

Derby Housing Market Area Growth Options Study

Prepared on behalf of: Derby City Council, Amber Valley
Borough Council and South Derbyshire District Council

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Quality information

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Executive Summary

Background

Derby City Council, Amber Valley Borough Council and South Derbyshire District, which jointly form the Derby Housing Market Area (HMA), have commissioned town planning, infrastructure and environment consultants AECOM to identify and assess strategic opportunities for housing-led sustainable new growth within the Derby HMA (the Growth Options Study).

The purpose of this study is to add to the evidence base informing the preparation of future Development Plan Documents and non-statutory strategies for the period up to 2050 by:

- Identifying potential locations for future growth in the HMA; and
- Considering, at a strategic level, the pros and cons of those potential locations for future growth.

The study area and scope of this commission specifically excludes any assessment of capacity within the Derby City Council area (this will be addressed in a separate evidence base report).

Disclaimer: *This report does not identify specific strategic sites or preferred development locations. Nor does the report quantify the precise level of growth that each of the locations could accommodate. This information will follow in future stages of the plan-making process when allocations are identified by the Local Planning Authorities. For the purposes of this report, Broad Areas of Search are assessed. The boundaries identified in Section 3 are for illustrative purposes and do not follow ownership boundaries or firm defensible boundaries. The areas shown highlight an extensive area that has been assessed by technical specialists in the round applying professional judgement to the Broad Area of Search and its immediate environs. This Growth Options Study provides an initial assessment of broad areas of search that may have potential as future growth locations. Should any of the locations be taken forward for formal consultation, they will need to be supported by more detailed site specific investigations and consideration of sub-regional infrastructure delivery.*

Study approach

This study broadly follows a two-stage approach, informed by synthesising the existing evidence base, detailed spatial analysis (including GIS modelling), site visits and engagement with statutory consultees and infrastructure providers.

Stage 1 establishes a baseline by:

- Identifying and analysing broad assessment areas, covering the entire study area comprising the Derby Housing Market Area (excluding Derby City¹) and leading to the establishment of broad areas of search to be interrogated at stage 2; and
- Assessing the suitability of existing settlements to accommodate strategic growth in terms of their position in the settlement hierarchy and the extent to which they provide sustainable access to services.

Stage 2 assesses the broad areas of search identified under stage 1 to define more refined locations that are potentially suitable for strategic growth, to be interrogated further through the plan-making stages to follow. It also highlights what mitigating measures would be likely to be required to enable development.

The approach is described in more detail in the relevant chapters below. Both stages are built around the analysis of technical experts against a range of criteria, including:

- Environmental constraints;
- Geo-environmental considerations;
- Transport and accessibility;
- Infrastructure capacity and potential;

¹ Locations adjoining the City and cross border issues are considered as part of the study.

- Landscape and topography;
- Heritage considerations;
- Housing demand;
- Regeneration and economic development potential; and
- Spatial constraints and opportunities

This study defines strategic growth locations as being capable of accommodating a minimum of approximately 1,000 homes at a reasonable net density of 35-40 dwellings per hectare, translated to a gross (site-wide) density of 17-20 dwellings per hectare. This represents the typical minimum size of development that would accommodate a primary school and social infrastructure, such as a GP surgery.

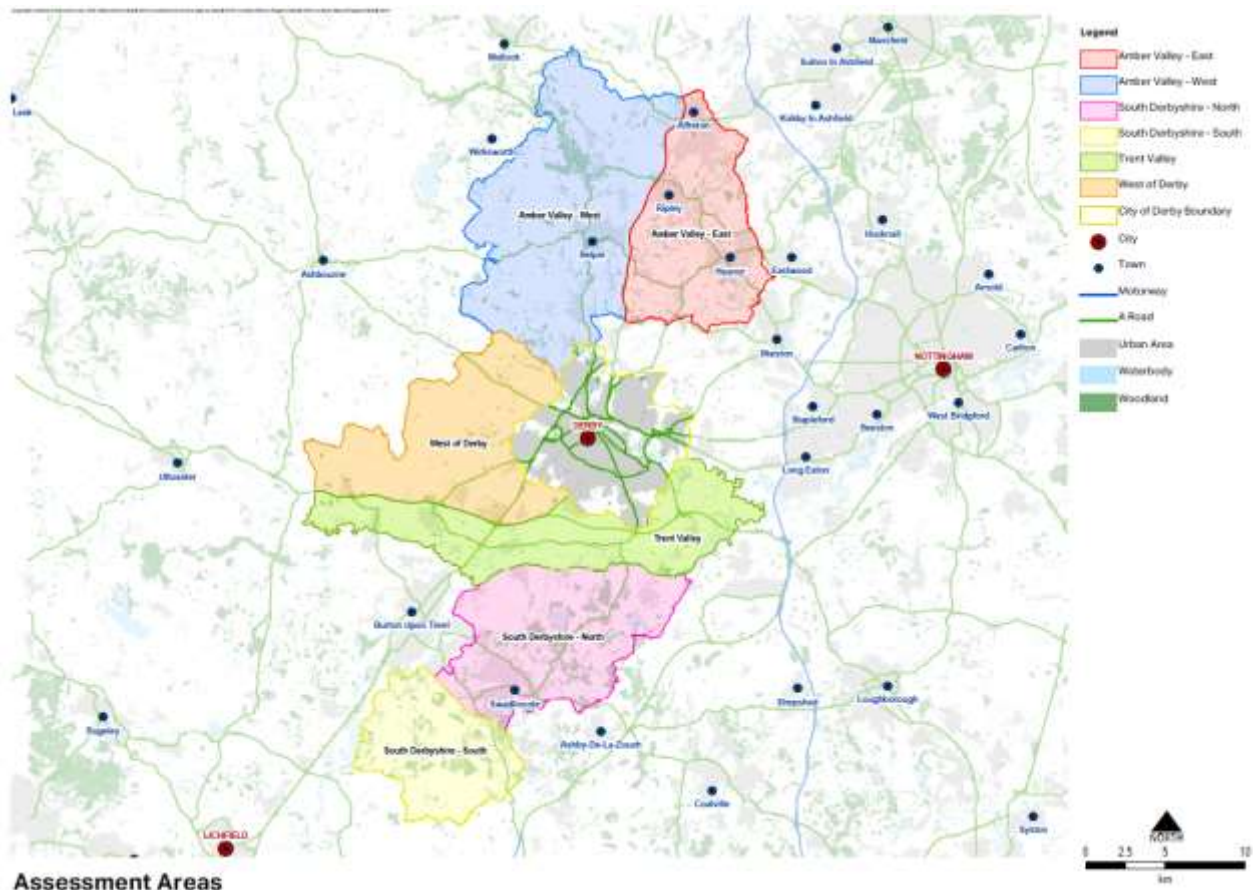
Each location's suitability is determined in the light of its performance against standard criteria derived from and measured against national policy, having regard to the unique local characteristics of the study area.

The study is 'policy off' with regards to Green Belt designation. This is to say that being in the Green Belt per se does not render a location unsuitable for strategic development. However, the Green Belt purposes in paragraph 138 of the NPPF, such as to prevent neighbouring towns merging into one another and to assist in safeguarding the countryside from encroachment, are built into the wider assessment criteria.

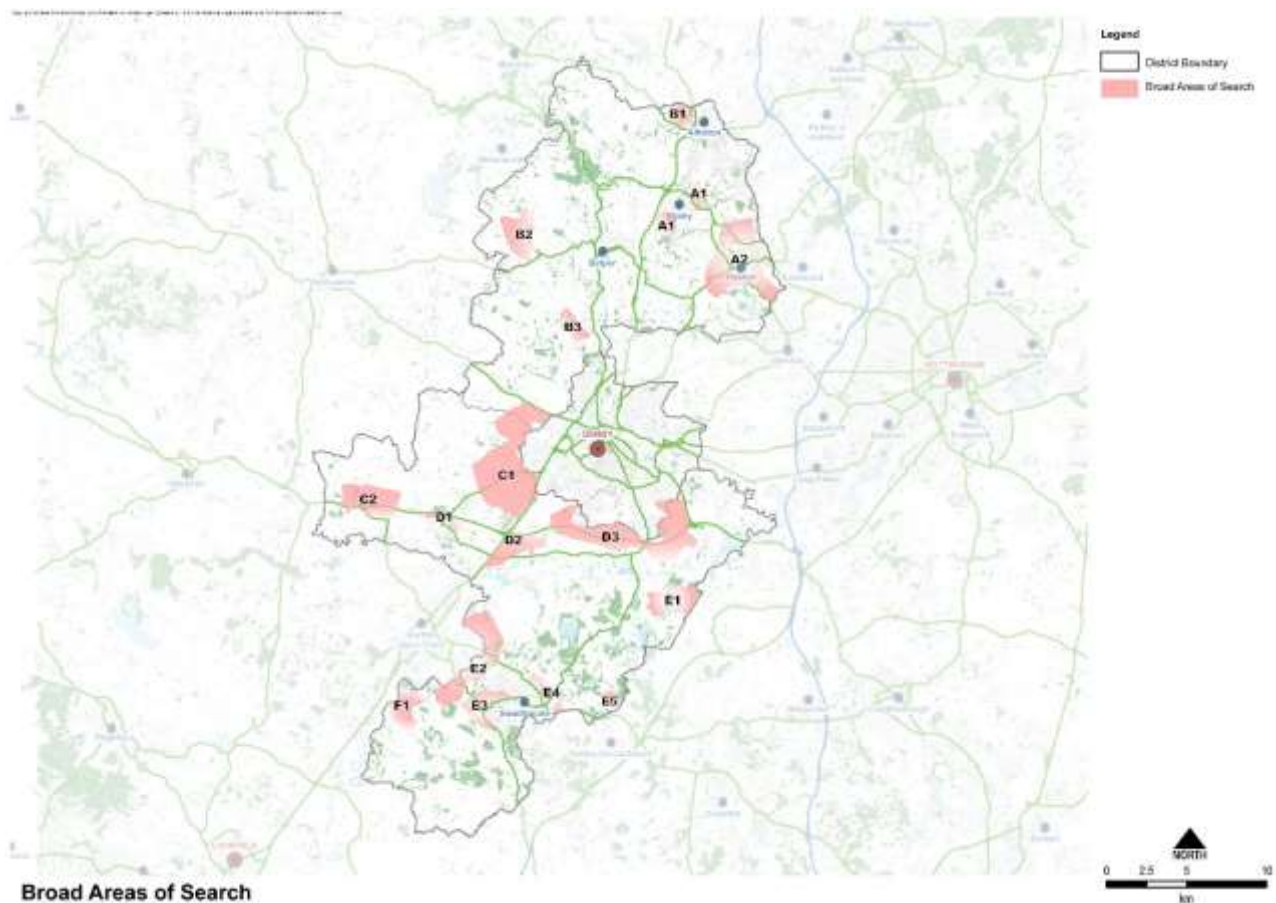
Although the focus of this assessment exercise is on land outside existing built up areas and/or settlement boundaries, it is only one part of the Local Plan evidence base on suitable, available and achievable land for development. Urban sites, whether infill or redevelopment opportunities, and smaller sites still have an important role to play and the fact that this exercise focusses only on potential opportunities for strategic growth on land outside existing urban areas should not be considered to supersede the important role of brownfield regeneration and smaller sites in sustainable development.

Stage 1: Identification and analysis of assessment areas

The six assessment areas illustrated below were identified to provide broad units for initial spatial analysis and reporting.



The analysis of the six assessment areas, in combination with a GIS analysis of constraints and proximity to existing services and transport networks, led to the identification of 16 broad areas of search for more detailed consideration in stage 2 of the study. These locations are generally the most suitable (based on known constraints and designations) and seek to optimise locations that score strongly in the existing proximity analysis (to services and the transport networks).



Stage 2: Assessment of broad areas of search

A pro-forma-based assessment was used for this stage for 16 broad areas of search. As part of this process the potential for new co-dependent or autonomous settlements was considered, alongside an assessment for the potential for urban extensions (including beyond the Main Built Up Area of Derby) or village expansion (see typology classifications in chapter 1).

The locations depicted should not be treated as fixed. In all cases technical specialists have assessed the land within the boundary. The project team has also considered constraints and opportunities in the vicinity of these broad areas of search. Each broad area of search has been classified using a RAG-based assessment::

- **Suitable Area for Strategic Growth;**
- **Potential Area for Strategic Growth;** or
- **Unsuitable Area for Strategic Growth** (or below the study's size threshold for strategic growth when areas deemed to be unsuitable are taken into account).

Locations deemed to be suitable or potentially suitable for 'strategic growth' are capable of supporting the smallest typology (i.e. an urban extension/village expansion or new garden village) with the requisite social, green and physical infrastructure. In order to deliver the requisite school and medical facilities, this study assumes >1,000 new homes would be required alongside employment, community facilities and public transport. The threshold for 'strategic growth' is high and there will be many large 'strategic sites' that may fall below 1,000 homes. Generally, sites yielding approximately 1,000 dwellings or more have been deemed strategic in the context of the Derby HMA. Sites below the 'strategic growth' threshold will continue to come forward and will continue to be considered for the purposes of plan making in the study area.

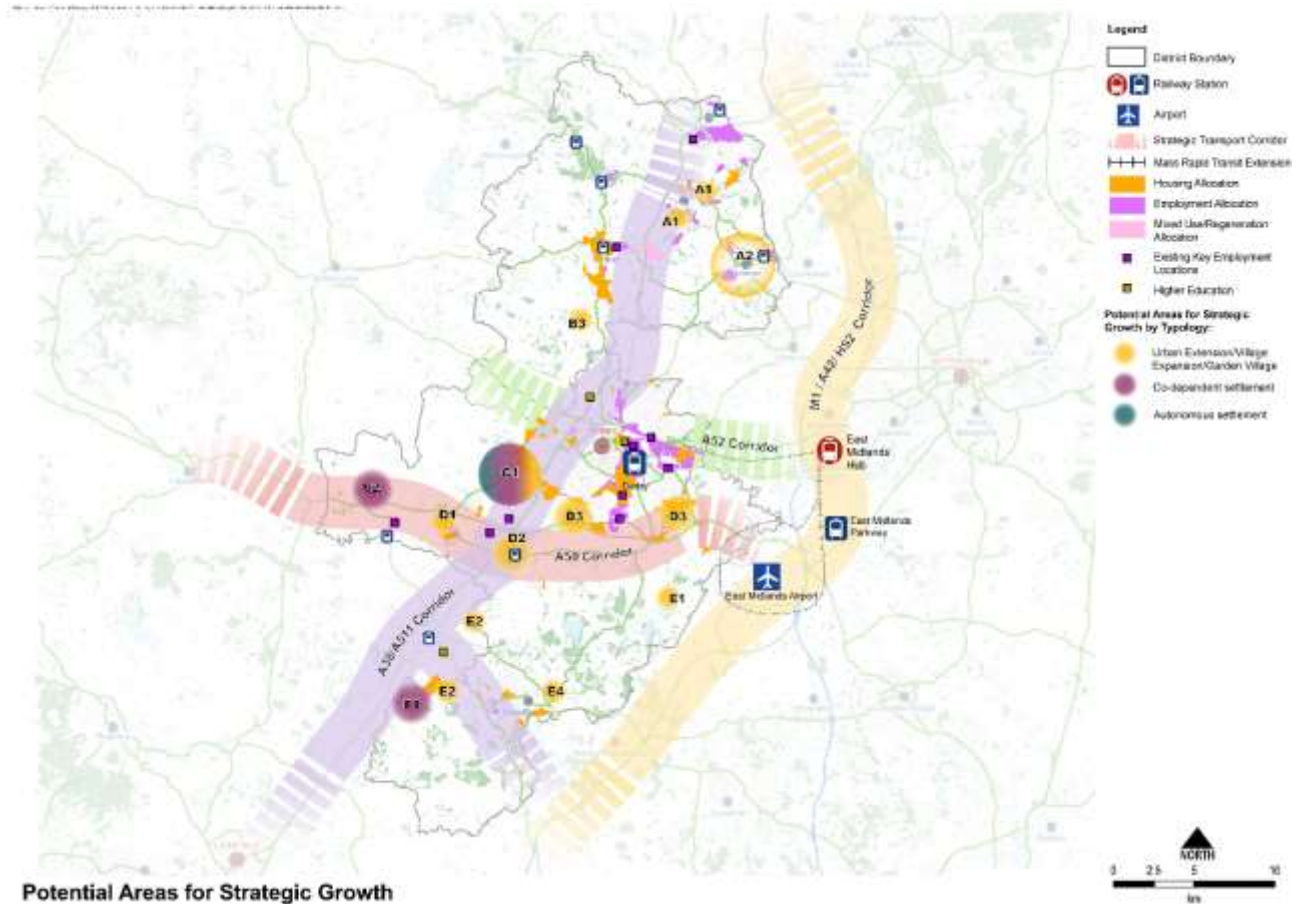
Ref	Broad Areas of Search	Local Authority	Typology Option(s)	Broad Area of Search Summary
A1	Land at Street Lane – South West of Ripley & Land North East of Ripley	AVBC	Urban extension(s)	Potential area for Strategic Growth
A2	Land around Heanor/Langley Mill urban area	AVBC	Urban extension(s)	Potential Area for Strategic Growth
B1	Land to North-west of Alfreton urban area	AVBC	Urban extension	Unsuitable Area for Strategic Growth
B2	Land to North of Cowers Lane	AVBC	Co-dependent settlement	Unsuitable Area for Strategic Growth
B3	Land to South-west of Duffield	AVBC	Urban extension / village expansion	Potential Area for Strategic Growth
C1	Land to the West of Derby urban area	AVBC / SDDC / DCC	Urban extension(s) / garden village / Co-dependent settlement / Autonomous settlement	Suitable Area for Strategic Growth
C2	North of Tutbury and Hatton	SDDC	Co-dependent settlement	Potential Area for Strategic Growth
D1	Hilton northern expansion	SDDC	Urban extension / village expansion	Suitable Area for Strategic Growth
D2	North of Willington	SDDC	Village expansion	Potential Area for Strategic Growth
D3	Derby A50 Corridor South Extension	SDDC / DCC	Urban extension(s)	Suitable Area for Strategic Growth
E1	Land at Melbourne Road – Melbourne Eastern Extension	SDDC	Urban extension / village expansion	Potential Area for Strategic Growth
E2	Land between Burton Upon Trent and Swadlincote	SDDC	Urban extension/ village expansion	Potential Area for Strategic Growth
E3	West of Swadlincote – Swadlincote extension	SDDC	Urban extension	Unsuitable Area for Strategic Growth
E4	North-east of Swadlincote	SDDC	Urban extension	Suitable Area for Strategic Growth
E5	North-east of Smisby	SDDC	Village expansion	Unsuitable Area for Strategic Growth
F1	North-east of Walton-on-Trent	SDDC	Co-dependent settlement	Potential Area for Strategic Growth

Potential areas for strategic growth

Based on the assessment findings and typology classifications we estimate there to be up to ~2,000 hectares of potentially developable land, which is likely to be well above the requirements for development land for the coming plan period to meet housing and employment need. This overall estimate does not consider the interrelationships of the opportunities or how much land could feasibly come forward during a Local Plan period or by 2050. In addition, this report does not identify specific sites and does not quantify the level of growth that each of the locations could accommodate. This will follow in future stages of plan-making process. Notwithstanding the above qualifications, the number and extent of the areas where there is considered to be potential for strategic growth will enable policy choices to be made, through the plan-making process, as to the specific sites selected to meet identified needs in the HMA.

It is helpful to consider strategic growth in the context of strategic transport corridors, which allow growth to be focused where strong public transport routes can be forged and, where capacity allows, existing roads can be used. Where more than one potential location is included in a corridor, cumulative impact will need to be assessed. The figure (below) depicts higher education and existing key employment areas, alongside extant allocations for housing and employment. This illustrates the proximity of the broad areas of search in relation to existing and planned growth and locations of activity such as towns, key employment areas and Higher Education campuses.

The potential areas for strategic growth are illustrated in the figure below.



Sites closer to the 1,000 home strategic site threshold, where isolated, won't offer the greatest opportunities for modal shift or infrastructure funding. The 1,000 dwelling threshold was selected due to the level of social infrastructure that can be delivered at this scale – any smaller and it's challenging to provide facilities such as a primary school. However, any strategic sites (even the smaller urban extension and co-dependent options) should be able to demonstrate a level of self-containment that would reduce car-borne transport.

Given there are fewer options for major new settlements of the order of 5,000+ to 10,000+, it is necessary to consider a strategy that seeks to focus on constellations of smaller urban extension/co-dependent options centred on larger existing settlements and Derby. So, irrespective of whether the growth locations come forward as allocations (or new style categories) in separate Local Plans, the Derby HMA authorities should consider what strategy and groups of sites work best together as 'baskets of sites' concentrated in

sustainable transport corridors. In the West and South of Derby there are already extensive extant allocations predominantly urban extensions). Growth will need to be managed and phased carefully to deliver commensurate levels of supporting infrastructure. It would not be possible for all typology options to come forward concurrently in locations such as the West of Derby (in light of the extant urban extensions and identified infrastructure capacity issues).

Next steps

The study only considers strategic opportunities (outside Derby City). Urban sites, whether infill or redevelopment opportunities, and smaller sites still have an important role to play in the Derby HMA and the fact that this exercise focusses on strategic sites does not underplay the important role of brownfield regeneration in sustainable development.

Furthermore, the Growth Options study has been undertaken without reference to the housing need for Derby HMA or the individual authority areas. The housing need for the next tranche of the Local Plans is subject to the revised standard method for calculating need and discussions that follow between the Derby HMA authorities. Work will need to be undertaken to understand the amount of need that can be accommodated within the urban areas and on strategic sites. However, it is important to note that the area of land identified by this study is likely to be several times more than is needed to accommodate future housing need. Therefore, choices over where the growth should go can be informed by this report and other technical evidence base documents as part of the plan preparation process, as well as views of local people and other stakeholders.

How to use this document

Section 1 - Introduction

This sets out the local policy background, relevant national policies and the study approach. Including a description of the key study principles and typologies used to quantifying the strategic growth opportunities.

Section 2 - Stage 1 Identification and analysis of assessment areas

This part of the report explains the rationale and identification of assessment areas within the study area (Amber Valley – East; Amber Valley – West; West of Derby; Trent Valley; South Derbyshire – North; and South Derbyshire – South) based upon physical features, designations and boundaries to form intelligible and distinct spatial units.

The analysis of the assessment areas is broken down by the following topics: environmental constraints; transport and accessibility; geo-environmental; infrastructure capacity and potential; landscape and topography; heritage; housing demand; regeneration and economic development; and spatial opportunities and constraints. This evidence, in addition to helping to identify broad areas of search, provides a summary of the principal constraints in each area.

The section concludes with a synthesis of the AECOM GIS modelling, presenting: land suitability; proximity to transport and access to services; a combined land suitability and proximity analysis; and the Broad areas of search to be assessed under Stage 2.

Section 3 - Stage 2 Assessment of broad areas of search

The stage 2 assessment begins with an overview of the strategic transport constraints and opportunities within the study area, highlighting where the broad areas of search intersect. This is followed by an in-depth assessment of each Broad Area of Search following the same thematic approach deployed under stage 2. Each broad area of search has been classified using a RAG-based assessment: **Suitable Area for Strategic Growth**; **Potential Area for Strategic Growth**; or **Unsuitable Area for Strategic Growth**.

Section 4 Conclusions

The concluding section summarises the study findings and highlights the potential areas for strategic growth (based upon the detailed stage 2 assessments). The areas deemed suitable and potentially suitable for strategic growth are illustrated spatially and overlaid on the identified strategic transport corridors found in the study area. The study concludes with a series of recommendations and next steps for consideration.

Appendices

Appendix I includes the thematic mapping utilised in the stage 1 and stage 2 assessments. Appendix II includes a record of the site visit photos, providing a series of key views of the broad areas of search.

1. Introduction

- 1.1 Derby City Council, Amber Valley Borough Council and South Derbyshire District, which jointly form the Derby Housing Market Area (HMA), have commissioned town planning, infrastructure and environment consultants AECOM to identify and assess strategic opportunities for housing-led sustainable new growth within the Derby HMA (the Growth Options Study).
- 1.2 The purpose of this study is to add to the evidence base informing the preparation of future Development Plan Documents and non-statutory strategies for the period up to 2050 by:
 - Identifying potential locations for future growth in the HMA; and
 - Considering, at a strategic level, the pros and cons of those potential locations for future growth.
- 1.3 The study area and scope of this commission specifically excludes any assessment of capacity within the Derby City Council area (this will be addressed in a separate evidence base report).
- 1.4 The Growth Options Study was prepared in 2020-2021 and captures existing available evidence at that point in time. The study forms part of a wider evidence base and is intended to help inform future plan making activities in the Derby HMA. The study is looking at potential areas of growth and that the overall approach to looking at options for growth next time round will require further refinement as the local authorities progress with their plan making
- 1.5 A study commissioned by the neighbouring Greater Nottingham Planning Partnership² assesses land within Erewash Borough Council as part of the *Greater Nottingham Growth Options Study* (July 2020)³, including a number of locations adjoining Derby City. The *Greater Nottingham Growth Options Study* (July 2020) was produced to support the first stage of preparing the new Greater Nottingham Strategic Plan. A Growth Options Consultation seeking views from residents, businesses, developers and other interested parties, on how new growth should be best planned for in Nottingham up to 2038, was conducted between 6 July to 14 September 2020⁴. Erewash Borough Council has also produced a separate 'Growth Options' document and Sustainability Appraisal as the first stage of its Core Strategy review⁵. As plan making progresses in the region, there will be opportunities for continued cooperation reflecting the close relationship between the Derby HMA, Greater Nottingham Planning Partnership (including Erewash Borough Council).
- 1.6 The functional relationships between Derby and Nottingham is a key regional driver for all Local Planning Authorities in the region, in particular, the High Speed 2 and East Midlands Hub proposals at Toton are large influential factors for all emerging Local Plans. Therefore, it is logical that this study draws upon regional push and pull factors and inter-relationships beyond the Derby HMA.
- 1.7 The findings and conclusions in this study should assist in deciding where and in what form development could take place in order to meet the need for future growth in the Derby HMA, in a way that best meets a range of environmental, economic, social, transport and other objectives. The findings will be tested in detail as the respective Local Plan processes progress.

² Accessed at: <https://www.gnplan.org.uk/>

³ Accessed at: <http://documents.nottinghamcity.gov.uk/download/8482>

⁴ Accessed at: <https://www.gnplan.org.uk/gn-consultation/greater-nottingham-strategic-plan-growth-options-consultation/>

⁵ Accessed at: <https://erewash.gov.uk/index.php/local-plan/core-strategy-review.html>

Spatial portrait for the Derby HMA

- 1.8 The Derby Housing Market Area (HMA) covers an approximate area of 68,153 hectares (681.53 square kilometres) and is situated in the south eastern part of Derbyshire, in the heart of the East Midlands. It includes the local authority areas of Amber Valley, Derby and South Derbyshire. The HMA contains the urban area of Derby, the sub-regional centre of Swadlincote and the market towns of Alfreton, Belper, Heanor and Ripley; together with villages and other settlements of varying sizes and other rural areas.
- 1.9 The HMA adjoins the local authority areas of Erewash to the east, Derbyshire Dales and East Staffordshire to the west, North West Leicestershire to the south and North East Derbyshire and Bolsover to the north.
- 1.10 A large part of Amber Valley within the north eastern part of the HMA is included within the Nottingham-Derby Green Belt, along with smaller pockets within Derby and South Derbyshire. The southern part of the HMA in South Derbyshire also lies within the Burton-Swadlincote Green Belt.
- 1.11 The HMA offers a high-quality environment for those living and working within its boundaries.
- 1.12 There are a number of important heritage assets within the HMA, including Conservation Areas, Listed Buildings, Scheduled Monuments, Historic Parks and Gardens and a World Heritage Site. The Derwent Valley Mills World Heritage Site stretches along the valley of the River Derwent from Matlock Bath (outside of the HMA to the north) through Amber Valley to Derby city centre, defining a cultural landscape of exceptional significance. The HMA also has diverse landscape including the National Forest to the south within South Derbyshire.
- 1.13 The HMA benefits from its central location, with excellent links to regional and national transport networks, including the A38, A50, A52, A610 which all link to the M1 motorway and which together with good rail connections, link the HMA with Nottingham, Leicester, Sheffield, London, Birmingham, Leeds and other parts of the country. The HMA also benefits from good air connections via East Midlands Airport (outside of the HMA to the south-east). There are several transport improvements currently underway or in the pipeline, including the proposed HS2 station at Toton in Broxtowe Borough (Nottinghamshire) to the east of the HMA.
- 1.14 Within Amber Valley the housing stock is generally characterised by detached and semi-detached properties with low levels of flatted accommodation. The eastern side of the Borough is predominately characterised by lower value dwellings compared to the western side of the Borough which sees a concentration of higher value dwellings.
- 1.15 Generally house prices within Amber Valley are on average are higher than those within Derby and slightly lower than those within South Derbyshire. Whilst house prices have increased over recent years, they remain lower than those within the wider East Midlands. There is a need to provide additional affordable housing across the Borough and poor-quality housing (notably private rented accommodation) is also an issue, particularly in the urban areas. Housing growth within the Borough has been concentrated in and around the four main urban areas with additional growth taking place in the south west of the Borough adjacent to the Derby Urban Area.
- 1.16 Housing in Derby is characterised by higher density, lower value dwellings in the inner suburbs, typified by terraced properties and inter-war housing. This contrasts with the higher value more mature suburbs outside of the ring road as you move to the edges of the City. The City centre has seen significant recent increases in dwellings from both purpose-built student accommodation and the conversion of offices to residential under permitted development rights.
- 1.17 Current planned growth in Derby concentrates on the key regeneration priorities of the City centre, Castleward and Osmaston; complemented by urban extensions on greenfield sites, including land in South Derbyshire and Amber Valley on the southern and western edge of the City. House prices in Derby are on average lower than across the HMA and wider East Midlands, however this masks significant differences across the City and there remain significant affordable housing needs. There remain issues with the quality of housing in the City centre and inner suburbs, particularly those in the private rented sector.
- 1.18 The dominant dwelling types in South Derbyshire are detached and semi-detached houses; these made up 75% of all homes in 2011. By comparison, the rest of England sees a far more equal split across all dwelling types. South Derbyshire saw a 22% increase in housing stock between 2001 and

2011, of which flatted accommodation saw the greatest growth at 74%, resulting in an increase in the overall stock profile of flats from 5% to 7%.

- 1.19 The lowest average house prices are found within Swadlincote and the south of the District, together with the areas of Stenson Fields and Hatton. In contrast the rural areas within the north west of the District, together with the Derby fringe, show higher house prices. Throughout 2018, house prices by property type in South Derbyshire broadly aligned with Derbyshire and the East Midlands. South Derbyshire has a relatively high proportion of homes in the private sector, both owned and rented.
- 1.20 The HMA is largely a manufacturing area, which benefits from several key employment locations, the majority of which are within the urban areas of the HMA and which are home to some large companies. Major employers include Thorntons and Deb Ltd in Amber Valley, Rolls-Royce and Bombardier in Derby and Toyota, JCB; Nestle Ltd and Bison Concrete Products in South Derbyshire.
- 1.21 The Budget 2021 announced that East Midlands Airport was successful in the Freeports bidding process for England: *“Subject to agreeing their governance arrangements and successfully completing their business cases, these Freeports will begin operations from late 2021. The Freeports will contain areas where businesses will benefit from more generous tax reliefs, customs benefits and wider government support, bringing investment, trade and jobs to regenerate regions across the country that need it most.”*⁶
- 1.22 The East Midlands Freeport including Ratcliffe-on-Soar power station and the East Midlands Intermodal Park (EMIP) in South Derbyshire will be based around the East Midlands Airport and Gateway Industrial Cluster (EMAGIC). The Government’s Freeport policy has three objectives: (1) establish Freeports as national hubs for global trade and investment across the UK; (2) promote regeneration and job creation; and (3) create hotbeds for innovation.⁷ It is likely that a number of locations in the study area could benefit directly from their close proximity to the airport and excellent transport connections e.g. locations south-east of Derby City.
- 1.23 Within Amber Valley, the key employment locations are predominantly within the east of the Borough and include Cotes Park Industrial Estate, Somercotes; Alfreton Trading Estate (including Thornton Park) & Meadow Lane Industrial Estate, Alfreton; Denby Hall Business Park; Codnor Gate Industrial Estate and Heage Road Industrial Estate in the Ripley Urban Area; Heanor Gate Industrial Estate, Heanor; Chrysalis Business Park/Langley Bridge Industrial Estate and Access 26, Langley Mill. Whilst manufacturing remains a clear local strength in terms of employment, the Borough has seen greater employment in recent years in the higher value professional, scientific and technical service sectors.
- 1.24 In Derby City the employment locations are concentrated along the corridor of the river and railway lines and include Rolls-Royce Campus and Infinity Park, Sinfin, Pride Park and Wyvern Business Parks; The Railway Technical Centre and Bombardier; Raynesway (including Rolls-Royce Marine Power); along with Ascot Drive and Mansfield Road and Alfreton Road corridors. Whilst manufacturing remains a cornerstone of the City’s economy, the fastest recent economic growth has been in service industries such as financial services, retailing and software development, supported by the development of the University of Derby.
- 1.25 Within South Derbyshire the main employment sites are Dove Valley Business Park; Hilton Business Park and the proposed Infinity Park extension in the north of the District and Tetron Point; Hearthcote Road; Bretby Business Park; Woodville Regeneration Area and a proposed employment site at the former Drakelow Power Station.
- 1.26 However, there are also areas within the HMA where unemployment levels remain higher than the national and regional averages, particularly in parts of Derby. Although unemployment levels within Amber Valley remain lower than the national and regional averages, there are pockets of higher unemployment particularly within the eastern wards. Whilst South Derbyshire has low levels of unemployment there are diverse economic issues across the District.
- 1.27 Figure 1 (overleaf) highlights a number of the key influential factors highlighted in the above spatial portrait, including extant allocations which shows where land has previously been identified for future growth.

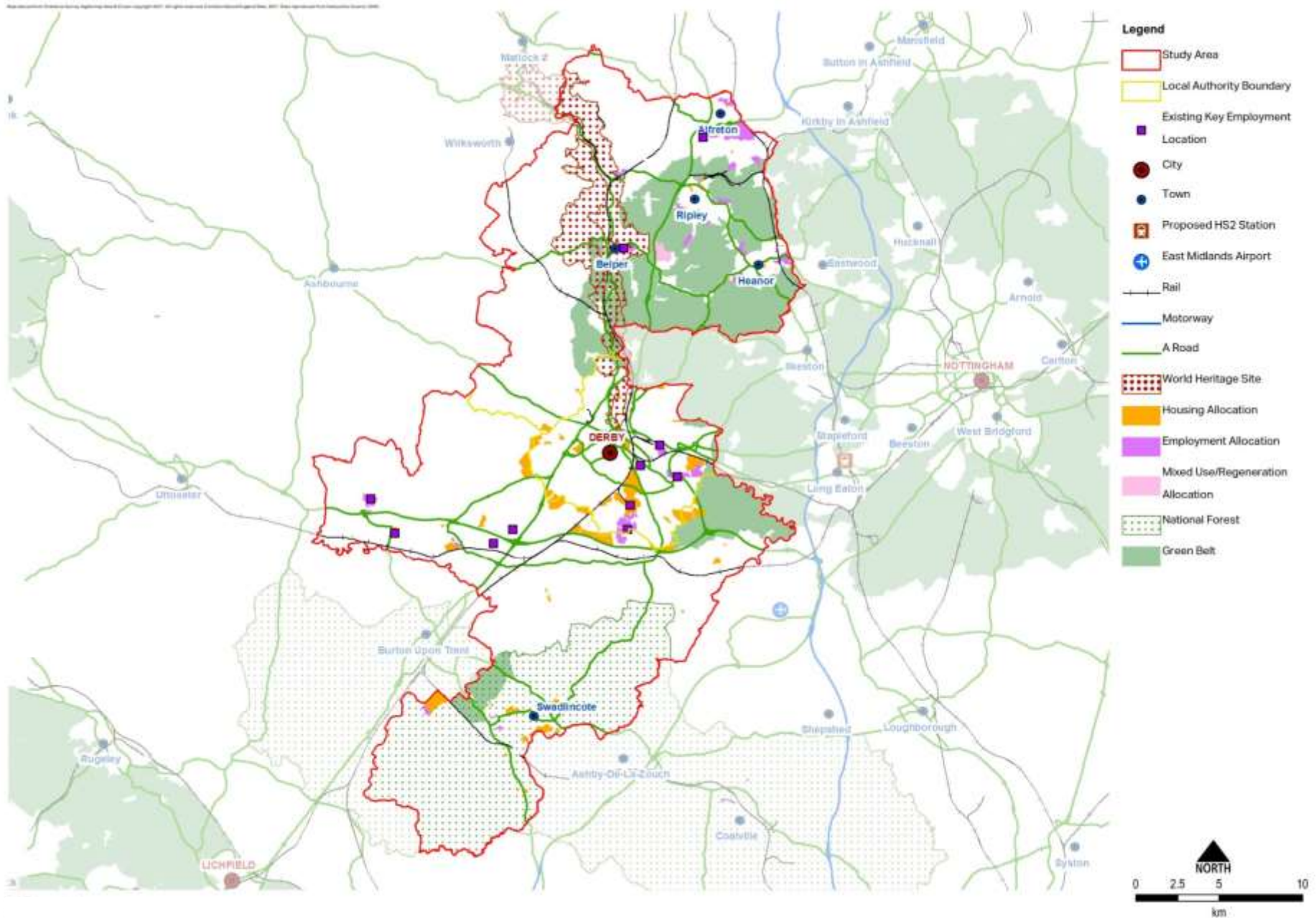
⁶ Accessed at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/966868/BUDGET_2021_-_web.pdf

⁷ HM Treasury, Freeports: Bidding Prospectus, CP 315, November 2020, para 2.0.1. Sections 2.1, 2.2 and 2.3 of this document provide more information on these objectives. Accessed at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/935493/Freeports_Bidding_Prospectus_web_final.pdf

Figure 1 Derby Housing Market Area Context



Local policy background

Derby City Council

- 1.28 The Development Plan, including Derby City Local Plan Part 1 Core Strategy⁸ (adopted on 25 January 2017) and the Interactive Policies Map⁹, sets out the strategic direction of planning for Derby City over the period 2011 to 2028. It aims to deliver a minimum of 11,000 new dwellings in the City between 2011 and 2028 and 199 hectares (gross) of new employment land.
- 1.29 Derby City Council is in the process of preparing Part 2 of the Derby City Local Plan, which will allocate additional development sites, set out additional detailed requirements to guide development management decisions and review the remaining saved policies of the City Derby Local Plan Review 2006. Currently the City Council is at the early stages and have completed an Issues and Options consultation in 2018. The Part 2 document will allocate smaller non-strategic housing sites.

South Derbyshire District Council

- 1.30 The adopted Local Plan of South Derbyshire has been prepared in two parts, with Part 1 (adopted in June 2016) setting out the long-term vision and spatial strategy for South Derbyshire, and Part 2 (adopted in November 2017) allocating non-strategic housing sites and setting out detailed development management policies. It aims to deliver at least an additional 12,618 homes over the plan period of 2011 to 2028.
- 1.31 South Derbyshire District Council has recently adopted its Local Green Spaces Plan (September 2020). This plan identifies local green spaces for designation and forms part of the development plan together with the adopted Local Plan Part 1 and 2.

Amber Valley Borough Council

- 1.32 The Amber Valley Borough Council Local Plan was adopted in April 2006, with policies saved in 2009 under transitional arrangements of the Planning and Compulsory Purchase Act 2004. Amber Valley Borough Council resolved in January 2020 to confirm a proposed programme and timescale for the preparation of a new Local Plan through to adoption. The agreed timetable envisages adoption in March 2023.
- 1.33 The adopted Local Plan (April 2006) consists of the saved Local Plan policies and Proposals Map.

Derbyshire County Council

- 1.34 Derbyshire County Council is responsible for minerals and waste planning throughout the county, apart from within the Peak District National Park, both in terms of preparing plans and dealing with planning applications¹⁰. The County work closely with the district and borough councils, providing expert advice on issues such as ecology, highways and landscape and design when required. The Minerals and Waste Development Scheme is currently under review, with Derbyshire County Council and Derby City Council currently preparing a new Minerals Plan and a new Waste Plan.

⁸Available at: <https://www.derby.gov.uk/environment-and-planning/planning/planning-policy/#Localplan>

⁹ Available at: <https://maps.derby.gov.uk/webmap/Map.aspx?MapName=LocalPlan>

¹⁰ See - <https://www.derbyshire.gov.uk/environment/planning/planning-policy/planning-policy.aspx>

National Planning Policy Framework

- 1.35 The latest National Planning Policy Framework (NPPF) document was issued in July 2021. This introduced updates and additions to policy pertinent to this study and replaces the previous NPPF document issued in 2019. The following updates are directly related to the scope of this study:
- Measures to improve design quality - including a requirement to produce local design codes or guides
 - Adjusting the presumption in favour of sustainable development - paragraph 11a states: *"all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects"*.
 - Encouraging faster delivery of further education colleges, hospitals and prisons - new paragraph 96, states: *"To ensure faster delivery of other public service infrastructure such as further education colleges, hospitals and criminal justice accommodation, local planning authorities should also work proactively and positively with promoters, delivery partners and statutory bodies to plan for required facilities and resolve key planning issues before applications are submitted."*
 - Development plan policies for proposed large new settlements should have a 30-year timescale rather than the usual 15 - paragraph 22 includes a new sentence: *"Where larger scale developments such as new settlements or significant extensions to existing villages and towns form part of the strategy for the area, policies should be set within a vision that looks further ahead (at least 30 years), to take into account the likely timescale for delivery."*
 - A new transport test for new settlements and urban extensions - paragraph 73 includes a new requirement for new settlements and urban extensions to include: "a genuine choice of transport modes".
- 1.36 Chapter 3 of the NPPF sets down how plan making should be conducted and how strategic policies should be prepared. The requirements of paragraph 35, to ensure Local Plans satisfy the tests of soundness (positively prepared, justified, effective and consistent with national policy) have informed the proposed methodology. Due to the nature of this commission and requirement to support sub-regional joint planning efforts, paragraphs 24-27 of the NPPF are of particular importance (Maintaining effective cooperation) to this commission. The requirement to prepare Statements of Common Ground, for the purposes of discharging the legal Duty to Cooperate, is also apposite to the brief and the work that will follow this study.
- 1.37 The NPPF sets out the Government's economic, environmental and social planning policies as well as their requirements for the planning system. Paragraph 72 supports the creation of *new settlements or significant extensions to existing villages and towns* to plan for larger scale development and provide new homes. These initiatives should be brought forward with the support of local communities and include clear expectations for quality (including Garden City principles where appropriate). Development should consider existing or planned infrastructure investment opportunities, an area's economic potential and scope of environmental net gain. As part of this study a number of the statutory consultees have been consulted to help understand strategic constraints and opportunities in the study area.
- 1.38 Furthermore, Paragraph 73 (b) adds that a larger-scale development should create self-sufficient and sustainable communities that include services and employment opportunities within the development itself. Paragraph 73 (d) adds that a realistic assessment of likely rates of delivery should be made and opportunities for rapid implementations identified, such as joint ventures or development corporations.
- 1.39 Footnote 37, attached to paragraph 73, specifies that: *"the delivery of large scale developments may need to extend beyond an individual plan period, and the associated infrastructure requirements may not be capable of being identified fully at the outset. Anticipated rates of delivery and infrastructure requirements should, therefore, be kept under review and reflected as policies are updated."* This study addresses some of these aspects and will be supplemented by detailed evidence studies that will come forward alongside the next tranche of Local Plans, including Infrastructure Delivery Plans and viability studies.
- 1.40 Paragraph 130 promotes the need to maintain a strong sense of place, optimising a site's potential by delivering appropriate density and mix of development, supporting local facilities and transport networks. New settlements will need to be identified and allocated through the Local Plan process and

so they must be in conformity with the above mentioned policies as well as being capable of passing the soundness test (e.g. effective/justified/positively prepared) and the legal Duty to Cooperate¹¹. This study should be utilised for the purposes of drafting future Statements of Common Ground (required under paragraph 27 of the NPPF). This study is evidence of on-going joint working and can be used to help document the cross-boundary matters being addressed and progressed.

¹¹ The duty to cooperate was introduced by the Localism Act 2011 and is set out in the Planning and Compulsory Purchase Act 2004. Local Planning Authorities are bound by the statutory duty to cooperate.

Study approach

- 1.41 This study broadly follows a two-stage approach, informed by synthesising the existing evidence base, detailed spatial analysis (including GIS modelling), site visits and engagement with statutory consultees and infrastructure providers.
- 1.42 **Stage 1** establishes a baseline by:
- Identifying and analysing broad assessment areas, covering the entire study area comprising the Derby Housing Market Area (excluding Derby City¹²) and leading to the establishment of broad areas of search to be interrogated at stage 2; and
 - Assessing the suitability of existing settlements to accommodate strategic growth in terms of their position in the settlement hierarchy and the extent to which they provide sustainable access to services.
- 1.43 **Stage 2** assesses the broad areas of search identified under stage 1 to define more refined locations that are potentially suitable for strategic growth, to be interrogated further through the plan-making stages to follow. It also highlights what mitigating measures would be likely to be required to enable development.
- 1.44 The approach is described in more detail in the relevant chapters below. Both stages are built around the analysis of technical experts against a range of criteria, including:
- Environmental constraints;
 - Geo-environmental considerations;
 - Transport and accessibility;
 - Infrastructure capacity and potential;
 - Landscape and topography;
 - Heritage considerations;
 - Housing demand;
 - Regeneration and economic development potential; and
 - Spatial constraints and opportunities

Key study principles

- 1.45 This study defines strategic growth locations as being capable of accommodating a minimum of approximately 1,000 homes at a reasonable net density of 35-40 dwellings per hectare, translated to a gross (site-wide) density of 17-20 dwellings per hectare. This represents the typical minimum size of development that could accommodate a primary school and social infrastructure, such as a GP surgery.
- 1.46 Each location's suitability is determined in the light of its performance against standard criteria derived from and measured against national policy, having regard to the unique local characteristics of the study area.
- 1.47 It is important to recognise that there can be no such thing as an entirely quantitative growth study. The study, like all other site assessments, needs to also make qualitative judgements of site suitability on criteria such as landscape and heritage based upon the professional judgements of the multidisciplinary AECOM team.
- 1.48 Assessors have sought to maximise the defensibility of such assessment through having appropriate regard to relevant national and local policy and evidence, including, where applicable, relevant best practice precedents and/or case law. The study thereby seeks to ensure that other appropriately qualified parties replicating the assessment exercise would come to the same, or substantially similar, conclusions.
- 1.49 The study is 'policy off' with regards to Green Belt designation. This is to say that being in the Green Belt per se does not render a location unsuitable for strategic development. However, the Green Belt

¹² Locations adjoining the City and cross border issues are considered as part of the study.

purposes in paragraph 138 of the NPPF, such as to prevent neighbouring towns merging into one another and to assist in safeguarding the countryside from encroachment, are built into the wider assessment criteria.

- 1.50 Although the focus of this assessment exercise is on land outside existing built up areas and/or settlement boundaries, it is only one part of the Local Plan evidence base on suitable, available and achievable land for development. Urban sites, whether infill or redevelopment opportunities, and smaller sites still have an important role to play and the fact that this exercise focusses only on potential opportunities for strategic growth on land outside existing urban areas should not be considered to supersede the important role of brownfield regeneration and smaller sites in sustainable development.
- 1.51 As a final point, it is important to remember at all times that any site assessment exercise, no matter how comprehensive, can only ever be a snapshot in time (e.g. capacity in social infrastructure and utilities are relevant for the present day, but not necessarily in the future up to 2050). The assessment is a technical document that shall inform the Local Plans that follow. The inclusion of locations as being potentially suitable in this study should not be taken to imply that they will or should be allocated for housing development, nor that they would be approved if submitted as a planning application. Conversely, the exclusion or omission of a particular location does not mean that sites could not come forward, providing that the constraints identified could be satisfactorily overcome and sustainable development is possible with commensurate reinforcement and/or mitigation.

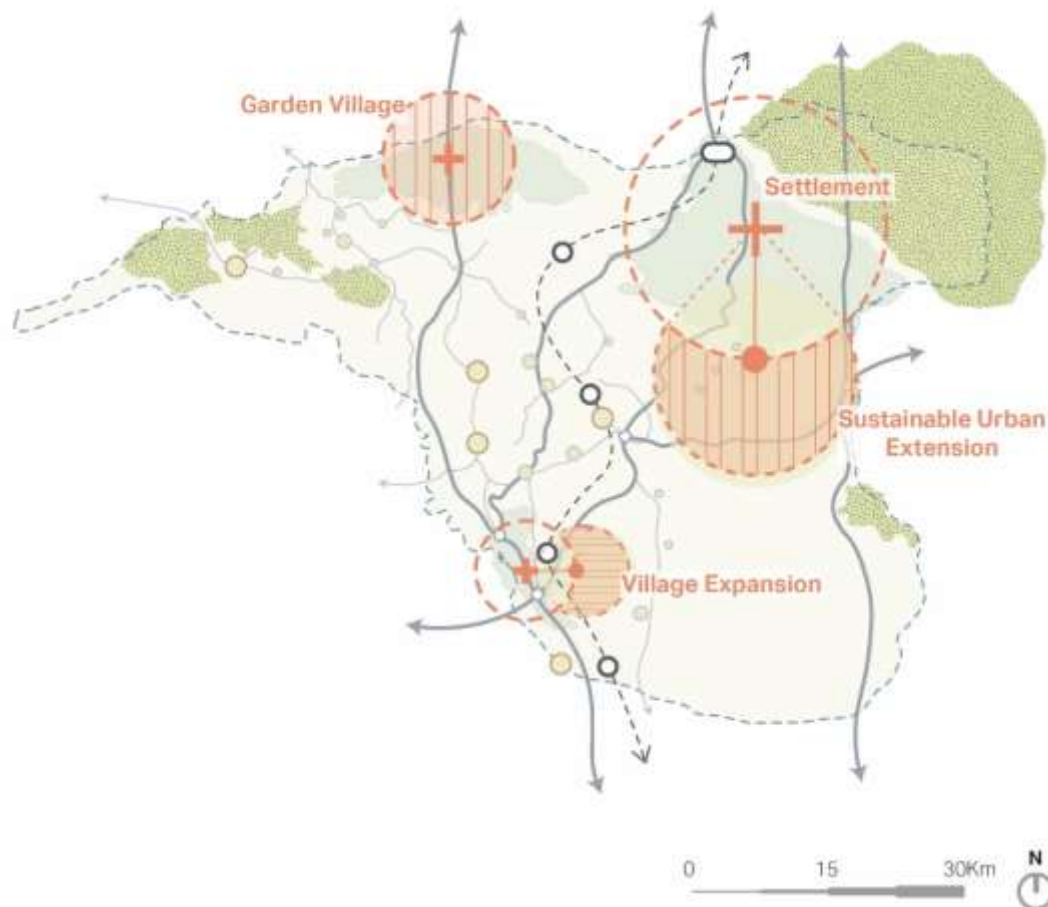
Typology classification

- 1.52 The function and character of potential strategic growth areas will be influenced by many factors, such as size, density, location, economic rationale, jobs/homes balance, accessibility, proximity to existing large settlements/public transport networks and impacts on the existing settlement hierarchy. For the purposes of this report, typologies (and the degree of self-containment) are used to classify the strategic growth area options subject to testing.
- 1.53 This study classifies strategic growth area options as either:
- autonomous;
 - co-dependent; or
 - urban extension/village expansion/garden village.
- 1.54 To place these typologies into context, a number of theoretical illustrations are provided in the following pages alongside definitions to show how each would relate, spatially, with a nearby existing settlement/‘centre of gravity’. Please note that the illustrations are not representative of any location within the study area and are for illustrative purposes only.

