

T R I B A L

Greater Nottingham Growth Point

Greater Nottingham Sustainable Locations for Growth

Tribal, Roger Tym and Partners and CampbellReith

Final Report

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Greater Nottingham Sustainable Locations for Growth Study

Tribal*

Roger Tym and Partners

CampbellReith

Final Report

A Report Comissioned jointly by:



**Nottinghamshire
County Council**

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1 Introduction

1.1 Context

1.1.1 This report sets out the draft findings of the Greater Nottingham Sustainable Locations for Growth study. The study was led by Tribal and supported by Roger Tym & Partners who provided advice on infrastructure capacity and delivery issues and Campbell Reith who provided geotechnical and environmental inputs.

1.1.2 The purpose of the study is to assess potential locations for appropriate levels of housing growth within Greater Nottingham over the next 25 years as directed by Government within the Regional Spatial Strategy (RSS) for the East Midlands (March 2009).

1.1.3 Between 2006 and 2026, the RSS requires a minimum of 60,600 new homes to be provided for in Greater Nottingham. 8,551 homes were developed between 2006 and 2009, resulting in a provision figure of 52,049 between 2009 and 2026. The RSS splits provision between that to be provided in or adjoining the Principal Urban Area (PUA), and that to be provided in more rural areas. Housing provision is set out in Table 1-1.

	Built April 2006 to 2009	Remaining to March 2026	PUA growth	Non PUA growth
Hucknall	611	2989	0	2989
Broxtowe	1035	5765	2796	2969
Erewash	1268	5932	1750	4182
Gedling	947	7053	3923	3130
Nottingham City	3550	16450	16450	0
Rushcliffe	1140	13860	10278	3582
Greater Notts (total)	8551	52049	35197	16852

Table 1-1: RSS Growth figures

1.1.4 The study follows publication of the Appraisal of Sustainable Urban Extensions¹. The Sustainable Urban Extensions study provided advice on the most suitable location or locations for development of Sustainable Urban Extensions adjacent to the Nottingham Principal Urban Area² (PUA) as well as to the Sub Regional Centres of Hucknall and Ilkeston.

1.1.5 The focus of this study is on the parts of Greater Nottingham outside both the Principal Urban Area and those areas not covered by the existing Appraisal of Sustainable Urban Extensions, including areas within the Green Belt. The focus will therefore be on the more rural towns, villages and countryside of Greater Nottingham and includes the administrative boundaries of Broxtowe, Gedling, Nottingham and Rushcliffe Councils and Erewash Council in Derbyshire. The southern part of Ashfield Borough is included in the Study area, but as this only covers Hucknall, which was part of the Sustainable Urban Extensions study, Ashfield has not been considered as part of this Study.

¹ Appraisal of Sustainable Urban Extensions, Tribal, June 2008

² The Nottingham PUA consists of Nottingham and its contiguous built-up area, including the towns and suburbs of Arnold, Beeston, Carlton, Clifton, Long Eaton, Sandiacre, Stapleford, Toton and West Bridgford.

1.2 Purpose of the study

- 1.2.1 The report provides the Greater Nottingham councils with a useful starting point to consider impact and constraints to the growth of smaller settlements and villages.
- 1.2.2 The study also provides a snapshot of service provision and infrastructure at one point in time, and although it does take into account planned future infrastructure and service provision plans, the assessment is reliant on data from other parties which may not be up to date, or consistent across each local authority area. For example it has not been possible to obtain data from Nottinghamshire County Council education for four of the settlements in the study. These settlements are Bestwood Village, Newstead, Lambley and Woodborough, all of which are in Gedling Borough.
- 1.2.3 Any subsequent proposals for housing growth will be the subject of public consultation and the council will also need to consider the results of other supplementary studies (such as studies into infrastructure constraints of clean waste water provision) which were not available at the time of the study.
- 1.2.4 While the study considers a number of locations for housing growth it does not necessarily follow or imply that development of some or all of these sites will take place or that development of any of these sites is supported by the local planning authorities. The report provides the local planning authorities with a technical evidence base to consider future options for housing allocations. It should be noted that no specific amount of land was considered for development but all locations within a wide area of search have been reviewed to enable the relevant authorities to plan for the most accessible and sustainable places for growth.
- 1.2.5 It is also important to note that the study does not consider issues of land ownership or economic viability and therefore, while there may be sites that have been judged to be suitable for development, further work would need to be undertaken to establish whether these sites are available or achievable.

1.3 Approach

- 1.3.1 The aim is to provide information on the merits and demerits of accommodating housing and ancillary growth in the areas that lie outside the Principal Urban Area (PUA). This information should assist in deciding where and what form development should take in order to meet growth targets for each of the Districts in a way that satisfies a range of environmental, social, transport and other objectives.
- 1.3.2 While the individual areas identified have been assessed in their own right, recommendations are also provided as to how these areas might be combined or clustered. At the broad scale, a decision will be needed on whether to distribute growth as evenly as possible (a dispersed growth option) or whether to focus growth in a more limited number of locations, and if so how. The report offers evidence that will inform this decision.
- 1.3.3 The process for identifying the most suitable location(s) for new growth involved dividing the study area into roughly equal segments. The study area comprises the administrative areas of Broxtowe, Erewash, Gedling and Rushcliffe. These divisions were not based on any particular rationale other than loosely grouping the settlements within Local Authority boundaries to ensure total coverage.

- 1.3.4 The most appropriate type of growth in rural areas outside cities and large towns is around existing towns and villages, so that existing services and infrastructure can be used to support growth. The focus of the assessment was therefore on the area around towns and villages in the rural hinterland of Greater Nottingham. However, the rest of the rural area was also included in the assessment, to allow for the consideration of new free-standing settlements.
- 1.3.5 A number of settlements were identified for assessment within each broad search area. All of the main towns and villages outside the Principal Urban Area within the Local Authority areas of Broxtowe, Erewash, Gedling and Rushcliffe were included, unless they had already been assessed as part of the Appraisal of Sustainable Urban Extensions work, or unless they had a population of less than 750.
- 1.3.6 A 'catchment area' of 1km in width was drawn around each identified settlement to form an Assessment Area. A 1km catchment is roughly equivalent to 15 minutes walking distance and forms a credible 'area of search'. Figure 2-1 shows both the Broad Search Areas (in red) and the more focused Assessment Areas (around each identified settlement).
- 1.3.7 It should be noted that that this study is concerned with large scale growth, as Table 1-1 shows. The settlements considered in this study range from 750 to 11,000 population. It is likely that within areas judged to be unsuitable for growth in this study, there will be small sites and infill sites which are suitable for housing. However, these smaller sites are likely to have been considered within the Strategic Housing Land Availability Assessment (SHLAA)³.
- 1.3.8 The criteria used to assess each settlement are those used in the Appraisal of Accessible Settlements work, including environmental and geo-environmental, infrastructure, transport and accessibility, housing market factors, economic development and regeneration, and Green Belt and strategic policy. An additional category has been included, dealing with landscape character; and information on the availability of sites taken from the Strategic SHLAA has been used to inform existing categories. These two new data sources were not available at the time of the Sustainable Urban Extensions study.
- 1.3.9 Each settlement has been assessed against the criteria framework and the interim results are reported in Chapter 3.

1.4 Consultation

- 1.4.1 In addition to an assessment based on available data, consultation has taken place (and in some cases is ongoing) with a number of stakeholders to assess views on growth in various locations. Consultation was carried out with utilities providers, transport providers, statutory environmental bodies and education and health providers.
- 1.4.2 A full list of stakeholder consultees can be found in Appendix D.

1.5 Report Structure

- 1.5.1 The remainder of this report is structured as follows:
- Chapter 2 sets out the approach to identifying search areas and outlines a criteria framework for assessing each assessment area.

³ 2008/09 Joint Strategic Housing Land Availability Assessment for the Nottingham Core Housing Market Area (HMA) and Hucknall

- Chapter 3 sets out the draft summary results of the assessment including an initial conclusion on each settlement as to its suitability for future growth and potential scale of growth.
- Chapter 4 sets out conclusions and recommendations
- The Appendices contain the detailed assessment for each assessment area, as well as maps, stakeholder contacts, transport assessment and education infrastructure capacity and thresholds.

2 Search Areas and Criteria

2.1 Broad Search Areas

2.1.1 Figure 2-1 shows the Broad Search Areas identified for the purposes of this study, and the focussed Assessment Areas within these. The Broad Search Areas are:

- Rushcliffe East
- Rushcliffe Mid
- Ruscliffe West
- Erewash South
- Erewash North
- Broxtowe
- Gedling North
- Gedling South

2.2 Assessment Areas

2.2.1 Table 2.1 lists 34 assessment areas and the broad search areas they fall within, which correspond approximately with the areas shown on Figure 2.1. These assessment areas and the broad search areas form the basis of the study.

2.3 Criteria

2.3.1 Each broad search area was then assessed against a number of criteria indicating suitability for development. The only criterion that took priority over any other was the sieve mapping, which always occurred first, in order to eliminate land that was environmentally not suitable for development no matter what the remaining criteria indicated.

- Sieve mapping
- Infrastructure considerations
- Geoenvironmental considerations
- Transport and accessibility
- Housing affordability
- Economic development
- Regeneration potential
- Green Belt and/or strategic policy
- Housing land availability
- Landscape / urban character

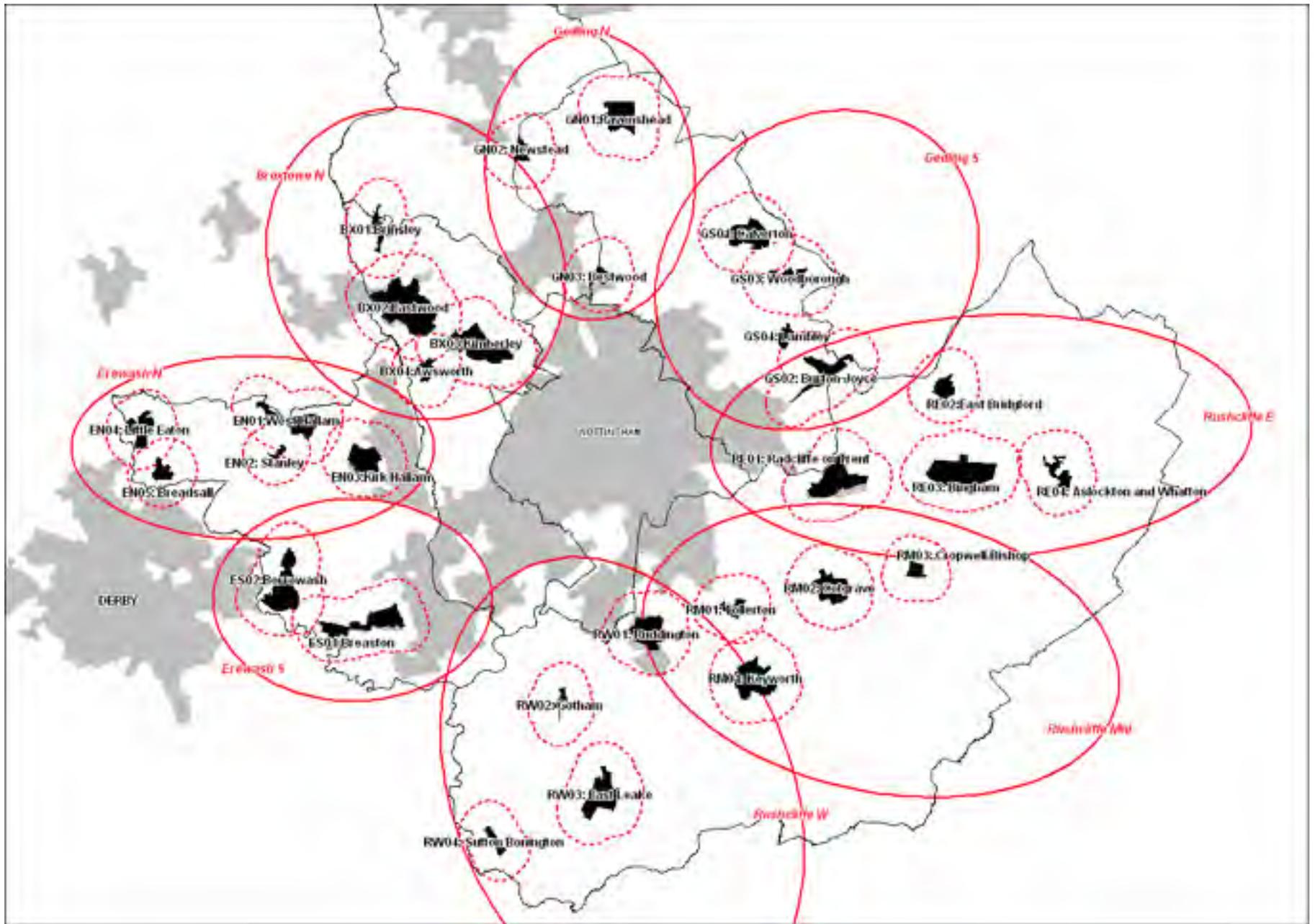


Figure 2-1: Broad Search Areas and assessment area

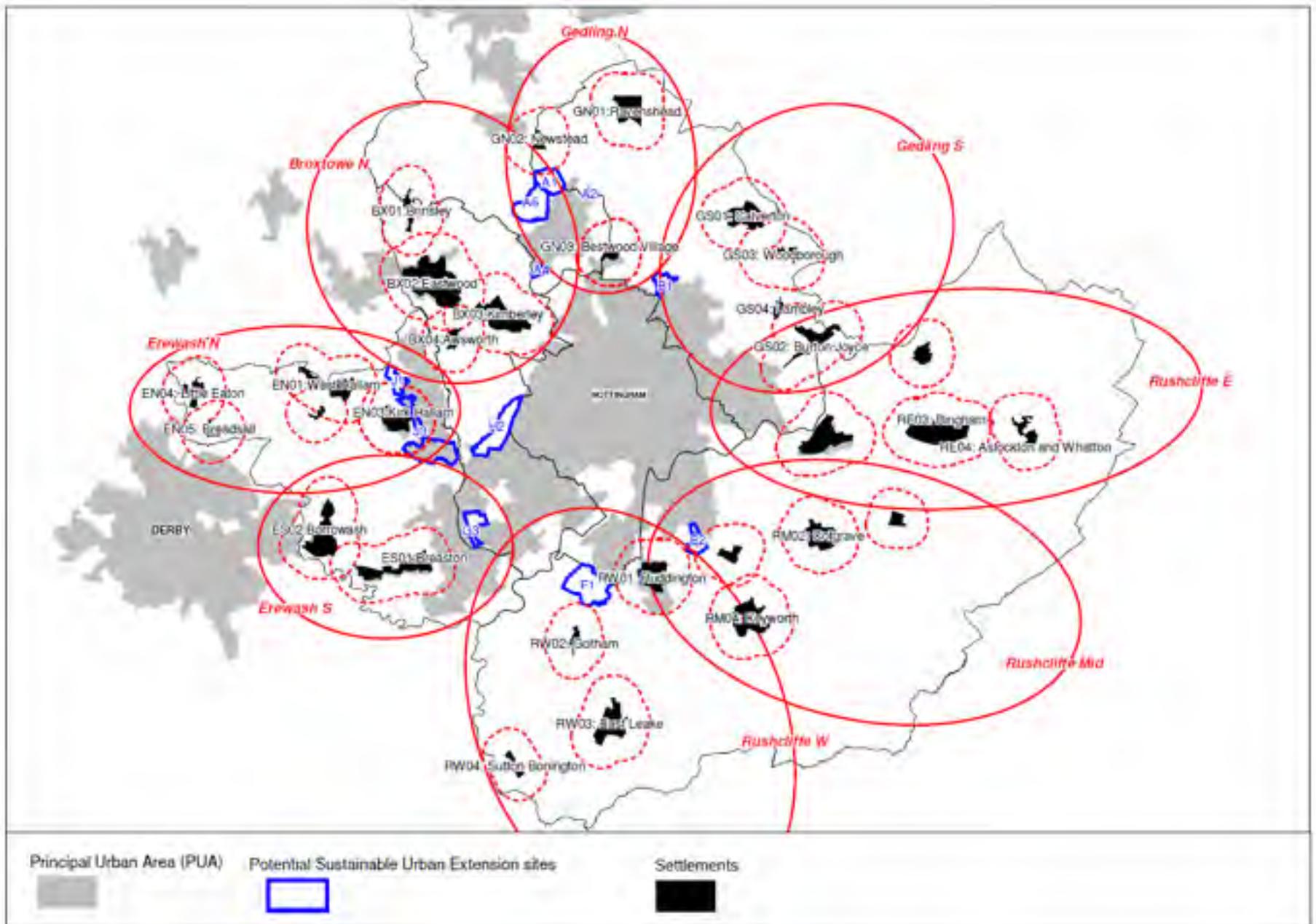


Figure 2-2: Assessment settlements and potential Sustainable Urban Extension sites

