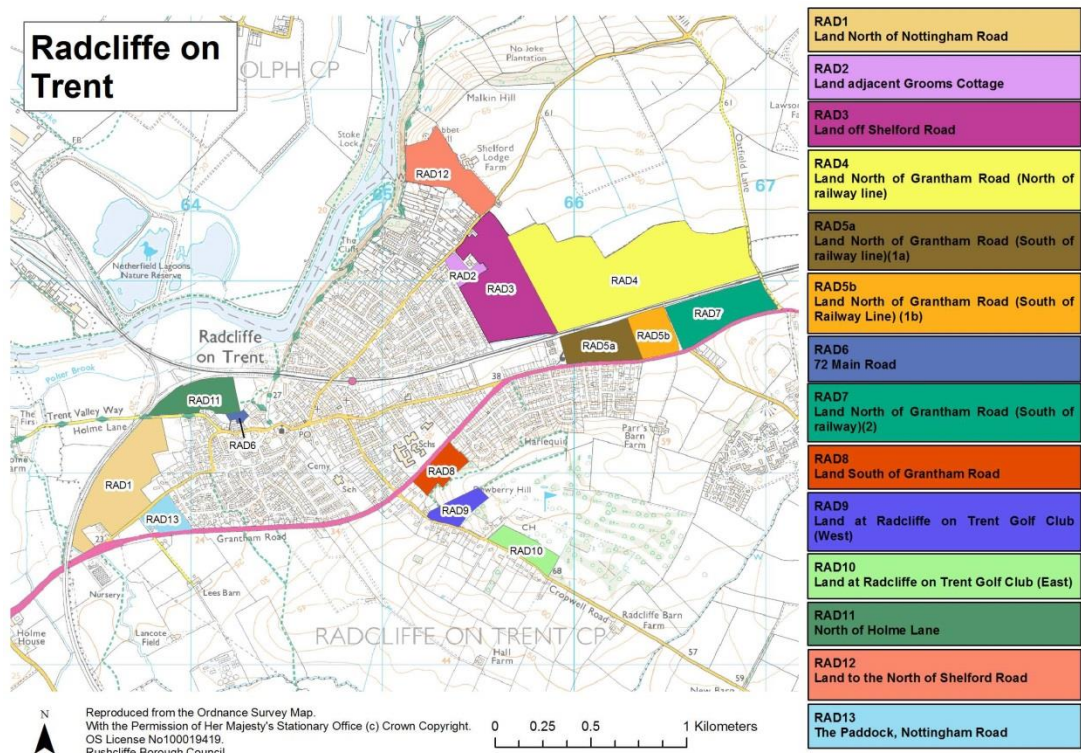


Figure 1: Housing site options – Radcliffe on Trent

RAD01 contains land within flood zone 2 and 3, and RAD06 contains land within flood zone 2.