Urban extension/village expansion/garden village

1.55 An urban extension, village expansion or new standalone garden village provide new housing either on the edge of an existing settlement or in a new village separate from existing settlements but well located to existing centres of employment and services. For urban extensions and village expansions, new residents can share the use of services and facilities within the existing settlement (with some additional local provision catering for urban extension growth). A new garden village will be required to provide its own social infrastructure and access to sustainable modes of transport. These typologies reduce the need to travel, as the urban extension/village expansion/garden village will be integrated into the established network through direct transport links, however there is often a need to reinforce those connections with new transport investment depending on the capacity of and distance to existing transport infrastructure. Urban extensions/village expansion/garden villages are particularly relevant to smaller scale strategic growth (<5,000 dwellings) and should be capable of sustaining some core infrastructure elements such as a primary school(s) and community facilities e.g. GP surgery.

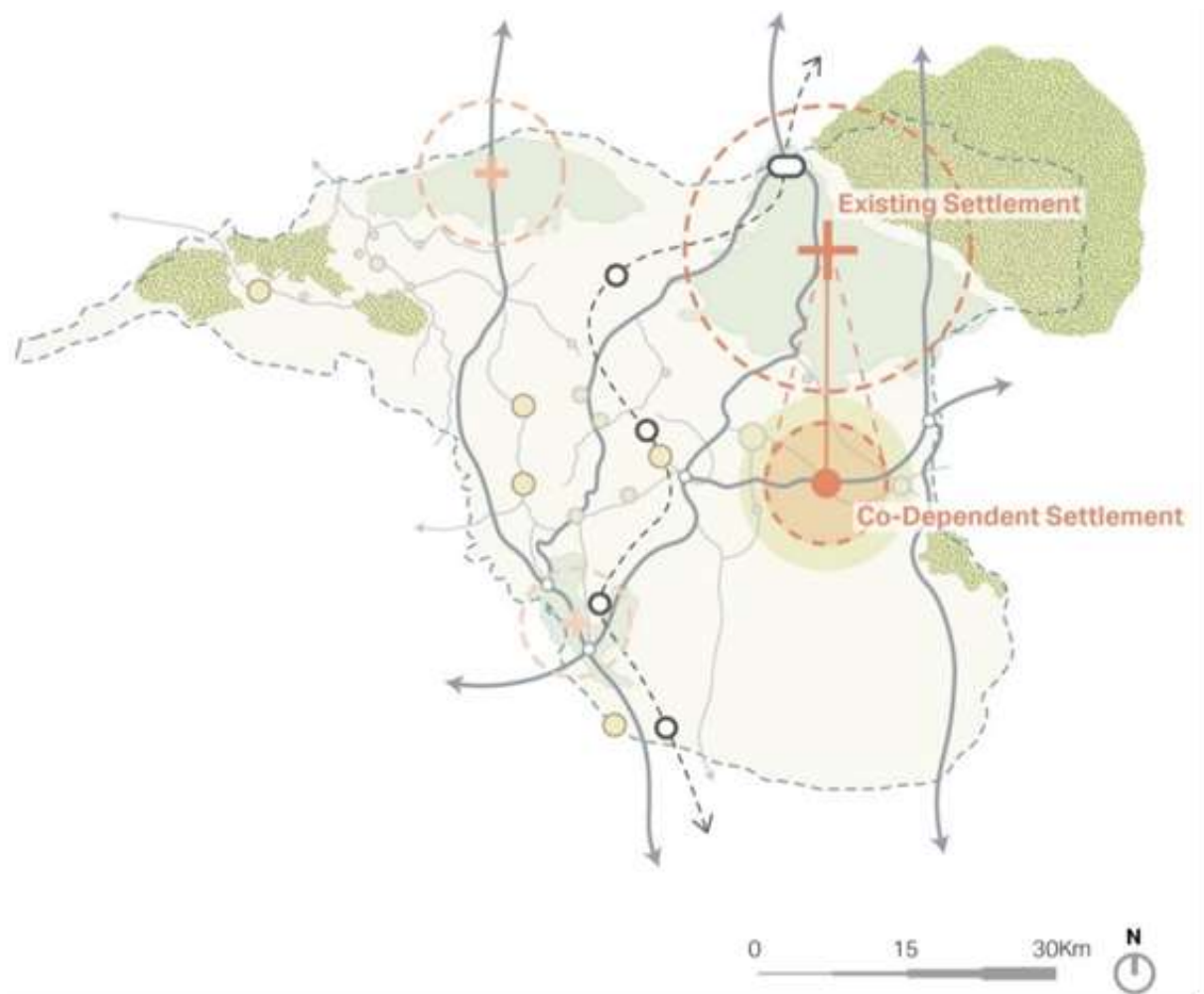
Figure 2 Urban extension/village expansion/garden village



Co-dependent

1.56 A new co-dependent settlement is spatially distinct but directly communicates and connects with an existing settlement(s), and could deliver and sustain its own generated infrastructure needs while also providing local employment opportunities. This typology assumes some “2-way traffic” between existing populations of other settlements to the new services and facilities provided in the new settlement. This growth option is potentially unsuitable for >10,000 dwelling new settlement in the context of the Derby HMA, where a settlement of such size could conceivably become one of the largest settlements outside the Main Built-Up Area of Derby, but could potentially apply to one or more c. 5,000 dwelling new settlement options in close proximity to, for example, Derby, Heanor or Swadlincote.

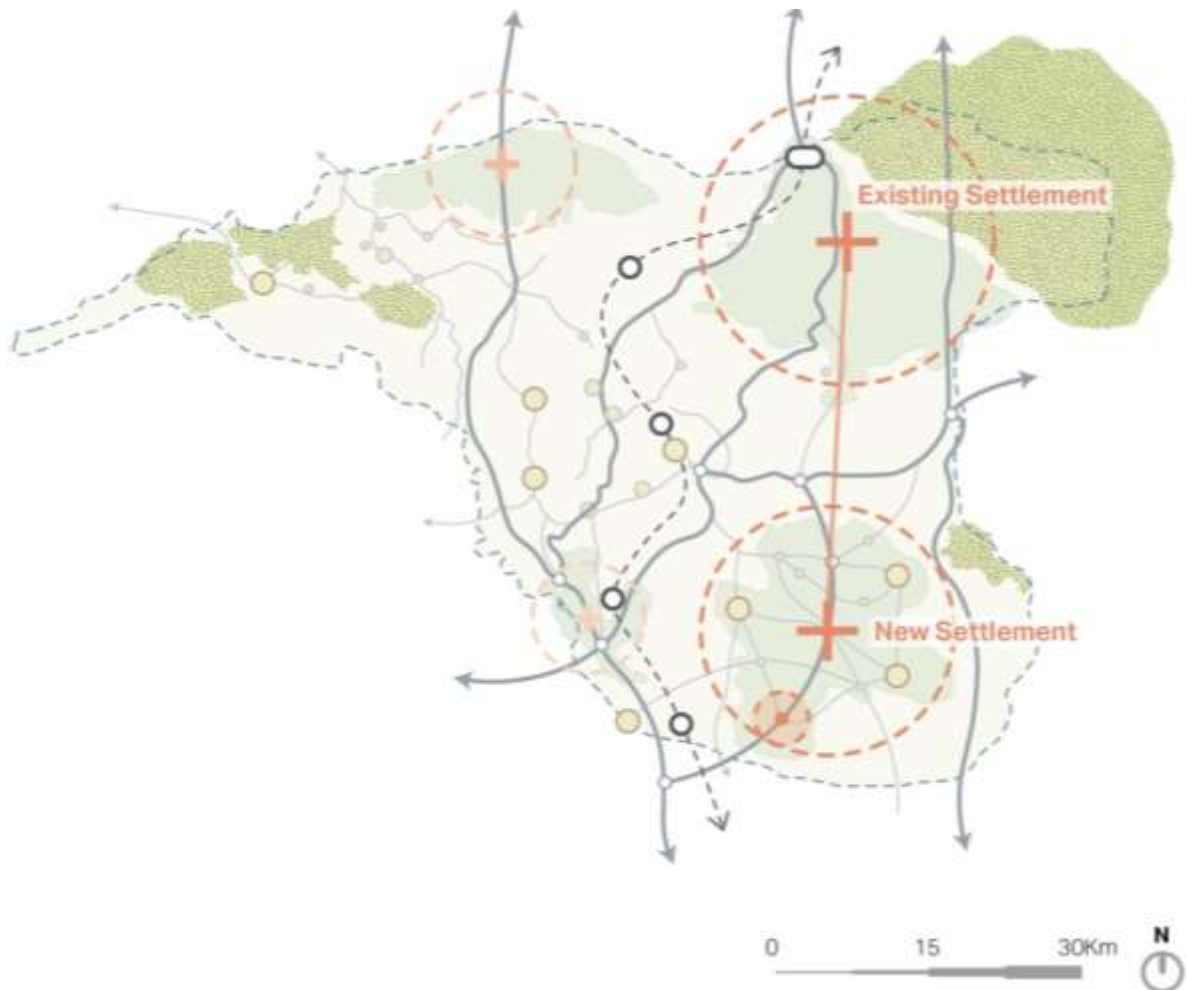
Figure 3 Co-dependent settlement typology



Autonomous

- 1.57 An autonomous new settlement could be positioned intentionally distant from existing settlements, allowing it to foster its own independence and distinctiveness. This new settlement would likely need to be of a scale and composition that is overtly self-sufficient in terms of key services (e.g. >10,000 dwellings) and employment. It could possibly result in an insular form clustered around a definitive centre and/or strategic transport node, but would still need good linkages for other elements of core infrastructure that are unlikely to be self-sustained, e.g. primary healthcare / Accident & Emergency. This growth option would likely be reliant on excellent sub-regional / regional strategic transport links, either existing or newly created.

Figure 4 Autonomous typology



1.58 Classification of growth options using these typologies provides an indication of the likely function of the options being considered. The below assumptions (Table 1) have fed into the identification and assessment of potential growth locations to inform the assessment. The application of typologies helps inform the likely impacts, opportunities and infrastructure requirements/mitigation that may be required or desirable in each location. The assumptions are a synthesis of secondary sources¹³, AECOM's Social Infrastructure Model (developed for new community projects and infrastructure plans in England) and discussions with the client group and County Council.

Table 1 Typology assumptions (AECOM, 2020)

Typology	Urban Extension / Village Expansion / Garden Village	Co-Dependent	Autonomous
Hectares	30 - 300	300 – 1,000	1,000 – 2,500
Net to Gross Ratio¹⁴	60:40 (<100ha) 50:50 (100ha – 150ha) 40:60 (>150ha)	40:60	40:60
Dwellings	1,000 – 5,000	5,000 – 10,000	>10,000
Population¹⁵	2350 – 11,750	11,750 – 23,500	>23,500
Jobs (estimates based on population/dwellings)¹⁶	1,000 – 5,000	4,500 - 15,000	9,000 - >15,000
Primary centre	Neighbourhood/Village Centre (Primary School ¹⁷ & Local Facilities e.g. GP)	District Centre (Secondary School, District Facilities incl. employment)	Town Centre with retail, other employment areas and local facilities (e.g. Health Centre). In addition to Secondary Schools and Primary Schools, the largest autonomous settlements may offer scope for Further Education and Higher Education facilities.
Secondary centres	Local Centre/shopping parade (primarily convenience/local services) -	Neighbourhood/Village Centre Local Centre/shopping parade (primarily convenience/local services)	District Centre Neighbourhood/Village Centres/Local Centres/shopping parades
Transport facilities	Local public transport stop(s) (e.g. Bus Rapid Transit (BRT)/Tram/Rail)	Local/Sub-Regional public transport hub (e.g. Rail/BRT/Tram)	Sub-Regional/Regional public transport hub (e.g. Rail/BRT/Tram)

¹³ Including (but not limited to): County standards, Department for Education/NHS England data, NHS HUDU model etc.

¹⁴ Development plots: other land (open space, infrastructure, circulation etc)

¹⁵ Based on a notional occupancy figure of 2.35 persons per dwelling

¹⁶ Ranges reflect residential-led and mixed use new settlement precedents with job ratios of between 0.9 - 1.25. Informed by an AECOM analysis of district-scale Built Up Areas and secondary sources – including: 'Employment Densities Guide: 2nd edition' (Homes and Communities Agency/OffPAT, 2010). Accessed at: <https://www.gov.uk/government/publications/employment-densities-guide>; 'Employment Density Guide: 3rd edition' (Homes and Communities Agency/GVA Grimley Ltd, November 2015). Accessed at: https://www.kirklees.gov.uk/beta/planning-policy/pdf/examination/national-evidence/NE48_employment_density_guide_3rd_edition.pdf; and Working Paper 71 'More residents, more jobs? 2015 update' (Lara Togni/GLA Economics, 2015). Accessed at: <https://www.london.gov.uk/sites/default/files/working-paper-71.pdf>

¹⁷ New schools ideally should be developed with two forms of entry to enable the widest range of educational opportunities to be offered.

2. Stage 1 Identification and analysis of assessment areas

2.1 This chapter introduces the assessment areas that were used to undertake an initial high level review of growth potential across the whole study area. It then proceeds to present the findings of the review before concluding by mapping the broad areas of search deemed to have potential to accommodate strategic growth and requiring more detailed assessment.

Identification of assessment areas

2.2 The six assessment areas illustrated below were identified to provide broad units for initial spatial analysis and reporting. The areas were mapped broadly following Landscape Character Areas, physical features (rivers, major roads etc.), and local authority boundaries. Following consultation with the relevant Derby HMA local authorities for each of the sub-areas (Amber Valley – East, Amber Valley – West, West of Derby, Trent Valley, South Derbyshire – North, South Derbyshire – South) technical specialists analysed each area to identify principal constraints to and opportunities for growth using available GIS datasets. Figure 5 displays the sub-area boundaries

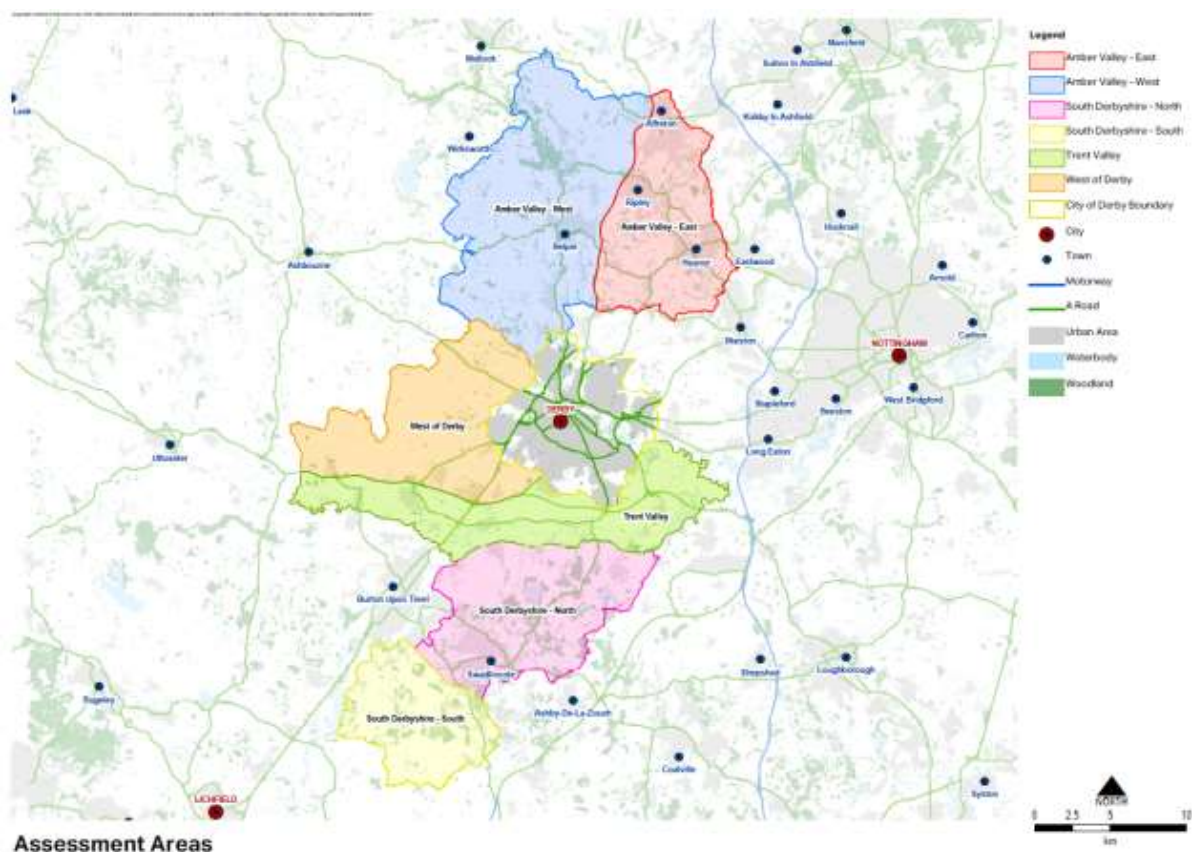


Figure 5 Assessment areas for stage 1 analysis

2.3 The assessment areas are as follows, along with a brief description:

- Amber Valley – East
- Amber Valley – West
- West of Derby
- Trent Valley
- South Derbyshire – North
- South Derbyshire – South

- 2.4 The assessment areas broadly follow Landscape Character Areas and where possible follow more defined boundaries such as A-roads and rail lines, and were broken down as follows:
- Amber Valley East/West - two separate Landscape Character Areas (LCA) either side of the A38 with the southern boundary of Amber Valley - West at Cutler Brook (LCA boundary). Amber Valley West contains a large proportion of the Derwent Valley Mills World Heritage Site, whereas Amber Valley – East includes three of the Borough’s larger settlements;
 - West of Derby - Carries on from Cutler Brook and ends at the A50. This area is the Needwood and South Derbyshire Claylands LCA;
 - Trent Valley - This is the Trent Valley Washlands LCA
 - South Derbyshire North/South - is split taking the railway line as a key defensible boundary.
- 2.5 The remainder of this chapter reports on the high level assessment of growth potential of these areas.

Analysis of assessment areas

- 2.6 Technical specialists undertook a GIS-driven desk-based analysis of each assessment area to identify principal constraints and opportunities for growth.
- 2.7 Each of the seven areas were assessed against the criteria below, with analysis presented in an assessment proforma which considers the strategic suitability for growth for each criterion:
- Environmental constraints;
 - Transport and accessibility;
 - Geo-environmental considerations;
 - Infrastructure capacity and potential;
 - Landscape and topography;
 - Heritage considerations;
 - Housing demand;
 - Regeneration potential;
 - Economic development potential; and
 - Spatial constraints and opportunities.

Environmental constraints

- 2.8 The assessment of environmental considerations includes impact on internationally protected ecological sites¹⁸, national local wildlife sites¹⁹ and other local wildlife or ecological designations²⁰ and nearby factors that could have an environmental impact on growth of an area that could need appropriate mitigation. The analysis reviewed flood risk issues in line with strategic flood risk assessments, and considers how these might be mitigated²¹, taking into account flood zones and the extent to which areas are affected by surface water, ground water or reservoir flooding. The review outlines the extent of best and most versatile agricultural land where growth is more favourable on ALC Grades 3, 4 and 5 rather than Grades 1 and 2 to the extent that this is consistent with the achievement of sustainable development on other relevant criteria²².

¹⁸ The following habitat sites are protected under the Birds Directive, Habitats Directive and Ramsar Convention respectively: Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites. The NPPF affords the same protection as habitat sites to potential Special Protection Areas and possible Special Areas of Conservation, listed or proposed Ramsar sites, and sites identified, or required, as compensatory measures for adverse effects on all the above.

¹⁹ Sites of Special Scientific Interest and National Nature Reserves.

²⁰ Consistent with NPPF paragraph 175, which states that plans should distinguish between the hierarchy of international, national and locally designated sites.

²¹ See NPPF paragraphs 159-164

²² In line with NPPF paragraph 179 and Footnotes 61-62.

Transport and accessibility

2.9 The transport and accessibility criterion aims to identify the configuration, capacity and quality of existing transport networks and facilities²³. It also identifies corridors and nodes presenting opportunities for extension or enhancement based on assumed travel patterns associated with the planned growth. The criterion covers accessibility (including on foot and by cycle), public transport routes and their potential capacity and constraints, and the location of potential areas for growth in terms of their ability to be served by all modes of travel, but with an emphasis on minimising travel by car. The study takes account of the National Cycle Network and County-wide Key Cycle Network present in the study area.

Geo-environmental considerations

2.10 This criterion covers a range of geological and environmental constraints to new development²⁴. In most cases geo-environmental constraints are not absolute, and regulatory systems are in place to cover those that emerge. For example, Building Regulations cover radon protection measures for new development. However, these constraints have potential to increase development cost and lead time. For each sub-area, potential constraints are highlighted, including occurrence of made ground formed by filling in natural or artificial pits found in sub-areas where development has occurred historically, the natural occurrence of radon gas, potential sources of contamination, historic landfilling, the hydrogeological sensitivity of aquifers and groundwater protection zones²⁵.

Infrastructure capacity and potential

- 2.11 Infrastructure covers a range of services and facilities provided by public and private bodies, including social and community infrastructure: health and education, and utilities infrastructure. For social and community and green infrastructure, it has been assumed that large scale development would necessitate new infrastructure such as schools²⁶, health services²⁷ and open space²⁸.
- 2.12 For each sub-area, the infrastructure analysis helped to identify any key areas of concern that will require mitigation, the potential capacity of existing infrastructure to absorb new development, the extent to which new infrastructure would be required, and if so, what type.
- 2.13 Some aspects are less relevant for identifying future growth locations. For example, given that the broad development locations are identified for sites of over 1000 dwellings (minimum), this would be likely to yield circa 240 primary aged children, It is unlikely that this level of demand could be absorbed into existing nearby primary schools. This is why Derbyshire County request that for developments of 1000 dwellings, a new 1FE primary school is provided and in the case of secondary provision 6,000 new dwellings would typically require a new secondary school. In consultations with the County they commented that it would be prudent, given future cumulative expansion, that school sites of a suitable size that could accommodate future expansion should be safeguarded.

Landscape and topography

- 2.14 For each sub-area, the sensitivity of the local landscape to development was assessed with reference to the relevant local landscape data and Local Plan evidence base.
- 2.15 In some instances the professional judgements of AECOM's chartered landscape architects may diverge to published landscape evidence held by the constituent authorities. For example, the Amber Valley Borough Council *Landscape Sensitivity Study* (October, 2016)²⁹ has been reviewed and its conclusions noted. The 2016 study was prepared under the previous version of the NPPF and considered landscape on a borough-wide basis. The conclusions presented in this study do not always accord with its conclusions. Where locations outside of the existing settlement pattern/edge were

²³ In line with NPPF paragraph 104

²⁴ See NPPF paragraph 183 and mitigation measures as per Building Regulations

²⁵ i.e. potential for groundwater contamination as assessed through Environment Agency-designated Source Protection Zones

²⁶ Data from School and College Register: <https://get-information-schools.service.gov.uk/>

²⁷ Data sources: GPs (FTE and Patient Numbers source: Patients Registered at a GP Practice, NHS Digital, June 2019): <https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services/final-30-june-2019> and NHS England data collection – KH03 - Average daily number of available and occupied beds open overnight by sector (November 2019): <https://www.england.nhs.uk/statistics/statistical-work-areas/bed-availability-and-occupancy/bed-data-overnight/>

²⁸ Data from Ordnance Survey

²⁹ Accessed at: <https://info.ambervalley.gov.uk/docarc/docviewer.aspx?docguid=4bf16ea529e34c81b185723333a3ddcf>

classified as high sensitivity³⁰ in 2016, the scope and approach of this study does not replicate the methodology from the 2016 study and therefore arrives at different conclusions in some cases. This study assesses smaller areas and explores site-specific matters with reference to the other factors described in this chapter. Therefore, the conclusions on landscape and visual sensitivity within our report are not always aligned with the Amber Valley sensitivity study, but we consider our methodology to be robust and our conclusions are justifiable and aligned with the objectives of our brief. Indeed the 2016 study notes the following at paragraph 4.2.15: *“The assessment of the landscape was undertaken at a strategic level. It should be noted that where land has been categorised as being of high sensitivity to housing development there will inevitably be variations in the level of landscape impacts within this land. These variations could be determined by more detailed survey at the site or field level, such as site specific Landscape and Visual Impact Assessments should land in those areas be proposed for development.”*

- 2.16 This is a high level assessment of growth opportunities that initially uses National Character Areas (NCA) to define the ‘assessment areas’. Later more detailed Landscape and Visual Impact Assessments should consider all secondary sources of landscape evidence, including the Derbyshire Landscape Character Assessment. In establishing the baseline sensitivities for future site allocations it would be prudent to consider Areas of Multiple Environmental Sensitivity (AMES) and Tranquillity both of which are available on the County’s website (www.derbyshire.gov.uk/landscape). These are studies that support the National Planning Policy Framework and particularly the aim that “Allocations of land for development should prefer land of lesser environmental value”. Later more detailed site assessment stages should then take greater account of the ‘Landscape Character of Derbyshire’ publication to reflect the more local changes in landscape character across the various broad areas of search identified through this study (which necessarily take a high-level strategic view of the study area’s landscape).

Heritage considerations

- 2.17 In line with paragraphs 126-130 of the NPPF, the approach seeks to avoid development in areas where it would adversely impact on a designated heritage asset and their settings³¹. In line with paragraph 190 of the NPPF, however, heritage assets can present an opportunity for development to make a positive contribution to sustaining and enhancing heritage assets at risk through neglect, decay or other threats. Designated heritage assets are defined by the NPPF as including World Heritage Sites, scheduled monuments, listed buildings, registered parks and gardens, registered battlefields and conservation areas.

Housing demand

- 2.18 Sub-areas where demand for housing is highest (as determined through data on house prices, as well as local authorities’ evidence base on housing viability and affordability) were interpreted as being suitable for housing development on this criterion, on the grounds that an increased supply of housing in the area could help correct existing mismatches between supply and demand. In the same way, those sub-areas where affordability pressures are less severe were considered less suitable for housing development on this criterion, as demand for housing is lower in these locations. However, to reflect ambitions to ‘level up’ and improve areas in weaker housing markets, the regeneration criterion (below) highlights where interventions and new growth would help to address areas of deprivation. Weaker housing markets have not been excluded from our analysis or the areas of search.

Regeneration and Economic development potential

- 2.19 The regeneration potential for each sub-area was reviewed using the Indices of Multiple Deprivation 2019, which provides an indication of deprivation for specific settlements and sub-areas. If settlements and sub-areas showed high levels of deprivation, the adjacency argument (whereby new development, if designed and implemented in a sustainable and careful way, can have beneficial effects on existing development) would indicate that new development has the potential to lift the area and generate positive effects in terms of employment, health, education and other indicators of well-being. By contrast, where there are lower levels of deprivation, it is unlikely that new development

³⁰ Defined as: ‘Land with a high susceptibility to change and/or which is of high value, e.g. land adjacent to or visually prominent from the World Heritage Site, land outside of the settlement pattern, land which has high visual prominence, land which contributes to heritage or ecological assets’

³¹ In line with paragraph 126 of the NPPF.

would have a significant effect on local deprivation rankings. A key indicator of regeneration potential is also brownfield site availability.

- 2.20 This criterion relates to the location of employment and is based on the principle that homes should be built close to places of work in order to reduce commuting distances and thus reduce the need to travel. Each sub-area was assessed on its existing attractiveness to employers, using workplace data on employment from Census 2011 that reflects existing major employment locations, as well as the local authorities' current evidence base on economic development and economic drivers evident in the D2N2 LEP's Strategic Economic Plan. It was assumed that potential for future economic development was higher in sub-areas with a track record of being attractive locations to major employers.
- 2.21 This criterion also considers existing and planned transport infrastructure in each sub-area and therefore interacts with the transport criterion to some extent. Employers tend to demand good access to road, rail and air transport. It may be, therefore, that some sub-areas with low levels of existing economic activity may be 'unlocked' for economic development if new transport infrastructure is delivered.

Spatial opportunities and constraints

- 2.22 This final criterion covers any spatial constraints and opportunities not covered under other criteria that are considered relevant in identifying the principal constraints to and opportunities for strategic growth.
- 2.23 This includes the need for new development to seek to avoid coalescence between existing free-standing villages. Likewise, where defensible boundaries to development exist at the strategic level or at local level, they can be regarded as a spatial opportunity for limiting development and, in many locations, protecting valued landscapes. Typical features considered under this criterion include, among others, roads and rail lines as boundaries to development but also it is noted where they can act as an opportunity to anchor new development.
- 2.24 The study is 'policy off' with regards to Green Belt designation. This is to say that being in the Green Belt per se does not render a location unsuitable for strategic development. However, the Green Belt purposes in paragraph 138 of the NPPF, such as to prevent neighbouring towns merging into one another and to assist in safeguarding the countryside from encroachment, are built into the wider assessment criteria.

Area 1: Amber Valley - East

Criterion	Considerations
Environmental constraints	<ul style="list-style-type: none"> • Largely Grade 4 poor quality agricultural land, with pockets of Grade 3 good to moderate quality agricultural land found in the southeast. • There are pockets of ancient woodland in the area, specifically at Smalley Common, land between Heanor and Shipley, Cross Hill, and Alfreton. • There are no Sites of Special Scientific Interest (SSSI), Ramsar sites, and Special Protection Areas within the assessment area. • There are pockets of Local Wildlife Sites (and potential new sites) scattered throughout the area. • There are two Country Parks within the area – Shipley Country Park and Midland Railway Centre Country Park. • There are pockets of Tree Preservation Orders, especially to the north and south of Heanor. • The majority of the area is within Flood Zone 1, however there are some areas along the north, east and southwestern boundaries that lie within Flood Zones 2 and 3. • The River Erewash runs along the eastern boundary of the area. The Bottle Brook flows along the west. There are also a number of smaller watercourses that run across the area. • There are a number of ponds and reservoirs that pose a residual risk of flooding (in the event they are breached or overtop). Mapperley Brook lies in the south just below Mapperley Reservoir. In the event of a failure of this reservoir a large area could become inundated extending towards the Nutbrook Canal and the Nut Brook. • Loscoe Dam in the centre of the area also has a risk of reservoir flooding extending downstream towards the Bailey Brook. Codnor Park Reservoir in Ironville provides a flood risk to the River Erewash. Although Moorgreen Reservoir lies outside of the area to the east, it still proposes a residual risk of flooding to Heanor. Butterley Reservoir within the northwest of the area, just north of Ripley, also poses a residual risk of flooding. • Areas at risk of surface water flooding are present throughout the area, associated with flowpaths that feed into the watercourses. • Susceptibility of groundwater flooding is low with areas near watercourses at higher risk. • Breadsall sits to the south of the area and has experienced flooding incidents but is not within the area boundary. Stanley also sits to the south of the area and has experience flooding incidents.
Transport and accessibility	<ul style="list-style-type: none"> • Access to the M1 is available to the east via Junctions 26, 27 and 28. Highways England are progressing a capacity improvement scheme at J27. • Widening of the M1 (from 3 to 4 lanes has recently taken place) between junctions 25 and 34 to reduce stress on the motorway network. • The A38 is located immediately northwest of Ripley for direct access southwards to Derby city centre. Highway improvements are scheduled at three junctions along the A38 to reduce stress on the route including at Little Eaton to the south of the area. • Localised congestion occurs along the A610 (the route to the A38) at Codnor located centrally within the area. Capacity analysis is likely to be needed using a highway network model, such as SATURN, to identify impacts on these routes over the plan period. • Buses are available from Alfreton town centre at the area's northern extent to Derby and Mansfield with heavy rail services also available from Alfreton station, on the eastern edge of the town, to Nottingham and Sheffield. Buses are available from Ripley town centre to Derby, Nottingham, Mansfield.

	<ul style="list-style-type: none"> • To the southeast, Heanor is in close proximity to Langley Mill for access to heavy rail services to Nottingham and Sheffield and is well served by buses. • Heanor town centre has received the first stage of funding through the Government's Future High Street Fund and AVBC is developing a detailed proposal and a business case for capital money. • There are limited cycle facilities in the local area, apart from the NCN route 67 running southwards from Heanor, the Ripley Greenway cycle route and a cycle path along the Cromford Canal. • No Park and Ride facilities available or planned within the area, however AVBC is open to opportunities to incorporate P&R within any major new development proposals.
Geo-environmental considerations	<ul style="list-style-type: none"> • 37 no. historical landfills and 3 no. authorised landfills are located within the Amber Valley – East area in various locations. • Amber Valley – East is not located within a groundwater Source Protection Zone (SPZ). • Geology comprises occasional areas of superficial deposits including alluvium, head, till and river terrace deposits. Bedrock geology within the Amber Valley – East area mostly includes the Pennine Lower Coal Measures Formation and Pennine Middle Coal Measures Formation. In the south-western extent, the bedrock geology includes Rossendale Formation and Marsden Formation. • The bedrock is designated as a Secondary A aquifer (entire Amber Valley – East area). • The occasional areas of superficial deposits are designated as either Secondary A or Secondary (Undifferentiated) aquifers. • There are no Mineral Safeguarding Areas/Mineral Consultation Areas within the Amber Valley – East area based on the currently adopted Derbyshire Minerals Local Plan (dated 2002)³². • The urban development areas are mostly around the towns of Alfreton (north), Ripley (west) and Heanor (east), including a number of industrial estates. Made ground is potentially present in these areas. Areas of artificial ground are recorded frequently around the Amber Valley – East area based on British Geological Survey (BGS) mapping. Made ground may also be present in areas occupied by road networks and railways. • Across approximately 75% of the Amber Valley – East area, 1%-3% of homes are above the action level for radon. Across the western part of the area, between 3%-5% and 10%-30% of homes are above the action level for radon. North of Heanor and east of Ripley, 10%-30% of homes are above the action level for radon. Protection measures would be required within new buildings in the Amber Valley – East area. • Areas of thick and variable made ground and superficial deposits may pose a constraint on the use of shallow foundations and which therefore may require ground improvement or a deeper foundation solution. These areas may also pose ground stability constraints. • According to BGS mapping, the majority of the Amber Valley – East area (not including the south-western extent) is located in an area overlying shallow coal, and frequent areas of worked opencast coal areas have also been identified. This is likely to cause redevelopment constraints where former shallow workings/voids or shafts exist.
Infrastructure capacity and potential	<ul style="list-style-type: none"> • Western Power Distribution's network capacity map states there is an 33/11kv substation that powers the area. • Severn Trent Water haven't stated any capacity issues with their network in this area however as with all new developments, a network capacity check will have to be undertaken.

³² <https://www.derbyshire.gov.uk/site-elements/documents/pdf/environment/planning/planning-policy/minerals-waste-development-framework/derby-and-derbyshire-minerals-local-plan-part-one.pdf>

	<ul style="list-style-type: none"> • BT Openreach have confirmed that there are unlikely to be any limitations to broadband and telephone services for new developments and that the company is currently obliged to service new developments. There are no anticipated phasing constraints. The standard lead in time for BT Openreach is 3 to 6 months for larger developments (e.g. over 100 plots). • As stated by the Low Carbon Energy Opportunities report³³ there is considerable potential for air source heating and heat pumps across the Derby region as well as the use of solar PV panels. The report sets out that there is limited potential for hydropower generation across the area. • The gas infrastructure supplier for the area is Cadent Gas Networks. No information is currently available in terms of existing and future gas supply connections. • There are 39 primary schools with varying capacities in the Amber Valley (East) sub-area. Spatially, primary schools are spread across the assessment area but there is a higher concentration of education facilities at primary level in Heanor and surrounding villages. • 6 secondary schools are within the Amber Valley (East) sub-area. This includes two secondary schools which have opened in recent years. • There are no further or higher education facilities within any of the assessment areas. The nearest further and higher education facilities are University of Derby (Higher Education) within Derby City, Derby College (Further Education) with campuses in Derby City and Morley (Erewash Borough) and Burton and South Derbyshire College (Further Education), in Burton-on-Trent (East Staffordshire Borough). • Regarding primary healthcare, a high-level assessment of theoretical capacity (1GP per 1,800 patients) for primary healthcare based on the registered GPs within the sub-area against actual patients shows a general surplus in provision within the sub-area. 10 GPs are located within the sub-area with varying surplus theoretical capacities. They are mostly located in urban areas of Heanor, Alfreton (including Somercotes) and Ripley and in the village of Horsley Woodhouse. • Across Derbyshire, existing acute healthcare services and mental illness services are generally highly occupied. About 57% of the existing beds in the maternity sector are occupied. • While there may be some existing capacities in some education and healthcare facilities to support earlier phases of growth, additional facilities and/or extensions to existing facilities may still be required to support strategic growth and to provide more accessible facilities.
Landscape and topography	<ul style="list-style-type: none"> • Nationally, the area is largely within Natural England's National Character Area (NCA) 38 Nottinghamshire, Derbyshire and Yorkshire Coalfield. It also contains NCA 50 Derbyshire Peak Fringe and Lower Derwent. • On a regional scale, the area is largely within Settled Coalfield Farmlands Landscape Character Type (LCT). It also contains Wooded Slopes and Valleys LCT and a small area of Village Farmlands LCT. • Amber Valley East is more urbanised overall and affected by past mineral extraction and as a consequence has less mature or intact landscape. • On a local level, the area is largely within Coalfield Village Farmlands LCT and Coalfield Estatelands LCT. It also contains a small area of Wooded Slopes and Valleys LCT; and some urban areas. • Topography comprises a series of interconnected ridgelines separated by relatively narrow valleys across much of the area. In the east of the area is the wider River Erewash valley, which results in a slightly simpler landform.

³³ Low Carbon Energy Opportunities and Heat Mapping - Final-Report (Updated July 2011), East Midlands Councils. Available here: <https://www.emcouncils.gov.uk/write/Emids-low-carbon-energy-opportunities-Final-Report-07-2011-update.pdf>
<https://www.emcouncils.gov.uk/Renewable-Energy-Study>

	<ul style="list-style-type: none"> • Land cover comprises mixed arable and pastoral farmland in medium and large semi-regular and regular fields. There are large blocks of woodland towards the north of the area, particularly near Riddings and Ironville, and the south-western edge of Ripley. Elsewhere, there are small and medium woodland blocks, as well as hedgerow trees. The area contains a country park at Shipley in its south-eastern corner and another at Midland Railway Centre in the north. It also includes a golf course on its eastern edge. • The northern edge of the area includes the urban area of Alfreton (including Somercotes). The urban area of Ripley (including Codnor) is located centrally within the area, with the urban area of Heanor (including Langley Mill) in the south. The area also includes several villages, such as, Ironville, Horsley Woodhouse and Kilburn. The settlements within the area tend to coalesce into each other along the main roads. There are extensive industrial and commercial areas, particularly in Somercotes, Marehay (Ripley) and Langley Mill. • The area contains several main roads, notably the A38 dual carriageway, which runs through the north of the area and forms its western boundary. The A610 runs west-east through the centre of the area; the A608 and A609 run north-east to south-west and south-west to north-east respectively through the south of the area. The A6007 runs north-south-east, connecting the A610 and the A608 in the east of the area. In the west of the area, the Roman road, Ryknild Street, runs north-south. Railway lines run north-south along the eastern area boundary, and east-west in the north of the area (the latter associated with the heritage railway at the Midland Railway Centre). A line of pylons run from east to south, near Heanor; another powerline runs across the south-western corner. • Factors which contribute to the landscape value include: the recreational value of country parks and the Public Rights of Way network, the long views available from the undulating topography, the separation of settlements by open fields - particularly in an area with a lot of urbanisation • Factors which increase the landscape susceptibility to development include: the complex landform, the presence of settlement coalescence in the area, the availability of long views from ridgelines and the relatively small- and medium-scale land cover. Factors which decrease the landscape susceptibility to development include: the influence of detractors such as 'A' roads and industrial developments, mineral extraction and evidence of previous coal mining activity, the lack of intactness and the influence of urban areas.
Heritage considerations	<ul style="list-style-type: none"> • There are a number of Conservation Areas in the broad area, all of which contain clusters of listed buildings. • There are no Registered Park and Gardens in the area. • There are small clusters of listed buildings in settlements that do not have conservation areas and occasional isolated listed buildings. • There are Scheduled Monuments at Butterley, Codnor Castle, Denby Village (part of the Ryknild Street Roman Road), Horsley Castle, and Mapperley Park (x2). • The route of the Ryknild Street Roman Road that ran between Chester and Derby runs north-south across the western side of the area and part of it north of Kilburn is scheduled.
Housing demand	<ul style="list-style-type: none"> • The average house price paid in Amber Valley Borough in January 2020 was £179,734. This is higher than in Derby City (£159,403) but below the East Midlands average (£195,707). This indicates that the demand for homes is relatively lower than the other sub areas. • According to the Derby Housing Market Assessment (HMA) SHMA 2013, average house prices in the towns of Alfreton and Ripley in Amber Valley East were higher than the local authority average; though prices in Heanor were lower than that the average at the time.

	<ul style="list-style-type: none"> • From January 2015 to January 2020, house prices in Amber Valley have increased by approximately 24.8%, which is slightly below the average house price change in the East Midlands during the same period (+27.4%). • In the year ending September 2019, 40% of the property sales in Amber Valley were detached houses, 33% to semi-detached houses, 26% to terraced houses and only 2% to flats/maisonettes. • In 2019, Amber Valley's ratio of median house price to median gross annual earnings (residence-based) was 5.58, lower than the mean ratio for all local authorities in the East Midlands (6.62) – i.e. Amber Valley is relatively affordable compared to the region. Amber Valley has a slightly lower ratio than South Derbyshire (5.79). • The Amber Valley East area is relatively affordable compared to the region and compared to the other study areas in South Derbyshire (i.e. West of Derby, Trent Valley, South Derbyshire – North and South Derbyshire – South). • According to 2011 Census data, 74.77% of households in the Amber Valley Borough own their dwelling, 11.3% rent in the private sector and 8.8% occupy a social rented dwelling. • In the Amber Valley East area, the distribution of household ownership is varied. The lowest concentration of ownership is located in the centre of Alfreton and Ripley (where there are higher levels of social and private renting). In contrast, the high concentrations of household ownership can be found in the fringes of Alfreton, Ripley and Heanor, as well as in Swanwick (in excess of 90% home ownership).
Economic development and regeneration potential	<ul style="list-style-type: none"> • The Amber Valley – East area produces considerable job opportunities, with an employment density of 0.73 – comfortably above the averages for Amber Valley and South Derbyshire. Residents are retained in the area for employment, with nearly 51% working in the Amber Valley borough. • The employment opportunities are within key economic sectors for the D2N2 LEP area, with manufacturing representing 25.7% of jobs. Food and drink manufacturing, a priority for the LEP, accounts for 6.7% of employment in the area compared to 2.3% across the Study Area. • The employment in the priority sector is driven by Thornton Park in Alfreton. Thornton's is Britain's largest chocolate maker and all their UK manufacturing, packing, distribution and warehouse operations are based here – creating over 3,500 jobs. • Griffiths Foods is another key asset for the sector, at the nearby Cotes Park Industrial Estate, which further establishes this strength. Together with Thornton's, this presence creates important future opportunities in the priority sector. • Transport and storage represent 8.1% of employment across the area, above the average for the Study Area (4.9%). This industry is benefitted by the strong connectivity throughout the area, with Strategic Road Network access provided by the A38 and the M1 to the east, and rail stations at Alfreton and Langley Mill. • There are many established warehouse and distribution clusters throughout the area, such as Denby Hall Business Park, Codnor Gate Business Park and Heanor Gate Industrial Estate. These clusters could support future activity in the sector. • The area suffers from high levels of deprivation, with many Lower Super Output Areas (LSOAs) ranked in the 1st to 3rd deprivation deciles in the Index of Multiple Deprivation (IMD) where 1st is the most deprived. This deprivation is particularly apparent around the centres of Alfreton and Heanor. • Therefore, the area has strong economic development and regeneration potential.
Spatial opportunities and constraints	<ul style="list-style-type: none"> • There is a need to avoid risk of coalescence between the villages of Kilburn, Horsley Woodhouse and Smalley, between the settlement of Cross Hill and the urban areas of Heanor (including Loscoe) and

	<p>Ripley (including Codnor) and Shipley and Cotmanhay (outside boundary of Amber Valley – East).</p> <ul style="list-style-type: none"> • The Amber Valley Green Belt Review outlines that Heanor is in most need of regeneration, Ripley has the best existing and proposed transport links, and Belper (outside of Amber Valley-East) is the most constrained by important landscapes.
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Conclusion- Key Strategic Opportunities & Constraints identified for Area 1

Pros

- The sensitivity of the landscape in this area is medium in the far south-west of the area, with lower sensitivity in the north and east. This is based on the complex topography, balanced with the presence of existing detractors and urbanisation. However, development will need to be sensitively designed in accordance with its surroundings, the landform and the valued characteristics.
- No Source Protection Zone (SPZ)
- No adopted Minerals Safeguarding Area (MSA) or Minerals Consultation Area (MCA)
- Majority of the area is within Flood Zone 1.
- Future development in this upstream area creates opportunities to reduce the risk of flooding downstream, by incorporating significant flood storage elements into future land use planning.
- Access to the M1 is available to the east via Junctions 26, 27 and 28 which has been widened between junctions 25 to 34.
- Buses are available into Derby, Nottingham and Mansfield and heavy rail services are available into Nottingham and Sheffield.
- The Amber Valley – East area provides considerable job opportunities. Residents are retained in the area for employment, with nearly 51% working in the Amber Valley borough.
- Although there is a general surplus capacity in social infrastructures within the assessment area, additional facilities and/or extensions to existing facilities may still be required to support future growth and to provide more accessible facilities.

Cons

- Presence of historic and authorised landfills
- Sensitive groundwater – Secondary A aquifers
- Protection measures would be required within new buildings in the whole Amber Valley – East area as it is affected by radon
- Made ground likely to be associated with urban development areas
- Potential for areas of thick and variable made ground and superficial deposits
- Shallow coal and worked opencast coal areas have been identified
- Areas along the north, east and southwestern boundaries lie within Flood Zones 2 and 3.
- Although there is scope for development within parts of this sub area, without careful planning this could lead to an increase in the risk of flooding to downstream areas.
- A608 Inner Relief Road within Heanor town centre is no longer proposed.
- Localised congestion occurs along the A610 (the route to the A38) at Codnor located centrally within the area.
- No Park & Ride available or planned.
- Factors which increase the landscape susceptibility to development include: the complex landform, the presence of settlement coalescence in the area, the availability of long views from ridgelines and the relatively small- and medium-scale land cover.
- Relatively lower house prices and more affordable than the other sub-areas indicating that demand for new homes may be lower than in the other sub areas.

Area 2: Amber Valley – West

Criterion	Considerations
Environmental constraints	<ul style="list-style-type: none"> • The area is a mix of Grade 3 good to moderate quality agricultural land and Grade 4 poor agricultural land. • There are many pockets of ancient woodland in the area, these include at: Duffield Bank, Bunker’s Hill, Brewards Carr, Holbrook Moor, High Wood, Handley Wood, land south of Carrbrook Farm, White Wells, Dunge Wood, land southeast of Ambergate, Bullbridge, Shining Cliff Woods, Crich Chase, Hollybank, Derwent Valley Heritage Way, Birch Wood, Lea Wood, Leashaw Wood, Bow Wood, Shaw Wood, Coumbs Wood, Holt Wood, and Swinepark Wood. In addition, there are large areas of ancient woodland in the north along the River Derwent. • There are a number of Sites of Special Scientific Interest at Mercaston (located along the area boundary), area around Old Covert, Mount Pleasant (near Ireton Wood), Shining Cliff Woods, Cromford Canal, Crich Chase, Ambergate Ridgeway Quarries and Kedleston Park SSSI. • In Belper, the area to the north, west and south-west of the town is included within a Special Landscape Area • There are no Ramsar Sites or Special Protection Areas within the area. • The majority of the area is within Flood Zone 1. Flood Zones 2 and 3 lie along the area boundary where the River Ecclesbourne, the Black Brook, River Derwent, Coppice Brook and River Amber cross the area. Ecclesbourne and Derwent flow towards the southeast of the area, the others are tributaries to those watercourses. • There are a number of smaller watercourses covering the area. • There is a residual risk of flooding from reservoirs along the River Amber and the River Derwent. • Areas at risk of surface water flooding are identified, associated with the flowpaths that feed into watercourses that cross the area. Risk is high in the northwest and southeast. • Susceptibility of groundwater is low with areas near watercourses at higher risk. • Bonsall and Matlock are areas to the northwest beyond the area boundary that have experienced flooding incidents.
Transport and accessibility	<ul style="list-style-type: none"> • The area benefits from two key strategic routes with north-south routing in the A6 and A38. These are connected via the A610 and provide connection to the M1 J28 to the north east via the A38 and to the south east via the A610. • Both the A6 and the A38 provide for direct access southwards to Derby city centre. Highway improvements are scheduled at three junctions along the A38 to reduce stress on the route including at Little Eaton. • Localised congestion occurs along the A38, A6 and A61 to the south of the area, on the periphery of Derby city centre. Capacity analysis likely to be needed using highway network model, such as SATURN. • Belper town centre is well served by buses and offers a range of local services. The town centre has a pedestrianised zone. Capacity impacts within Belper would need to be assessed. • There are no park and ride facilities available or planned in the area. • Heavy rail services are available on a north-south routing through the area at Whatstandwell, Ambergate, Belper and Duffield. The Ecclesbourne Valley Railway provides a heritage service which operates services between Ravenstor and Duffield, which are timed to connect with East Midlands Railway Nottingham - Derby - Matlock service at Duffield. • Frequent bus services are available on strategic routes and within Belper town centre and Duffield local centre but are limited within the north and west of the area.