Table 2-1: List of Assessment Areas

Broad search area	Assessment Area
Rushcliffe East	RE01 Radcliffe on Trent
	RE02 East Bridgford
	RE03 Bingham
	RE04 Aslockton and Whatton
	Rest of Rushcliffe East
Rushcliffe Mid	RM01 Tollerton
	RM02 Cotgrave
	RM03 Cropwell Bishop
	RM04 Keyworth
	Rest of Rushcliffe Mid
Rushcliffe West	RW01 Ruddington
	RW02 Gotham
	RW03 East Leake
	RW04 Sutton Bonington
	Rest of Rushcliffe West
Erewash S	ES01 Breaston
	ES02 Borrowash
	Rest of Erewash South
Erewash N	EN01 West Hallam
	EN02 Stanley
	EN03 Kirk-Hallam
	EN04 Little Eaton
	EN05 Breadsall
	Rest of Erewash North
Broxtowe	BX01 Brinsley
	BX02 Eastwood
	BX03 Kimberley and Watnall ⁴
	BX04 Awsworth
	Broxtowe North (Rest of Broxtowe)
Gedling N	GN01 Ravenshead
	GN02 Newstead
	GN03 Bestwood
	Rest of Gedling North
Gedling S	GS01 Calverton
	GS02 Burton Joyce
	GS03 Woodborough
	GS04 Lambley
	Rest of Gedling South

⁴ Watnall was included in the Nottingham Sustainable Urban Extension Study and should therefore be excluded from this study. However, because this report considers a different scale of growth from the SUE study, references to Watnall have been made nonetheless.

Criterion 1 Sieve mapping

- 2.3.2 When considering the assessment area, the first indication of land suitable or otherwise for housing growth came from analysis of immovable environmental constraints or protective designations on the land covered. This first phase of assessment relied principally on GIS mapping and had the effect of 'sieving' out those areas where development would be less desirable in relative terms- hence our phrase 'sieve mapping'.
- 2.3.3 Some of these protective designations are local, non-statutory landscape designations (for example, Sites of Importance for Nature Conservation). The most recent national planning guidance on development in rural areas (PPS7) indicates that 'rigid local [environmental] designations...may unduly restrict acceptable sustainable development' and that therefore it is preferable to replace them with criteria-based policies in LDDs instead⁵.
- 2.3.4 According to PPS7, non-statutory local designations should not be regarded as absolute constraints to development. The approach at this stage is to seek to avoid local designations to the greatest extent possible. Using this approach, if sufficient undesignated land cannot be shown to exist for a part of the study area or a local designation is unduly restricting acceptable sustainable development in a particular location then this initial assessment will be reviewed.
- 2.3.5 Ultimately, the intention would be to account for the likely quantum of development more sustainably than by using the designated land. Such an approach is bolstered further by the fact that at this stage in the process of producing LDFs, the criteria-based policies in LDDs referred to by PPS7 that will eventually replace map-based designations are still under development.

Flood risk

- 2.3.6 Among the designations with the strongest presumptions against housing development at national level are those areas at risk of fluvial flooding. PPS25 grades land into four zones, Zone 1 (low probability of flooding), Zone 2 (Medium probability, or between 1 in 100 and 1 in 1000 year annual risk of fluvial flooding), Zone 3a (High probability of fluvial flooding) and Zone 3b (Functional floodplain)⁶. The data that has been used in this study is Environment Agency mapping, published September 2009.
- 2.3.7 The Environment Agency has advised for studies of this nature that all zones from Zone 2 upwards should be treated as absolute constraints to development at a strategic level. Therefore all land falling within these areas was considered as being unsuitable for housing development.

Statutory environmental designations

- 2.3.8 To simplify treatment of the large number of environmental designations across the study area, they may be divided into statutory and non-statutory designations. Statutory designations within the study area consist of Sites of Special Scientific Interest (SSSIs) and Local Nature Reserves (LNRs). As these are statutory designations, they have been treated as absolute constraints to development.

⁵ Planning Policy Statement 7: Sustainable Development in Rural Areas. Office of the Deputy Prime Minister, 2004 (Paragraph 24).

⁶ Planning Policy Statement 25: Development and Flood Risk. Communities and Local Government, 2006 (Annex D)

Non-statutory environmental designations

- 2.3.9 Non-statutory designations within the study area consist of national designations (for example, Ancient Woodland) and local designations (such as Prominent Areas for Special Protection and so on). To complicate matters further, although national designations can apply in any part of the study area, many of the local designations apply only within the designating authority's boundaries. For example, within the current study area, only Broxtowe designates Prominent Areas for Special Protection⁷, whereas only Gedling designates Primary and Secondary Ridgelines⁸.

Heritage designations

- 2.3.10 In a similar way to the approach employed for environmental designations, development will be avoided in areas where it would adversely impact on the setting of a historic park or garden, a conservation area or a Scheduled Ancient Monument, in accordance with PPG 15⁹. As with the non-statutory environmental designations, the consultant team acknowledge the general principle that, if sensitively designed, it may be possible to accommodate some development in proximity to such locations.

Agricultural land

- 2.3.11 The study area contains significant amounts of Grade 2 (graded Very Good quality) agricultural land. The adverse implications of losing Grade 2 agricultural land are recognised by PPS7, which states that the loss of agricultural land should be taken into account as a development consideration but notes that in some cases, development of Grade 2 agricultural land may be unavoidable, where building elsewhere 'would be inconsistent with other sustainability considerations'. PPS7 concludes that 'it is for Local Planning authorities to decide whether best and most versatile agricultural land can be developed, having carefully weighed the options in the light of competent advice'¹⁰. Therefore, PPS7's approach to development on Grade 2 agricultural land is consistent with its approach to non-statutory local environmental designations (see paragraph 2.2.4); neither should be regarded as absolute constraints to development.
- 2.3.12 PPS7's advice is carried through even more strongly into the East Midlands RSS, which states that 'the best and most versatile agricultural land should be protected from permanent loss or damage'.¹¹
- 2.3.13 Given this national policy context, we have assumed throughout that loss of Grade 2 agricultural land quality is generally undesirable and therefore is, on some level, a constraint to development. For this reason, it is noted throughout where Grade 2 agricultural land loss might occur if a given location were to be developed. However, initial assessment of the location of all Grade 2 agricultural land in the study area reveals, in the judgement of the consultant team, that, in contrast to the location and extent of land covered by local environmental designations, the likely quantum of development that is

⁷ Broxtowe Local Plan, Broxtowe Borough Council, 2004.

⁸ Gedling Borough Replacement Local Plan, Gedling Borough Council, 2005.

⁹ Planning Policy Guidance 15: Planning and the Historic Environment. Department of National Heritage, 1994.

¹⁰ PPS7, paragraphs 28-29.

¹¹ Policy 26 of East Midlands RSS.

required will, given the location and extent of Grade 2 land, probably entail some loss of such land.

Criterion 2 Transport and Accessibility

- 2.3.14 The transport and access audit identified, in broad terms, the configuration, capacity and quality of existing networks and facilities. It also identified corridors and nodes that present opportunities for extension or enhancement to deal with travel patterns derived from the planned growth. This led to a two-part assessment covering firstly, criteria related to current levels of provision, and secondly, criteria relating to potential benefits from growth. These are labeled “as is” and “potential” assessments. Consideration was also given to the potential for clustering growth within corridors served, or capable of being served, by high quality public transport.
- 2.3.15 There are a number of differences in the transport assessment from the earlier assessment of Sustainable Urban Extensions.
- 2.3.16 First, the transport assessment did not consider the areas outside the identified settlement catchments, since purely rural development was considered incapable of meeting transport sustainability criteria. All purely rural sites would score “red”.
- 2.3.17 Second, cycle and walk were not considered as generally viable modes except for access to local village facilities (included in the Accession¹² criterion, used in the Accessible Settlements Study¹³) and for cycle to settlements within about 5 miles of Nottingham city centre, of which there were only two, or Derby city centre, again two.
- 2.3.18 Third, inbound accessibility to the villages was ruled out, since none of them were judged capable of offering sufficient inbound accessibility by non-car means for anything other than local facilities. For example, major employment sites in villages would unavoidably lead to very high levels of car commuting.
- 2.3.19 Fourth, connectivity to adjoining areas was a key aspect of the Sustainable Urban Extensions study. For this analysis, connectivity is much less important, since nearby villages may not offer any greater degree of facility provision than the host village. Also connectivity on foot and cycle is extremely difficult to provide between villages. However, the potential for connectivity along corridors by public transport is included in the criteria.
- 2.3.20 Fifth, the red scores in the transport assessment does not mean, as with some other criteria, that there are show-stopping reasons for not developing the land in question. In transport, constraints can almost always be overcome, given enough resources. Red therefore means undesirable and/or considerably worse performing than other sites in the pool.
- 2.3.21 The transport assessment paid particular attention to:
- Accessibility to a range of facilities by public transport, foot and cycle. The data were mostly taken from the results from the Accession model as part of the Accessible Settlements Study

¹² Accession is a software package used for modelling accessibility.

¹³ Draft Study to assess the accessibility of settlements across Greater Nottingham, Nottinghamshire County Council, October 2009 – Final report will be called Accessible Settlements Study

- Public transport routes and their potential for dealing with growth. The clustering analysis focused as well on the potential for higher-order public transport that could result from fairly large-scale growth in particular corridors. Park and Ride was included as a criterion, but this has to be treated with caution, since Park and Ride provision can subtract from other public transport patronage. It has therefore not been considered in the “potential” analysis beyond the currently planned sites in relation to the Phase 2 NET lines
- The quality of roads linking new development sites to the city centre and adjacent communities
- Capacity of existing roads and public transport services was part of the analysis, but this was moderated by the existence of peak hour congestion on most routes into Nottingham, and the almost universal requirement for public transport services to be protected from this congestion. This aspect of the analysis is therefore most useful in relation to the potential for improvements, rather the simple avoidance of trouble spots (which would simply rule out development in any of the areas)
- The ability of each settlement to be suited to sustainable transport in its own right, together with a further criterion as to whether this suitability is increased by the settlement being included in a corridor cluster
- The “potential” analysis also considered the likelihood of being able to reach two major centres at either end of the corridor. The corridors included were between Nottingham and Derby and between Loughborough and Mansfield, with Newark and Grantham given secondary consideration. The reason for this criterion is that public transport corridors with strong demand in both directions are considerably more viable, and hence more sustainable
- The “potential” analysis also considered the extent to which the centre or centres to which the village relates encouraged non-car use by virtue of the degree of parking or other restraint in the centre. Nottingham was considered strongest in this respect.

2.3.22 Other factors and cross-sector analysis includes the potential for achieving critical mass for the provision of trip-attracting activities such as shops, schools, employment and leisure. This in turn helps determine the potential for achieving low car mode-shares by enabling high quality walking and cycling facilities. This has been analysed only in broad terms, since it would depend not just on the location of growth, but on the amount and configuration of the growth, which are aspects on which there are no data at this stage.

2.3.23 Available data on network capacities and performance, planned and programmed infrastructure projects, policy developments and their impacts (e.g. workplace parking levy) have been used for the assessment and evaluation of alternative broad areas of development. In terms of road capacity, the policy context of providing capacity to create higher order and reliable public transport is acknowledged, rather than providing increases in capacity for general traffic.

2.3.24 The transport element of the project is based on a working assumption of low impact growth scenarios, in which the greater part of transport and accessibility demand will be met by means other than individual motorised transport. This objective continues the tradition of forward-thinking transport policy in Nottingham, and will be a major determinant of the growth scenarios to be developed for testing. This will include development mixes and densities as well as directions and form of future development.

Criterion 3 Geo-environmental considerations

- 2.3.25 CampbellReith have carried out a preliminary geoenvironmental assessment for each potential site.
- 2.3.26 In most cases, the geoenvironmental constraints noted 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.
- 2.3.27 Furthermore, it should be noted that risk classifications are relative. Where a 'High' geoenvironmental risk has been identified, it does not indicate that contamination is a certainty. Rather, a high risk classification would indicate that – based upon the data available – there is an increased likelihood of contamination being present.
- 2.3.28 Where such risks are highlighted at this stage, further assessment (required under the current Planning Policy Framework [PPS23: Annex 2]) will need to be undertaken in order to minimise the potential for increased development cost and lead time. Provided that suitable provision is made for pre-development assessment and design, it is highly unlikely that a site will not be technically feasible for development.
- 2.3.29 For each Assessment Area, potential constraints were mapped and those covering more than one site in each Direction were covered in the assessment. The potential constraints included the following:

Geological Review

- 2.3.30 An initial appraisal of each site has been undertaken using BGS mapping¹⁴ and based upon the following assessment criteria:
- **Solid Geology:** Primarily relating to the presence of outcropped or shallow coal measures and associated faulting. The presence of such deposits increase the likelihood that mining or similar activities (and the resultant geotechnical issues) are present at site; and
 - **Drift Geology:** Including the presence of superficial deposits and Made Ground.
- 2.3.31 A combined risk classification is then assigned for each site based upon the consideration of the above.

