

Greater Birmingham HMA Strategic Growth Study

Greater Birmingham & the Black Country

A Strategic Growth Study into the Greater Birmingham
and Black Country Housing Market Area

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Prepared by

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Appendices

SEE SEPARATELY BOUND DOCUMENT

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The signatories below verify that this document has been prepared in accordance with our quality control requirements. These procedures do not affect the content and views expressed by the originator.

This document must only be treated as a draft unless it has been signed by the Originators and approved by a Business or Associate Director.

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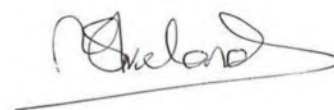
20 February 2018

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Limitations

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1 EXECUTIVE SUMMARY

- 1.1 The National Planning Policy Framework and the Localism Act 2011 requires local authorities to work together through the 'Duty to Cooperate' across the relevant Housing Market Area (HMA) to identify and then meet housing need where it is sustainable to do so.
- 1.2 Birmingham's functional HMA extends to include the Black Country and parts of Worcestershire, Warwickshire and Staffordshire. It comprises local authorities within the Greater Birmingham and Solihull LEP area¹ and Black Country LEP area² together with South Staffordshire; as well as North Warwickshire and Stratford-on-Avon Districts which fall within an area of overlap between the Birmingham and Coventry/Warwickshire HMA.
- 1.3 The Birmingham Strategic Growth Study builds on work undertaken by Peter Brett Associates (PBA) who prepared a Strategic Housing Needs Study Stage 2 Report (November, 2014) and Strategic Housing Needs Study Stage 3 Report (August, 2015). These provide a framework and starting point for this Study, which the HMA authorities have jointly commissioned to further consider strategic development options to meet housing need across the HMA. It is intended to identify more specific options and broad locations for addressing the housing supply shortfall.
- 1.4 The Study Brief set out the following Study requirements, envisaged as a four-stage process:
- 1). Review of existing identified supply to consider whether, by positively applying policies that are consistent for each type of site across the HMA, more dwellings could be provided through increased densities.
 - 2). Should a shortfall remain following consideration of option (1), consider the potential additional supply on other land outside of the Green Belt that has not been previously considered for housing development, by applying a consistent approach across the HMA. This should take into account the sustainability of the locations for accommodating housing growth, including the need to provide other land uses.
 - 3). Should a shortfall remain after undertaking tasks (1) and (2) consider the development potential and suitability of any large previously developed sites within the Green Belt that may lie in sustainable locations.
 - 4). Should a shortfall remain after undertaking tasks (1) to (3), undertake a full strategic review of the Green Belt within the HMA utilising a consistent Green Belt Review

¹ Birmingham, Bromsgrove, Cannock Chase, East Staffordshire, Lichfield, Redditch, Solihull, Tamworth and Wyre Forest

² Dudley, Sandwell, Walsall and Wolverhampton

methodology, which assesses Green Belt against its five purposes, followed by consideration of distribution and broad locations, taking into account market capacity to deliver. .

- 1.5 The brief is clear that the Study would need to consider work being undertaken by local authorities through local plan processes to identify additional capacity for housing.

Housing Need Parameters

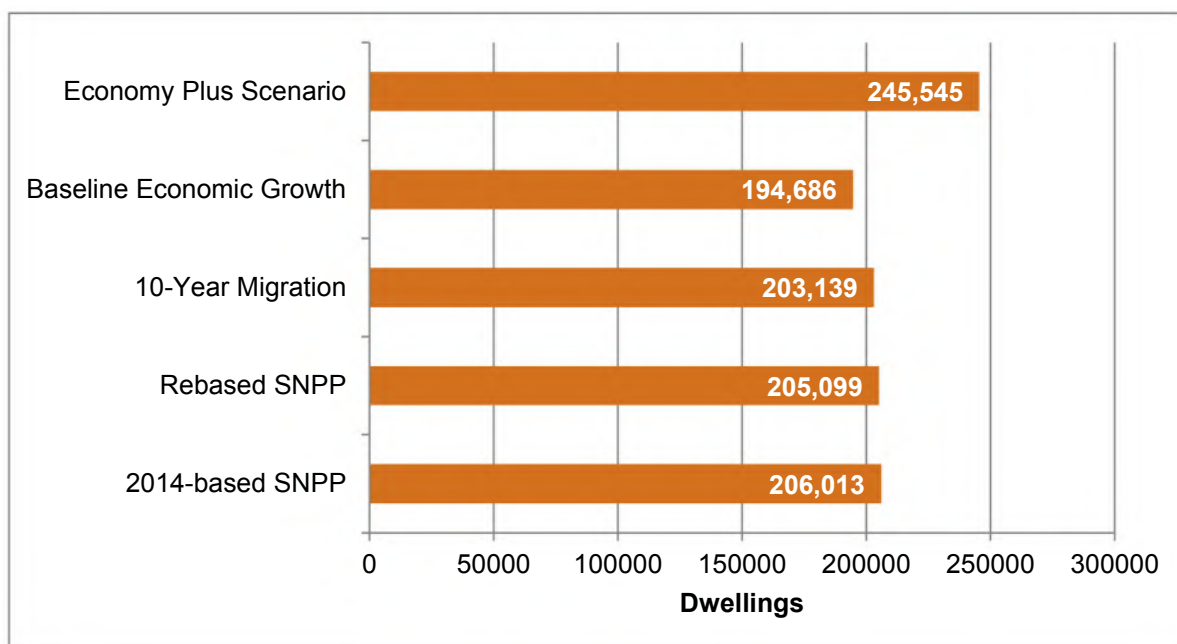
- 1.6 Housing need is defined in Planning Practice Guidance as referring to the scale and mix of housing and the range of tenures that is likely to be needed in the housing market area over the plan period – and should cater for the housing demand of the area and identify the scale of housing supply necessary to meet that demand.³ Housing need in the context of national planning policies thus refers to the need for both market and affordable housing in the housing market area. The needs are those of the housing market area.
- 1.7 Housing need figures are somewhat in a state of flux as Government has published a consultation on a new standard methodology for calculating housing need in *Planning for the Right Homes in the Right Places*, but this has yet to be finalised. Against this context, GL Hearn has sought to define on a consistent basis a set of ‘parameters’ for housing need across the Birmingham HMA.
- 1.8 GL Hearn’s analysis has shown that different projection scenarios will result in a different geography or distribution of housing need across the HMA. However ultimately in the context of this Study, it should be identified residential land supply and options for identification of further land in sustainable locations which drives the distribution of housing provision within the HMA. For this reason the report does not present findings from projections at a local authority level, which in any case GL Hearn would consider should be treated with a significant ‘health warning.’ The thrust of this approach is supported by the Government’s *Planning for the Right Homes in the Right Places* consultation which encourages joint working and in areas where strategic plans are being prepared indicates that the proposed approach should be used to produce a single assessment of the housing need for the area as a whole.⁴ Whilst a single plan is not being prepared, housing need is a strategic issue which the HMA authorities need to collaborate in addressing through the Duty to Cooperate.
- 1.9 Over the 2011 – 2031 period, the updated evidence points to a baseline or minimum level of housing need for 205,000 homes. This would support trend-based demographic projections and baseline (trend-based) economic growth. However delivery of the higher Economy Plus

³ PPG ID 2a-003-2014-0306

⁴ Para 30

Scenario, as set out in the West Midlands Combined Authority's Strategic Economic Plan, would require higher provision of 246,000 homes to 2031.

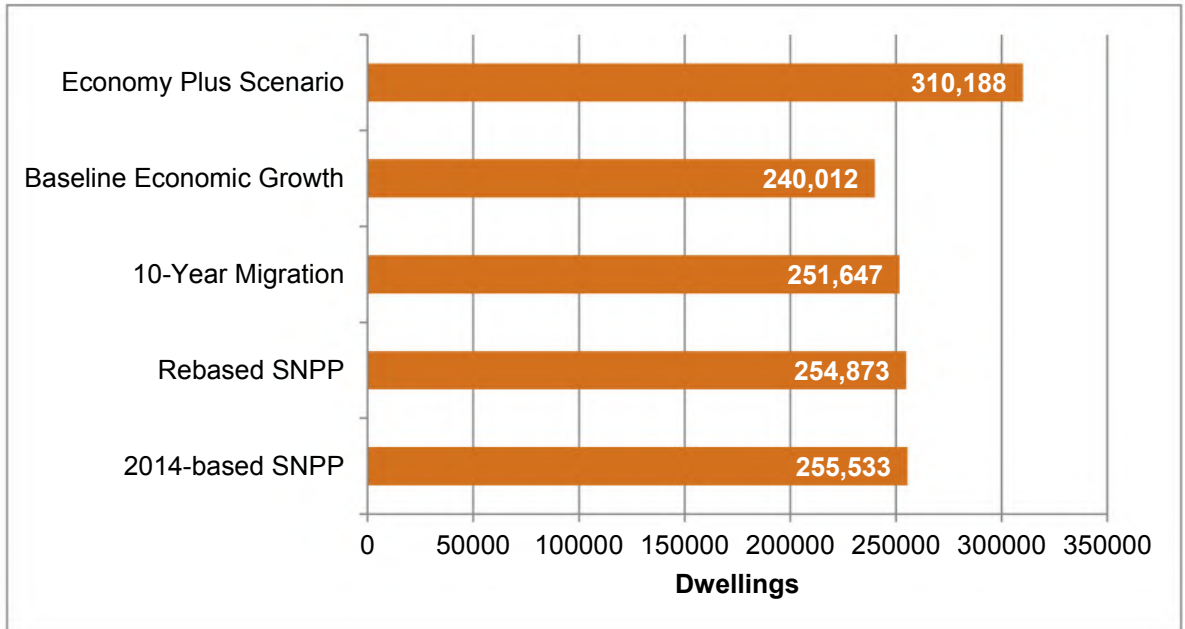
Figure 1: Parameters for Housing Need across Birmingham HMA, 2011-2031



Source: GLH/JGC

- 1.10 Over the period to 2036, a baseline or minimum level of need for 255,000 dwellings is shown; whilst delivery of the Economy Plus Scenario could require additional economic-led migration, resulting in a housing need for around 310,000 homes.

Figure 2: Parameters for Housing Need across Birmingham HMA, 2011-2036



Source: GLH/JGC

- 1.11 The Economy Plus Scenario is clearly a policy-driven scenario for employment growth which is aspirational in nature, seeking to achieve stronger relative economic performance than has achieved historically. There are questions for the authorities collectively to consider regarding the degree to which this level of growth is desirable, sustainable and achievable. Set against this, it should however be borne in mind that planning for demographic needs only should really be regarded as a *minimum* level of housing provision, and there is a clear basis supported in national policy for seeking to deliver above this level, in order to support and achieve longer-term improvements in the affordability of housing across the Birmingham HMA.
- 1.12 The Government's *Planning for the Right Homes in the Right Places* sets out proposals for consultation for a new standardised approach for quantifying housing need. This shows a need for 187,800 homes to 2031 and 239,300 homes to 2036 across the Birmingham HMA. However the figures are included by the cap applied therein, which in particular reduces the scale of unmet need from Birmingham. Uncapped figures would show a need for 206,800 homes to 2031 and 264,600 homes to 2036.
- 1.13 **GL Hearn conclude that on the basis of the current evidence provision of between 205,000 – 246,000 homes is needed across the Birmingham HMA to 2031; and provision of between 256,000 – 310,000 homes to 2036 (from a 2011 baseline) to meet the Birmingham HMA's housing needs.**

- 1.14 Alongside the HMA's housing needs, it also needs to be borne in mind that two authorities – North Warwickshire and Stratford-on-Avon – also fall within the Coventry & Warwickshire HMA, and have agreed to make provision for Coventry's unmet housing needs. North Warwickshire is contributing 860 dwellings to meeting Coventry's unmet needs to 2031 and 2,020 dwellings from Stratford-on-Avon, totalling 2,880 dwellings. If this was rolled forward to 2036 on a pro-rata basis, this would be 3,600 dwellings (2011-36).
- 1.15 In considering supply across the Birmingham HMA as a whole, this needs to be added on top of the need figures above. **This would result in a minimum provision taking account of Coventry's unmet need of 208,000 dwellings to 2031 and 258,500 homes to 2036.**

Housing Land Supply

- 1.16 GL Hearn has sought to collate and review information on land supply across the HMA, drawing on information from the 14 local authorities. This has included allocations in existing plans, additional urban capacity, and allocations proposed within emerging plans.
- 1.17 The initial information submitted indicated a land supply of around 203,000 dwellings to 2036, of which 200,000 dwellings could be delivered over the period to 2031.
- 1.18 GL Hearn however then went on to review this with a view to providing a consistent baseline position on the developable supply of land across the HMA. This has resulted in:
- Adjustments to windfall assumptions to ensure no windfall provision within Years 1 – 3 from the appropriate base date (to avoid double counting with supply in other categories); and to relate the relevant time period to 2031 and 2036 based on rolling forward Councils' existing assumptions;
 - Making consistent and realistic assumptions on non-implementation. A 5% discount has been applied in all areas to the supply from sites with planning consent. For sites without planning consent, a 15% discount has been applied to the supply in the four Black Country authorities, reflecting the significant proportion of the land supply which comprises employment sites where there are delivery challenges associated with land assembly, business relocation and viability. In the other HMA authorities, a 10% discount to the supply from sites without planning consent has been applied. These discounts are for the purposes of assessing supply in this report, and should not be considered to prejudice what allowance is made for non-implementation in individual local plans or authorities' land supply assessments.
- 1.19 The adjustments made take into account the significant level of investment in the pipeline to facilitate delivery of brownfield land supply, and step change in funding available to support this.

- 1.20 The resulting supply position, as at the time of writing, is shown in Table 1 below:

Table 1: Adjusted Land Supply (2011-2031)

	Land Supply to 2031	Land Supply to 2036
Total Supply	<u>179,829</u>	<u>197,618</u>
Of which is...		
Sites with Planning Permission	53,475	53,475
Allocations - Adopted Plans	43,353	46,860
Allocations – Emerging Site Allocations Plans	5,709	5,709
Allocations – Emerging Local Plans	12,316	12,593
Additional Urban Supply	15,124	15,124
Windfall	14,837	28,841
Completions	35,016	35,016

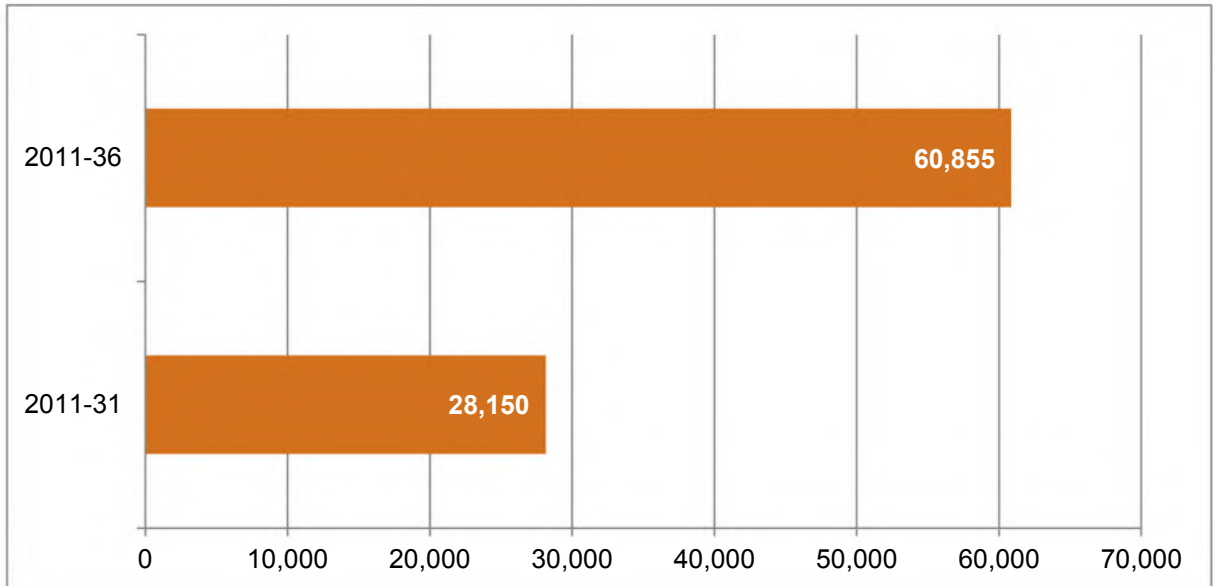
- 1.21 The additional supply to 2036 principally comprises of the 'roll forward' of projected windfall figures from 2031 to 2036, with a modest contribution from some large sites where delivery is expected to continue post 2031. The latter principally comprises development at the new settlement locations in Stratford (Gaydon/ Lighthorne Heath and Long Marston) and the Langley SUE in Birmingham, together with modest numbers on other sites in Sandwell and Solihull.
- 1.22 **GL Hearn conclude that there is a developable land supply of (rounded) 180,000 dwellings across the HMA to 2031, and 198,000 dwellings to 2036 based on sites and supply currently identified.**
- 1.23 The analysis indicates that **based on current supply assumptions, and taking into account proposed allocations in emerging plans, there is an outstanding minimum shortfall of 28,150 dwellings to 2031 and 60,900 dwellings to 2036 across the Birmingham HMA.**

Table 2: Minimum Shortfall in Housing to 2031 and 2036

	2011-31	2011-36
Minimum Housing Need	205,099	254,873
C/W Unmet Need	2,880	3,600
Supply Baseline	179,829	197,618
Min. Shortfall	28,150	60,855

- 1.24 The minimum shortfall figures are shown in Figure 3.

Figure 3: Minimum Housing Shortfall across Birmingham HMA



Potential Additional Urban Land Supply

- 1.25 The Government published a Housing White Paper in February 2017. This set out proposals from Government to amend national planning policies relating to Green Belt, setting out that Green Belt boundaries should only be amended where it can be demonstrated that all other reasonable options for meeting the identified development needs have been examined fully, including:
- Making effective use of suitable brownfield sites and opportunities offered by estate regeneration;
 - The potential offered by land which is currently under-used, including surplus public sector land where appropriate; and
 - Optimising the density of development; and
 - Exploring whether other authorities can help to meet some of the identified housing requirement.
- 1.26 The potential of brownfield sites, public sector land, densification, action zones, and estate renewal was also identified in the West Midlands Land Commission Final Report.
- 1.27 To consider the potential which could be achieved from these sources, GL Hearn has sought to engage with the 14 local authorities across the sub-region through a series of workshops with authorities. GL Hearn sought to collate information on brownfield development opportunities, current and potential estate regeneration schemes, and the potential supply from employment land. We have also undertaken a sensitivity analysis considering the potential for additional land supply to arise from increasing residential development densities.

- 1.28 Inevitably there are probably modest additional development opportunities which could result from further work interrogating potential from the above sources – in town centres, from surplus open space etc. Land supply figures are however constantly in a state of flux as new brownfield land becomes available and other sites are developed or lost to alternative uses. The supply which could result from the further areas identified should be considered further alongside the investigation of potential from the areas of search for strategic development identified in this report. However based on the work undertaken GL Hearn's considers that the scale of additional potential which these sources of supply will yield will not preclude the need for strategic development options to be identified and brought forward.

Increasing Urban Development Densities

- 1.29 GL Hearn has sought to test through the Study the potential to increase residential development densities. Building new housing at higher densities is an important potential component to addressing the shortfall in housing provision across the HMA. It not only makes more efficient use of land, but can help to deliver high quality sustainable development and good quality places. With careful planning and good design, higher density development can help create successful places, with a range of house types, good space standards and an attractive public realm. They can help to create places with a mix of uses, where public transport provision is viable and can support local services.
- 1.30 In considering higher densities in this report, we are principally concerned with developing compact neighbourhoods, which support a mix of uses; a range of house types, with viable public transport and local services. We are looking at building at densities which are appropriate to the local context, but being clear that to do so does not necessarily mean building at existing densities.
- 1.31 The analysis tests what densities could be achieved by applying the following minimum densities (floor thresholds):
- Rural Areas: 30 dwellings per hectare
 - Suburban Locations: 40 dph
 - Town and District Centres: 50 dph
 - Birmingham City Centre: 100 dph
- 1.32 A sensitivity analysis quantifies the potential impact which this could have if applied to all sites, large and small, without planning consent.
- 1.33 Based on the analysis undertaken, **GL Hearn concludes that it would be reasonable to assume minimum densities of 40 dph are achieved in the conurbation (Birmingham and the Black Country urban area), with minimum densities of 35 dph in other parts of**

the HMA. This approach would yield additional supply of 13,000 dwellings, principally over the period to 2031. This is a significant contribution to meeting the housing shortfall. This is the working assumption on the contribution to supply which increasing densities could make.