	<ul style="list-style-type: none"> • There are limited cycle facilities within the local area, with the Derwent Valley Cycleway currently proposed, which would connect Matlock to Derby and would also connect to the National Cycle Network. • Cycleway improvements within Little Eaton to the south of the area are currently underway. • The emerging Belper Neighbourhood Plan identifies that cycling improvements are required within the town centre.
Geo-environmental considerations	<ul style="list-style-type: none"> • 26 no. historic landfills and 1 no. authorised landfills are located within the Amber Valley - West area in various locations. • Amber Valley – West has three areas of groundwater Source Protection Zones (SPZ). In the north-west, a SPZ Zone 1 (Inner Protection Zone) slightly overlaps into the area boundary, north-west of Whatstandwell. North-west, west and south-west of Belper, there is a SPZ Zone 3 (Total Catchment), with Zone 2 (Outer Protection Zone) and Zone 1 (Inner Protection Zone) west of Belper. In the south-east, a SPZ Zone 3 (Total Catchment) extends towards Duffield, with Zone 2 (Outer Protection Zone) along the area boundary, west of Little Eaton and Zone 1 (Inner Protection Zone), adjacent to the south-east of the Amber Valley – West area. • Geology comprises superficial deposits (approximately 25% coverage) of alluvium, head, till, glaciofluvial deposits and Allenton Terrace Deposits. Bedrock geology within the Amber Valley – West area includes predominantly the Marsden Formation (north-west to south-east) and Morridge Formation (west to south). The Bowland Shale Formation is across the western boundary. Across the eastern area, bedrock geology comprises Pennine Lower Coal Measures Formation and the Rossendale Formation. In the south-western area, bedrock geology is varied comprising the Chester Formation, Widmerpool Formation and Tarporley Siltstone Formation. In an area in the north, near Crich, bedrock geology comprises Monsal Dale Limestone Formation and Eyam Limestone Formation. • The bedrock is designated as a Secondary A aquifer (approximately 90% of the Amber Valley – West area). Principal aquifers (approximately 8%) occupy areas in the south, south-west and in one area in the north of Amber Valley – West; and Secondary B aquifers (approximately 2%) occupy areas in the south of Amber Valley – West. • The areas of superficial deposits are designated as either Secondary A or Secondary (Undifferentiated) aquifers. • There is a Limestone and associated minerals Mineral Consultation Area (MCA) north of Fritchley, and a Sand and Gravel MCA in the southern area of Amber Valley – West, based on the currently adopted Derbyshire Minerals Local Plan (dated 2002)³⁴. • The urban development area is mostly in and around the town of Belper (predominately to the east), including a few industrial estates. Made ground is potentially present in these areas. Areas of artificial ground are recorded in some areas, particularly along the eastern boundary of the Amber Valley – West area based on British Geological Survey (BGS) mapping. Very occasional, sporadic areas of artificial ground are mapped across the remaining Amber Valley – West area. Made ground may also be present in areas occupied by road networks and railways. • The percentage of homes above the action level for radon is varied across the Amber Valley – West area, ranging between 1%-3% and greater than 30% (area extending approximately between the villages of Fritchley and Holloway). Protection measures would be required within new buildings in the Amber Valley – West area. • Areas of thick and variable made ground and superficial deposits may pose a constraint on the use of shallow foundations and which

³⁴ <https://www.derbyshire.gov.uk/site-elements/documents/pdf/environment/planning/planning-policy/minerals-waste-development-framework/derby-and-derbyshire-minerals-local-plan-part-one.pdf>

	<p>therefore may require ground improvement or a deeper foundation solution. These areas may also pose ground stability constraints.</p> <ul style="list-style-type: none"> • According to BGS mapping, the eastern extent of the Amber Valley – West area is located in an area overlying shallow coal, and some areas of worked opencast coal areas have also been identified. This is likely to cause redevelopment constraints where former shallow workings/voids or shafts exist.
<p>Infrastructure capacity and potential</p>	<ul style="list-style-type: none"> • Western Power Distribution's network capacity map states there is a 33/11kv substation that powers the area. • Severn Trent Water haven't stated any capacity issues with their network in this area however as with all new developments, a network capacity check will have to be undertaken. • BT Openreach have confirmed that there are unlikely to be any limitations to broadband and telephone services for new developments and that the company is currently obliged to service new developments. There are no anticipated phasing constraints. The standard lead in time for BT Openreach is 3 to 6 months for larger developments (e.g. over 100 plots). • As stated by the Low Carbon Opportunities report³³ there is considerable potential for air source heating and heat pumps across the Derby region as well as the use of solar pv panels. The report sets out that there is limited potential for hydropower generation across the area. • The gas infrastructure supplier for the area is Cadent Gas Networks. No information is currently available in terms of existing and future gas supply connections. • There are 21 primary schools with varying capacities in the Amber Valley (West) sub-area. Primary schools within the sub-area are mostly located around Belper and in the main villages. • There are 2 secondary schools within the sub-area. • There are no further or higher education facilities within any of the assessment areas. The nearest further and higher education facilities are University of Derby (Higher Education) within Derby City, Derby College (Further Education) with campuses in Derby City and Morley (Erewash Borough) and Burton and South Derbyshire College (Further Education), in Burton-on-Trent (East Staffordshire Borough). • Regarding primary healthcare, 4 GPs are located within the sub-area with varying degree of surplus theoretical capacities at present. They are mostly located in urban area of Belper and the villages of Crich and Duffield. • Across Derbyshire, existing acute healthcare services and mental illness services are generally highly occupied. About 57% of the existing beds in the maternity sector is occupied.
<p>Landscape and topography</p>	<ul style="list-style-type: none"> • The area is largely within Natural England's National Character Area (NCA) 50 Derbyshire Peak Fringe and Lower Derwent. It also contains NCA 38 Nottinghamshire, Derbyshire and Yorkshire Coalfield and NCA 68 Needwood and South Derbyshire Claylands. • On a regional scale, the area is largely within the Wooded Slopes and Valleys Landscape Character Type (LCT). It also contains Open Moors and Inbye Land LCT, Village Farmlands LCT, Settled Coalfield Farmlands LCT and a small area of Floodplain Valleys LCT. • On a local level, the area is largely within Wooded Slopes and Valleys LCT. It also contains Gritstone Heaths & Commons LCT, Riverside Meadows LCT, Wooded Farmlands LCT, and an urban area. • Topography comprises very undulating land within most of the area, with higher ground in the north. This is made up of a series of hills and ridgelines separated by narrow valleys, including that of the River Derwent, the River Amber and the slightly wider valley of the River Ecclesbourne. The land in the south is lower, with gentler slopes and undulations.

	<ul style="list-style-type: none"> • Land cover comprises mixed arable and pastoral farmland arranged in medium semi-regular and regular fields, with occasional small fields adjacent to settlements in the north of the area. There are occasionally large arable fields in the River Derwent floodplain, contrasting with the surroundings. There are several woodland blocks present, but these tend to be small or medium in size - the exception being the River Derwent valley in the north of the area, where large woodland blocks (often comprising ancient woodland) occupy the valley sides. Other tree cover includes hedgerow trees and riparian vegetation. At the far south of the area is the parkland of Kedleston Hall. • The northern edge of Derby sits in the far south of the area but has little influence on it. The area contains the urban area of Belper and the local centre of Duffield. There are also smaller villages including Ambergate, Crich, Heage and South Wingfield. Industrial and commercial areas are present adjacent to the River Derwent, particularly at Belper and Ambergate. • The main roads in the area include the A38 dual carriageway on its eastern boundary, and the A6, which runs north-south through its centre. The A610 meets the A6 at Ambergate in the north-east of the area, and the A517 runs westwards from Belper. The Midland Mainline runs north-south through the eastern half of the area, and the Ecclesbourne Valley Railway runs north-west to south-east through its western half. There is a former quarry at Crich in the north of the area. Pylons and power lines run along the area's eastern boundary. • Factors which contribute to the landscape value include: the presence of historical settlements such as Belper and the Derwent Valley Mills World Heritage Site, the partially intact character of the landscape (including several ancient woodlands) and the scenic qualities which are derived from the complex topography and occasional long views. • Factors which increase the landscape susceptibility to development include: the complex landform, particularly in the north; the presence of settlement coalescence in the south-east along the A6; and the intactness of historical areas particularly in the Derwent Valley Mills World Heritage Site. Factors which decrease the landscape susceptibility to development include: the influence of detractors such as the commercial and industrial developments around Belper and Ambergate and the A38 road.
Heritage considerations	<ul style="list-style-type: none"> • A large section of the Derwent Valley Mills World Heritage Site extends north-south through the whole area from Holloway in the north to Quarndon in the south and is a major constraint. While the boundary of the WHS is contained within the river valley the buffer zone extends across a larger area. On occasion the wider setting extends further than the Buffer Zone, and views from and towards the WHS, particularly relating to the relict landscape which contributes to its Outstanding Universal Value, from further away need to be considered, particularly where larger developments are being considered. The DVMWHS takes in the settlements of Belper and Milford. These have a combined Conservation Area with almost 140 listed buildings in Belper and almost 50 in Milford. • There are also a number of Conservation Areas in the broad area. • There are also listed buildings in those settlements that do not have conservation areas and isolated listed buildings in the surrounding countryside. • There are Scheduled Monuments at Wingfield Manor, Castle Hill Camp, Ravensdale Deer Park, Mugginton, Windley and Duffield Castle. • The grade I listed Kedleston Hall Registered Park and Garden extends into the southern part of the area but the majority of the RPG and the listed buildings within it are contained within Area 3: West of Derby. • The DVMWHS and its buffer zone provides a major constraint to development in the centre of the area and there is limited opportunity to the west due to the high proportion of listed buildings.

Housing demand	<ul style="list-style-type: none"> • The average house price paid in Amber Valley Borough in January 2020 was £179,734. This is higher than in Derby City (£159,403) but below the East Midlands average (£195,707). • According to the Derby HMA SHMA 2013, the average house price in Belper was £179,846 marginally higher than the average house price in the Amber Valley Borough at the time. This indicates that the demand for homes in Amber Valley West may be higher than in the East. • From January 2015 to January 2020, house prices in Amber Valley have increased by approximately 24.8%, which is slightly below the average house price change in the East Midlands during the same period (+27.4%). • In the last five years (from year ending September 2015 to year ending September 2019) the number of property sales in Amber Valley has increased by 6.4% (considerably below the change in property sales in South Derbyshire, i.e. +26.4%). • In the year ending September 2019, 40% of the property sales in Amber Valley corresponded to detached houses, 33% to semi-detached houses, 26% to terraced houses and only 2% to flats/maisonettes. • In 2019, Amber Valley's ratio of median house price to median gross annual earnings (residence-based) was 5.58, lower than the mean ratio for all local authorities in the East Midlands (6.62) – i.e. Amber Valley is relatively affordable compared to the region. Amber Valley has a slightly lower ratio than South Derbyshire (5.79). • The Amber Valley West area is relatively affordable compared to the region and compared to some of the other study areas in South Derbyshire (i.e. West of Derby, Trent Valley, South Derbyshire – North and South Derbyshire – South). • According to 2011 Census data, 74.77% of households in the Amber Valley Borough own their dwelling, 11.3% rent in the private sector and 8.8% occupy a social rented dwelling. • The southern part of the Amber Valley West area has a high concentration of household ownership, with only a few pockets in Belper Central with an ownership percentage lower than 62.5%.³⁵
Economic development and regeneration potential	<ul style="list-style-type: none"> • There are some employment opportunities in the area, with employment density (average floorspace requirement per Full-Time Equivalent employee) of 0.56 – above the average for South Derbyshire but slightly below Amber Valley's average. • Businesses in the area manage to attract a well-qualified workforce with nearly 30% of workers qualified to NVQ4+ and 36% holding high-level occupations, both above the borough average. • A good proportion of residents work in the Amber Valley borough (44%), with the rest of the Study Area creating relevant opportunities, shown by the overall 67% retention rate within the study area. • The visitor economy, an opportunity sector identified by D2N2 LEP, supports a strong proportion of employment in the area. The accommodation and food services sector represent 8.6% of employment (Study Area average is 6.6%) while the arts, entertainment and recreation sectors accounts for 6.2% (Study Area average is 4.4%). • There are some vital assets for the visitor economy in the area which provides a basis for potential future developments to build upon. The nearby Peak District National Park generates substantial tourism activity, as well as its UK brand of provenance for goods and foods. Additional important tourism facilities assets include Strutt's North Mill in Belper and Heights of Abraham in Matlock (outside the area to the north west). • The area experiences very low levels of deprivation, with the majority of LSOAs in the least 30% deprived areas of the country according to the IMD, particularly to the far south and north of the area. There is some,

³⁵ In this section, all data at the area level (as opposed to Local Authority level) was taken from Data Shine.

	<p>albeit low, deprivation around Belper with LSOAs in the 5th deprivation decile.</p> <ul style="list-style-type: none"> • The area appears suitable to accommodate some future employment activities, with the presence of a strong workforce and key tourism assets considered advantages. The low levels of deprivation suggest there is little economic regeneration potential.
Spatial opportunities and constraints	<ul style="list-style-type: none"> • Need to avoid coalescence between Duffield and Milford; Milford and Belper; Belper and Bargate/Holbrook; Belper and Blackbrook; and Fritchley and Crich Common. • Green Belt extends over land between settlements in the eastern half of the area. Belper is surrounded on three sides by the Green Belt. • Derwent Valley Mills World Heritage Site and buffer zone follows the River Derwent from north to south through the centre of the area.

Conclusion- Key Strategic Opportunities & Constraints identified for Area 2

Pros

- The sensitivity of the landscape in this area is higher in the north-west of the area, with lower sensitivity towards the south and north-east. This is based on the complexity of the landform, weighed against the presence of urbanisation and other detractors. Any development will, however, need to fit with the surrounding landform and be sensitive to valued characteristics.
- Majority of Area 2 is within Flood Zone 1.
- Future development in this upstream area creates opportunities to reduce the risk of flooding downstream, by incorporating significant flood storage elements into future land use planning.
- Watercourses in this area should be retained as a defining feature of the landscape as it is developed.
- The area benefits from two key strategic routes with north-south routing in the A6 and A38. Both routes provide for direct access southwards to Derby city centre.
- Belper town centre well served by buses and offers a range of local services. The town centre has a pedestrianised zone.
- Heavy rail services are available on a north-south routing through the area at Whatsandwell, Ambergate, Belper and Duffield.
- Frequent bus services are available on strategic routes and within Belper town centre and Duffield local centre but are limited within the north and west of the area.
- There are some employment opportunities in the area, with employment density of 0.56 and a good proportion of residents work in the Amber Valley borough (44%), with the rest of the Study Area creating relevant opportunities, shown by the overall 67% retention rate within the study area.
- The area appears suitable to accommodate some future employment activities, with the presence of a strong workforce and key tourism assets considered advantages.

Cons

- Presence of historic and authorised landfills
- Three areas of SPZ – Zones 1, 2 and 3
- Sensitive groundwater – Principal and Secondary A aquifers
- Protection measures would be required within new buildings in the whole Amber Valley – West area as it is affected by radon
- Made ground associated with urban development areas
- Potential for areas of thick and variable made ground and superficial deposits
- Shallow coal and worked opencast coal areas have been identified
- Limestone and Sand and Gravel MCA identified
- Some land within Flood Zones 2 and 3 lies within the area boundary where the River Ecclesbourne, the Black Brook, River Derwent, Coppice Brook and River Amber cross the area of search. Ecclesbourne and Derwent flow towards the southeast of the area of search, the others are tributaries to those watercourses.
- Large number of watercourses dissect this sub area, the floodplains of which will increase in the future due to the impact of climate change. Future development of this sub area will need to be sensitive to these floodplains.
- Without careful planning, development in this upstream area could increase the risk of flooding downstream, in areas that have already experienced flooding.
- Localised congestion occurs along the A38, A6 and A61 to the south of the area, on the periphery of Derby city centre.

- Limited cycle facilities within the local area, however improved cycle facilities/routes are proposed.
- The low levels of deprivation mean there is little economic regeneration potential. Relatively lower house prices and more affordable than the other sub-areas (with the exception of Amber Valley East) indicating that demand for new homes may be lower than in the other sub areas.
- Additional social infrastructure and/extensions to existing facilities are likely to be required to support future growth and to provide more accessible facilities.
- The Derwent Valley Mills World Heritage Site and its buffer zone provides a major constraint to development in the centre of the area and there is limited opportunity to the west due to the high proportion of listed buildings.

Area 3: West of Derby

Criterion	Considerations
Environmental constraints	<ul style="list-style-type: none"> • The area is a mix of Grade 2 very good quality agricultural land along the A52, with the remainder largely Grade 3 good to moderate quality agricultural land. • There are SSSIs to the north at Kedleston Park and in the south at the Hilton Gravel Pits. • There are a few pockets of ancient woodland in the area, specifically at The Coppice, Conygree Wood, Rough Wood, land south east of Sutton on the Hill, Birchwood, Crow Wood and Sandpit Wood. • There are no Ramsar sites or Special Protection Areas within the area. • The majority of the area lies in Flood Zone 1, with Flood Zones 2 and 3 where the Mackworth Brook, Markeaton Brook, Longford Brook, Trusley Brook, Radbourne Brook, Etwall Brook, Limbersitch Brook, Sutton Brook and Foston Brook cross through the area. • There are several smaller watercourses that run through the area. • This area is not shown to be at residual risk of reservoir flooding. • Areas at risk of surface water flooding are identified, associated with flowpaths that feed into the watercourses that cross the area. • There is a high risk of surface water flooding along the Longford Brook, especially upstream in the north. • Susceptibility of groundwater flooding is medium with areas near watercourses high and more isolated areas low. • Findern lies in the southeast of the West of Derby. Findern has experienced flooding incidents and therefore is a high-risk area.
Transport and accessibility	<ul style="list-style-type: none"> • Area surrounds Derby urban area to the west and benefits from strategic routes into Derby city centre along the A52 Ashbourne Road, A516 and A38. The A516 and A52 however are single carriageway rural roads with localised congestion. The area has limited alternative routes. • The A52 is a key east-west route across the East Midlands and is subject to congestion at peak hours into Derby city centre. In particular the route is identified in the Derbyshire Local Transport Plan (LTP) as high delay during the AM peak hour. Capacity analysis likely to be needed using highway network model, such as SATURN to analyse the impact on this route. • The area is bounded to the south by the A50 Derby Southern Bypass, providing a direct east-west route across the south of Derby toward the M1 motorway. The A50 also provides access to the M6 to the west of the sub-area. The A50 has most likely taken over the A52 in its role as the key east-west route across the East Midlands. • Highway improvements are scheduled at three junctions along the A38 to reduce stress on the route including at the A38 / Kingsway and Markeaton Island, both in close proximity to the east of the area. • No rail provision is available within the area. • Park & Ride is available at Markeaton Park to the north-eastern extent of the area, but this is limited only to the university. • Bus services provide east-west connectivity across the area connecting Derby, Burton upon Trent and Uttoxeter and the West of Derby is well served by frequent buses to Derby City Centre • Cycling provision is available centrally through area via the NCN route 68 and the Great Northern Cycle Path. Cycle facilities are also in place along sections of the A38. Additionally, National Cycle Route 54, connects Derby to Etwall, Hilton and beyond.
Geo-environmental considerations	<ul style="list-style-type: none"> • 12 no. historic landfills and 1 no. authorised landfill are located within the West of Derby area in various locations, mostly in the south. • West of Derby area is not located within a groundwater Source Protection Zone (SPZ). • Geology comprises superficial deposits (approximately 30% coverage) of alluvium, head, till, glaciofluvial deposits, lacustrine deposits and

	<p>river terrace deposits. Bedrock geology within the West of Derby area includes predominantly the Mercia Mudstone Group (western half) and the Sidmouth Mudstone Formation (eastern area). In the north-eastern area, bedrock comprises Tarporley Siltstone Formation and Widmerpool Formation.</p> <ul style="list-style-type: none"> • The bedrock is designated as a Secondary B aquifer (approximately 90% of the West of Derby area). Secondary A and (Undifferentiated) aquifers occupy the remaining 10%, locally, mostly across the north of the West of Derby area. • The areas of superficial deposits are mostly designated as either Secondary A or Secondary (Undifferentiated) aquifers. Small areas of Secondary B aquifers are located in the south-east. • There is a Sand and Gravel Mineral Consultation Area in the southern region of the West of Derby area, based on the currently adopted Derbyshire Minerals Local Plan (dated 2002)³⁶. • There are no towns in the West of Derby area, with limited urban development located around the villages, the largest being Etwell and Findern on the southern boundary. Land use of particular note is the Toyota car factory in the south-east. Made ground is potentially present in these areas. Areas of artificial ground are recorded occasionally in the south-east of the West of Derby area based on British Geological Survey (BGS) mapping. Made ground may also be present in areas occupied by road networks and railways. • The majority of the West of Derby area is not affected by radon (less than 1% of homes are above the action level). In the north-eastern area, there are areas where 1%-3% and 5%-10% of homes are above the action level. Protection measures would be required within new buildings in these areas. • Areas of thick and variable made ground and superficial deposits may pose a constraint on the use of shallow foundations and which therefore may require ground improvement or a deeper foundation solution. These areas may also pose ground stability constraints. • According to BGS mapping, shallow coal and worked opencast coal areas have not been identified in the West of Derby area.
<p>Infrastructure capacity and potential</p>	<ul style="list-style-type: none"> • Western Power Distribution's Network Capacity Map states there is currently a 33/11kv substation that covers the area. • BT Openreach have confirmed that there are unlikely to be any limitations to broadband and telephone services for new developments and that the company is currently obliged to service new developments. There are no anticipated phasing constraints. The standard lead in time for BT Openreach is 3 to 6 months for larger developments (e.g. over 100 plots). • As stated by the low carbon opportunities report³³, there is considerable potential for air source heating and heat pumps across the Derby region as well as the use of solar PV panels. • The infrastructure development report sets out that there is limited potential for hydro generation across the area. • New primary schools are to be provided at the Highfields development in Findern Parish (single form entry primary school), and on land to the West of Derby (single form entry primary school with the provision of land for a two form entry primary school should it be required) (South Derbyshire Local Plan Part 1 Policies H12 and H19). New communities will not be served by existing or expanded provision nearby. Strategic-scale growth will be required to provide their own primary schools on-site, as per the Local Education Authority guidance. • 1 secondary school is within the assessment area. John Port has been substantially expanded in recent years. It has recently been taken over by George Spencer MAT. Due to the scale of the school (large school

³⁶ <https://www.derbyshire.gov.uk/site-elements/documents/pdf/environment/planning/planning-policy/minerals-waste-development-framework/derby-and-derbyshire-minerals-local-plan-part-one.pdf>

	<p>located in a comparatively small village) it may not be appropriate to significantly expand the school further.</p> <ul style="list-style-type: none"> • There are no further or higher education facilities within any of the assessment areas. The nearest further and higher education facilities are University of Derby (Higher Education) within Derby City, Derby College (Further Education) with campuses in Derby City and Morley (Erewash Borough), and Burton and South Derbyshire College (Further Education), in Burton-on-Trent (East Staffordshire Borough). • 1 medical centre (Findern) is within the assessment area with some surplus capacity. • Across Derbyshire, existing acute healthcare services and mental illness services are generally highly occupied. About 57% of the existing beds in the maternity sector is occupied. • Additional social infrastructure and/extensions to existing facilities are likely to be required to support future growth and to provide more accessible facilities. • Growth in this location will need to be managed and phased carefully to deliver commensurate levels of supporting infrastructure based on the high number of extant allocations in this location and identified capacity issues.
Landscape and topography	<ul style="list-style-type: none"> • The area is largely within Natural England's National Character Area (NCA) 68 Needwood and South Derbyshire Claylands. It also contains NCA 50 Derbyshire Peak Fringe and Lower Derwent. • On a regional scale, the area is largely within the Village Farmlands LCT. It also contains a small area of Floodplain Valleys LCT. • On a local level, the area is largely within Settled Farmlands LCT. It also contains Estate Farmlands LCT and small areas of Lowland Village Farmlands LCT, Riverside Meadows LCT and Wet Pasture Meadows LCT. • Topography comprises a low-lying and slightly undulating area, influenced by the adjacent River Dove floodplain to the south. In the north of the area, the land is slightly higher, comprising a series of east-west ridgelines. There are several watercourses flowing from north to south through the area such as Longford Brook, Radbourne Brook and Mackworth Brook, which are associated with localised undulations. • Land cover comprises mixed farmland in medium semi-regular and regular fields, with occasional smaller fields present (such as at Findern). There is very limited woodland in the area, the majority of which occur in small discrete blocks. Four of these are ancient woodlands. There are a couple of larger woodland blocks in the south of the area, which also contains several hedgerow trees and occasional individual trees in fields. In the north of the area, there is parkland and a golf course present at Kedleston Hall, and a golf course is present in the far south. • The eastern edge of the area is adjacent to the western edge of Derby and is influenced by it. Within the area, there are several small and medium dispersed villages including Church Broughton, Etwall, Findern, Kirk Langley, Mackworth and Sutton on the Hill. There are also several isolated properties and small hamlets. • The main roads through the area tend to occur in the south-eastern corner, namely the A50 running east-west along its southern boundary, the A38 in its far south-eastern corner, and the A516, which links the A38 to the A50. Also present within the area is the A52, which crosses the north-eastern corner of the area from north-west to east. In the north of the area, the Roman road, Long Lane, runs east-west. There are two industrial sites in the far south of the area. A powerline crosses from north to south-east through the area. • Factors which contribute to the landscape value include: the quiet, rural character, the relative intactness of the landscape, the sparseness of settlement, the clusters of historical settlements (including several listed

	<p>buildings and scheduled monuments) and the historical parkland at Kedleston Hall.</p> <ul style="list-style-type: none"> • Factors which increase the landscape susceptibility to development include: the relative sparseness of settlements within the area, as well as the intactness of the landscape character, including some small-scale fields around settlements such as Church Broughton. Factors which decrease the landscape susceptibility to development include: the relatively simple topography in the south and medium-scale of the land cover, the influence of the A50 and other A roads in the south as major transport routes / detractors.
Heritage considerations	<ul style="list-style-type: none"> • There are Conservation Areas at Kedleston, Mackworth, Kirk Langley, Trusley, and Etwell. • There are also listed buildings in those settlements that do not have conservation areas and isolated listed buildings in the surrounding countryside. Radbourne Hall is a Grade I listed building located directly west of Mickleover and south of Radbourne. It occupies an elevated position with views out across the countryside to the urban edge of Derby and the protection of its setting was a significant consideration in regard to the Hackwood Farm and West of Mickleover housing allocations in the adopted South Derbyshire Local Plan Part 1 (Policies H18 and H19). • The Mackworth medieval settlement is scheduled and takes up five distinct areas to the north of the A52 Ashbourne Road. • There are also scheduled monuments at Thurvaston, Sharrow Hall, Barton Blount and Langley Common. • The majority of the area of the grade I listed Kedleston Hall Registered Park and Garden (RPG) is located inside the area. The part of the park within Area 3 contains 22 listed buildings including the grade I listed Kedleston Hall and four further grade I listed and eight further grade II* listed buildings. • The north-eastern part of the area has major constraints in the form of the Kedleston Hall RPG, a scheduled medieval settlement and three conservation areas.
Housing demand	<ul style="list-style-type: none"> • The average house price paid in South Derbyshire in January 2020 was £195,822. This is considerably higher than in Derby City (£159,403) but only slightly higher than the average price in the East Midlands (£195,707). Prices are higher, on average than both Amber Valley areas, indicating relatively higher demand for housing. The average house price paid in Amber Valley Borough in January 2020 was £179,734. This is higher than in Derby City (£159,403) but below the East Midlands average (£195,707). From January 2015 to January 2020, house prices in South Derbyshire and in Amber Valley have increased by approximately 17.8% and 24.8% respectively, which is below the average house price change in the East Midlands during the same period (+27.4%). • In the last five years (from year ending September 2015 to year ending September 2019) the number of property sales in south Derbyshire has increased by 26.4% (considerably higher than the change in property sales in Amber Valley, i.e. +6.4%). For the same period the number of property sales in Amber Valley has increased by 6.4%, considerably below the change in property sales in South Derbyshire. • In the year ending September 2019, 47% of property sales were detached houses, 32% to semi-detached houses, 19% to terraced houses and only 3% to flats/maisonettes in South Derbyshire. For the same period in Amber Valley Borough 40% of the property sales corresponded to detached houses, 33% to semi-detached houses, 26% to terraced houses and only 2% to flats/maisonettes. • In 2019, South Derbyshire's ratio of median house price to median gross annual earnings (residence-based) was 5.79, which is lower than the mean ratio for all local authorities in the East Midlands (6.62) – i.e. South Derbyshire is relatively affordable compared to the region.

	<p>However, South Derbyshire has a slightly higher ratio than Amber Valley (5.58), which is relatively affordable compared to the region.</p> <ul style="list-style-type: none"> • Although the area of West of Derby is relatively sparsely populated, a high percentage of households own their dwelling, with only a small pocket in the southeast having an ownership percentage lower than 62.5% (in Etwall).
<p>Economic development and regeneration potential</p>	<ul style="list-style-type: none"> • The area is mostly rural with a fairly low residential population however; the existence of a few major employment sites on the southern edge of the area means there is potential for future residential development. • Key assets are Toyota's largest UK Site, a vehicle manufacturing plant located near Burnaston, and Dove Valley Park including renowned manufacturing companies such as JCB and Futaba Manufacturing UK Ltd. Toyota's facility in particular is highly productive and innovative driving growth in the priority transport equipment manufacturing sector. • These significant employment sites result in an employment density for the West of Derby area (0.66) that is above the averages for South Derbyshire and Amber Valley. • Due to these facilities, manufacturing represents 32.8% of employment in the area, with high-tech manufacturing (including motor vehicles and transport equipment) accounting for the 21.7% - significantly above the Study Area's average of 11.9%. • The area also benefits from its proximity to the University of Derby, an anchor institution for the D2N2 LEP area. The D2N2 LEP has invested heavily in projects to promote innovation, including the University of Derby's iHub centre. The University provides training in the crucial advantaged manufacturing and digital technologies, as well as its development of the Rail Employment and Skills Academy to support the transport sector. This institution generates a skilled workforce and positive spillover effects for future developments. • The area experiences medium levels of deprivation, with the majority of LSOAs ranked between the 5th and 8th deprivation deciles. Additionally, pockets immediately to the east of the area within the City of Derby (Derby 009B and Derby 009D LSOAs) are in the top 30% most deprived parts of the country. • Therefore, the area has strong economic development around its key assets and has the potential for regeneration.
<p>Spatial opportunities and constraints</p>	<ul style="list-style-type: none"> • The area is largely open countryside with smaller settlements and does not have any Green Belt constraints. • There are a number of housing allocations in the area on the western edge of Derby. This can be viewed as both an opportunity and constraint as new development could help to leverage in further social and transport infrastructure improvements. However, if developments are predominantly residential with less scope for self-containment and without sufficient public transport then car borne transport may be the primary form of transportation.
<p>Conclusion- Key Strategic Opportunities & Constraints identified for Area 3</p> <p>Pros</p> <ul style="list-style-type: none"> • The sensitivity of the landscape in this area is medium/high across much of the area, with lower sensitivity in the far south-east (south-east of the A516) and east adjacent to the urban edge. This is based on the relative intactness of the area, the relative complexity of the landform in the north of the area and overall relative lack of detractors. This is balanced by the influence of the urban edge of Derby in the east of the area and presence of highway detractors. No SPZ • Limited made ground associated with urban development areas, as no towns, only villages • Majority of area not located in an area affected by radon • No shallow coal and worked opencast coal areas have been identified • Majority of the area lies within Flood Zone 1. • Future development in this area creates opportunities to reduce the risk of flooding downstream, by incorporating significant flood storage elements into future land use planning. • Area surrounds Derby urban area to the west and benefits from strategic routes into Derby city centre along the A52 Ashbourne Road, A516 and A38. 	

- The area is bounded to the south by the A50 Derby Southern Bypass, providing a direct east-west route across the south of Derby toward the M1 motorway.
- Park & Ride available at Markeaton but limited as far as the university.
- Bus services provide east-west connectivity across the area, but are limited in the west of the area.
- Cycle provision is available centrally though the area.
- The existence of a few major employment sites on the southern border of the area means there is potential for future development. These significant employment sites result in an employment density for the West of Derby area (0.66) that is above the averages for South Derbyshire and Amber Valley.
- The area benefits from its proximity to the University of Derby, an anchor institution for the D2N2 LEP area.
- The area has strong economic development potential around its key assets and has the potential for regeneration.
- House prices are relatively high compared to other sub areas and compared to the regional average, indicating the potential for higher demand for new homes.

Cons

- Presence of historic and authorised landfills
- Sensitive groundwater – Secondary A aquifers
- Protection measures would be required within new buildings in areas affected by radon
- Potential for areas of thick and variable made ground and superficial deposits
- Sand and Gravel MCA identified
- The northern part of the area is classified as Grade 2 very good quality agricultural land
- There are areas within Flood Zones 2 and 3 where the Mackworth Brook, Markeaton Brook, Longford Brook, Trusley Brook, Radbourne Brook, Ethwall Brook, Limbersitch Brook, Sutton Brook and Foston Brook cross through the area of search.
- High risk of surface water flooding along the Longford Brook
- Findern lies in the southeast of the West of Derby. Findern has experienced flooding incidents and therefore is a high-risk area.
- Large number of watercourses dissect this sub area, the floodplains of which will increase in the future due to the impact of climate change. Future development of this sub area will need to be sensitive to these floodplains.
- The A52 is a key east-west route across the East Midlands and is subject to congestion at peak hours into Derby city centre.
- No rail provision is available within the area.
- Radial routes are congested and extant planned growth to 2028 will erode road capacity. As such new development in this area will need to achieve modal shift, incentivise public transport and disincentivise car borne journeys.
- The north-eastern part of the area has major constraints in the form of the Kedleston Hall RPG, a scheduled medieval settlement and three conservation areas. The Grade I listed Radbourne Hall is located directly west of Mickleover and south of Radbourne, of which the protection of its setting was a significant consideration in regard to the Hackwood Farm and West of Mickleover housing allocations in the adopted South Derbyshire Local Plan Part 1. Outside of these heritage assets there are relatively few designated assets outside of the settlements and a number of locations could be considered for growth.
- Additional social infrastructure and/extensions to existing facilities are likely to be required to support future growth and to provide more accessible facilities.

Area 4: Trent Valley

Criterion	Considerations
Environmental constraints	<ul style="list-style-type: none"> • The area is largely Grade 3 good to moderate quality land with pockets of Grade 2 very good agricultural land. Grade 4 poor quality land is located at Hilton and along the River Dove corridor, between the Derby Southern Bypass and the River Trent and in the Elvaston and Thulston area. • The Hilton Gravel Pits SSSI is located to the north of Hilton and the A50. • There are no Ramsar Sites or Special Protection Areas in the area. • There are Local Wildlife Sites scattered throughout the area and a Local Nature Reserve at Elvaston. • Majority of the area is in Flood Zone 3, of which the majority does not benefit from the presence of defences and is therefore at actual risk of river flooding. The extent and frequency of flooding in these areas is likely to increase in the future as a result of climate change. The River Dove and the River Trent flow along the south of the area. The Hilton Brook and Etwall Brook flow from the north of the area towards the south. Some parts of the area lie in Flood Zone 1 to the east near Aston-on-Trent and Weston-on-Trent. In addition, the Hell Brook runs north-south starting off at the edge of Littleover and runs down through Heatherton Village and meets the Twyford Brook south of the A50. Some parts lie within Flood Zone 1 although sections of the Hell Brook lie within Flood Zone 3. • The Trent and Mersey Canal runs through the area. There are also smaller watercourses around the area. • The whole area is at residual risk of reservoir flooding. • Areas at risk of surface water flooding are identified, associated with flowpaths that feed into the watercourses that cross the area of search. Considering the number of watercourses on the area of search, the risk of surface water flooding isn't widespread and there are some areas that aren't affected. • Susceptibility of groundwater flooding for the area of search is high, especially in the south. • Borrowwash and Ockbrook lie to the northwest of the site boundary and have both experienced flooding incidents. • Scropton lies in the west of the area and is in Flood Zone 3. It has also experienced flooding events. Most of the villages in this area and along the Trent have experienced flooding to some extent i.e. Willington, Shardlow, Hatton Barrow on Trent Egginton.
Transport and accessibility	<ul style="list-style-type: none"> • The area surrounds the southern portion of Derby and is in close proximity to targeted highway improvement schemes, including the Southern Derby Integrated Transport Link, grade separation of the A6 / A5111 junction and the proposed A50 Wilmore Road link. • Access to the M1 is available to the east at Junction 24. It is understood that Junction 24 has recently been upgraded through an improvements scheme on the A453. The M1 J25 has also been upgraded, associated with the establishment of the SEGRO intermodal park development. • The access to the M1 is provided via the A50 Derby Southern Bypass, which forms a spine through the area and provides connections north into Derby city centre. The A6 spur, connecting to the A50, provides connections north to employment areas to the east of Derby and at Pride Park, as well as to the City Centre • A new junction on the A50 is proposed associated with proposals at Infinity Park, Derby. • Localised congestion occurs on approach to the Toyota island during weekday peak hours. Localised congestion also occurs on the A6 during the PM Peak hour. Capacity analysis likely to be needed using

	<p>highway network model, such as SATURN to assess the impact on these routes.</p> <ul style="list-style-type: none"> • Localised peak period congestion occurs at the B5008/A5132 double roundabout junction in Willington. • Restricted traffic flow on the A514 over the Swarkestone Causeway, in part due to two narrow passing places, affecting the key north-south route through the District. The Swarkestone Bridge and Causeway is a Scheduled Ancient Monument and is Grade I listed, impeding any potential for improving the highway capacity or bypassing the monument itself. Derbyshire County Council's Local Transport Plan 3 identifies a second river crossing at Swarkestone as a long term project with potential for appraisal. • Scoping proposals for NET2 tram extensions encompass routes into Derby city centre from the east, including following the A6005 located to the northeast of the area. Tram access to Derby has been ruled out by the LTP until at least 2026 but could be reconsidered in future and indeed Midlands Connect are actively pursuing such proposals³⁷ and their potential should be considered for the next generation of Local Plans . • The River Trent and River Dove within the south of the area limit expansion due to limited cross river connectivity. • Bus services provide east-west connectivity across the area connecting Hatton, Hilton and Etwall with Derby, but provide no connection to Willington or Findern, which are on a separate north-south service linking Derby with Burton. The Skylink bus service in the east of the area connects Elvaston and Shardlow to Derby, Castle Donington and East Midlands Airport. There are plans for the HS2 East Midlands Hub at Toton to the east of the area, with masterplanning underway for improved connectivity by road and accessibility improvements. • Passenger railway station within the area is provided at Willington, situated on the Derby-Birmingham railway line, with land safeguarded in the South Derbyshire Local Plan for a further potential station on this line at Stenson Fields. • There is a railway station at Hatton which provides regular passenger services to Crewe and Derby. • The east-west Donington railway line is only used by freight traffic. • Cycling provision is available through the area along the Trent and Mersey Canal and the NCN Routes 549 to the west and Route 66 to the north. NCN Route 6 passes through the area close to Swarkestone, Kings Newton and Melbourne. • A designated cycle lane is also in place along the A38 through the area. • Boulton Moor park and ride is proposed, although it has not been implemented (South Derbyshire Local Plan Part 1 Policy INF2).
<p>Geo-environmental considerations</p>	<ul style="list-style-type: none"> • 40 no. historic landfills and 3 no. authorised landfills are located within the Trent Valley area in various locations. • Trent Valley has three areas of groundwater Source Protection Zones (SPZ). In the west, there is a SPZ Zone 1 (Inner Protection Zone), Zone 2 (Outer Protection Zone) and Zone 3 (Total Catchment) near Hatton. In the central-southern area, there are two areas of SPZ Zone 1 (Inner Protection Zone), Zone 2 (Outer Protection Zone) and Zone 3 (Total Catchment) at Stanton by Bridge and east of Repton. • Geology comprises superficial deposits (approximately 90% coverage) of alluvium, till, head, glaciofluvial deposits, lacustrine deposits, and river terrace deposits. Bedrock geology within the Trent Valley area includes predominantly the Mercia Mudstone Group (western third) and the Sidmouth Mudstone Formation (central-northern and south-eastern areas) and the Branscombe Mudstone Formation (north-eastern area). In the central-southern area, bedrock is very varied and comprises (in a generally west to east succession) Tarpoley Siltstone Formation, Helsby Sandstone Formation, Chester Formation, Moira Formation,

³⁷ Accessed at: <https://www.midlandsconnect.uk/media/1706/final-access-to-toton-report.pdf>

	<p>Bowland Shale Formation, unnamed Sandstone, Marsden Formation, Morridge Formation and Widmerpool Formation.</p> <ul style="list-style-type: none"> • The bedrock is designated as a Secondary B aquifer (approximately 85% of the Trent Valley area). Principal aquifers (approximately 10%) area located in the central-southern area; with Secondary A and Secondary (Undifferentiated) (approximately 5%) also in this area. • The areas of superficial deposits are mostly designated as Secondary A aquifers. Secondary (Undifferentiated) aquifers are located generally in the eastern area and small areas of Secondary B aquifers are located in the central-northern area. • The majority of the Trent Valley area is located within a Sand and Gravel Mineral Consultation Area, based on the currently adopted Derbyshire Minerals Local Plan (dated 2002)³⁸. Extensive sand & gravel extraction has occurred in the sub area, which has had and is having an adverse effect on the established landscape character of the area. Sand and gravel extraction is both a constraint and an opportunity in this landscape. • There are no towns in the Trent Valley area, limited urban development areas may be located around the villages, the largest ones including Willington, Hilton, Hatton and Shardlow. Land use of particular note is a decommissioned power station north-east of Willington. Made ground is potentially present in these areas. Areas of artificial ground are recorded occasionally, mostly in the central and eastern areas of the Trent Valley area based on British Geological Survey (BGS) mapping. Made ground may also be present in areas occupied by road networks and railways. • The majority of the Trent Valley area is not in an area affected by radon (less than 1% of homes are above the action level). In the central and south-eastern areas, and an area to the east of Hilton (west), the percentage of homes above the action level for radon is varied, ranging between 1%-3% and greater than 30% (area around Barrow upon Trent). Protection measures would be required within new buildings in these areas. • Areas of thick and variable made ground and superficial deposits may pose a constraint on the use of shallow foundations and which therefore may require ground improvement or a deeper foundation solution. These areas may also pose ground stability constraints. • According to BGS mapping, shallow coal and worked opencast coal areas have not been identified in the Trent Valley area. • The north eastern fringe of the area around Elvaston, Ambaston and Shardlow is identified as a 'Shale Prospective Area' with potential for exploration, appraisal and where commercially viable, unconventional extraction, although this forms part of a larger block, the main part of which lies to the north of the Derwent in the Borough of Erewash.
Infrastructure capacity and potential	<ul style="list-style-type: none"> • Severn Trent Water's Drainage and Surface Water Management Plan 2018 states that local planning proposals have allocated significant amounts of new developments along the south and south west of Derby. Collectively, these developments would result in the increased risk of sewer flooding and affect the performance of their CSO's. • WPD's Network Capacity Map states there is currently a 123/33/11kv substation that covers the area. • BT Openreach have confirmed that there are unlikely to be any limitations to broad band and telephone services for new developments and that the company is currently obliged to service new developments. There are no anticipated phasing constraints. The standard lead in time for BT Openreach is 3 to 6 months for larger developments (e.g. over 100 plots).

³⁸ <https://www.derbyshire.gov.uk/site-elements/documents/pdf/environment/planning/planning-policy/minerals-waste-development-framework/derby-and-derbyshire-minerals-local-plan-part-one.pdf>

	<ul style="list-style-type: none"> • As stated by the low carbon opportunities report, there is considerable potential for air source heating and heat pumps across the Derby region as well as the use of solar pv panels. • The infrastructure development report sets out that there is limited potential for hydro generation across the area. • The gas infrastructure supplier for the area is Cadent Gas Networks. No information is currently available in terms of existing and future gas supply connections. • There are 5 primary schools within the Trent Valley assessment area. There are 3 primary schools that are located outside but within 400m of the assessment area (mostly in the City of Derby). Other primary schools proposed/in development/recently opened at Hilton, Boulton Moor, Chellaston Fields and Wragley Way (South Derbyshire Local Plan Part 1 Policies H7, H13, H14 and H15). • There are no secondary schools within the assessment area. 4 secondary schools are within 1600m of the assessment area (mostly in the City of Derby). There is an identified need for a new secondary school SW of Derby (South Derbyshire Local Plan Part 2 Policy INF12). • There are no further or higher education facilities within any of the assessment areas. The nearest further and higher education facilities are University of Derby (Higher Education) and Derby College (Further Education) which are in the City of Derby, and Burton and South Derbyshire College (Further Education), in Burton-on-Trent. • 1 medical centre, which has some surplus capacity, is located in Hilton and within the assessment area. • Across Derbyshire, existing acute healthcare services are generally highly occupied in general and acute care as well as mental illness services. Only about 57% of the existing beds in the maternity sector is occupied. There are currently no services in learning disabilities. • Additional social infrastructure and/extensions to existing facilities are likely to be required to support future growth and to provide more accessible facilities. • Growth in this location will need to be managed and phased carefully to deliver commensurate levels of supporting infrastructure based on the high number of extant allocations in this location and identified capacity issues.
Landscape and topography	<ul style="list-style-type: none"> • The area is largely within Natural England's National Character Area (NCA) 69 Trent Valley Washlands. It also contains NCA 68 Needwood and South Derbyshire Claylands and NCA 70 Melbourne Parklands. • On a regional scale, the area is largely within East Midlands Councils' Floodplain Valleys LCT. It also contains Village Farmlands LCT and a small area of Undulating Mixed Farmlands LCT. • On a local level, the area is largely within Lowland Village Farmlands LCT and Riverside Meadows LCT. It also contains small areas of Wet Pasture Meadows LCT and Settled Farmlands LCT. • Topography is predominantly influenced by the River Trent and River Dove valleys with relatively flat landform. There is higher ground on the south-eastern edge of the area; to the south of the River Trent. Watercourses have a strong influence, including the River Trent, the River Dove and their tributaries. The River Derwent forms the north-eastern area boundary, and the area also contains the Trent and Mersey Canal. • In terms of land cover, farmland comprises a mixture of large arable and pastoral fields. These tend to be semi-regular and regular. Some smaller fields are situated around some of the settlements, such as Aston-on-Trent and Willington. Woodland tends to be small, occurring in discrete blocks, although larger blocks are found at Hilton, Kings Newton and Foston. There is parkland at Elvaston Castle in the north. • The north-eastern corner of the area is adjacent to the southern edge of Derby and contains part of Stenson Fields, which is a suburb of the city. Elsewhere in the area there are the medium and large villages of

	<p>Hatton, Hilton and Willington. There are also several smaller villages within the area, including Aston on Trent, Barrow upon Trent, Elvaston, Egginton, Shardlow, Swarkestone and Weston on Trent.</p> <ul style="list-style-type: none"> • The A50 dual carriageway runs east-west through the north of the area, forming its north-western boundary. Various A roads join the A50 within the area, including the A6 in the north-east, the A514 in the south-east, the A38 in the south and the A511 in the south-west. The A5132 also runs through the area, south of and parallel to the A50. The Derby-Birmingham railway lines runs parallel to the A38 through the centre of the area, and another railway line runs east-west through the area, south of and parallel to the A50. There are several powerlines running through the area, either running along, or perpendicular to the Trent valley. Areas of mineral extraction are present at Aston on Trent, Barrow upon Trent and Willington. There is also a former power station site at Willington, forming a large area of brownfield land. • Factors which contribute to the landscape value include: the intactness of the landscape in the far south near Swarkestone, the clusters of historical settlements in the south-east and east of the area (including several listed buildings and scheduled monuments) and the historical parkland at Elvaston Castle. • Factors which increase the landscape susceptibility include: the intactness of the landscape near Swarkestone in the south of the area and the availability of long views from the ridgeline in the south-east. Factors which decrease the landscape susceptibility include: the medium- and large-scale of the land cover, the influence of the A50, A6, A38, A514, A511 and A5132 as major transport routes, the presence of the former power station at Willington and multiple power lines as detractors, and the relative simplicity of the landform throughout much of the area.
Heritage considerations	<ul style="list-style-type: none"> • There are Conservation Areas at Barrow-upon-Trent, Swarkstone, Aston-on-Trent and Shardlow. The Trent and Mersey Canal Conservation Area runs through part of the assessment area. • There are listed buildings in some of the other settlements and isolated listed buildings in the surrounding countryside. • The route of the Roman Ryknild Street, now the A38, runs northeast to southwest across the centre of the area. • There are Scheduled Monuments east of Willington, east of Twyford, north and south of Swarkstone, southeast of Chellaston, east of Elvaston and east of Aston-on-Trent. Those to the east of Aston-on-Trent are the extensive remains of an Iron Age settlement, a cursus and a henge. Swarkestone Causeway Scheduled Monument is also Grade I listed. It is part of the A514 and impacts of existing and potential additional traffic. There is however a long term aspiration to build a new crossing at Swarkstone. • Elvaston Castle is a grade II* Registered Park and Garden to the north of its village and with an avenue extending almost 2km to Ambaston in the east. Swarkestone Old Hall is a small grade II* Registered Park and Garden to the east of the village of the same name. • The towns of Tutbury and Rolleston-on-Dove are located between 400m and 850m south of the area. Both have conservation areas and large concentrations of listed buildings, 33 in the case of Tutbury which also has the scheduled remains of its medieval castle and boundary) and 27 in the case of Rolleston on Dove. • The relatively close proximity of the settlements in the valley, all of which contain clusters of listed buildings, mean there are few obvious locations for growth from a heritage standpoint excepting perhaps March Flats to the east of Chellaston. Further study may uncover small, discrete areas of opportunity.
Housing demand	<ul style="list-style-type: none"> • The average house price paid in South Derbyshire in January 2020 was £195,822. This is considerably higher than in Derby City (£159,403) but only slightly higher than the average price in the East

	<p>Midlands (£195,707). Prices are higher, on average than both Amber valley areas, indicating relatively higher demand for housing.</p> <ul style="list-style-type: none"> • From January 2015 to January 2020, house prices in South Derbyshire have increased by approximately 17.8%, which is considerably below the average house price change in the East Midlands during the same period (+27.4%). • In the last five years (from year ending September 2015 to year ending September 2019) the number of property sales in south Derbyshire has increased by 26.4% (considerably higher than the change in property sales in Amber Valley, i.e. +6.4%). • In the year ending September 2019, 47% of property sales were detached houses, 32% to semi-detached houses, 19% to terraced houses and only 3% to flats/maisonettes. • In 2019, South Derbyshire's ratio of median house price to median gross annual earnings (residence-based) was 5.79, which is lower than the mean ratio for all local authorities in the East Midlands (6.62) – i.e. South Derbyshire is relatively affordable compared to the region. However, South Derbyshire has a slightly higher ratio than Amber Valley (5.58). • The area of Trent Valley is sparsely populated but has a high concentration of households that own their dwelling, especially near the southern edge of Derby (in Aston).
<p>Economic development and regeneration potential</p>	<ul style="list-style-type: none"> • The Trent Valley assessment area covers a large zone to the south of Derby which hosts some major businesses with strong employment opportunities. Therefore, the area has an employment density (0.66) which is above the averages for South Derbyshire and Amber Valley. • The key business sites in the area support D2N2 LEP's priority sectors in their SEP: transport manufacturing, food and drink manufacturing and life sciences. • The proportion of employment delivered by the manufacturing industry is 28.1%, with food and drink manufacturing representing 8.7% (Study Area average is 2.3%) and high-tech manufacturing including transport equipment is 18.5% (Study Area average is 11.9%). • Nestle's largescale facilities at Hatton drive growth in the priority food manufacturing sector in the area, meaning future activity in the sector would benefit from potential spillover or supply chain effects from a significant multinational company. The transport manufacturing sector is driven by Hilton Business Park with companies such as Gunn JCB, as well as Toyota's largest UK site on the border of the assessment area. • Employment provision in EM Gateway area includes industrial estate at Castle Donington with major employers including Marks and Spencer Distribution Centre. This is in addition to Segro strategic rail freight interchange, East Midlands Airport and associated industrial estates east and west (DHL). • The professional, scientific and technical sector accounts for 8.8% of employment in the area, considerably above the average for the Study Area (6.6%). Hilton Business Park contains businesses in the life science priority sector, such as MP Bio Science. • Its proximity to the main clustering of business activity in Derby, to the south-east of the city centre creates further potential for future activity. The south-east of the city centre contains major assets for the whole LEP area such as Infinity Park Enterprise Zone, Rolls-Royce headquarters, Bombardier, Pride Park and Gardener Aerospace. • The area's vicinity to the East Midlands Airport can assist logistics or transport activities, with a substantial logistics park located at Caste Donington immediately to the east of the assessment area. • Ongoing construction of the East Midlands Gateway Strategic Rail Freight Interchange north of East Midlands Airport and southwest of Junction 24 of the M1 for circa 500,000 sq m of logistics and warehouse/distribution development which has the potential to create

	<p>up to 6,000 jobs. Therefore, Trent Valley would be a significant opportunity area in terms of accessibility to jobs for residents of any new housing development areas identified in the sub-area.</p> <ul style="list-style-type: none"> • The area experiences medium levels of deprivation with some LSOAs (South Derbyshire 001C and South Derbyshire 003A) ranked in the 5th deprivation decile. The SEP also identifies an ambitious landscape-based regeneration plan in the Trent Valley Vision which could help revive certain areas across the zone. Therefore, the area is well-suited to deliver future employment operations and this activity could have regeneration benefits.
<p>Spatial opportunities and constraints</p>	<ul style="list-style-type: none"> • Need to avoid coalescence between Scropton and Hatton; Barrow upon Trent and Swarkestone; Weston-on-Trent and Aston-on-Trent; and Elvaston and Thulston. • The proposed Infinity Garden Village (Policy INF13) is located to the north of the Derby Southern Bypass and on the urban edge of Sinfin and Chellaston, Derby City, along with the South Derby Integrated Transport Link (Policy INF2Diii) • Land to the north of the A50 on the eastern edge of the area is largely Green Belt. • The area contains the former Power Station Land (Policy BNE12) at Willington, and a park and ride facility is proposed at Boulton Moor(South Derbyshire local Plan Part 1 Policy INF2). • There are a number of housing allocations in the area on the southern edge of Derby.