Radon

- 2.3.32 Radon is a naturally occurring radioactive gas which originates from minute amounts of uranium that occur naturally in rocks and soils. Reference has been made to the publication 'Radon - Guidance on protective measures for new buildings'¹⁵ to ascertain the likely requirement for radon protection measures to be installed on new buildings.

Pollution Issues

- 2.3.33 An initial contamination appraisal has been undertaken with reference to council GIS databases (where available), Ordnance Survey mapping and the Environment Agency website. In summary, the following issues were researched:

¹⁴ BGS England and Wales, Map Sheet 126 and 125, 1: 50,000 Series.

¹⁵ Building Research Establishment guide BR211, 2007.

- **Pollution Hazards:** Industrial processes and activities which have the potential to release contamination are registered with the Environment Agency and reviewed via the Environmental Protection Operator and Risk Appraisal (EA OPRA), which provides an aggregate score for each site in consideration of the industry complexity, location and emissions. Where such a site has been identified, the EA OPRA score and process has been considered and risk-designated appropriately.
- **Pollution Incidents:** Where an Environment Agency Pollution Incident is recorded within an area, risk has generally been designated as follows:

Major Incident – High Risk

Minor Incident – Medium Risk

Where no EA Pollution Incidents are recorded, the risk is designated as Low.

Landfilling Records

- 2.3.34 Landfill data has been obtained via a GIS database and the Environment Agency Website. In summary, the following landfills have been considered:
- **EA Registered Active Landfills** which are sites with a current license that are still accepting waste, or are no longer accepting waste but still being actively managed; and
 - **EA Registered Historic Landfills** which are sites that are now closed and may date back to early records.
- 2.3.35 Where either of the above landfills are identified within a development area or its immediate surrounds, a review is made on the type of waste accepted (where recorded) and risk designated appropriately.
- 2.3.36 In terms of contamination risk, landfills not only have the potential to generate leachate; gas generation and migration through granular soils may result in elevated levels of ground gas at site. Where such incidences occur, these are typically mitigated through a combination of risk assessment and the installation of gas protection measures.

Hydrogeological Sensitivity (Groundwater Sensitivity)

- 2.3.37 Groundwater is contained within underground strata (aquifers) of various types across the country. Groundwater provides a proportion of the base flow for many rivers and watercourses and in England and Wales it constitutes approximately 35% of water used for public supply. It is usually of high quality and often requires little treatment prior to use. However, it is vulnerable to contamination from pollutants, both from direct discharges into groundwater and indirect discharges into and onto land.
- 2.3.38 Aquifer protection classifications are defined as follows:
- Major – Highly permeable, may be highly productive and able to support large abstractions for public supply and other purposes.
 - Minor – Do not have a high permeability, rarely producing large quantities of water for abstraction, although are important both for local supplies and in supplying base flow to rivers.
 - Non – Generally regarded as having insignificant quantities of groundwater.

- Soil leaching classification data is based on soil physical and chemical properties which affect the downward passage of water and contaminants. This classification is not applied to soils above non-aquifers. Soils are divided into three types:
- H – High leaching potential – soils with little ability to dilute pollutants.
- I – Intermediate Leaching Potential – soils with a moderate ability to dilute pollutants.
- L – Low Leaching Potential – soils in which pollutants are unlikely to penetrate the soil layer either because water movement is largely horizontal, or they have the ability to dilute pollutants.

2.3.39 Soil leaching data is provided where available. However, it should be noted that leaching data for Non-Aquifers is not available.

2.3.40 The underlying hydrogeological sensitivity of the Directions for Growth was reviewed using the National Rivers Authority Groundwater Vulnerability 1:100,000 Map Series¹⁶. Where the underlying hydrogeology is classified as a Non-, Minor- and Major-Aquifer, sensitivity classifications have been assigned respectively.

2.3.41 Where a site is underlain by a number of aquifer classifications, a risk designation is assigned in light of the general site classification and the most sensitive aquifer classification present.

Environment Agency Source Protection Zones (Groundwater Protection)

2.3.42 The Environment Agency has defined Source Protection Zones (SPZs) for 2000 groundwater sources such as wells, boreholes and springs used for public drinking water supply. These zones show the risk of contamination from any activities that might cause pollution in the area. For each SPZ, the Environment Agency has categorised three main zones (inner, outer and total catchment). Where a SPZ is identified within an area, risk is designated accordingly with an 'Inner SPZ' attracting a 'High' sensitivity.

Criterion 4 Infrastructure Capacity and Potential

2.3.43 To ensure developments are truly sustainable, they need to be located so as to maximise existing infrastructure capacity where possible and to be of a critical mass to sustain the provision of new infrastructure where it is not already available. The range of infrastructure provision considered as part of this assessment included education and health facilities, utilities, and green infrastructure. In each case we liaised with key strategic service providers to consider the responses to the following questions:

- Are there constraints or existing capacity to support future development? For example, are there likely to be places in local schools which can meet some of the future requirement?
- What are the thresholds to make specific infrastructure viable?

2.3.44 For each Assessment Area, the infrastructure analysis helped to identify any key areas of concern that will require mitigation, potential capacity to absorb new development, threshold sizes for optimal development to support the infrastructure, and scope to link with planned new proposals.

¹⁶ Sheet 18: Nottinghamshire.

Education Infrastructure

- 2.3.45 The infrastructure analysis has been informed by Derby City, Nottingham City, Derbyshire County and Nottinghamshire County Councils, as all four local authorities have an impact on the service provision for the identified settlements.
- 2.3.46 Primary and secondary school capacities have been projected forward by the service providers to 2014 – 2018, based on current population data analysis and projected pupil roll numbers (see appendix E for a summary of information used to inform this assessment). This provides a helpful basis for a strategic study of this nature, as it begins to highlight areas that are projected to have future infrastructure capacities based on school roll projections. This information is very high-level, and more detailed assessment will need to be undertaken in the context of progressing LDF allocation or individual planning applications.
- 2.3.47 When assessing the traffic lights grading for each assessment area, priority has been given to the availability of secondary school capacity, as this is more expensive to provide and relies on larger catchment numbers to create new stand-alone provision. Further detailed investigation will be needed when considering potential development sites to see if other education infrastructure such as primary capacity is an issue in terms of delivery.
- 2.3.48 Where there is unlikely to be future capacity at secondary school level, this has been graded as amber. This is not to say that this is a ‘show stopper’ as it is possible, given the right level of investment to provide a new secondary school. It is also possible some additional surplus capacity may be generated by reducing in-migration.
- 2.3.49 Locations outside identified settlements have been assessed as ‘red’ for the traffic lights grading as these usually involve transporting children to either primary or secondary schools from remote locations. Hence, accessibility and transport will become important considerations.
- 2.3.50 It has not been possible to obtain data from Nottinghamshire County Council education for four of the settlements in the study. These settlements are Bestwood Village, Newstead, Lambley and Woodborough, all of which are in Gedling Borough. For these settlements, an amber assessment has been applied to reflect the absence of available information.

Primary Health Care

- 2.3.51 As part of the assessment, we have used published information and discussions with PCTs. The most consistent information available for patient – GP ratio is at district level and this has been included. The PCTs have prepared a five year Strategic Delivery Plan. Within this is a preliminary assessment of potential future investment for primary care centres, taking account of a range of indicators, including information on population changes, health deprivation and property condition. We have included the identified priorities, together with other information relating to future capacities stemming from recent investments programmes. This includes the LIFT schemes identified through our interviews with the PCT, as well as known capacity constraint issues.

Strategic Green Infrastructure

- 2.3.52 Consultation on strategic green infrastructure provision within each of the areas of search has taken place with the relevant local authorities. Although we are aware of the 3 Cities and 3 Counties Green Infrastructure Study, because this is largely confined to the Principal Urban Areas, there is little of immediate relevance to the areas of search. Therefore our approach for this study has been based on direct liaison with the local authorities. This liaison builds on the main strategic green infrastructure assets identified in the preceding Nottingham Sustainable Urban Extensions study, and identifying their

relevance to the areas of search, alongside any additional GI considerations which may need to be taken into account.

Utilities

- 2.3.53 We undertook consultation with the main water, energy and gas suppliers which cover the areas of search. Feedback from the utilities providers does not appear to identify any 'show stoppers'. Detailed capacity issues and constraints are likely to be identified at specific locations (i.e. at a more local level than assessed by this study), as constraints and capacity can vary significantly within a settlement. Where more detail has been provided by the companies, we include this at the appropriate juncture in individual settlement assessments.

Waste

- 2.3.54 We have made contact with the waste and recycling departments at County and authority level although have been unable to obtain detailed responses. Our comments in the individual settlement assessment reflect information obtained from desktop research.

Accessible Settlements Study (Draft) Findings On Accessibility to Services

- 2.3.55 Our assessment of infrastructure considerations also took into account the draft Accessible Settlements Study¹⁷.
- 2.3.56 The purpose of the draft Study (which unlike the present study, also covered Ashfield) was to establish common means of measuring and assessing in general terms the level of accessibility of existing settlements, particularly in terms of their residents' access to jobs, shopping, education and other services by walking, cycling and public transport.
- 2.3.57 In doing this settlements can be identified that have high accessibility levels and might support increased levels of development in sustainable locations.
- 2.3.58 The Study used a scoring system to measure the accessibility of education, employment, health, retail and community services and facilities for each settlement. An absolute total score for each settlement was generated- the maximum possible score being 300 and the lowest zero.
- 2.3.59 To simplify scoring in the context of this separate report, we have taken the overall score that each settlement achieved out of 300 and expressed it as a percentage. For example, Awsworth scored 226.1 in the report, meaning we have stated that it achieved a score of 75.36%.
- 2.3.60 To put the scores in context, it is useful to make a comparison with the average score for all settlements across Greater Nottingham outside the Principal Urban Area. The average score from the Accessible Settlements report is 50.8%. The average score for all settlements selected for the current study is 72.1%, (reflecting the fact that it is settlements of a certain size that have been selected for this study).

Further Water Cycle Information

- 2.3.61 As a further consideration for infrastructure capacity, there is an Outline Water Cycle Study currently underway. The results will not be available to feed into this study;

¹⁷ Draft Study to assess the accessibility of settlements across Greater Nottingham (Nottinghamshire County Council, October 2009). The final report will be called "Accessible Settlements Study".

therefore, in the absence of more detail, there is potential to place additional loading on sewerage system and increase spill frequency and volume from combined sewer overflows to receiving watercourses. Environment Agency records show that the majority of receiving watercourses are currently failing to meet required level of 'Good Ecological Status/Potential' set by the Water Framework Directive. They advise that tighter discharge consent standards may be required under the Urban Wastewater Treatment Directive.

Criterion 5 Housing Market Factors

- 2.3.62 Each settlement was assessed against data on relative housing need by submarket from the Nottingham Core HMA¹⁸ Housing Market Needs Assessment Update 2009¹⁹. The study shows areas by need and by surplus of affordable housing.
- 2.3.63 The assessment uses net rental need as an indicator of housing need and does not deal with net purchase need.
- 2.3.64 The figures taken from the report are based on the 'Bramley' model. This captures the main components of housing need of:
- New emerging households that cannot afford market housing, with the ability to afford estimated by comparing entry level house prices or private sector rents to incomes
 - Backlog need based on local authority housing registers
 - A factor for owner occupiers falling into need
 - An element for need from migrations
- 2.3.65 This is then compared to the supply of affordable lets and sales from local authorities and housing associations.
- 2.3.66 The model can be summarised as:
- Net need (units per year) = gross household formation x % aged under 35 unable to buy (adjusted for wealth) + proportion (33%) x net migration (household equiv) x % <35 unable to buy + proportion (0.345 %) x owner occupier households (moving to social renting) + proportion over the 'policy period' (e.g. 20% over 5 years, 10% over 10 years) x waiting list 'backlog' above need threshold Less net annual new and relets of social rented housing.
- 2.3.67 It is a simplified, systematised model which does not capture all aspects of need, although many of them will be partially reflected in the main components. For example households living in unsuitable accommodation are not specifically included, but many of them will be in the backlog need on local authority housing registers. The model will therefore tend to under-estimate need, and other methods have been consistently shown to give higher needs estimates.
- 2.3.68 For the purposes of the current study, areas where need pressures are highest were interpreted as being more suitable for housing development on this criterion, on the grounds that an increased supply of housing in the area would correct imbalances by reducing affordability problems due to the area's popularity with the market.

¹⁸ Housing Market Area

¹⁹ B.Line Housing Information, 2009.

2.3.69 Likewise, directions for growth where housing need is lower were taken as being less suitable for housing development on this criterion, as existing housing is affordable. This indicates that there is less need for additional housing and that there is a risk it is not likely to be attractive to the market in such a location.

2.3.70 However, we have taken into account in the assessment the fact that a rural exceptions policy may apply, especially to smaller settlements of less than 3,000 population.

Criterion 6 Regeneration Potential

2.3.71 The Index of Multiple Deprivation 2007²⁰ shows how Lower Super Output Areas (LSOAs- a statistical division with a mean population of 1,500 people) perform against various indices of deprivation, namely:

- Income deprivation
- Employment deprivation
- Health deprivation and disability
- Education, skills and training deprivation
- Barriers to housing and services
- Living environment deprivation
- Crime.

2.3.72 The scores against each individual index of deprivation are merged to produce a score on an index of multiple deprivation. The scores are then ranked, with the highest score in England ranked 1st and the lowest ranked 32,482nd.

2.3.73 The ranking of each LSOA in the study area was scored from 1 to 10 according to the decile of English multiple deprivation within which it fell. For example, if a particular LSOA was ranked in the top ten percent most deprived in England, it was given a score of 1, whereas if it fell into the 10-20% least deprived, it got a score of 9.

2.3.74 The scores were then mapped, providing an at-a-glance indication of deprivation in each Assessment Area. If the Assessment Area showed high levels of deprivation, the adjacency argument (whereby new development, if designed and implemented in a sustainable way, can bring regeneration and economic development benefits) 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. Where Assessment Areas exhibited low levels of deprivation, it is likely that new development would be unlikely to have a significant effect on local deprivation rankings.

Criterion 7 Economic Development

2.3.75 As with housing affordability, this criterion is largely market-based. It relates to the location of employment and is based on the starting principle that houses should be built close to places of work in order to reduce commuting distances and thus improve chances for sustainability. Each Assessment Area has been assessed on its employment land

²⁰ Available online at www.neighbourhood.statistics.gov.uk

potential, accessibility to employment, and current employment levels, using workplace data on employment from the Census 2001²¹, as well as map-based searches of major employment locations²².