- 1.34 These densities need to be applied through the review of development management policies/ guidance at appropriate, in the review of SHLAAs and through development management decisions. In applying the density standards set out, consideration should be given to site characteristics and the local context, as well as Councils' evidence base on the need for different types/ sizes of homes; but being clear that in the context of an unmet housing need this does not necessarily mean necessarily building at existing local densities.
- 1.35 It will be important that the local authorities seek to maximise the density which can be achieved in individual development schemes, taking account of the site characteristics, local context, nature of local housing demand and viability. GL Hearn's estimates of the supply which can be achieved from this source take account of the nature of market demand and what can realistically be achieved given market dynamics and viability.

Identifying and Allocating Additional Land

- 1.36 Taking into account the potential housing supply which could be achieved by increasing densities, there remains a need to identify capable of supporting delivery of over 15,000 homes to 2031, and a total of over 47,800 homes to 2036. Additional land needs to be identified and allocated to meet this. This provides a clear basis for progressing a strategic review of the Birmingham Green Belt and considering land available within the HMA but beyond the Green Belt to inform councils plan-making activities.
- 1.37 The report thus moves on to consider further options for meeting the outstanding shortfall in housing land. The PBA Stage 3 Study identified a number of development models for addressing the shortfall. These are considered further in this report.
- 1.38 Given the scale of unmet need and the strategic nature of this Study, it focuses on considering strategic development options for addressing the housing needs shortfall, in terms of considering Areas of Search which could potentially (subject to further investigation) support development of 1500+ homes. It considers options for accommodating the following:
- Urban Extensions (1,500 - 7,500 dwellings);
 - Employment-led Strategic Development (1,500 – 7,500 dwellings); and
 - New Settlements (10,000+ dwellings).

- 1.39 The models are used to help guide where development could, in principle, be located taking account of geography (landscape character, land use, drainage and topography), nationally-significant development constraints as listed in Footnote 9 in the NPPF, and the strategic transport network (road and rail). These issues are considered for areas both within and beyond the Green Belt.
- 1.40 Alongside this, councils within the HMA will need to progress work to identify small and medium-sized sites which can contribute to meeting the housing needs shortfall through the preparation of local plans. This process will include identifying additional smaller sites beyond the Green Belt through SHLAAs and local Green Belt assessments considering the performance of sites against green belt purposes at a finer grain. Small and medium-sized development opportunities arising from this work will play an important contribution in meeting the housing needs shortfall, particularly in the short- and medium-term.
- 1.41 This Study is intended to provide an input to the development of local plans. It is important to recognise that further work will be undertaken in considering and testing the potential for strategic development by local authorities through their respective local plan processes, which will include engagement and further work with statutory bodies as necessary, local communities and other stakeholders. Local authorities should also continue to engage strategically and work together moving forward to develop solutions based on the outcomes of this Study.
- 1.42 For the avoidance of doubt, the identification of Areas of Search for strategic development in this report does not indicate that these areas could or should be brought forward for development. The purpose of the Study is to assess and shortlist potential Areas of Search for strategic development which can then be considered and assessed in further detail by individual councils through the preparation of local plans alongside further small and medium-sized sites. On the same note, LPAs may seek to explore strategic options which have not been considered through this Study, should those opportunities arise from their own plan-making processes.

Potential Areas of Search for Strategic Development beyond the Green Belt

- 1.43 The Study first considers areas within the HMA, but beyond the Green Belt, which could potentially accommodate strategic development.
- 1.44 There are six local authorities which include land which is outside of existing urban areas and not within the Green Belt. These comprise parts of South Staffordshire, Lichfield, North Warwickshire, Stratford-on-Avon and small parts of Tamworth and of Redditch.
- 1.45 Within South Staffordshire, the greatest potential for new strategic development is in the north-eastern part of the District, between Wolverhampton and Stafford. This area includes Penkridge, and north/south transport links (both road and rail). The Study initially identifies three potential Areas of Search for Strategic Development:
- Urban Extension: North of Penkridge
 - Urban Extension: South of Stafford
 - New Settlement: Around Dunston
- 1.46 In Lichfield District, the potential for strategic development is considered to be greatest in the corridor running north-east from Lichfield towards Burton-on-Trent. This area includes the settlements of Fradley and Alrewas, and a freight rail line. The Study initially identifies three potential Areas of Search for Strategic Development:
- Urban Extension: East of Lichfield
 - Urban Extension: North of Tamworth
 - New Settlement: Around Fradley and Alrewas
- 1.47 In North Warwickshire, the geography is one of urban development and settlements focused along the A5 Corridor where significant growth is already proposed. The rail corridor between Water Orton and Nuneaton runs through a very rural area, with limited accessibility to the strategic road network. One potential Area of Search for Strategic Development is identified to be tested:
- Urban Extension: East of Polesworth
- 1.48 In Stratford on Avon District, the Study focuses on options in the western half of the District (west of the Fosse Way) which relate more to the Birmingham HMA. The area beyond the Green Belt and within the HMA is principally rural, with the largest settlements being Stratford-upon-Avon, Wellesbourne, Welford-on-Avon and Bidford-on-Avon. Stratford-on-Avon has a range of existing services, employment opportunities and a rail station. A number of urban extensions to the town are being planned for through the Core Strategy. Wellesbourne is the next largest settlement (beyond the Green Belt) and whilst it does not

have a rail station, benefits from some existing services and proximity to Warwick/Leamington Spa and Stratford-upon-Avon.

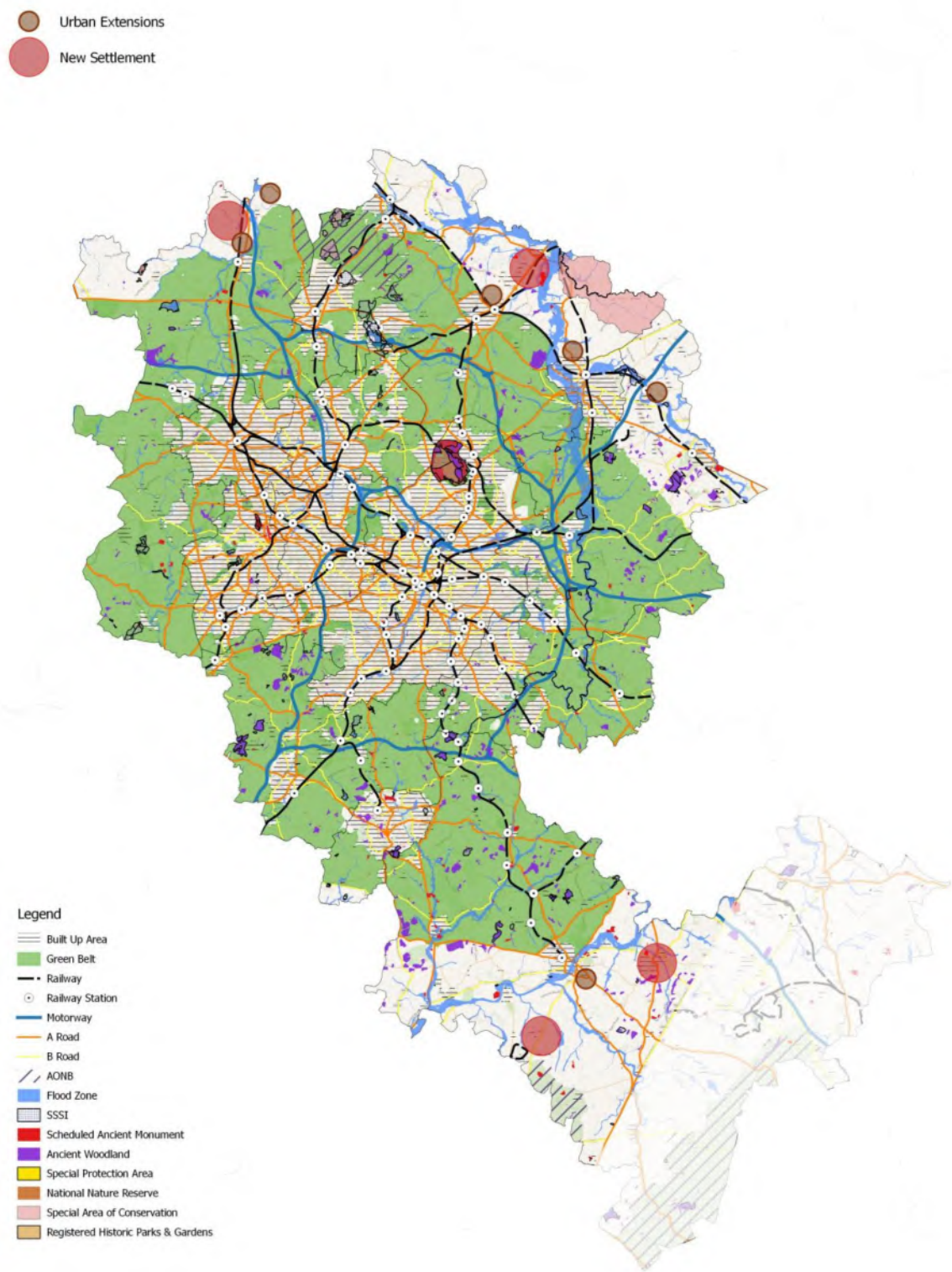
1.49 Within the HMA, the only location which has been identified by Government for new strategic development is Long Marston, which is designated a Garden Village. Consideration has therefore been given to the potential for enhanced strategic development in this broad area. The potential Areas of Search for strategic development identified to be tested are thus:

- Urban Extension: South of Stratford-upon-Avon town
- New Settlement: Around Wellesbourne
- New Settlement: South-West of Stratford-upon-Avon District

1.50 The area of land within Redditch District beyond the District is small, and does not include any settlements; has relatively limited transport accessibility and the Study concludes does not offer potential for strategic development. Similarly, the small areas beyond the Green Belt in Tamworth Borough are not considered further in any detail, given that the areas are so heavily constrained with a network of rivers and associated flooding.

1.51 The Areas of Search beyond the Green Belt are shown on Figure 4 overleaf.

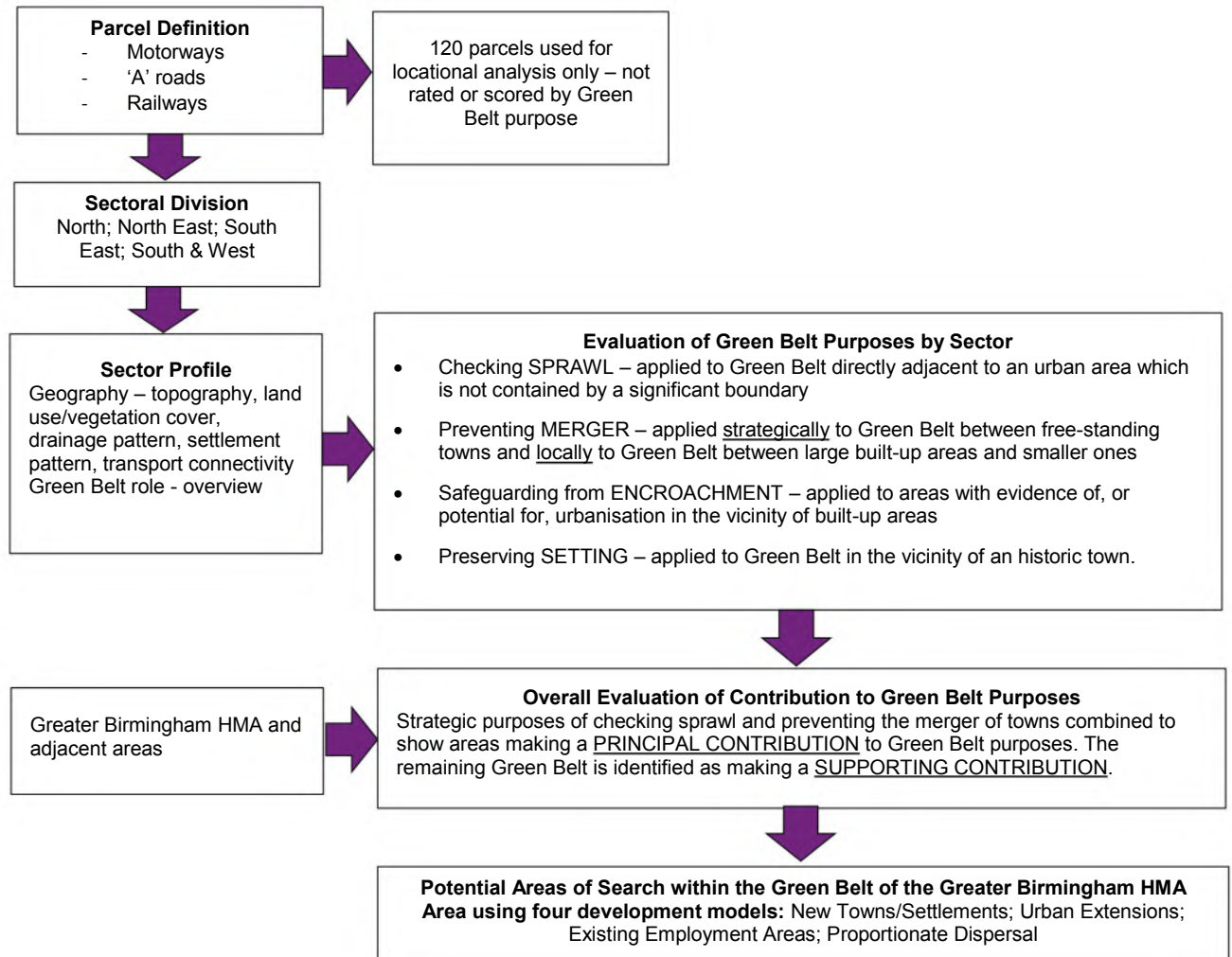
Figure 4: Areas of Search beyond the Green Belt (excl. Urban Areas)



Potential Areas of Search in the Green Belt

- 1.52 A significant proportion of the land in the HMA Area outside the built-up areas is covered by Green Belt. National planning policies provide strong protection to Green Belt, an essential characteristic of which is its permanence, and identify those exceptional circumstances must exist for the review of Green Belt boundaries which should take place through the local plan process.
- 1.53 The West Midlands Green Belt was created following the introduction of the Town and Country Planning Act 1947 which allowed local authorities to include Green Belts in their development plans. Green Belt proposals were put forward as amendments to development plans but remained formally unapproved until 1975, when the Secretary of State approved the West Midlands Green Belt, although a quarter remained 'interim' and was only introduced in later reviews of structure and local plans. The West Midlands Green Belt covers approximately 900 square miles and extends between 6 and 15 miles from the built edge of the conurbation.
- 1.54 This Study has undertaken a Strategic Green Belt Review, assessing the form and strategic function of the Green Belt against the purposes of Green Belt policy set out in the National Planning Policy Framework (NPPF) (Para 80), namely:
- to check the unrestricted sprawl of large built-up areas;
 - to prevent neighbouring towns merging into one another;
 - to assist in safeguarding the countryside from encroachment;
 - to preserve the setting and special character of historic towns; and
 - to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 1.55 The desk-based strategic review has assessed the performance of Green Belt parcels against the five purposes, identifying the role which different parcels play; and their contribution to Green Belt purposes – concluding whether parcels make a principal or supporting contribution. Figure 5 provides an overview of the methodology.

Figure 5: Green Belt Study Approach



1.56 Consideration has been given to land use, character, topography, the settlement pattern, and transport connectivity. This is brought together in identifying the contribution of areas to Green Belt purposes, and the identification of potential Areas of Search for Strategic Development.

1.57 Figure 6 overleaf shows the Study findings in terms of the contribution of different areas to Green Belt purposes.

Figure 6: Contribution to Green Belt Purposes

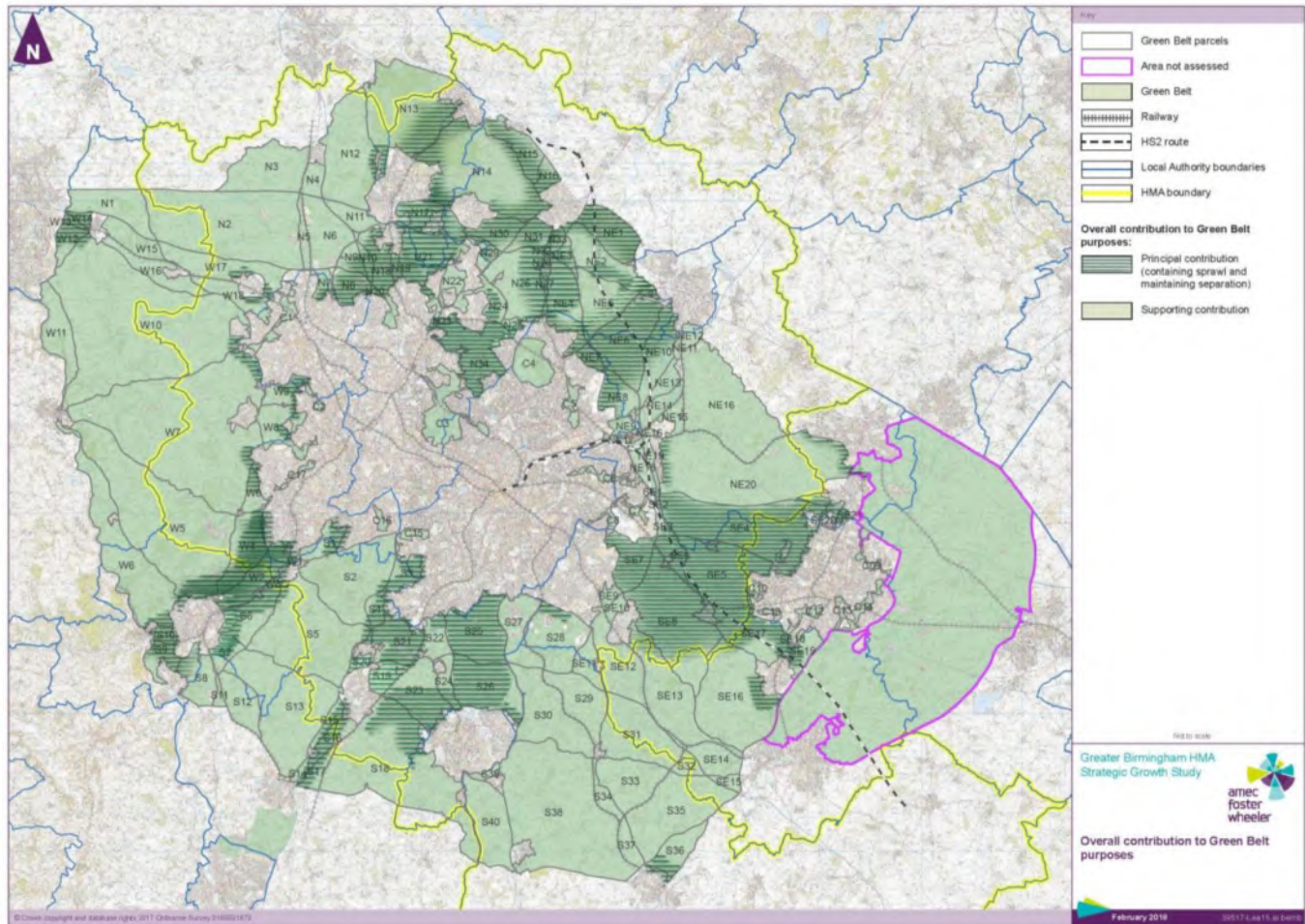
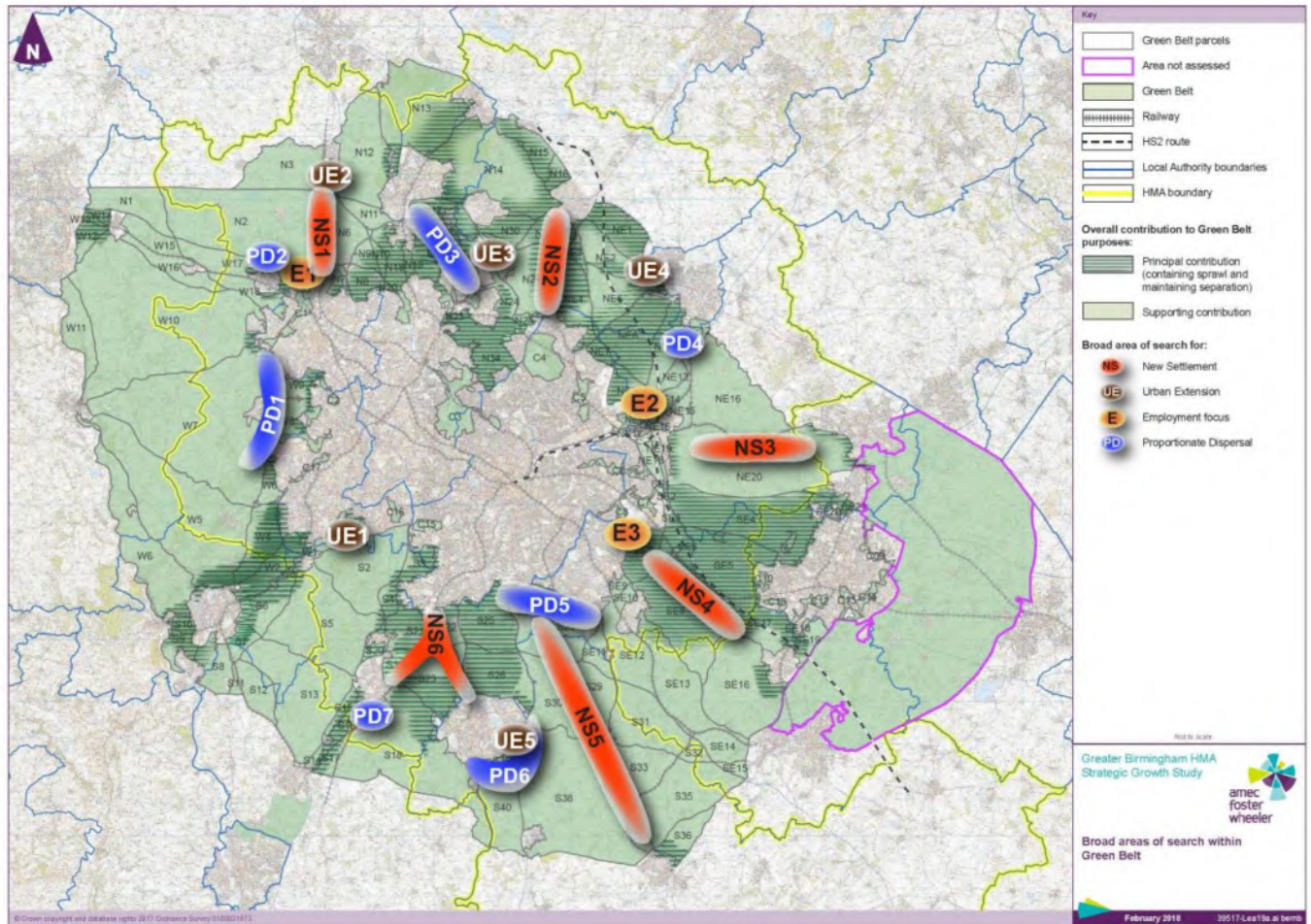


Figure 7: Initial Areas of Search within Green Belt



Assessment of Development Models

- 1.61 A Sustainability Appraisal of the four main development models is undertaken. It indicates that they have similar effects on some of the SA objectives, particularly in relation to natural resources and overall on economic growth, although for urban extensions and proportionate dispersal the extent of positive effects is reduced reflecting that the urban extension model would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment (depending clearly on the location of the settlement and its scale and service provision) and that for the proportionate development model would not support employment land development.
- 1.62 The employment areas model has more neutral and uncertain effects on the SA objectives, reflecting that there may be less opportunities for environmental enhancements with employment led schemes (for example for the development of a comprehensive green infrastructure network) and that there.