Conclusion- Key Strategic Opportunities & Constraints identified for Area 4

Pros

- The sensitivity of the landscape in this area is higher to the south of the A50 and east of the A38; lower sensitivity in north of the A50, and in the Dove valley west of the A38. This is based on the influence of the key ridgeline adjacent to the south-eastern boundary of the area, as well as the historical influence, levels of intactness and smaller scale in this part of the area. Elsewhere the number of detractors and influence of the adjacent urban edge lower the sensitivity. There may be capacity for medium- (1ha to 5ha) and large-scale (over 5ha) developments, although smaller scale (up to 1ha) developments would be more appropriate in the south-east, where the landscape is more intact.
- Extensive sand & gravel extraction, which has had and is having an adverse effect on the established landscape character of the area. Sand and gravel extraction is both a constraint and an opportunity in this landscape. The most significant constraint to development in this area is its ability to flood. There may be opportunities for strategic Green Infrastructure to support development adjacent to the Trent Valley.
- Limited made ground associated with urban development areas, as no towns, only villages
- Majority of area not located in an area affected by radon
- No shallow coal and worked opencast coal areas have been identified
- Opportunity to identify and safeguard sites for flood storage within the floodplain of the River Trent in this sub area.
- Opportunity to set out strict policy regarding (re)/development in the floodplain to avoid / reduce the number of properties at risk of flooding from the River Trent.
- The area surrounds the southern portion of Derby and is in close proximity to targeted highway improvement schemes.
- Access to the M1 is available to the east at Junction 24.
- The access to the M1 is provided via the A50 Derby Southern Bypass, which forms a spine through the area and provides connections north into Derby city centre.
- A new junction on the A50 is in development associated with proposals at Infinity Park, Derby.
- Derbyshire County Council has a long term aspiration to deliver a second river crossing at Swarkestone.
- Scoping proposals for mass transit system encompass routes into Derby city centre from the east, including following the A6005 located to the northeast of the area.
- Bus services provide east-west connectivity across the area connecting Derby, Burton upon Trent and Uttoxeter.
- There are plans for the HS2 East Midlands Hub at Toton to the east of the area, with masterplanning underway for improved connectivity by road and accessibility improvements.
- Heavy rail connection within the area is provided.

- Cycling provision is available throughout the area.
- The Trent Valley assessment area covers a large zone to the south of Derby which hosts some major businesses with strong employment opportunities. Therefore, the area has an employment density (0.66) which is above the averages for South Derbyshire and Amber Valley.
- The areas proximity to the main clustering of business activity in Derby, to the south-east of the city centre creates further potential for future activity. The south-east of the city centre contains major assets for the whole LEP area.
- The area's vicinity to the East Midlands Airport and other large-scale employment opportunities in the East Midlands Gateway area can assist logistics or transport activities.
- House prices are relatively high compared to other sub areas and compared to the regional average, indicating the potential for higher demand for new homes.

Cons

- Presence of historic and authorised landfills
- Three areas of SPZ – Zones 1, 2 and 3
- Sensitive groundwater – Principal and Secondary A aquifers
- Protection measures would be required within new buildings in areas affected by radon
- Potential for areas of thick and variable made ground and superficial deposits
- Sand and Gravel MCA identified
- At least half of this sub area is within the floodplain of the River Trent and is at actual risk of fluvial flooding. The extent and frequency of flooding is likely to increase in the future due to climate change. These areas are not suitable for future development unless it can be demonstrated that it delivers wider sustainability benefits that outweigh flood risk and can be safe. It will be subject to the Sequential and Exception Tests. On this basis it is strongly advised that residential development is not located in this area.
- Susceptibility of groundwater flooding for the area of search is high, especially in the south.
- The River Trent and River Dove within the south of the area limit expansion due to limited cross river connectivity.
- Radial routes are congested and extant planned growth to 2028 will erode road capacity. As such new development in this area will need to achieve modal shift, incentivise public transport and disincentivise car borne journeys.
- The relatively close proximity of the settlements in the valley, all of which contain clusters of listed buildings, mean there are few obvious locations for growth from a heritage standpoint excepting perhaps March Flats to the east of Chellaston. Further study may uncover small, discrete areas of opportunity.
- Additional social infrastructure and/extensions to existing facilities are likely to be required to support future growth and to provide more accessible facilities.

Area 5: South Derbyshire - North

Criterion	Considerations
Environmental constraints	<ul style="list-style-type: none"> • The area is a mix of Grade 2 very good quality agricultural land and Grade 3 good to moderate agricultural land. There are also smaller clusters of Grade 4 poor quality agricultural land throughout the area. • There are pockets of large ancient woodlands in the area: Repton Shrubs, South Wood, and Robin Wood. There are also pockets of small ancient woodlands in the area: Caulkley Wood, woodland north of Sharp's Bottom, Long Alders, The Coppice and Bryan's Coppice. • The area contains many Local Wildlife Sites throughout, except in the west of the area. • There are no Special Protection Areas or Ramsar sites within the area. • Part of the River Mease SAC/SSSI falls within South Derbyshire along the southern boundary of the District (including Smisby). Nutrient enrichment is a very significant problem in this catchment and any development has to fully mitigate its effects on the SAC through contributions towards removing phosphate. At the moment, there are no mechanisms to mitigate effects therefore most development is in abeyance. There is limited headroom (capacity) at WWTWs discharging to SAC and once this has been fully utilised it is likely that this could curtail further development. There are funded proposals to build a £25 million pipeline to take foul water from Packington and possibly Measham WWTWs in North West Leicestershire however this is unlikely to benefit settlements in South Derbyshire. • The majority of the area is Flood Zone 1. Flood Zone 3 surrounds the north and northwest of the area. • Swadlincote has areas in the southwest that lie within Flood Zones 2 and 3. These areas have watercourses running through that eventually discharge to the River Trent. • There are several other smaller watercourses that run through the area. • There are 2 reservoirs in the area, Foremark and Staunton Harold. • The Staunton Harold Reservoir lies within Flood Zones 2 and 3, as do the ponds surrounding it. • Areas at risk of surface water flooding are identified, associated with flowpaths that feed into the watercourses that cross the area. The risk of surface water flooding is high around Staunton Reservoir. • Susceptibility of groundwater is low to medium, with the higher risk areas in the north and northwest.
Transport and accessibility	<ul style="list-style-type: none"> • The A514 provides the main north-south highway connection through the area between Swadlincote and Derby. The route is restricted by the limitations of the Swarkestone Causeway, its pinch points and status as a scheduled ancient monument and Grade I listing. • The strategic highway network flanking the area consists of the A42 to the east and the A38 to the west. High improvements are scheduled at three junctions along the A38 to reduce stress on the route. • The A511 and A444 provide east-west access between the A38 and Burton Upon Trent, Swadlincote and the A42. • Localised congestion occurs along the A444 in Stapenhill and at the A511/A514 junction at Woodville in the south of the area. The Woodville to Swadlincote Regeneration Route is under construction and is expected to be completed during 2021. • Swadlincote town centre provides for a range of local services, including a pedestrianised high street and bus station. Bus services are provided to Burton upon Trent, Derby and East Midlands Airport. • Minor improvements to the public realm in Swadlincote town centre have been undertaken in recent years, with further improvements proposed in a Swadlincote Town Centre masterplan including improved pedestrianisation and cycle accessibility.

	<ul style="list-style-type: none"> • Public transport access to Trent Valley and Derby expect via Melbourne. • Bus services are available throughout the south of the area but limited through the north and west. Bus services are available to East Midlands Airport and SEGRO Logistics Park via Ashby and Melbourne. Bus services to the Trent Valley and Derby are via Melbourne. • No heavy rail connections are available within the local area. Feasibility of re-establishing a long-withdrawn passenger rail service on the Ivanhoe Line connecting Burton to Leicester, with potential stations at Castle Gresley and Drakelow, is currently being explored. • The NCN route 63 is provided through Swadlincote for cycle connection towards Coalville and Leicester. NCN 63 forms part of the County Council's Key Cycle Network and is to be extended westwards via an off-road link to connect with established cycle paths in East Staffordshire, providing a complete link between Leicester and Burton.
Geo-environmental considerations	<ul style="list-style-type: none"> • 17 no. historic landfills and 3 no. authorised landfills are located within the South Derbyshire – North area in various locations, mostly in the more urban areas. • South Derbyshire - North has two areas of groundwater Source Protection Zones (SPZ), both in the north. There is a large SPZ Zone 3 (Total Catchment) that extends north of Swadlincote to the east of Repton. Within this Zone 3, there are three areas of Zone 2 (Outer Protection Zone) and Zone 1 (Inner Protection Zone); these are all located to the east and south of Repton. There is also a SPZ Zone 1 (Inner Protection Zone), Zone 2 (Outer Protection Zone) and Zone 3 (Total Catchment) to the north-west of Melbourne. • Geology comprises superficial deposits (approximately 20% coverage) of alluvium, till, head, glaciofluvial deposits and lacustrine deposits. Bedrock geology within the South Derbyshire – North area includes the Helsby Sandstone Formation, Chester Formation and Tarporley Siltstone Formation (across the west and north-west, and across two areas in the east and south); these formations occupy approximately 40% of the South Derbyshire – North area. The Pennine Middle and Lower Coal Measures Formations occupy much of the south and south-east area (approximately 30% coverage of the South Derbyshire – North area). In the north-east, bedrock is very varied and comprises Moira Formation, Morrridge Formation, Sidmouth Mudstone Formation, unnamed Sandstone, Marsden Formation, Ticknall Limestone Formation and Rossendale Formation. • The bedrock is designated as a Principal aquifer (approximately 45% of the South Derbyshire – North area, across various locations) and Secondary A aquifer (approximately 45% of the South Derbyshire – North area, approximately linear in shape, extending from the north-east to the south-west). The remaining 10% is a Secondary B aquifer (various locations, mostly along the western and eastern boundaries). • The occasional areas of superficial deposits are designated as either Secondary A or Secondary (Undifferentiated) aquifers. • The northern and central regions of the South Derbyshire – North area, and a small area in the south-west is located within a Sand and Gravel Mineral Consultation Area, based on the currently adopted Derbyshire Minerals Local Plan (dated 2002)³⁹. • The urban development area is mostly around the town of Swadlincote (south-west), including a number of industrial estates. Made ground is potentially present in this area. Areas of artificial ground are recorded mostly in the south-west of the South Derbyshire – North area (in and around Swadlincote) based on British Geological Survey (BGS) mapping. Very occasional, sporadic areas of artificial ground are mapped across the remaining South Derbyshire – North area. Made

³⁹ Available here: <https://www.derbyshire.gov.uk/site-elements/documents/pdf/environment/planning/planning-policy/minerals-waste-development-framework/derby-and-derbyshire-minerals-local-plan-part-one.pdf>

	<p>ground may also be present in areas occupied by road networks and railways.</p> <ul style="list-style-type: none"> • Approximately 50% of the South Derbyshire - North area (mostly across the west and south-east) is not in an area affected by radon (less than 1% of homes are above the action level). In the south-west around Swadlincote, 1%-3% of homes are above the action level for radon. In the north-east, the percentage of homes above the action level for radon is varied, ranging between 1%-3% and greater than 30% (areas west of Stanton by Bridge and around Ticknall). Protection measures would be required within new buildings in these areas. • Areas of thick and variable made ground and superficial deposits may pose a constraint on the use of shallow foundations and which therefore may require ground improvement or a deeper foundation solution. These areas may also pose ground stability constraints. • According to BGS mapping, the south and the south-eastern extent of the South Derbyshire - North area is located in an area overlying shallow coal. Some areas of worked opencast coal have also been identified in the south-west, around Swadlincote. This is likely to cause redevelopment constraints where former shallow workings/voids or shafts exist, however developers operating in the area are familiar with and adept at responding to the challenges associated with this constraint.
<p>Infrastructure capacity and potential</p>	<ul style="list-style-type: none"> • BT Openreach have confirmed that there are unlikely to be any limitations to broadband and telephone services for new developments and that the company is currently obliged to service new developments. There are no anticipated phasing constraints. The standard lead in time for BT Openreach is 3 to 6 months for larger developments (e.g. over 100 plots). • As stated by the low carbon opportunities report, there is considerable potential for air source heating and heat pumps across the Derby region as well as the use of solar pv panels. • The infrastructure development report sets out that there is limited potential for hydro generation across the area. • The gas infrastructure supplier for the area is Cadent Gas Networks. No information is currently available in terms of existing and future gas supply connections. • There are 13 primary schools within the South Derbyshire (North) assessment area, mostly located in Swadlincote. • Three secondary schools are located in the South Derbyshire (North) assessment area. The Burton and South Derbyshire College Stephen Brook Construction Academy are located in Swadlincote.. There are no further or higher education facilities within any of the assessment areas. The nearest further and higher education facilities are University of Derby (Higher Education) and Derby College (Further Education) which are in the City of Derby, and Burton and South Derbyshire College (Further Education), in Burton-on-Trent. • There are 6 GPs within the assessment area with varying degree of surplus capacities. They are mostly located in Swadlincote. • Across Derbyshire, existing acute healthcare services and mental illness services are generally highly occupied. About 57% of the existing beds in the maternity sector is occupied. • Additional social infrastructure and/extensions to existing facilities are likely to be required to support future growth and to provide more accessible facilities, particularly in areas outside of Swadlincote.
<p>Landscape and topography</p>	<ul style="list-style-type: none"> • The area is largely within Natural England's National Character Area (NCA) 70 Melbourne Parklands. It also contains NCA 71 Leicestershire and South Derbyshire Coalfield, NCA 72 Mease/Sence Lowlands and NCA 68 Needwood and South Derbyshire Claylands. • The landscape constraints and opportunities for growth are different within the Melbourne Parklands NCA and the South Derbyshire Coalfield NCA where their landscape characters are distinct.

	<ul style="list-style-type: none"> • On a regional scale, the area is largely within East Midlands Councils' Undulating Mixed Farmlands LCT. It also contains Settled Coalfield Farmlands LCT, Village Farmlands LCT and a small area of Floodplain Valleys LCT. • On a local level, the area is largely within Estate Farmlands LCT. It also contains Coalfield Village Farmlands LCT, Wooded Estatelands LCT, Sandstone Slopes & Heaths LCT, Riverside Meadows LCT and an urban area. • Topography is influenced by the River Trent valley on its northern edge, with the land rising further south to a gently undulating plateau. There is lower land in the south-west, with landform sloping down from the plateau into the River Trent floodplain. Foremark Reservoir is present in the centre of the area, with Staunton Harold Reservoir in the east. • Land cover comprises arable farmland in mostly medium semi-regular and regular fields, with occasional larger fields present. Woodland occurs in medium and large blocks, some of which are linked. Several of these woodland blocks are plantations associated with the National Forest. There are also several hedgerow trees and occasional individual trees in fields. There several areas of parkland in the area associated with Calke Abbey, Bretby Hall and Melbourne Hall. There are two golf courses, one in the far west of the area, situated between Burton-on-Trent and Swadlincote and another golf course, N1 Golf Centre, recently opened in Swadlincote. • The south of the area contains the medium-sized town of Swadlincote and is influenced by the adjacent eastern edge of Burton-on-Trent. Elsewhere within the area, there are the medium villages of Melbourne and Repton, and a limited number of smaller dispersed villages including Hartshorne and Newton Solney. • The area contains three main roads - the A511 which runs north-west to south-east through the south-western corner of the area; the A514, which runs north-east to south-west, meeting the A511 on the north-eastern edge of Swadlincote; and the A444, which runs parallel to the A511 in the south-western extent of the area. A sizeable mineral extraction area is located to the south-east of Swadlincote. Pylons and power lines run through the north-west of the area; it does not contain any railway lines. • Factors which contribute to the landscape value include: the presence of historical settlements such as Melbourne, Repton and Ticknall, as well as parklands such as at Calke Abbey, Bretby Hall and Melbourne Hall, and ancient woodlands, the recreational value of the forestry woodland and various PRow (including a long-distance route). • Factors which increase the landscape susceptibility include: the relative complexity of the landform, the intactness of historical areas such as Ticknall and Melbourne, the potential for coalescence between Swadlincote and Burton-on-Trent. Factors which decrease the landscape susceptibility include: the medium- and large-scale of the land cover, the influence of the urban area of Swadlincote and the edge of Burton-on-Trent, and detractors such as mineral extraction areas and powerlines.
Heritage considerations	<ul style="list-style-type: none"> • There are Conservation Areas at Newton Solney, Repton, Milton, Stanton by Bridge, King's Newton, Melbourne, Ticknall, Bretby, Swadlincote, and Smisby. • In some of these centres there are quite dense concentrations of listed buildings, 64 at Melbourne; 59 at Ticknall; 38 at Repton (six at grade I). • There are three Registered Parks and Gardens in the area: Melbourne Hall (grade I); Caulke Abbey (grade II*); and Bretby Hall (grade II). • Melbourne Hall Registered Park and Garden is located to the south of Melbourne village and contains 38 listed buildings, 22 at grade I and seven at grade II*. Calke Abbey RPG is located to the southeast of Ticknall and contains 21 listed buildings, one at grade one and three at grade II*. Staunton Harold Hall RPG is located just outside the area's boundary to the south of Calke.

	<ul style="list-style-type: none"> • There are Scheduled Monuments at: Bretby Castle; a Viking barrow cemetery in Heath Wood southeast of Foremark; Melbourne Castle; the ruins of a medieval church in Ticknall; Calke Park Tunnel southeast of Ticknall; and Castle Gresley. • The number of designated assets distributed across the area mean there are few obvious locations for growth from a heritage standpoint. Further study may uncover small, discrete areas of opportunity.
Housing demand	<ul style="list-style-type: none"> • The average house price paid in South Derbyshire in January 2020 was £195,822. This is considerably higher than in Derby City (£159,403) but only slightly higher than the average price in the East Midlands (£195,707). Prices are higher, on average than both Amber valley areas, indicating relatively higher demand for housing. • From January 2015 to January 2020, house prices in South Derbyshire have increased by approximately 17.8%, which is considerably below the average house price change in the East Midlands during the same period (+27.4%). • In the last five years (from year ending September 2015 to year ending September 2019) the number of property sales in south Derbyshire has increased by 26.4% (considerably higher than the change in property sales in Amber Valley, i.e. +6.4%). • In the year ending September 2019, 47% of property sales were detached houses, 32% to semi-detached houses, 19% to terraced houses and only 3% to flats/maisonettes. • In 2019, South Derbyshire's ratio of median house price to median gross annual earnings (residence-based) was 5.79, which is lower than the mean ratio for all local authorities in the East Midlands (6.62) – i.e. South Derbyshire is relatively affordable compared to the region. However, South Derbyshire has a slightly higher ratio than Amber Valley (5.58). • The South Derbyshire – North area has a high concentration of household ownership, especially in the fringes of Swadlincote, Melbourne and Repton. The highest concentration of ownership is located near the southern edge of Derby, around Repton and Melbourne (with approximately 75.5% and 71% of household ownership respectively). In the southern part of the South Derbyshire – North area (around Swadlincote), about 70% of households own their dwelling. There is limited social and private renting in the area.
Economic development and regeneration potential	<ul style="list-style-type: none"> • The South Derbyshire - North area holds mostly residential areas with some employment opportunities helping to support this population. Therefore, the area currently has an employment density (0.46) lower than the averages for boroughs across the Study Area. • Sectors which provide a greater proportion of employment in the area compared to the average for the overall Study Area are: education (14.1%), retail (9.1%), and professional, scientific and technical (8.3%). • D2N2's SEP highlights that the retail sector is an opportunity due to its high-volume of activity, whilst professional services has strong clusters helping to support valuable employment opportunities. • The Tetron Point, Cadley Hill and Hearthcote Road area in Swadlincote is the largest industrial/business cluster in this part of the District. • Bretby Business Park is the main business asset in the area. This park has attracted multiple professional, scientific or technical companies such as SOCOTEC UK and CES Environmental Instruments. • Helped by the considerable working-age resident population, nearly 43% of workers in the area live within 5km of their place of work – above the average for the Study Area. • Ongoing construction of the SEGRO Logistics Park north of East Midlands Airport and southwest of Junction 24 of the M1 for circa 500,000 sq m of logistics and warehouse/distribution development which has the potential to create up to 6,000 jobs. Therefore, South Derbyshire North could possibly have the potential of being a significant

	<p>opportunity area in terms of accessibility to jobs for residents of any new housing development areas identified in the sub-area.</p> <ul style="list-style-type: none"> • The area suffers from fairly high levels of deprivation, particularly in certain pockets around Swadlincote (South Derbyshire 008D, 009B and 013A LSOAs) which are ranked in the top 20% most deprived parts of the country. • Therefore, the area appears suitable to some extent for future business activity, while this future activity could help regenerate deprived pockets throughout the assessment area.
Spatial opportunities and constraints	<ul style="list-style-type: none"> • Need to avoid coalescence between Repton and Milton; Milton and Foremark; Repton and Newton Solney; Melbourne and Wilson; and Melbourne-Kings Newton; and Stanton by Bridge • Green Belt (Policy S8) prevents coalescence between Swadlincote and Burton-on-Trent. • The East Midlands Airport Public Safety Zone (Policy INF5) extends into the eastern edge of the area - Nottingham East Midlands Airport - Runway 09 Approach, although this is to be reduced in size such that no part of it will fall within the study area under new Civil Aviation Authority proposals. • The southern half of the area is within the National Forest (Policy INF8: The National Forest) • The River Mease SAC, which is not meeting its water quality objectives, has historically and will continue to present a very significant ecological constraint to housing and employment growth in affected areas.

Conclusion- Key Strategic Opportunities & Constraints identified for Area 5

Pros

- The sensitivity of the landscape in this area is higher in the north and north-east, with lower sensitivity elsewhere, particularly in the far south-west. This is based on the key ridgeline in the north of the area, relatively complex landform, as well as the intact historical landscapes in this part. Elsewhere, there is a greater influence of detractors and the urban edge of Swadlincote, particularly in the far south-east. There may be capacity for medium- (1ha to 5ha) and large-scale (over 5ha) developments, although smaller scale (up to 1ha) developments would be more appropriate in the more historical and intact landscape in the north and east.
- Approximately 50% of area not located in an area affected by radon
- The majority of the area is Flood Zone 1
- Opportunities to reduce flood risk to downstream areas by safeguarding areas for flood storage measures.
- The A514 provides the main north-south highway connection through the area between Swadlincote and Derby.
- The strategic highway network flanking the area consists of the A42 to the east and the A38 to the west. High improvements are scheduled at three junctions along the A38.
- Swadlincote town centre provides for a range of local services, including a pedestrianised high street and bus station. Bus services are provided to Burton upon Trent, Derby and East Midlands Airport.
- Bus services are available throughout the south of the area.
- The NCN route 63 is provided through Swadlincote for cycle connection towards Coalville and Leicester, and will eventually also connect Swadlincote to Burton.
- Bretby Business Park is the main business asset in the area. This park has attracted multiple professional, scientific or technical companies such as SOCOTEC UK and CES Environmental Instruments. The largest business cluster is found in the Hearthcote Road/Tetron Point/Cadley Hill area of Swadlincote.
- Helped by the considerable working-age resident population, nearly 43% of workers in the area live within 5km of their place of work – above the average for the Study Area.
- House prices are relatively high compared to other sub areas and compared to the regional average, indicating the potential for higher demand for new homes.

Cons

- Presence of historic and authorised landfills
- Two areas of SPZ – Zones 1, 2 and 3
- Sensitive groundwater – Principal and Secondary A aquifers

- Protection measures would be required within new buildings in areas affected by radon
- Made ground associated with urban development areas
- Potential for areas of thick and variable made ground and superficial deposits
- Shallow coal and worked opencast coal areas have been identified
- Sand and Gravel MCA identified
- Flood Zone 3 surrounds the north and northwest of the area. Swadlincote has areas in the southwest that lie within Flood Zones 2 and 3. In addition, sewer flooding is an issue in parts of the urban area.
- Without careful planning, development in this upstream area could increase the risk of flooding downstream, in areas that have already experienced flooding.
- Bus services are limited through the north and west.
- No heavy passenger rail connections are currently available within the local area.
- The South Derbyshire - North area holds mostly residential areas with some employment opportunities helping to support this population. Therefore, the area currently has an employment density (0.46) lower than the averages for boroughs across the Study Area.
- Additional social infrastructure and/extensions to existing facilities are likely to be required to support future growth and to provide more accessible facilities.

Area 6: South Derbyshire - South

Criterion	Considerations
Environmental constraints	<ul style="list-style-type: none"> • A large section of the area is Grade 3 good to moderate quality agricultural land, with clusters of Grade 2 land very good agricultural land to the south of Burton upon Trent. Non-agricultural land is located to the south of Swadlincote. • There are pockets of ancient woodland in the area, including Grand Wood, Potter's Wood, Catton Wood, Walton Wood, and Grove Wood. • There are pockets of Local Wildlife Sites in the area, including the Drakelow Wildfowl Reserve on the southern edge of Burton Upon Trent and Grange Wood & Potters Wood. • There are no Special Protection Areas or Ramsar sites within the area. • Part of the River Mease SAC/SSSI falls within South Derbyshire along the southern boundary of the District (including Smisby). Nutrient enrichment is a very significant problem in this catchment and any development has to fully mitigate its effects on the SAC through contributions towards removing phosphate. At the moment, there are no mechanisms to mitigate effects therefore most development is in abeyance. There is limited headroom (capacity) at WWTWs discharging to SAC and once this has been fully utilised it is likely that this could curtail further development. There are funded proposals to build a £25 million pipeline to take foul water from Packington and possibly Measham WWTWs in North West Leicestershire however this is unlikely to benefit settlements in South Derbyshire. • The majority of the area is Flood Zone 1. • The River Trent runs along the northwest of the area, this lies in Flood Zones 2 and 3. • The River Mease runs along the southeast of the area, this area is also within Flood Zones 2 and 3. • The Pessall Brook runs through the area and is within Flood Zones 2 and 3. • The Seal Brook and West Brook flow to the south of the area. • There are several other smaller watercourses that run through the area. • Areas at risk of surface water flooding are identified, associated with flowpaths that feed into the watercourses that cross the area. • Susceptibility of groundwater is low to medium, with the higher risk areas in the northwest.
Transport and accessibility	<ul style="list-style-type: none"> • The area is bounded by strategic highway network comprising the A38 to the west and the A42 to the east for access to Derby, Lichfield and Tamworth. • The A444 connects the A38 to the A42. • Highways improvements are scheduled at three junctions along the A38 to the north towards derby to reduce stress on the route. • There is limited bus provision throughout the area. • No Heavy passenger rail is provided within the local area. Feasibility of re-establishing a long-withdrawn passenger rail service on the Ivanhoe Line connecting Burton to Leicester, with potential stations at Castle Gresley and Drakelow, is currently being explored. • Connectivity to the west is limited by crossings on the River Trent. The proposed Walton-on-Trent Bypass will provide a new River Trent highway crossing and is to be provided in connection with the Drakelow Park development, currently under construction. • Some localised congestion occurs along Station Lane / Coton Road within Walton on Trent to the west of the area. Capacity analysis likely to be needed using highway network model, such as SATURN.
Geo-environmental considerations	<ul style="list-style-type: none"> • 2 no. historic landfills are located within the South Derbyshire – South area, both in the north. • South Derbyshire - South has two areas of Groundwater Source Protection Zones (SPZ). There is a SPZ Zone 3 (Total Catchment)

	<p>located in the east of the area, that extends between Netherseal to the east of Mount Pleasant. There is also a SPZ Zone 3 (Total Catchment) located in the north-west, that overlaps into the South Derbyshire – South area, south of Burton-Upon-Trent.</p> <ul style="list-style-type: none"> • Geology comprises superficial deposits (approximately 60% coverage) of alluvium, till, head, glaciofluvial deposits, Bosworth Clay Member and river terrace deposits. Bedrock geology within the South Derbyshire – South area includes predominantly (approximately 60%) the Sidmouth Mudstone Formation (western and central areas). In the north to east stretch (approximately 35%), bedrock is very varied and comprises Chester Formation, Tarporley Siltstone Formation, Helsby Sandstone Formation and Moira Formation. The Pennine Upper and Middle Coal Measures Formations occupy the eastern boundary (approximately 5%). • The bedrock is designated as a Secondary B aquifer (approximately 60% of the South Derbyshire – South area, across much of the western and central area) and Principal aquifer (approximately 30% of the South Derbyshire – South area, approximately linear in shape, extending from the north to the east). The remaining 10% is a Secondary A or (Undifferentiated) aquifer (various locations, mostly in the south and along the eastern boundary). • The areas of superficial deposits are designated as either Secondary A or Secondary (Undifferentiated) aquifers. • Areas in the west, north and east of the South Derbyshire – South area are located within a Sand and Gravel Mineral Consultation Area, based on the currently adopted Derbyshire Minerals Local Plan (dated 2002)⁴⁰. • There are no towns in the South Derbyshire – South area, urban development is likely to be limited in Overseal, Netherseal, Lullington and Smisby (the latter being in South Derbyshire – North) due to likely effects on the SAC. Land use of particular note is a decommissioned power station in the north-western extent. Made ground is potentially present in these areas. Some areas of artificial ground are recorded mostly in the north-west and north-east of the South Derbyshire – South area based on British Geological Survey (BGS) mapping. Made ground may also be present in areas occupied by road networks and railways. • The majority of the South Derbyshire - South area is not in an area affected by radon (less than 1% of homes are above the action level). In the north-east and east around Linton and Overseal, 1%-3% of homes are above the action level for radon. Protection measures would be required within new buildings in these areas. • Areas of thick and variable made ground and superficial deposits may pose a constraint on the use of shallow foundations and which therefore may require ground improvement or a deeper foundation solution. These areas may also pose ground stability constraints. • According to BGS mapping, the eastern boundary of the South Derbyshire – South area is located in an area overlying shallow coal, also with areas of worked opencast coal. This is likely to cause redevelopment constraints where former shallow workings/voids or shafts exist
Infrastructure capacity and potential	<ul style="list-style-type: none"> • WPD's Network Capacity Map states there is currently a 33/11kv substation that covers the area. • BT Openreach have confirmed that there are unlikely to be any limitations to broadband and telephone services for new developments and that the company is currently obliged to service new developments. There are no anticipated phasing constraints. The standard lead in time for BT Openreach is 3 to 6 months for larger developments (e.g. over 100 plots).

⁴⁰ <https://www.derbyshire.gov.uk/site-elements/documents/pdf/environment/planning/planning-policy/minerals-waste-development-framework/derby-and-derbyshire-minerals-local-plan-part-one.pdf>

	<ul style="list-style-type: none"> • As stated by the low carbon opportunities report, there is considerable potential for air source heating and heat pumps across the Derby region as well as the use of solar pv panels. • The infrastructure development report sets out that there is limited potential for hydro generation across the area. • The gas infrastructure supplier for the area is Cadent Gas Networks. No information is currently available in terms of existing and future gas supply connections. • There are 8 primary schools within the South Derbyshire (South) assessment area. A new primary school is planned as part of the Drakelow Park development, currently under construction. New communities will not be served by existing or expanded provision nearby. Strategic-scale growth will be required to provide their own primary schools on-site, as per the Local Education Authority guidance. • There are no secondary schools within the South Derbyshire (south) assessment area. Three secondary schools are however located outside of but within 1600m of the assessment area (outside of Derbyshire). • There are no further or higher education facilities within any of the assessment areas. The nearest further and higher education facilities are University of Derby (Higher Education) and Derby College (Further Education) which are in the City of Derby, and Burton and South Derbyshire College (Further Education), in Burton-on-Trent and Swadlincote. The Stephen Burke Construction Academy and related campus is in Swadlincote. • Across Derbyshire, existing acute healthcare services and mental illness services are generally highly occupied. • Additional social infrastructure and/extensions to existing facilities are likely to be required to support future growth and to provide more accessible facilities.
Landscape and topography	<ul style="list-style-type: none"> • The area is largely within Natural England's National Character Area (NCA) 72 Mease/Sence Lowlands. It also contains NCA 71 Leicestershire and South Derbyshire Coalfield and NCA 69 Trent Valley Washlands. • On a regional scale, the area is largely within East Midlands Councils' Village Farmlands LCT. It also contains small areas of Settled Coalfield Farmlands LCT and Floodplain Valleys LCT. • On a local level, the area is largely within Village Estate Farmlands LCT. It also contains small areas of Coalfield Village Farmlands LCT and Riverside Meadows LCT. • Topography comprises a low-lying and slightly undulating area, influenced by the adjacent River Trent floodplain to the west. There are several small watercourses within the area such as Pessall Brook and Seal Brook, which are associated with localised undulations. • Land cover comprises semi-regular medium-scale mixed farmland, there are some larger fields present, particularly in the north of the area. There are several woodland blocks in the area, mostly medium and large in size, and often joined or closely situated. The large blocks tend to be plantations associated with the National Forest. There are also several blocks of ancient woodland through the area, and other trees such as hedgerow trees and individual trees in fields. • The northern edge of the area includes the southern edge of Swadlincote, and the southern edge of Burton-on-Trent (adjacent to the north of the area) has an influence on it. The area also includes the small- and medium-sized villages of Coton in the Elms, Linton, Overseal, Rosliston and Walton-on-Trent. • The A444 is the sole main road running through the area, it passes north-south through the eastern edge of the area. Other roads through the area are more local, linking settlements. In the north of the area, the former Drakelow power station forms an extensive brownfield site. The western half of the area includes several pylons and power lines

	<p>running north-south, linked to the disused Drakelow power station in the far north. The former Drakelow Power Station itself is no longer a significant landscape detractor as the cooling towers are no longer there, although the associated electricity sub-station remains in place.</p> <ul style="list-style-type: none"> • Factors which contribute to the landscape value include: the rural nature of the landscape, the recreational value of the reservoirs, the forestry woodland and various PRow (including two long-distance routes), and the presence of historical features such as a scheduled monument, listed buildings and blocks of ancient woodland. • Factors which increase the landscape susceptibility include: the relative sparseness of settlements within the area, the overall rural character of the landscape, and the presence of fairly few urban influences. Factors which decrease the landscape susceptibility include: the relatively flat landform and large-scale of the land cover, the influence of detractors such as the former Drakelow power station, associated pylons and the adjacent urban edges of Swadlincote and Burton-on-Trent. • There are no reservoirs in the area
Heritage considerations	<ul style="list-style-type: none"> • There are Conservation Areas at Walton-on-Trent; Lullington and Netherseal. Of these, Walton has the most listed buildings at seven. • Of the other settlements Overseal has eight listed buildings but most of the villages and hamlets have only one or two. • There are occasional isolated listed buildings in the surrounding countryside, mostly farmhouses. • Scheduled Monuments in the area include a scheduled dovecote south of Netherseal Old Hall and a univallate hillfort at Borough Hill. • There are no Registered Parks and Gardens in the area. • The southern boundary passes close to the villages of Haunton and Clifton Campville, both of which contain conservation areas. • The sparse distribution of designated heritage assets outside the conservation areas mean there are a number of opportunities for growth from a heritage standpoint.
Housing demand	<ul style="list-style-type: none"> • The average house price paid in South Derbyshire in January 2020 was £195,822. This is considerably higher than in Derby City (£159,403) but only slightly higher than the average price in the East Midlands (£195,707). Prices are higher, on average than both Amber valley areas, indicating relatively higher demand for housing. • From January 2015 to January 2020, house prices in South Derbyshire have increased by approximately 17.8%, which is considerably below the average house price change in the East Midlands during the same period (+27.4%). • In the last five years (from year ending September 2015 to year ending September 2019) the number of property sales in south Derbyshire has increased by 26.4% (considerably higher than the change in property sales in Amber Valley, i.e. +6.4%). • In the year ending September 2019, 47% of property sales were detached houses, 32% to semi-detached houses, 19% to terraced houses and only 3% to flats/maisonettes. • In 2019, South Derbyshire's ratio of median house price to median gross annual earnings (residence-based) was 5.79, which is lower than the mean ratio for all local authorities in the East Midlands (6.62) – i.e. South Derbyshire is relatively affordable compared to the region. However, South Derbyshire has a slightly higher ratio than Amber Valley (5.58). • South Derbyshire – South area is relatively sparsely populated but has a high percentage of household ownership concentrated mostly in the northern part of the area, where it reaches peaks of about 90% in Linton. Towards the centre and south of the area ownership is lower, with some areas in Seales having 57% percentage of household ownership and higher levels of social and private renting.

<p>Economic development and regeneration potential</p>	<ul style="list-style-type: none"> • The South Derbyshire – South area is predominantly rural with a modest residential population and even fewer employment opportunities. • The area supports less than 2,500 jobs with an employment density of 0.34, which is significantly below the averages for boroughs in the Study Area. • Due to the lack of employment in the area, residents tend to out-commute to other parts of the country to discover more suitable opportunities – with only 36% of residents working in the Study Area and less than 30% remaining in South Derbyshire. • The area suffers from a lack of connectivity, with no roads on Strategic Road Network or train stations throughout the whole area. The A38 is in proximity of certain communities on the western border of the assessment area however; the opportunities arising from this one major road connection are likely to be limited as access is via a single lane narrow bailey bridge. The proposed Walton-on-Trent Bypass will provide a new River Trent highway crossing and is to be provided in connection with the Drakelow Park development, currently under construction. • There is a lack of major assets or facilities in the area which could assist with future growth or productivity. The Fradley Distribution Park on the A38 to the west has a cluster of logistics activity, but businesses in much of the area are unlikely to benefit from any positive spillover effects. • Much of the employment that does exist in the area is within education (14.9%) and health (12.7%) services to support the residential population, rather than drive growth in priority sectors for the LEP area. However, beyond the District to the South East at the A444 and A42 junction a major 96 ha employment development proposal has planning permission, including a large Jaguar Landrover facility. • The area does experience some deprivation, with LSOAs (South Derbyshire 011B and 011D) in the 4th and 5th deprivation deciles, which means future activity could have regeneration potential. However, the lack of existing business activity, economic assets and transport connectivity means any future employment operations have significant obstacles to overcome.
<p>Spatial opportunities and constraints</p>	<ul style="list-style-type: none"> • Need to avoid coalescence between Linton and Castle Gresley; and; and Coton in the Elms and Rosliston • Land between Swadlincote and Burton-upon-Trent is Green Belt. • The area is within the National Forest (Policy INF8). • There is a large housing allocation and committed employment site to the south of Burton Upon Trent. • Significant remaining brownfield land around Burton upon Trent on the former power station site. • The River Mease Special Area of Conservation, which is not meeting its water quality objectives, has historically and will continue to present a very significant ecological constraint to housing and employment growth particularly around Overseal, Netherseal and Lullington.
<p>Conclusion- Key Strategic Opportunities & Constraints identified for Area 6</p> <p>Pros</p> <ul style="list-style-type: none"> • The sensitivity of the landscape in this area is low and medium in the south-west, generally low towards the north-east. This is based on the simple landform and large scale of land cover. The sensitivity is locally further reduced by the influence of the urban edge of Swadlincote and other detractors, particularly in the north-east. There may be capacity for medium- (1ha to 5ha) and large-scale (over 5ha) developments. • Limited presence of historic and authorised landfills • Limited made ground associated with urban development areas, as no towns, only villages • Majority of area not located in an area affected by radon • The majority of the area is Flood Zone 1. • Opportunities to reduce flood risk to downstream areas by safeguarding areas for flood storage measures. 	

- The area is bounded by strategic highway network comprising the A38 to the west and the A42 to the east for access to Derby, Lichfield and Tamworth.
- House prices are relatively high compared to other sub areas and compared to the regional average, indicating the potential for higher demand for new homes.

Cons

- Two areas of SPZ – Zone 3
- Sensitive groundwater – Principal and Secondary A aquifers
- Protection measures would be required within new buildings in areas affected by radon
- Potential for areas of thick and variable made ground and superficial deposits
- Shallow coal and worked opencast coal areas have been identified
- Sand and Gravel MCA identified
- The River Trent runs along the northwest of the area of search, this lies in Flood Zones 2 and 3.
- The River Mease runs along the southeast of the area of search, this area is also within Flood Zones 2 and 3. Also, the Pessall Brook runs through the area of search and it is within Flood Zones 2 and 3.
- The River Mease is a Special Area of Conservation and SSSI and unmitigated development is likely to harm the integrity of the site. There may be limited capacity at a number of sewage treatment works discharging into the river to receive further flows; any changes to discharge permit to allow significant further growth is unlikely. Therefore, growth in this catchment is very problematic and only limited growth in or around villages served by a treatment works discharging into the river is likely to be acceptable.
- Without careful planning, development in this upstream area could increase the risk of flooding downstream, in areas that have already experienced flooding.
- Limited bus provision throughout the area.
- Connectivity to the west is limited by crossings on the River Trent. The proposed Walton-on-Trent Bypass will provide a new River Trent highway crossing and is to be provided in connection with the Drakelow Park development, currently under construction.
- Localised congestion occurs along Station Lane / Coton Road within Walton on Trent to the north of the area.
- Additional social infrastructure and/extensions to existing facilities are likely to be required to support future growth and to provide more accessible facilities.

Overarching suitability and proximity mapping

- 2.25 In addition to the thematic review of the constraints and opportunities of the assessment areas presented above, this study uses a GIS-driven area-wide analysis to help identify potential broad areas of search.
- 2.26 This section presents a high-level land suitability and proximity analysis (relative to services and transport infrastructure).
- 2.27 Along with the detailed thematic analysis of the constraints and opportunities of the assessment areas, the spatial analysis identifies broad areas of search. The identified broad areas of search are subject to further analysis in Stage 2 to ascertain whether the locations are suitable in planning terms and capable of delivering the necessary critical mass for meeting the requirements of a self-contained new settlement or sustainable urban extension.

Land suitability

- 2.28 Locations that are subject to significant environmental constraints are considered to be less suitable for strategic growth. Figure 6 shows a synthesis of these designations to highlight relative land suitability at the Study Area level. The following spatial datasets have fed into the suitability modelling and mapping presented overleaf:
- Ancient Woodland
 - Flood Zone 3
 - Grade 1 and 2 Agricultural Land
 - Site of Special Scientific Interest (SSSI)
 - Local Nature Reserve
 - National Nature Reserve
 - Country Parks
 - Scheduled Monuments
 - World Heritage Sites & Buffer Zone ⁴¹
 - Registered Parks and Gardens
 - Archaeological Priority Zones
 - Authorised Landfill Site

⁴¹ While smaller scale growth could potentially be appropriate in the World Heritage Site & Buffer Zone, larger scale strategic growth for the area is not likely to be appropriate within the buffer zone.

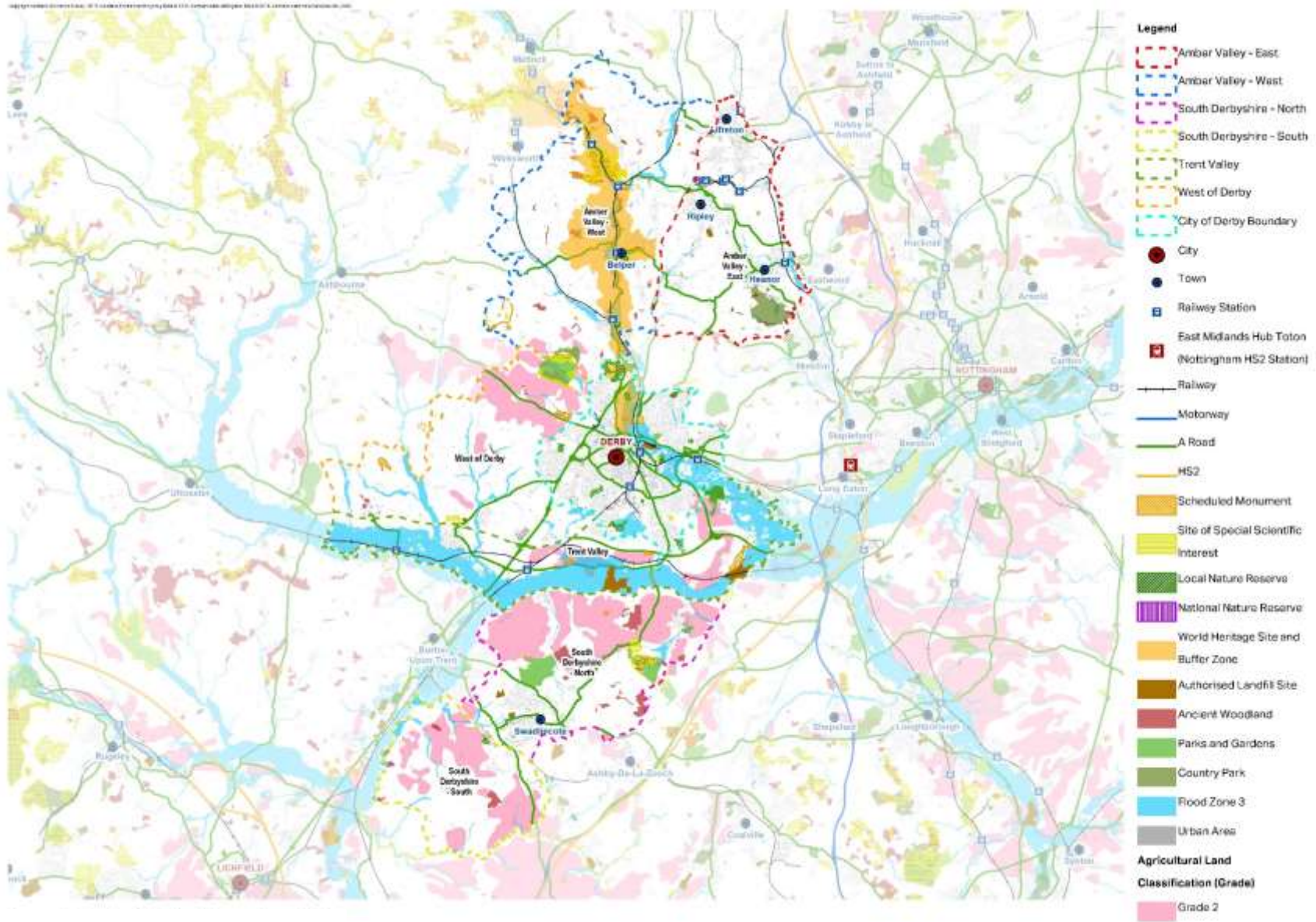


Figure 6 Opportunities & Constraints Analysis

Proximity to transport and access to services

- 2.29 Proximity to settlements (and their social infrastructure) is a determinant of the likely settlement typology. For example, a smaller urban extension is highly likely to utilise the services and facilities available in a nearby town where it is within easy commuting distance, whereas a large autonomous settlement will need to provide their own services and facilities, especially if located at great distance from a nearby town. Differing buffer sizes have been applied to existing settlements according to their level of social infrastructure to demonstrate the distances that residents would be willing to travel to access services.
- 2.30 In addition, proximity to transport infrastructure (including rail lines, stations and strategic road networks (SRNs)) and proposed transport infrastructure improvements are also shown to identify areas that benefit or will benefit from transport links.
- 2.31 Table 2 below indicates the respective buffer levels and assumptions applied, and Figure 7 (overleaf) shows the outcomes of the proximity analysis.