- 2.3.76 It was assumed that potential for economic development was higher in areas that had a track record of being attractive locations for major employers. Among those areas where little existing economic activity is apparent, correspondingly it was anticipated that new development would have less potential for economic development.
- 2.3.77 A further important source referred to when assessing employment potential was the Nottingham City Region Employment Land Study²³, whose findings have several important implications for the spatial location of economic development up to 2016 and therefore should be referenced when assessing the economic development prospects of each Assessment Area. Given that the Study predicts the greatest growth to occur at Nottingham City Centre, it is likely that those Assessment Areas with good transport connections to the centre are most likely to benefit from the expected increase.
- 2.3.78 The Employment Land Study also notes that although some recent office development has occurred in the M1 corridor, for reasons of sustainability, future out-of-centre office development could follow the successful ng2 Business Park model; located between the city centre and the M1 and accessible via sustainable modes of transport.
- 2.3.79 This criterion also takes into account existing and planned transport infrastructure in each Area of Search, and therefore can be said to crosscut with Criterion 2 (Transport and Accessibility) to some extent. Major employment generators in Greater Nottingham, as in any large conurbation, tend to locate in sites with good access to road, rail and air transport. It may be, therefore, that some Assessment Areas with low levels of existing economic activity might be 'unlocked' to provide local economic development or access to existing employment elsewhere if new (sustainable) transport infrastructure is delivered.

Criterion 8 Green Belt and/or Strategic Policy

- 2.3.80 The Nottingham PUA and the sub-regional centres are surrounded by the Nottingham-Derby Green Belt. Because every Assessment Area contains extensive areas of Green Belt land, it was considered by the consultant team that Green Belt should be separated from the sieve mapping criterion above when analysing the suitability of an area for new development.
- 2.3.81 Given the East Midlands RSS housing targets for the study area, it is likely that some development on Green Belt land will occur. However, in order to ensure development in the Green Belt is located in the most sustainable locations, the purposes and criteria underlying the original designation of the Nottingham-Derby Green Belt must be revisited.
- 2.3.82 This has recently occurred with the publication of the Nottingham-Derby Green Belt Review²⁴, which assessed the purposes and role of each part of the Green Belt. The

²¹ Available at www.neighbourhood.statistics.gov.uk

²² The maps of the study area used for general purposes throughout this study were Ordnance Survey Landranger sheet 129 (Nottingham & Loughborough), Nottinghamshire County Atlas (A-Z, 2006) and those online at www.streetmap.co.uk.

²³ Roger Tym & Partners, 2007.

²⁴ Nottinghamshire County Council and Derbyshire County Council, 2006.

Green Belt around Nottingham was divided into sections that were not dissimilar in size to the Assessment Areas defined above, with each section scored in terms of how well it was performing against the criteria for which it was originally designated. These criteria, adapted from PPG2²⁵, are:

- Checking the unrestricted sprawl of built-up areas
- Preventing coalescence of neighbouring towns
- Assisting in safeguarding the countryside
- Preserving the setting and character of historic towns
- Assisting in urban regeneration by encouraging the use of previously-developed land.

2.3.83 The sections of Green Belt overlapping with the present study area were defined as follows:

- Nottingham to Ilkeston and Long Eaton (south of A610)
- Derby to Long Eaton
- Derby to Ilkeston
- North of Eastwood, Kimberley and Hucknall
- Ravenshead to Calverton and surrounds
- East of Arnold and Carlton
- East of West Bridgford to Bingham
- South of West Bridgford to East Leake
- Clifton and South

2.3.84 In general, the conclusions of the 2006 Green Belt Review were that the most important Green Belt lies to the west and north of the Nottingham PUA, including west of Long Eaton, north of Hucknall, and the entire surrounding area of Ilkeston, with Green Belt performing its functions to a lesser extent to the east and south of the PUA.

2.3.85 In respect of the 2006 Green Belt Review, the report of the Panel following the 2007 Examination in Public of the East Midlands RSS stated that *'While the published work is manifestly thorough and sound according to the remit set, its methodology permits the identification of areas for excision from the Belt in terms of Green Belt criteria only. It does not, nor does it attempt to, identify areas for development on the basis of all recognised sustainability criteria, including, for example sustainable accessibility'*²⁶.

2.3.86 The Panel Report continues: *'The Green Belt Review, rightly in our view, attempts to take account of the overall strategy of concentrating development in and immediately around*

²⁵ Planning Policy Guidance 2: Green Belts. Department of the Environment, 1995.

²⁶ East Midlands Regional Plan: Report of the Panel (Examination in Public). Planning Inspectorate, 2007. (paragraph 14.6, page 134)

the principal urban areas.....but in not permitting the location of urban extensions to be decided on the basis of all recognized sustainability criteria, it is in our opinion, insufficiently radical...[we recommend accepting] the Assembly's view that the most important aspect of the Belt is to keep separate the urban areas of Derby and Nottingham and to recast the Belt so that, as regards Nottingham it becomes, as it were, the mirror image of Derby, providing for a generous green block – more than a wedge – separating the two cities of Nottingham and Derby. This would allow for necessary urban expansion to be planned on the basis of balancing all recognised sustainability criteria which do, of course, include the recycling of urban land, the avoidance of both urban sprawl and the profligate use of land resources. We are not unmindful of the difficulties this will cause in terms of public perception, but in our considered professional opinion we believe it to be the right course.....Given this strategic steer, we expect the detailed boundaries to be settled in the course of the current round of local planning²⁷

- 2.3.87 Notwithstanding the conclusions of the Panel, the 2006 Green Belt Review (together with any additional facts relating to the Green Belt gathered from consultation and other policy documents) will nevertheless be referred to when assessing each Assessment Area on the Green Belt criterion, given that all other criteria are also now being taken into account.
- 2.3.88 The need to avoid coalescence between neighbouring towns is a fundamental criterion of Green Belt policy. It was therefore clear that without significant sustainability benefits, this would rule out any development that would lead to coalescence between free-standing settlements immediately surrounding the Nottingham and Derby PUAs, as well as the strategic requirement noted in the Panel Report for the larger Green Belt gap between Nottingham and Derby.
- 2.3.89 It is possible that, as well as Green Belt policy, other local and regional policy (for example, local housing and/or employment policy and/or allocations or RSS policies on growth) may have a bearing on the future growth of the PUA or the sub-regional centres. Any relevant policy (which may be linked to, but separate from, Green Belt considerations) will therefore also be covered under this criterion.
- 2.3.90 Strategic Policy was also considered as part of this criterion. This included the Strategic Housing Land Availability Assessment²⁸ findings, which do not directly influence the assessment but form a useful context in terms of the capacity of the settlement and its environs to accommodate housing. The SHLAA report was also used to inform other land suitability criteria such as transport or landscape considerations. The study does not look at the availability of land for development specifically and this category is treated with caution because some of the capacity identified in the SHLAA is land with planning permission.

Criterion 9 – Landscape and settlement character

- 2.3.91 Every settlement, even the largest city, sits within a landscape context which gives the settlement meaning and frames its relationship with the wider world. In many respects, urban areas can be considered as simply another component of the landscape, the man-made built component which, together with the natural component, constitute the wider environment in which we live. Each component, in its turn, can be divided into sub-components. For example, cities, towns, villages, etc., combine to form the built environment, while the natural environment comprises agricultural landscapes, woodland, river valleys, and so on.

²⁷ Ibid., paragraphs 14.8-14.12.

²⁸ Nottingham City Council 2008/09 joint Strategic Housing Land Availability Assessment (SHLAA) for the Nottingham Core Housing Market Area (HMA) and Hucknall

- 2.3.92 Sustainable development seeks to balance the relationships between the natural and built components of the environment and, in particular, to minimise the potentially negative effects of human settlement on natural systems and habitats. In terms of the potential effects that new or expanding settlements might have on the landscape, the process is two-fold.
- 2.3.93 In the first instance, it is necessary to identify the quality and character of the landscape. Very often this is done by means of a landscape character assessment, which among other matters, addresses the following key questions:
- What elements combine to make this particular landscape?
 - What does it look like?
 - Is it important/significant/special and, if so, why?
 - What is its condition , i.e., is it intact, meaning that (in the case of significant landscapes) should there be measures to preserve it for future generations, or is it sufficiently degraded to allow (or require) measures to re-create the former landscape or create a new one?
- 2.3.94 We have used this approach to identify the basic quality and character of the landscapes associated with the study settlements, to provide a baseline against which the potential for future development might be assessed. In addition to these base criteria, further levels of detail were considered as part of the assessment, including:
- Green Belt;
 - Historic landscapes (mostly represented in field patterns);
 - Woodland and hedgerows; and
 - Areas of habitat.
- 2.3.95 Each of these landscape criteria, on its own, has the potential to limit or, at the very least, shape the eventual form of new development in relation to the study settlements. In combination, their effect on development capacity is considerable, although not absolute, as there can often be other reasons why development in a particular location is desirable. The assessment identified those areas adjacent to settlements which, purely in landscape terms, indicated some capacity to accommodate development. In almost every case where such capacity exists, any new development needs to be integrated into the landscape, with planting schemes to provide filtered views and buffer zones. In other instances, mitigation might simply mean the use of local materials or building form and style that reflects local, traditional settlement patterns, which tend to sit more comfortably in the landscape than modern, less place-specific development.
- 2.3.96 Settlement character was assessed based on characteristics such as the presence of conservation areas or listed buildings within the settlement and settlement size. It has also been noted if the settlement character is such that it is likely to be negatively affected by development and therefore should be protected.

3 Assessment Results Summary

3.1 Introduction

- 3.1.1 This chapter sets out a summary of the assessment results for each area against the 9 criteria described in Chapter 2.
- 3.1.2 The results are presented as a ‘traffic light’ assessment, using red, amber and green to represent the overall level of suitability of the assessment area for growth under a particular criterion. This reflects a balance of all considerations included in the table.
- 3.1.3 Green indicates that on this criterion, most or all of the assessment area is suitable for development. Inevitably, in all locations, some constraints are present, and it is important to note that a green assessment does not indicate a total lack of constraints; rather, it indicates fewer or less serious constraints than an amber assessment would indicate.
- 3.1.4 Amber indicates constraints or circumstances that may need to be overcome (ranging from the easily overcome to the more difficult) before development becomes suitable or viable.
- 3.1.5 For environmental, geoenvironmental or coalescence factors, a red colour indicates the presence of immovable, absolute constraints or circumstances that would render development less suitable or viable, even if other positive criteria may exist. For the Transport or Infrastructure criteria, a red assessment indicates that development would not be possible without significant investment in these areas; however these are not absolute constraints to development. For ‘softer’ criteria including economic development, regeneration, housing market factors and landscape character the assessments are only either amber or green, as even if a settlement scored particularly poorly against one of these criteria, it would not rule out development in that area.
- 3.1.6 The relativity of all traffic-light judgements also means that a red assessment does not necessarily mean ‘no development under any circumstances whatsoever’ in any location.
- 3.1.7 As so many different constraints to development exist, especially across large geographical areas, an absolute assessment would result in almost every criterion receiving an amber assessment, which would reduce significantly the value of the study as a tool to aid in the difficult decisions needed on greenfield development in the Nottingham region.
- 3.1.8 Each summary table includes a ‘pie chart’ diagram showing the traffic light assessment for each criterion as a segment of the pie.
- 3.1.9 The centre circle shows the overall assessment colour (red, amber or green) that best represents the information provided in the assessment.
- 3.1.10 The outside of the pie chart shows one of two symbols for each potential ‘direction of growth’. A direction that is unconstrained by environmental factors is represented by an arrow. A direction that is constrained by environmental factors is represented by a red arc. The pie chart is intended to show in which direction growth would be unsuitable, and which directions there is potential for growth based on the information assessed as part of the study.
- 3.1.11 It is important to note that the study is an assessment of growth at a strategic level. Where a settlement has a red arc representing a constraint to growth in a particular direction, this is an indicator of the presence of a constraint to large scale growth in that direction. It does not preclude further appropriate infill and ‘rounding off’ of settlements. The suitability

of growth at a more local level is something that would need to be rigorously tested through the local plan-making process.

3.1.12 The key used in the tables is as follows:

- E Environment
- T Transport & Accessibility
- G Geo-environmental
- I Infrastructure Capacity & Potential
- HM Housing Market Factors
- R Regeneration Potential
- ED Economic Development
- GB Green Belt / Strategic Policy
- L Landscape / settlement character

3.1.13 The following table illustrates the information included in the summary tables provided in the following section.

3.1.14 Detailed results for each settlement are set out in Appendix A.

Settlement Name and Code (Settlement population²⁹)	
<p>Key:</p> <p>E Environment T Transport and accessibility G Geo-environmental I Infrastructure capacity and potential HM Housing market factors R Regeneration potential ED Economic development GB Green Belt / strategic policy L Landscape / settlement character</p>	<p>‘Pie chart’ depicting</p> <ul style="list-style-type: none"> • a red, amber or green ‘score’ for each criteria • an overall red, amber or green colour in the centre (or a combination) • arrows denoting indicative potential directions of growth • red ‘arcs’ denoting directions with development constraints e.g. flood plain, coalescence.
<p>Potential direction of growth</p>	<ul style="list-style-type: none"> • Direction in relation to settlement in which development is feasible based on the criteria assessed, e.g. environmental constraints, strategic policy. This is a strategic assessment which is intended to guide decisions on potential locations for growth. A further rigorous assessment would need to be carried out as part of the LDF process to test these findings.
<p>Benefits of growth</p>	<ul style="list-style-type: none"> • Summarises benefits that new housing and associated infrastructure and services would bring to the settlement based on its existing characteristics. Includes an assessment of the regeneration and economic development potential of the settlement, also based on existing characteristics.
<p>Constraints to growth</p>	<ul style="list-style-type: none"> • Summarises constraints to new growth, such as environmental or policy reasons why growth would not be possible in a particular direction.
<p>Summary</p>	<ul style="list-style-type: none"> • Overall summary of settlement’s suitability for growth. This is based on the detailed assessments set out in Appendix A • Potential scale of growth: It is impossible at this stage to put indicative figures to these three potential levels of growth without identifying specific sites for growth and estimating capacity based on an assumed density. The potential scale of growth suggested should be seen as being in proportion with the existing settlement size.