Table 3: Results of the SA of the Development Models

SA Objective	New Town/Settlement	Urban Extension	Employment-led Areas	Proportionate Dispersal
Natural Resources and Waste	+/-	+/-	+/-	+/-
Contribute to Climate Change Mitigation	+++	++	++	+
Adapt to the Effects of Climate Change	+++/-	++/-	++/-	-
Transport, Connectivity and CO ₂ Emissions	+++/-	++/-	++/-	-/?
Historic Environment, Landscape, Biodiversity and Geodiversity	++/-	+/-	+/-	0/?
Pollution	++/-	++/-	++/-	-/?
Economic Growth	+++	++	+++	+
Communities, Healthy Lifestyles and Equality	+++	++	++	+/-
Housing	+++	++	++	+

- 1.63 The development models would have varying positive effects on the housing objective. This reflects that the quantum of housing envisaged in the new town/settlement development model would make a significant contribution to meeting the housing needs of the HMA, with lesser contributions from urban extensions, employment led and proportionate dispersal. For strategic development of the scale considered in this section, deliverability issues are particularly a function of the inter-relationship between the value generated by the development (which is particularly a function of the scale of development and residential values) and the costs of delivering strategic infrastructure.
- 1.64 GL Hearn has sought to assess the delivery issues associated with the different strategic development models. There are typically greater development costs and increasing complexities for larger strategic development schemes; however garden villages and settlements bring with them increased opportunities for public funding support.

Table 4: Assessment of Delivery Models

Development Model	Deliverability Issues
Proportionate Dispersal	<ul style="list-style-type: none"> • Shortest lead-in times, typically 3-5 years, to initial completions • Typically lower requirements for strategic infrastructure, with consequently less requirements for public sector funding support. • Some contribution to delivering social infrastructure and open space depending on scale and existing local provision. • Delivery through typical private-sector led development model, with several housebuilders depending on scale. Delivery of typically 50-80 dwellings per year per developer. • Cumulatively may not deliver strategic infrastructure requirements to support scale of growth taking place across HMA.
Employment-Led	<ul style="list-style-type: none"> • Lead in times of 3-5 years to initial completions depending on scale of housing provision • Larger infrastructure requirements, influenced by scale, location and existing provision. Possibility for greater support financially for infrastructure if tied in with employment provision. • Some contribution to delivering social infrastructure and open space depending on scale and existing local provision and the surrounding environment.
Urban Extensions	<ul style="list-style-type: none"> • Lead-in times of typically 5+ years to initial completions, taking account of greater complexities associated with planning and infrastructure delivery. • Larger and more costly infrastructure requirements, influenced by scale, location and existing provision. Strategic infrastructure typically required to support. • Can draw on existing local infrastructure, including highways, schools, health care etc depending on existing provision and capacity of this. • Scale brings opportunities for place-making investment, which can contribute to creating value within the development scheme. • At lower end of size range, delivery model is typically private-sector led, with several housebuilders delivering concurrently. Typically 50-80 dwellings per year per developer. • At higher end of scale range, greater potential need for public sector involvement/ JV to drive the pace of delivery given likely larger upfront infrastructure costs and impacts on cash flow. • Nature and scale of developments may create fewer opportunities to attract significant public funding investment to deliver strategic infrastructure.
New Settlements	<ul style="list-style-type: none"> • Scale brings opportunities for attracting Central Government investment both in creating capacity and supporting infrastructure delivery. • Difficult for private sector to absorb costs alone, given significant upfront infrastructure costs and implications on cash flow and risk. Important public sector role on this basis in partnering and reducing risk through Local Delivery Vehicle or public/private Joint Venture. • 5-10 year lead-in time in most instances, but could be longer where particular development or infrastructure complexities arise. Delays can have a significant overall impact on delivery

	<p>rates in an area.</p> <ul style="list-style-type: none"> • Opportunities for place-making investment to set tone of scheme and create value, with potential for up to 20% value uplift which can support delivery of infrastructure. • Need for bespoke delivery model with delivery through a greater range of housing providers than traditional private-sector led development model in order to create place and critical mass. This could involve public sector role (e.g. accelerated construction), custom build development, build-to-rent etc.
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1.65 Public sector funding opportunities include:

- £3 billion Home Building Fund – managed by the HCA providing development finance and infrastructure finance of up to £250 million to drive forward housing delivery;
- £2.3 billion Housing Infrastructure Fund – managed by CLG, with opportunities to bid for funding through the Combined Authority to support infrastructure delivery which opens up homes;
- Housing Zones and Large Sites Capacity Fund – funding of £6.3 million is available to drive forward delivery of brownfield sites. The large sites capacity fund provided support to local authorities, including funds to support additional consultancy, to deliver large schemes of 1500+ homes.
- Accelerated Construction – a £1.7 billion fund available to support schemes which accelerate construction of homes, including modular construction and direct commissioning (whereby HCA commissions a contractor to build homes);
- Garden Villages and Towns – a programme of funding available through CLG to support planning and development activities to support delivery of a new generation of garden villages and towns.

1.66 Detailed work will be needed to assess infrastructure requirements associated with strategic development, to cost these and to consider cash flow issues to support viability. This detailed work is beyond the scope of this exercise, and may well require further specific evidence studies to consider infrastructure requirements.

Review of Areas of Search

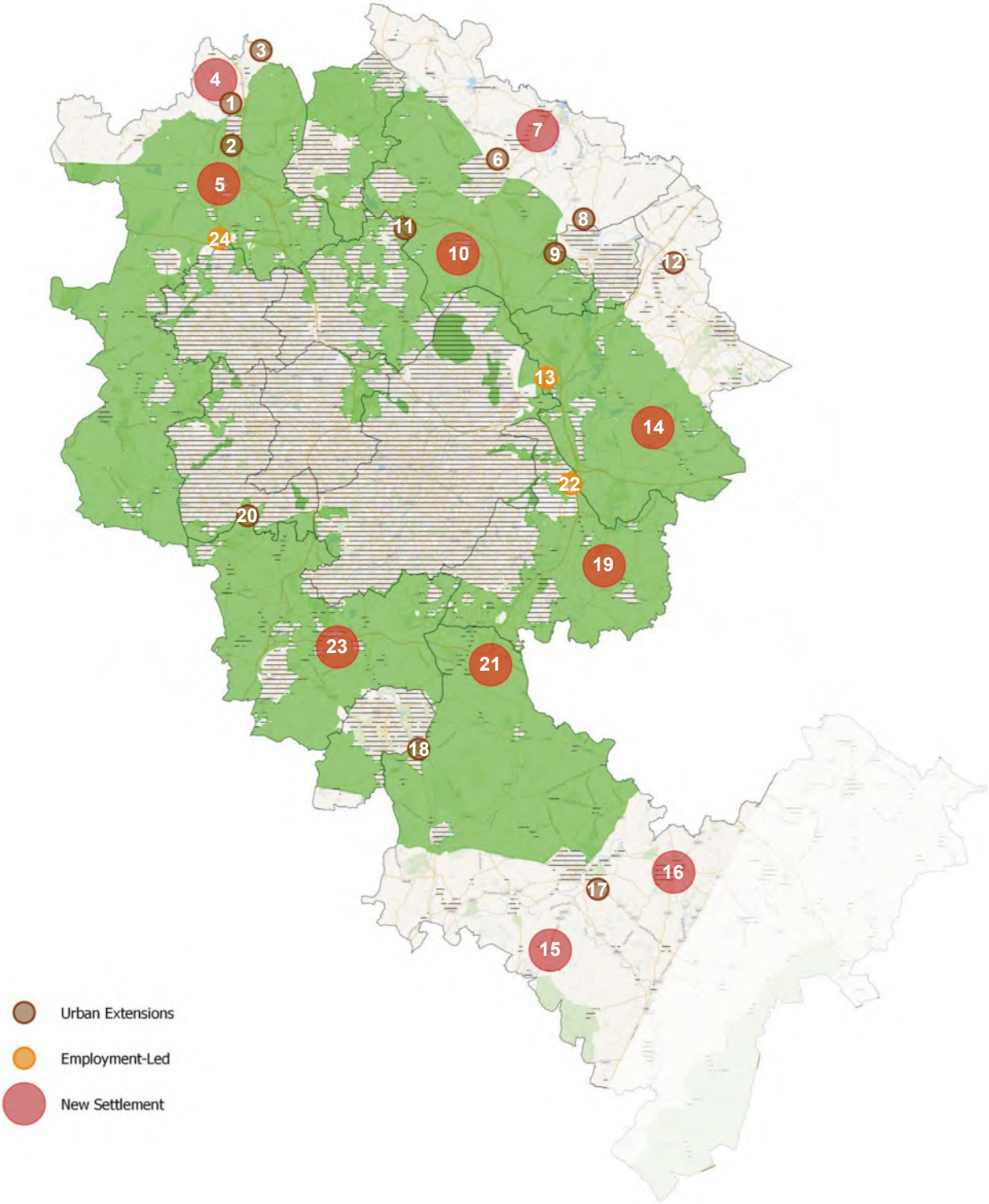
1.67 The NPPF sets out that local planning authorities should seek opportunities to achieve sustainable development including net gains across each of the economic, social and environmental dimensions, and avoid significantly adverse impacts wherever possible. Plans should set out locations for strategic development. They also need to be deliverable. By their nature, strategic development locations will be able to deliver some infrastructure and local services alongside new development.

1.68 In total, the Study identifies 24 Areas of Search for strategic development is identified in this Study. These are listed in Table 5 and shown on Figure 8.

Table 5: Areas of Search – Beyond Green Belt & Green Belt

No	Area of Search	Authority	Growth Option
1	North of Penkridge	South Staffordshire	Urban Extension
2	South of Penkridge	South Staffordshire	Urban Extension
3	South of Stafford	South Staffordshire	Urban Extension
4	Around Dunston	South Staffordshire	New Settlement
5	Between Wolverhampton and Penkridge	South Staffordshire	New Settlement
6	East of Lichfield	Lichfield	Urban Extension
7	Around Fradley & Alrewas	Lichfield	New Settlement
8	North of Tamworth	Lichfield	Urban Extension
9	North west of Tamworth	Lichfield	Urban Extension
10	Around Shenstone	Lichfield	New Settlement
11	North of Walsall around Brownhills	Walsall, Lichfield, Cannock	Urban Extension
12	East of Polesworth	North Warwickshire	Urban Extension
13	East of Birmingham	North Warwickshire	Employment-Led
14	Around New Arley	North Warwickshire	New Settlement
15	South west of Stratford-upon-Avon District	Stratford-on-Avon	New Settlement
16	Around Wellesbourne	Stratford-on-Avon	New Settlement
17	South of Stratford-upon-Avon town	Stratford-on-Avon	Urban Extension
18	South east of Redditch	Stratford-on-Avon	Urban Extension
19	Around Balsall Common	Solihull	New Settlement
20	South of Dudley	Dudley	Urban Extension
21	South of Birmingham	Stratford	New Settlement
22	South of Birmingham Airport & NEC	Solihull	Employment-Led
23	Between Birmingham and Bromsgrove/Redditch	Bromsgrove	New Settlement
24	North of Wolverhampton	South Staffordshire	Employment-Led

Figure 8: Areas of Search – Beyond Green Belt & Green Belt



1.69 In appraising the Areas of Search identified, the consultancy team has considered the following

- **Ability to meet housing needs** – as identified the unmet housing need is particularly that of “the conurbation” and thus the geographic relationship to the conurbation and distance of locations from this is, we think, an important consideration;
- **Impact on the Green Belt** – making a distinction between locations which are within and outside the Green Belt, and those which are beyond it;
- **Sustainability** – drawing from the SA undertaken to identify the best performing locations, and excluding those with ‘significant negative outcomes’ against one of more of the SA objectives;
- **Public Transport** – for strategic development, the accessibility to public transport and particularly to the rail network, is an particularly important consideration within the wider sustainability of different development options; and
- **Deliverability** – drawing together analysis to comment on the relative market attractiveness and delivery challenges associated with different strategic development locations.

Figure 9: Influences on Shortlisting and Prioritisation



1.70 The Study has sought to bring these factors together in a series of Venn diagrams which capture the relative merits of different strategic growth locations.

- 1.71 Ultimately the solution to meeting the housing need shortfall is likely to require a multi-faceted response, including not just maximising urban supply and accelerating the delivery of this, but the identification of further development land and the progression of local Green Belt reviews. This should reasonably include sites of a range of sizes including smaller extensions to settlements of less than 2,500 homes, together with the identification and delivery of larger strategic development locations. This Study has sought to identify and shortlist potential Areas of Search for strategic development locations on a consistent basis across the HMA.

Recommended Areas of Search for Strategic Development

- 1.72 Drawing the analysis together, the Study recommends a number of Areas of Search for strategic development which should be taken forward for further assessment through the plan-making process as having potential to contribute to meeting the housing needs shortfall; together with the areas where 'Proportionate Dispersal' is identified as potentially appropriate within and beyond the Green Belt and other small-scale development opportunities.

Employment-Led

- 1.73 Three employment-led Areas of Search are identified as having further development potential:
- I54
 - East of Birmingham
 - Birmingham Airport/ NEC
- 1.74 Each of the three Employment-Led options performs strongly against the key criteria. These Areas of Search have the following characteristics:
- Strategic employment areas with a key employer and/or clustering of employers
 - Likely to be located adjacent to, or in the vicinity of, a Motorway junction.
 - Potential to support some housing provision as part of mixed-use development (1,500 to 7,500 dwellings).
- 1.75 This model concerns existing strategic sites as a focus for additional housing development in the broad vicinity and does not consider potential for further employment provision. A detailed analysis of existing and potential strategic employment areas is presented in the West Midlands Strategic Employment Sites Study (PBA, 2015).
- 1.76 The Employment Led development model would support delivery of a range of housing types and tenures, including the provision of affordable housing. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.

Urban Extensions

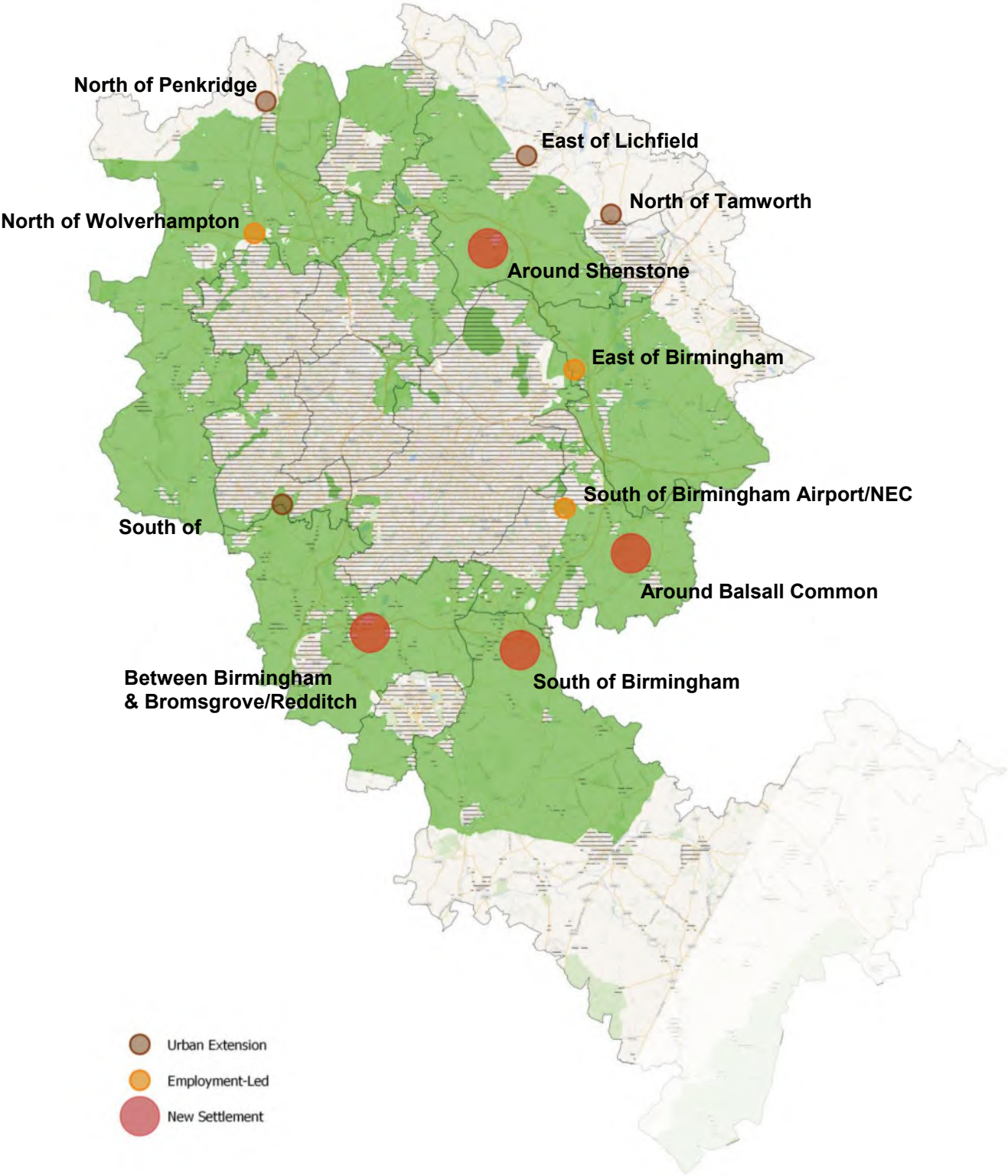
- 1.77 The Areas of Search for Urban Extensions are considered to have the potential to provide a quantum of housing (each) between 1,500 – 7,500 depending on further analysis, local constraints and site-specific technical studies. The Study concludes that the strongest performing Urban Extension options which should be taken forward for more detailed consideration by the HMA authorities are:
- South of Dudley
 - North of Tamworth
 - East of Lichfield
 - North of Penkridge
- 1.78 These locations provide opportunities for development of a scale which could support residential development, small-scale employment and associated services and infrastructure. It is envisaged that they would be taken forward, subject to further analysis, using garden settlement principles.
- 1.79 Development in the Areas of Search for Urban Extensions would support delivery of a range of housing types and tenures, including the provision of affordable housing in this Area of Search. Provision of the quantum of housing envisaged in the model would make a major contribution to meeting the housing needs of a LPA within the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.
- 1.80 The sites south of Dudley and south of Birmingham Airport fall partially or fully within areas which make a principal contribution to Green Belt purposes, but against other criteria perform very strongly.

