

SOUTH DERBYSHIRE
DISTRICT COUNCIL
LOCAL PLAN PART 1
REVIEW (2022-2041)
FLOOD RISK
SEQUENTIAL TEST

Introduction

This document has been prepared to support the South Derbyshire Local Plan Part 1 Review. The purpose of this document is to provide evidence of the application of the sequential test to the allocated development sites within South Derbyshire District.

The South Derbyshire Local Plan Part 1 Review covers the period 2022-2041. It updates the existing Local Plan Part 1 Policies to reflect National Planning Policy, helps address Derby City's unmet housing need and South Derbyshire's housing and employment development needs.

In accordance with the transitional arrangements South Derbyshire's housing requirement over the plan period is 8874 dwellings (522 per annum). The District Council however does not plan in Isolation. South Derbyshire shares a Housing Market Area (HMA) with Derby City and Amber Valley (the Derby HMA). Derby City's capacity is constrained to 12,500 dwellings leaving an unmet need.

The Derby Housing Market Area (HMA) Councils commissioned a joint HMA wide Sustainability Appraisal, this considered different approaches to meeting the scale and distribution of development across the HMA. This concluded that distribution options which perform most positively are those which reflect the limited capacity within Derby and distribute the Derby unmet need to the Urban Fringe areas, with an apportionment between Amber Valley and South Derbyshire. Options which direct more of the Derby unmet need to the South Derbyshire Urban Fringe would benefit from good potential for accessibility to services and facilities through achieving a degree of self-sufficiency within large urban extensions and through accessibility into Derby by sustainable transport.

Policy Context

National Planning Policy Framework (NPPF: 2023) paragraph 159 states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at higher risk to areas sequentially preferable in flood risk terms. Paragraphs 161 and 162 of the NPPF require that allocations for development in areas of flood risk should apply the sequential approach to development to ensure that there are no suitable, 'reasonably available' alternative sites in a lower flood risk area. This is also referred to as the sequential test and if it is not implemented for sites at the plan making stage, national guidance requires that it is implemented at the planning application stage.

The supporting Planning Practice Guidance (PPG) section on Flood Risk and Coastal Change provides guidance on the application of the sequential test, including regarding the definition of what might represent a 'reasonably available' alternative site (PPG, para. 28). This includes *"those in a suitable location for the type of development ... These could include a series of smaller sites and/or part of a larger site if these would be capable of accommodating the proposed development."*

The sequential test “ensures that a sequential, risk-based approach is followed to steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account. Where it is not possible to locate development in low-risk areas, the Sequential Test should go on to compare reasonably available sites:

- Within medium risk areas; and
- Then, only where there are no reasonably available sites in low and medium risk areas, within high-risk areas.”¹.

Following a sequential test, an exception test is required when vulnerable development (as defined in Annex 3 of the NPPF) is proposed in Flood Zones 2 and 3. In line with paragraph 164 of the NPPF this would need to demonstrate that the benefits of the development to the community outweigh the flood risk. Additionally, it must also be demonstrated that the development will be safe for its lifetime in the context of flood risk, taking into account the vulnerability of its users and the risk of increased flooding elsewhere.

Methodology

The process of applying the sequential test is outlined below and within paragraph 26 of the PPG.

¹ National Planning Practice Guidance Paragraph 24 [Flood risk and coastal change - GOV.UK](#)