²⁹ Settlement population is based on Parish Headcount from the 2001 Census

3.1.15 The following tables summarise the assessments for each settlement based on the detailed information in Appendix A

RUSHCLIFFE

RE01: Radcliffe on Trent (Population 7, 846)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	Northeast, southeast, to avoid floodplain, topography, defensible boundary and coalescence risk in other directions.
Benefits of growth	<ul style="list-style-type: none"> • Sustainable in transport terms for bus, cycle and rail travel • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. • Good accessibility to employment by non-car modes • Part of the Nottingham-Aslockton corridor, therefore opportunities to concentrate growth and share infrastructure
Constraints to growth	<ul style="list-style-type: none"> • Floodplain to west • Historic flooding and poor drainage to west of settlement • Grade 2 agricultural land to east • Topographic constraints to south and southeast • Defensible boundary of A52 to south • Coalescence issues with Upper Saxondale
Summary	<p>Overall medium to high suitability for growth. Evidence of high levels of infrastructure capacity. Good current transport accessibility but would not sustain future growth. No overwhelming environmental constraints although major flood constraints to the west. Potential economic development benefits of growth.</p> <p>Scale: The assessment has shown that Radcliffe has the potential to accommodate a higher level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly floodplain, would need to be taken into consideration and any growth would need to be in proportion to the existing size and population. This assessment and any specific proposals for growth would need to be rigorously tested through the local development framework.</p>

RE02: East Bridgford

(Population 1,813)

- E Environment
- T Transport and Accessibility
- G Geo-environmental
- I Infrastructure Capacity & Potential
- HM Housing Market Factors
- R Regeneration Potential
- ED Economic Development
- GB Green Belt / Strategic Policy
- L Landscape / settlement character



Potential direction of growth

Northeast, east, southeast, south, southwest to avoid floodplain and coalescence in other directions

Benefits of growth

- Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services.
-

Constraints to growth

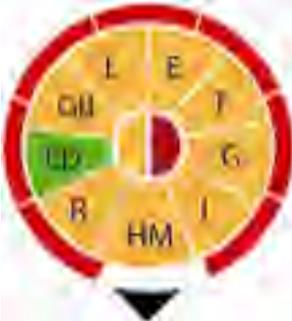
- Grade 2 agricultural land
- Low potential for public transport
- Low levels of local employment
- Impact on extensive conservation area / settlement character

Summary

Overall medium suitability for growth. All criteria including infrastructure and transport score moderately well. No serious environmental constraints except for flood risk in far north-west of area.

Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly floodplain, would need to be taken into consideration and any growth would need to be proportionate to the existing size of the settlement, the village's conservation area and general historic character. This assessment and all specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.

RE03: Bingham (Population 8,655)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	Northwest, north, northeast. South and southwest to smaller extent within A52 boundary. Avoid east and west due to coalescence concerns.
Benefits of growth	<ul style="list-style-type: none"> • Part of Nottingham-Aslockton corridor, therefore opportunities to concentrate growth and share infrastructure • Sustainable in transport terms for bus, cycle and rail travel • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. • Potential to address pockets of deprivation • Good access to local employment
Constraints to growth	<ul style="list-style-type: none"> • Grade 2 agricultural land • Flood zone to north • Impact on settlement character
Summary	<p>Overall high suitability for growth in a northerly direction, if growth avoids flood zone or flood risk is mitigated. A number of categories including education and health infrastructure score highly, including a high score in the 'Accessible Settlements' study. Transport scores moderately well. No major environmental constraints, although there are flooding issues to north. SHLAA has identified capacity for 3,500 homes to the north of the settlement.</p> <p>Scale: The assessment has shown that there is potential for a medium to high level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly floodplain, would need to be taken into consideration and any growth would need to be proportionate to the existing size of the settlement and the village's historic character. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

RE04: Aslockton and Whatton (Population 1,957)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	South, although growth constrained by barrier of A52. North, east and west constrained by flood risk and west by coalescence risk
Benefits of growth	<ul style="list-style-type: none"> Existing infrastructure capacity would be supported, in particular education. Sustainable in transport terms for rail travel Part of Nottingham-Aslockton corridor, therefore opportunities to concentrate growth and share infrastructure
Constraints to growth	<ul style="list-style-type: none"> Flood risk in several directions Historic flooding Low levels of local employment Need to avoid coalescence of the two settlements Conservation Areas in both Aslockton and Whatton. Grade 2 agricultural land Impact on settlement character
Summary	<p>Overall medium to low suitability for growth. Scores moderately well on infrastructure capacity. Transport also scores moderately well and would be improved if considered as part of a cluster with Radcliffe and Bingham. Flooding constraints would rule out any development in many directions including north, east and west. Potential for economic development benefits to result from growth.</p> <p>Scale: The assessment has shown that there is potential for a medium to low level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, including the need to avoid coalescence of Aslockton with Whatton, and extensive floodplain, would need to be taken into consideration and any growth would need to be proportionate to the existing size of the settlements and the two villages' historic characters. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

Rest of Rushcliffe East

- E Environment
- T Transport and Accessibility
- G Geo-environmental
- I Infrastructure Capacity & Potential
- HM Housing Market Factors
- R Regeneration Potential
- ED Economic Development
- GB Green Belt / Strategic Policy
- L Landscape / settlement character



Potential direction of growth

N/A

Benefits of growth

- Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services.
- Elton and Orston station provides opportunity for sustainable transport

Constraints to growth

- Grade 2 agricultural land
- Transport and accessibility are problems away from major settlements and railway stations
- Low levels of local employment
- Significant floodplain, particularly north west of Radcliffe and East Bridgford.

Summary

Overall medium suitability for growth. Growth unsustainable on transport and accessibility grounds, other than at Elston and Orton if infrastructure was improved. Some areas of flood risk. No other fundamental constraints.

Scale: The assessment has shown that there is potential for a medium to low level of growth compared with other directions for growth in the Greater Nottingham sub region. The constraints to growth, particularly Grade 2 agricultural land and extensive floodplain, would need to be taken into consideration and any growth would need to be proportionate, given its location remote from built-up areas.. All specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.

RM01: Tollerton (Population 1,723)	
E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character I	
Potential direction of growth	Northeast. Avoid northwest, west, southeast and south due to coalescence concerns. Avoid east due to flood risk. Defensible boundary of A606 to southwest.
Benefits of growth	<ul style="list-style-type: none"> • Some transport potential • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. •
Constraints to growth	<ul style="list-style-type: none"> • Grade 2 agricultural land • Flood risk to east • Defensible boundary of A606 to southwest • Coalescence concerns with smaller villages such as Edwalton, Normanton on the wolds / Plumtree. • Impact on settlement character
Summary	<p>Overall medium suitability for growth. There are no serious constraints in terms of either transport or infrastructure and no environmental showstoppers apart from limited flood risk to the east. Coalescence issues.</p> <p>Scale: The assessment has shown that there is potential for a medium to low level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly flood risk, the defensible boundary of the A606 and coalescence considerations would need to be taken into consideration and any growth would need to be proportionate to the existing size and historic character of the settlement. All specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

RM02: Cotgrave (Population 7,373)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	Northeast, east, west, northwest. Limited to north due to SINCC, floodplain and conservation area.
Benefits of growth	<ul style="list-style-type: none"> • Some limited sustainable transport potential • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. • Opportunity for regeneration through new development • Proposals for new employment
Constraints to growth	<ul style="list-style-type: none"> • Grade 2 agricultural land • SINCCs to north and south • Requirement to preserve and enhance village centre • Topography and woodland cover form constraints to south, southwest and southeast
Summary	<p>Overall high suitability for growth. Medium score in terms of transport but other infrastructure (education, health, utilities etc) has the capacity / potential to support growth. No serious constraints other than transport and small flood risk to north. Growth potentially has significant regeneration and economic development benefits and potential to support Green Infrastructure linkages and new health investment. Cotgrave would also benefit from widening the range of housing to allow more choice for current and future residents. Cotgrave colliery is a potential development site and is included in the SHLAA as 'suitable'. However it would need to be fully integrated with Cotgrave if developed.</p> <p>Scale: The assessment has shown that there is potential for a medium to high level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly SINCCs, topography and woodland cover would need to be taken into consideration and any growth would need to preserve and enhance the historic character of the settlement. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

RM03: Cropwell Bishop

(Population 1,791)

- E Environment
- T Transport and Accessibility
- G Geo-environmental
- I Infrastructure Capacity & Potential
- HM Housing Market Factors
- R Regeneration Potential
- ED Economic Development
- GB Green Belt / Strategic Policy
- L Landscape / settlement character



Potential direction of growth

- West, east
- South, southwest, southeast excluded on landscape grounds
- North excluded on coalescence grounds

Benefits of growth

- Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services.
-

Constraints to growth

- Low levels of public transport and accessibility
- Limited local employment opportunities
- Grade 2 agricultural land
- Need to avoid coalescence with Cropwell Butler to north
- Impact on settlement character

Summary

Overall medium to low suitability for growth. Transport would appear to be a major constraint and there are landscape and coalescence issues. However, other infrastructure scores moderately well and there are no overwhelming environmental constraints.

Scale: The assessment has shown that there is potential for a medium to low level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly Grade 2 agricultural land and coalescence risk, would need to be taken into consideration and any growth would need to be proportionate to the small size of the existing settlement, as well as preserving and enhancing its historic character. All specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.

RM04: Keyworth (Population 6,920)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	West, east, southwest, northeast. Avoid northwest, north and southeast due to coalescence. Avoid south due to impact of growth on existing conservation area in south of settlement.
Benefits of growth	<ul style="list-style-type: none"> • Moderately sustainable for public transport • Existing Infrastructure would be supported by growth • Some potential for regeneration of village
Constraints to growth	<ul style="list-style-type: none"> • Grade 2 agricultural land • Conservation area to south • Limited local employment opportunities • Coalescence concerns to north and south east • Impact on settlement character
Summary	<p>Overall medium to high suitability for growth. Scores fairly well against all criteria, including infrastructure. Transport is assessed as 'moderate'. Scores very well in Accessible Settlements study, indicating good access to employment and services. SHLAA has identified capacity for over 1000 dwellings to the east.</p> <p>Scale: The assessment has shown that there is potential for a medium to high level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly coalescence risk, would need to be taken into consideration and any growth would need to preserve and enhance the historic core and the general character of the settlement. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

Rest of Rushcliffe Mid	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	N/A
Benefits of growth	<ul style="list-style-type: none"> • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services.
Constraints to growth	<ul style="list-style-type: none"> • Floodplain in north of area • Transport and accessibility are problems away from major settlements and railway stations • Low levels of local employment • Grade 2 agricultural land
Summary	<p>Overall low suitability for growth. Development outside existing settlements would be unsustainable due to lack of public transport / poor accessibility. No other serious constraints apart from extensive floodplain in very far north.</p> <p>Scale: The assessment has shown that there is little potential for growth. The constraints to growth, particularly lack of public transport, other infrastructure and extensive floodplain, would need to be taken into consideration and any growth would need to be proportionate, given its location remote from built-up areas. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

RW01: Ruddington (Population 6,441)	
E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character	
Potential direction of growth	South, although constrained by Country Park. Avoid west, northwest, north, northeast risk due to coalescence.
Benefits of growth	<ul style="list-style-type: none"> • Good potential for sustainable transport to support growth • Some health infrastructure capacity • Some opportunities for regeneration-linked development • Local opportunities for employment
Constraints to growth	<ul style="list-style-type: none"> • Grade 2 agricultural land • Potential for coalescence with Nottingham PUA to north and west • Limited education infrastructure capacity • Country park to south • East, southeast growth would jump defensible boundaries • Impact on settlement character
Summary	<p>Overall, medium to high suitability for growth. Area is able to accommodate growth, including on transport criteria. Ruddington scores particularly highly for current accessibility to services and access to employment. No overwhelming environmental constraints but relatively limited flood risk and Green Belt / coalescence considerations. The potential for bus rapid transit upgrade to secure growth with mode shift from the car would need to be ascertained.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the substantial coalescence risk, the defensible boundary of the A60, and a Country Park to the south, would need to be taken into consideration and any growth would need to preserve and enhance the historic core and the general character of the settlement. This assessment and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

RW02: Gotham (Population 1,632)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	<p>South, southwest (benefits from defensible road boundary), southeast, west.</p> <p>Northwest, north or northeast would increase coalescence risk if Sustainable Urban Extension south of Clifton developed</p>
Benefits of growth	<ul style="list-style-type: none"> • Some potential for sustainable transport as part of corridor • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. • Some local employment opportunities
Constraints to growth	<ul style="list-style-type: none"> • Grade 2 agricultural land • Proposed development south of Clifton would increase coalescence concerns to north • Impact on settlement character
Summary	<p>Overall, medium suitability for growth. Settlement scores well on most criteria, other than on transport criteria where current accessibility is poor and public transport mediocre. There is capacity in health infrastructure. However, current education infrastructure provision is a real issue which could be resolved via joint service planning delivery between City and County. There are no overwhelming environmental constraints.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the risk of coalescence if the Clifton Meadows development goes ahead, would need to be taken into consideration and any growth would need to preserve and enhance the historic character and heritage of the settlement. This assessment and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

RW03: East Leake (Population 6,108)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	South, with consideration of impact on conservation area; southwest, east, southeast and northeast. Avoid northwest due to potential for coalescence with Gotham, north due to extensive Gypsum mine and west because of the Great Central Railway barrier.
Benefits of growth	<ul style="list-style-type: none"> • Some potential for sustainable transport • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. • Some local employment opportunities
Constraints to growth	<ul style="list-style-type: none"> • Grade 2 Agricultural land • Floodplain to east and west • Coalescence with Gotham to be avoided • Gypsum mine to north • Great Central Railway acts as barrier to west. • Significant landscape constraints to east
Summary	<p>Overall high – medium suitability for growth. Medium scores on most criteria, including transport where current accessibility is good but not on a particularly strong corridor. However, access to services score is above average and there is some forecast future capacity in education infrastructure. No overwhelming environmental constraints apart from limited east-west flood zone.</p> <p>Scale: The assessment has shown that there is potential for a medium to high level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the gypsum works to the north, the defensible boundary of the railway line to the west, flood risk, landscape constraints to the east and risk of coalescence with Gotham would need to be taken into consideration and any growth would need to preserve and enhance the conservation area at the core of the settlement. This assessment and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

RW04: Sutton Bonington (Population 1,765)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	East, south east. Avoid north and south due to coalescence risk. South, southwest, west and northwest constrained due to flood risk.
Benefits of growth	<ul style="list-style-type: none"> • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. • Some local employment opportunities
Constraints to growth	<ul style="list-style-type: none"> • Grade 2 agricultural land, floodplain to west • Poorly served by public transport • Conservation area to north • Coalescence concerns to north and south
Summary	<p>Overall medium to low suitability for growth. A mixed picture. Development here would be unsustainable based on poor public transport accessibility and flood risk constraints to west together with poor level of facilities. However, apart from transport constraints and major area of flood risk to west, there are no other serious constraints to development and potential opportunity to maximise future forecast capacity in education infrastructure.</p> <p>Scale: The assessment has shown that there is potential for a low level of growth east towards East Leake, and south east but not beyond the A6006 to maintain a gap with settlements to the south. The growth potential of Sutton Bonington is low compared with other settlements considered in the study. It is a small settlement with a distinctive character, therefore any growth would need to be in proportion with its size and should seek to minimise impact on the existing village. This assumption and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

Rest of Rushcliffe West	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	N / A
Benefits of growth	<ul style="list-style-type: none"> Some infrastructure capacity to support growth
Constraints to growth	<ul style="list-style-type: none"> Grade 2 agricultural land Floodplain of Trent and Soar rivers Transport and accessibility are problems away from major settlements and railway stations Low levels of local employment
Summary	<p>Overall medium to low suitability for growth, other than on transport grounds, where development outside existing settlements would be unsustainable and flooding constraints along the Soar and Trent valleys.</p> <p>Scale: The assessment has shown that there is potential for a medium or a low level of growth. The constraints to growth, particularly transport accessibility and extensive floodplain, would need to be taken into consideration and any growth would need to be proportionate, given its location remote from built-up areas. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