New Settlements

- 1.81 The consultancy team considers that new settlements should also form part of the solution to meeting the housing shortfall, recognising that whilst they will require significant infrastructure, they can contribute positively to meeting longer-term development needs against a context whereby a significant proportion of the HMA housing need shortfall relates to the period beyond 2031; and they provide the opportunity to secure significant funding support from Government given their scale and impact.
- 1.82 In line with the strategic development models, these Areas of Search are likely to consist of the following characteristics:
- Of a significant scale: 10,000 - 15,000 homes, plus services and employment.

- Possibly incorporating an existing settlement as its starting point, particularly where this is focused on a railway station.
 - Aspiration for self-containment, recognising that there will be some commuting to adjacent employment and service centres.
 - Planned on Garden Town/Village principles.
- 1.83 Development envisaged in the Areas of Search for New Settlements would support delivery of a broad range of housing types and tenures, including the provision of a greater level of affordable housing. Provision of the quantum of housing envisaged in the development model would make a substantial contribution to meeting the housing needs of the HMA. The development model would also support the delivery of a broad range of facilities, services and employment to support the needs of future residents.
- 1.84 The areas of search for new settlements which perform strongest and we recommend should be taken forward for further assessment are:
- South of Birmingham
 - Between Birmingham and Bromsgrove/Redditch
 - Around Shenstone
 - Around Balsall Common
- 1.85 Of these however, the latter three all fall in locations which are identified as making a principal contribution to Green Belt.
- 1.86 The recommended Areas of Search for strategic development are shown on Figure 10.

Figure 10: Recommended Areas of Search for Strategic Development



Moving Forwards

- 1.87 Taking forward locations identified as Areas of Search for Strategic Development will require further work to be undertaken to assess their feasibility, the scale of development which could be accommodated and delivery timescales.
- 1.88 GL Hearn envisage that this would need to involve technical studies/ analysis considering:
- Landownership
 - Transport Assessment
 - Utilities Infrastructure Assessments
 - Detailed Sewer Capacity Appraisals
 - Detailed Green Belt Studies (where appropriate)
 - Landscape Capacity Assessments
 - Phase 1 Habitats Survey
 - Flood Risk Assessment
 - Desktop Ground Investigations
 - Employment Potential Study
 - Social Infrastructure Assessment
 - Green Infrastructure Assessment
- 1.89 Technical evidence will need to be brought together through the plan-making process with a level of masterplanning, which considers potential growth options and engagement with the local community.
- 1.90 Progression of transport and utilities assessments, landscape and green belt assessment and landownership should in particular be taken forward as a priority. The transport analysis should consider, taking account of other growth proposed within a plan, what infrastructure is required to support strategic growth, the technical feasibility and cost of this. Engagement with utilities providers should assess specific requirements for reinforcement or upgrading of existing infrastructure and how this could feed into providers' asset management plans.
- 1.91 A masterplanning process would consider potential development locations and the land use mix (informed by technical studies above), including appropriate locations for housing; employment additional social infrastructure and services; and green infrastructure. Technical analysis regarding green belt, ecology, landscape, flood risk, landownership and ground conditions would be needed to inform this.
- 1.92 Concept masterplanning could consider alternative options for the scale and locations of development, and the associated impact and benefits of each. This would then be subject to refinement through community and stakeholder engagement, and as appropriate further

technical analysis. This includes through engagement with local communities, as well as statutory consultees.

- 1.93 Further engagement will also be necessary with service providers as options are developed and refined. This includes with highways authorities, and with utilities providers (electricity, gas, water supply and waste water) in understanding existing infrastructure; capacity assessment for the existing network; and options, costs and timeframes for reinforcement of existing infrastructure and/or delivery of additional infrastructure.
- 1.94 The cost of infrastructure and cash flow issues will inform the delivery model and funding requirements. For large-scale strategic developments such as the new settlements, it may be appropriate to consider whether a delivery vehicle should be set up to take these forwards.

Addressing the Housing Needs Shortfall

- 1.95 To address the housing needs shortfall, it is important that housing requirement figures (targets) within local plans are amended and make provision for addressing unmet housing needs.
- 1.96 The initial task is to address the unmet need to 2031. The evidence suggests that the land supply position based on current evidence indicates a residual need to identify further opportunities for housing development. A minimum shortfall of 28,150 dwellings is shown.
- 1.97 Our analysis indicates that by implementing minimum density thresholds through planning policy, and following this through in development management decisions, increases in development densities could potentially contribute 13,000 homes to addressing the housing needs shortfall.
- 1.98 This report demonstrates clearly that additional land for residential development needs to be identified to meet development needs to 2031. GL Hearn considers that a range of small and medium-sized development schemes of up to 2,500 homes, will make a principal contribution to this as well as other smaller scale development opportunities. This is likely to include a need for such sites both within and beyond the Green belt.
- 1.99 It is assumed that smaller scale development opportunities will be defined through individual local plan processes. It will be for local authorities to consider proportionate dispersal and other small scale development opportunities outside of this range in these terms, both within and beyond the Green Belt, taking account of a wide range of local constraints and site opportunities, through the preparation of individual local plans and local Green Belt reviews.

- 1.100 GL Hearn would expect larger strategic development options to make some contribution to meeting the housing needs shortfall to 2031, but principally through the delivery of urban extensions which would contribute to housing delivery from the mid 2020s onwards.
- 1.101 Based on the evidence within this report, it does look likely that the HMA's housing needs to 2031 can be met in full within the Housing Market Area. Besides the Green Belt, there is relatively modest coverage of nationally-significant strategic development constraints in the HMA.
- 1.102 In addition to this, there is a need to identify additional land to cater for development needs between 2031-36. There is a minimum shortfall of 32,700 homes over this period.⁵ Proportionate dispersal sites, and other smaller sites, will be able to meet some of this requirement, in line with the rates expected for the period up to 2031. There is a need for new strategic development options to be identified in particular to address housing needs over this period and beyond. If a number of strategic development options are taken forward there is the theoretical potential to meet the HMA's development needs in full.
- 1.103 There is typically a significant lead-in time to delivery of large strategic development sites, given the requirements for technical work, masterplanning, establishing the policy framework, progressing planning applications, and bringing forward development and infrastructure. This can take 10+ years. Taking this into account, there is a need to progress further technical and feasibility studies considering the potential for strategic development in these areas now.

⁵ This is based on subtracting the 28,150 shortfall 2011-31 from the 60,855 shortfall 2011-36, as set out in Table 65

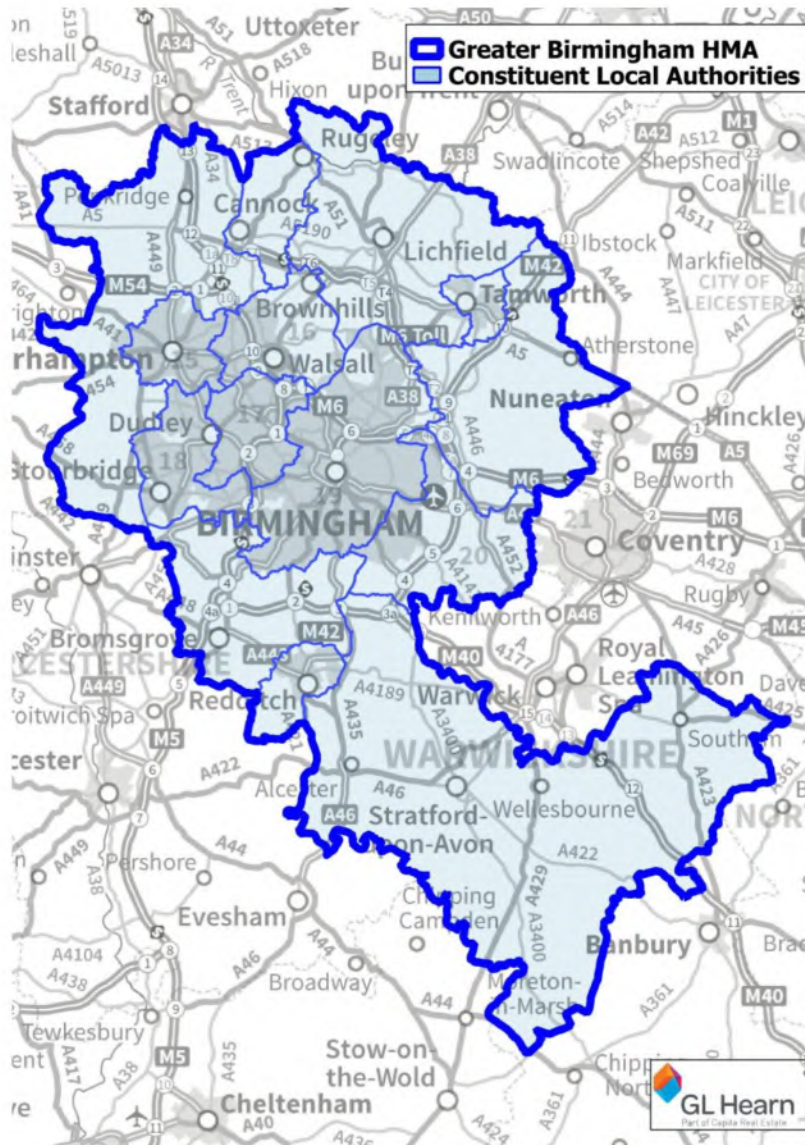
2 INTRODUCTION

- 2.1 National planning policy requires local authorities to work together through the 'Duty to Cooperate' across the relevant Housing Market Area to identify and then meet housing need where it is sustainable to do so. Birmingham's functional housing market area extends to include the Black Country and parts of Worcestershire, Warwickshire and Staffordshire.
- 2.2 The local authorities within the Greater Birmingham and Solihull LEP area⁶ and Black Country LEP area⁷ have collaborated previously to commission a Strategic Housing Needs Study.
- 2.3 The Strategic Housing Needs Study Stage 2 Report, prepared by Peter Brett Associates (PBA), was published in November 2014. This sought to define the sub-regional housing market area geography, assess future needs across the area, provide broad estimates of land supply, and draw conclusions on the balance between housing need and supply.
- 2.4 The PBA Stage 2 Report defined the Birmingham Housing Market Area (HMA) as comprising the two LEP areas together with South Staffordshire; and North Warwickshire and Stratford-on-Avon Districts which fall within an area of overlap between the Birmingham and Coventry/Warwickshire HMA. It identified that Wyre Forest and East Staffordshire fell outside of the Birmingham HMA.
- 2.5 This Study adopts the HMA geography identified in the PBA Stage 2 Report which includes 14 local authorities, as shown in Figure 11 overleaf.
- 2.6 The Strategic Housing Needs Study Stage 3 Report was subsequently published in August 2015. This identified a minimum housing need for 207,000 homes over the 2011-31 period across the Birmingham HMA, setting out that uplifts to improve affordability and affordable housing delivery being potentially justifiable through local-level studies/ analysis. Updating the assessment of supply, through the review of local authority Strategic Housing Land Availability Assessments (SHLAAs), it identified a shortfall of at least 37,600 homes across the HMA to 2031.

⁶ Birmingham, Bromsgrove, Cannock Chase, East Staffordshire, Lichfield, Redditch, Solihull, Tamworth and Wyre Forest

⁷ Dudley, Sandwell, Walsall and Wolverhampton

Figure 11: Birmingham Housing Market Area Geography



2.7 The PBA Stage 3 Study then went on to consider scenarios for meeting the housing shortfall. These effectively relate to different ‘models’ to accommodate additional development through:

1. Intensification
2. Peripheral Urban Extensions
3. Public Transport Corridors
4. Dispersed Growth
5. Enterprise
6. New Towns/ Settlements

- 2.8 These models were considered in the PBA Stage 3 Study at a relatively strategic level, examining whether and what additional capacity could theoretically be brought forward through these different forms of development, and their relative advantages and drawbacks.
- 2.9 The PBA Stage 3 Study identified that whilst brownfield sites could accommodate around 65% of the HMA's housing needs to 2031, the supply of deliverable brownfield sites was finite and new Greenfield sites would need to be identified to meet the HMA's housing needs. Greenfield development options particularly fell within the Green Belt. Options included urban extensions and new settlements, including at accessible locations at the edge of the built-up area and accessible villages.
- 2.10 Since the preparation of the PBA Stage 3 Study, the Birmingham Development Plan (BDP) has been examined, and was adopted in January 2017. This outlines that the City has the capacity to deliver 51,100 homes over the 2011-31 plan period, set against its objectively assessed housing need for 89,000 dwellings. The adoption of the BDP thus quantifies the Birmingham shortfall or unmet need for 37,900 dwellings to 2031. In addition, the Black Country Core Strategy Review⁸ suggests constraints in meeting its housing need in full within the Black Country urban area. In essence, there is therefore evidence of an unmet need from the Birmingham and Black Country conurbation.
- 2.11 The existing PBA reports provide a framework and starting point for this Study, which the HMA authorities have jointly commissioned to further consider strategic development options to meet housing need across the HMA. It is intended to identify more specific options and broad locations for addressing the housing supply shortfall.
- 2.12 The Study Brief set out the following Study requirements, envisaging as a four-stage process as follows:
- 1). Review of existing identified supply to consider whether, by positively applying policies that are consistent for each type of site across the HMA, more dwellings could be provided through increased densities. These issues are considered in Sections 4, 5 and 6 herein.
 - 2). Should a shortfall remain following consideration of option (1), consider the potential additional supply on other land outside of the Green Belt that has not been previously considered for housing development, by applying a consistent approach across the HMA. This should take into account the sustainability of the locations for accommodating housing growth, including the need to provide other land uses. This is considered in Section 7.

⁸ Black Country Core Strategy Issues and Options Report, July 2017

3). Should a shortfall remain after undertaking tasks (1) and (2) consider the development potential and suitability of any large previously developed sites within the Green Belt that may lie in sustainable locations. This is considered in Section 8.

4). Should a shortfall remain after undertaking tasks (1) to (3), undertake a full strategic review of the Green Belt within the HMA utilising a consistent Green Belt Review methodology, which assesses Green Belt against its five purposes, followed by consideration of distribution and broad locations, taking into account market capacity to deliver. See Sections 8 and 9.

2.13 The brief is clear that the Study would need to consider work being undertaken by local authorities through local plan processes to identify additional capacity for housing. It outlines that the Study should quantify and focus on addressing the minimum baseline housing need shortfall, but should also take into account the housing implications of growth proposed in the West Midlands Combined Authority's Strategic Economic Plan. The identification of strategic development options should be informed by a strategic landscape character assessment.

2.14 The Study has been prepared by a consultancy team comprising GL Hearn, Wood Plc (formerly Amec Foster Wheeler) and Capita. GL Hearn have acted as lead consultant and been responsible for assessing housing need, existing land supply and development options for increasing land supply within urban areas and beyond the Green Belt. Wood Plc has led on the strategic review of the Green Belt within the Housing Market Area. Capita's infrastructure division has provided inputs on the potential infrastructure which could be required to support strategic development options.

Report Status and Structure

- 2.15 This report represents the views of the report authors and has been prepared as evidence to support the duty to cooperate across the HMA; and where appropriate subsequent plan making progress by HMA authorities. It is acknowledged that not all HMA authorities will necessarily agree with all of the reports contents. It should be stressed that where the report identifies potential areas of search this does not amount to policy support for such developments.
- 2.16 The remainder of the report is structured as follows:
- Section 3: Housing Need
 - Section 4: Housing Land Supply Baseline
 - Section 5: Potential Additional Urban Land Supply
 - Section 6: Increasing Urban Development Densities
 - Section 7: Potential Non Green-Belt Strategic Sites outside Urban Areas
 - Section 8: Strategic Green Belt Review
 - Section 9: Review of Potential Strategic Development Options
 - Section 10: Conclusions and Next Steps

3 HOUSING NEED

- 3.1 The National Planning Policy Framework (NPPF), published in 2012, sets out Government's planning policies for England. The NPPF sets out in Paragraph 47 that to boost significantly the supply of housing, local planning authorities should use their evidence base to ensure that the Local Plan meets the full, objectively assessed needs (OAN) for market and affordable housing in the housing market area, as far as is consistent with the policies set out in the Framework. It requires local authorities to collaborate with one another to meet the housing needs of the housing market area where it is sustainable to do so.
- 3.2 Housing provision is a strategic cross-boundary issue on which the HMA authorities have a Duty to Cooperate. The NPPF sets out in Paragraph 179 that local planning authorities should work together to meet development requirements which cannot be wholly met within their own areas – for instance because of a lack of physical capacity or because to do so would cause significant harm to the principles and policies of the Framework.
- 3.3 Housing need is defined in Planning Practice Guidance as referring to the scale and mix of housing and the range of tenures that is likely to be needed in the housing market area over the plan period – and should cater for the housing demand of the area and identify the scale of housing supply necessary to meet that demand.⁹ **Housing need in the context of national planning policies thus refers to the need for both market and affordable housing in the housing market area. The needs are those of the housing market area.**

Existing Studies and Evidence

- 3.4 The PBA Strategic Housing Needs Study Phase 3 Report considered housing needs across the Birmingham HMA. Its analysis showed a demographic need for 210,500 homes across the HMA over the 2011-31 period based on the CLG 2012-based CLG Household Projections. It found that this was not substantively dissimilar to the 'ONS/PBA Scenario' within PBA's Stage 2 report which identified a need for 207,000 dwellings to 2031 and thus did not render the Stage 2 findings out-of-date.
- 3.5 Within the Study, consideration was given to the demographic need for housing, and employment growth and the interaction between economic performance and housing need. This provided the basis for quantifying minimum figures on housing need across the Housing Market Area. It clearly set out that it had not considered past provision and market signals, or affordable housing needs - leaving scope for adjustments for these factors to be considered and made at a local level.

⁹ PPG ID 2a-003-2014-0306

- 3.6 PBA was clear that existing evidence base studies covering individual local authorities or parts of the HMA had adopted assumptions which were inconsistent with one another, risking a level of double counting of housing need. GL Hearn has sought to test this. Table 1 below sets out the OAN identified through existing local authority evidence-based studies.
- 3.7 These cover different plan periods and use various demographic projections – including ONS 2011, 2012 and 2014-based Sub-National Population Projections and in one instance 10 year migration trends. As the demographic assumptions, and particularly the migration trends, are drawn from different periods this can result in inconsistencies and potentially either double or under-counting.
- 3.8 Within existing local studies, upward adjustments have been made to support economic growth in Bromsgrove, Redditch and Stratford, assuming additional in-migration to these areas.
- 3.9 In four authorities, specific adjustments are made to improve affordability – responding to evidence from market signals. These are Bromsgrove, Redditch, Solihull and South Staffordshire. These adjustments would provide the potential for additional household formation and/or in-migration, on the assumption that we are planning for new homes to be occupied and therefore upwards adjustments would require additional household growth.
- 3.10 GL Hearn considers that there are some inconsistencies between the approach and methodology used and some potential for double counting. For instance where an authority makes an upward adjustment within its OAN calculation in many cases this would imply it is assuming additional in-migration: this could make a contribution to meeting another area's unmet need. On the other hand, in making a contribution to another's unmet need, an authority would support additional workforce growth in its area which could support its local economy.
- 3.11 Given that the timeframes and assumptions used within local OAN assessments varies and are inconsistent, figures arising from aggregating the findings of studies at an HMA level can be regarded as indicative only. However it is useful to consider this to understand the broad quantum of housing need which the aggregated findings show. Given inconsistencies between timeframes used, we have sought to do this by identifying and then aggregating annual averages for housing need (measured in dwellings per annum, dpa).
- 3.12 Combining the figures arising from the existing local studies would result in a need for around 11,500 homes per year across the Birmingham HMA. If this annualised average is projected over 20 years, the need shown would be for around 231,000 homes.

- 3.13 These figures related to the need for housing, and are not targets for housing provision. Case law¹⁰ has made clear that the NPPF requires a two stage process whereby housing need is established first, leaving aside land supply and development constraints; which are then overlaid in deriving targets for housing provision.