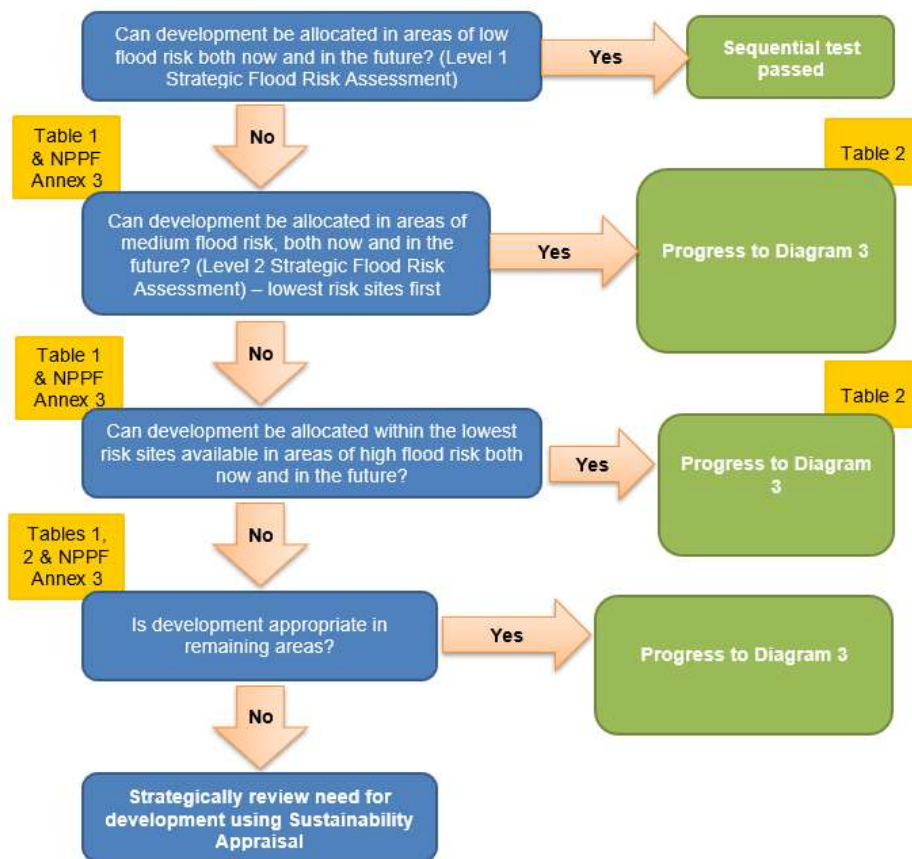


Figure 1: The process of applying the Sequential Test in Local Plans

The following Flood Zones are identified within the PPG which applies to both main river and ordinary watercourses across the country.

Table 1: PPG defined flood zones

Flood Zone	Probability	Description
Zone 1	Low	Land having a less than 0.1% annual probability of river or sea flooding.
Zone 2	Medium	Land having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding.
Zone 3a	High	Land having a 1% or greater annual probability of river flooding; or Land having a 0.5% or greater annual probability of sea
Zone 3	The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood.

South Derbyshire District Council's Level 1 Strategic Flood Risk Assessment (SFRA) was updated in February 2025 which provides a thorough strategic assessment of all

flood risk types within the district. The Council's [SFRA Level 1](#) along with the flood zones as defined by the Environment Agency maps as updated in March 2025 have been used as the basis for the application of the sequential test. The sequential test should be applied to the whole plan area to increase the possibilities of accommodating development which is not exposed to flood risk.

Residential proposals

The Derby Housing Market Area Growth Options Study (August 2021) defined strategic growth locations as those capable of accommodating approximately 1000 homes at a reasonable net density of 35-40 dwellings per hectare. This represents the minimum size of development that would accommodate a primary school and social infrastructure such as a GP surgery. The Growth Options study was 'policy off' in regard to Green Belt. The study identified 11 broad areas for search within the South Derbyshire authority area. The broad areas for search were then assessed further against a range of constraints to determine their suitability for strategic scale growth including whether they were being promoted for development. The review of environmental constraints included analysis of flood risk issues in line with strategic flood risk assessments, and considered how these might be mitigated, taking into account flood zones and the extent to which areas are affected by surface water, ground water or reservoir flooding. In combination with other constraint assessments the study identified 4 areas within South Derbyshire as suitable for strategic growth. These have been subjected to sequential testing (detailed in table 2) as reasonably available alternative sites. Other smaller sites are not considered to be reasonably available for the purposes of strategic development. These were assessed in strategic terms as part of the 'dispersed option' in the [HMA Sustainability Appraisal of Housing Options](#) and did not perform as well as the strategy selected in sustainability terms.