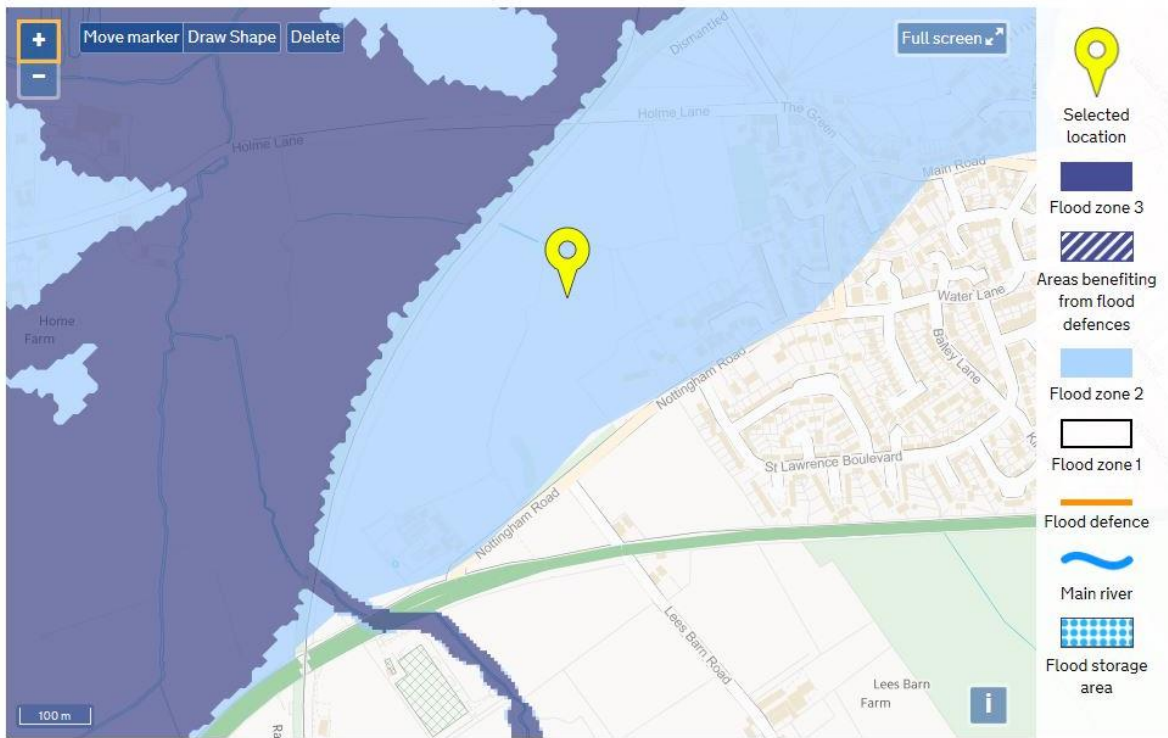


Figure 2: Policy 5.1 (RAD01)

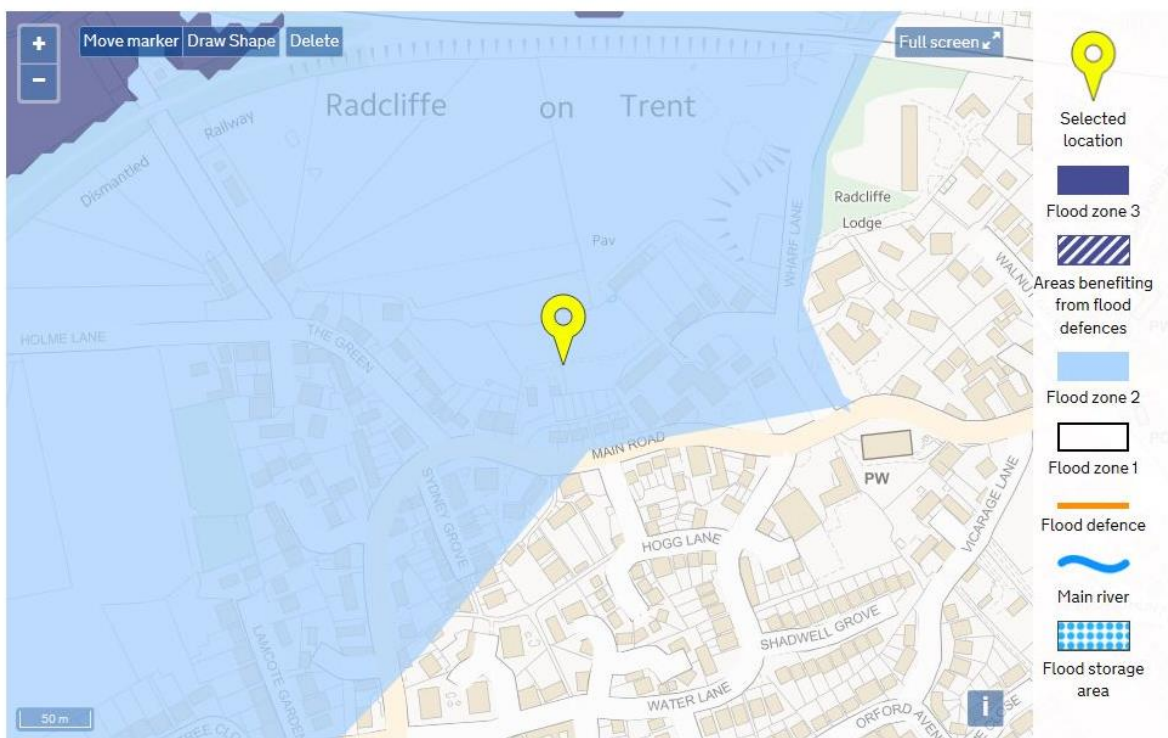


Figure 3: Policy 5.5 (RAD06)

Ruddington

RUD01 (Policy 6.1), RUD05 (Policy 6.2) and RUD13 (Policy 6.3) have been identified as preferred housing sites.