Table 6: OAN identified through existing Local Authority Studies¹¹

Local Authority	Plan Period	OAN	OAN dpa	Study
Birmingham	2011-31	89,000	4450	PBA Stage 2 Study
Bromsgrove	2011-30	6,648	350	Amion/ Edge Housing Needs Assessment Report, Aug-14
Cannock Chase	2006-28	5,300	241	NLP Implications of CLG 2011 Household Projections, 2013
Lichfield	2008-29	8,600	430	NLP Implications of CLG 2011 Household Projections, 2013
Redditch	2011-30	6,400	337	Amion/ Edge Housing Needs Assessment Report, Aug-14
Solihull	2014-33	14,277 ¹²	751	PBA 2016
Tamworth	2006-31	6,250	250	NLP Implications of CLG 2011 Household Projections, 2013
North Warwickshire	2011-29	3,150	175	2013 Cov/War SHMA Update
Stratford on Avon	2011-31	14,600	730	ERM 2016
Black Country	2014-36	78,190	3554	PBA 2016
South Staffordshire	2014-36	5,933	270	PBA 2016
HMA Total	-	-	11,500	

Source: GLH Review of Existing Evidence-base Studies

- 3.14 Set against this OAN evidence, Table 7 below shows what provision is currently being made in existing or emerging Local Plans, and what provision these are making for unmet needs of other authorities. Existing and emerging plans across the Birmingham HMA are currently making provision for around 9,450 dpa.

¹⁰ R vs City and District of St Albans, EWCA Civ. 1610

¹¹ 2013 Housing Requirement Update Report identified OAN as a range: 220 – 250 dpa in Cannock Chase, 410 – 450 dpa in Lichfield, and 240 – 265 dpa in Tamworth.

¹² Solihull's OAN figure includes an upward adjustment to take account of under-provision between 2011 and 2014.

Table 7: Housing Requirement Figures in Existing and Emerging Plans in the HMA

Local Authority	Current / Emerging Plan	Plan Period	Requirement	Required dpa	Unmet Need	Provision for Birmingham HMA Unmet Need
Birmingham	Adopted Jan 2017	2011-31	51000	2,550	-38,000	
Bromsgrove	Adopted Jan 2017	2011-30	7000	368	0	
Cannock Chase	Adopted 2014	2006-28	5300	241	-500	
Lichfield	Adopted Feb 2015	2008-29	10,030	478	0	1,000
Redditch	Adopted Jan 2017	2011-30	6400	337	0	
Solihull	Draft Plan Nov 16	2014-33	15029	791	0	2,000
Tamworth	Adopted Feb 2016	2006-31	4425	177	-1,825	
North Warwickshire	Draft Plan 2017	2011-31	9070	454		4,410
Stratford on Avon	Adopted July 2016	2011-31	14600	730	0	2,720
Black Country	Adopted Feb 2011	2009-26	63000	3150	0	
South Staffordshire	Adopted Dec 2012	2006-28	3850	175	0	
HMA Total				9,451	-40,325	10,130

Source: GLH Review of Existing and Emerging Plans

- 3.15 There is a 38,000 dwelling unmet need arising from the Birmingham Development Plan to 2031. In addition, there is an unmet need from Tamworth (1,825 dwellings to 2031) and Cannock Chase (500 dwellings to 2028).
- 3.16 There is not a specific unmet need arising at this point from the Black Country, however the Core Strategy Review is rolling this forward to 2036. The 2017 Issues and Options Report identifies a shortfall of 21,670 dwellings in comparing supply within the urban area to the identified need.
- 3.17 Solihull's Draft Local Plan is making provision for a 2,000 dwelling contribution towards unmet needs within the Birmingham HMA over its plan period to 2033.
- 3.18 North Warwickshire's Draft Local Plan is making provision in its Draft Local Plan for 860 dwellings to 2031 to meet Coventry's unmet need, and 4,410 dwellings to meet to unmet

needs of the Birmingham HMA.¹³ This Birmingham HMA figure includes 500 dwellings to meet Tamworth's unmet needs (as set out within its adopted Core Strategy).

- 3.19 Lichfield's adopted Local Plan makes provision for a 500 dwelling unmet need from Cannock Chase and 500 dwellings from Tamworth over its plan period to 2029. The 1,000 dwellings being provided for Cannock and Tamworth within the Lichfield Local Plan is part of the overall unmet need from within the Birmingham HMA.
- 3.20 Stratford-on-Avon's Core Strategy makes provision for 14,600 homes (2011-31). Taking into account case law which emphasises that housing needs are those of the HMA¹⁴ it is relevant to consider the joint evidence base of the Coventry & Warwickshire HMA authorities and MOU regarding the distribution of housing provision. On this basis, Stratford's Core Strategy makes provision for 5,4400 dwellings to meet unmet housing needs to 2031, which should be split 50/50 between meeting unmet needs from Coventry and from the Birmingham HMA. It thus contributes 2,720 dwellings to meeting unmet needs from within the Birmingham HMA. This is described further later in this section.
- 3.21 Given the potential inconsistencies in the current evidence base in regard to assumptions and timeframes, and the release of new data since the preparation of the PBA Studies, GL Hearn considers it important that there is a consistent baseline position on housing needs across the HMA provided upfront in this Study.
- 3.22 Housing need figures are somewhat in a state of flux as Government has published a consultation on a new standard methodology for calculating housing need in *Planning for the Right Homes in the Right Places*, but this has yet to be finalised. Against this context, **GL Hearn has sought to define on a consistent basis a set of 'parameters' for housing need.**

Projections Considered

Primacy of the HMA Geography

- 3.23 The NPPF requires local authorities to work together to identify and then seek to meet the objectively-assessed housing need of the relevant housing market area – in this case the Birmingham HMA. As identified above, housing needs are those of the housing market area.
- 3.24 GL Hearn's analysis has shown that different projection scenarios will result in a different geography or distribution of housing need across the HMA. The distribution of housing needs

¹³ Within this 620 dwellings is counted as part of an economic uplift, together with a further 3,790 dwellings to meet unmet needs from the Birmingham HMA which incorporates Tamworth

¹⁴ Oadby & Wigston BC v SSCLG & Bloor Homes [2016] EWCA Civ 1040

varies if longer-term migration trends are used instead of the latest (2014-based) household projections; and varies again if economic-based factors are introduced. However ultimately in the context of this Study, it should be identified residential land supply and options for identification of further land in sustainable locations which drives the distribution of housing provision within the HMA. For this reason the report does not present findings from projections at a local authority level, which in any case GL Hearn would consider should be treated with a significant 'health warning.'

- 3.25 The thrust of this approach is supported by the Government's *Planning for the Right Homes in the Right Places* consultation which encourages joint working and in areas where strategic plans are being prepared indicates that the proposed approach should be used to produce a single assessment of the housing need for the area as a whole.¹⁵ Whilst a single plan is not being prepared, housing need is a strategic issue which the HMA authorities need to collaborate in addressing through the Duty to Cooperate.

Demographic-led Projections

- 3.26 The Study has considered three projections based on past demographic trends. It has considered:
- **The latest official, 2014-based, Household Projections**, which Government's Planning Practice Guidance identifies as the 'starting point' for quantifying OAN;
 - **Rebased Household Projections** – which simply rebases the 2014-based Population and Household Projections to take account of population growth between 2014-15 shown in ONS Mid-Year Population Estimates. This simply uses published data for this initial year as it is not necessary to project population changes. The assumptions on year-on-year changes in the official population and household projections are applied thereafter;
 - **10 Year Migration Trends** – a projection which considers the difference between the trends in migration over the input period to the SNPP (the 5 years to 2014 for domestic and 6 years for international migration) and those over a 10 year period (2005-15), and then adjusts future trends in migration based on the difference between these.

- 3.27 As Figure 12 below shows, these projections produce similar results with the 2014-based SNPP scenarios showing a need for between 205,000 – 206,000 homes to 2031 across the HMA; with the 10 year trend projection marginally lower at 203,000 homes.

Economic-led Projections

- 3.28 Alongside the trend-based demographic projections, GL Hearn has sought to consider how the economy could influence demographic growth and housing need. We have taken assumptions from the economic model which underpins the West Midlands Combined

¹⁵ Para 30

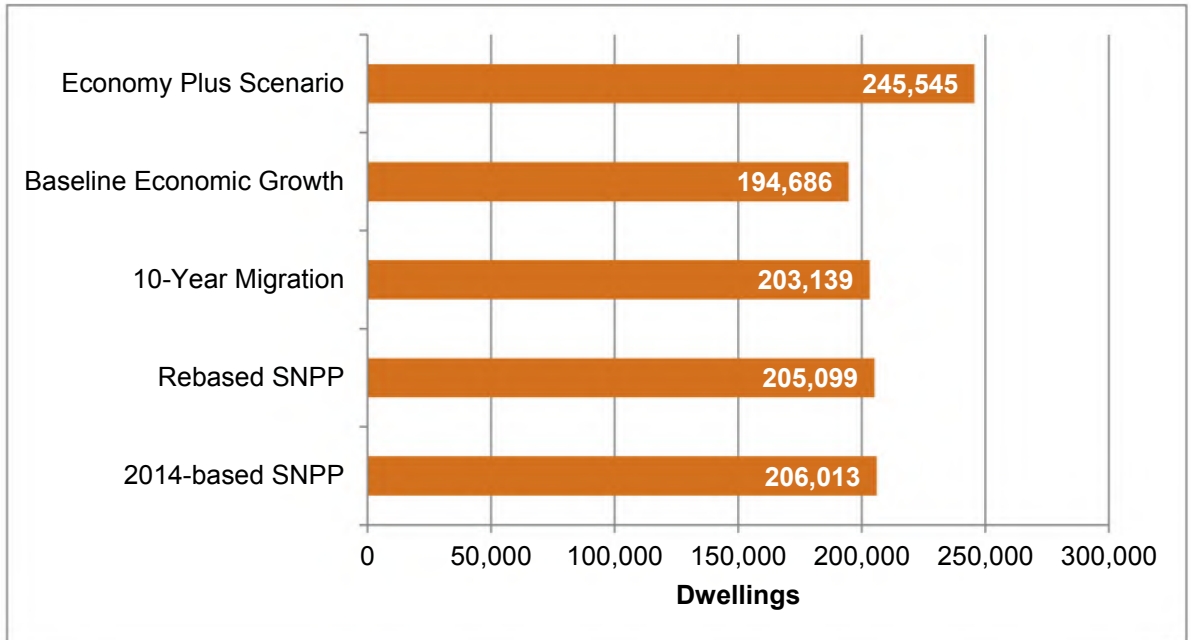
Authority's Strategic Economic Plan (SEP) and present outputs of the scale of housing need which might be needed to support these.

- 3.29 Sitting behind the SEP was a model developed by Oxford Economics. This provided outputs for all of the authorities within the HMA. GL Hearn has taken the population outputs from this, and considered what level of housing provision would be needed to support it. The modelling thus inherently adopts the assumptions on the inter-relationships between economic growth and population within the Oxford Economics' model.
- 3.30 Two scenarios are shown:
- **Economic Baseline** – this is based on a continuation of past trends, but takes into account how different economic sectors are expected to perform in the future (relative to the past). It should be regarded as 'policy neutral' (recognising that historical policy and investment decisions may have influenced economic performance).
 - **Economy Plus Scenario** – a scenario modelled in the SEP for further and faster growth than predicted in the three LEP Strategic Economic Plans, which would see the West Midlands perform relatively better and make a stronger contribution to the national economy. This is an aspirational 'policy on' scenario based on a policy aspiration to improve economic performance.
- 3.31 GL Hearn's analysis shows that the baseline economic performance could be accommodated within the demographic-led scenarios, on the basis that it showed a need for 195,000 homes which is lower than that arising from the demographic-led projections. Given the range of factors influencing the interaction between employment growth and housing, this in essence means that the demographic-led projections would support economic growth in line with the baseline projection. However above-trend economic performance as modelled in the Economy Plus Scenario could result in (and require) additional economic-led migration to the HMA. To support the Economy Plus Scenario would require delivery of around 246,000 homes between 2011 to 2031. This is around 19% above the latest household projections.

Parameters for Housing Need

- 3.32 The above scenarios can be brought together to identify a set of parameters for housing need. Over the 2011 – 2031 period, the updated evidence points to a baseline or minimum level of housing need for 205,000 homes. The Economy Plus Scenario shows a need for 246,000 homes.

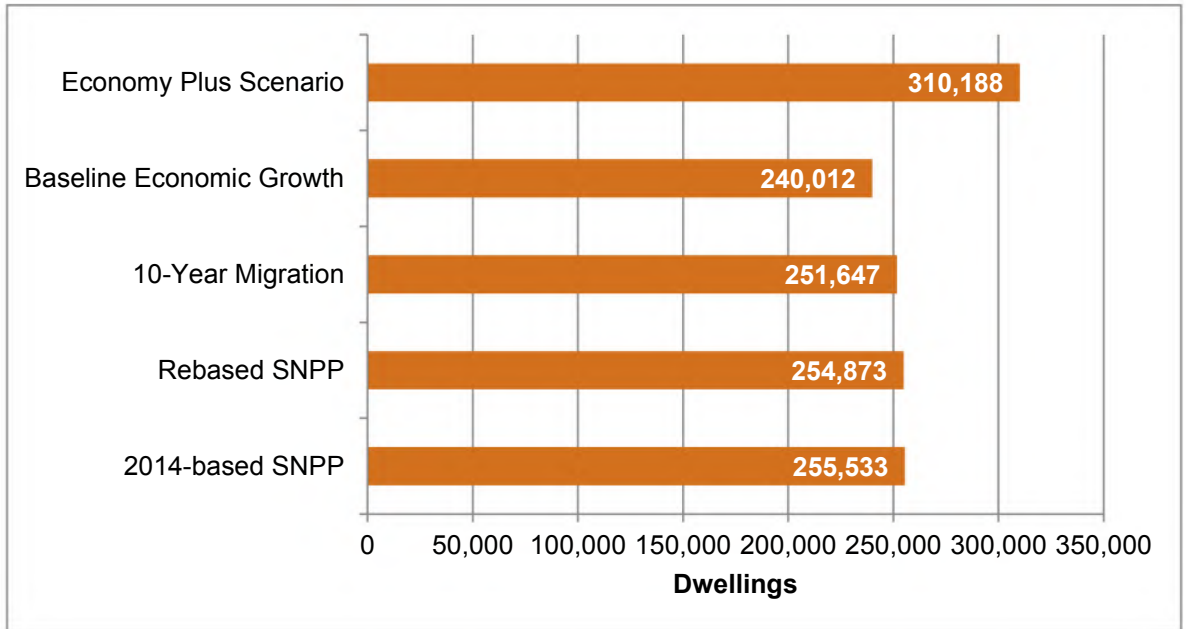
Figure 12: Parameters for Housing Need across Birmingham HMA, 2011-2031



Source: GLH/JGC

- 3.33 Over the period to 2036, the demographic-led scenarios show a need for around 255,000 dwellings, with again 10 year migration trends at HMA level showing a reasonably similar scale of need to the 2014-based Household Projections. Again this level of provision would support baseline / trend-based economic growth; but delivery of the Economy Plus Scenario could require additional economic-led migration, resulting in a housing need for around 310,000 homes.

Figure 13: Parameters for Housing Need across Birmingham HMA, 2011-2036



Source: GLH/JGC

- 3.34 The Economy Plus Scenario is clearly a policy-driven scenario for employment growth which is aspirational in nature, seeking to achieve substantially higher relative economic performance than the Combined Authority has achieved historically. There are questions for the authorities collectively to consider regarding the degree to which this level of growth is desirable, sustainable and achievable. Set against this, it should however be borne in mind that **planning for demographic needs only should really be regarded as a *minimum* level of housing provision, and there is a clear basis supported in national policy for seeking to deliver above this level, in order to support and achieve longer-term improvements in the affordability of housing across the Birmingham HMA.**
- 3.35 Drawing the above analysis together, on the basis of the current evidence provision of between 205,000 – 246,000 homes is needed across the Birmingham HMA to 2031; and provision of between 256,000 – 310,000 homes to 2036 (from a 2011 baseline).

CLG Standard Methodology

- 3.36 In September 2017, Government published consultation proposals for *Planning for the Right Homes in the Right Places*. The consultation includes proposals for a new standardised approach to quantifying housing need, based on the latest official household projections with adjustments to take account of market signals (which are capped in some instances). This quantifies a *minimum* level of housing provision.

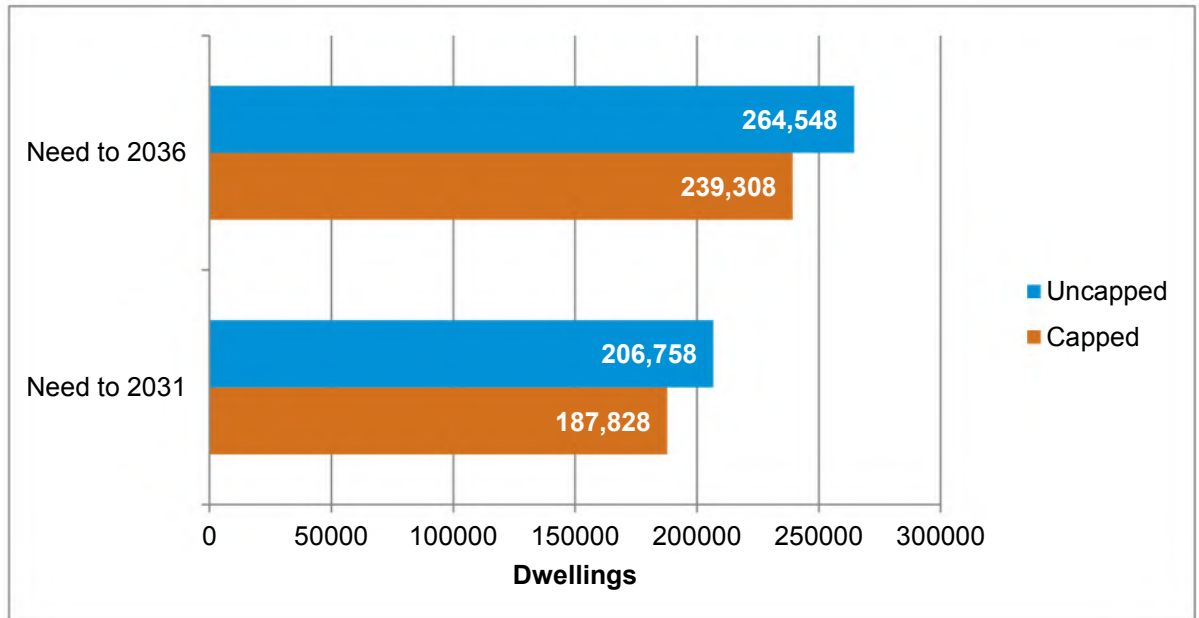
- 3.37 The starting point in the proposed methodology is the latest official projections, with adjustments then applied based on the degree to which the affordability ratio is over 4, with a 1% increase in the ratio of median house prices to earnings over 4 resulting in an increase in a quarter of a percent in need above the projected household growth.
- 3.38 A cap is envisaged which is 40% above existing local plan figures where the local plan was adopted in the previous 5 years; or 40% above either the latest local plan or the household projections (whichever is the higher) where there is not an up-to-date local plan.
- 3.39 The proposed methodology could change as a result of consultation responses, and release of new household projections in due course, and therefore figures arising from the proposed methodology should at the time of writing be treated with a degree of caution. New 2016-based Household Projections are due to be issued in summer 2018.
- 3.40 The proposed standardised methodology based on current information (2014-based Household Projections and a 2016 baseline) would show a housing need for 10,300 dwellings per annum across the Birmingham HMA.¹⁶
- 3.41 However the figures are significantly influenced by the cap which is applied to Birmingham's need at 40% above the (land supply constrained) Birmingham Development Plan requirement. This has the effect of reducing Birmingham's need figure in the proposed methodology from 4794 dpa to 3577 dpa. Given the potential that the methodology could change from the consultation proposals, this report outlines and considers both the 'capped' and 'uncapped' figures.
- 3.42 The new housing needs methodology is forward looking and uses a 2016 baseline.¹⁷ There were 33,388 dwellings completed across the HMA between 2011-2016¹⁸. Figure 14 shows the results of adding this to the forward projections using the proposed standardised housing need, using both the 'capped' and 'uncapped' figures.
- 3.43 The uncapped need figures arising from this approach align broadly with the demographic baseline position to 2031, showing a need for 207,000 homes. To 2036 the uncapped need is for 265,000 homes which is around 4% above the demographic need shown by our own projections. The figures are partly influenced by the starting point of 2016 used in the new methodology figures (as against a 2011 starting point the demographic projections considered above).

¹⁶ 10,296 dpa.

¹⁷ Any under-provision from this is captured in the affordability adjustments.