EREWASH

ES01: Breaston and Draycott (Population 7,305)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	North, northwest. Growth to northeast, east, southeast, west risks coalescence. Flood constraints to south and southwest.
Benefits of growth	<ul style="list-style-type: none"> • Nottingham-Derby corridor, therefore opportunities to concentrate growth and share infrastructure • Good potential for sustainable transport • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. • Potential for regeneration-linked development • Close to local employment opportunities
Constraints to growth	<ul style="list-style-type: none"> • Grade 2 agricultural land • Flood risk to south • Coalescence concerns to east and west • Wider strategic Nottingham-Derby coalescence issue • Impact on settlement character
Summary	<p>Overall medium to high suitability for growth. Landscape issues and localised geoenvironmental concerns. However, location scores well in terms of transport, accessibility, potential opportunity to maximise future forecast capacity in education infrastructure, and economic development. Breaston is an area of high housing need which growth would go some way towards meeting. Also growth would support and sustain services which do not appear to be at full capacity.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the flood risk to the south, coalescence risk to west and east and the wider risk of Nottingham-Derby coalescence, would need to be taken into consideration and any growth would need to preserve and enhance the character of the settlement. This assessment and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

ES02: Borrowwash and Ockbrook (Population 7,331)	
E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character	
Potential direction of growth	North, northeast, east. Southeast, southwest, west and northwest risk coalescence. South is constrained by floodplain
Benefits of growth	<ul style="list-style-type: none"> • Nottingham-Derby corridor, therefore opportunities to concentrate growth and share infrastructure • Good potential for sustainable transport • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. • Potential for regeneration-linked development • Potential for connection to Nottingham and Derby employment locations
Constraints to growth	<ul style="list-style-type: none"> • Coalescence concerns to southeast, northwest and west • Wider strategic Nottingham-Derby coalescence issue • Floodplain to south • Impact on settlement character
Summary	<p>Overall medium – high suitability for growth. Potentially sustainable location in terms of transport if part of a growth corridor between Nottingham and Derby with Breaston and Draycott, although highly dependent on growth sites within 400 metres of the public transport corridor. Scores well on ‘Accessible Settlements’ criteria and there is infrastructure capacity and scope to support improvements to Strategic Green Infrastructure. No overwhelming environmental issues apart from flooding to the south. Localised goenvironmental considerations. Coalescence issues, therefore the location would score low on PPG2 criteria. Erewash is an area of housing need so growth would be positive in terms of meeting demand.</p> <p>Borrowwash currently relates more to Derby than Nottingham so growth here would also have implications for Derby.</p> <p>Scale: The assessment has shown that there is potential for a medium to substantial level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the flood risk to the south, local coalescence risks in many directions, and the wider risk of Nottingham-Derby coalescence would need to be taken into consideration and any growth would need to respect the character of the existing settlement. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

Rest of Erewash South	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	N/A
Benefits of growth	<ul style="list-style-type: none"> • Potential for sustainable transport if linked to Stanton development • Current and planned infrastructure can support growth
Constraints to growth	<ul style="list-style-type: none"> • Flood risk to south of settlements • Currently unsustainable on transport grounds • No significant employment opportunities • Strategic gap between Nottingham and Derby
Summary	<p>Overall low suitability for growth. Unlikely to be sustainable on transport grounds, however, there may be potential if access opened to Stanton. Flooding is a constraint in the south. Also current policy of maintaining strategic gap, which, if upheld, development would be ruled out. However, coalescence is not an issue and there would be sufficient space for a free standing settlement without compromising the strategic gap. Area of housing need and current and planned service provision has potential to support and sustain growth.</p> <p>Scale: The assessment has shown that there is little potential for growth. The constraints to growth, particularly the strategic Derby-Nottingham gap and the floodplain to south, would need to be taken into consideration and any growth would need to be proportionate, given its location remote from built-up areas. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

EN01: West Hallam (Population 4,829)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	Northwest, north, northeast. Avoid east, southeast, south, southwest and west due to coalescence risk
Benefits of growth	<ul style="list-style-type: none"> • Scores very well in the Accessible Settlements Study in terms of access to employment and facilities. • Opportunities to concentrate growth and share infrastructure with Kirk Hallam • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. • Employment opportunities in nearby Ilkeston • Regeneration potential for Stanley Common
Constraints to growth	<ul style="list-style-type: none"> • Coalescence issues to south east and south • Transport capacity • Wider strategic gap between Nottingham and Derby
Summary	<p>Overall high to medium suitability for growth. Growth could provide potential to improve public transport, especially if clustered with growth of neighbouring settlements such as Kirk Hallam. SHLAA identifies low level of 'deliverable' sites though there is a relatively good supply of suitable land.</p> <p>West Hallam has been a designated growth area in the past.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the risk of coalescence to the south and southeast and the wider risk of Nottingham-Derby coalescence would need to be taken into consideration. This assessment and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

EN02: Stanley and Stanley Common

(Population 2,143)

- E Environment
- T Transport and Accessibility
- G Geo-environmental
- I Infrastructure Capacity & Potential
- HM Housing Market Factors
- R Regeneration Potential
- ED Economic Development
- GB Green Belt / Strategic Policy
- L Landscape / settlement character



Potential direction of growth	<p>North (but growth kept south of disused railway as defensible boundary), southeast, south, southwest, west, northwest</p> <p>Avoid northeast and east due to coalescence risk</p>
Benefits of growth	<ul style="list-style-type: none"> • Potential for regeneration-linked development
Constraints to growth	<ul style="list-style-type: none"> • Coalescence risk to north • Wider strategic gap between Nottingham and Derby • No significant employment locations • Poor access to public transport
Summary	<p>Overall medium to low suitability for growth. Currently unsustainable on a transport basis although accessibility could be strengthened through major growth in the 'Hallam' cluster. Medium scores for accessibility and very stretched secondary education infrastructure. No overwhelming environmental constraints. Area of high housing need.</p> <p>Scale: The assessment has shown that there is potential for a medium to low level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the risk of coalescence to the north and the wider risk of Nottingham-Derby coalescence would need to be taken into consideration. This assessment and any specific proposals for growth at these two settlements would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

EN03: Kirk Hallam (Population 6,417)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	South, southwest, west. Avoid northwest, north, northeast, east, southeast due to coalescence risk with Ilkeston and West Hallam (including depot)
Benefits of growth	<ul style="list-style-type: none"> • Potential for regeneration through new development • Close to employment opportunities in Ilkeston • Some potential for development of transport corridor, therefore opportunities to concentrate growth and share infrastructure
Constraints to growth	<ul style="list-style-type: none"> • Coalescence risk to east and north • Flood risk along valley to northeast • Wider strategic gap between Nottingham and Derby • Strategic gap between Kirk Hallam and Stanton should be considered.
Summary	<p>Overall medium to high suitability for growth. Scores well for transport and accessibility and has a medium score for accessibility if part of clustered growth along a strong public transport corridor including West Hallam. Scores well for economic development. Area of very high housing need. There is a serious issue concerning capacity of secondary education school infrastructure that would need to be addressed. High level of capacity identified in SHLAA. No overwhelming environmental constraints although there are issues of coalescence.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the strong risk of coalescence to the north, south-east and east, local flood risk and the wider risk of Nottingham-Derby coalescence would need to be taken into consideration. This assessment and any specific proposals for growth at these two settlements would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

EN04: Little Eaton (Population 2,557)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	North, northeast, east (up to A38). Avoid southeast, south, southwest, northwest due to coalescence. Avoid west due to floodplain.
Benefits of growth	<ul style="list-style-type: none"> • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services.
Constraints to growth	<ul style="list-style-type: none"> • World Heritage buffer zone to west and northwest • Coalescence risk to south and northwest • Flood risk to west • Poor access to transport, with little potential for change • Low levels of local employment • Wider strategic gap between Nottingham and Derby • Impact on settlement character
Summary	<p>Overall medium suitability for growth. Fairly poor public transport (although within cycling distance of Derby) and limited sites identified in SHLAA both point to limited suitability. However, some education infrastructure capacity and potential, and village is in an area of high housing need therefore growth would be beneficial in sustaining and supporting community and existing infrastructure.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the World Heritage site buffer zone to the west and northwest, local risks of coalescence, flood risk to west and the wider risk of Nottingham-Derby coalescence would need to be taken into consideration. This assessment and any specific proposals for growth at Little Eaton would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

EN05: Breadsall (Population 750)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	North, northeast, east. All other directions risk coalescence with Derby and Little Eaton.
Benefits of growth	<ul style="list-style-type: none"> Some infrastructure capacity to support growth and growth has potential to support and sustain existing services.
Constraints to growth	<ul style="list-style-type: none"> Poor access to transport, with little potential for change Low levels of local employment Strong risk of coalescence in many directions Wider strategic gap between Nottingham and Derby Impact on settlement character
Summary	<p>Overall medium to low suitability for growth. Unsustainable on transport and accessibility grounds and geo-environmental constraints. Also risk of coalescence with Derby. However, some potential for growth based on sustaining existing education infrastructure and on some notable existing facilities.</p> <p>Scale: The assessment has shown that there is potential for a low level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the strong local risks of coalescence and the wider risk of Nottingham-Derby coalescence, would need to be taken into consideration, as would the impact of growth on the historic character of the settlement. Any growth would have to be proportionate to the existing size of the settlement. This assessment and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

Rest of Erewash North	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	N/A
Benefits of growth	<ul style="list-style-type: none"> Some infrastructure capacity to support growth
Constraints to growth	<ul style="list-style-type: none"> Unsustainable on transport grounds No significant employment opportunities Strategic gap between Nottingham and Derby
Summary	<p>Overall low suitability for growth. Development outside existing settlements would be unsustainable on transport grounds and would compromise strategic gap between Nottingham and Derby.</p> <p>Scale: The assessment has shown that there is little potential for growth. The constraints to growth, particularly the strategic Derby-Nottingham gap, would need to be taken into consideration and any growth would need to be proportionate, given its location remote from built-up areas. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

BROXTOWE

BX01: Brinsley (Population 2,352)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	West, southwest, east. However, growth directions west and southwest would have high visual impact from outside the settlement. Avoid south, northwest, north or northeast on grounds of coalescence risk.
Benefits of growth	<ul style="list-style-type: none"> • Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. • Potential for regeneration-linked development • Some potential for transport and access, particularly if linked with Eastwood and Kimberley as part of transport corridor
Constraints to growth	<ul style="list-style-type: none"> • Large SINC to west of settlement • Low levels of local employment • Coalescence risk to northeast, north, northwest and south • River Erewash floodplain
Summary	<p>Overall medium suitability for growth. Some localised risk on geoenvironmental factors such as landfill, although unlikely to preclude development. Scores moderately well for transport and infrastructure assessment points to growth positively supporting existing facilities. SHLAA identifies capacity for a high level of housing growth.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the strong local risks of coalescence, the floodplain of the River Erewash, and the SINC to the west of the settlement would need to be taken into consideration. Growth would have to be proportionate to the existing size of the settlement. All specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

BX02: Eastwood (Population 11,019)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	South with A610 as defensible boundary, north away from Brinsley, northeast. Avoid east, southeast, southwest, west and northwest due coalescence risk
Benefits of growth	<ul style="list-style-type: none"> Existing and good potential for sustainable transport connections and corridor development Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. Potential for regeneration-linked development Strong local employment market, with future potential Some infill opportunities
Constraints to growth	<ul style="list-style-type: none"> River Erewash, Nether Green Brook and Gilt Brook floodplains Significant coalescence risks (Kimberley, Heanor, Awsworth, Brinsley)
Summary	<p>Overall high suitability for growth with the exception of the Erewash floodplain and geoenvironmental constraints (which are unlikely to preclude development). Scores exceptionally well on current and potential accessibility and potential for growth to sustain and support facilities. SHLAA identifies a relatively high capacity for housing.</p> <p>Scale: The assessment has shown that there is potential for a higher level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the strong risks of coalescence and the floodplain of the River Erewash would need to be taken into consideration. The A610 provides a strong defensible boundary to the south. This assessment and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

BX03: Kimberley (Population 6,237)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	South with A610 as defensible boundary, and limited opportunity to northwest. SUE report suggested avoiding growth to north and north east, although Broxtowe Borough Council believes there may be some growth potential to the North East side of Watnall, northeast of Kimberley. Coalescence risk rules out growth to southeast, southwest, and west.
Benefits of growth	<ul style="list-style-type: none"> Existing and good potential for sustainable transport connections and corridor development Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. Some limited potential for regeneration-linked development Strong local employment market, with future potential
Constraints to growth	<ul style="list-style-type: none"> Significant coalescence risks (Eastwood, Nottingham, Awsworth) Nuthall Conservation area to east Grade 2 agricultural land
Summary	<p>Overall high suitability for growth. Scores well in terms of transport, other infrastructure, access to employment (economic development). High level of housing capacity identified in SHLAA.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the strong risks of coalescence and the Nuthall conservation area to the east would need to be taken into consideration. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

BX04: Awsworth (Population 2,266)	
E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character	
Potential direction of growth	South, southeast, east. Avoid northeast, north, northwest, west or southwest due to coalescence risk. However, potential for growth to west as far as the Awsworth Bypass. This would 'round off' the settlement without impinging on the gap to Ilkeston.
Benefits of growth	<ul style="list-style-type: none"> Moderate access to facilities Sufficient infrastructure capacity to support growth and growth could help to sustain local infrastructure and services. Potential for regeneration-linked development Close to employment opportunities in neighbouring towns Potential for development as part of a transport corridor with Kimberley and Eastwood
Constraints to growth	<ul style="list-style-type: none"> River Erewash floodplain to west, floodplain to north Coalescence risk with Ilkeston, Eastwood and Kimberley Away from public transport route
Summary	<p>Overall medium suitability for growth. Scores well in terms of infrastructure capacity and potential and housing land availability identified in the SHLAA. Scores less well for transport, however future growth in the district centres of Hucknall and Ilkeston could increase transport potential. NE or NW growth would risk coalescence with Eastwood and Kimberley. Erewash floodplain is constraint to west.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly extensive floodplain and the strong risks of coalescence would need to be taken into consideration. This assessment and all specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

Rest of Broxtowe North	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	N / A
Benefits of growth	<ul style="list-style-type: none"> • Significant potential for regeneration-linked development • Some infrastructure capacity to support growth
Constraints to growth	<ul style="list-style-type: none"> • River Erewash floodplain • Grade 2 agricultural land • Unsustainable on transport grounds • Low levels of local employment outside major settlements
Summary	<p>Overall low suitability for growth. Development outside existing settlements would be unsustainable. However housing growth could support regeneration in deprived area. Potential large development site east of Awsworth / south of Kimberley. No overwhelming environmental constraints away from the River Erewash floodplain.</p> <p>Scale: The assessment has shown that there is little potential for growth. The constraints to growth, particularly the River Erewash floodplain, and Grade 2 agricultural land would need to be taken into consideration. Any growth would need to be proportionate, given its location remote from built-up areas. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