Provision has been made in the Local Plan Part 1 Review for at least 14,500 dwellings. The Part 1 Local Plan Review identifies 14 allocations which are expected to deliver housing within the plan period and 1 residential allocation which is expected to deliver beyond the plan period. Of the 14 allocations expected to deliver within the plan period 12 have been rolled forwards from the Part 1 Local Plan 2016 and were selected through the sequential test through the last Local Plan process. In addition, all of the rolled forwards sites have been through or are going through the planning process and have either been granted consent or are waiting for their applications to be determined. Where necessary, all of the applications were accompanied by a site-specific flood risk assessment, and consultation was undertaken with the Environment Agency.

In addition to the above allocations the Council has identified an area for future development to be delivered beyond the plan period. The 'FLG1: Long Term Strategic Housing Growth Area South of Mackworth' has been selected through collaboration with Amber Valley Brough Council as part of the Derby HMA to ensure

housing needs in the Housing Market Area are addressed in a sustainable and coordinated manner. The Inspectors at the Amber Valley Local Plan Examination indicated that Amber Valley should work in partnership with Authorities including South Derbyshire District Council to identify the Mackworth site as a future location for long term strategic housing growth. In response South Derbyshire District Council have identified an area of land to the south of the Amber Valley Brun Lane site to ensure that a comprehensive development is achieved with the SDDC element to complement the larger portion of the site in AVBC and to assist in its delivery with the wider site to be extended to incorporate a road frontage in South Derbyshire, and to assist with the long-term ambition to deliver a South West Derby Integrated Transport Link. The Brun Lane site in Amber Valley has been the subject of a separate sequential test which was submitted as part of their Local Plan examination. As a result of the site being an extension to an existing site in Amber Valley there is not considered to be any available alternative locations.

Employment proposals

The Part 1 Local Plan Review identifies 11 locations to deliver employment development within the plan period. Of the 11 allocations 8 have been rolled forwards from the Part 1 Local Plan 2016 and have therefore been identified through the sequential test from the last Local Plan process. Of the remaining 3 allocations one, the Former Drakelow Power Station, was identified as a location for future development in the previous Local Plan and therefore has already been through the sequential test process but has now been formally allocated for employment development in this Local Plan. The remaining two are delivering employment as part of a wider residential-led scheme (detailed above). Table 2 details the sequential test for these sites.

The East Midlands Intermodal Park Strategic Rail Freight Interchange / East Midlands Freeport proposals has been identified by the UK Government and parts of it outside South Derbyshire have been operational since 2023. It aims to deliver a low carbon advanced manufacturing and logistics hub, with connectivity by rail, road and air. It will deliver through three major development sites: East Midlands Airport and Gateway Industrial Cluster (EMAGIC), Ratcliffe-on-Soar Power Station and East Midlands Intermodal Park. The proposal represents a Nationally Significant Infrastructure Project (NSIP), which are considered by the Government to be of such national importance that permission to build them needs to be given at national level. NSIPs are therefore not determined by the local planning authority, but rather are given planning permission via a Development Consent Order (DCO). This is an application for approval to construct a NSIP and is dealt with by the Planning Inspectorate, which recommends the application to the Secretary of State, whom in turn has the authority to decide upon whether development should go ahead. The site has been included in the sequential test because it is being allocated by the Council however, the authority does not have control over the consenting process. The site in South Derbyshire has been selected because of its rail connectivity and

there were not considered to be any other reasonably available alternatives. Green Infrastructure proposed as part of the site's allocation is also proposed to improve flood risk, recreational and active travel opportunities off site.