Table 2 Proximity model inputs and assumptions

Feature	Buffer	Assumption
Urban Centres		
City	5 km	Catchment to access services
Large Town	4 km	
Town	3 km	
Large Village	2 km	
Existing Transport		
Rail Line	2 km	Ensure local resident accessibility to public transport network to limit travel times
Rail Station	3 km	
SRN Line	2 km	Ensure local resident accessibility to road network to limit travel times
Proposed Strategic Transport Projects		
Rail Line (HS2 only)	2 km	Ensure local resident accessibility to public transport network to limit travel times
Rail Station	3 km	

Combined Land Suitability and Proximity Analysis

- 2.32 Figure 7 (overleaf) shows the outcomes of the proximity analysis. Note that a more in-depth accessibility analysis for existing settlements is presented in chapter 3 below. The Combined Land Suitability and Proximity Analysis map (Figure 8 overleaf) shows the composite findings of the above analysis and constitutes an initial step toward defining the broad areas of search. Lighter coloured areas are generally well connected to transport and services and are less constrained by environmental features or policy designations; and in theory they are areas with the most capacity for growth (pending further assessment). The darkest blocks on the map denote areas that scored lowest in the existing proximity analysis. Areas such as this have not been screened out at this stage as it is possible that strategic infrastructure improvements can improve their proximity to sustainable transport modes, services and overall accessibility. Chapter 3 explores factors such as accessibility and service provision in more detail. Whilst the proximity analysis includes proximity to the strategic road network, it does not include an analysis of the bus network. The proximity analysis is deployed as a high-level measure alongside land suitability in order to help identify possible areas of potential growth. As can be observed from Figure 4 existing key settlements and settlements along rail corridors typically have the greatest proximity overlaps.

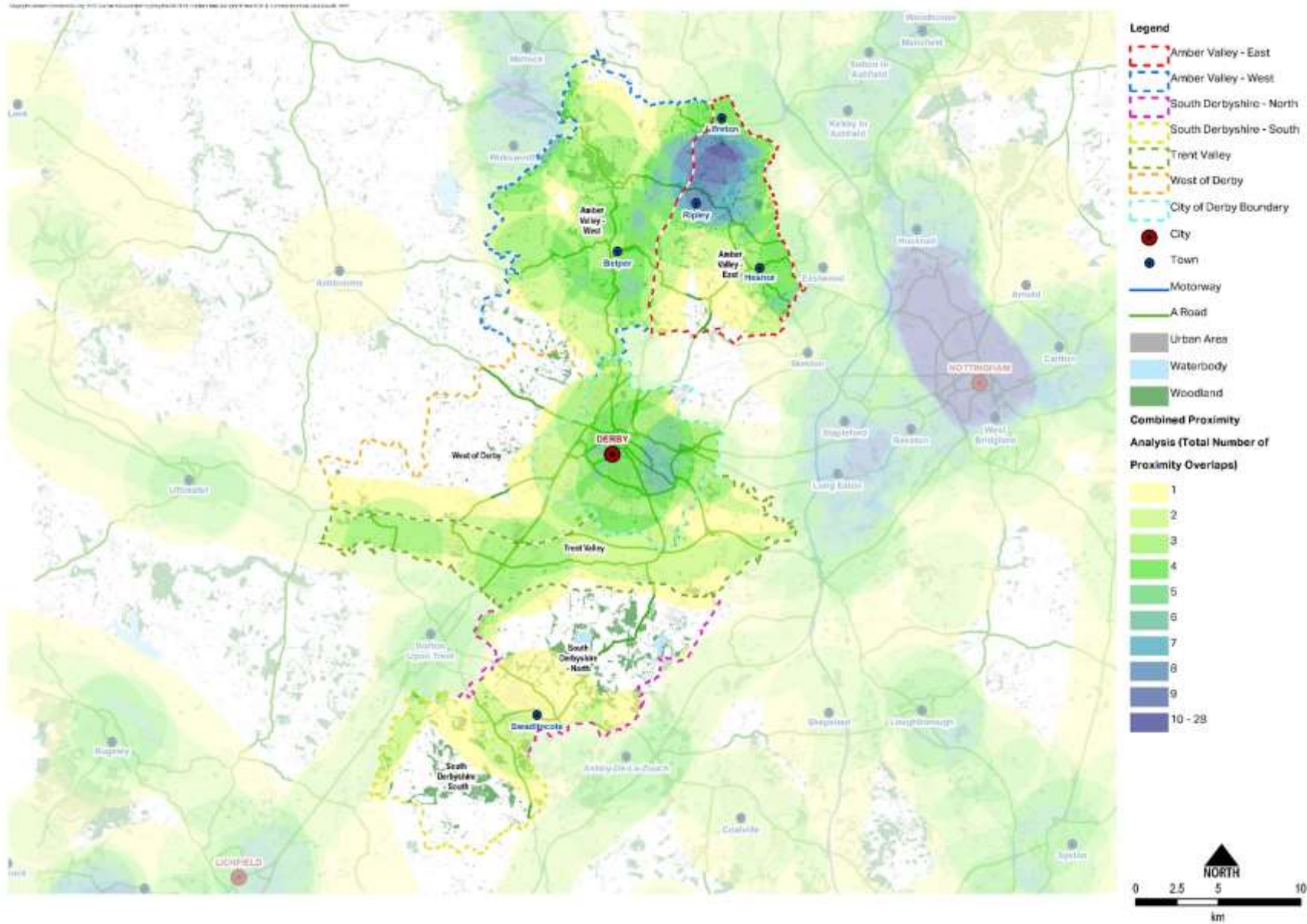


Figure 7 Proximity analysis

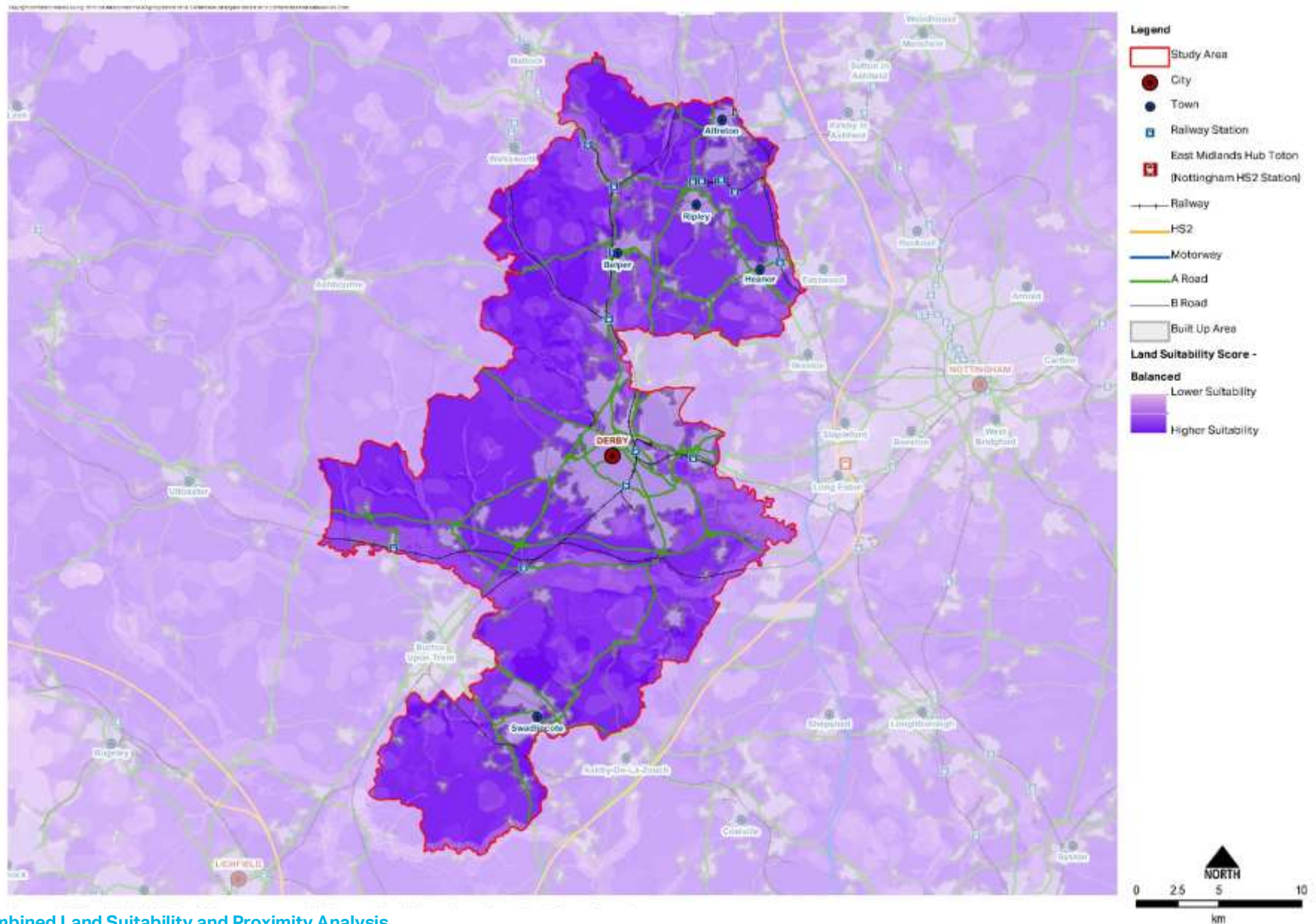
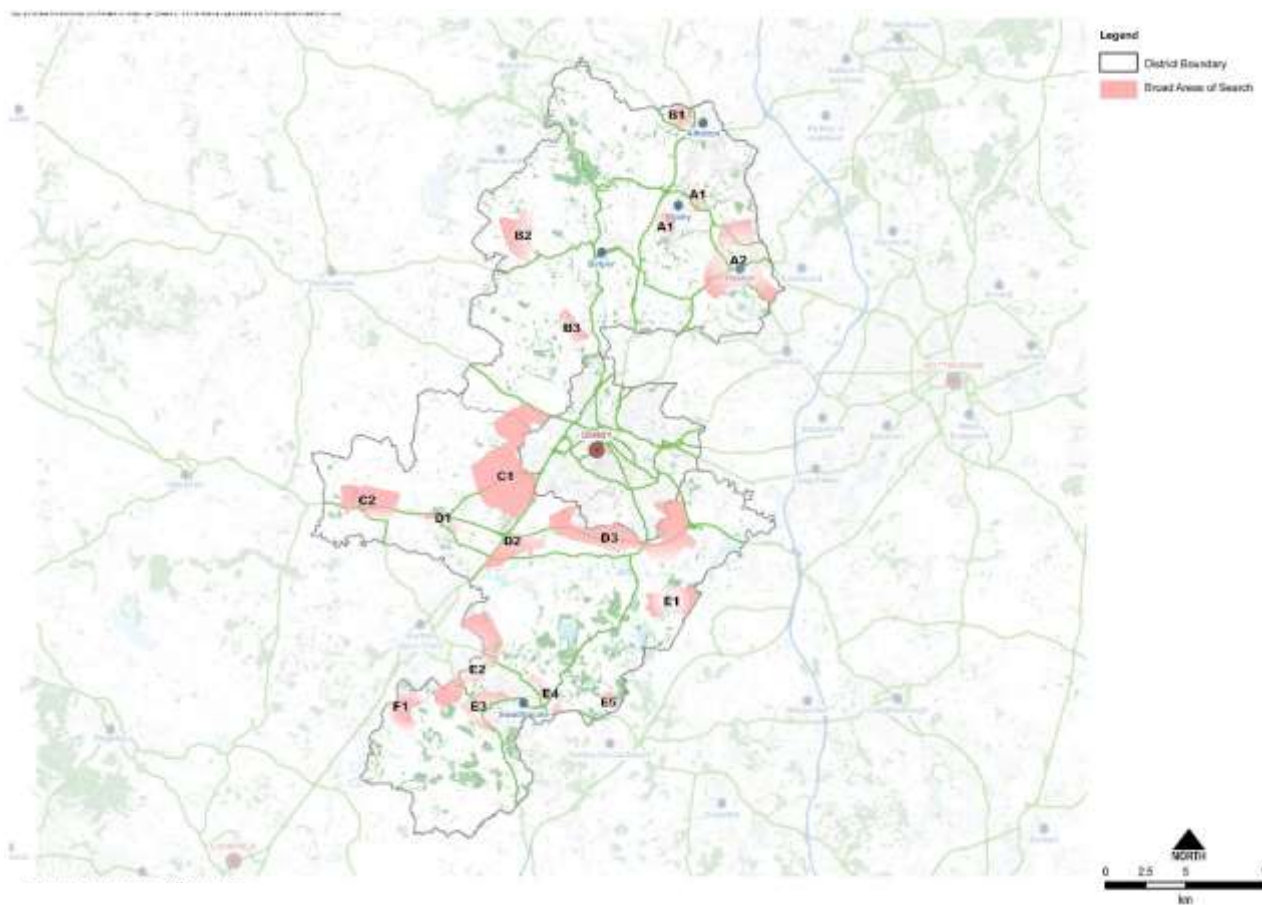


Figure 8 Combined Land Suitability and Proximity Analysis

Broad areas of search for Stage 2

- 2.33 The analysis above has led to the identification of 16 broad areas of search for more detailed consideration in stage 2 of the study. These locations are generally the most suitable in the suitability analysis and seek to optimise locations that score strongly in the existing proximity analysis. These locations are shown in Figure 9.
- 2.34 The areas of search are free of ‘showstopping’ or absolute constraints and are, or have the potential to be, connected to existing places and services by sustainable means. However, it should be noted that the ability to connect must be considered in the context of sustainable modes of transportation and the need to avoid isolated car dependent locations wherever possible.

Figure 9 Broad Areas of Search



3. Stage 2 Assessment of broad areas of search

- 3.1 The Broad Areas of Search were identified utilising: overarching suitability and proximity mapping (a GIS model prepared to help aid the identification of broad areas of search); identification and analysis of assessment areas (building in inputs from technical specialists); consultation with specific consultees and workshops held with the Local Planning Authorities to verify and test emerging findings.
- 3.2 The stage 2 assessments of land outside the settlements and Main Built Up Area of Derby followed a similar process to the stage 1 area assessment but in more detail. For example, in this section we have identified potential areas of growth within some of the broad areas of search. This is based on local, as well as strategic factors, and site visits to assess the sensitivity of landscape across broad areas of search.
- 3.3 A key aspect of the broad areas of search assessment stage has been site visits undertaken by the project team to analyse conditions on the ground (in particular for access, environment, heritage, landscape and spatial aspects). This has fed into a detailed thematic-based analysis for each broad area of search, having appropriate regard to relevant policy and evidence and the local knowledge, experience and professional judgement of the AECOM project team (in liaison with the Local Planning Authorities).
- 3.4 A pro-forma-based assessment was used for this stage for 16 broad areas of search. As part of this process the potential for new co-dependent or autonomous settlements was considered, alongside an assessment for the potential for urban extensions (including beyond the Main Built Up Area of Derby) or village expansion (see typology classifications in chapter 1).
- 3.5 Alongside this proforma assessment we have indicated approximate locations within the broad areas of search that appear to have potential for future growth and can be investigated in greater detail as the plan making process of the Local Planning Authorities evolves. The locations depicted should not be treated as fixed. In all cases technical specialists have assessed the land within the boundary. The project team has also considered constraints and opportunities in the vicinity of these broad areas of search. Each location has been classified based on whether it is deemed:
- Suitable Area for Strategic Growth;
 - Potential Area for Strategic Growth; or
 - Unsuitable Area for Strategic Growth (or below the study's size threshold for strategic growth⁴² when areas deemed to be unsuitable are taken into account).
- 3.6 Locations deemed to be suitable or potentially suitable for 'strategic growth' are capable of supporting the smallest typology (i.e. an urban extension/village expansion or new garden village) with the requisite social, green and physical infrastructure. In order to deliver the requisite school and medical facilities, this study assumes >1,000 new homes would be required alongside employment, community facilities and public transport.
- 3.7 The threshold for 'strategic growth' is high and there will be many large 'strategic sites' that may fall below 1,000 homes. Generally, sites yielding approximately 1,000 dwellings or more have been deemed strategic in the context of the Derby HMA. Sites below the 'strategic growth area' threshold will continue to come forward and will continue to be considered for the purposes of plan making in the study area.
- 3.8 The final potentially suitable areas of search within the broad areas of search were found to be largely associated with the strategic drivers for growth, along transport corridors and the main

⁴² This does not mean that the location is suitable or is not suitable for growth. This will be assessed in subsequent stages of the Local Plan process. For example, smaller scale opportunities may be deemed suitable in these locations based upon later detailed site assessment and sustainability appraisal. However, this study provides an indication on whether this area would be a suitable location for strategic growth.

settlements and settlement clusters, in close proximity to the airport and to future transport improvements. Broad locations where there are less opportunities are also evident from the assessment, largely in less sustainable rural areas.

Strategic Transport Constraints

- 3.9 Building on the suitability and proximity analysis, a series of workshops and discussions were held with Derbyshire County Council (as Highway Authority), Derby City Council transport officers and Local Planning Authority officers to identify major constraints and opportunities related to transport and movement in the study area (including transport corridors where there are likely or proposed investments). This information can help quantify growth opportunities in the study area (i.e. whether an area can support higher or lower levels of growth over the next two plan periods). The feedback received has helped to assess the broad areas of search and identify matters of relevance to future Local Plan transport studies.
- 3.10 The summary strategic transport maps in this section depict the key transport issues and opportunities spatially and these outputs have been used to inform the assessments under Stage 2. It is important to state that not all of the contents of the mapping depict fully funded or planned improvements, they also include aspirational improvements alongside extant policy proposals.
- 3.11 One of the fundamental transport challenges in Derby HMA is its multiple identities across neighbourhoods and its close functional relationship with surrounding conurbations, including Nottingham, Burton Upon Trent, Sheffield and Manchester. Provision of transport links, including active and public transport, to surrounding regional hubs would be important.
- 3.12 There is peak time congestion on most of the radial transport corridors into Derby and it is particularly significant because it impacts on bus journey times and resultant cost to businesses. Congestion frequently occurring along the A61, A52 Ashbourne Road, B6179 and Kedleston Road is a key constraint to growth along major roads in Derby HMA. The high level of congestion along these roads are often due to the lack of direct walking, cycling and public transport links to and from key employment sites concentrated in the City Centre, south and east of Derby City, as well as the lack of East-West bus connections across the northern part of Derby. The study area is large and it is recognised that some distances may make cycling and walking difficult. However, there are opportunities to improve the quality, quantity and accessibility of the cycle network with enabling development where broad areas of search intersect with areas identified for improvement in the national and local cycle networks. The aim is to have a coherent, direct, safe, comfortable and attractive cycling (and walking) network.
- 3.13 In addition, bus services to areas outside of Derby City, particularly Aston and Weston, are often infrequent with limited opportunities to be diverted to new growth locations. Derby Bus Station is also operating at capacity. The Park and Ride at Markeaton Park, which only serves the University at present, will also cease operation once A38(T) improvements commence. Development at these locations would require considerable long-term funding to support improved or new bus services. The A516 and A52 to the west of Derby City are predominately single carriageway rural roads with very limited alternative routes and often very limited width of highway and therefore are very sensitive to any events on the highway such as road works or road traffic collision.
- 3.14 Development along the A50 Corridor is constrained by road infrastructure north of the A50(T). For example, extensions around Thulston will require junction reconfigurations for direct access to A6 and A50. Existing urban extensions at Boulton Moor and Snelsmoor Grange will also take up local road capacity, including those provided by junction improvements at A6(T)/Shardlow Road, limiting scope for further strategic scale growth in this area. Development in the Boulton Moor area would require a new junction or new form of access which would not be feasible with a smaller strategic-scale 1,000 dwelling proposal.
- 3.15 Severe localised congestion at the A514/A50(T) Bonnie Prince Charlie Junction means that there are no or limited scope for strategic growth south of A50(T), until a new A50(T) junction is constructed (as existing historic roads have limited scope to be improved).
- 3.16 At Trent Valley, strategic growth around Willington is limited as existing rail services are infrequent (service every 2 hours), with limited capacity to put in extra stopping services.

- 3.17 Apart from transport infrastructure capacity, development in the West of Derby, particularly along A50 Uttoxeter Road and A52 Ashbourne Road, will also be limited by existing Air Quality Management Areas and NO2 Reduction Schemes.
- 3.18 West of Derby is in close proximity to Mickleover District Centre and could be supported with the provision of direct non-car routes between the area and Mickleover but this will be challenging based on the historical road and street layout. Development further afield in this location may be severed from the rest of Derby by the A38 and A516. This will create a separate settlement to the rest of the city and would need to provide its own education, retail and health to reduce car borne development. Growth to the West and South of Derby will need to be managed and phased carefully to deliver commensurate levels of supporting infrastructure based on the high number of extant allocations in these locations and reflecting identified capacity issues.
- 3.19 Another fundamental concern from a public transport perspective relates to bus services to new locations of growth in the future and how this could make them good locations to take forward. Pre-Covid, 80% of bus passenger journeys were made on commercial bus services. These are the services which the various bus companies run with no direct financial support from Derbyshire County Council with the routes, timetables, fares etc. all being set by the operators based on what they think the market requires. The fares collected from passengers cover the cost of operating these services and generate a profit. The remaining 20% of journeys are provided on services which Derbyshire County Council specifies based on social, economic or environmental reasons. These supported services are not commercially viable from the fares alone so the County Council provides an ongoing subsidy to the operators to run them on the County Council's behalf.
- 3.20 Currently because of Covid-19 there are no truly commercial bus services operating in Derbyshire, or probably anywhere else in the country as passenger numbers are so low. The commercial services are only continuing to run because the DfT is providing the commercial bus operators with ongoing revenue support. At the moment it is unclear how long this revenue funding will be provided but from discussions with the bus companies they feel that it is very unlikely that all of passengers who did travel on these services pre-Covid will come back quickly in the future. Estimates from engagement with bus companies predict 80% may return over the longer term (12 to 18 months). This means that many services that were commercially viable pre-March may no longer be commercially viable moving into the future. DCCs funding for bus services has been reducing significantly over the last few years with additional formerly commercial routes now not likely to be financially viable. The majority of bus services are radial services in Derby, however in the future further requirement for the consideration is likely for demand responsive transport, orbital bus services and further encouragement of active travel in the new orbital demands between urban extensions containing employment and residential areas.
- 3.21 There is a need for future work to consider long term funding support to kick start bus services again and for continuing provision into the future. The practical experience of current large scale developments proposed south of Derby, in the Boulton Moor area, has been that it is difficult to fund bus services. Public transport options have to make commercial sense and achieving the required density of potential passengers is made more difficult with a large spread out passenger demand. Demand responsive transport should not yet be considered the only answer to all of this, rather that it is one option among several that will need to be pursued jointly. In addition, a severance effect occurs due to major roads (i.e. A50/A38), rivers, rail lines resulting in traffic channelling into pinch points which are hard to resolve.
- 3.22 The Strategic Transport Constraints map (Figure 10 overleaf) provides a spatial representation of present day constraints.

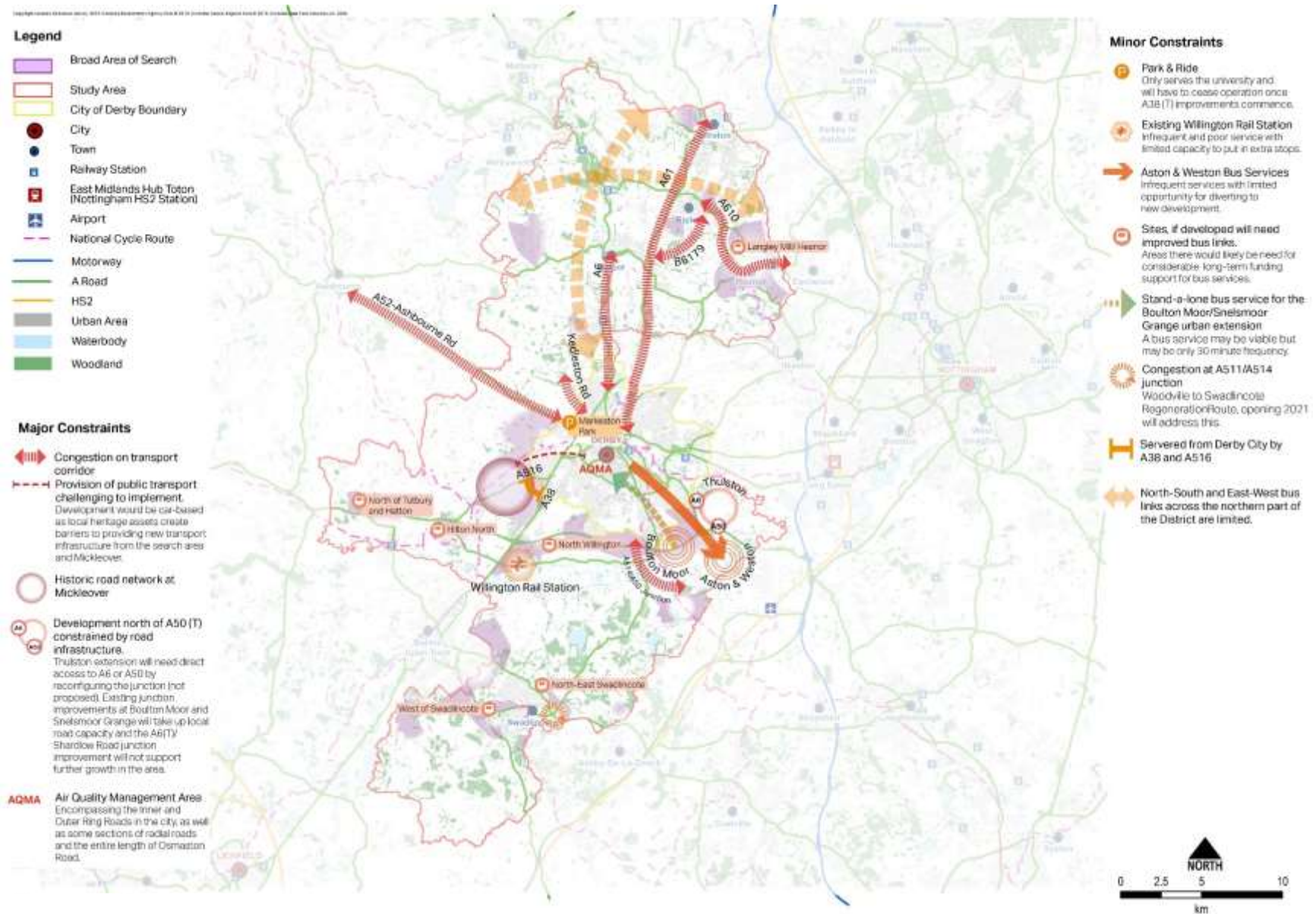


Figure 10 Strategic Transport Constraints identified in Derby HMA

Strategic Transport Opportunities

- 3.23 At the regional level, a number of significant transport investments, including strategic rail, tram and bus connections, are proposed as part of the East Midlands Gateway long term strategy to connect Derby HMA (including Derby City, Swadlincote, Ripley and Heanor) to the HS2 East Midlands Hub at Toton and beyond, including to regional hubs such as Nottingham. This includes proposals for a rail link via Infinity Park Derby to the East Midlands Airport using the Donington freight line. In addition, there are also proposals for Maid Marian Railway to be reopened, linking East Midlands Hub station and Amber Valley East, including a stop at the existing station at Langley Mill. As a result, areas between Derby and Nottingham corridor and Amber Valley East have significant potential for long term growth, benefitting from the proposed transport investments and associated population and employment growth centred at Toton. Amber Valley West is served by rail with direct connections to Derby City, with hourly service to Long Eaton, Attenborough, Beaston and Nottingham. It has potential for sustainable growth.
- 3.24 Significant strategic improvements are also currently underway to improve cycle network and public transport in Derby HMA, funded through the Derby and Nottingham Transforming Cities Fund (TCF) and developer contributions which will benefit multiple areas in Derby HMA. There are a number of notable proposals that present opportunities to support future growth in the study area:
- Off-road cycle routes e.g. the proposed link between the City Centre to Mickleover. In combination with other strategic cycle route improvements of the Derbyshire Key Cycle Network, there are opportunities for linking up new locations of growth with existing high trip generators (such as education/health sites and employment areas)
 - Priority Bus Corridors and Bus Rapid Transit. Development of a demand response transport and mobility as a service in Derby City
 - Potential Park and Ride with smart hubs at Boulton Moor, Pride Park and Meteor Centre Retail Park and Park and Ride upgrades at A52 Spondon and Little Eaton Island. In particular, large-scale strategic growth at Boulton Moor would allow the viable provision of bus service coupled with the potential Park and Ride, with opportunity as a smart transport hub linking Skyline bus services (to the Airport) and other modes of transport.
 - Funding Future Transport Zone - mobility hubs. More generally the roll out of more Electric Vehicle charging infrastructure will help to address air quality in the study area.
 - South Derby Integrated Transport Link – the phase 1 and phase 2 elements are recognised in both the Derby City and South Derbyshire Local Plan's for linking Stenson Road and the A38 at Littleover, which in turn could release more land for growth. Cumulatively there are several growth points available along this important link which would add up to a strategic growth location.
 - As the main east west route across the East Midlands, the A50 has attracted investment by major employers. The proposed A50 junction and link road will provide opportunities for a new settlement near Sinfin and Chellaston.
 - Proposed A38 Roundabout Upgrades at Little Eaton, Markeaton and Kingsway will reduce congestion on roads around Derby and Derbyshire.
 - The possibility of a reopened Sinfin rail station, as identified in South Derbyshire Local Plan Part 2 and recent Midlands Connect reports⁴³. More Generally, there is potential linked to former rail lines and leisure lines, such as branch off Derby / Birmingham Line through Rolls Royce works.
- 3.25 The Strategic Transport Opportunities map (Figure 11 overleaf) provides a spatial representation of the possible opportunities up to 2050. It should be noted that many of the annotations are not funded or planned and may represent aspirational improvements (as they relate to the broad areas of search).

⁴³ See Page 10 Accessed at: <https://www.midlandsconnect.uk/publications/access-to-toton/>

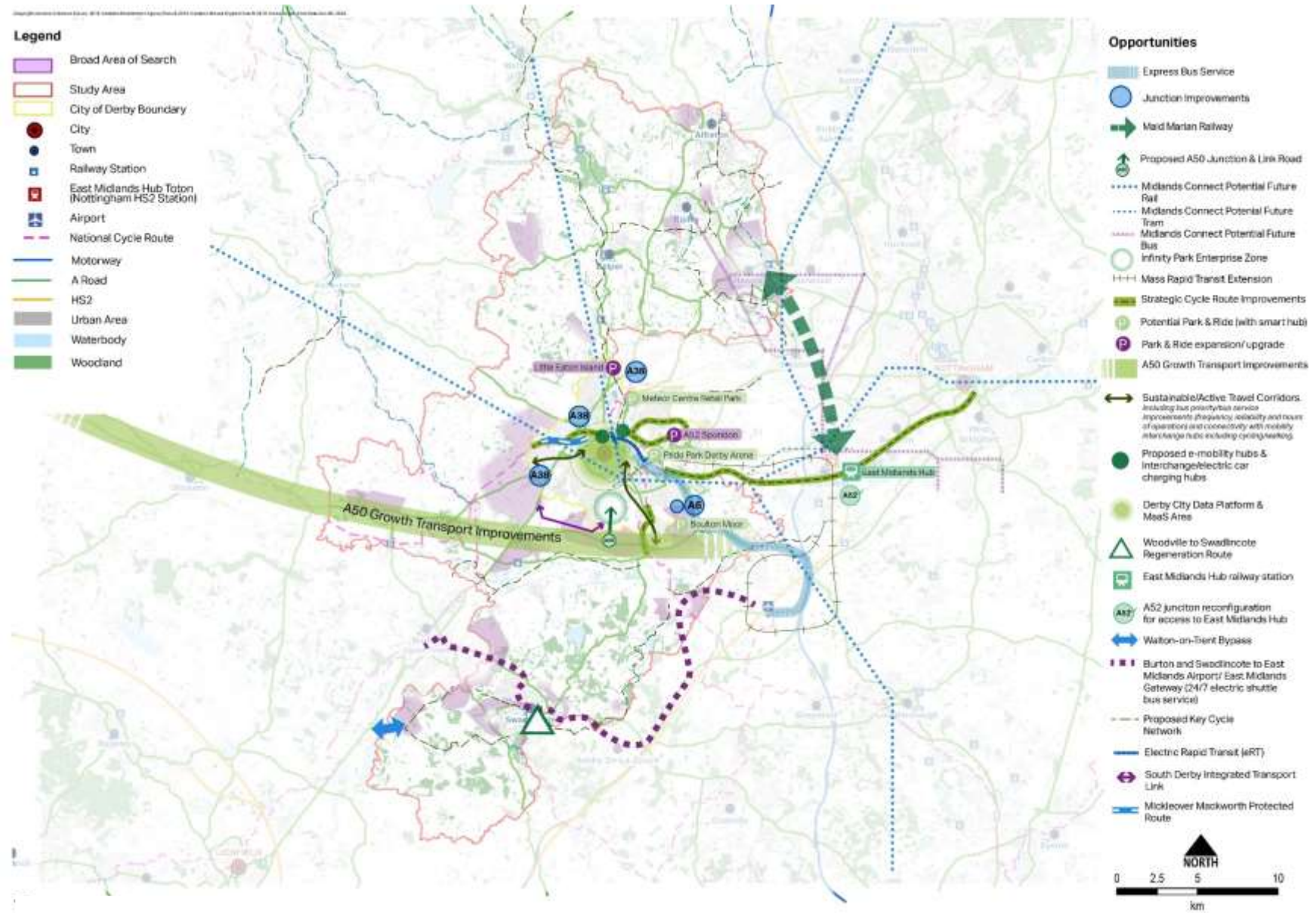


Figure 11 Strategic Transport Opportunities identified in Derby HMA

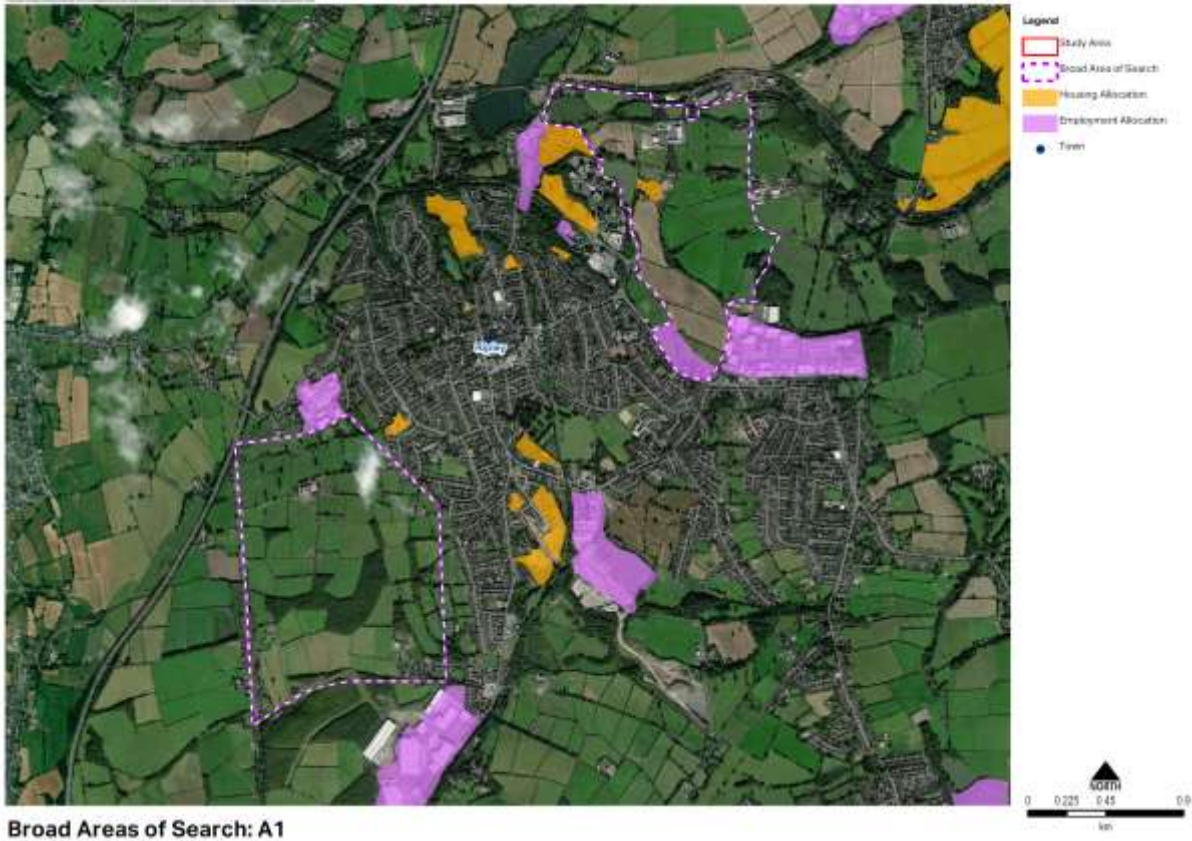
Potential Areas for Strategic Growth

- 3.26 In the following pages a summary of the major opportunities and constraints is included for each location identified as having potential for strategic growth. The mapping shows extant housing and employment allocations, illustrating the level of planned growth already proposed, under construction or built out in the broad area of search. This highlights those residual areas that may be suitable for future development.
- 3.27 Major constraints include, but are not limited to, criteria listed in footnote 7 of the NPPF. For example: policies relating to sites protected under the Birds and Habitats Directives and/or designated as Sites of Special Scientific Interest; Local Green Space, an Area of Outstanding Natural Beauty or within a National Park; and designated heritage assets. This report treats Green Belt as 'policy off' i.e. spatial and landscape constraints are incorporated but designation as Green Belt does not automatically rule out a site from the suitability assessments that follow. Other factors may be deemed a major constraint based on site-specific circumstances and the ability of the site to be developed for housing and employment.
- 3.28 Opportunities have been highlighted by the technical specialists and through engagement with the Derby HMA authorities, Derbyshire County Council and feedback received from specific consultees.
- 3.29 A RAG score (Red, Amber, Green) based on a composite professional judgement has been provided for each broad area of search. Each location has been classified based on whether it is deemed:
- **Suitable Area for Strategic Growth;**
 - **Potential Area for Strategic Growth;** or
 - **Unsuitable Area for Strategic Growth** (or below the study's size threshold for strategic growth⁴⁴ when areas deemed to be unsuitable are taken into account).
- 3.30 For those areas deemed to be an unsuitable area for strategic growth, this may not preclude development below this study's threshold (1,000 dwellings) for smaller scale allocations. It simply means that these locations would be incapable of supporting any significant growth and delivery of supporting social infrastructure may be more challenging. The Local Plans will need to take a view on the cumulative impacts of non-strategic smaller scale allocations.

Disclaimer: *This report does not identify specific strategic sites or preferred development locations. Nor does the report quantify the precise level of growth that each of the locations could accommodate. This information will follow in future stages of the plan-making process when allocations are identified by the Local Planning Authorities. For the purposes of this report, Broad Areas of Search are assessed. The boundaries identified in Section 3 are for illustrative purposes and do not follow ownership boundaries or firm defensible boundaries. The areas shown highlight an extensive area that has been assessed by technical specialists in the round applying professional judgement to the Broad Area of Search and its immediate environs. This Growth Options Study provides an initial assessment of broad areas of search that may have potential as future growth locations. Should any of the locations be taken forward for formal consultation, they will need to be supported by more detailed site specific investigations and consideration of sub-regional infrastructure delivery.*

⁴⁴ This does not mean that the location is suitable or is not suitable for growth. This will be assessed in subsequent stages of the Local Plan process. For example, smaller scale opportunities may be deemed suitable in these locations based upon later detailed site assessment and sustainability appraisal. However, this study provides an indication on whether this area would be a suitable location for strategic growth.

A1	Land at Street Lane – South West of Ripley & Land North East of Ripley	Urban extension(s)
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Site Assessment	Summary
Planning and Environment	<ul style="list-style-type: none"> • The areas of search are within Flood Zone 1, although there are small watercourses present adjacent to the area of search; • This areas does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies; • The northern part of Land at Street Lane (South West of Ripley) is within the river Derwent Safeguard zone, increased urban runoff could pose a risk to water quality in the river from which Severn Trent abstract drinking water at Little Eaton; • The primary substation at Ripley (33/11kV) has a lower primary headroom (capacity) of 2.84MVA to supply the network local to potential development at Ripley. The Bulk Supply Point⁴⁵ at Heanor however has a greater headroom⁴⁶ (capacity) of 32MVA; • The area of search (South West of Ripley) is adjacent to the A38 from which there is direct access southwards at Coxbench to Derby city centre. The A38 is a dual carriageway and therefore has the capacity to carry large volumes of traffic. Highway improvements are scheduled at three junctions along the A38 to reduce stress on the route including at Little Eaton to the south of the area; • The area of search (North East of Ripley) is adjacent to the A610 (the route to the A38). The Adopted Amber Valley Local Plan (2006) outlines a longstanding commitment to completion of A610 highway improvements including a bypass at Codnor, based on the need for improvements stated

⁴⁵ BSP Headroom is based on WPD's Network Capacity Map. No adjustments have been included for site size etc..

⁴⁶ Primary Headroom is based on WPD's Network capacity Map with adjustments to include know local restrictions, accepted and committed Formal Offers for Connection. This information is based upon a desk top provisional investigation and no site visit or detailed study has been carried out. This information is provided as a high level assessment only.

	<p>in the Derbyshire Local Transport Plan (LTP)⁴⁷. Capacity analysis likely to be needed using highway network model, such as SATURN to identify impacts on these routes.</p> <ul style="list-style-type: none"> • Additional facilities and/or extensions to existing facilities may be required to support future growth and to provide more accessible facilities; • The area of search (South West of Ripley) is in close proximity to Denby Hall Business Park to the south and to Heage Road Industrial Estate to the north and to Codnor Gate Industrial Estate (North East of Ripley); • There is risk of coalescence between new development on land south west of Ripley and existing development at Street Lane; • The land North East of Ripley is adjacent to a Country Park; • The land North East of Ripley is in close proximity to two nature reserves – Carr Wood (LNR) and Hammersmith Meadows, Ripley (LNR).
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • Indicative centre point of area of search for Land at Street Lane – South West of Ripley is located circa 1.4km from Ripley Town Centre and approximately 1.5km for the North East of Ripley. Both are viable walking distances, which currently benefits from amenities including medical centres, food / non-food retail and a library; • A local centre is located off Maple Avenue circa 800m from Land at Street Lane – South West of Ripley, an acceptable walking distance, from an indicative centre point of the area of search which includes an infant / junior school and convenience store. Whilst the North East Ripley location is within walking distance of existing primary schools and shopping parades it is not in close proximity to a local centre; • The western boundary of Land at Street Lane – South West of Ripley abuts Street Lane, a two-way, single carriageway road with intermittent footway provision and high potential for primary vehicular access. The western boundary of the North East of Ripley site presents an opportunity to connect to the A610 and to the north there is Coach Road and Butterfly Hill; • At Land at Street Lane – South West of Ripley there is potential for a secondary walking / cycling access onto Highfield Way / Pear Tree Avenue, a predominately residential area with high levels of footway provision, to allow a more direct route by active modes to amenities in Ripley; • Nearest bus stop accessible from Land to South West located at the Maple Avenue local centre - a sub-optimal 800m walking distance and nearest bus stop accessible from Land to North East located at Nottingham Road – a sub-optimal 500m walking distance; • Local bus services accessible from Maple Avenue and Nottingham Road; • Bus services further afield to Derby can be accessed from Bowler Street, circa 1km walking distance, with an every 15 minutes frequency. Bus services to Nottingham can be accessed from Nottingham Road adjacent to the area of search to the North East; • Employment sites located circa 900m to the north off B6374 Cromford Road and circa 1.2km to south west off Derby Road (South West of Ripley) and circa 850m to south east off Nottingham Road (North East of Ripley) – potential for sustainable access; Ripley Greenway is accessible 1.2km east of the area of search (South West of Ripley) – potential for leisure trips and off-carriageway cycle journeys to north Ripley; • Ripley Academy Secondary School located circa 2km east of the area of search to the south west and 1km south of the area of search to the north east, a viable walking distance and acceptable cycling distance to both areas of search;

⁴⁷ See page 64 Accessed at: <https://www.derbyshire.gov.uk/site-elements/documents/pdf/transport-roads/transport-plans/ltp3/derbyshire-local-transport-plan-three-ltp3-2011-to-2026-full-document.pdf>

	<ul style="list-style-type: none"> • A38 / A610 junction located circa 1.9km north and west respectively of the areas of search providing access to trunk roads for car journeys further afield, such as to Derby City, and onwards connections via M1 junction 28 (located circa 12km north of the area of search); • Located circa 18.5km north west of the forthcoming HS2 East Midlands Hub (Toton), an approximate 30-35 minute car journey. <p>Cons</p> <ul style="list-style-type: none"> • Nearest railway services accessible from the area of search are located at Alfreton station (East Midlands Rail services and Northern services), Langley Mill (East Midlands Rail services and Northern services), Belper station (East Midlands Rail services) and Ambergate railway station (East Midlands Rail services), all viable by car or competent cyclists only; • Langley Mill railway station located circa 6.6km east of the area of search, serviced by East Midlands Railway and Northern Rail services, accessible by car; • Access to forthcoming HS2 East Midlands Hub likely viable by car journeys only. <p>Suitability: Low</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • The southwestern edge of Ripley comprises a gently sloping area, with a central high point and localised undulations elsewhere. To the northeast of Ripley, the land broadly slopes down from the A610 road towards the northeast, with long views north and localised undulations. • The areas of search comprise of mixed agricultural land, which has a semi industrialised and degraded feel to it in the southwest of Ripley, and a better condition and higher quality to the northeast of Ripley, particularly in the far northeast of the site. It also contains several blocks of woodland, the largest of which surrounds the top of the hill in the southwest. There are no features of ecological or historical interest in the areas of search, with the exception of the Ryknild Street roman road on the western boundary of the southwestern area of search and the Butterley Works blast furnaces, canal tunnel and underground wharf scheduled monument to the west of the north-eastern area of search. Both areas of search are crossed by several public rights of way; the areas of search also contain some public open space (two areas in the northeast, and one in the southwest). • Views differ between the southwestern and north-eastern areas of search. In the southwest, owing to the topography of the area, there are some limited open views from Ryknild Street, however on other boundaries, views towards the area of search are obscured by existing settlement and / or mature vegetation. In the northeast, mature vegetation obscures some of the views into the area of search from the boundaries, but there are some long views from the ridgeline towards the north. • The woodland, mature field boundaries and blocks of trees in and around both area of search provide a green infrastructure framework, which forms the basis for further potential green infrastructure. The roman road and industrial / mining heritage of the area offer opportunities for a sense of place. The industrial heritage is particularly prevalent in the far north of the site near Butterley. • The hamlet at Street Lane is a ribbon settlement which follows the route of Ryknild Street. Therefore, there is a need to avoid disrupting this linear pattern in the far southwest. The northeast of the area has an urban fringe feel, but there is potential for the perception of sprawl where new development would come down the hill from the ridgeline, extending the perception of the settlement when viewed from the north. In the southwest of the area, there are several defensible boundaries in the form of Ryknild Street itself and the large woodland block to the north-east of Marehay. The northeast of the site also contains some defensible boundaries such as the Codnor Gate Industrial Estate in the southeast, the B6179 road in

	<p>the northwest and the Butterley railway line in the north; other boundaries comprise field boundaries.</p> <ul style="list-style-type: none"> In the southwest, contain development so that it does not disrupt the linear settlement pattern at Street Lane, and ensure that the development is also kept off the elevated ground / large woodland block in the centre of the site. Development in the northeast needs to be contained so that the settlement does not sprawl down the hill, nor extend into the more rural area in the far northeast. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Medium sensitivity Suitability: Medium</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> A predominantly agricultural landscape but formerly a mining landscape containing Salterwood and Marehay collieries. No designated or locally listed buildings within the area of search (land South West of Ripley) although non-designated farm buildings may survive at Strelley Court Farm, formerly Marehays Farm. No conservation area at Ripley or Marehay. Morley Works to the west of the A38 is scheduled and the furnaces are listed grade II* but their location and distance from the area of search of approximately 450m means that is unlikely to diminish their significance. There is a scheduled monument in close proximity to the land North East of Ripley. There are numerous Grade II listed buildings adjacent to the land North East of Ripley. <p>Suitability: High</p>
<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> Potential for a secondary walking / cycling access onto Highfield Way / Pear Tree Avenue. Street Lane is a two-way, single carriageway road with intermittent footway provision and has a high potential for primary vehicular access. New public transport links required. Highway improvements scheduled at three junctions along the A38 to reduce stress on the route including at Little Eaton to the south of the area.
<p>Potential Area for Strategic Growth: Having reviewed the constraints and opportunities within this area of search, there are significant areas of land that could provide urban extensions to the south west and north east of Ripley. The south west option is well related to the A38, but without any rail link nearby it would require careful consideration of public transport connections into the centre of Ripley (alongside improvements to encourage active modes of movement). There are some landscape and visual impact issues, particularly in the north-eastern part of the South West of Ripley site, which are related to the sloping topography and long available views to the north. The North East of Ripley option also has potential as a strategic growth location. Cumulatively, the south west and north east locations merit further investigation for strategic-scale allocations and are well served by neighbouring employment areas (and extant employment allocations) offering potential for greater self-containment.</p>	

A2	Land around Heanor/Langley Mill urban area	Urban extension(s)
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Broad Areas of Search: A2