¹⁸ For the purposes of comparison with the projections presented earlier in this section

Figure 14: Indicative Need figures arising from Government's Proposed Standardised Methodology



- 3.44 The Birmingham cap does in our opinion appear somewhat perverse in that it is driven in particular by a land supply constraint in the City. There is some potential that this is not carried forward by Government in its finalised methodology; and we consider that the figures with and without the cap should sensibly both be considered at the current time.
- 3.45 Government has set out a timetable whereby it intends to consult on a revised draft NPPF (NPPF2) in the Spring, and finalise in late Spring 2018. The new methodology for calculating housing need (in its finalised form) would come into force alongside the NPPF.
- 3.46 The methodology includes provisions for joint working and would therefore be an opportunity for the authorities to collectively agree an alternative distribution of housing provision should they wish to do so.
- 3.47 The Consultation proposals encourage local authorities to work jointly, and there are opportunities to agree a distribution of housing need through the Duty to Cooperate. It sets out that Councils may put forward proposals that lead to a local housing need above that set out in the methodology, such as to support economic growth or infrastructure delivery, and where councils do so, Planning Inspectors are advised to work on the assumption that the approach is sound unless there are compelling reasons to indicate otherwise.

Unmet Need from Coventry and Warwickshire

- 3.48 In considering the housing supply/need balance, there is one further issue which needs to be considered which is that North Warwickshire and Stratford-on-Avon districts sit within two Housing Market Areas – both the Birmingham HMA and Coventry/Warwickshire HMA.
- 3.49 Coventry's Local Plan has been adopted in December 2017. It quantifies an unmet need from Coventry of 17,800 homes between 2011-31. The Coventry and Warwickshire local authorities have developed a Memorandum of Understanding (MOU) on the distribution of this unmet need.¹⁹
- 3.50 For North Warwickshire, the District's emerging Local Plan is meeting its own demographic need for 3,800 dwellings (190 dpa).²⁰ An upward adjustment which contributes to meeting unmet needs and supports workforce/ economic growth in the District of 940 dwellings is then made, with the assumption that 65% of this is attributed to the Birmingham HMA (620 dwellings) and 35% to the Coventry & Warwickshire HMA (320 dwellings) based on the split of assumed split of in-migration, based on past trends. Provision for a further 540 dwellings to meet Coventry's unmet needs has then been made through the MOU between the Coventry & Warwickshire authorities, bringing the total contribution which North Warwickshire is making to Coventry's unmet need to 860 dwellings.
- 3.51 Stratford-on-Avon's Core Strategy makes provision for 14,600 dwellings between 2011-31. The District Council agrees that housing needs are those of the HMA, and in this context reliance should be placed on the Joint Coventry and Warwickshire evidence base on housing needs.²¹ This has been tested and found to be reliable in the Coventry and Warwick District local plan examinations, and it is this which informed the Coventry and Warwickshire MOU. It identifies a demographic need for 9,160 dwellings, and a stage 1 redistribution of 2,020 dwellings from Coventry which would supports additional migration and workforce growth in the District based on an assumed 50/50 split of additional in-migration between the Coventry & Warwickshire and Birmingham HMAs.
- 3.52 Applying this assumed split to the uplift in the requirement of relative to the base demographic need of 5,140 dwellings,²² Stratford's Core Strategy is arguably making provision for 5,440 dwellings to meet unmet needs of other areas; of which the 50% (2,720

¹⁹ Memorandum of Understanding relating to the planned distribution of housing within the Coventry and Warwickshire Housing Market Area

²⁰ Calculated as 163 dpa demographic starting point + 27 dpa uplift to improve affordability

²¹ Updated Assessment of Housing Needs: Coventry & Warwickshire HMA (GL Hearn, 2015)

²² Calculated as 14,600 requirement – 9,160 demographic need consistent with the HMA wide evidence and C/W MOU

dwellings) contributes to meeting unmet needs of Coventry and Warwickshire and 50% (2,720 dwellings) to the Birmingham HMA unmet needs.

- 3.53 Bringing this together, the two authorities that sit across both housing market areas (North Warwickshire and Stratford-on-Avon) are contributing 3,580 dwellings to meeting unmet housing needs from Coventry to 2031 on the basis of the above analysis. However the agreed figures within the Coventry and Warwickshire MOU comprise 860 dwellings from North Warwickshire and 2,020 dwellings from Stratford-on-Avon, totalling 2,880 dwellings to 2031 and we have used this figure as our core assumption in this Study as it represents the agreed position. If this was rolled forward to 2036 on a pro-rata basis, this would be 3,600 dwellings (2011-36).

Implications

- 3.54 In drawing conclusions from the above analysis, first of all it is clear that the methodology for calculating housing need is in a state of flux. We consider that provision of 205,000 homes (2011-31) and 255,000 homes to 2036 should continue to be considered as a minimum level of housing provision. There is however a strong basis for seeking a higher level of provision than this to support economic growth and contribute to improving affordability over time, with the standardised methodology uncapped figures pointing to provision of 10,000 additional homes to 2036 providing an appropriate response to affordability issues.
- 3.55 In considering supply across the Birmingham HMA as a whole the provision made for unmet need of Coventry and Warwickshire also needs to be considered and provided for, and the two authorities have agreed to do so. This needs to be added on top of the need figures identified in this section as it represents an additional unmet need which two of the HMA's authorities have agreed to provide for. Adding these figures (2,880 dwellings to 2031 and 3,600 dwellings to 2046); this would result in a **minimum provision of 208,000 dwellings to 2031 and 258,500 homes to 2036.**

4 HOUSING LAND SUPPLY BASELINE

- 4.1 The brief for this Study requires a review of existing identified residential land supply to consider essentially the potential to increase land supply through increasing development densities. GL Hearn identified that as a starting point there is a need for a consistent and robust assessment of the existing identified residential land supply across the Housing Market Area.
- 4.2 An important context for the review of land supply is the emphasis in the Government's Housing White Paper on ensuring that authorities have examined fully all other reasonable options for meeting development requirements – including making effective use of brownfield sites and underutilised land, optimising the density of development, and potential for development beyond the Green Belt – before Green Belt land is released. The potential of brownfield sites, public sector land, densification, action zones, and estate renewal was also identified in the West Midlands Land Commission Final Report.
- 4.3 The baseline position shown in this section includes sites which have been allocated in adopted plans, together with proposed allocations in emerging plans. It considers and includes land supply identified in emerging site allocation plans in South Staffordshire, Lichfield and Cannock Chase, as well as within Area Action Plans in Birmingham.
- 4.4 Two local authorities within the HMA – North Warwickshire and Solihull – are in the process of developing new local plans which identify additional sites to meet not just local need but unmet need from other parts of the HMA. It is important to recognise this in interpreting the findings and the improved supply position since the PBA Stage 3 Study.

Methodology

Overview

- 4.5 GL Hearn initially developed a Proforma to collate information on residential land supply from the 14 HMA local authorities on a consistent basis. This sought to collate information on the capacity from the following sources:
- Completions since 2011
 - Sites with Planning Permission (Commitments)
 - Extant Allocations (those in adopted plans, without planning permission)
 - Allocations proposed in Emerging Plans
 - Additional Urban Supply
 - Capacity outside of Urban Areas
 - Windfall assumptions.

- 4.6 The Proforma's were received from each authority and were then reviewed for consistency. GL Hearn then held workshops with individual authorities or small groups of 2-3 local authorities in Summer 2017. The workshops were used to:
- Interrogate and understand the land supply information submitted, raising questions and queries where appropriate;
 - To understand assumptions which have been used in quantifying the residential land supply, including assumptions on delivery rates for large sites, assumptions on non-implementation, windfalls and densities; and
 - To consider opportunities for additional land not previously identified within existing urban areas/ settlements.
- 4.7 GL Hearn, in consultation with the HMA local authorities and the Project Steering Group, has used this process to adjust where appropriate assumptions to provide a consistent and robust assessment of land supply and to ensure that the development potential of existing urban areas/ settlements has been maximised. This process outputs have included ensuring consistent assumptions on windfall development and removing sites which cannot be considered developable over the period to 2036.

Land Supply Proforma

- 4.8 The methodology used sought to collate information on land supply within the following categories:
- i. **Completions** – net completions over the period from 1 April 2011 to the base date for the latest monitoring information (either 1st April 2016 or 1st April 2017);
 - ii. **Sites with Planning Permissions** (i.e. Commitments) – capacity of all sites with planning consent (full or outline) at the base date.
 - iii. **Extant Allocations** without Planning Consent – supply from sites allocation in adopted plans which did not have planning permission (full or outline) at the base date.
 - iv. **Allocations in Emerging Plans** – capacity of sites proposed to be allocated in emerging Local Plans or Site Allocations Documents. The Proforma requested that local authorities indicate if the proposed sites are within the Green Belt and the split of total capacity of Green Belt and non-Green Belt sites.
 - v. **Additional Urban Supply** – identified as sites within existing urban areas which do not have planning consent, and are not allocated in the adopted or emerging Local Plan (including Neighbourhood Plans), but which have been identified as suitable for residential development and could be delivered by 2036.
 - vi. **Windfalls** – GL Hearn assumed that most SHLAAs will include a site size and/ or capacity threshold. The Proforma requested that this was set out in addition to the assumptions made regarding windfall development.
- 4.9 The Proforma was sent to each local authority with instructions on how to complete it. It requested information relating to the split of sites with planning permission between small sites (capacity for up to 9 dwellings), medium-sized sites (10-199 dwellings); and large sites (200+ dwellings capacity).

- 4.10 For large sites of over 200+ dwellings capacity, further information was then requested relating to the planning and development status, residential capacity, developable area, density and delivery timeframes by five year period from 2017 onwards. This was used by GL Hearn to test whether reasonable assumptions were being made for large sites on lead-in times and build-out rates as this could influence the development potential to 2031 and 2036.

Date of Monitoring Data

- 4.11 At the time the information was collated, some authorities had updated their land supply monitoring to 31st March 2017, whilst others took account of completions to 31st March 2016. An April 2017 base date has thus been used for Bromsgrove, North Warwickshire, Redditch, South Staffordshire, Tamworth and Walsall; with an April 2016 base date used in the other authorities.
- 4.12 Whilst in the ideal world data using a consistent base date would have been preferable, the principle impact of the difference is what figures arise in different supply categories (i.e. updating from a 2016 to 2017 base date moves dwellings from sites with planning permission into completions, and extant allocations or urban supply into permissions) without fundamentally affecting the overall supply in an area.

Results of the Submitted Proforma's

- 4.13 The initial information submitted indicated a land supply of around 203,000 dwellings to 2036, of which 200,000 dwellings could be delivered over the period to 2031.

Table 8: Residential Land Supply – Initial Information Submitted

Sources of Supply	Dwellings, 2011-31	Dwellings, 2011-36
Completions	35,016	35,016
Sites with Planning Permission	57,093	57,093
Allocations – Adopted Plans	50,196	52,826
Proposed Allocations – Emerging Site Allocations Plans	6,995	6,995
Proposed Allocations – Emerging Local Plans	13,000	13,308
Additional Urban Supply	17,617	17,617
Windfall	20,066	20,066
Total	199,983	202,921

- 4.14 GL Hearn however then went on through workshops with the HMA local authorities in July and August 2017 to review this. This review process resulted in adjustments to the land supply position, including:

- Adjustments to windfall assumptions to ensure no windfall provision within Years 1 – 3 from the appropriate base date (to avoid double counting with supply in other categories); and to relate the relevant time period to 2031 and 2036 based on rolling forward Councils' existing assumptions; and
- Removal of specific sites which from the review were considered not be developable through engagement with the relevant authority, it was agreed that these were unlikely to come forward over the periods considered.

4.15 This is used to derive robust figures on the total land supply identified. Consideration is then given (towards the end of this section) to what the effective supply is, taking account of potential delivery risks to all identified sites being delivered over the period to 2031 and 2036.

Current Land Supply by Local Authority

4.16 In this section we move on to set out the land supply position in each of the local authorities.

Birmingham

4.17 Birmingham's land supply information has a base date of April 2016. A total land supply for 51,458 dwellings is identified to 2031 and 59,858 to 2036.

4.18 The supply is formed of completions to 31st March 2016 of 10,006 dwellings, extant commitments (16,668 dwellings), allocations of 9,435 in adopted plans, emerging Site Allocations plans (335 dwellings), additional urban supply (10,489 dwellings) and a windfall allowance of 4,525 dwellings measured from 2019/20 to 2030/31 and 8,400 dwellings thereafter.

Table 9: Birmingham's Housing Land Supply

Birmingham	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-16	Apr-16	Apr-16
Total Supply	51,458	8,400	59,858
Of which ...			
Sites with Planning Permission	16,668	-	16,668
Allocations - Adopted Plans	9,435	1,000	10,435
Proposed Allocations - Emerging Site Allocations Plans	335	-	335
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	10,489	-	10,489
Windfall	4,525	7,400	11,925
Completions	10,006		10,006

4.19 Of Birmingham's extant commitments, around 40% are large sites. In particular, two large sites exceed 500 dwellings – the "Icknield Port Loop (IPL) Site" (1,150 dwellings) and "38

Heath Street South and Adjacent Site” (504 dwellings), which both have outline planning permission. In respect of the IPL site, the Council expects delivery to reach a height of 100 dwellings per annum (between 2022/23 to 2026/27) and expects the site to be built out by 2031. It is considered that the lead-in times and delivery rates identified for these two sites do not pose any significant challenges to the scale of housing which can be delivered to 2031.

- 4.20 The Council has allocated 6 large sites in its recently adopted Local Plan. The largest of these is the “Langley SUE” which the Council expects to deliver 5,000 dwellings before 2031 (and 1,000 dwellings thereafter). An SPD is currently being prepared and will be published for consultation in Autumn 2017. A planning application is expected from Langley Consortium early 2018 and it is accepted that development is unlikely to commence before 2020/21. The Council expects the site to achieve a delivery rate of 395 dpa between 2022/23 to 2026/27 and a higher rate of 493 dpa between 2027/28 to 2030/31. It is considered that the delivery rate assumptions set out pose some risks to the scale of development to 2031, but set against this the Council’s windfall assumptions are cautious mitigating the risk.
- 4.21 The Council has identified some potential for further development capacity through alternative sources such as public open space. The Council has committed to disposing of 8 acres of surplus public open space per annum over the next 4 years which would represent additional supply over the submitted Proforma supply. The Council anticipates this could yield an additional 600 dwellings. We have included this as additional urban supply.
- 4.22 The Council does not consider that any additional sources of supply are available which will yield additional capacity such as public land, employment sites or estate regeneration which have not already been counted.
- 4.23 Birmingham’s land supply position has recently been tested through the Birmingham Development Plan Examination.

Bromsgrove

- 4.24 Bromsgrove’s land supply has a base date of April 2017. A total land supply of 5,099 dwellings is identified to 2031 and 5,299 dwellings to 2036. Its current local plan timeframe is to 2030.
- 4.25 The supply is formed of completions to 31st March 2017 of 1,550 dwellings, extant commitments (1,073 dwellings), adopted Local Plan allocations (1,871 dwellings), additional urban supply (165 dwellings) and a windfall allowance of 400 dwellings when measured from 2020/21 to 2030/31 and 200 dwellings 2031-36.

Table 10: Bromsgrove's Housing Land Supply

Bromsgrove	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr 17	Apr 17	Apr 17
Total Supply	5,099	200	5,299
Of which ...		-	
Sites with Planning Permission	1,073	-	1,073
Allocations - Adopted Plans	1,871	-	1,871
Proposed Allocations - Emerging Site Allocations Plans	-	-	-
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	165		165
Windfall	440	200	640
Completions	1,550		1,550

- 4.26 There are two large sites identified under extant commitments – “Land at Norton Farm” (312 dwellings) and “Former Polymer Latex Site” (202 dwellings). The former is under construction and the latter has a detailed planning permission in place.
- 4.27 In respect of allocations, there are two large sites – “Land at Perryfields Road” (1,300 dwellings) and “Land at Whitford Road” (505 dwellings). Applications have been received for both sites and the Council expects the sites to be delivered by 2026/27, with Land at Perryfields Road reaching a peak delivery of 132 dwellings per annum. In respect of the Perryfields Road site, Taylor Wimpey are taking the application forward and the delivery assumptions set out by the Council are deemed reasonable.
- 4.28 The Council identifies 165 dwellings from additional urban supply which are formed of small SHLAA sites within the urban area. The potential for further capacity is limited, with the majority of *white land* currently used for education/ school playing fields.
- 4.29 In respect of intensification of Bromsgrove Town Centre, development opportunities have been identified however these are not for residential development and are instead focussed around retail opportunities in order to improve the town centre's shopping offer.
- 4.30 The Council does not consider that any additional sources of supply are available to yield additional supply such as open space, employment sites or public land.

Cannock Chase

- 4.31 Cannock Chase's land supply has a base date of April 2016. A total land supply of 4,615 dwellings is identified to 2031 and 4,685 dwellings to 2036. Its current local plan timeframe is to 2028.
- 4.32 The supply is formed of completions to 31st March 2016 of 725 dwellings, extant commitments (2,660 dwellings), adopted Local Plan allocations (81 dwellings), emerging Local Plan Part 2 site allocations (861 dwellings), additional urban supply (134 dwellings) and a windfall allowance of 154 dwellings when measured from 2019/20 to 2030/31 and 70 from 2031-36.

Table 11: Cannock Chase's Housing Land Supply

Cannock Chase	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-16	Apr-16	Apr-16
Total Supply	4,615	70	4,685
Of which ...			
Sites with Planning Permission	2,660	-	2,660
Allocations - Adopted Plans	81	-	81
Proposed Allocations - Emerging Site Allocations Plans	861	-	861
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	134	-	134
Windfall	154	70	224
Completions	725		725

- 4.33 The Council's extant commitments include 4 large sites – “Land off Green Heath Road” (414 dwellings), “Land to the West of Pye Green Road (a)” (219 dwellings), “Land at Norton Hall Lane/Butts Lane” (450 dwellings) and “Land to the West of Pye Green Road (b)” (481 dwellings). There are no particular delivery risks to note in relation to these sites – land at Green Heath Road and Pye Green Road (a) are both currently under construction, and are expected to be complete by 2026/27. Land at Norton Hall Lane/Butts Lane (b) have outline planning permission in place and are not subject to any significant constraints.
- 4.34 The single strategic housing site allocation (for 900 dwellings) in the Local Plan (Part 1) is under construction in parts, with the majority of the remainder of the site benefitting from extant outline planning permission. A small remaining parcel is expected to be subject of a separate planning application in the short-term.
- 4.35 There are currently no large sites (in excess of 200 dwellings) which do not already have planning consent that are being proposed for residential development in the emerging Local

Plan Part 2 (subject to recent Issues and Options consultation in Spring 2017). However the potential for the redevelopment of the recently closed Rugeley Power Station site (55ha) was identified in the consultation.

- 4.36 A Supplementary Planning Document for Rugeley Power Station (prepared jointly by Cannock Chase District Council and Lichfield District Council) is currently being consulted on and may ultimately feed into the emerging Local Plan. The Council have noted that there is no evidence to justify the Council endorsing any capacity on the site within the District at this present time. Initial work has suggested that a minimum of 800 dwellings could be accommodated on the site (this is included within Lichfield's land supply); however the Council consider that the land which sits within the District boundary is more likely to meet employment land requirements.
- 4.37 The Council have identified one additional site in the urban area for 180 dwellings known as "Gestamp", which is currently an occupied employment site. This has been identified as a potential residential development site since the 2016 housing supply data was prepared.
- 4.38 The District is largely constrained elsewhere by the AONB and the District boundary is notably tight around existing urban areas. The Council has note that more work could be undertaken to identify additional employment land suitable for residential development, however this exercise has yet to be undertaken, and more notably there is a shortfall of employment land in the District and is therefore unclear whether the evidence would justify release of employment land for residential.

Dudley

- 4.39 Dudley's land supply has a base date of April 2016. A total land supply of 17,918 dwellings is identified to 2031 and 18,668 dwellings to 2036. The land supply evidence looks to 2036.
- 4.40 The supply is therefore formed of completions to 31st March 2016 of 2,996 dwellings, extant commitments (3,320 dwellings), adopted Local Plan allocations (8,752 dwellings), additional urban supply (1,200 dwellings) and a windfall allowance of 1,650 dwellings when measured from 2019/20 to 2030/31 and 750 dwellings 2031-36.