Application of the Sequential Test

Table 2: The Sequential Test

A stage one analysis of the site allocations is set out in table 2 below	% of site within Fluvial Flood Zone			% of site within Surface Water Flooding			Climate Change %		Groundwater	Drainage	Development Vulnerability	Exception Test Candidate (Y/N)
	1	2	3	30-year (High)	100-year (Medium)	1000-year (Low)	100-year (medium)	1000 – year (low)				
STRA1: Infinity Garden Village	69.36	24.77	5.94	6.00	6.40	18.96	< 5	< 5	Y	(Y/N)	Essential Infrastructure / Water Compatible / Highly / More / Less	Compare Flood Zone and Development Vulnerability within NPPF
STRA2: Land South of Mickleover	97.18	2.01	0.81	19.7	10.57	22.87	< 1	< 1	Y	Y	Housing – more vulnerable Employment – Less Vulnerable	Y
South of Littleover	75.44	1.71	22.85	5.70	2.69	6.67	< 25	< 25	Y	Y	Housing – more vulnerable Employment – Less Vulnerable	Y
Thulston Fields	100	0	0	6.63	5.83	15.07	0	0	Y	N	Housing – more vulnerable	N
STRA3: Former Drakelow Power Station	43.77	22.17	34.06	0.60	1.86	5.49	< 50	< 50	Y	N	Solar Farm – Essential Employment – Less Vulnerable	N
FLG1: Long Term Strategic Housing Growth Area South of Mackworth	100	0	0	0.46	0.31	0.55	0	0	Y	N	Housing – more vulnerable	N
INF3 – East Midlands Intermodal Park Strategic Rail Freight Interchange / East Midlands Freeport	94.41	2.51	3.08	3.76	2.32	4.55	< 10	< 10	Y	Y	Employment – Less Vulnerable	N

Drainage - if there was an existing drain within the site boundary this was classified as 'Yes'. This would need further consideration through a site-specific Flood Risk Assessment which would need to be submitted through the planning application process. It is not considered that drainage would affect the site selections process due to the scale of the sites being considered for allocation.

Groundwater – If the site was in the over 75% risk category for high or medium-high groundwater risk, this was classed as 'Yes', this needs further consideration in a site-specific Flood Risk Assessment

Site Specific Flooding Details

Site	Summary of the flood risk
STRA1: Infinity Garden Village	Fluvial Flood Risk: Two thirds of the site is located within Flood Zone 1, the residual is predominantly in Flood Zone 2 which is located in the central portion of the site with a small proportion to the north in Flood Zone 3. Flooding comes from Barrow Drain which crosses the site and a main drain which runs adjacent to Sinfin Lane. Given the mix of uses on the site and the scale of the site it is considered that more vulnerable uses could be directed towards areas at lower risk of flooding and measures could be undertaken on the site to mitigate the risk of flooding. Surface Water: 6% of the site is at risk of surface water flooding in 1 – 30 year flooding events. This is predominantly around the main drain adjacent to Sinfin Lane. Climate Change: The areas most affected by climate change flood extents are at the edges of the sites to the east and west. It is considered that development within the site could be designed so as to avoid these areas and measures could be integrated into the design of the site to alleviate these issues. Groundwater vulnerability: The southern part of the site is at high or medium-high risk of groundwater flooding. The central part of the site where the majority of built development is likely to take place is at medium-low risk of flooding. <i>A sequential approach to site layout, taking this into account should be considered through site specific Flood Risk Assessment.</i>
STRA2: Land South of Mickleover	Fluvial Flood Risk: The majority of the site (in excess of 97%) is located within Flood Zone 1. The area of the site withing Flood Zone 2 & 3 is located to the northeast of the Day Nursery to the north of the site between Staker Lane and the A38. Surface Water: Just under 20%of the site is at high risk for surface water flooding, this is predominantly focused around the existing water courses that dissect the site. Climate Change: A very small area of the site to the south east is affected by the climate change flood extents. It is considered that development within the site could be designed so as to avoid these areas and measures could