Site Assessment	Summary
Planning and Environment	<ul style="list-style-type: none"> • The area of search is mainly within Flood Zone 1, although there are small watercourses present and a small section of the area of search is within Flood Zone 2 and 3 (from Langley Mill railway station heading north west); • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies; • The primary substation at Heanor (33/11kV) has a lower primary headroom (capacity) of 3MVA to supply to the network local to potential development. The Bulk Supply Point at Heanor however has a greater headroom (capacity) of 32MVA. • Apart from the urban area of Heanor, the area of search is Grade 4 poor quality agricultural land; • Langley Mill railway station (heavy rail services) borders the area of search and Heanor is well served by buses; • The railway line acts as a defensible boundary to the east of the area of search; • The main roads which run through the area of search are the A608 and the A610. The A608 runs southwest out of Heanor towards Derby. It is a single carriageway road and not designed to carry large volumes of traffic. The A610 provides connection to the M1 J26 to the south east of the search area. To the east of the area of search (outside the study area) the A610 is a double carriageway, therefore has a greater capacity to carry large volumes of traffic; • The area of search is in close proximity to the start of the National Cycle Network route 67 which runs southwards from Heanor; • In Heanor there is a high concentration of education facilities at primary level. In addition, there is a GP surgery;

	<ul style="list-style-type: none"> • Although there is a general surplus capacity in social infrastructure surrounding the area of search, additional facilities and/or extensions to existing facilities may still be required to support future growth and to provide more accessible facilities; • Codnor local centre is located to the north-west of the area of search; • Heanor Gate Industrial Estate is within the area of search and has the potential to support future activity in the warehouse and distribution sector; • As a large amount of the area of search is adjacent to an existing settlement (Heanor) there may be capacity for small (up to 1ha) and medium scale (1ha to 5ha) development; • Heanor suffers from high levels of deprivation, consequently, the area of search has strong economic development and regeneration potential; • Shipley Country Park (with pockets of ancient woodland) is located between Heanor, Shipley and Cotmanhay. • There is risk of further coalescence with Loscoe and Aldercar and coalescence with Cotmanhay, Shipley and Woodlinkin
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • Langley Mill railway station located adjacent to eastern boundary of the area of search, therefore accessible on foot, and is serviced by East Midlands Railway and Northern Rail services; • Proximity to cities, Derby (13km) and Nottingham (15km), with opportunities for public transport access to both; • Existing amenities in Heanor include a medical centre, convenience stores, supermarket, primary and secondary schools; • Bus services accessible from Heanor to key destinations including Nottingham; • A610 / A608 junction located to the east of the area of search providing access to the trunk road for car journeys to Nottingham and further afield, with onwards connections via M1 junction 26 located circa 8.5km south east; • Shipley Country Park located south of the area of search for leisure and active modes; • Existing industrial estate in south west portion of area of search providing access to employment and job opportunities within the local area; • Located circa 14km north west of HS2 East Midlands Hub (Toton), an approximate 25-30 minute car journey however potential for future access to hub by rail or bus. <p>Cons</p> <ul style="list-style-type: none"> • A608 through Central Heanor likely to experience congestion during peak times impacting on the amenity and public realm of the town centre; • Key junctions en-route to Derby and Nottingham from Heanor likely to be operating at or near capacity at peak times, impact of any additional travel demand would need to be assessed; • Severance issues caused by railway line and A610 to the east of the area of search, likely to result in “bottleneck” congestion at peak times on key highway links across and reduced opportunities for trips by active modes to and from Eastwood. <p>Suitability: High</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • The area of search has a very undulating topography, with several steep slopes, particularly in the north. Roads tend to be situated on ridgelines, with some existing ribbon development along them. • The boundary of the area encompasses mainly arable farmland, with occasional woodland blocks and also an area of disturbed land, which is situated to the north of Heanor and west of Langley Mill along Bailey Brook. Aside from a handful of listed buildings and a country park, there

	<p>are few elements of conservation interest. The country park and several public rights of way also offer recreational value. The area of search contains several degraded areas, particularly close to the settlement edges.</p> <ul style="list-style-type: none"> • The undulating topography means that there are several open views of and across the area, with long views in particular available from the ridgelines in the north, south-west and south-east. However, views to and within the area of search tend to be contained or restricted by a mixture of built form and / or mature vegetation. • There are opportunities to tie any new development into the mining heritage of the local area, as well as to link the existing green infrastructure, particularly that associated with Shipley Country Park. • The settlements of Heanor, Langley Mill, Aldercar and Loscoe already have a degree of coalescence and care needs to be taken to avoid exacerbating this, or extending this coalescence north to Woodlinkin and Codnor, or south towards Cotmanhay. There are also several ribbon developments along ridgeline roads at present and thought needs to be given on how best to develop without compromising this characteristic. Throughout the area of search there are some defensible boundaries, but other boundaries are more blurred. • Ensure that development is kept off the undeveloped ridgeline in the north and avoids coalescence with surrounding settlements such as Codnor and Cotmanhay. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Medium sensitivity Suitability: Medium</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • Three distinct potential urban extensions to Heanor, north, south-east and west. • To the north of the northern boundary Codnor Castle is grade II listed, scheduled and stands in its own conservation area. There are no further constraints within or surrounding the area of search (medium suitability). • No designated or locally listed assets within the south-eastern area of search but non-designated assets may survive at Algrave Hall Farm and Purdy House Farm. The area of search is in close proximity to listed buildings at Codnor Castle. The Field, Shipley Conservation Area is on the west side of the A6007 Hassock Lane but is unlikely to be affected by development on the area of search (high suitability). • No designated or locally listed assets within the south-eastern area of search but non-designated assets may survive at Kidsleypark Farm and Banks's Barn. No designated or locally listed assets surrounding the area of search, the Field, Shipley Conservation Area is 1km distant and screened (high suitability). <p>Suitability: Medium/High</p>
<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> • A608/A610 congestion at peak times and capacity of junctions likely to require further investigation and improvements
<p>Potential Area for Strategic Growth: There are challenges presented by the topography and coalescence risks in this broad area of search. The north of Heanor is more problematic due to potential coalescence risks associated with Codnor, as well as steep slopes. There are two distinct options within the south-east and south-west of this broad area of search which have the potential as areas for strategic growth when considered as a wider option to the expansion of Heanor. The area in close proximity to Langley Mill benefits for ready access to the rail station, whilst the south west would need to consider the most appropriate highways solution and deliver public transport links back into the centre of Heanor and key employment locations (including extant employment allocations) alongside improvements to encourage walking and cycling.</p>	

B1	Land to North-west of Alfreton urban area	Urban extension
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Broad Areas of Search: B1

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The area of search is within Flood Zone 1, although there are small watercourses present. The area of search lies adjacent to the Alfreton Book which is largely in Flood Zone 3 and clusters of Zone 2; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies; • This land is within the river Derwent Safeguard zone, increased urban runoff could pose a risk to water quality in the river from which Severn Trent abstract for drinking water at Little Eaton; • The primary substation at Meadow Lane has a primary headroom (capacity) of 1.7MVA to supply the network local to potential development at Ripley. The Bulk Supply Point at Alfreton has a headroom (capacity) of 14.78MVA. • The majority of the area of search is Grade 4 poor agricultural land. A small strip on the eastern part of the area of search is Grade 3 good to moderate quality agricultural land; • The A61 runs east of the area of search, the A615 runs south of the area of search and B6013 runs to the west of the area of search. A small part of the A61 to the north of the edge of the urban area is a dual carriageway and therefore has the capacity to carry large volumes of traffic whereas the A615 and the B6013 are single carriageways; • Bus and train services are available at the nearest town Alfreton. Alfreton railway station is approx. 2 miles from the area of search; • Some facilities including primary schools, shopping and a primary healthcare facility are available in Alfreton; • The area of search is in close proximity to Thornton’s factory where all their UK manufacturing, packaging, distribution and warehouse operations are based – creating over 3,500 jobs. Griffith Foods is another key asset

	<p>for the sector, at the nearby Cotes Park Estate, which further establishes this strength. Together with Thornton's, this presence creates important future opportunities in the priority sector;</p> <ul style="list-style-type: none"> • Alfreton suffers from high levels of deprivation and therefore has a strong economic development and regeneration potential; • There is risk of coalescence with Furlane Ends.
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • Search area abuts A615 Wingfield Road to the south, B6013 Belper Road to the west providing opportunities for vehicular access; • Alfreton Park located immediately south east of the area of search provides an off-road link to Alfreton town centre for pedestrians and cyclists; • A38 / A61 "Watchorn Roundabout" located approximately 1.2km south east of the area of search, providing trunk road connections by car for north, east and southbound journeys; • M1 junction 28 is accessible via the A38 circa 6.5km east of the area of search; • Relatively high standard of accessibility to existing local amenities to the east of the area of search, with Alfreton Town Centre located within a viable walking distance of 1.1km from an indicative centre of the area of search; • Several primary schools are located within a viable walking or cycling distance in Alfreton town centre with a Secondary School located in central Alfreton circa 1.6km east of the area of search (a viable walking and cycling distance); • Existing bus stops located on A61 circa 900m from an indicative centre point of the area of search providing connections to key destinations including Chesterfield; • Bus stops also located to west of site on A615 Wingfield Road' providing local connections, including to Alfreton; • Alfreton railway station located circa 2km east of the area of search, a maximum viable walking distance and acceptable cycling distance. Alfreton station is currently serviced by East Midlands Rail and Northern Rail; • Industrial estates located to the north and south of Alfreton (circa 2km distance) providing opportunities for employment within the local area and potential for access by active modes or by bus; • Located circa 33.5km north west of the forthcoming HS2 East Midlands Hub (Toton), an approximate 30-35 minute car journey however potential for future access to hub by rail or bus. <p>Cons</p> <ul style="list-style-type: none"> • M1 Junction 28 is heavily congested. • Relatively low levels of cycling infrastructure provision with no National Cycle Network (NCN) routes in Alfreton; • A61 to the east of the area of search creates a relatively mild severance constraint for access on foot or by cycle to the amenities located in Alfreton, albeit, the road acts as a high street and existing footway provision is of a relatively high standard; • A38 operates in an east-west alignment south of Alfreton, severing Alfreton from settlements immediately to the south such as Somercotes. This is likely to constrain opportunities for journeys for pedestrians and cyclists to the south east of the area of search and create some congestion at key junctions (e.g. A38 / A61) during peak hours; • Likely to be relatively high existing levels of HGV traffic on local roads due to the nearby industrial estates, could result in pre-existing congestion and

	<p>air quality / noise issues in residential areas or constrain opportunities for promoting journeys by active modes.</p> <ul style="list-style-type: none"> Land on the opposite side of the A61 has been considered for development, however, the area of search has not been looked upon favourably by County Council Highways due to difficulty in providing a safe means of access onto the A61 due to sloping land and dual carriageway. <p>Suitability: Medium</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> The search area sits on a relatively broad ridgeline, with a prominent slope down to the north and a less prominent slope to the south. Land use comprises mostly pastoral farmland, although there are also some arable fields and woodland blocks, the latterly particularly concentrated in the north-east of the search area. The eastern edge is influenced by the busy A61, whereas the west tends to feel more rural, despite the A615 road, which is also relatively busy. The landscape contains some degraded areas. The area of search contains several public rights of way, which mostly run east-west. The area of search is in close proximity to Alfreton Hall and Park, with some of the area of a parkland nature. Long views are available to the north from the public rights of way within the area of search, although these views are more restricted in the north-east by existing woodland. On other boundaries, the views into the site tend to be constrained by adjacent mature vegetation. The woodland blocks within the search area offer opportunities to form green corridors, but there are few green infrastructure corridors at present and the site feels very much 'between' settlements rather than having an identity of its own. There is a risk of coalescence between Alfreton in the east and Fourlane Ends in the west, as well as a risk of engulfing the small Fourlane Ends hamlet with new housing. The roads to the west, south and east, as well as the wooded boundary of Alfreton Park all form defensible boundaries, but the boundary to the north is less well-defined, with the view being open in the north-west of the area of search. A buffer needs to be implemented between the two settlements, and care needs to be taken around Fourlane Ends to avoid overwhelming the hamlet with new development. Development needs to be contained towards the south-east adjacent to existing development to avoid perceptions of sprawl to the north. Some of the existing woodland in the north-east of the search area will aid screening in the south-east. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Medium sensitivity Suitability: Low</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> Alfreton Conservation Area abuts the eastern boundary and contains 13 listed buildings including the grade II* Church of St Martin. The Grade II listed Alfreton Hall is outside the Alfreton Conservation Area and close to the search area boundary and the associated, non-designated Alfreton Park is located outside the search area boundary to the south-west of the Conservation Area. Some of the land in the search area was former parkland which retains some of its character and contributes to the significance of Alfreton Hall. The South Wingfield Conservation Area is approximately 460m west of the search area boundary and sufficiently screened from it. No designated assets within the search area boundary but the grade II Peacock Hotel and Attached Cottage is located on the west side of the A615 Belper Road opposite the search area boundary (medium suitability).

<p>Potential Transport Infrastructure Requirements</p>	<p>Suitability: Medium</p> <ul style="list-style-type: none"> • Search area abuts A615 Wingfield Road to the south, Belper Road to the west providing opportunities for vehicular access. Potentially not able to provide vehicular access from the A61 due to sloping land and dual carriageway. • Improvements in cycling provision required as there are no NCN routes in Alfreton.
<p>Unsuitable Area for Strategic Growth: There are notable constraints presented by the topography which drops steeply to the north and the risk of coalescence with Alfreton and Fourlane Ends. Development would need to be contained towards the south-west, adjacent to existing development to avoid perceptions of sprawl to the north. There are also known highways constraints to the north of the Town. Taken together, the constraints cited make this an unsuitable location as a strategic growth area due to insufficient developable land.</p>	

B2	Land to north of Cowers Lane	Co-dependent settlement
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Broad Areas of Search: B2

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The majority of the area of search is within Flood Zone 1, although there is a small watercourse present which is in Flood Zone 3; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies. • This land is within the river Derwent Safeguard zone, increased urban runoff could pose a risk to water quality in the river from which Severn Trent abstract for drinking water at Little Eaton; • The primary substation for rural overhead network is at Ravensdale Pk has a lower primary headroom (capacity) of 9.41MVA to supply the network local to potential development. The Bulk Supply Point at Alfreton has a headroom (capacity) of 14.78MVA. • The area of search is Grade 3 good to moderate quality agricultural land; • The Ecclesbourne Valley Railway acts as a defensible boundary to the west of the area of search; • The B5023 runs along the western edge and through the area of search north to south down to Little Eaton and then Derby. The A517 runs south of the area of search. Both these roads are single carriageways; • Belper town centre is approx. 5 km from the area of search. There are many primary schools located in and around Belper. GPs are also located in and around Belper; • Additional social infrastructure/extensions to existing facilities are likely to be required to support future growth and to provide more accessible facilities; • Belper town centre is well served by buses and offers a range of local services. Belper also has a railway station; • The Derwent Valley Mills World Heritage Site and buffer zone are adjacent to the east side of the area of search. The World Heritage Site is protected

	<p>as an asset of international importance, as well as being a tourist destination;</p> <ul style="list-style-type: none"> • There are 4 Grade II listed buildings within the area of search and 6 more Grade II listed buildings in close proximity to the area of search. Development of the area of search may have an adverse impact on the rural setting of these buildings, however, appropriate design could mitigate some of that harm.
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • The A517 runs south of the areas of search to Belper; • Search area abuts a number of B-roads and country lanes providing opportunities for vehicular access albeit footway provision and/or carriageway widening would likely be required; • Within an approximate 35-minute car commute of Derby at peak times, albeit with minimal opportunities for journeys by sustainable modes and congestion occurring at key junctions en-route. <p>Cons</p> <ul style="list-style-type: none"> • Bus stop located on B5023 Ecclesbourne Lane circa 500m west of an indicative centre point for the area of search providing regular bus services to key destinations including Derby. However, these are not currently frequent enough to provide a viable alternative to the private car (given the rural nature of the area); • Idridgehay Station (Ecclesbourne Valley Railway) is located circa 500m north west of the area of search, however, this is currently a heritage railway only so does not benefit the area of search in transport terms and viable for leisure purposes only; • Severance constraints caused by railway line which runs adjacent to the search area's western boundary; • Minimal existing amenities including convenience store and public house in Idridgehay village (located an approximate 600m west of an indicative centre point); • Limited access to existing education facilities for pedestrians and cyclists, nearest primary school located circa 1.8km south of area of search with minimal opportunities for access on foot or by cycle; • Nearest secondary schools located circa 6km distance in Wirksworth and Duffield, minimal opportunities to access by active modes; • Local highway network predominately B-roads, rural in nature with a relatively poor capacity and poor standard of pedestrian infrastructure provision; • Search area located circa 30km (40-45 minute) car journey from the HS2 East Midlands Hub (Toton) with minimal opportunities for access to the station by sustainable modes; • Limited access to employment within the vicinity of the area – majority of commuter trips likely to head towards Derby with the most viable mode currently being car. <p>Suitability: Low</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • A very undulating area containing a prominent ridgeline with long views, as well as a steep-sided stream valley. • The area of search is very rural, feeling isolated from other settlements with a sense of scenic beauty and strong perceptions of tranquillity and remoteness. It comprises a mixture of pastoral and arable farmland, with the arable farmland mostly concentrated in the south and west. There are very few conservation interests within the area of search, but there are numerous public rights of way, particularly in the eastern half of the area of search. • There are numerous long views to and from the search area, owing to its elevated nature. Some of the notable views are from the north-south

	<p>ridgeline within the area of search, particularly into the Ecclesbourne valley, as well as views south from the elevated northern edge of the area.</p> <ul style="list-style-type: none"> • A handful of woodland blocks along stream valleys such as that of the Franker Brook form green corridors, which sit within the wider rural landscape. The landscape itself has a strong rural identity, although there are few heritage elements. • The boundaries of the search area are defensible - comprising a combination of minor country roads, as well as the Ecclesbourne Valley Railway line. However, the area of search comprises a rural and isolated character, into which development would constitute a new settlement and entirely change the perception of the area. The long views to and from the search area would also mean that new development would appear very prominent in the local area. • The isolated and rural nature of the area of search, as well as the visual and topographic issues means that it is unsuitable for development from a landscape perspective. <p>Landscape sensitivity: High sensitivity Visual sensitivity: High sensitivity Suitability: Low</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • Four grade II listed buildings within the search area boundary, the Idridgehay Conservation Area abuts the area of search to the west and the Derwent Valley Mills World Heritage Site and buffer zone to the east. <p>Suitability: Low</p>
<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> • Search area abuts a number of B-roads and country lanes providing opportunities for vehicular access albeit footway provision and/or carriageway widening would be required. • Improvements required to the local highway network of A and B-roads (poor capacity and poor standard of pedestrian infrastructure provision. • Improvements needed to enable access to existing education facilities by walking and cycling and/or public transport.
<p>Unsuitable Area for Strategic Growth: The area is remote and would require significant investment in highways improvements and new public transport links (including utilising old commuter rail lines). There are notable constraints including a rolling hills landscape, long views and a ridge line with long views which run through the middle of the area of search. As a result, the area of search is considered unsuitable for future strategic-scale development.</p>	

B3	Land to South-west of Duffield	Urban extension / village expansion
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Broad Areas of Search: B3

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The area of search is largely within Flood Zone 1, although there are small watercourses present where the northern part of the search area falls within flood zones 2 and 3; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies. The south-eastern part of the search area however intercepts with the total catchment of SPZ 3. • This land is within the river Derwent Safeguard zone, increased urban runoff could pose a risk to water quality in the river from which Severn Trent abstract for drinking water at Little Eaton; • The primary substation for rural overhead network at Darley Abbey has a greater primary headroom (capacity) of 7.39MVA to supply the network local to potential development. The Bulk Supply Point at Derby 33 has a greater headroom (capacity) of 52MVA. • The area of search is a mix of Grade 3 good to moderate quality agricultural land and Grade 4 poor quality agricultural land; • The B5023 acts as a defensible boundary on the north eastern side of the area of search; • The B5023 runs adjacent to the search area and would provide the main vehicular access from the area of search to Derby. Cumberhills Road runs through the area of search southwest to northeast and would provide vehicular access across the area to Duffield. In addition, the edge of the area of search is adjacent to the A6. However, localised congestion does occur on the A6 approaching Derby; • Duffield railway station is approx. 1.3 km from the area of search. Duffield is classified as a medium village; • Duffield has its own health care facility – Appletree Medical Practice which is located approx. 1.2 km from the area of search;

	<ul style="list-style-type: none"> • Duffield Meadows Primary School and Ecclesbourne secondary school are located approx. 0.5 km and 1.5km respectively from the area of search. Ecclesbourne School cannot however expand in its current site any further; • There is a Grade II listed building at Farnah House Farm which is within the area of search. Development of the area of search may have an adverse impact on the rural setting of the farmhouse, however appropriate design could mitigate some of that harm. • Large potentially suitable location immediately to the north of Derby City.
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • Located within an approximate 1.2km distance of the centre of Duffield village, a viable walking distance and acceptable cycling distance; • Duffield village has several key amenities including a medical practice, primary school and secondary school, convenience stores and post office all within a viable walking and cycling distance of the area of search circa 1.2 - 1.4km; • Duffield is a predominately residential area with a high standard of footway provision on most roads within the settlement; • High public transport accessibility given rural nature of area: Duffield railway station is located approximately 1.4km from an indicative centre point of the area of search. This is a viable walking and cycling distance, with East Midlands railway services accessible from the station; • Bus services to key destinations including Derby City Centre operate from the A6 (Duffield local centre) located to the east of the area of search, an approximate 700m distance from the centre of the area of search with eastern parcels of the search area within 500m distance. Bus frequency relatively high given rural nature of Duffield; Existing bus stops located on Cumberhills Road within a 400m walking distance of the majority of the area of search, with service between Muggington, Ecclesbourne School and Duffield. Infrequent bus services to Derby are within a 800m walking distance at Winksworth Road West; • The area of search is bisected by Cumberhills Road which operates in a north-south alignment and connects to B5023 at its northern extent. This is an opportunity for primary vehicular access and pedestrian infrastructure to tie in with existing network; • Opportunities for secondary pedestrian / cycle access to B5023 Broadway via existing routes and rights of way for more direct journeys by active modes; • Located within a desirable (circa 20-30 minutes) commuting distance of Derby City Centre with viable bus and rail connections; • A6 Derby Road can be accessed via B5023 Broadway at its eastern extent circa 700m east of the area of search. A6 Derby Road operates in a north-south alignment and provides onwards connections to Derby to the south and Belper to the north; • Located circa 24km north west of the forthcoming HS2 East Midlands Hub (Toton), an approximate 30-35 minute car journey, however, potential for future access to hub by rail or bus. <p>Cons</p> <ul style="list-style-type: none"> • A6 Derby Road represents the key highway connection, and this is likely to experience congestion at peak times, for instance, at A6 / Queensway. However, it should be noted that Duffield has viable existing alternatives to car use including bus and train services; • Relatively low levels of cycling accessibility and opportunities for cycling journeys to destinations outside of the settlement of Duffield itself; • Severance constraint caused by railway line and River Derwent to the east of Duffield limiting east-west connections in the vicinity of the settlement;

	<ul style="list-style-type: none"> • Relatively low accessibility to the strategic road network albeit with access to trunk network for long distance journeys by car via A6 Derby Road. <p>Suitability: High</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • The search area broadly slopes down from west to east, with a flatter area in the east of the area of search adjacent to the existing settlement of Duffield. • A mixture of pastoral and arable farmland occupies the area of search, the arable farmland is mostly concentrated in the south-east of the search area, south of Cumberhills Road. There are a couple of woodland blocks in the north-western area of search corner, but trees elsewhere in the area of search tend to be limited to field boundaries. The search area has scenic quality through the quality and condition of the landscape. Whilst there are no conservation designations within the site itself, there are several on its boundaries including a World Heritage Site, Ancient Woodland, a Scheduled Monument and a Listed Building. The area of search has recreational value in the form of several public rights of way which cross it, including the Centenary Way. • The search area is very open and has some long views from its elevated western edge. There are some more enclosed areas in the north-western corner of the area of search, where the woodland is concentrated. • The woodland in the north of the search area forms part of a green corridor, as do the hedge field boundaries. The area of search has a rural identity, although influenced by the existing edge of Duffield. In addition, the proximity of the Derwent Valley Mills World Heritage Site to the south-east of the area of search is an opportunity for the area of search to tie into the local heritage. • The elevated nature of the western edge of the area of search presents the risk of sprawl of the settlement of Duffield and increased views of the settlement from elsewhere within the landscape. Some of the search area boundaries are defined - for example by the woodland in the north-west - but some of the other boundaries are less well defined. • A landscape buffer in the west of the area of search would be recommended, in order to restrict the potential perception of sprawl should the settlement of Duffield be expanded up the hill. The area of search needs to respect and reflect the presence of the nearby World Heritage Site. <p>Landscape sensitivity: Medium sensitivity Visual sensitivity: High sensitivity Suitability: Medium</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • The grade II listed Farnah House is located within the area of search and the Derwent Valley Mills World Heritage Site is immediately to the east. • The Duffield Conservation Area which is wholly located within the WHS Buffer Zone is approximately 300m east of the area of search but largely screened from it by the western expansion of the settlement. • The Quarndon Conservation Area is partly located within the southern part of the area of search. • The scheduled Windley Moated Manorial Complex is located just outside the north-western area of search boundary and there are two grade II listed buildings just outside the area of search, Champion Farmhouse to the west and Milepost at OS 336 432 to the east. • The site south west of Duffield touches but does not include the Buffer Zone for the World Heritage Site, but such a vast development site would need careful consideration in terms of impact on the wide valley setting of the relict landscape in this part of the Derwent Valley Mills World Heritage Site.

<p>Potential Transport Infrastructure Requirements</p>	<p>Suitability: Low</p> <ul style="list-style-type: none"> • The B5203 would provide the main vehicular access and Cumberhills Road runs through the area of search southwest to northeast and would also provide vehicular access across the area of search to Duffield. • Improvements required to the cycling network outside of Duffield • Improvements needed to access the existing strategic road network
<p>Potential Area for Strategic Growth: Development would need to be steered away from the west of the area of search, due to the elevated nature of the western edge and risk of sprawl. However, there is an option for development in the north east area of search where there are limited constraints. This would create the opportunity for an urban extension to the south of Duffield. Connections back into the centre of Duffield and the railway station would be required (alongside improvements to encourage active modes of movement).</p>	

C1	Land to the west of Derby urban area	Urban extension(s) / garden village / Co-dependent settlement / Autonomous settlement
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Broad Areas of Search: C1

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The search area is within Flood Zone 1, although there are small watercourses present and small sections of areas within Flood Zone 2 and 3; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies; • The search area is predominantly Grade 3 good to moderate quality agricultural land, although some of the area, mainly in the northern part, comprises Grade 2 high quality agricultural land; • The primary substation to supply the network local to potential development is at Mackworth, with upgrade works proposed to the substation. The Bulk Supply Point at Derby 33 has a headroom (capacity) of 52MVA. • The A38 acts as a defensible boundary to the south east of the area of search; • The search area is on the edges of Derby urban area and therefore benefits from the A38 as a strategic route into Derby city centre. In addition, cycle facilities are in place along sections of the A38. Additionally, the A516 runs through the area of search and joins the A38 at the edge of the area of search; • The A52 runs directly westwards to Ashbourne; Within Mickleover (area adjacent to the area of search), there is a primary school and medical centre; • Toyota car factory is adjacent to the south edge of the area of search and it is Toyota's largest UK site. The facility is highly productive and innovative driving growth in the priority transport equipment manufacturing sector. Furthermore, Dove Valley Park is located in close proximity to the search

	<p>area and includes manufacturing companies such as JCB and Futaba Manufacturing;</p> <ul style="list-style-type: none"> • The search area benefits from its proximity to the University of Derby, an anchor institution for the D2N2 LEP area. The D2N2 LEP has invested heavily in projects to promote innovation, including the University of Derby's iHub centre. The University provides training in the crucial advanced manufacturing and digital technologies, as well as its development of the Rail Employment and Skills Academy to support the transport sector. This institution generates a skilled workforce and positive spillover effects for future developments; • The area is largely open countryside with smaller settlements;. • There are numerous Grade I and Grade II listed buildings within the area of search. In particular, Radbourne Hall which is a Grade I listed country house. Additional housing closer to the Hall than the current allocations at Hackwood and Newhouse could be constrained.; • Significant residential development 'Land at New House Farm' has already been approved within the search area boundary, with construction commenced on all sites.; • Opportunity to respond to active developer interest in the area of search if infrastructure was to be enhanced; • There is risk of coalescence with Burnaston.
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • Located west of the Derby suburb of Mickleover, which has existing amenity provision including a medical centre, supermarket, convenience stores and primary schools, albeit given the scale of the area of search, additional provision would be needed; • Opportunities for primary vehicular access to be gained from A516 to the south and Radbourne Lane to the north; • National Cycle Network (NCN) Route 54 runs in an east-west alignment through the centre of the area of search providing a desirable, predominately off-road connection to Central Derby by active modes and onward southbound connections via NCN route 66; • The large scale of the area of search could result in development which could make significant contributions to local highway network improvements, bus services and further provision for pedestrians and cyclists; • Derby railway station located approximately 6km east of the area of search, a viable cycling journey for competent cyclists or a bus journey via existing services operating in Mickleover; • Existing bus services operate in Mickleover providing relatively frequent services into central Derby, although given the scale of the area of search, additional provision and extensions would likely be required; • Park & Ride is available at Markeaton Park to the north-east of the area; • A38 capacity upgrade is programmed. This involves improvements to the tree existing roundabout junctions at A38/A5111 Kingsway, A38/A52 Markeaton and A38/A61 Little Eaton; • The possibility of creating links between areas of growth of the west of Derby to provide route choices and reduce the impacts on the local road network of not providing this interconnectedness; • Transforming Cities Fund – long term idea of a new bus system along the main arterial routes through the city and A52 extension has the potential to integrate into this although currently at a very early stage; • Scope for integrated cycling route from southwest to Mickleover along the former Mickleover / Mackworth railway line; <ul style="list-style-type: none"> – Strategic growth at West of Mickleover may be capable of providing road connections between the A38, A516 and A52, which will also help public transport services penetrate any new developments. In addition

	<p>to the potential cycle route, this area also has potential for a park and ride site and may benefit from the creation of links between areas of growth to the west of Derby to provide route choices and reduce the impacts on the local road network of not providing this interconnectedness.</p> <p>Cons</p> <ul style="list-style-type: none"> • Severance constraints caused by A38 to the south and A516 to the east. Both roads are dual carriageway, albeit, the Land at New House Farm development is providing additional points of access and connections to adjacent areas; • Nearest secondary school located circa 2.5km from an indicative centre point of the area of search – dependent on the form of development at this large area of search additional provision or bus connections may be necessary; • Search area located circa 25km (25-30 minute) car journey from the HS2 East Midlands Hub (Toton) with limited opportunities for access to the station by sustainable modes unless additional bus provision is forthcoming; • Off-site highways mitigation likely required at junctions along the A38 corridor / routes into Central Derby contingent on scale of development and mitigation measures proposed. • Requires a lot of improved/new infrastructure if development was to occur in this area of search. <p>Suitability: Medium</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • Throughout the search area, there are gentle undulations and a couple of ridgelines, such as at The Grange (south-west of Mickleover) and to the west of Mackworth. • The area of search reflects its position at the edge of the city of Derby, with the city's influence felt particularly on the east side adjacent to the settlement edge and adjacent to the A38. It comprises mostly mixed farmland, although there are also some new residential developments in the east of the area of search, as well as the village of Burnaston. In the north-west of the search area, parkland associated with Radbourne Hall is present. There are a handful of public rights of way, including the Bonnie Prince Charlie Walk and National Cycle Route 54, but the recreational value is limited for such a large area. The search area sits adjacent to some conservation interests such as scheduled monuments and listed buildings in the far north, and a conservation area and associated listed buildings in Mickleover to the east of the area of search. The search area itself adjoins a handful of listed buildings. The search area also immediately adjoins two of the City of Derby's designated Green Wedges. • There are some limited open views to and from the area of search, these tend to be situated in the north of the area, but other views are contained by vegetation and built form. Within the search area, there are several open views - particularly towards the south-west, near Burnaston. • The area is relatively commonplace, although the parkland near Radbourne Hall is distinctive. There are some limited green infrastructure opportunities, such as along the disused railway line that now forms National Cycle Route 54, as well as links to the Green Wedges into the city itself. There are few woodland blocks in the area of search. The main vegetation structure is formed by hedge field boundaries. • There are defensible boundaries on the northern and south-eastern boundaries of the search area, formed by the A52 and A38 roads respectively. However, other boundaries of the area of search are less well defined. In addition, the sheer scale of the search area gives the risk of increased sprawl of the city of Derby, with the extra risk of coalescence with smaller settlements such as Burnaston.

	<ul style="list-style-type: none"> • Landscape buffers are recommended in several different locations for different reasons. A suitable area of land within the north of the search area is recommended as a landscape buffer in order to contain development so that it does not sprawl over the ridgeline, as well as protecting the Green Wedge. A buffer is also recommended around the parkland of Radbourne Hall to retain the setting of the hall and its parkland. A third buffer is also proposed around Burnaston in order to prevent the city coalescing with this village, and to retain the existing Green Wedge. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Medium sensitivity Suitability: Medium</p>
Heritage	<ul style="list-style-type: none"> • There are eight grade II listed buildings within the area; • The area abuts the Mackworth Conservation Area to the north and comes within approximately 75m of the Mickleover Conservation Area to the east and approximately 600m of the Etwall Conservation Area to the west; • There are a number of listed buildings around the perimeter of the area of search including the grade I listed Radbourne Hall (approx. 320m north) and the Church of St Andrew (approx. 260m south-west). <p>Low suitability</p>
Potential Transport Infrastructure Requirements	<ul style="list-style-type: none"> • Primary vehicle access to be gained from the A516, the A38 Mickleover roundabout and Radbourne Lane. • Improvements in bus services into central Mickleover and Derby City Centre. Currently at a very early stage but there is long term vision for a new bus system along the main arterial routes through the city and A52 extension has the potential to integrate into this. • A38 capacity upgrade programmed. This involves improvements to the existing roundabout junctions at A38/A5111 Kingsway, A38/A52 Markeaton and A38/A61 Little Eaton.

Suitable Area for Strategic Growth: There are sections of the broad area of search which are not suitable for development, including the area in the south of the area which acts as a buffer between Etwall, Burnaston and the edges of Derby. There are also a number of heritage assets in the north west and west (in the vicinity of Radbourne Hall) which limit the scope for urban extensions here.

Development in this area could come forward as a series of different typology options. However, a series of extant housing allocations are already present throughout the broad area of search which limit the scope for further urban extensions where the sequentially preferable sites are already being delivered. Establishing connections between the main built up area of Derby and urban extensions to the West of Derby are challenging based on the historical road and street layout.

An alternative option to consider for this area is the potential for a detached new settlement typologies (garden village, co-dependent or autonomous) in the west and south of the area of search. Overall, there appears to be higher potential for growth in the southern portion of the area of search (south west of the main built up area of Derby). Development further afield in this location may be severed from the rest of Derby by the A38 and A516. This will create a separate settlement to the rest of the City.

All options for this area of search would represent significant levels of growth and would need large-scale upfront infrastructure investments, especially in public transport to avoid delivering development reliant on the private car, and a coordinated approach to placemaking given this area's functional relationship with all the Derby HMA authorities. Growth will need to be managed and phased carefully to deliver commensurate levels of supporting infrastructure. It would not be possible for all typology options to come forward concurrently in this location in light of the extant urban extensions and identified infrastructure capacity issues. The most sustainable solution may be to focus any new growth in a new detached settlement that encourage high levels of self-containment and dedicated mass rapid transit into the centre of Derby.

C2	North of Tutbury and Hatton	Co-dependent settlement
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Broad Areas of Search: C2

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The majority of the search area is within Flood Zone 1, although there are small watercourses present. A section of the southern part of the search area and the northern part of the search area are within Flood Zone 3; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies. • This land is within the river Dove safeguard zone catchment just upstream of a Severn Trent abstraction area for water supply at Eggington, where development could pose a risk to water quality through increased urban runoff; • The primary substation to supply the network local to potential development is at Hatton. A new primary substation is proposed in the area. The Bulk Supply Point at Burton 33 has a greater headroom (capacity) of 56MVA. • The search area is mainly Grade 3 good to moderate agricultural land, with clusters of Grade 4 poor agricultural land; • The north-west of the area of search contains an area of ancient woodland; • The A50 Derby Southern Bypass provides a direct west-east route across the south of Derby towards the M1 motorway. To east of the search area along the A50 is Derby and to the west is Uttoxeter; • Hatton is the nearest village to the area of search and the village contains; a primary school (Heath Fields Primary School) and other services (e.g. supermarket, shops). The nearest GP is in Hilton (Wellbrook Medical Centre); • Toyota car factory is in close proximity to the search area and it is Toyota's largest UK site. The facility is highly productive and an innovative driving growth in the priority transport equipment manufacturing sector. Furthermore, Dove Valley Park is located within the search area and

	<p>includes manufacturing companies such as JCB and Futaba Manufacturing;</p> <ul style="list-style-type: none"> • Employment near the search area is likely to grow substantially in the future and therefore there is a positive case for growth generally going forwards; • There is risk of coalescence with Hatton.
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • The search area is relatively flat, with the main undulations related to the crossings on the A50 road. The area of search is associated with the wide and flat Dove Valley floodplain. • The south of the area of search is of small scale and comprises mixed farmland, with scattered properties situated along straight roads; the north of the area of search has a larger scale and comprises a mixture of industrial buildings and mixed farmland. There are very few conservation interests, although there is a network of public rights of way through the area of search. The landscape is particularly degraded in the north of the area of search, especially adjacent to the A50, although the south of the search area is more intact. • The north-south divide in the area of search is apparent in the visual character of the area of search too, with the south feeling very enclosed due to the presence of mature vegetation, and the north feeling more open, with wide views across the area of search. • The area of search feels relatively nondescript - whilst the residential pattern in the south of the area of search is relatively unique and closely tied to the agricultural heritage of the area and its green infrastructure, the north is more commonplace. The north does contain some large woodland blocks, but they are not particularly well-linked into the green infrastructure framework. • There are few defensible boundaries within the area of search, aside from the A511 in the south-east of the area. The south of the area of search represents a slight risk of coalescence with the village of Hatton, but there are few other landscape planning issues within the area of search. • Overall, the north of the area of search is more suitable for development in landscape terms than the south, owing to the distinctive character of the south of the area of search (particularly its settlement pattern). There are opportunities to improve the character and condition of the northern part of the area of search. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Medium sensitivity Suitability: High</p>
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • There are opportunities for primary vehicle access to be gained from A511 / A50, however, depending on the scale of development it would need to assess and mitigate for any adverse impacts (e.g. congestion, delay) on the A50 corridor; • Search area has high access to trunk road network via A511 and A50 and is within a reasonable commuting distance by car of destinations including Stafford, Burton-on-Trent, Derby, Stoke-on-Trent although development at the area of search should also provide desirable public transport connections; • The area of search is situated approximately 1.1km north west of the village of Hatton, a viable walking distance, and 2.5km north west of the village of Tutbury, a viable cycling distance; • Therefore, development could benefit from the existing amenities at these locations, however, connections by sustainable modes across the A50 and A511 would need to be improved;

	<ul style="list-style-type: none"> • Existing amenities at Hatton include a convenience store and primary school, whereas, the nearest secondary school is John Port Academy in Etwall, some 5.4km east of the area of search; • Tutbury & Hatton railway station is situated between the two local villages an approximate 2km distance from the area of search, a maximum viable walking distance and acceptable cycling distance; • The railway station is currently served by East Midlands Railway on the Derby – Crewe line and provides connections to key destinations including Derby, Uttoxeter and Stoke-on-Trent; • There are a number of existing bus services that route through Tutbury and Hatton providing connections to destinations including Uttoxeter and Derby albeit for development at the area of search these would likely be accessed from the A50 or A511. This would provide the additional benefit of providing a public transport connection to the local villages. In addition, the bus route from Burton to Uttoxeter is well established; • Significant employment sites are located at the Dove Valley Park and land off Marston Lane, Hatton presenting an opportunity for residential development with sustainable connections to workplaces; • National Cycle Network Route 549 operates in an east to west alignment through Hatton providing a predominately traffic-free connection to Hilton. Albeit, this would only be viable for competent cyclists and leisure trips; • Located circa 32km west of HS2 East Midlands Hub (Toton), an approximate 30-35 minute car journey, however, there is potential for future access to the hub by rail or bus. <p>Cons</p> <ul style="list-style-type: none"> • Relatively limited existing amenities accessible by sustainable modes from the proposed area of search. This reflects the rural nature of the area. Could be surmounted with additional provision of cycling / public transport investment depending on scale of development; • Severance constraint to the south of the area of search caused by A50, A511, railway line and River Dove. Cumulatively these constrain north-south connections to the villages of Hatton and Tutbury by sustainable modes. Without significant infrastructure, development north of A50 may relate better to the small settlement of Church Broughton which does not have substantial amenities or public transport; • A511 through Hatton village likely to be sensitive to any increase in traffic as a result of development. A significant increase in traffic could have an adverse effect on the village, particularly in the vicinity of the railway line level crossing; • Development would need to assess and mitigate for any severe impacts (e.g. congestion, delay) on the A50 corridor. <p>Suitability: Medium</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • The central part of the area of search is taken up with the Dove Valley Park (industrial) while the western, eastern and southern parts are mainly agricultural. • There is one grade II listed building, Rose Cottage and Attached Barn within the area and a further grade II listed building, 39 Uttoxeter Road just to the south. • There may be non-designated assets remaining at Home Farm, Lawn House, Cottage Farm and Haylane Farm and at other farmsteads in the area. • There are further listed buildings at Foston Hall, Broomhill Farm and Church Broughton (which includes the grade I listed Church of St Michael and All Angels). <p>Suitability: Medium</p>

<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> • Primary vehicle access to be gained from A511/A50. • Public transport improvements needed to access local amenities. • Connections by sustainable modes across the A50 and A511 need to be improved.
<p>Potential Area for Strategic Growth: The area south of the A50 is constrained due to its size and scattered properties within multiple ownerships. However, the area north of the A50 is potentially suitable for a co-dependent settlement as it is of a larger scale and comprises a mixture of existing industrial buildings, extant employment allocations and mixed farmland. Connections back into the rail station would be critical, as would the placemaking response given the presence of large commercial areas and extant employment allocations in the broad area of search.</p>	

D1	Hilton northern expansion	Urban extension / village expansion
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Broad Areas of Search: D1

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The search area is within Flood Zone 1, although there are small watercourses present; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies; • The western part of this land is within the river Dove catchment just upstream of Severn Trent abstraction site for water supply at Eggington, this could pose a risk to water quality with increased urban runoff; • The primary substation to supply the network local to potential development is at Hatton. A new primary substation is proposed in the area. The Bulk Supply Point at Burton 33 has a greater headroom (capacity) of 56MVA. • The search area is Grade 3 good to moderate quality agricultural land; • The A50 acts as a defensible boundary to the north of the search area; • The A50 Derby Southern Bypass (north of the area of search) provides a direct west-east route across the south of Derby towards the M1 to the east and Uttoxeter to the west; • Cycle route 549 runs along the edge of Hilton; • The search area borders Hilton. Facilities in Hilton include: two primary schools, post office, medical centre and shopping; • Nestle's largescale facilities at Hatton drive growth in the priority food manufacturing sector in the area, meaning future activity in the sector would benefit from potential spillover or supply chain effects from a significant multinational company. Hilton Business Park includes large industrial occupiers such as Advance International, which manufactures LED lighting systems. Toyota's largest UK site is on the border of the assessment area; • The search areas proximity to the main clustering of business activity in Derby, to the south-east of the city centre creates further potential for

	<p>future activity. The south-east of the city centre contains major assets for the whole LEP area such as Infinity Park Enterprise Zone, Rolls-Royce headquarters, Bombardier, Pride Park and Gardener Aerospace.</p>
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • Hilton is a relatively large village benefitting from several key amenities including a convenience store, supermarket and primary schools. The closest secondary schools are located in Etwall (circa 2.5km north east) and Burton-upon-Trent (circa 4.5km south); • NCN Route 549 operates in an east to west alignment through Hilton providing a predominately traffic-free connection to Uttoxeter and Hatton. However, this would only be viable for competent cyclists and leisure trips; • The eastern boundary of the search area is adjacent to NCN 54, the Great Northern Cycle Path to Mickleover in Derby. Furthermore, the closest secondary school is located in Etwall which can be access from the search area via the cycle way. • Access to secondary school in Etwall by cycle from Hilton can be achieved via dedicated cycle route NCN 54 or by shared path alongside part of the A516. • The closest railway station is located at Tutbury & Hatton circa 4km south west of the area of search, a viable cycling journey for competent cyclists via NCN route 549, although an undesirable diversion for individuals travelling north east to Derby; • Existing bus stops and services along the A5132 providing regular connections to key destinations including Derby. Most of the area of search within 400m walking distance of stops, however, the eastern area of the search area may fall outside of an optimum walking distance to existing services; • The village of Hilton is a predominately residential area with a network of footpaths and footways that any forthcoming development could likely connect to – making journeys within the village viable on foot for the able-bodied. <p>Cons</p> <ul style="list-style-type: none"> • Access could be potentially gained to the area of search via A5132 or via modification to the existing A50 junction 5. Further assessment will be required to evaluate vehicular access options; • Despite the Derby – Crewe railway line running in an east-west alignment to the south of the settlement: there is no station at the village for access to passenger services. Therefore, public transport provision is constrained without significant additional infrastructure; • Access to secondary schools is viable by public transport, cycle or on foot (approx. 1.8km), although pedestrian safety, particularly around the A50 junction 5, is a matter of local concern; • A50 causes a severance constraint to the north and the Derby – Crewe railway line severs the south. North-south movements therefore restricted with limited scope for sustainable links outside of the Hilton area; • Some employment opportunities within the village and therefore opportunities for connections via sustainable modes. However, it is likely that the vast majority of journeys to work will be outside of the village with limited scope for access by sustainable modes (without significant improvements e.g. railway station). A recently withdrawn bus link between Burton and Derby via Egginton and Hilton could potentially be reinstated if additional land is allocated for housing in the area; • Any expansion of Hilton will need to assess the capacity of the local highway network, particularly A50 junction 5, and mitigate against a severe impact;

	<ul style="list-style-type: none"> • Located circa 28km west of HS2 East Midlands Hub (Toton), an approximate 30-minute car journey. Limited scope for access to forthcoming hub by sustainable modes without significant additional public transport provision. <p>Suitability: Medium</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • This is a relatively flat area associated with the wide and flat Dove Valley floodplain. There are some localised undulations present, which are associated with the A50 dual carriageway. • The area of search comprises mostly arable farmland (although some pasture is also present) on the northern edge of the village of Hilton. It is influenced by the adjacent A50 dual carriageway, which affects the perceived tranquillity. There are very few conservation interests or public rights of way within the area of search, although there is a Site of Special Scientific Interest (SSSI) on its northern boundary, and National Cycle Route 549 runs along its eastern boundary. • Views in and around the area of search tend to be contained by either intervening vegetation, built form or highway infrastructure. • There is a strong network of mature vegetation which can be further linked to create a green infrastructure framework; this includes strategic green corridors along the A50 and National Cycle Route 549 on the search area's northern and eastern boundaries respectively. The area of search and its surroundings do not have a particularly notable or unique identity or sense of place. • The area of search is contained by several strong defensible boundaries; these include the A50 and National Cycle Route 549. There are no particular coalescence or sprawl issues associated with development of the area of search. • There are several elements to the area of search that makes it suitable for development from a landscape point of view. This includes the contained views, the strong defensible boundaries and the green infrastructure network. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Low sensitivity Suitability: High</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • The area of search is primarily agricultural, but a significant proportion is currently covered by the Hilton Industrial Estate. • There are no designated assets within the area of search but there are non-designated buildings of local interest at Grange Farm on Dale End Lane. • There is a single grade II listed building, Hargate House Farmhouse just outside the perimeter of the search area. Further listed buildings in the village of Hilton and to the north of the A50 would be screened from the development. <p>Suitability: High</p>
<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> • Vehicular access to the area of search is constrained. Access could potentially be gained to the area of search via A5132 or via modification to the existing A50 junction. • Public transport improvements to the eastern section of the area of search needed. Access to additional public transport and new/upgraded cycle facilities required.
<p>Suitable Area for Strategic Growth: There is an opportunity for an urban extension to Hilton as the area of search includes contained views, strong defensive boundaries and a green infrastructure network. Therefore, the area of search is visually contained and suitable subject to more detailed site investigations. Hilton includes other large extant housing and employment allocations that will require careful management alongside the potential for growth in the North.</p>	

D2	North of Willington	Village expansion
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Broad Areas of Search: D2

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The search area is mainly within Flood Zone 1, although there are small watercourses present which are in Flood Zone 2; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies; • The primary substation at Trent Alloys has a low primary headroom (capacity) of 1MVA, with greater bulk supply point headroom (capacity) of 56MVA at Burton 33; • The search area is mainly Grade 3 good to moderate quality agricultural land although a section of the area of search is Grade 2 very good agricultural land; • The A38 acts as a defensible boundary to the west of the search area; • The search area is adjacent to the A50 and A38 which connect at Toyota Island (adjacently north to the area of search). The A38 and A50 are dual carriageways. The A1532 runs through the area of search and would provide the main vehicular access. However, it is a single carriageway road and not designed to carry large volume of traffic; • Localised congestion occurs on approach to Toyota Island and at the A5132 double roundabout junction in the centre of Willington during weekday peak hours; • Heavy rail connection within the area is provided at Willington; • Cycle provision is in close proximity to the area of search (NCN Routes 549 and 54). A designated cycle lane is also in place along the A38. The Trent and Mersey canal towpath is also available for use by cyclists and is identified for upgrading as part of the County Council's Key Cycle Network; • Some facilities including a primary school, shopping and doctor's surgery are available in Willington;