GEDLING

GN01: Ravenshead (Population 5,636)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	North, south. Avoid southwest, west and northwest due to existing defensible boundary of A60. Avoid southeast, east, northeast due to defensible boundary of Chapel Lane.
Benefits of growth	<ul style="list-style-type: none"> • Some local infrastructure capacity • Some local employment
Constraints to growth	<ul style="list-style-type: none"> • Potential for strengthening public transport limited due distances involved • Forested area to west • Impact on settlement character
Summary	<p>Overall medium suitability for growth. Geo-environmental considerations but are unlikely to preclude development.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the extensive forested land to the west and the impact on the character of the settlement would need to be taken into consideration. This assessment and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

GN02: Newstead (Population 1,194)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	<p>South, although coalescence with Hucknall a consideration and also coalescence with Top Wighay Farm housing and employment allocations and/or safeguarded land (as identified in Adopted Local Plan).</p> <p>Avoid north, north-west and north-east, east and west, south east and south west.</p>
Benefits of growth	<ul style="list-style-type: none"> • Regeneration potential
Constraints to growth	<ul style="list-style-type: none"> • SINC to south, east and west • Defensible boundary of railway line
Summary	<p>Overall medium suitability for growth. Scores highly on transport and regeneration potential and moderately well on infrastructure. Presence of SINC in most directions would need further detailed investigation.</p> <p>Scale: The assessment has shown that there is potential for a low level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the SINC to the west, east and south, the defensible boundary of the railway line to the east with a historic park and garden beyond, coalescence concerns to the south and the impact of new development on the character of the settlement would need to be taken into consideration. This assessment and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

GN03: Bestwood Village

(Population 1,655)

- E Environment
- T Transport and Accessibility
- G Geo-environmental
- I Infrastructure Capacity & Potential
- HM Housing Market Factors
- R Regeneration Potential
- ED Economic Development
- GB Green Belt / Strategic Policy
- L Landscape / settlement character



Potential direction of growth

North, North east, east
Avoid all others

Benefits of growth

- Economic development
- Regeneration
- Proximity to Tram stop.

Constraints to growth

- Railway line to west
- Country park between village and railway line
- Flood risk to west
- Coalescence risk to north west.

Summary

Overall medium suitability for growth.

Scale: The assessment has shown that there is potential for a low level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the country park, flood risk and railway line to the west and coalescence risks to the northwest would need to be taken into consideration. The small size of the settlement means any new development would have to be proportionate in size to it. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.

Rest of Gedling North	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	N / A
Benefits of growth	<ul style="list-style-type: none"> • Some infrastructure capacity to support growth • Potential for regeneration-linked growth
Constraints to growth	<ul style="list-style-type: none"> • SINC's scattered throughout area • Unsustainable on transport grounds • No significant employment opportunities • Grade 2 agricultural land
Summary	<p>Overall low suitability for growth. Any development separate from the existing settlements likely to be ruled out on transport (sustainability) grounds. Localised geoenvironmental constraints, but unlikely to preclude development.</p> <p>Scale: The assessment has shown that there is little potential for growth. The constraints to growth, particularly the SINC's, as well as Grade 2 agricultural land, would need to be taken into consideration. Any growth would need to be proportionate, given its location remote from built-up areas. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

GS01: Calverton (Population 6,870)	
E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character	
Potential direction of growth	Northwest, west, southwest, south, east. Avoid southeast, north and northeast due to coalescence risk
Benefits of growth	<ul style="list-style-type: none"> • Relatively good public transport access • Some infrastructure capacity to support growth • Some potential for regeneration-linked development
Constraints to growth	<ul style="list-style-type: none"> • Flood zone to northeast • Grade 2 agricultural land • Coalescence risk with Woodborough and Oxton • Low levels of access to facilities
Summary	<p>Overall medium suitability for growth. Medium scores on most criteria, apart from transport which scores poorly for current and potential accessibility due to lack of direct road link between Calverton and Nottingham Conurbation and lack of proximity to main roads in general. SHLAA identifies a high level of housing capacity.</p> <p>Scale: The assessment has shown that there is potential for a medium level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the flood risk to the northeast, Grade 2 agricultural land, and local risks of coalescence would need to be taken into consideration. All specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

GS02: Burton Joyce (Population 3,401)	
E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character	
Potential direction of growth	Northeast. Avoid east, southeast, south due floodplain, southwest due to coalescence risk; west, north and northwest due to topographical constraints and northwest due to coalescence risk
Benefits of growth	<ul style="list-style-type: none"> Existing and good future potential for sustainable transport, including cycling, rail and bus Some limited infrastructure capacity
Constraints to growth	<ul style="list-style-type: none"> Major area of flood risk to south Topography to north, northwest and west Coalescence risks with Nottingham PUA, Lambley and Lowdham to southwest Low levels of local employment Railway line to S and SE which acts as a defensible barrier
Summary	<p>Overall medium suitability for growth. Scores well in terms of transport, both because of proximity to Nottingham and for its potential to grow as a 'stand alone' settlement. However, constraints include topography, floodplain of the Trent to the south-east, and coalescence. New or expanded infrastructure, e.g. health and education would need to be provided to support any growth.</p> <p>Scale: The assessment has shown that there is potential for a low level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the flood risk and defensible boundary of the railway line to the south and southwest, the topography to the north, northwest and west, as well as coalescence concerns to the southwest and northwest would need to be taken into consideration. This assessment and any specific proposals for growth would need to be rigorously tested through the Local Development Framework.</p>

GS03: Woodborough

(Population 1,852)

- E Environment
- T Transport and Accessibility
- G Geo-environmental
- I Infrastructure Capacity & Potential
- HM Housing Market Factors
- R Regeneration Potential
- ED Economic Development
- GB Green Belt / Strategic Policy
- L Landscape / settlement character



Potential direction of growth

South, south east, south west, west
 Avoid east, north east, north, north west

Benefits of growth

- limited

Constraints to growth

- transport
- flood plain to east
- coalescence to north west
- topography precludes large-scale expansion to west

Summary

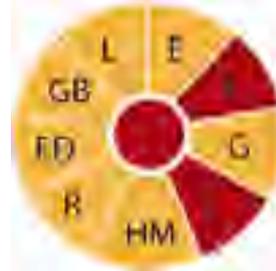
Overall medium to low suitability for growth. Poor transport accessibility. Medium infrastructure capacity. No serious environmental constraints apart from floodplain northeast of settlement and risk of coalescence with Calverton to north west.

Scale: The assessment has shown that there is potential for a low level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly the flood risk to the east and the topography to the west, as well as coalescence concerns to the northwest, would need to be taken into consideration. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.

GS04: Lambley (Population 1,178)	
<p>E Environment T Transport and Accessibility G Geo-environmental I Infrastructure Capacity & Potential HM Housing Market Factors R Regeneration Potential ED Economic Development GB Green Belt / Strategic Policy L Landscape / settlement character</p>	
Potential direction of growth	<p>North east, north, north west, south west, west.</p> <p>Avoid east, south, south east.</p>
Benefits of growth	<ul style="list-style-type: none"> • limited
Constraints to growth	<ul style="list-style-type: none"> • transport • coalescence
Summary	<p>Overall medium to low suitability for growth. Scored poorly on transport accessibility. All other criteria score moderately well, including infrastructure. No serious environmental constraints apart from limited flood risk to east and coalescence with Burton Joyce to south east.</p> <p>Scale: The assessment has shown that there is potential for a low level of growth compared with other settlements in the Greater Nottingham sub region. The constraints to growth, particularly local risks of coalescence, and the impact of new development on this small, historic settlement would need to be taken into consideration. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

Rest of Gedling South

- E Environment
- T Transport and Accessibility
- G Geo-environmental
- I Infrastructure Capacity & Potential
- HM Housing Market Factors
- R Regeneration Potential
- ED Economic Development
- GB Green Belt / Strategic Policy
- L Landscape / settlement character



Recommended scale of growth	The assessment has shown that there is potential for no growth or a low level of growth. This would need to be rigorously tested through the preparation of Local Development Frameworks
Potential direction of growth	N / A
Benefits of growth	<ul style="list-style-type: none"> • Some limited infrastructure capacity to support growth
Constraints to growth	<ul style="list-style-type: none"> • Extensive floodplain in south • Grade 2 agricultural land • Unsustainable on transport grounds • No significant employment opportunities
Summary	<p>Overall low suitability for growth. Development separate from existing settlements would be unsustainable on transport grounds. Major flooding constraints to south Scores medium on all other criteria.</p> <p>Scale: The assessment has shown that there is little potential for growth. The constraints to growth, particularly the extensive floodplain and SINC's, as well as Grade 2 agricultural land, would need to be taken into consideration. Any growth would need to be proportionate, given its location remote from built-up areas. This assessment and any specific proposals for growth would need to be rigorously tested through the preparation of Local Development Frameworks.</p>

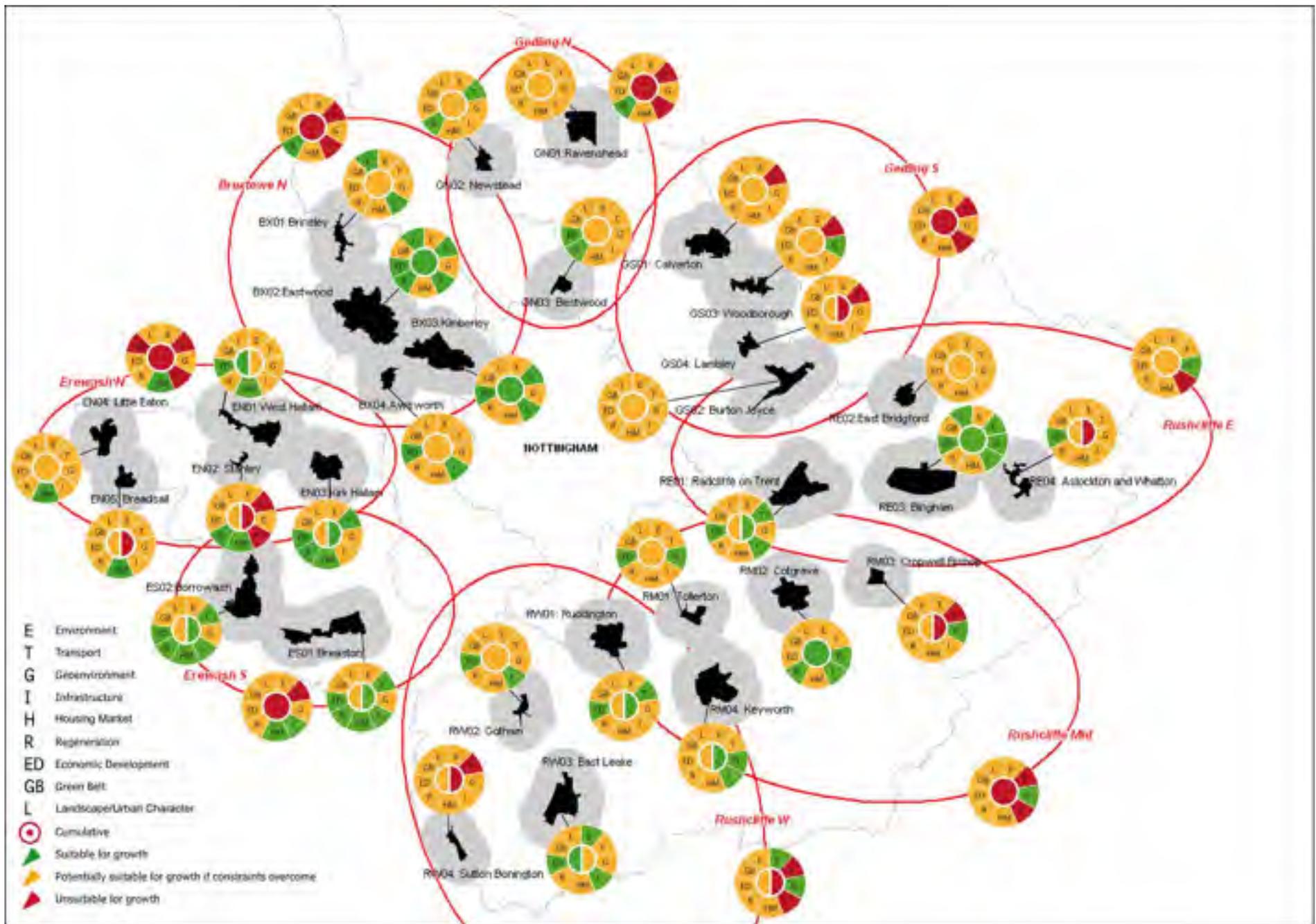


Figure 3-1: Overall results

4 Conclusions and recommendations

4.1 Over-arching summary and issues

- 4.1.1 This report has assessed the suitability of settlements and the land between them within Greater Nottingham but outside the PUA. It has found that, based upon the analysis undertaken, that there are a number of settlements that could accommodate further growth between now and 2026, many of which have much to gain from doing so. But the report has also found that growth on any meaningful scale would not be appropriate in a (smaller) number of settlements, and should be avoided in most rural (non-village) greenfield locations.
- 4.1.2 The report does make initial judgments on the scale of growth that is potentially appropriate in each assessment area and broad search area. It does not, however, attempt to quantify this because it has not gone to the level of identifying specific sites that may be suitable for development. That is a task for the plan-making process. However, the study concludes that 12 settlements may be appropriate for housing growth without any significant constraints to overcome, and a similar number again are potentially suitable for growth if identified constraints are overcome, suggesting that the close to 17,000 new homes envisaged by the RSS in non-PUA locations will be a challenge, but a not insurmountable one.
- 4.1.3 If non-PUA growth is to be achieved on the scale the RSS requires, the challenge is to deliver the growth in the most sustainable and beneficial way – that is the way that brings most advantages to existing communities and new residents alike. Understanding this point has been a cornerstone of the way this study has been undertaken.
- 4.1.4 In terms of delivery, this means that a number of issues that will need to be grappled with when planning for growth. These include the following:
- 4.1.5 **Clustering or dispersal?:** there are a number of benefits to some degree of concentration of growth in clusters or corridors. Foremost of these is the ability to sustain services where a critical mass of residents or service users is needed make them viable. This is certainly the case for public transport provision, as discussed below, but also for most other services, and is the reason why urban dwellers typically enjoy greater accessibility to services than rural dwellers, as evidenced by the Accessible Settlements Study. But there are also advantages to the dispersal of growth amongst all potentially suitable locations; the very valid argument being that smaller settlements in the least accessible locations will see marginal services withdrawn if population falls, stagnates or ages (a good example being primary schools, but also village shops, surgeries and the like), and that local people will find it increasingly difficult to find or afford housing without new supply. Like many others to be made, this will be a largely political decision based on a balanced assessment of the alternatives and the trade-offs that they entail. But this report would argue that the optimum pattern of growth may be one that makes the most services as accessible as possible to as many people as possible.
- 4.1.6 **Respecting village character:** there is no doubt that significant growth in settlements of the size of those considered in this report will have an impact on the character of that place. For many residents, that impact will be seen as being negative and, as a general rule, the smaller the place, the greater the change of character. In many villages, this is to be guarded against, and the assessment notes where it is likely to be an issue. But it is important for decision-makers to be aware of the other side of this argument, which is the point above about growth potentially throwing a lifeline to existing services or even bringing with it brand new amenities. As ever, a balance needs to be struck.