	be integrated into the design of the site to alleviate these issues. Flooding here would largely affect the A38 and potential access into the site from the south east. The site should be designed so that access can be gained to the site from an alternative route. Groundwater Vulnerability: The site is wholly covered by high, medium-high and medium risk of groundwater vulnerability. <i>A sequential approach to site layout, taking this into account should be considered through site specific Flood Risk Assessment.</i>
South of Littleover	Fluvial Flood Risk: Just under 23% of the site is located within Flood Zone 3 as a result of Hell Brook which runs through the site north to south. Surface Water: Just under 6% of the site is at risk of surface water flood (1 in 30), this is focused around Hell Brook. Climate change: Just under 25% of the site would be affected by flooding as a result of climate change. Groundwater Vulnerability: The site is at high, medium-high and medium risk of groundwater flooding. <i>A sequential approach to site layout, taking this into account should be considered through site specific Flood Risk Assessment.</i>
Thulston Fields	Fluvial Flood Risk: The site is not affected by fluvial flooding as 100% of it is located in Flood Zone 1. Surface Water: Less than 7% of the site is at high risk of flooding. Surface water flood risk is focused around the existing field drainage system. Climate change: The site would not be affected by flooding as a result of climate change. Groundwater Vulnerability: The site is predominantly at high and medium-high risk of groundwater flooding with some medium and low risk areas. The site is also the only one of the sites being considered that is also covered by soluble rock risk. <i>A sequential approach to site layout, taking this into account should be considered through site specific Flood Risk Assessment.</i>

STRA3: Former Drakelow Power Station	Fluvial Flood Risk: More than 50% of the site lies within Flood Zones 2 or 3 although much of this is concentrated to the north where the existing local wildlife site is located. There is however flood risk (Flood zone 2 and 3) at the entrance to the site where it's likely that road access would be required. Surface Water: Less than 1% of the site is at high risk of surface water flooding. Climate Change: Similar to fluvial flood risk a large portion of the site is affected by flood risk as a result of climate change. Groundwater Vulnerability: The site is wholly at medium-high risk of groundwater flood risk. <i>A sequential approach to site layout, taking this into account should be considered through site specific Flood Risk Assessment.</i>
FLG1: Long Term Strategic Housing Growth Area South of Mackworth	Fluvial Flood Risk: The site is not affected by fluvial flooding as 100% of it is located in Flood Zone 1. Surface Water: Less than 1% of the site is at high risk of surface water flooding. Climate Change: The site would not be affected by flooding as a result of climate change. Groundwater Vulnerability: The site is wholly at high risk from groundwater flood risk with a small portion of the site covered by soluble rock risk.
INF3 – East Midlands Intermodal Park Strategic Rail Freight Interchange / East Midlands Freeport	Fluvial Flood Risk: Less than 6% of the site is located in either flood zone 2 or 3. This is located predominantly around the existing sewage treatment farm. Surface Water: Less than 4% of the site is at high risk of flooding from surface water. Climate Change: Less than 10% of the site would be affected as a result of climate change. Groundwater vulnerability: The site is at high and medium-high risk of groundwater flood risk. <i>A sequential approach to site layout, taking this into account should be considered through site specific Flood Risk Assessment.</i>

Conclusions from the sequential test:

For fluvial flood risk the site at the least risk of flooding is Thulston Fields, which was at no risk of fluvial flooding and would not be subject to the exception test. The land south of Littleover was at the highest risk of flooding with just under a quarter of the site located within flood zone 3. The land at Thulston Fields is the only strategic scale site identified by the growth options study as suitable, when considered under a policy off approach, located within the Nottingham / Derby Green Belt. When considering the policy on approach despite its low level of fluvial flood risk there are other suitable strategic site options identified by the growth options study available to SDDC to meet the unmet housing need from Derby in full without the need for Green Belt boundary change. In addition, the two selected sites in the Local Plan were subject to Sustainability Appraisal (in [2024](#) and [2025](#)) including comparison to reasonable alternatives for the scale of development proposed, with the two selected sites performing best on a range of sustainability criteria. It is therefore considered that the exceptional circumstances necessary to amend the Green Belt boundary through the Local Plan do not exist. Therefore, Thulston Fields is not considered to be a reasonable alternative for site selection purposes.