Table 12: Dudley's Housing Land Supply

Dudley	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-16	Apr-16	Apr-16
Total Supply	17,918	750	18,668
Of which ...			
Sites with Planning Permission	3,320	-	3,320
Allocations - Adopted Plans	8,752	-	8,752
Proposed Allocations - Emerging Site Allocations Plans	-	-	-
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	1,200	-	1,200
Windfall	1,650	750	2,400
Completions	2,996		2,996

- 4.41 In respect of commitments, there are 1,260 dwellings are on large sites. This total is formed of two sites in particular – Land at Birmingham New Road (925 dwellings) and Land at Tansey Green Road (335 dwellings). Land at Birmingham New Road has no developer in place however the site does have outline planning permission for all 925 dwellings. There are currently employment uses on site – a mix of vacant units and occupied units on short-term leases. Land at Tansey Green is currently under construction.
- 4.42 The Council have allocated 8 large sites in the recently adopted Site Allocations Document which total 2,764 dwellings:
- “Stallings Lane, Kingswinford” (286 dwellings)
 - “Shaw Road, Dudley” (237 dwellings)
 - “Land east of Dudley Road, including Bromley Street” (200 dwellings)
 - “Land off Thorns Road, Lye (North)” (231 dwellings)
 - “Cakemore Road, Blackheath” (200 dwellings)
 - “C3 The Leisure Plateau” (488 dwellings)
 - “C4 Merry Hill Centre Car Park” (666 dwellings)
 - “W5 Vacant car parking site at Waterfront” (206 dwellings)
- 4.43 The first four sites are currently occupied employment land. Of these first four sites, the first 3 were not promoted to the Council. The fourth and fifth sites were promoted through the SHLAA process.
- 4.44 The Council identified these as they were low quality, partly vacant sites. Based on discussions at the Workshop, it was agreed that the land assembly and relocation of occupants are key delivery challenges and particularly challenging for the first 3 sites. The

Council does not currently have a programme in place for relocation of current employment occupiers or remediation of any sites.

- 4.45 It is noted that DCC have been taking a masterplan approach to the Dudley Road and Thorns Road sites. Cakemore Road is currently vacant with outline planning permission with a reserved matters application expected soon.
- 4.46 The Council identify the potential for an additional 1,200 dwellings from brownfield land, of which 650 would be located on large sites. This centres on 3 broad locations:
- “Industrial premises off Darkhouse Lane” (250 dwellings)
 - “Ketley Quarry, Dudley Road” (200 dwellings)
 - “Stallings Lane, Kingswinford” (200 dwellings)
- 4.47 The Council note that the Stallings Lane site is likely to require specialist consultants and possibly the use of CPO powers in order to bring it forward for residential development. The Council has identified these sites partially through a Call for Sites process and the previous Site Allocations Document. Under this category, the Council acknowledge that the majority of the sites are viable, occupied employment sites in multiple ownerships which are likely to come forward in the longer term (i.e. post-2031).
- 4.48 The delivery challenges and risks to developing currently occupied employment land for residential are recognised, however there is now significant funding available through the West Midlands Combined Authority to drive this forward. This has influenced assumptions around non-implementation which are considered later in this section.

Lichfield

- 4.49 Lichfield’s land supply has a base date of August 2017. A total land supply of 10,973 dwellings is identified to 2031 and 11,248 dwellings to 2036. The existing local plan runs to 2029.
- 4.50 The supply is formed of completions to 31st March 2016 of 1,190 dwellings, extant commitments (5,426 dwellings), adopted Local Plan allocations (1,200 dwellings), emerging Site Allocations DPD sites (2,552 dwellings) and a windfall allowance of 605 dwellings when measured from 2019/20 to 2030/31 and 275 from 2031-36.

Table 13: Lichfield's Housing Land Supply

Lichfield	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Aug-17	Aug-17	Aug-17
Total Supply	10,973	275	11,248
Of which ...			
Sites with Planning Permission	5,426	-	5,426
Allocations - Adopted Plans	1,200	-	1,200
Proposed Allocations - Emerging Site Allocations Plans	2,552	-	2,552
Proposed Allocations – Emerging Local Plans			
Additional Urban Supply	-	-	-
Windfall	605	275	880
Completions	1,190		1,190

- 4.51 Of the District's extant commitments, there are 6 large sites. In particular, there are three sites which exceed 500 dwellings – "Land at Watery Lane" (750 dwellings), "East of Lichfield" (750 dwellings) and "Fradley SDA (Fradley Airfield)" (750 dwellings). All sites are expected to be delivered before the end of the plan period (2029) and are not expected to exceed 135 dpa at peak delivery. We do not consider that there are significant risks to the delivery of these.
- 4.52 Of the outstanding allocations set out in the adopted Local Plan, 1,150 dwellings are expected to be constructed on large sites. The largest sites include "Cricket Lane South of Lichfield" (450 dwellings), "Deanslade Farm South of Lichfield" (450 dwellings) and part of Fradley SDA (250 dwellings) for which an application has recently been received. There are no delivery constraints and all allocations are due to be completed by 2028/29.
- 4.53 The Council are proposing to allocate land for 2,552 dwellings in the emerging Local Plan Allocations DPD. The Plan is due to be consulted upon in early 2018 and be submitted for examination in spring 2018. The Local Plan Allocations DPD will meet the residual Local Plan Core Strategy housing requirement.
- 4.54 The 2 largest sites proposed for allocation are "Arkall Farm, Ashby Road" (1,000 dwellings) and "Rugeley Power Station" (800 dwellings) which are non-Green Belt In respect of Ashby Road, an application approved at Planning Committee, however this has been called in by the Secretary of State for his determination following concerns raised by Tamworth Borough Council and Staffordshire County Council about the mitigation of impacts on infrastructure, including the capacity of the Highway Network to support the proposed development. The

Council continue to expect this site will be delivered by 2028/29. Aside from this, there are few risks associated with this source of supply.

- 4.55 There is no additional urban supply identified as all sites that have been identified are included in the emerging Local Plan Allocations document. The Council does not consider that any additional sources of supply are available to yield additional supply such as open space, intensification of town centres or public land.

North Warwickshire

- 4.56 North Warwickshire's land supply has a base date of April 2017. A total land supply of 9,060 dwellings is identified to 2031 and 9,360 dwellings to 2036. This includes making specific provision to meet an unmet need for 4,410 dwellings from other parts of the Birmingham HMA, as identified in Section 3 as well as 860 dwellings unmet need from Coventry.
- 4.57 The supply is formed of completions to 31st March 2017 of 1,069 dwellings, extant commitments (1,135 dwellings), emerging Local Plan allocations (6,158 dwellings), additional urban supply (38 dwellings) and a windfall allowance of 600 dwellings measured from 2020/21 to 2030/31 and 300 dwellings from 2031-36.

Table 14: North Warwickshire's Housing Land Supply

North Warwickshire	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-17	Apr-17	Apr-17
Total Supply	9,060	300	9,360
Of which ...			
Sites with Planning Permission	1,135	-	1,135
Allocations - Adopted Plans	-	-	-
Proposed Allocations - Emerging Site Allocations Plans	-	-	-
Proposed Allocations – Emerging Local Plans	6,158	-	6,158
Additional Urban Supply	38	-	38
Windfall	660	300	960
Completions	1,069		1,069

- 4.58 There are no large sites as part of the Council's extant commitments and it is noted that all sites identified under this source of supply are progressing well with no delivery challenges. In addition, there are currently no extant Local Plan allocations due to the Core Strategy being a strategic plan.

- 4.59 In respect of emerging Local Plan (2016) and the allocations therein, there are four main strategic development locations proposed –east of Polesworth/ Dordon (2,000 dwellings), north-west of Atherstone (1,282 dwellings), an extension to Tamworth (1,191 dwellings) and 3 sites around Hartshill/ Ansley Common (totalling 985 dwellings).
- 4.60 The Council note there are a number of strategic transport issues surrounding the delivery of these large sites, primarily in relation to the capacity of the A5. There are also transport concerns in relation to the M42 Junction 10 and the B5000 access into Tamworth. Funding support to delivery infrastructure will be necessary to deliver the scale of development proposed in the emerging plan.
- 4.61 The Council expect the north-west of Atherstone to commence in 2018/19 and be built out by 2032/33 which is considered achievable. Land east of Polesworth/ Dordon and land extending from Tamworth is also expected to deliver all of the net capacity before 2030/31. The delivery timescales for these may result in some of the supply to 2031 falling into the 2031-36 period, however support should be given to the Council to drive forward delivery of these large sites in the short/medium-term.
- 4.62 In respect of additional urban supply, the Council identifies a small figure of 38 dwellings. The Council notes that a significant proportion of SHLAA sites – which has a base date of October 2016 - fall within the Green Belt.
- 4.63 The Council does not consider that any additional sources of supply are available to yield additional supply such as open space, intensification of town centres or public land.

Redditch

- 4.64 Redditch's land supply has a base date of April 2017. A total land supply of 7,488 dwellings is identified to 2031 and 7,543 dwellings to 2036. The current Local Plan has an end date in 2030.
- 4.65 The supply is formed of completions to 31st March 2017 of 1,019 dwellings, extant commitments (1,295 dwellings), adopted Local Plan allocations (4,694 dwellings), additional urban supply (359 dwellings) and a windfall allowance of 110 dwellings when measured from 2020/21 to 2030/31 and 55 from 2031-36.

Table 15: Redditch's Housing Land Supply

Redditch	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-17	Apr-17	Apr-17
Total Supply	7,488	55	7,543
Of which ...			
Sites with Planning Permission	1,295	-	1,295
Allocations - Adopted Plans	4,694	-	4,694
Proposed Allocations - Emerging Site Allocations Plans	-	-	-
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	359	-	359
Windfall	121	55	176
Completions	1,019		1,019

- 4.66 There are two strategic sites with multiple extant commitments – “Brockhill East” (296 dwellings and 200 dwellings) and “Webheath” (200 dwellings and 80 dwellings). Each of the planning permissions for 200 dwellings are currently under construction.
- 4.67 There is one particularly large urban extension allocated in the Bromsgrove District Plan which is to meet Redditch's need – “Foxlydiate” (a former Green Belt Site, allocated for 2,800 dwellings). The Council has anticipated delivery could reach a height of 295 dpa (2023/24 to 2024/25). An outline planning application is currently being considered and the Council expects 4 outlets on site.
- 4.68 The Council has progressed a number of district centre regeneration schemes: one scheme has completed and schemes for further two centres are progressing, however these are included in the Council's submitted supply. Generally, there is a very little available brownfield land with development potential in the Borough which has not already been counted in the land supply calculations.

Sandwell

- 4.69 Sandwell's land supply has a base date of April 2016. A total land supply of 19,930 dwellings is identified to 2031 and 20,813 dwellings to 2036. The land supply has been assessed to 2036.
- 4.70 The supply is formed of completions to 31st March 2016 of 3,366 dwellings, extant commitments (4,142 dwellings), adopted Local Plan allocations (10,700 dwellings), additional urban supply (685 dwellings) and a windfall allowance of 1,320 dwellings when measured from 2019/20 to 2030/31 and an additional 600 from 2031-36.

Table 16: Sandwell's Housing Land Supply

Sandwell	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr 16	Apr 16	Apr 16
Total Supply	19,930	883	20,813
Of which ...			
Sites with Planning Permission	4,142	-	4,142
Allocations - Adopted Plans	10,417	283	10,700
Proposed Allocations - Emerging Site Allocations Plans	-	-	-
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	685	-	685
Windfall	1,320	600	1,920
Completions	3,366	-	3,366

4.71 The Council has extant commitments for 865 dwellings on large sites. There are 4 large sites identified under this source:

- “Harvills Hawthorn PFI” (184 dwellings)
- “Hall Green Road, West Bromwich” (250 dwellings)
- “Cradley Heath Factory Centre, Woods Lane” (351 dwellings)
- “The Lyng Regeneration Site” (80 dwellings)

4.72 In respect of outstanding Local Plan allocations, there are 13 large sites which total 4,162 dwellings. A number of the allocations comprise occupied employment sites which will need to be assembled and remediated before residential development can occur. Whilst there are delivery risks to this, enhanced funding is now available through the LEP to address these.

4.73 The Council does not consider that any additional sources of supply are available to yield additional supply such as open space, intensification of town centres or public land.

Solihull

4.74 Solihull's land supply has a base date of April 2016. A total land supply of 15,717 dwellings is identified to 2031 and 16,945 dwellings to 2036. The Council's emerging Local Plan runs to 2033. The land supply includes specific provision for a contribution of 2,000 dwellings to meeting unmet needs of the Birmingham HMA.

4.75 The supply is formed of completions to 31st March 2016 of 2,207 dwellings, extant commitments (2,262 dwellings), adopted Local Plan allocations (2,640 dwellings), emerging Local Plan allocations (7,150 dwellings) and a windfall allowance of 1,650 dwellings when measured from 2019/20 to 2030/31 and 750 dwellings from 2031-36.

Table 17: Solihull's Housing Land Supply

Solihull	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-16	Apr-16	Apr-16
Total Supply	15,717	1,228	16,945
Of which ...			
Sites with Planning Permission	2,262	-	2,262
Allocations - Adopted Plans	2,470	170	2,640
Proposed Allocations - Emerging Site Allocations Plans	-	-	-
Proposed Allocations – Emerging Local Plans	6,842	308	7,150
Additional Urban Supply	286	-	286
Windfall	1,650	750	2,400
Completions	2,207	-	2,207

- 4.76 In respect of extant commitments, GL Hearn considered that no particular delivery risks arise with respect to lead-in times or build rates assumed by the Council. There is only one large site which is expected to deliver 200 dwellings and has no significant constraints.
- 4.77 In respect of extant allocations, there are 2 notably large sites within the Council's supply. "Blythe Valley Park" (950 dwellings) was originally allocated in the 2006 Local Plan and subsequently carried forward in the 2013 Local Plan. This has now received planning permission for 1,000 dwellings (1st April 2016). The other large site is "Solihull Town Centre (Broad Location)" allocated in the 2013 Local Plan. A Town Centre Masterplan has since been prepared which identifies capacity for the 861 dwellings (as set out in the emerging 2016 Draft Local Plan) over a period spanning up to 15 years. Additionally, the Masterplan identified a number of other sites which could be delivered beyond this period however various factors prevented their inclusion such as the pace of development anticipated, deliverability, funding and the prospective relocation of the train station. This is however an area where further investigation could yield some further development potential. The Town Centre Masterplan notes the potential to move the Train Station closer to the Town Centre which would subsequently free up land for further development.
- 4.78 The Council's emerging local plan includes 20 site allocations, 19 of which will include residential development either wholly or as part of a mixed use scheme. Twelve of the allocations (amounting to 5,250 dwellings) relate to sites currently in the Green Belt. The Council note that a relatively conservative developable area has been used in calculating development capacity for the proposed allocations, as well as a density assumption of 36 dwellings per hectare which could potentially be higher on certain sites. GL Hearn considers

that the capacity for these allocations could potentially be increased. This is considered through the sensitivity analysis on densities later in this section.

- 4.79 The UK Central Hub Growth Area is defined in the emerging Local Plan (page 37) which assumes that within the plan period this area will deliver 1,000 dwellings. The area has potential for more substantial development over a longer period and the Council has set up an Urban Growth Company (UGC) to co-ordinate and deliver development and infrastructure across the area.
- 4.80 The UGC have now published a Framework Plan (October 2017) that indicates the provision of over 3,000 dwellings across the area up to 2047, and this includes 1,000 dwellings by 2033 underpinning the assumption in the emerging local plan. The area also includes the HS2 Interchange Station which is to be accommodated on a 140ha site, which is proposed to be removed from the Green Belt, and be built out as part of a mixed use development of the wider area. In the land supply figures in this section provision has been made for 1,000 homes in this area; with the area considered as a strategic growth location later in this report.
- 4.81 The Council set out additional urban supply of around 286 dwellings. The Council as part of the emerging Local Plan process only sought to identify sites which exceeded capacity for 50 dwellings, thus these sites remain potential development opportunities. As part of the representations made on the Draft Local Plan it has been suggested that one or more of the golf courses located within the urban area may have the potential to contribute towards land supply and the Council will need to assess these options as the local plan review progresses; otherwise there are no significant opportunities identified within the urban area. We have not assumed an additional contribution from these sites at this point, but this clearly warrants further investigation as the Council are doing.
- 4.82 The Council does not consider that any additional sources of supply are available to yield additional supply such as open space, intensification of town centres, estate regeneration or public land.

South Staffordshire

- 4.83 South Staffordshire's land supply has a base date of April 2017. A total land supply of 3,493 dwellings is identified to 2031 and 3,643 dwellings to 2036.
- 4.84 The supply is therefore formed of completions to 31st March 2017 of 1,265 dwellings, extant commitments (937 dwellings), emerging Site Allocations (891 dwellings), additional urban supply (70 dwellings) and a windfall allowance of 300 dwellings when measured from 20120/21 to 2030/31 and 150 dwellings between 2031-36.

Table 18: South Staffordshire's Housing Land Supply

South Staffordshire	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-17	Apr-17	Apr-17
Total Supply	3,493	150	3,643
Of which ...			
Sites with Planning Permission	937	-	937
Allocations - Adopted Plans	-	-	-
Proposed Allocations - Emerging Site Allocations Plans	891	-	891
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	70	-	70
Windfall	330	150	480
Completions	1,265	-	1,265

- 4.85 The Council's extant commitments include 2 large sites – "Hobnock Road" (210 dwellings) and "Lyne Hill Industrial Estate" (348 dwellings). The former has outline planning permission in place and the latter is currently under construction. The Council anticipate that both sites will be built out by 2021/22.
- 4.86 The Council have no extant Local Plan allocations. The Council's emerging Site Allocations Document proposes to allocate land for a total of 891 dwellings on medium sized sites. It is also proposed that Green Belt land should be removed and safeguarded for around 1,750 dwellings, should the land be necessary. This is not currently included in the total supply figure.
- 4.87 The Council have identified additional urban supply for 70 dwellings, with the most recent Call for Sites exercise undertaken in 2014 although the form is available at all times online. A new Call for Sites is scheduled in Summer/Autumn 2017.
- 4.88 The Council does not consider that any additional sources of supply are available to yield additional supply such as open space, intensification of town centres or public land.

Stratford-on-Avon

- 4.89 Stratford-on-Avon's land supply has a base date of April 2016. A total land supply of 16,713 dwellings is identified to 2031 and 19,358 dwellings to 2036.
- 4.90 The supply is therefore formed of completions to 31st March 2016 of 2,447 dwellings, extant commitments (8,254 dwellings), adopted Local Plan allocations (8,065 dwellings) and a windfall allowance of 407 dwellings when measured from 2019/20 to 2030/31 with windfalls of 185 dwellings assumed between 2031-36.

Table 19: Stratford-on-Avon's Housing Land Supply

Stratford-on-Avon	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-16	Apr-16	Apr-16
Total Supply	16,713	2,645	19,358
Of which ...			
Sites with Planning Permission	8,254	-	8,254
Allocations - Adopted Plans	5,605	2,460	8,065
Proposed Allocations - Emerging Site Allocations Plans	-	-	-
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	-	-	-
Windfall	407	185	592
Completions	2,447	-	2,447

- 4.91 The Council has 10 large sites in the pipeline as extant commitments, all expected to be delivered by 2031. There are several phases of residential development being delivered at “Meon Vale” (c 1,200 dwellings), development at “Land West of Shottery” (c. 800 dwellings) and development at “Wellesbourne” (c. 350 dwellings). The sites are progressing and there are no substantive risks associated with the delivery of these sites over the period to 2031.
- 4.92 In respect of extant Local Plan allocations, all 8,065 dwellings are allocated on large sites which include the following:
- “Land at Gaydon/ Lighthorne Heath” (2,000 dwellings)
 - “Land adjacent to the Old Gated Road, Gaydon / Lighthorne Heath” (1,000 dwellings)
 - “Land between Daventry Road and Welsh Road East, Southam” (535 dwellings)
 - “Land to the north and west of Bishopton Lane, Stratford-on-Avon” (500 dwellings)
 - “Long Marston Airfield (Phase 2)” (3,100 dwellings)
 - “Stratford Canal Quarter Regeneration Zone” (930 dwellings)
- 4.93 Outline planning applications are at an advanced stage for the 2 sites at Gaydon/ Lighthorne Heath, totalling 3,000 dwellings. The Council expect this site to achieve first completions in 2019 and reach a height of 200 dpa to 2034/35 delivering 2,150 dwellings by 2031. GL Hearn considers these delivery assumptions to be reasonable.
- 4.94 The Long Marston Airfield (Phase 1 & 2), for which Phase 1 already has outline planning permission, is a Government-supported Garden Village. The site is being led by Cala Homes and the Council are working closely with the HCA to deliver the necessary infrastructure. The Council are currently working on a masterplan for the site. Similarly, the Council are working on a masterplan for the Canal Quarter Regeneration Zone, where 82 dwellings have been constructed already.

- 4.95 The Council is currently undertaking urban capacity analysis in the District for Stratford and the main rural centres, however there is currently no indication of what capacity this may result in. This could potentially yield some additional capacity.
- 4.96 The Council does not consider that any additional sources of supply are available to yield additional supply such as open space, intensification of town centres or public land.

Tamworth

- 4.97 Tamworth's land supply has a base date of April 2017. A total land supply of 4,495 dwellings is identified to 2031 and 4,680 dwellings to 2036. Whilst the Local Plan 'plan period' extends to 2031, it is notable that besides the windfall allowance, no supply is identified in the Council's Housing Trajectory for the years beyond 2026/27.
- 4.98 The supply is formed of completions to 31st March 2017 of 500 dwellings, extant commitments (3,133 dwellings), adopted Local Plan allocations (455 dwellings) and a windfall allowance of 407 dwellings when measured from 2020/21 to 2030/31 and 185 dwellings from 2031-36.