- 4.1.7 **The need for non-PUA growth:** it is worth remembering that, notwithstanding the arguments above that some growth is healthy to sustain a level of vitality in rural and small town communities, the potential capacity of the sustainable urban extension sites could, if necessary, negate the need for much of the non-PUA growth proposed in the RSS. The SUE Study identified several suitable sites for urban extensions, some of which may be more sustainable in many ways than the locations reviewed in this document. As elsewhere, policy decisions need to be made – at the local, sub-regional and regional level – and the necessary balance struck.
- 4.1.8 **Growth between settlements:** this study is clear that the most sustainable locations for development are almost always those where development already exists, be it the PUA or the settlements that surround it. These are not, however, the only locations that face development pressure – in some instances, sites between the settlements have been put forward for consideration. RAF Newton, Cotgrave Colliery, Kingston Fields and land east of Gamston fall into this category. Whilst this report has not assessed whether the 17,000 non-PUA homes in the RSS can be accommodated in the existing settlements, it does demonstrate that there are potentially 23 non-PUA settlements that could be suitable for growth. This figure does not indicate a pressing need for new settlements to meet the targets. Again, this does not necessarily mean that not relying on one or new settlements to enable growth will be the most politically acceptable solution. Furthermore, it must be acknowledged that development of those potential new settlements that include significant amounts of brownfield land may be attractive for other reasons.
- 4.1.9 All of these issues will be considered when the findings of this study are used to inform planning decisions through the regional and local plan-making process.

4.2 Transport

- 4.2.1 At this sub-regional level of planning, it is transport capacity and infrastructure that is often the key driver of both sustainability and deliverability of development schemes. It is worth, therefore, further exploring some of the transport issues that the study has highlighted.
- 4.2.2 The amount of growth envisaged for the non-PUA (almost 17,000 additional homes) will have a substantial impact on transport demand. Most of this demand will be by car and public transport, since distances for most trips will be beyond reasonable walking and cycling distance.
- 4.2.3 The implications for the pattern of growth are
- Villages with a higher order of local facilities will have more potential for non-motorised trips;
 - Concentration of growth will intensify impact on particular parts of the road network, but also will enable investment in higher order public transport services, in turn enabling a lowering of road traffic impact;
 - Dispersal of growth will spread traffic impacts in ways that will be less noticed, but equally will not create circumstances that would support mode shift to public transport.
- 4.2.4 If growth were dispersed in rural areas on sites unrelated to existing villages or settlements, this would lead to the highest reliance on private road transport with little chance to mitigate this with non-car choices. Such a pattern of growth would therefore be undesirable, contrary to national, regional and local policy, and therefore should be ruled out.
- 4.2.5 Non-PUA growth should ideally be located and configured to produce or enable travel patterns that are as close as possible to those achieved within the PUA – namely with a

relatively high percentage of trips by non-car modes, or with the potential for this to be so. Village locations generally will have a higher dependence on car travel, but less so if they happen to lie on a strong public transport route, forming part of a chain of settlements, and if they have a range of local facilities.

- 4.2.6 A key factor in deciding on the distribution of growth will therefore be which features maximise non-car travel and minimise reliance on the car. It is important to note that actual mode split is less important (in the short run) than potential mode split. Policy and other factors such as fuel prices will influence choice, but if there is no workable alternative then car dependence will become an increasing problem for the households themselves and for the wider economy and environment.
- 4.2.7 The quantum of growth will bring potential to expand and upgrade public transport. The extent of this improvement will depend on how the growth is distributed. The total population will determine the potential level of viable transport, but the amount will depend on many factors such as: the existing level of service; the distance to employment, education and other facilities; the existence of reverse direction peak hour travel; and the relative speed and comfort compared to the car. The analysis has taken all of these factors into consideration.
- 4.2.8 Assuming a mode share of 10%, 17,000 households could generate demand for a single bus route running at a 5 minute frequency, or 4 services serving 4,000 households each running at a 20 minute frequency. If additional households are located in villages with an existing service, then the frequency of that service can be increased pro rata. Growth which takes a village to a threshold population to support a 10-15 minute service will be preferable to growth in a village where the bus frequency will be no better than 30 minutes. A 15 minute frequency is regarded as the minimum necessary to achieve a reasonably high mode share. The mode share can, of course also be increased with traffic restraint, bus priority and other measures, but such will need coordination with land use planning and bus operation.
- 4.2.9 If growth were to be equally distributed between many villages, the traffic impact on any individual part of the network will be reduced, but equally the opportunity to reach a threshold population for viable non-car alternatives will be greatly diminished. The best fit with transport policy objectives therefore appears to be to **concentrate growth in locations where the incentives to provide high quality public transport will be greatest, and where the resulting population will have sufficient critical mass to make such public transport financially viable.**
- 4.2.10 In terms of highway impact, significant growth in any particular locations will worsen peak time congestion problems. Since congestion is experienced on virtually all the main roads in the Greater Nottingham area, this is not a useful deciding factor. If congested roads were to be regarded as a constraint on growth, then most of the sites examined would be ruled out. There is neither funding nor policy support for general increases in road capacity to accommodate rising levels of car travel. Of more interest are the locations where there is potential to reduce peak time car travel.
- 4.2.11 Location of growth in public transport corridors is recommended. This potentially conflicts with the objective of maintaining separation between settlements, especially when the public transport mode is stage bus. The location most affected by this conflict is the Chilwell-Breaston-Borrowash-Spondon corridor. This is a fairly strong bus (and potential rail) corridor that could support growth, but only if sites were within 400 metres of the public transport route. Such sites would inevitably tend to fill the open space that remains between the existing settlements.
- 4.2.12 To summarise, specific transport recommendations include:

- Non-PUA/SUE growth should be concentrated in villages, not dispersed in the countryside.
- Growth locations and sites should be capable of being served by high quality public transport, without involving route diversions.
- Villages with local facilities should be given preference in order to enable a significant proportion of trips on foot or cycle.
- There will be benefits from distributing growth to maximise the number of villages that will support a minimum 15 minute bus service.
- There will be benefits from locating growth where there is incentive and demand for investment in high quality public transport routes. Corridors that include Bingham, Breaston, Ilkeston and Hucknall appear to offer the most potential.
- Serious consideration should be given to exploiting existing railways to support growth, including the use of tram or tram-train extensions, as provided for in the forthcoming long term franchise for NET. This would imply growth being focused in one or two corridors.
- Certain villages can assist transport sustainability if growth is located at a series of villages in the same corridor to increase critical mass for high frequency public transport. Examples might be the Hallams, and Gotham with East Leake.
- Decisions on village growth locations should consider potential synergies with existing or proposed corridors within the PUA. For example: the Breaston corridor could link with the Chilwell NET corridor; Ruddington could benefit from a NET extension from Ruddington Lane; Kimberley and Eastwood could benefit from existing high frequency bus routes; and Newstead from a Hucknall tram extension. These corridors are illustrated in figure 4.1.

<i>Corridor name</i>	<i>Places for growth</i>	<i>Potential level of public transport</i>
Bingham	Radcliffe, Bingham Aslockton	Tram-train, conventional train, BRT
Keyworth	Tollerton	HQ bus
Ruddington	Ruddington	HQ bus / tram
Breaston	Breaston Draycott Borrowash	BRT / tram
Kirk Hallam	Stanton (PUA) Kirk Hallam West Hallam	Tram / tram-train / BRT

Kimberley	Kimberly Eastwood Heanor (outside Notts)	Tram / tram-train / BRT
Newstead	Newstead Wighay (PUA)	Tram / rail / HQ bus

4.3 Infrastructure

4.3.1 Only one of the individuals settlements received a red 'unsuitable for growth' assessment in the analysis, although most of the wider 'Broad Search Areas' did. This implies that, with just one exception, there are no infrastructure show shoppers in the existing settlements.

4.3.2 In terms of provision and capacity, it is education where most issues, and opportunities, arise. A number of the Nottingham, Nottinghamshire, Derby and Derbyshire secondary schools are projecting substantial surplus capacity in the future due to changing roll numbers. As above, this creates a real opportunity to create 'clusters of development growth' that could take advantage of this potential capacity, particularly where it is carefully aligned with projected primary capacity and strategic transport corridors. Potential groupings of this nature are shown in figure 4.2.

4.3.3 As a strategic study, focus has been on secondary education which is usually more resourced intensive to provide. This study has not gone to the detailed interrogation of assessing the level of expansion potential of individual schools, for instance primary schools. It is possible that careful planning of growth to take advantage of surplus secondary capacity could create sufficient new demand to reach the threshold needed to trigger the need for a new primary school. This will be something to develop as part of individual site assessments. For instance, we have been informed that the local authority is experiencing real problems in overcoming provision of primary school places to meet the proposed Cotgrave Colliery site development by expanding the existing school. Such a scenario could lend itself to more strategic allocation to enable sufficient demand to create the requirement for a brand new primary school.

4.3.4 Currently there is net migration of over 1900 pupils from Nottingham City going mainly into Nottingham County. More City pupils go to County schools to the north, east and south of Nottingham City (Gedling and Rushcliffe schools) whereas to the west (Erewash) the pattern is reversed.

4.3.5 Any future plans to build significant developments in areas surrounding the City need to be mindful of an increasing birth rate, inward migration from other Countries and the complex and interdependent relationship that currently exist across both the City and the County.

4.3.6 Parental preference is a key factor; however, preferences are only fully pertinent when there is excess capacity in any given school. When capacity is pushed either by increased need or by popularity, then feeder and catchment processes will become more significant. For example, a new large-scale development located at a border between Nottingham City and County, which draws significant numbers of new-to-area families. In this scenario, the local (County) school is likely to fill, thus reducing the capacity of said school to take City-resident pupils. If there are a number of new developments around the City

borders then this may result in County schools filling with catchment children. Those City-resident children may then have no choice but to return to access their catchment secondary school.

4.3.7 The secondary provision in Nottingham City could support some growth from inward migration, or retention of those pupils currently choosing to be educated in the County. Similarly such a reversal could help to unlock valuable school places that are needed in areas like Gedling to support new growth, thus making it more sustainable to develop.

4.3.8 Hence, it is likely that any significant developments in the County could cause an impact on local county schools. The consequent impact for the City is likely to be that of a reduction in the number of pupils able to access County-school places and therefore will need to be accommodated in any surplus within the City.

Figure 4-1: Potential transport corridors

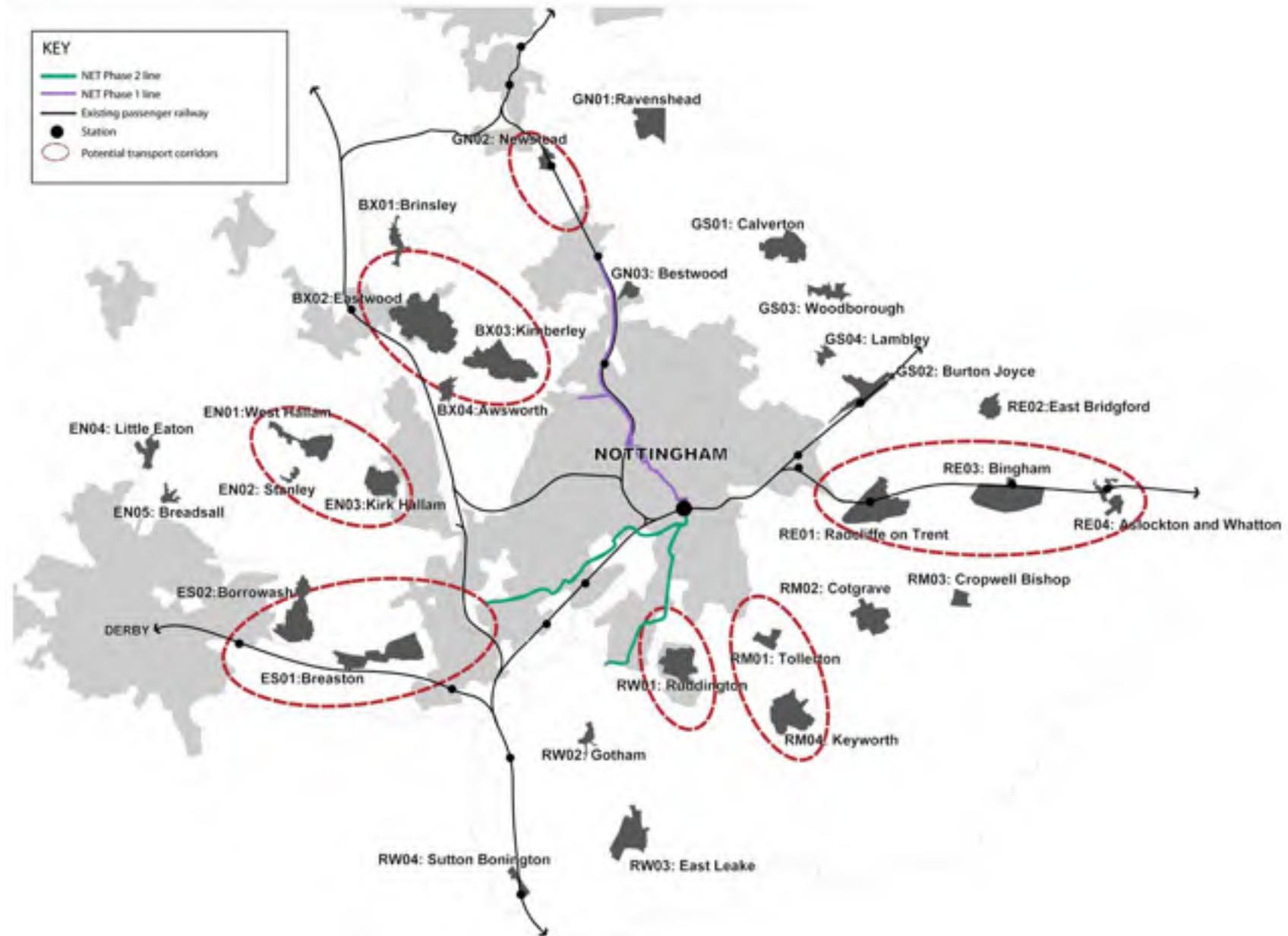


Figure 4-2: Areas with strong infrastructure capacity or potential