	<ul style="list-style-type: none"> • Nestle’s largescale facilities at Hatton drive growth in the priority food manufacturing sector in the area, meaning future activity in the sector would benefit from potential spillover or supply chain effects from a significant multinational company. Hilton Business Park includes manufacturing companies such as Advance International (LED Lighting). Toyota’s largest UK site is on the border of the assessment area; • The search areas proximity to the main clustering of business activity in Derby, to the south-east of the city centre creates further potential for future activity. The south-east of the city centre contains major assets for the whole LEP area such as Infinity Park Enterprise Zone, Rolls-Royce headquarters, Bombardier, Pride Park and Gardener Aerospace; • Heritage and landscape are key considerations in this search area, i.e. Trent and Mersey Canal Conservation Area; • The Willington Power Station has previously been promoted for residential development. An appeal decision pertaining to the former Willington power station site for a mixed use development for up to 1,000 dwellings and 10,000m² employment floorspace (and associated uses) found that the proposal was not the best or most appropriate re-use of the site, which should properly be addressed through the LDF process. • An application for redevelopment of the Power Station as a gas-powered station was referred to the Secretary of State and in 2017 and more recently a variation to a condition was granted by SDDC.
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • Opportunities for primary vehicular access from B5008, A38 and / or modification to the existing A50 junction 4; • Development at the area of search would benefit from immediate access to the trunk road network providing connections via major roads in all directions by car; • Willington Railway Station is located in the north of the village, a desirable circa 700m walking distance from an indicative centre point of the area of search. The railway station is currently served by CrossCountry providing connections to key destinations including Burton-on-Trent, Birmingham, Derby and Nottingham, albeit with limited service frequency; • Buses route along B5008 which runs through the centre of the area of search and additional bus stop provision is likely to be viable within any forthcoming development. Existing services provide regular connections to key destinations including Burton-upon Trent and Derby (and also passes the marina along Findern Road); • The Trent and Mersey canal runs in a north east – south west alignment to the south of the area of search. Despite causing some severance issues for north - south movement from the area of search to Willington, it also presents an opportunity to promote travel by cycle, particularly to Burton-upon-Trent and the southern edge of Derby, from the area of search via the canal towpath; • Located circa 22km west of the forthcoming HS2 East Midlands Hub (Toton), an approximate 25 - 30-minute car journey, however, potential for future access to hub by rail or bus; • Overall good connectivity to Derby city. <p>Cons</p> <ul style="list-style-type: none"> • Impact of additional travel demand due to development, particularly on capacity at A50 junction 4, the A5132/B5008 junction in Willington and A38 / A5132 junction, would need to be assessed prior to any forthcoming significant development at the area of search; • Capacity of Willington double-mini roundabout adjacent to the railway line likely highly constrained at peak hours with limited scope for further capacity improvements – will likely be highly sensitive to additional traffic as a result of development;

	<ul style="list-style-type: none"> • Additional traffic routing through Willington village would likely have a detrimental impact on pedestrian amenity, particularly in the constrained area surrounding the railway station and canal overbridge; • Providing viable connections on foot and by cycle to Willington rail station (that overcome the severance constraint of the railway line and canal) would be key to any forthcoming significant development north of Willington; • Development of the search area north of A50 is unappealing in transport terms as this is severed by A50 junction 5 and has low levels of accessibility to existing amenities and public transport infrastructure; • Development within the boundary south of the A50 is more appealing in transport terms, however, it should be noted again that there are still severance constraints caused by the Derby – Crewe railway and the Trent and Mersey canal which would require mitigation. <p>Suitability: Medium</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • The search area sits within the River Trent floodplain and, as such, is relatively flat. There are slight undulations in the north of the area of search, mostly associated with the A50 and A38 road corridors. • Land use within the search area is varied, comprising a mixture of a disused power station, mixed farmland, residential properties and a marina. The marina is connected to the Trent and Mersey Canal and the two elements add to recreational value in the area, although this is supplemented by only a handful of public rights of way. The condition and scenic quality of the area is adversely affected by the presence of the derelict power station site and associated pylons, as well as the main A50 and A38 roads, which add noise and movement, and the Derby-Birmingham railway line. It is the intention of the power station site to remove the cooling towers when the site is redeveloped, either as a gas fired power station or for an alternative purpose. There are very few conservation interests, but there are some small regular fields present in the north-eastern corner of the area of search which are likely of historic origin. • Views into and across the area of search are often restricted by mature vegetation, built form and / or highway infrastructure. However, there are also some localised open views in and around the area of search. There are no longer views, owing to the flat topography. • There are opportunities within the area of search to tie into the existing green and blue network, such as the Trent and Mersey Canal. The canal also offers opportunities to tie new development into the canal heritage. • The boundaries on the north and west of the area of search are strongly defined by a combination of the A38 and A50 road corridors, as well as field boundaries. The southern and eastern boundaries of the search area are more loosely defined, they occasionally relate to field boundaries. There is the potential for the perceived coalescence of Willington and Findern, albeit separated by the A50. • A landscape buffer is recommended to the north of the A50 in order to reduce this perceived coalescence. This buffer extends into the north-eastern corner of the area of search to prevent the loss of the relatively small field pattern due to its likely historic origins. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Low sensitivity Suitability: High</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • There are two grade II listed buildings within the search area, Willington Hill Farmhouse and Canal Bridge at OS 279 279. There are two grade II listed buildings close to the search area boundary, Tower House in Findern and The Green Man at Willington, both of which have the potential for impact from development on the area of search. The listed

	<p>building at Hill Farm has been cited by the Inspectorate to refuse development (impact on heritage assets and landscape).</p> <ul style="list-style-type: none"> • The Trent and Mersey Canal is a Conservation Area and both villages contain listed buildings. <p>Suitability: Medium</p>
<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> • Opportunities for primary vehicular access from B5008, A38 and / or modification to the existing A50 junction 4. <p>Capacity of double roundabout in Willington is likely to be a major consideration with the power station. Smaller scale development might be possible (not strategic growth).</p> <ul style="list-style-type: none"> • Trent and Mersey canal, representing part of the proposed Key Cycle Network for Derbyshire provides an opportunity to promote travel by cycle, particularly to Burton-upon-Trent, from the area of search via the canal towpath.
<p>Potential Area for Strategic Growth: There are two areas which offer opportunities for village expansion (to the east, including the former power station, and land to the west and north of the settlement (adjacent to the Marina and A38). The presence of a rail station, marina and canal would act as a strong placemaking driver for an expanded settlement in this location.</p> <p>The far north and north east of the area of search should not be developed due to landscape constraints. The infrastructure, landscape and heritage constraints found in this area of search limit the developable land, but there remains potential for strategic growth. Further detailed investigations should be undertaken to understand the full development potential.</p>	

D3	Derby A50 Corridor South Extension	Urban extension(s)
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Broad Areas of Search: D3

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The majority of the area is within Flood Zone 1, although there are some small watercourses present. Sinfin Moor is adjacent to the area of search and is within Flood Zones 2 and 3; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies, however particular care should be taken for developments on the Principal Aquifer; • The primary substation at Infinity Park has a low primary headroom (capacity) of 8MVA to provide supply to the network local to the development, with greater bulk supply point headroom (capacity) of 56MVA at Derby South; • The majority of the search area is Grade 3 good to moderate quality agricultural land. Small sections of the search area are grade 2 very good agricultural land and grade 4 poor agricultural land; • The A6 acts as a defensible boundary to the east of the area of search, as well as Chellaston to the north east of the search area. The railway line acts as a defensible boundary to the south of the search area; • The A50 Derby Southern Bypass runs through the search area. The A50 provides a direct east-west route across the south of Derby towards the M1 motorway. The A50 also provides access to the M6 to the west of the area of search; • Cycle route 6 Derby Canal Path and the Cloud Trail runs through the area of search and cycle route 66 runs in close proximity to the search area; • The search area is adjacent to the periphery of Derby. Therefore, Derby city centre and essential services are easily accessible. There is need for additional secondary school provision to meet the needs of currently planned development and any additional development that may be proposed in this location; • The search areas proximity to the main clustering of business activity in Derby, to the south-east of the city centre creates further potential for future

	<p>activity. The south-east of the city centre contains major assets for the whole LEP area such as Infinity Park Enterprise Zone, Rolls-Royce headquarters, Bombardier, Pride Park and Gardener Aerospace;</p> <ul style="list-style-type: none"> • The search area contains several development proposals at the fringes of Derby City which include a sustainable urban extension at Boulton Moor, the Infinity Garden Village, housing allocations at Chellaston. Three Green wedges also connect the city to open countryside within the search area.
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • This search area is situated along the A50 corridor to the south of the city of Derby and therefore any development would likely gain vehicular access from the A50 or local roads from the south Derby suburbs - namely Chellaston, Stenson Fields and Boulton; • Development at the search area would benefit from access to the trunk road network, namely the A50, which acts as a south Derby bypass and therefore provides onward connections including the strategic road network at M1 junction 24. The search area also benefits from completion of southern derby link road alongside A50 junction; • Development at the search area could benefit from some existing amenities located within the south Derby suburbs, which, reflecting the urban nature of the area, include supermarkets, primary and secondary schools and health facilities, although additional provision would be needed; • There is also a significant employment site associated with Rolls Royce directly to the north of the area of search. Notwithstanding current economic uncertainty, there is an opportunity to provide sustainable connections from development to the area of search, its facilities and the forthcoming "Infinity Park Way"; • Without significant mitigation, development at the search area is likely to have a similar transport mode share to existing south Derby area. However, the scale of the area of search could present an opportunity for substantial contributions to infrastructure for sustainable modes. This could benefit both future and existing occupiers / residents in the area; • NCN route 6 runs through the centre of the search area along the western boundary of the suburb of Chellaston. Route 6 provides a predominately traffic free route by active modes to the centre of Derby, resulting in a viable cycle journey of circa 5km. It connects to the Trent and Mersey Canal towpath, to the south, which also represents part of Derbyshire's proposed Key Cycle Network; • Forthcoming development at the search area could likely tie into the existing network of footways and footpaths in the adjacent suburbs and employment sites; • Located circa 15km west of the forthcoming HS2 East Midlands Hub (Toton), an approximate 20-minute car journey, however, there is significant scope for future access to hub by bus. <p>Cons</p> <ul style="list-style-type: none"> • Search area is located circa 5km south of the centre of Derby, a viable cycling distance but key to any forthcoming sustainable development at the area of search will be viable public transport connections; • The nearest railway station is located approximately 3km north of an indicative centre point of the search area at Peartree, therefore, connections by bus into Central Derby from any forthcoming development is likely to be most viable public transport option; • Notwithstanding current economic uncertainty, traffic movements associated with the nearby Rolls Royce employment search area are likely to have a significant impact on the local highway network and forthcoming development would need to consider the exceptional nature of the facility; • Impact of any forthcoming development on the A50 corridor would need to be assessed prior to any planning application, contingent on the scale of the

	<p>development off-site mitigation may be required on the local highway network;</p> <ul style="list-style-type: none"> • Development south of the A50 is significantly less desirable in transport terms than development within the area of search to the north of the A50. Without significant mitigation the A50 would cause a severance constraint limiting the scope for trips by active modes into the southern suburbs of Derby and central Derby. <p>Suitability: High</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • There are two scheduled monuments within the search area boundary, Swarkestone Lows round barrow cemetery and part of an aggregate field system 300m north west of The Lowes Farm and Settlement site; • There are also two listed buildings within the search area boundary, Lowes Farmhouse and attached farm buildings and Stenson House. There are ten grade II listed buildings along the southern boundary of the search area but as these are all associated with the Trent and Mersey Canal Conservation Area their settings will not necessarily be changed by development on the area of search. There are conservation areas at Barrow-upon-Trent, Twyford, Swarkstone and Aston on Trent, all close to the search area boundary. <p>Suitability: Low</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • The search area is relatively flat owing to its location as part of the River Trent floodplain. There are some undulations within the area of search, which are generally associated with the A50 road corridor. • Land use within the search area comprises mostly arable farmland, with occasional pastoral fields. The A50 dual carriageway cuts east-west across the search area and has an influence on it, particularly in terms of noise; the Derby-Birmingham railway line is also present in the western edge. The edge of the city of Derby influences the north of the search area, including three of the city's designated Green Wedges. There are several conservation interests to the south of the A50, including a scheduled monument and several listed buildings - the latter associated with the Trent and Mersey Canal which forms the southern search area boundary. The canal offers some recreational value, as do the few public rights of way within it. There are also several countryside lanes which are used for recreational purposes owing to their relatively low traffic flows. Despite the proximity of the A50 and the city edge, there are senses of remoteness present within the area of search. • The flat landscape offers some open views across it, although some of these views are curtailed by a combination of mature vegetation and highway infrastructure. • The presence of the canal on the southern search area boundary offers opportunities to link new development to the canal heritage. However, the rest of the search area feels relatively nondescript and commonplace. There are opportunities to extend the green infrastructure found in the Green Wedges designated by Derby City Council. • There is the risk of potentially increasing perceived sprawl of the city of Derby, particularly to the south of the A50 corridor. There is also the possibility of coalescence between settlements south of A50, such as Stenson, Swarkestone, Aston-on-Trent, Barrow-on-Trent and Weston-on-Trent. The search area has some defensible boundaries such as the A6 and the Trent and Mersey Canal, but not all boundaries follow clear lines. • It is recommended that development is limited to the north of the A50 corridor, in order to prevent a perception of sprawl and to avoid coalescence in settlements south of the A50. There are opportunities to extend the Green Wedges in Derby to the A50 corridor and this has been reflected in the landscape buffer. <p>Landscape sensitivity: Medium sensitivity</p>

	Visual sensitivity: Medium sensitivity Suitability: Medium
Potential Transport Infrastructure Requirements	<ul style="list-style-type: none"> • Vehicular access could be gained from the A50 through new junction or local roads from the south Derby suburbs – e.g. Chellaston, Stenson Fields and Boulton. • Viable public transport connections required.
<p>Suitable Area for Strategic Growth: Development south of the A50 Derby bypass is adjudged to be unsuitable due to the risk of increasing perceived sprawl of the city of Derby. There is also the possibility of coalescence between settlements south of the A50, such as Stenson, Swarkestone, Aston-on-Trent, Barrow-on-Trent and Weston-on-Trent.</p> <p>The areas adjoining Derby in the south west (in the vicinity of Stenson Fields) and south east (in the vicinity of Chellaston and Boulton Moor) within the area of search may be suitable for development pending further site investigations. There is sufficient land to provide further sustainable urban extensions in this area of search. Public transport connections would be critical to the success of these locations in order to provide sustainable modes of transport into Derby. There are opportunities with these options to maintain the Green Wedges in Derby that extend beyond the A50 corridor and this should be reflected in any landscape buffers. East Midlands Airport’s Freeport status may offer this location an economic boost.</p> <p>Growth at Lowes Farm and Thulston Fields could not come forwards without new A50 junctions/access points. Aside from areas in the vicinity of Highfields Farm, Thulston Fields and Lowes Farm, there are less opportunities for growth as many of the remaining areas are extant allocations or under construction. Therefore, based on the residual land available typologies are limited to urban extensions in this location. The existing levels of growth in this location will mean that further allocations here will need to be carefully coordinated in terms of primary infrastructure delivery in order to unlock new locations for growth and ensure they are supported with commensurate physical, green and social infrastructure.</p>	

E1	Land at Melbourne Road – Melbourne Eastern Extension	Urban extension / village expansion
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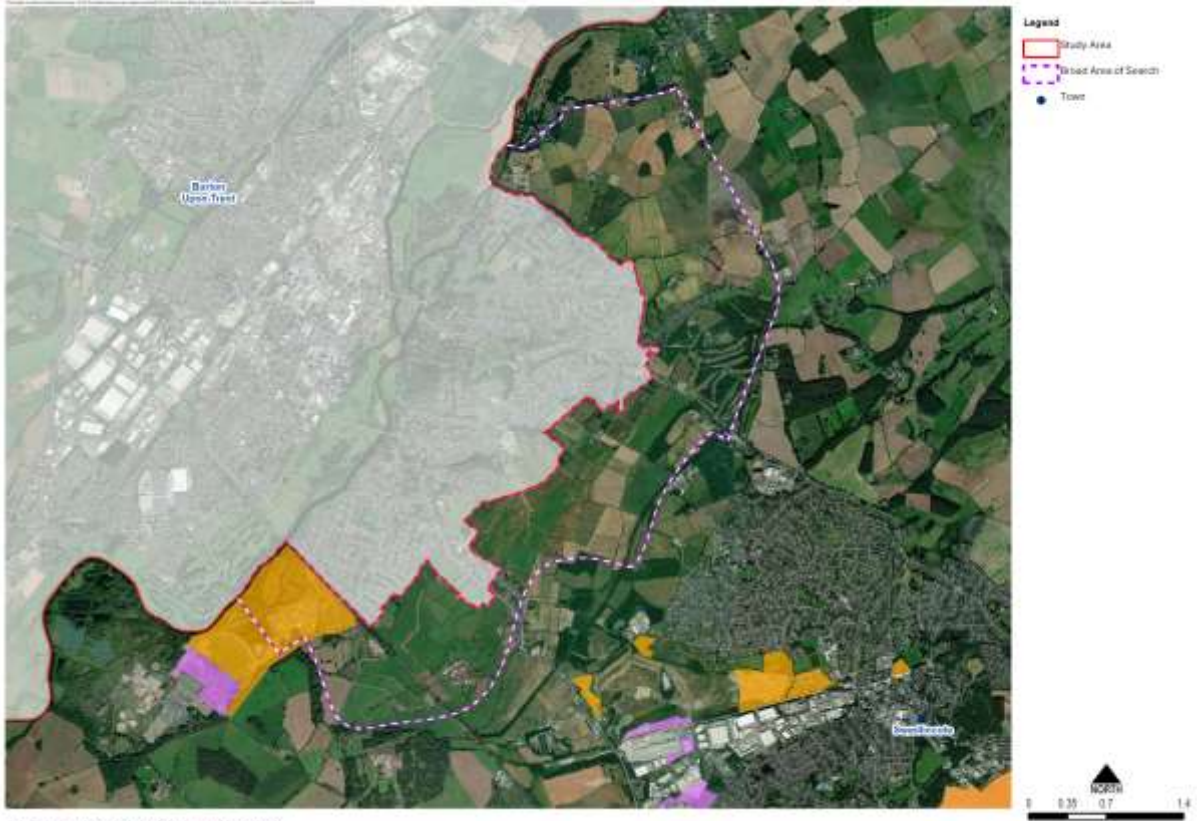
Broad Areas of Search: E1

Site Assessment	Summary
Planning and Environment	<ul style="list-style-type: none"> • The majority of the search area is within Flood Zone 1, although there are small water courses present. Along Carr Brook, which is in the search area, the area is within Flood Zones 2 and 3; • This area intercepts SPZ 3 of STW Stanton by Bridge Abstraction Site. Developments on this site have the potential to affect future Severn Trent groundwater supplies; • The primary substation at Melbourne has a low primary headroom (capacity) of 1MVA to provide supply to the network local to the area, with greater bulk supply point headroom (capacity) of 55MVA at Derby South; • The search area consists of Grade 2 very good quality agricultural land and Grade 3 good to moderate quality agricultural land; • The area intercepts with a Source Protection Zone (SPZ 3); • The A514 is located to the west of the search area which leads onto the A50; • Some facilities including a primary school, shopping and doctor’s surgery are available in Melbourne; • The area of search’s proximity to the East Midlands Airport can assist logistics or transport activities, with a substantial logistics park located at Caste Donington north east of the area of search. East Midlands Airport’s Freeport status may offer this location an economic boost. However, due to the search areas proximity to the airport, noise for development proposals will be an issue especially with nightly express freight operations and east-west flight paths with take-offs towards into westerly winds towards Melbourne and Kings Newton the majority of the time.
Landscape and Visual Constraints	<ul style="list-style-type: none"> • The area of search contains an elevated high point in its north eastern corner, with the rest of the area of search sloping down towards the south and the west. There are occasional undulations throughout. • The area of search is generally in good landscape condition, comprising a mixture of residential development, arable farmland and occasional

	<p>pastoral fields. There are some conservation interests within the main settlement, comprising listed buildings, a registered park and garden, and a scheduled monument. There are few public rights of way within the area of search and little recreational value overall. A sense of tranquillity is present in places, although this is locally interrupted by features such as pylons.</p> <ul style="list-style-type: none"> • There are some open views available in the east of the search area, looking to the south across open fields. Elsewhere in the search area, views are more enclosed, generally obstructed by mature vegetation and built form. • Limited green infrastructure is present in the search area, generally found along the disused railway line, as well as the woodland in the far north-eastern corner. Whilst the sense of identity is limited, there are opportunities to link the new development to the numerous historic buildings in the existing settlement by referencing some of the architectural detailing. • Less distinctive landscape is found to the east of National Cycle Route 6 (the disused railway), whilst the landscape closer to the edge of the villages is reflective of the market gardening heritage of the area. • There is a risk of coalescence with the village of Wilson in the far south-east of the search area. There is little risk of perceived sprawl. There is a need to protect the distinctive character of the two villages of Melbourne and Kings Newton by protecting the open gap that separates them. • The area of search contains some defensible boundaries, notably the roads to the west and north of the village of Melbourne, and woodland in the north-east of the area of search. Other boundaries are more blurred. • A landscape buffer is recommended in the east of the search area, in order to prevent coalescence between Melbourne and Wilson, as well as retaining open views. <p>Landscape sensitivity: Medium sensitivity Visual sensitivity: Medium sensitivity Suitability: Medium</p>
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • The village of Melbourne is accessed via a network of minor B-roads, therefore, primary vehicular access to any forthcoming development east of Melbourne is likely to be gained from one of those e.g. Melbourne Road (also known as Station Road); • Melbourne has several key amenities including a medical centre, convenience store and primary school which would likely be within a viable approximate 1 – 1.2km walking or cycling distance of any forthcoming development; • Melbourne is a predominately residential area with a network of footways and footpath provision that any forthcoming development could likely easily tie-in to; • National Cycle Route 6 (NCR6) “The Cloud Trail” is a pre-dominantly traffic-free cycle way route running in a north-south alignment through the centre of the area of search. This does provide a high quality connection to central Derby although this would be a circa 12km journey, although it also passes close to employment sites such as Infinity Park and Rolls Royce; • Melbourne is situated 8.5km west of East Midlands Airport and M1 Junction 23a and therefore does benefit from proximity to significant transport infrastructure via local roads; • Melbourne is served by regular existing bus services to key destinations including East Midlands Airport, Derby (circa 40 minute journey time) Swadlincote and Ashby de la Zouch; • Located circa 18km south west of the forthcoming HS2 East Midlands Hub (Toton), an approximate 25 - 30-minute car journey, however, there is

	<p>significant scope for future access to the hub by bus, particularly via East Midlands Airport services.</p> <p>Cons</p> <ul style="list-style-type: none"> • Lack of railway services accessible by sustainable modes. Nearest stations include Willington (circa 11km) and East Midlands Parkway (circa 13km). Whilst this will be viable for some journeys, and, there is scope for bus-rail connections to key destinations: the private car is likely to remain the most appealing / viable option. This reflects the existing the rural nature of the village; • Contingent on the scale of development, it is likely that further assessment will be required of the impact on strategic junctions including M1 junction 23a and A50 junction 3; • East Midlands Airport, whilst providing significant infrastructure and employment opportunities, has limited scope for onward connections by rail. However, it should be acknowledged that the situation may be improved in future by bus services connecting the airport to HS2. The bus service along Station Road runs on an hourly basis from very early in the morning until late in the evening between Burton and East Midlands Airport via Swadlincote, Ashby and Melbourne. At the airport hub it connects with regular Skylink bus services, which link to Leicester, Nottingham, Derby, Coalville and Ilkeston; • Nearest secondary schools are located in the south Derby suburb of Chellaston, circa 5km north of the area of search, and the town of Castle Donington, 6km to the east. Forthcoming residential development will likely require additional provision (contingent on scale) or access to high quality school bus services; • The A514 Swarestone Causeway, representing part of the main route to the A50 and Derby, is a Scheduled Ancient Monument. It is narrow, offering limited capacity, and often becomes congested at peak times. <p>Suitability: Low</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • The historic core of Melbourne is covered by a conservation area which takes in the majority of the settlement's 100 or so listed buildings and the scheduled Melbourne Castle Approximately half these listed buildings are located within the boundary of the grade I Melbourne Hall RPG. Also, within the search area boundary is the King's Newton Conservation Area which contains 20 listed buildings. • Despite the large amount of designated heritage assets within the area of search it may be possible for development to take place on parts of it e.g. west of Derby Road/Cockshut Lane and north of the former railway line/east of Ramsley Brook without undue impact (medium/low suitability). <p>Suitability: Medium/Low</p>
<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> • Primary vehicular access to any forthcoming development east of Melbourne is likely to be gained from a minor B Road (e.g. Melbourne Road). • Bus access to be improved in order to get to the forthcoming HS2 East Midlands Hub (Toton). • Scope for a bus-rail connection to key destinations such as; Willington and East Midlands Parkway. • Forthcoming residential development will likely require additional provision (contingent on scale) or access to high quality school bus services.
<p>Potential Area for Strategic Growth: The eastern part of the area of search is not suitable for development due to the risk of coalescence with the village of Wilson and close proximity to the Airport. However, the western portion of the area of search is potentially suitable for development in the form of a village expansion to Melbourne. Although it is more remote this area of search does have good bus service availability.</p>	

E2	Land between Burton Upon Trent and Swadlincote	Urban extension/ village expansion
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Broad Areas of Search: E2

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The search area is within Flood Zone 1, although there are small watercourses present; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies. • The primary substation at Burton has a greater primary headroom (capacity) of 15MVA to provide supply to the network local to the area; • The search area is Grade 2 very good agricultural land, Grade 3 good to moderate and Grade 4 poor quality agricultural land; • The A511 and A444 both provide east-west access between the A38 and Burton Upon Trent, Swadlincote. The A511 is a single carriageway road and not designed to carry large volumes of traffic; • NCR63 currently connects to Swadlincote and Leicester and is planned to connect to Burton via an off-road alignment through middle of the identified area as part of the County Council's Key Cycle Network; • Burton Upon Trent offers numerous primary and secondary schools, as well as GP's and a range of shops. Burton Upon Trent is well connected – train station and good bus services; • There are no major business assets in this area as the area mainly contains residential development. The main employment sectors in this area are; education, retail, professional, scientific and technical. However, ongoing construction of the East Midlands Gateway Strategic Rail Freight Interchange north of East Midlands Airport and southwest of Junction 24 of the M1 for circa 500,000 sq m of logistics and warehouse/distribution development which has the potential to create up to 6,000 jobs; • Therefore, this area could possibly have the potential of being a significant opportunity area in terms of accessibility to jobs for residents of any new housing development areas identified in the search area;

<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • This area of search is located between the eastern areas of Burton-upon-Trent (Stapenhill and Winshill) and the western areas of Swadlincote (Newhall). It is unclear which areas the development will most closely relate to, as this would be contingent on a forthcoming design and access strategy, however, there are clearly opportunities to benefit from and provide sustainable links to existing amenities and infrastructure in these areas; • Existing amenities in adjacent areas noted above include convenience stores, primary and secondary schools and medical centres. • The A511 and A444 run through the area of search in an east west alignment providing key corridors between Swadlincote and Burton-upon-Trent and onward connections further afield. Primary vehicular access likely to be gained from one or both of these roads contingent on the form of development; • Dependent on the scale and form of development, could present an opportunity to provide a link between the A444 and Walton Road at Drakelow. However, the key constraint for development is likely to be east-west connections across the River Trent to Burton; • The closest railway station is located in Burton-upon-Trent, circa 3.2km distance from an indicative centre point at the area of search and therefore the most viable sustainable modes of transport to the station would be bus or cycle. The station is served by CrossCountry and provides onwards connections to key destinations including Derby, Lichfield and Birmingham; • NCN cycle route 63 provides a connection from the area of search to central Burton-upon-Trent and is intended to be connected to another completed section of NCN63 in Swadlincote using an off-highway alignment; • Bus services frequently stop along both the A511 and A444 providing connections to key destinations including Burton-upon-Trent and Swadlincote. Development within viable walking distance of these existing routes will benefit however additional provision may be required for development located further away. <p>Cons</p> <ul style="list-style-type: none"> • Main transport constraint in the vicinity of the area of search is east – west severance caused by the River Trent; • Traffic capacity at highway crossings at the River Trent (e.g. A444 / A5189 and A511) is constrained due to severance caused by the river. Key to any forthcoming development is likely to be mitigating any adverse highway impacts at these key crossing junctions; • Search area is located circa 27km south west of the forthcoming HS2 East Midlands Hub (Toton), limited scope for direct, sustainable connections to HS2 services albeit is situated with viable access to Cross Country route between Derby and Birmingham so may benefit in medium to long term; • Hourly bus service between Burton, Swadlincote, East Midlands Airport and SEGRP Logistics Park. • Key to sustainable development will be expanding on existing infrastructure to provide attractive bus and cycle connections to Burton-upon-Trent and Swadlincote. In particular, to mitigate against adverse effects of additional traffic on A511 and A444 corridor. Scale and form of development will also be important. <p>Suitability: Medium</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • Topography within the search area is generally uneven. There are some steep slopes, notably in the north-east, with some flatter areas in the far south.

	<ul style="list-style-type: none"> • The landscape within the search area is varied, with some parts in poor condition and degraded. The north-east of the search area is more sensitive in landscape terms, with historic field patterns in evidence. Of particular note are the detractors associated with the urban edges of Burton-on-Trent and Swadlincote, the busy A444 and A511 roads and the line of pylons that cross the area of search. The land use comprises mostly arable farmland, although there are some pastoral fields present in the south of the search area, and blocks of woodland on the search area's eastern boundary. Throughout the area of search, aside from a handful of listed buildings, there are very few conservation interests. The area of search contains some public rights of way, mostly running east-west and linking the edge of Burton-on-Trent with other settlements. • The undulating landscape means that there are some open views across parts of the search area, including long views to the north from the ridgeline near Oldicote Farm. There are also long views across farmland to the south from the A511, which are welcome given the adjacent residential development. Elsewhere, views are blocked by built form in Burton-on-Trent, and mature vegetation. • The woodland on the east of the area of search forms an existing green infrastructure corridor which can be linked in with new development. There is the opportunity to link to the industrial heritage of Burton-on-Trent, e.g. the brewing industry, but these links are fairly tenuous given the distance between the locations of this industry and the search area itself. The sense of place in the area is relatively commonplace. • The area of search forms a green gap between Burton-on-Trent and Swadlincote. As such, development of the search area increases the risk of coalescence with Swadlincote, as well as the risk of perceived sprawl arising from development on ridgelines in the north and centre of the area of search. This is considered in the context of ribbon development along the A444 and A511 already starting to give a perceived coalescence. There are limited defensible boundaries in the search area, including the woodland on its eastern boundary - other boundaries are more blurred. • A landscape buffer is recommended in the centre of the search area. The northern end of this covers the ridgeline near Oldicote Farm, preventing the perception of sprawl. The southern end of this retains the openness south of the A511, and helps to reduce the sense of coalescence between Burton-on-Trent and Swadlincote. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Medium sensitivity Suitability: Medium</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • The search area contains six listed buildings including the grade II* listed Brizlincote Hall Farmhouse. There are a further 11 listed buildings close to the search area boundary including the grade II* listed Bladon Castle. • There are conservation areas close to the search area boundary at Newton Solney and Bretby. • The eastern boundary of the search area approaches within 100m of the grade II Bretby Hall RPG which contains the grade II* listed Bretby Hall. Just to the north of the RPG is the scheduled Bretby Castle fortified manor with six associated grade II listed buildings (low suitability). <p>Suitability: Low</p>
<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> • Primary vehicle access is likely to be gained from either/both the A511 and the A444 which run through the area of search. • Opportunity to provide an additional north-south link between A511 and A444. • Additional provision required for housing located further away from existing bus stops near the area of search.

	<ul style="list-style-type: none"> • Need to mitigate any adverse impact on highway capacity at highway crossing at the River Trent (e.g. A444/A5189). • Sustainable connections required to HS2 services. • Need to expand existing infrastructure to provide attractive bus and cycle connections to Burton-upon-Trent and Swadlincote.
<p>Potential Area for Strategic Growth: Development would be unsuitable in the central section of this area of search owing to the undulating landscape and open views across parts of the search area. In addition, this land plays an important role in preventing coalescence between Swadlincote and Burton-on-Trent. The north (in the vicinity of Winshill) and south (in the vicinity of Stapenhill) of the area of search, adjoining Burton upon Trent, are potentially suitable for development. However, these options would be urban extensions to Burton upon Trent and would require close cooperation with East Staffordshire. Growth in the south will need to be managed and phased carefully to deliver commensurate levels of supporting infrastructure, reflecting the extant employment and housing allocations in this location.</p>	

E3	West of Swadlincote – Swadlincote extension	Urban extension
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Broad Areas of Search: E3

Site Assessment	Summary
Planning and Environment	<ul style="list-style-type: none"> • The majority of the search area is within Flood Zone 1, although where small watercourses are present the area is within Flood Zone 2 and 3; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies; The primary substation at Gresley has a headroom (capacity) of 3MVA to provide supply to the network local to the area, with greater bulk supply point headroom (capacity) of 11.68MVA also at Gresley; • The search area is within Grade 3 good to moderate quality agricultural land and Grade 4 poor agricultural land; • The A444 runs within the search area and the A514 runs along the search area boundary. Both are single carriageways and are not designed to carry a large volume of traffic. The A514 provides the main north-south highway connection through the area between Swadlincote and Derby; • Some facilities including three secondary schools, a primary school, shopping and doctor’s surgery, leisure centre, cinema are available in Swadlincote; • Bus services within Swadlincote are provided to Burton upon Trent, Derby and East Midlands Airport; • The NCN route 63 is provided through Swadlincote for cycle connection towards Coalville and Leicester; • The north eastern part of the search area (undeveloped land penetrating the Swadlincote urban area) is allocated for housing with former landfill site currently in use as Golf Centre. Land to the west at Hall Farm Field Ponds is classified as a Potential Wildlife Site.
Transport and Accessibility	<p>Pros</p> <ul style="list-style-type: none"> • The search area is located east of the search area E2, however, it is more closely related to the existing town of Swadlincote and development would highly likely form an extension of the town;

- The search area is bisected by the A444 which runs in a north – south alignment through the centre of the area of search and therefore there is a strong opportunity for primary vehicular access to be gained from this road;
- The search area is bounded by an industrial estate to the south / east and therefore there are opportunities to provide sustainable connections to existing employment opportunities in the vicinity of development;
- The suburb of Newhall to the north is within a viable walking distance of the eastern portion of the area of search and features existing amenities including a secondary school and two primary schools. Castle Gresley circa 1.8km south west of the search area includes a convenience store;
- Secondary schools in Swadlincote are an accessible distance from the area of search falling within an approximate 2km distance of an indicative centre point. Forthcoming residential development would likely need to tie into the existing network of walking and cycling routes in Swadlincote to provide sustainable connections;
- NCN route 63 is accessible from William Nadin Way circa 1.6km from an indicative centre point at the area of search. The route partially provides a low-traffic route to Swadlincote Town Centre and onwards to a leisure trail known as “Conkers Circuit”. There is plans to connect to Burton via an off-road alignment through middle of the area of search as part of the County Council’s Key Cycle Network.;
- The consideration of a railway station at Highcross roundabout is part of a proposed study into the feasibility of reinstating a long withdrawn passenger railway service along the Ivanhoe Line, which connects Burton to Leicester and currently carries only occasional freight traffic.. If this is forthcoming, this could significantly benefit the area of search in transport terms;
- Existing bus stops located on the A444 are serviced by regular buses between Burton-upon-Trent and Swadlincote. A significant portion of the area of search falls within a desirable walking distance of these services and therefore there is a strong opportunity to promote journeys by bus to these destinations.

Cons

- Forthcoming development within the area of search to the west of the A444 will need to mitigate for any severance constraints caused by the primary route, providing appropriate walking and cycling infrastructure and crossing points;
- Forthcoming significant development will need to assess the impact on the local highway network including Highcross Bank Roundabout and the A444 corridor to Burton-upon-Trent (which, as noted for search area E2 is constrained at River Trent crossing points);
- Depending on the scale and form of development it is likely that additional key amenities will be required given the sub-optimal provision within walking distance of parts of the area of search;
- The area of search is located circa 2.5km from Swadlincote Town Centre, a viable cycling distance – however, additional cycling and public transport provision and promotion is likely required to make sustainable modes a desirable option for journeys to and from the town centre;
- Severance constraint for journeys south of the area of search on foot or by cycle due to the railway line which runs in an east – west alignment to the south. One of few viable crossing points is the High Cross Bank Roundabout which is sub-optimal for active modes;
- Nearest train station is located in Burton-upon-Trent circa 5km north west of the area of search. A viable cycling distance for competent cyclists, however, the completion of National Cycle Route 63 from Swadlincote would be required. Bus journeys are likely to be the most appealing sustainable connection to Burton for the area of search;

	<ul style="list-style-type: none"> • Search area is located circa 26km south west of the forthcoming HS2 East Midlands Hub (Toton). Limited scope for direct, sustainable connections to HS2 services. <p>Suitability: Medium</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • The eastern half of the search area is mostly flat, sloping generally down to the north-west. However, the western half of the search area is more steeply sloping, with the slope running down from south-east to north west. • Within the search area, there are some very degraded areas associated with industrial development and former open-cast coal mining activities, the latter having restoration requirements implemented as a golf course and country park. The landscape is of better quality to the south-west of the A444, comprising a mixture of arable farmland and woodland, although this quality decreases in the north-west, where the landscape is more degraded and there is the presence of a water treatment works. The area of search contained very few conservation interests or elements of recreational value, although there is a schedule monument on the search area's southern boundary. • There are some open views available looking north from the south-western corner of the search area, although views in the north-west are more restricted by mature vegetation. Within the east of the search area, views are more open across the area of search, but are contained on its edges by surrounding topography and built form. • Within the search area, there are limited elements of green infrastructure, mostly restricted to woodland in the north-west. The history of industry within the search area offers opportunities for providing a sense of identity to the area, but the landscape of the area of search feels relatively commonplace at present. • Development of the search area, particularly the north-west corner, gives the risk of perceived coalescence with Burton-on-Trent. This is considered in the context of ribbon development along the A444 already starting to give a perceived coalescence. The main risk is of perceived sprawl of Swadlincote beyond the A444 corridor, which forms a natural boundary. • The west of the search area is recommended as a landscape buffer in order to prevent the sprawl of Swadlincote into surrounding countryside. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Medium sensitivity Suitability: Medium</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • No designated assets within the search area boundary. The scheduled Castle Gresley motte and bailey castle is located just outside the southern boundary of the search area but its setting has been compromised by modern development. <p>Suitability: High</p>
<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> • A444 could provide primary vehicular access to the development. • Opportunities to provide sustainable connections to existing employment opportunities in the vicinity of the development. • Infrastructure required to tie in the new development with the existing network of walking and cycling routes in Swadlincote to provide sustainable connections. • Feasibility assessment ongoing of a passenger railway station in the vicinity of the Highcross Bank Roundabout, south Swadlincote. However, currently no committed schemes. • Likely that additional key amenities will be required.
<p>Unsuitable Area for Strategic Growth: Land east of the A444 and north of the A514 is s currently being used as a golf course and country park and is not therefore suitable for strategic growth. The</p>	

western section of the area of search is constrained due to its steep slope and the risk of coalescence with Burton-upon-Trent. Furthermore, there is a risk of perceived sprawl of Swadlincote beyond the A444 corridor, which forms the natural boundary. Therefore, the west of the search area is not recommended as an urban extension. The residual land leftover that is potentially developable would not be capable of supporting a strategic level of growth.

E4	North-east of Swadlincote	Urban extension
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Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The search area is within Flood Zone 1, although there are small watercourses present; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies; • The primary substation at Woodville has a low headroom (capacity) of 1MVA to provide supply to the network local to the area, with greater bulk supply point headroom (capacity) of 56MVA at Burton 33; • The search area is within Grade 3 good to moderate quality agricultural land and Grade 4 poor agricultural land; • The A514 runs through the search area and the A511 is in close proximity. Both are single carriageway roads and are not designed to carry large volume of traffic. The A514 provides the main north-south highway connection through the area between Swadlincote and Derby; • Some facilities including a primary school, shopping and doctor’s surgery are available in Swadlincote; • Bus services within Swadlincote are provided to Burton upon Trent, Derby and East Midlands Airport; • The NCN route 63 is provided through Swadlincote for cycle connection towards Coalville and Leicester, with proposed connection to Burton-on-Trent; • There are no listed buildings within the search area. • The search area section closest to Swadlincote is more likely to be considered for development than the more rural sections of the area of search (further away from Swadlincote).
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> • The search area is located to the north of Swadlincote and the existing suburban area of Midway. A514 and Sandcliffe Road both run in a north –

	<p>south alignment through the area of search and there are opportunities for vehicular access to be gained from either or both;</p> <ul style="list-style-type: none"> • The nearby suburb of Midway located to the south of the area of search includes existing amenities such as a convenience store and primary school within a viable walking distance of circa 800m; • A secondary school is located off A511 circa 800m from an indicative centre point of the area of search and therefore there are strong opportunities to provide sustainable connections to and from residential development at the area of search; • Swadlincote town centre falls within an approximate 2km distance of an indicative centre point in the area of search, a preferred maximum walking distance and viable cycling distance. Forthcoming development would likely need to tie-in to existing walking and cycling networks in the vicinity of the area of search and provide crossing points on the A511; • Opportunities for traffic-free active modes connections within Swadlincote via connections to Swadlincote Woodlands and Park; • Existing bus stops on the A511 are located within a sub-optimal 800m walking distance of an indicative centre point at the area of search. Additional existing bus stops are located on A514 within an optimal walking distance of an eastern portion of the area of search. Both stops provide frequent services to key destinations including Swadlincote Town Centre, Burton-upon-Trent, Derby, Ashby de la Zouch and East Midlands Airport. <p>Cons</p> <ul style="list-style-type: none"> • The nearest railway station to the proposed area of search is located in Burton-upon-Trent circa 7km west of the proposed area of search. Therefore, the most viable sustainable connection to the railway station is via existing bus services accessible from A511. Albeit, the overall journey time is likely to make the option sub-optimal for most commuting trips; • Additional cycling infrastructure required through the completion of NCR63 or along the A511 corridor to Burton-on-Trent, otherwise, cycling connections from the area of search to Burton likely to be viable for highly competent cyclists only; • As noted with search areas E2 and E3, key highways constraint for the area of search will be capacity along the A511 corridor in the vicinity of River Trent crossings adjacent to Burton; • Additional assessment will also likely be required of potential capacity constraints at local junctions A511 / B586, A511 / A514 5-arm compact roundabout, A511/A514 Clock island and A511 Sandcliffe Road junction; • Search area is located circa 23km south west of the forthcoming HS2 East Midlands Hub (Toton). Limited scope for direct, sustainable connections to HS2 services. <p>Suitability: Medium</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • The search area is located on a plateau, with gentle slopes to the north. This search area is situated within a wider bowl-shaped topography. There are some steeper slopes in the far south-east of the area of search. • The land use of the search area comprises mostly arable farmland, with some pasture in the far east, and residential development visible on the fringes of the area of search throughout (with a new housing development within the area of search, just off the A514). There is some sense of quality within the landscape, but the surrounding residential development and A roads form detractors. There are very few conservation interests within the search area, although there are some public rights of way. • The topography of the search area and lack of woodland within it means that there are some long open views available across it, especially from higher ground the north. The existing residential development is generally

	<p>situated on the ridgeline and visually contain views to the south, with the bowl-shaped topography containing views to the north.</p> <ul style="list-style-type: none"> • Throughout the search area, there is little green infrastructure, with this being limited to hedgerow field boundaries. The area feels relatively nondescript and commonplace, although there is the opportunity to link the area of search to industrial heritage within Swadlincote itself. • The search area offers some defensible boundaries, mostly aligned to roads such as the A511, Sandcliffe Road and Dunsmoor Lane. There is a slight risk of a sense of sprawl in the south-west of the search area, where development is currently located on the ridgeline road. • A landscape buffer is proposed in the far south-west of the search area, in order to reduce the risk of perceived sprawl. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Medium sensitivity Suitability: Medium</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • No designated assets within the search area boundary or close to it. • The village of Hartshorne contains nine listed buildings including the grade II* listed Nos. 6 and 7 (the Manor House). The closest of these is approximately 500m from the search area boundary. <p>Suitable: High</p>
<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> • Primary vehicular access to be gained from either/both the A514 and Sandcliffe Road. • New infrastructure would need to tie-in to existing walking and cycling networks in the vicinity of the area of search and provide crossing points on the A511. • Opportunities for traffic-free active modes connections within Swadlincote via connections to Swadlincote Woodlands and Park • Cycling infrastructure required to connect to Burton-upon-Trent. • Infrastructure may be required to improve capacity along the A511 corridor in the vicinity of River Trent crossings adjacent to Burton. • Additional assessment required of local junctions A511/B586 and A511/A514 5-arm compact roundabout.
<p>Suitable for Strategic Growth: The area of search is broadly free from major constraints, is suitable for development and has potential to provide an urban extension to Swadlincote. All development in Swadlincote would require improvements to all sustainable modes of transport with the nearest rail station being at Burton upon Trent. Due to the spatial extent of this broad area of search, east-west linkages, as well as radial links, would be particularly critical to the success of any development in this broad area of search. Growth will need to be managed and phased carefully to deliver commensurate levels of supporting infrastructure, reflecting the presence of the large extant housing allocation adjacent to the broad area of search.</p>	

E5	North-east of Smisby	Village expansion
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Broad Areas of Search: E5

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • The search area is within Flood Zone 1, although there are small watercourses present; • This area does not intercept a SPZ of a Severn Trent asset. Developments on this site will not negatively affect future Severn Trent groundwater supplies; • The eastern part of this lands drains to Staunton Harold reservoir, this could pose a risk to water quality in the drinking water reservoir with increased urban runoff; • The primary substation at Ashby has a headroom (capacity) of 3MVA to provide supply to the network local to the area, with greater bulk supply point headroom (capacity) of 11.68MVA at Gresley; • The search area is partly Grade 3 good to moderate quality agricultural land and partly Grade 4 poor agricultural land; • The B5006 runs through the search. The A511 runs south of the search and provides east-west access between the A38 and Burton Upon Trent, Swadlincote and the A42 and would provide the main vehicular access from the area of search. The A511 is a single carriageway road and not designed to carry large volumes of traffic; • Ashby-de-la-Zouch offers numerous primary and secondary schools, as well as GP's and a range of shops; • The search area is within the National Forest, with a significant amount of National Forest planting to the south and south-east of Smisby; • The area has water quality issues and limited wastewater capacity to accommodate further growth due to discharge into a tributary of the River Mease Special Area of Conservation (SAC);
<p>Transport and Accessibility</p>	<p>Pros</p>

	<ul style="list-style-type: none"> • Opportunity for vehicular access from B5006 Derby Road, which connects to A511 via a roundabout at its southern extent resulting in onward connections by car to the trunk road network; • A42 junction 13 is located circa 3km south east of the search area which bypasses the town of Ashby and provides onwards connections to the strategic road network including the M1 to the east of the area of search via junctions 22 and 23a; • Existing industrial estate located circa 1km south of the search area at Ivanhoe Business Park although there is limited scope for sustainable connections between the two areas due to severance caused by A511 and lack of existing public transport. <p>Cons</p> <ul style="list-style-type: none"> • The search area is located circa 800m east of the small village of Smisby and circa 2km north of the town of Ashby-de-la-Zouch (Ashby), north of the A511. This area of search is not well related to either settlement; • Smisby has no key amenities and is entirely rural in nature with likely high car dependency; • Severance constraint caused by the A511 and roundabout junction south of the development limiting north – south connections from the area of search to the town of Ashby; • Given the likely high-car dependency, impact of the development will likely need to be assessed on A511 and A42 junctions in the vicinity of the area of search at peak times; • No existing public transport in the vicinity of development, no bus infrastructure on B6006 Derby Road therefore any forthcoming development would likely be required to support bus connections to the area of search; • No passenger railway station in Ashby, nearest station is located circa 15km north west in Burton-on-Trent. No existing viable bus connections to stations in immediate vicinity of the area of search and the overall journey time is likely to encourage high-car dependency at the area of search; • No significant existing cycle infrastructure in the vicinity of the area of search; • Nearest existing educational facilities located in Ashby town centre circa 2.5km south of the proposed area of search. Given the rural nature of the area, either additional provision or bus connections likely required to support sustainable residential development at the area of search; • Search area is located circa 21km south west of the forthcoming HS2 East Midlands Hub (Toton). Limited scope for direct, sustainable connections to HS2 services. <p>Suitable: Low</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> • The search area comprises a valley and several ridgelines, forming an undulating landscape with some steep slopes. • The landscape in and around the search area feels distinctly rural, with very little settlement and influences from the adjacent parkland associated with Calke Abbey. Land use includes mixed farmland, with arable fields dominant in the north, west and south and pasture in the east. The search area is crossed by several public rights of way. There is little within the search area by way of conservation interest; however, the eastern search area boundary adjoins a large block of ancient woodland. • The north of the search area offers relatively open views across the farmland. These views are more contained in the south-west by woodland blocks. • Whilst the search area itself has a handful of discreet woodland blocks, the large area of ancient woodland on the eastern boundary offers

	<p>opportunities to tie into existing green infrastructure. The area has an overall rural identity with some parkland influences.</p> <ul style="list-style-type: none"> • Development of the search area would substantially increase the amount of settlement in the local area, in contrast to the established rural vernacular. • This search area is not recommended for development on landscape and visual grounds, owing to the current rural character and lack of settlement locally. <p>Landscape sensitivity: High sensitivity Visual sensitivity: Medium sensitivity Suitability: Low</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • No designated assets within the search area boundary. The village of Smisby is just to the south of the search area and contains seven listed buildings including the grade II* Lock Up (Round House) and the grade I Church of St James. The majority of these assets are reasonably well screened from the search area and impacts would largely be restricted to a change in the setting of the approach to the village from the north. <p>Suitable: High/Medium</p>
<p>Unsuitable for Strategic Growth: This area was identified primarily for its potential to act as a satellite to Ashby-de-la-Zouch. However, the area of search is not suitable for development on landscape and visual grounds, owing to the current rural character and lack of settlement locally. In addition, the location within the National Forest and water quality issues related to the River Mease Special Area of Conservation (SAC) are an impediment to any scale of growth in this location.</p>	

F1	North-east of Walton-on-Trent	Co-dependent settlement
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Broad Areas of Search: F1