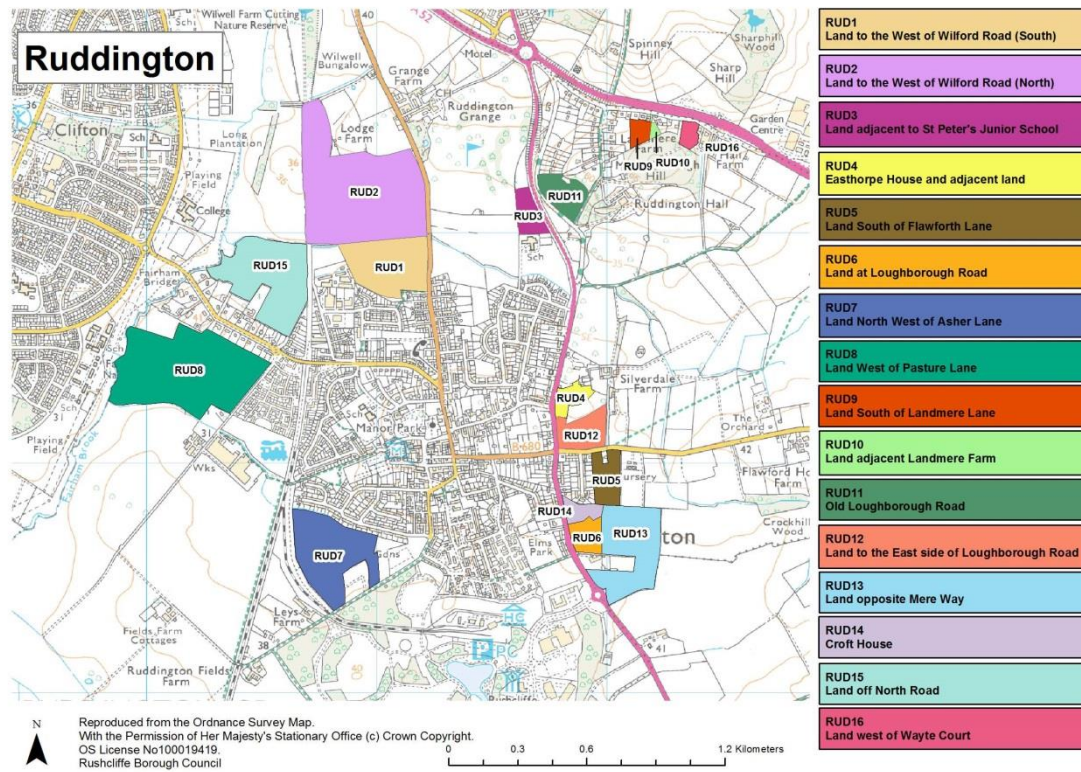


Figure 4: Housing site options – Ruddington

RUD01 contains land within flood zones 2 and 3.

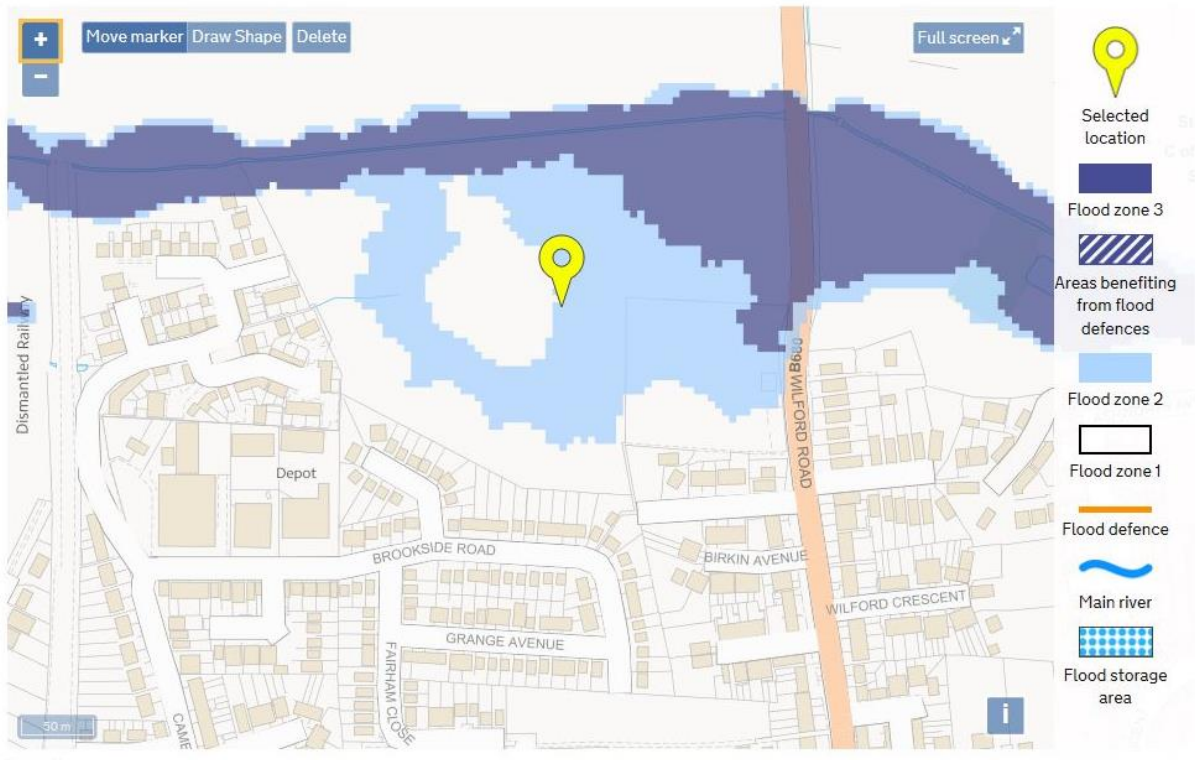


Figure 4: Policy 6.1 (RUD01)