Of the three remaining sites identified as suitable by the growth options study the site south of Littleover had proportionally more land within flood zone 3 than the other two sites (23% compared to 6% and 1% respectively) albeit that the Infinity Garden Village site has significantly more land in comparative terms in flood zone 2 compared to the other two sites. Land South of Mickleover is at the highest risk of surface water flooding however, the strategic scale of all of the sites being considered for allocation means that it should be possible to direct development to areas of lower risk of surface water flooding through design informed by a site-specific flood risk assessment making them safe from flood risk for the lifetime of the development. In all cases it should also be possible to improve the impact of surface water flooding through the use of on-site flood mitigation measures. All sites were at high risk of groundwater flooding, as was the vast majority of the District. Infinity Garden Village and land South of Mickleover were required to pass the Exception Test (shown in table 3) to be considered further for allocation.

Exception Test

For the Exception Test to be passed it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk.

Table 3- Sustainability Checklist-Wider Sustainability Benefits

Site allocation	Site Ref	Flood Zone(s)	Sustainability Appraisal Objectives	Wider Sustainability Benefits (Reason the site is allocated)	Mitigation
Infinity Garden Village	STRA1	2/3a	SA1 (Biodiversity) SA2 (Housing) SA3 (Accessibility and Health) SA6 (Economy) SA7 (Employment) SA8 (Infrastructure) SA9 (Sustainable Travel)	- Development in this location would assist in meeting the unmet need of Derby in close proximity to where the need is arising. - Potential significant positive effects have been identified in relation to SA2 (Housing), SA6 (Economy) and SA7 (Employment). - The site is able to deliver a high number of homes (2,000) of which a high proportion will be affordable housing. - The site will provide new Gypsy and Traveller pitches for which there is a high unmet need in the district. - The site is located on the periphery of the Derby Urban Area so within close proximity to existing services - The site is located within a close distance to a number of existing	- SUDs would be applied to mitigate the risk of flooding on the development - At the planning application stage an exception test would be undertaken - Less vulnerable development can be located in areas at lower flood risk.

Land South of Mickleover	STRA2	2/3a	SA1 (Biodiversity) SA2 (Housing) SA3 (Accessibility and Health) SA6 (Economy) SA7 (Employment) SA8 (Infrastructure) SA9 (Sustainable Travel)	employment sites and provides the opportunity for this to be enhanced through the proposed 70ha extension to Infinity Park Derby. - The site is of a scale that it can deliver retail, healthcare and community facilities including refurbishing the existing Sinfin Health Centre which serves the wider community. - The site will provide on-site primary and secondary education provision which will assist with alleviating secondary school capacity at John Port. - The site will assist in the delivery of Infrastructure to benefit growth in the wider area including the new junction and Link Road to the A50. - Development in this location would assist in meeting the unmet need of Derby in close proximity to where the need is arising. - Potential significant positive effects have been identified for Site 3 (Land South of Mickleover) in relation to SA1 (Biodiversity), SA2 (Housing), SA6 (Economy) and SA7 (Employment). - The site is able to deliver a high number of homes (2,500) of which a high proportion will be affordable housing.	- SUDs would be applied to mitigate the risk of flooding on the development - At the planning application stage an exception test would be undertaken - Less vulnerable development can be located in areas at lower flood risk.
--------------------------	-------	------	---	--	--

				- The site will provide new Gypsy and Traveller pitches for which there is a high unmet need in the district. - The site is located on the periphery of a residential site. - There is lots of facilities located close by including schools , GP surgeries and existing employment sites. - The site is of a scale that it can deliver retail, healthcare and community facilities. - The site will provide contributions towards primary and secondary education provision. - The site will assist in the delivery of Infrastructure to benefit growth in the wider area including a transport link between the A516 and A38 to assist in the delivery of the South and West Derby Integrated Transport link	The site is located close to existing employment sites.
--	--	--	--	---	---