Site Assessment	Summary
<p>Planning and Environment</p>	<ul style="list-style-type: none"> • Some of the search area is within Flood Zone 1, although a large section is within Flood Zone 2 and 3a due to its proximity to the River Trent; • The area intercepts with a Source Protection Zone (SPZ 3); • The primary substation at Barton Under Needwood has a low headroom (capacity) of 4MVA to provide supply to the network local to the area, with greater bulk supply point headroom (capacity) of 73MVA at Burton South. Cable access would be subject to rail crossing, river and wetlands; • The search area is Grade 2 very good agricultural land, Grade 3 good to moderate agricultural land and Grade 4 poor agricultural land, with a large section non-agricultural land; • The A38 is located east of the search area for direct access northwards to Derby city centre; • Burton Upon Trent offers numerous primary and secondary schools, as well as GP's and a range of shops; • Burton Upon Trent is well connected – train station, good bus services and the A38 and the A5121 run through the urban area; • The search area is within the National Forest; • Large area of brownfield land to the South of the Drakelow Park development, currently under construction, has significant potential. • Longstanding application for consent to construct and operate a combined cycle gas turbine power station on the site of the former Drakelow Power Station was final disposed of by the LPA in 2018. Planning consent was granted for a standby gas fired power generator in 2018. A solar farm received consent and was implemented in the north-western edge of the area of search.; • The north-eastern part of the search area is a committed housing allocation (for 2,239 dwellings including local centres) extension to Stapenhill and committed employment site;

	<ul style="list-style-type: none"> Development of the southern part of the area of search risks coalescence with Walton-on-Trent.
<p>Transport and Accessibility</p>	<p>Pros</p> <ul style="list-style-type: none"> The search area is located east of the A38 Lichfield Road, circa 1.8km south of the southern boundary of Burton-on-Trent; The planning consent for the Drakelow Park mixed use development provides for the extension of bus services currently operating in Stapenhill into the site and there may be scope to extend this further to serve any additional development in the area; The Drakelow Park, currently under construction, requires the development of a new River Trent Crossing, the Walton-on-Trent Bypass, as part of the transport mitigation package. This will replace the bailey bridge as the means for crossing the Trent by motorised vehicles. Although planning consent has been granted for a total of 2239 dwellings at Drakelow Park, no more than 400 of these may be occupied before the bypass has been implemented. . Burton-upon-Trent town centre is located circa 5km north of the area of search. The Drakelow Park planning consent provides for the creation of a multi-user greenway extending from Stapenhill southwards through the development site. This has been identified as a link in the County Council’s Key Cycle Network, which will continue southward to the Walton on Trent bailey bridge. A further proposed Key Cycle Network link has been identified to connect Walton to Rosliston and Swadlincote. <p>Cons</p> <ul style="list-style-type: none"> The search area does not abut the A38 and, due to being situated east of the River Trent, any highways connections are constrained pending construction of the Walton-on-Trent bypass. Vehicular access options are limited and would likely be taken from Walton Road, a single carriageway rural road; Walton Road connects to the A38 at its western extent via the signalised, one-way “Walton Bridge” which is likely to be highly constrained at peak times and several weight limits and restrictions are in force; Walton Road routes through the Burton suburb of Stapenhill, across a railway line, connecting to the A444 at its northern extent. This is severely constrained at peak times and any forthcoming development will need to assess the impact of the development at key junctions and potentially provide significant mitigation (albeit, options for mitigation will also be limited due to significant constraints e.g. River Trent and railway line); The small village of Walton-on-Trent is located circa 1.5km south west of an indicative centre point of the area of search. Walton includes a primary school, however, forthcoming development is likely to require additional provision and significant sustainable connections; . The search area is located circa 32km south west of the forthcoming HS2 East Midlands Hub (Toton). Limited scope for direct, sustainable connections to HS2 services. <p>Suitability: Medium</p>
<p>Landscape and Visual Constraints</p>	<ul style="list-style-type: none"> Within the search area boundary, the topography is mostly flat, although there is a ridgeline with some associated gentle slopes in the far south-western corner. The flat land in the north and west of the area of search is associated with the River Trent floodplain. A primary feature within the search area is the former disused Drakelow power station, with its associated brownfield land and large strategic planting surrounding it. This disused power station is a detractor and lends a degraded and industrial influence on the surrounding land. The

	<p>landscape feels of a large scale, with a single public right of way and no areas of conservation interest.</p> <ul style="list-style-type: none"> • The large scale of the landscape offers some open views, particularly towards the north-west. Other views are more contained, particularly around the disused power station site. • The large strategic planting around the disused power station site and the River Trent offer opportunities to expand upon existing green infrastructure. There are also opportunities to use the history of the power station on the search area, as well as the industrial heritage from nearby Burton-on-Trent to tie into the design of any new development. Prior to the power station, Drakelow Park was a country estate with a great house. Some of the remnants of the country estate are Listed and are to be preserved as part of the Drakelow Park development. • There is a risk of coalescence with Walton-on-Trent in the far south-west of the search area, there is also a risk of perceived sprawl should development be taken up and over the ridgeline in the far south of the area of search. The River Trent forms a strong defensible boundary on the west of the area of search and woodland in the north-east provides a second defensible boundary. However other boundaries, particularly to the south, are more fluid. • A landscape buffer is recommended in the far south of the search area for two purposes: firstly, to prevent coalescence with Walton-on-Trent, and secondly to prevent the risk of sprawl by avoiding the placement of residential development on the ridgeline. The search area is more sensitive in landscape terms, with historic field patters in evidence. <p>Landscape sensitivity: Low sensitivity Visual sensitivity: Medium sensitivity Suitability: High</p>
<p>Heritage considerations</p>	<ul style="list-style-type: none"> • There are two grade II listed building within the search area boundary, Barr Hall and Attached Farm Buildings, and Gate Piers, Adjoining Walls and Attached Piers at Drakelow Lodge Entrance to Drakelow Power Station. • There are three further grade II listed buildings just outside the north and east boundaries of the area of search. • The village of Walton on Trent is located just to the south-west of the area of search and contains eight listed buildings including the aforementioned Barr Hall and the grade II* listed Church of St Laurence and Walton Hall and Attached Stable Range and Garden Wall. <p>Suitability: Medium</p>
<p>Potential Transport Infrastructure Requirements</p>	<ul style="list-style-type: none"> • Improvements to the bus services to Swadlincote and Burton-upon-Trent would be required. • Vehicular access options are limited and would likely be taken from Walton Road, a single carriageway rural road. • Assessment of key junctions required. Forthcoming development is likely to require additional provision and significant sustainable connections, including the planned Walton-on-Trent bypass. Significant additional infrastructure (walking and cycling provision) due to the rural nature of the area of search and lack of existing provision.
<p>Potential Area for Strategic Growth: A landscape buffer is recommended in the far south of the search area for two purposes: firstly, to prevent coalescence with Walton-on-Trent, and secondly to prevent the risk of sprawl by avoiding the placement of residential development on the ridgeline. There is potential to develop the remainder of the search area and potential to create a co-dependent settlement with connections into Burton upon Trent and Swadlincote. There is a significant brownfield site which offers high potential for regeneration and reuse. Growth will need to be managed and phased carefully to deliver commensurate levels of supporting infrastructure, reflecting the adjacent extant housing and employment allocations.</p>	

4. Conclusions

- 4.1 The analysis in this report illustrates that there are a number of locations in the Derby Housing Market Area (HMA) that could potentially accommodate strategic growth. These locations are illustrated in Figure 13. The strategic growth opportunities identified in the Derby HMA are largely in the form of urban extensions or locations that have a strong relationship to existing places, rather than truly autonomous new settlements.
- 4.2 Based on the assessment findings and typology classifications we estimate there is up to ~2,000 hectares of potentially developable land⁴⁸, likely to be well above the requirements for development land for the coming plan period to meet housing and employment need. This overall estimate does not consider the interrelationships of the opportunities or how much land could feasibly come forward during a Local Plan period or by 2050. In addition, this report does not identify specific sites and does not quantify the level of growth that each of the locations could accommodate. This will follow in future stages of plan-making. Notwithstanding the above qualifications, the number and extent of the areas where there is considered to be potential for strategic growth will enable policy choices to be made, through the plan-making process, as to the specific sites selected to meet identified needs in the HMA.
- 4.3 Figure 13 (overleaf) indicates which typologies (see Table 3 below) may be appropriate and available in each broad area of search location based on a review of the key characteristics of the area and main issues and opportunities highlighted in the preceding assessments.

Table 3 Typology assumptions

Typology	Urban Extension / Village Expansion / Garden Village	Co-Dependent	Autonomous
Hectares	30 - 300	300 – 1,000	1,000 – 2,500
Net to Gross Ratio⁴⁹	60:40 (<100ha) 50:50 (100ha – 150ha) 40:60 (>150ha)	40:60	40:60
Dwellings	1,000 – 5,000	5,000 – 10,000	>10,000
Population⁵⁰	2350 – 11,750	11,750 – 23,500	>23,500
Jobs (estimates based on population/dwellings)⁵¹	1,000 – 5,000	4,500 - 15,000	9,000 - >15,000
Primary centre	Neighbourhood/Village Centre (Primary School ⁵² & Local Facilities e.g. GP)	District Centre (Secondary School, District Facilities incl. employment)	Town Centre with retail, other employment areas and local facilities (e.g. Health Centre). In addition to Secondary Schools and Primary Schools, the largest autonomous settlements may offer scope for Further Education and Higher Education facilities.
Secondary centres	Local Centre/shopping parade (primarily convenience/local services)	Neighbourhood/Village Centres	District Centre

⁴⁸ Assumptions in Table 3 applied to the broad areas of search judged to be suitable or potentially suitable to provide a high-level indication on the total land identified that could be deemed 'developable'.

⁴⁹ Development plots: other land (open space, infrastructure, circulation etc)

⁵⁰ Based on a notional occupancy figure of 2.35 persons per dwelling

⁵¹ Ranges reflect residential-led and mixed use new settlement precedents with job ratios of between 0.9 - 1.25. Informed by an AECOM analysis of district-scale Built Up Areas and secondary sources – including: 'Employment Densities Guide: 2nd edition' (Homes and Communities Agency/OffPAT, 2010). Accessed at: <https://www.gov.uk/government/publications/employment-densities-guide>; 'Employment Density Guide: 3rd edition (Homes and Communities Agency/GVA Grimley Ltd, November 2015). Accessed at: https://www.kirklees.gov.uk/beta/planning-policy/pdf/examination/national-evidence/NE48_employment_density_guide_3rd_edition.pdf; and Working Paper 71 'More residents, more jobs? 2015 update' (Lara Togni/GLA Economics, 2015). Accessed at: <https://www.london.gov.uk/sites/default/files/working-paper-71.pdf>

⁵² New schools ideally should be developed with two forms of entry to enable the widest range of educational opportunities to be offered.

	-	Local Centre/shopping parade (primarily convenience/local services)	Neighbourhood/Village Centres/Local Centres/shopping parades
Transport facilities	Local public transport stop(s) (e.g. Bus Rapid Transit (BRT)/Tram/Rail)	Local/Sub-Regional public transport hub (e.g. Rail/BRT/Tram)	Sub-Regional/Regional public transport hub (e.g. Rail/BRT/Tram)

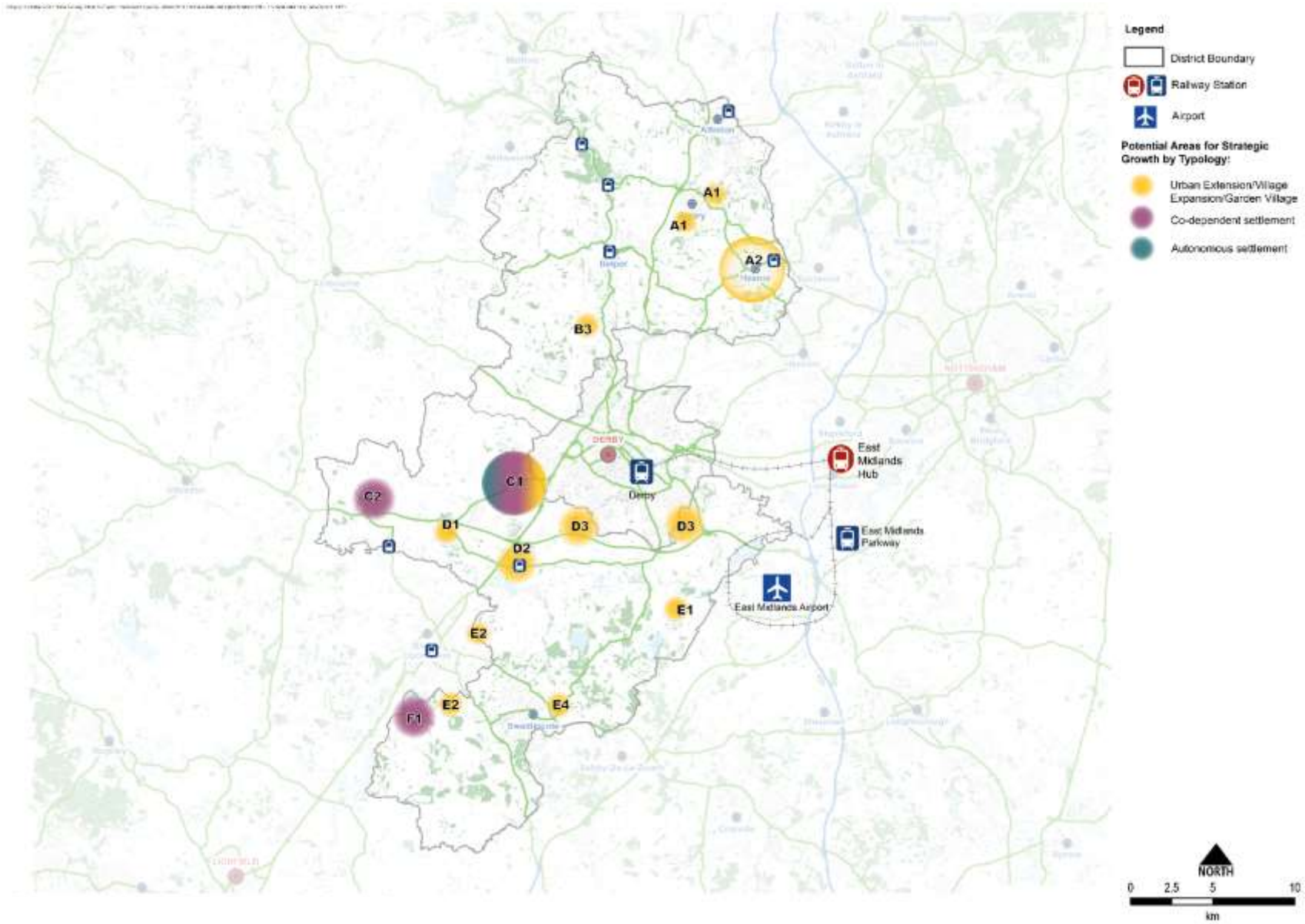


Figure 13 Potential Areas for Strategic Growth

Potential Areas for Strategic Growth

- 4.4 It is helpful to consider the strategic growth options (summarised in Table 4) in the context of strategic transport corridors, which allow growth to be focused where strong public transport routes can be forged and, where capacity allows, existing roads can be used. These are shown in Table 4. Where more than one potential location is included in a corridor, cumulative impact will need to be assessed. The figure also depicts higher education and existing key employment areas, alongside extant allocations for housing and employment. This illustrates the proximity of the broad areas of search in relation to existing and planned growth and locations of activity such as towns, key employment areas and Higher Education campuses.
- 4.5 As with locations such as around Heanor, where existing town facilities can be used and improved, not all of the potential areas for strategic growth are in corridors. Similarly, there is potential for growth along the corridors that is not in the potential areas shown. The best way of looking at growth potential is for it be both within the corridors and within the areas identified, which often coincide. This is in addition to the growth potential within the City of Derby, where urban capacity is being assessed outside the remit of this study.
- 4.6 This report provides a first step in the process of enabling the plan-making authorities to consider allocating strategic sites, as a contribution towards meeting identified needs for growth.

Table 4 Broad Areas of Search Assessment Summary

Ref	Broad Areas of Search	Local Authority	Typology Option(s)	Broad Area of Search Summary
A1	Land at Street Lane – South West of Ripley & Land North East of Ripley	AVBC	Urban extension(s)	Potential area for Strategic Growth
A2	Land around Heanor/Langley Mill urban area	AVBC	Urban extension(s)	Potential Area for Strategic Growth
B1	Land to North-west of Alfreton urban area	AVBC	Urban extension	Unsuitable Area for Strategic Growth
B2	Land to North of Cowers Lane	AVBC	Co-dependent settlement	Unsuitable Area for Strategic Growth
B3	Land to South-west of Duffield	AVBC	Urban extension / village expansion	Potential Area for Strategic Growth
C1	Land to the West of Derby urban area	AVBC / SDDC / DCC	Urban extension(s) / Garden Village / Co-dependent settlement / Autonomous settlement	Suitable Area for Strategic Growth
C2	North of Tutbury and Hatton	SDDC	Co-dependent settlement	Potential Area for Strategic Growth
D1	Hilton northern expansion	SDDC	Urban extension / village expansion	Suitable Area for Strategic Growth
D2	North of Willington	SDDC	Village expansion	Potential Area for Strategic Growth
D3	Derby A50 Corridor South Extension	SDDC / DCC	Urban extension(s)	Suitable Area for Strategic Growth
E1	Land at Melbourne Road – Melbourne Eastern Extension	SDDC	Urban extension / village expansion	Potential Area for Strategic Growth
E2	Land between Burton Upon Trent and Swadlincote	SDDC	Urban extension/ village expansion	Potential Area for Strategic Growth
E3	West of Swadlincote – Swadlincote extension	SDDC	Urban extension	Unsuitable Area for Strategic Growth
E4	North-east of Swadlincote	SDDC	Urban extension	Suitable Area for Strategic Growth
E5	North-east of Smisby	SDDC	Village expansion	Unsuitable Area for Strategic Growth
F1	North-east of Walton-on-Trent	SDDC	Co-dependent settlement	Potential Area for Strategic Growth

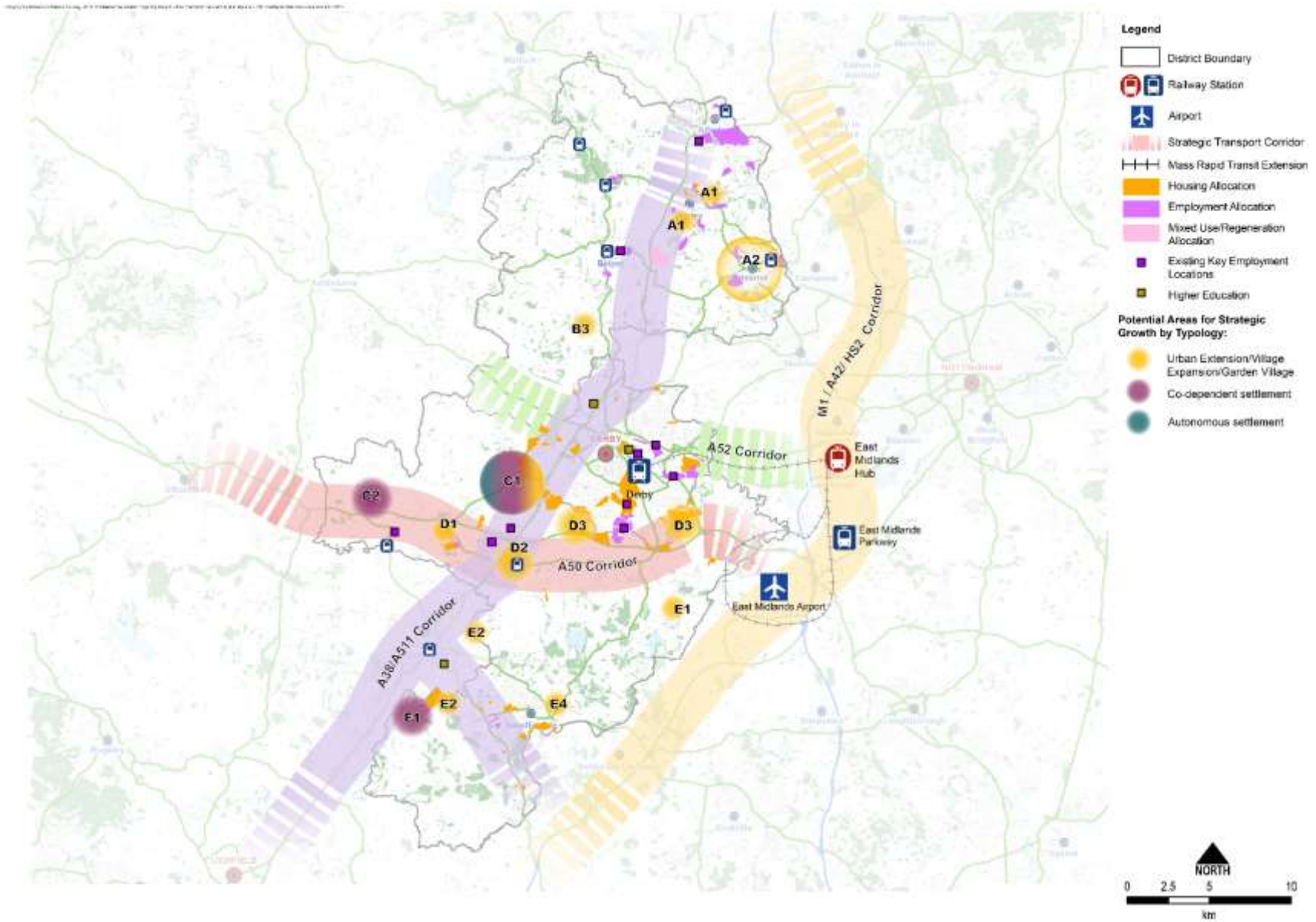


Figure 14 Potential Areas for Strategic Growth set within strategic transport corridors

- 4.7 The study has identified land in excess of what is likely to be required to meet local needs within the HMA in the plan period. This study's findings present potential locations for growth that can be considered further as part of the development of the constituent Local Plans. This report sets the framework for the choices and the options that can be made at the strategic-scale. It is not feasible to focus all growth around Derby City alone. The towns and villages will also need to have some share of future growth.
- 4.8 Sites close to the 1,000 home strategic site threshold, where isolated, won't offer the greatest opportunities for modal shift or infrastructure funding. The 1,000 dwelling threshold was selected due to the level of social infrastructure that can be delivered at this scale – any smaller and it's challenging to provide facilities such as a primary school. However, any strategic sites (even the smaller urban extension and co-dependent options) should be able to demonstrate a level of self-containment that would reduce car-borne transport.
- 4.9 Consideration should be given to the provision of local every day destinations within developments wherever appropriate, such as schools, shops and community facilities, thus minimising the need for off-site trips. The Transport for New Homes Charter and checklist⁵³ could be utilised as tool when later iterations of the Local Plans begin to test draft allocation locations and the possible layout of new home developments. Residents should be able to walk to a primary school, equally larger settlements will have more scope to collocate employment with social infrastructure. That's not to say all smaller options may be less sustainable. The design and layout of developments is also important and should be carefully considered in terms of the site-specific characteristics of the identified locations, to ensure that active and sustainable journeys within the site to local destinations are more direct and convenient than motorised journeys. This may be impacted by matters such as topography and severance.
- 4.10 If new communities are nearby to larger centres or settlements and benefit from an umbilical/co-dependent relationship, with good transport connections between them, then this can be in their favour. As a rule, less dispersed growth locations can help to concentrate investment in infrastructure into areas with a critical mass of new development. For example, public transport is changing in terms of delivery and may move away from services on fixed routes in the future. Whilst the form and delivery of public transport might evolve, a greater concentration of development at a strategic scale in a limited number of locations will help to generate sufficient density and drive public transport patronage.
- 4.11 If the scale of development is too small it may not be capable of supporting new stand-a-lone public transport services, or the infrastructure improvements required to support the more ambitious options. For example, cycle provision, because of the distance of development to the City Centre or other key destinations, requires significant off-site reinforcement providing attractive routes and this requires strategically planned investment for segregated off-road routes, which can be too much for a single development to viably support. It is recognised that adequate cycling infrastructure is essential to encourage mode shift. This will require significant investment and can be difficult to achieve without sufficient economies of scale. New settlements will need to encourage residents and workers to travel by means other than by car. A critical mass of development is therefore required in order to provide something different and visionary or there's a risk that more dispersed development, poorly served by public transport and active modes, will not accrue the same benefits.
- 4.12 Smart interventions that improve the efficiency and effectiveness of public and private services (including transport) is an opportunity area that should be kept under review. Smart technology is related to the effective data capture, analysis and interpretation to enable solutions, typically technological interventions, associated with sensors, geospatial data, live links and resident access and interactivity with data portals, which drive efficiency and behaviour change. Examples could include on demand travel via alternative forms of connectivity and mobility that seek to increase permeability and harness new technology e.g. autonomous vehicles, new forms of mass rapid transit etc. The smart city concept describes the use of data and technology to improve the performance of infrastructure networks and create more liveable urban areas. However, the benefits could go much further. Technological innovation can

⁵³ Accessed at: <https://www.transportfornewhomes.org.uk/>

support local authorities as they work collaboratively to develop plans which cover a wider range of people, places and issues.

- 4.13 With growth studies of this nature it is important not to simply focus on the 'path of least resistance' or locations with, cumulatively, the fewest constraints. The Local Plans will need to consider the disbenefits associated with the incremental spread of development where it is not comprehensively planned or may not benefit from targeted and sufficient primary infrastructure investment, particularly insofar as this relates to extensions of public transport provision or the potential to improve capacity on the transport network.
- 4.14 The Local Plans will need to set out what scale of growth will be permitted and the infrastructure items required to service that level of growth. If the scale is inadequate and results in incremental piecemeal growth then the infrastructure will not come forward effectively. The County will have an important role to play as they have to judge whether there is a satisfactory means of access for any new growth locations and whether the proposed infrastructure is adequate. Currently, the NPPF test is whether or not any one single development would result in 'severe' impacts. It is harder to assess the incremental effects on this basis.
- 4.15 Given there are fewer options for major new settlements of the order of 5,000+ to 10,000+ it is necessary to consider a strategy that seeks to focus on constellations of smaller urban extension/co-dependent options centred on larger existing settlements and Derby. So, irrespective of whether the growth locations come forward as allocations (or new style categories) in separate Local Plans, the Derby HMA authorities should consider what strategy and groups of sites work best together as 'baskets of sites' concentrated in sustainable transport corridors.
- 4.16 A Derby HMA-wide agreed spatial strategy with either aligned policies or a joint plan would offer significant opportunities for shared evidence base studies and it may be prudent to consider a joint Infrastructure Delivery Plan that could identify cross-boundary social, physical and green/blue infrastructure projects that will be necessary alongside the strategic-scale opportunities identified.

Next steps

- 4.17 The study considers strategic opportunities for growth outside of Derby City Council boundary, however, the role of the City will be key for those opportunities with a close functional relationships with Derby (including urban extensions to the City or new settlements with an umbilical/co-dependent relationship with the City). In addition, urban sites (whether infill or redevelopment opportunities) and smaller sites (<1,000 dwellings) throughout the study area have a critical role to play in the Derby HMA.
- 4.18 Furthermore, the Growth Options Study has been undertaken without reference to the housing need for Derby HMA or the individual authority areas. The housing need for the next tranche of the Local Plans is subject to the revised standard method for calculating need and the discussions that will follow between the Derby HMA authorities. Work will need to be undertaken to understand the amount of need that can be accommodated within the urban areas and on strategic sites. However, it is important to note that the area of land identified by this study is likely to be several times more than what is needed to accommodate future housing need. Therefore, choices over where the growth should go can be informed by this report and other technical evidence base documents as part of the wider plan preparation process, which will build in the views of local people and other stakeholders.

4.20 Table 5 (below) includes a series of recommendations and next steps for consideration.

Table 5 Next steps

Recommendations Derby HMA future work programme

Recommendation 1: Preparation of an HMA-wide Local Plan strategy, linked to further work on the broad areas of search identified in this study (assessed as suitable or potentially suitable). This Growth Options Study provides an initial assessment of broad areas of search that may have potential as future growth locations. Should any of the locations be taken forward for formal consultation, they will need to be supported by more detailed site specific investigations and consideration of sub-regional infrastructure delivery. How a spatial strategy is implemented could also take a number of forms e.g. Joint Derby HMA Local Plan; consistent cross-border strategic policies that feature in all three separate Local Plans; and/or alternative routes to delivery e.g. Local Development Orders or perhaps via the Development Consent Order process (as trailed in the Planning for the Future White Paper).

Recommendation 2: Duty to Cooperate discussions with neighbouring authorities, the County Council and statutory consultees. Discussions will need to explore the need for on-site provision of infrastructure or contributions towards off-site provision. The Derby HMA Councils will need to engage separately with partners on the opportunities for funding and implementation, including Derbyshire County Council, Homes England and D2N2 LEP. This ought to consider any opportunities or eligibility for funding, together with any appetite from partner organisations to get involved in a potential delivery. There are also a number of broad areas of search that carry cross-border implications with East Staffordshire, Erewash and adjoining authorities in Nottinghamshire and Leicestershire. Similar studies have been completed in neighbouring regions and consultation will help to reveal synergies and future collaboration opportunities.

Recommendation 3: Highways modelling – modelling will be required to fully assess assignment of development traffic, and the impact on the strategic road network which is already known to be congested. A multi-modal mobility strategy across the HMA or County may also help to coordinate efforts to reduce car borne travel, increase accessibility to services, and bring forward public transport service/active mode improvements in alignment with strategic growth locations. Such an approach would allow a more thorough look at planned areas for growth and the most feasible options for modal shift.

Recommendation 4: Infrastructure Delivery Plans (IDP) should be updated to encompass strategic growth areas. This will entail more detailed discussions with the statutory consultees and utilities companies to confirm the loading demand and obtain budget quotes for the supplies or any reinforcement costs. It may be worth considering a HMA-wide IDP to fully capture cross border requirements and support joint funding bids or negotiations with applicants.

Recommendation 5: Housing and Economic Land Availability Assessments (HELAA) should be updated for submitted sites within the Broad Areas of Search where this reports has identified new constraints. In addition, when the Growth Options Study is published you may seek to invite call for sites specifically within locations the Derby HMA authorities progress as locations for potential growth. The Councils will need to separately liaise with the relevant landowners in their Local Authority to understand their positions, next steps and thoughts on potential promotion opportunities.

Recommendation 6: Based upon the history of coal mining in the East Midlands it would be prudent to undertake detailed Coal Mining Risk Assessments (CMRA). Further engagement with Derbyshire County Council regarding Minerals and whether or not this would preclude development during the plan period is also required. Where allocations are progressed in areas flagged with geo-environmental constraints it is recommended that a detailed desk study and preliminary intrusive ground investigation and monitoring is undertaken to confirm ground conditions and to identify the location of/prove the presence or absence of any potentially contaminated land. The investigation should be targeted to areas identified to have had a previous contaminative use, as well being sufficient to provide site wide coverage. The ground investigation should be designed with a view to enabling a robust ground model to be developed upon which a preliminary foundation assessment can be based, tailored to the intended development. A radon risk report should also be obtained from

UK Radon (Public Health England) which will serve to confirm and refine the extent of radon risk in areas identified with increased potential.

Recommendation 7: Viability – there are specific implications for IDP/CIL/s106 attached to strategic-scale development. It will be important to ensure there is sufficient confidence on scheme deliverability in order for sites to be allocated in a Local Plan(s) and to be found effective (sound) – in particular those that are larger, more strategic and which are expected to deliver a high proportion of future housing supply. The Derby HMA authorities will need to consider not only the viability of proposals, but also wider considerations of deliverability including but not limited to:

- The willingness and ability of landowners, promoters and developers to bring forward the land for development in the timescales envisaged. This will need to include a credible delivery approach and understanding of any barriers e.g. ransom strips.
- The ability to deliver all necessary infrastructure and mitigation requirements, with no technical ‘showstoppers’ in terms of the feasibility and practicality of delivery. Some degree of uncertainty over the specific funding and delivery of long term infrastructure is to be expected, but the early involvement of statutory consultees/utilities companies will be key.
- The timing of when development and infrastructure is to be implemented, on the basis that any items anticipated early in the plan period will require a greater level of certainty.

Recommendation 8: Detailed Masterplanning will be required for strategic growth options – this will enable further testing of capacity and provision of an indicative layouts and concept plans (including access points, land use schedules, landscape schemes and approach to infrastructure etc.)

Recommendation 9: Sustainability Appraisal (SA) – should the Councils decide to take forward any strategic sites, a parallel SA process will need to consider synergistic and cumulative effects and determine whether the locations are “reasonable alternatives” for moving forwards, to be included in the sustainability appraisal of reasonable alternative spatial strategies. Many of the study outputs will be appropriate for inclusion in future SA reports.

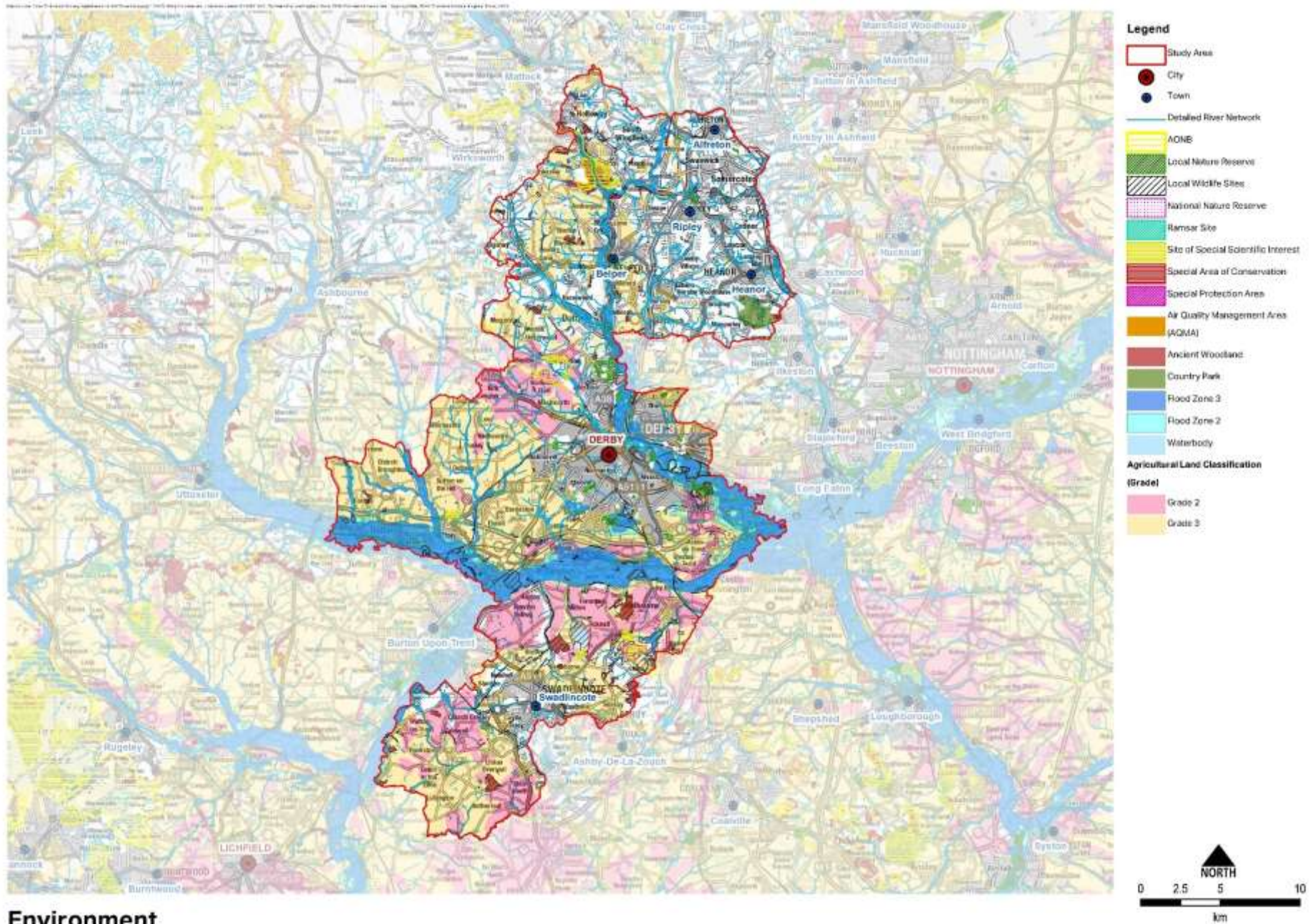
Recommendation 10: Additional Evidence Studies – there are several evidence base reports that would lend themselves to a Derby HMA-wide study area. Future iterations of the Strategic Flood Risk Assessment and Water Cycle Study would be obvious examples to understand implications for wider catchments and locations that may be downstream from strategic growth locations. Retail, employment and leisure needs could provide further investigation into the appropriate quantum of retail and leisure floorspace to be accommodated on-site in order to not harm the vitality and viability of existing centres and locations. Similarly a Derby HMA-wide green and blue infrastructure strategy would help to highlight components to be included in a HMA-wide IDP (see recommendation 4).

Recommendation 11: Finally, an implementation strategy should be considered during the plan making stage. The Councils should consider the extent of potential public sector involvement and overall approach to delivery for any strategic options that are progressed. Options could include:

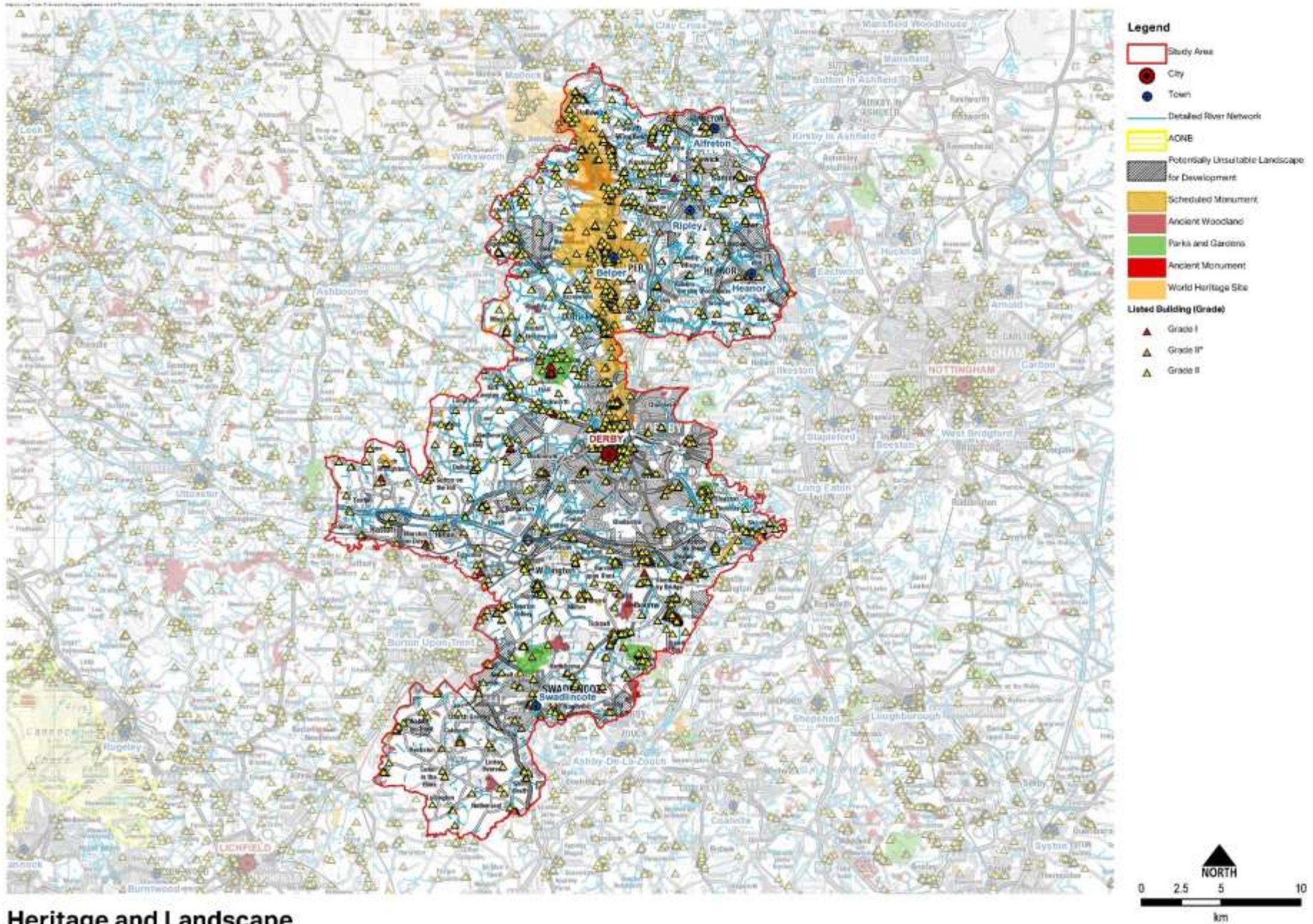
- Delivery led by the market/private sector. The Councils role would be to work with the landowners and developers to deliver schemes compliant with policy, using tools such as a Planning Performance Agreements, design codes, masterplans to secure active and positive collaboration.
- Partial public sector involvement. For example, more proactive Council-led work to bid for funding and/or allocate local resources to support the scheme’s delivery, such as direct delivery of housing and/or infrastructure. Close cooperation with Homes England etc.
- Comprehensive role. This could entail establishing local delivery vehicles/development corporations, securing appropriate funding with a view to taking schemes through planning and then on to delivery. This may also include the compulsory purchase of land, acquisitions for land assembly or acting as master developer.

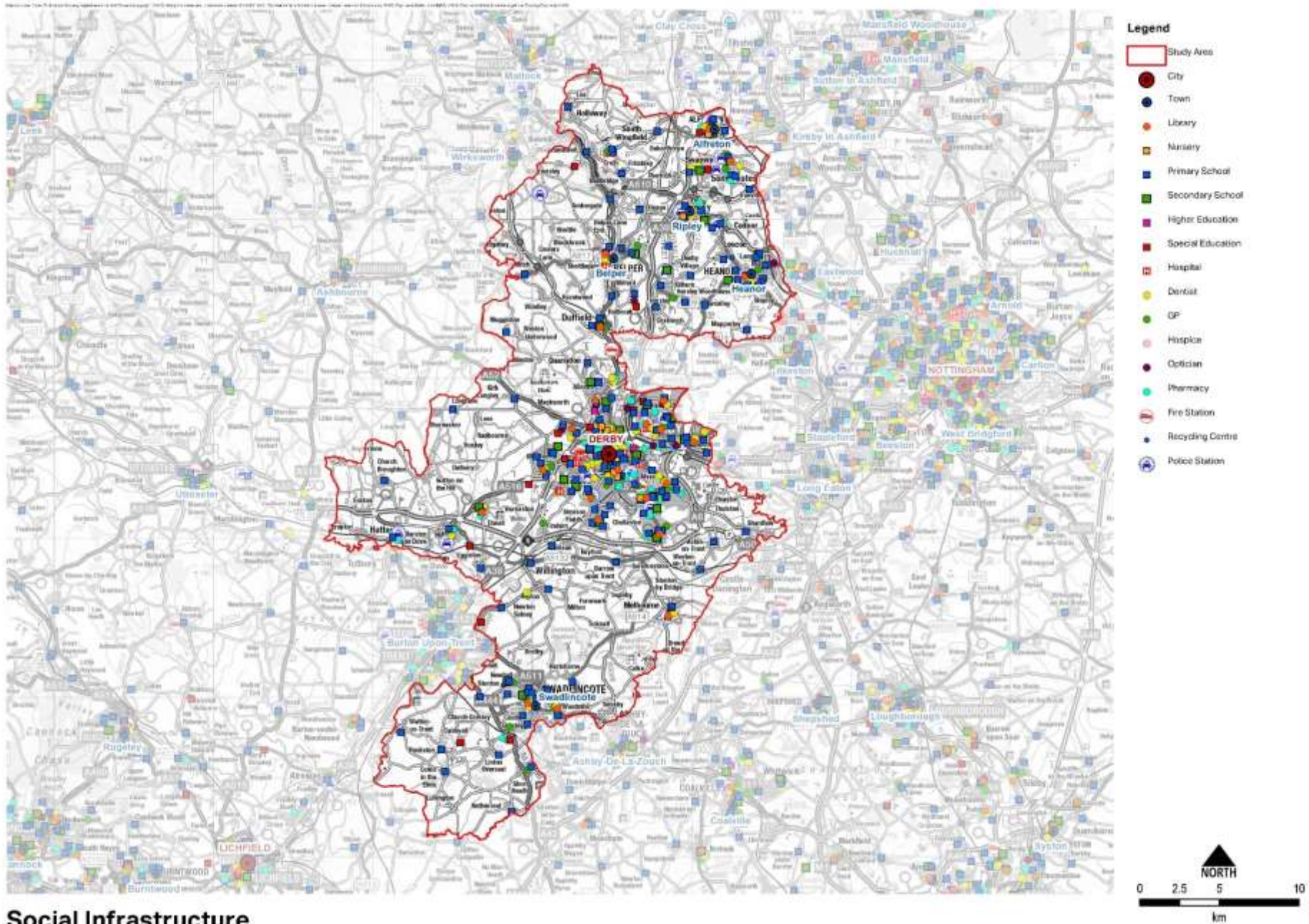
The approach to local governance is also important. There may need for appropriate scrutiny and formal decision making on preferred options (via committee structures across the HMA).

Appendix I: Thematic Mapping

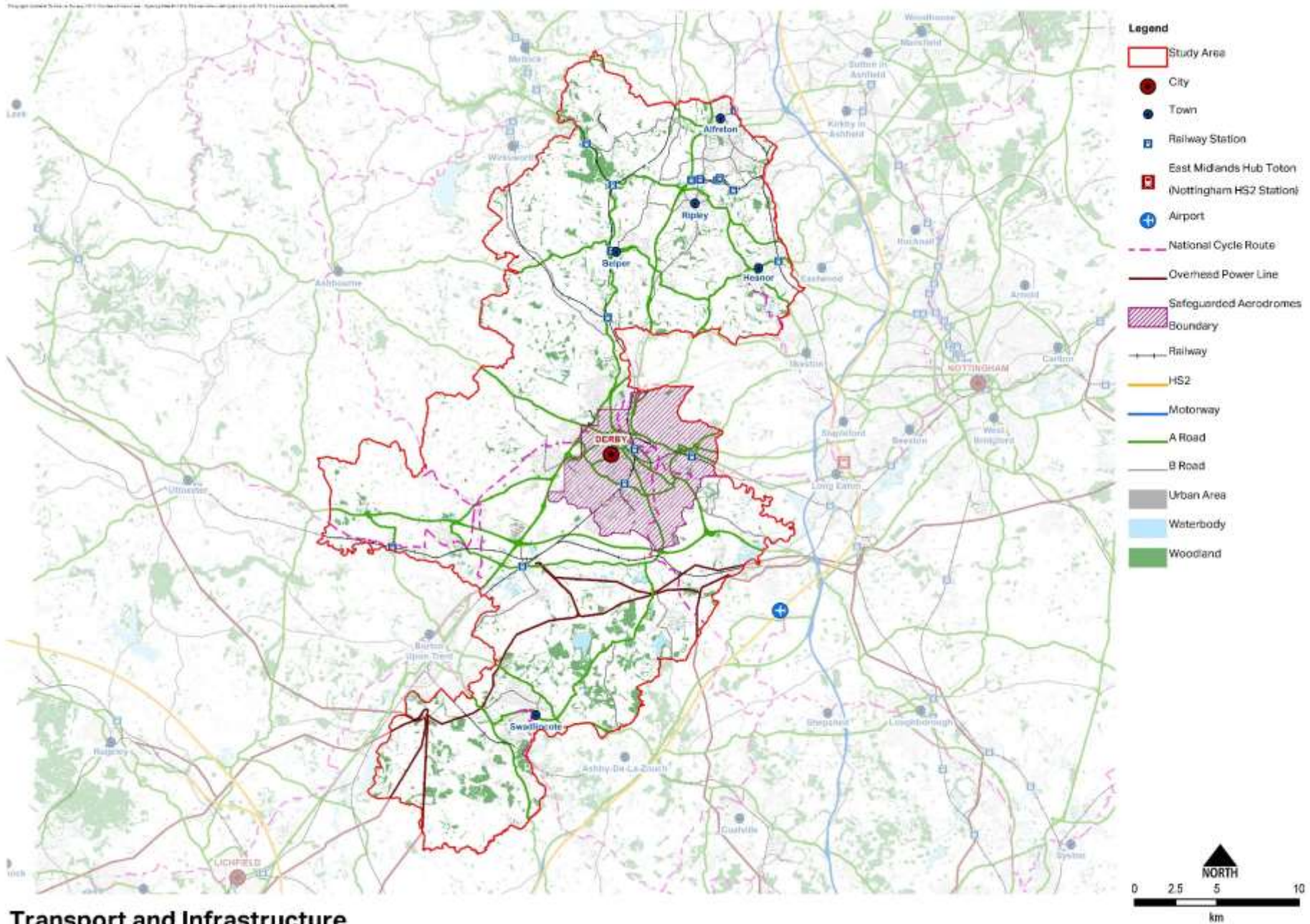


Environment





Social Infrastructure



Transport and Infrastructure

DRAFT

Appendix II: Site visit photos

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Alfreton 1:



Alfreton 2:



Drakelow 1



Drakelow 2



Drakelow 3a



Drakelow 3b



Duffield 1



Duffield 2



East of Burton (Brizlincote) 1



East of Burton (Brizlincote) 2



East of Burton (Stanton) 1



East of Burton (Winhill) 1



East of Burton (Winhill) 2



Foston 1



Foston 2



Heanor (Aldercar) 1



Heanor (Aldercar) 2



Heanor (Aldercar) 3



Heanor (Langley Mill) 1



Heanor (Langley Mill) 2



Heanor (Langley Mill) 3



Heanor (west) 1



Heanor (west) 2



Hilton 1



Hilton 2



Melbourne 1



Melbourne 2



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Ripley 1 View east from Street Lane, south of the junction with the B6374



Ripley 2 View east from Street Lane, near Strelley Court Farm



Ripley 3 View north from PRoW to the west of Upper Marehay Road



Ripley 4 View north from Coach Road, Butterley



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Ripley 5 View northwest from PRoW to the east of Nottingham Road Recreation Ground



Ripley 6 View east from PRoW to the east of Nottingham Road Recreation Ground



Shottle 1



Shottle 2a



Shottle 2b



Shottle 3



Smisby 1



Smisby 2



South of Derby (Chellaston) 1



South of Derby (Chellaston) 2



South of Derby (Infinity Park) 1



South of Derby (Infinity Park) 2



South of Derby (Weston-on-Trent) 1



South of Derby (Weston-on-Trent) 2



Swadlincote East 1



Swadlincote East 2



Swadlincote West 1



Swadlincote West 2



West of Derby (Burnaston) 1



West of Derby (Burnaston) 2



West of Derby (Mackworth) 1



West of Derby (Mackworth) 2



West of Derby (Radbourne) 1



Willington 1a



Willington 1b



Willington 2