Table 20: Tamworth's Housing Land Supply

Tamworth	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-17	Apr-17	Apr-17
Total Supply	4,495	185	4,680
Of which ...			
Sites with Planning Permission	3,133	-	3,133
Allocations - Adopted Plans	455	-	455
Proposed Allocations - Emerging Site Allocations Plans	-	-	-
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	-	-	-
Windfall	407	185	592
Completions	500	-	500

- 4.99 The Council's extant commitments include 4 large sites. Three of these sites relate to the former "Tamworth Municipal Golf Course" (1,100 dwellings total) and "Anker Valley" (535 dwellings). Reserved Matters consents are in place for 472 dwellings at the Golf Course, with 628 dwellings outstanding under the outline planning permission. The Council expects this site to be built out by 2026/27. Similarly, Anker Valley is expected to be built out by 2026/27. The Council has also recently granted permission for the Local Plan allocation for "Dunstall Lane" (800 dwellings) which was allocated for 723 dwellings.

- 4.100 In respect of extant Local Plan allocations, all sites outstanding are of a small and medium scale and are expected to come forward with no particular risks to delivery evident from GL Hearn's analysis.
- 4.101 Tamworth Borough Council is not currently preparing a new Local Plan and therefore there are no emerging allocations. The Council also state that there is no additional urban supply given that sites of all sizes which have development potential have been allocated. It is relatively clear on review of the Borough boundary that *white land* is scarce and flooding affects parts of the Borough.
- 4.102 The Council does not consider that any additional sources of supply are available to yield additional supply such as open space, intensification of town centres, estate regeneration or public land of any significance.

Walsall

- 4.103 Walsall's land supply has a base date of April 2017. A total land supply of 10,879 dwellings is identified to 2031 and 11,284 dwellings to 2036. The evidence base for the emerging Black Country Core Strategy Review looks to 2036.
- 4.104 The supply is formed of completions to 31st March 2017 of 3,809 dwellings, extant commitments (2,623 dwellings), adopted Local Plan allocations (106 dwellings), emerging Site Allocations (1,804 dwellings), additional urban supply (1,646 dwellings) and a windfall allowance of 891 dwellings when measured from 2020/21 to 2030/31 and 406 dwellings between 2031-36.

Table 21: Walsall's Housing Land Supply

Walsall	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-17	Apr-17	Apr-17
Total Supply	10,879	405	11,284
Of which ...			
Sites with Planning Permission	2,623	-	2,623
Allocations - Adopted Plans	106	-	106
Proposed Allocations - Emerging Site Allocations Plans	1,804	-	1,804
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	1,646	-	1,646
Windfall	891	405	1,296
Completions	3,809	-	3,809

- 4.105 The Council has no large sites coming forward as commitments and it is considered there is no particular risk in this source of supply delivering the dwellings set out. Similarly, there are no risks associated with the extant Local Plan allocation for 90 dwellings.
- 4.106 In respect of proposed allocations in the emerging Site Allocations Document, there are 3 large sites proposed to be allocated:
- “Goscote Lane Copper Works” (395 dwellings)
 - “Goscote Lodge Crescent” (426 dwellings)
 - “Former Caparo Works, Miner Street” (310 dwellings)
- 4.107 Decontamination work will be required for the Copper Works, a former mining works. The site is cleared and has been for some time and development is not expected to commence until 2022/23. Goscote Lodge Crescent is due to gain outline planning permission. Land at the former Caparo Works previously had planning permission however this was not implemented and subsequently lapsed.
- 4.108 The Site Allocations Document is informed by the previous SHLAA. The last Call for Sites was undertaken in 2014 and a new Call for Sites process is currently being undertaken for the Core Strategy Review.
- 4.109 The Council identifies the potential for 1,646 dwellings to come forward as additional urban supply. This includes lapsed planning permissions, sites identified in the employment land review and other vacant previously developed land. It includes vacant brownfield sites for which there have been pre-application discussions, and other potential housing sites in Walsall Town Centre and the other district centres (these areas are not covered by the emerging Site Allocation Document).
- 4.110 The Council do not consider there are any additional sources of supply in respect of public sector land or estate regeneration.

Wolverhampton

- 4.111 Wolverhampton’s land supply has a base date of April 2016. A total land supply of 13,816 dwellings is identified to 2031 and 16,495 dwellings to 2036. The evidence base for the emerging Black Country Core Strategy Review looks to 2036.
- 4.112 The supply is formed of completions to 31st March 2017 of 2,867 dwellings, extant commitments (2,831 dwellings), adopted Local Plan allocations (4,399 dwellings), additional urban supply (2,042 dwellings) and a windfall allowance of 1,677 dwellings when measured from 2020/21 to 2030/31 and 2,679 dwellings between 2031-36. This includes an allowance for large site windfalls.

Table 22: Wolverhampton's Housing Land Supply

Wolverhampton	Supply To 2031	Additional Supply to 2036	Total to 2036
Base Date	Apr-16	Apr-16	Apr-16
Total Supply	13,816	2,679	16,495
Of which ...			
Sites with Planning Permission	2,831	-	2,831
Allocations - Adopted Plans	4,399	-	4,399
Proposed Allocations - Emerging Site Allocations Plans	-	-	-
Proposed Allocations – Emerging Local Plans	-	-	-
Additional Urban Supply	2,042	-	2,042
Windfall	1,677	2,679	4,356
Completions	2,867		2,867

- 4.113 The Council has two large sites under commitments – “Ward Street Masterplan Site” (512 dwellings) and “Former Goodyear Site” (469 dwellings). The Council note that a developer is in place on both sites and are they are progressing well. There are no particular risks associated with the delivery of these sites.
- 4.114 Of the Council's extant Local Plan allocations, 1,450 dwellings are to be delivered on large sites. There are 5 large sites in total:
- “Bilston Urban Village” (400 dwellings)
 - “Cable St/ Steelhouse Lane” (365 dwellings)
 - “Heath Town Estate Masterplan” (225 dwellings)
 - “Westside, Wolverhampton City Centre” (250 dwellings)
 - “Stafford St/ Cannock Road, Wolverhampton City Centre” (210 dwellings)
- 4.115 Countryside Homes are involved with Bilston Urban Village and this is progressing well. The Council are looking to purchase Cable Street with LEP funding as this is not moving forward at the desired pace. Heath Town Estate is a Council owned renewal site and is progressing well. Land at Westside is also owned by the Council and a development partner is in place. The Council acknowledge there are some risks with Stafford Street in the short-term.
- 4.116 In respect of City Centre intensification, the Council notes that recently adopted an AAP which have has fully considered all possibilities of increasing supply. The Council do not consider there are any additional sources of supply in respect of public sector land or estate regeneration.

Adjustments to the Land Supply Baseline

- 4.117 On the basis of the interrogation of the land supply evidence informed by the Proforma returns from each council, together with GL Hearn's analysis of these and discussions with individual authorities, we present below the current position regarding residential land supply to 2031 and 2036. This is necessary to quantify a baseline shortfall in housing provision across the HMA.
- 4.118 In doing so we have split out site allocations proposed in emerging local plans (in Solihull and North Warwickshire). These are making specific provision for meeting unmet needs within the HMA over-and-above that in adopted plans. Site allocations DPDs in other areas are principally identifying supply to meet housing targets within adopted plans.
- 4.119 In drawing the conclusions on supply from individual authorities in the preceding tables, GL Hearn has sought to ensure that windfall allowances are only taken into account from Year 4 onwards, in order to avoid double counting windfall sites which already have planning permission (and are thus counted in another category).

Table 23: HMA Adjusted Land Supply Position (up to 2031 and 2036)

HMA	Up to 2031	Up to 2036
Total Supply	<u>191,654</u>	209,879
Of which is...		
Sites with Planning Permission	55,759	55,759
Allocations - Adopted Plans	49,485	53,398
Proposed Allocations – Emerging Site Allocations Plans	6,443	6,443
Proposed Allocations – Emerging Local Plans	13,000	13,308
Additional Urban Supply	17,114	17,114
Windfall	14,837	28,841
Completions	35,016	35,016

- 4.120 The table above readjusts the land supply figures from the results submitted through the Proforma's. The readjustments made in the table above relate to:
- Lapsed Planning Permissions – during the course of the preparation of the Study, some planning permissions have lapsed; and therefore there have been consequential changes to the categories in which supply from some sites are counted;
 - Proposed Allocations – some potential sites within Lichfield which were proposed to be removed from the Green Belt are no longer intended by the Council to be taken forward, and we have therefore adjusted the land supply position to reflect the latest situation;
 - Additional Urban Supply – some sites have been removed from this category as they have not been deemed to be deliverable or developable following further discussions at the workshops; and

- Windfall allowance – as noted above, we have sought to ensure that windfall allowances are only taken into account from Year 4 onwards and for 2031-2036, we have rolled the yearly windfall allowance for each LPA forward.

4.121 Having worked through the housing land supply evidence of all 14 local authorities through the one-to-one workshops, it is clear that a number of further adjustments should be made in order to arrive at a realistic baseline housing shortfall across the HMA. Put simply based on our interrogation of the land supply position, it is not realistic to expect all sites which have been identified or have planning permission to be developed over the timeframes considered herein. It is common for local plan inspectors to require some 'supply-side flexibility' in local plans (requiring land supply which, in our experience, is 5-15% above the 'requirement' identified). This is considered further below.

Non-Implementation Discounts

4.122 To provide a realistic assessment of the developable land supply across the HMA, with a view to quantifying what additional land supply needs to be identified, we consider that some discount for non-implementation should be applied. We have made the following discounts:

- A discount of 5% to the supply from sites with planning consent. This recognises that the presence of planning permission provides some basis for considering that a site will be delivered and that some sites in this category are likely to be under construction; but that in some instances planning permission will have been sought for other purposes (such as to raise land values) and some permissions do lapse;
- A discount of 15% to the supply from specific sites without planning consent in the Black Country authorities. A higher discount is considered appropriate in these authorities to take account of the significant proportion of the land supply which comprises employment sites where there are challenges associated with delivery related to assembling land, relocating existing occupiers, and development viability.
- A discount of 10% to the supply from specific sites without planning consent in the other authorities within the HMA.

4.123 These discounts are judgement-based and applied for the purposes of this report only and should not be considered to prejudge what allowance should be made for non-implementation in individual local plans or authorities' land supply assessments, which can take account of locally-specific circumstances and evidence.

4.124 From our assessment of the Black Country's housing land supply position, there are evidently a number of sites with planning permission, extant allocations and emerging allocations where there are greater risks and challenges to delivery over the period to 2031 or 2036. There are particular risks with bringing forward under-used employment sites, which at the current time in a number of instances remain occupied and will require business relocation; are in multiple ownerships requiring land assembly; and may also require remediation and

new infrastructure. Such sites form a significant component of the Black Country's housing land supply.

- 4.125 These constraints are not new however and a significant level of investment is already in the pipeline to facilitate the release of a number of these employment sites with funding support available through the Combined Authority; in addition to the work being undertaken on the ground where the Black Country local authorities are working actively to address land assembly and site constraints – often by taking a lead role in the delivery of the sites. The step change in funding available to address these issues is an important consideration and has been taken into account in this Study.
- 4.126 We have taken these issues into account in considering the appropriate discount allowance for non-implementation, judging that a 15% discount for sites without planning permission would be appropriate in the four Black Country authorities. This does not mean that sites will not be developed, but reflects the potential for delays in implementation with a view to considering the potential contribution to housing delivery which the land supply identified will make over the periods to 2031 and 2036.
- 4.127 For other authorities, we have assumed a 10% non-implementation allowance applied to sites without planning consent. This reflects the potential for site-specific development constraints (ranging from land assembly and remediation, ownerships through to the funding and delivery of infrastructure) to result in some sites not coming forward or delivery delayed; together with the need for some flexibility of supply. It is typical for a non-implementation allowance to be included in five year housing land supply assessments.

Assessed Developable Supply to 2031

- 4.128 In order to understand the impacts of these discounts, we have set out the resulting supply for the Black Country and elsewhere in the HMA separately and quantified the impact of applying the discounts to the relevant sources of supply to provide an assessment of the developable supply of land to 2031 and 2036. The result of supply to 2031 for the Black Country is shown in Table 24:

Table 24: Adjusted Land Supply (2011-2031) - 5% for Planning Permissions and 15% Non-Implementation for Allocations – Black Country Supply Only

	Discount	Impact of Discount	Revised Total
Total Supply		-4,799	<u>57,744</u>
Of which is...			
Sites with Planning Permission	5%	-142	12,774
Allocations - Adopted Plans	15%	-3,551	20,123
Proposed Allocations – Emerging Site Allocations Plans	15%	-271	1,533
Proposed Allocations – Emerging Local Plans	15%	0	0
Additional Urban Supply	15%	-836	10,387
Windfall	0%	0	5,538
Completions	0%	0	13,038

4.129 The resulting supply to 2031 for LPAs excluding the Black Country is shown in Table 25:

Table 25: Adjusted Land Supply (2011-2031) – 5% for Planning Permissions and 10% Non-Implementation for Allocations – LPAs Supply excl. Black Country

	Discount	Impact of Discount	Revised Total
Total Supply		-7,025	<u>122,086</u>
Of which is...			
Sites with Planning Permission	5%	-2,142	40,701
Allocations - Adopted Plans	10%	-2,581	23,230
Proposed Allocations – Emerging Site Allocations Plans	10%	-464	4,175
Proposed Allocations – Emerging Local Plans	10%	-684	12,316
Additional Urban Supply	10%	-1,154	10,387
Windfall	0%	0	9,299
Completions	0%	0	21,978

4.130 Reviewing the supply to 2031, the non-implementation discounts result in a deduction of 4,799 dwellings for the Black Country (inclusive of a 5% discount for sites with planning permission and a 15% discount for sites without planning permission). Elsewhere in the HMA, the discounts result in a total deduction of 7,025 dwellings to 2031 (inclusive of a 5% discount for sites with planning permissions and a 10% discount for sites without planning permission).

Discounts Applied to Supply to 2036

- 4.131 The result of supply in the Black Country authorities to 2036 following discounting is shown in Table 26 below.

Table 26: Adjusted Land Supply (2011-2036) - 5% for Planning Permissions and 15% Non-Implementation for Allocations – Black Country Supply Only

	Discount	Impact of Discount	Revised Total
Total Supply		-4,842	<u>62,418</u>
Of which is...			
Sites with Planning Permission	5%	-142	12,774
Allocations - Adopted Plans	15%	-3,594	20,363
Proposed Allocations – Emerging Site Allocations Plans	15%	-271	1,533
Proposed Allocations – Emerging Local Plans	15%	0	0
Additional Urban Supply	15%	-836	4,737
Windfall	0%	0	9,972
Completions	0%	0	13,038

- 4.132 The resulting supply to 2036 following discounting for LPAs elsewhere in the HMA is shown in Table 27:

Table 27: Adjusted Land Supply (2011-2036) - 5% for Planning Permissions and 10% Non-Implementation for Allocations - LPAs Supply excl. Black Country

	Discount	Impact of Discount	Revised Total
Total Supply		-7,419	135,200
Of which is...			
Sites with Planning Permission	5%	-2,142	40,701
Allocations - Adopted Plans	10%	-2,581	26,497
Proposed Allocations – Emerging Site Allocations Plans	10%	-464	4,175
Proposed Allocations – Emerging Local Plans	10%	-684	12,593
Additional Urban Supply	10%	-1,154	10,387
Windfall	0%	0	18,869
Completions	0%	0	21,978

- 4.133 Reviewing the supply to 2036, the non-implementation discounts result in a deduction of 4,842 dwellings for the Black Country (inclusive of a 5% discount for sites with planning permission and a 15% discount for sites without planning permission). Elsewhere in the HMA, the discounts result in a total deduction of 7,419 dwellings to 2036 (inclusive of a 5% discount for sites with planning permissions and a 10% discount for sites without planning permission).

- 4.134 The application of these discounts results in the assessed developable supply of land across the HMA set out in Table 28 below.

Quantifying the Baseline Shortfall

- 4.135 In this section, the analysis set out above has involved (a) a review of the Proforma's submitted by the HMA's 14 local authorities which set out their respective housing land supply position to 2031 and 2036; (b) direct engagement through workshops with all local authorities in order to consider the supply submitted in greater detail; and finally (c) adjustments to submitted housing land supply in order to arrive at an accurate and robust baseline land supply position.
- 4.136 The total supply across the HMA to 2031 and to 2036 following readjustments and the application of discounts is shown in Table 28.

Table 28: Total Developable Housing Land Supply across the HMA (up to 2031 and 2036)

	Up to 2031	Up to 2036
Total Supply	<u>179,829</u>	<u>197,618</u>
Of which is...		
Sites with Planning Permission	53,475	53,475
Allocations - Adopted Plans	43,353	46,860
Proposed Allocations – Emerging Site Allocations Plans	5,709	5,709
Proposed Allocations – Emerging Local Plans	12,316	12,593
Additional Urban Supply	15,124	15,124
Windfall	14,837	28,841
Completions	35,016	35,016

- 4.137 **GL Hearn conclude that there is a developable land supply of (rounded) 180,000 dwellings across the HMA to 2031, and 197,600 dwellings to 2036 based on sites and supply currently identified.**
- 4.138 We can use this to consider the baseline shortfall in housing land supply across the HMA over the period to 2031 and 2036, by considering the land supply position against the conclusions on the minimum housing need set out in Section 2.
- 4.139 The analysis indicates that **based on current supply assumptions, and taking into account proposed allocations in emerging plans, there is an outstanding minimum shortfall of 28,000 dwellings to 2031 and 63,400 dwellings to 2036 across the Birmingham HMA.**

Table 29: Summary & Minimum Shortfall in Housing to 2031 and 2036

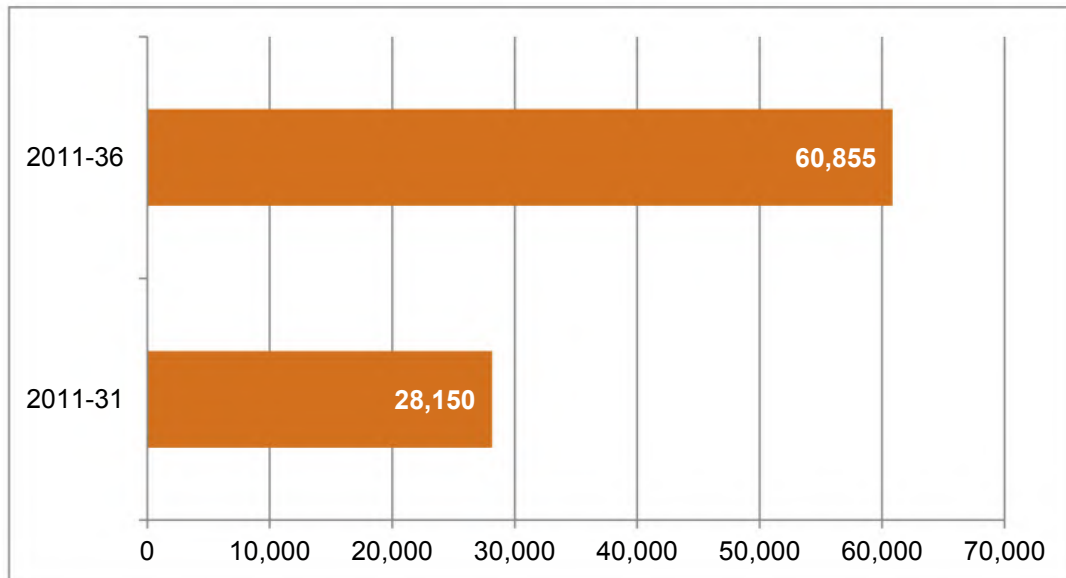
	2011-31	2011-36
Minimum Housing Need	205,099	254,873
Contribution to Coventry/Warwickshire Unmet Need	2,880	3,600
Minimum Requirement	207,979	258,473
Study Assessment of Developable Supply	179,829	197,618
Minimum Housing Shortfall	<u>28,150</u>	<u>60,855</u>

4.140 GL Hearn have arrived at a minimum shortfall of 28,150 dwellings to 2031 which differs from the shortfall identified by the PBA Strategic Housing Needs Study Stage 3 Report (August, 2015) of 37,500. This is a result of the following considerations which have been taken into account:

- As we understand it, the PBA studies did not accurately quantify the land supply fully across the 14 LPAs i.e. some Local Plan allocations were missed, therefore the supply was underestimated in 2015;
- Additional supply has been identified by a number of LPAs within the HMA since 2015 and now. Around 20,000 dwellings have been identified through further site allocations. This includes proposed allocations in emerging plans.
- We consider it is not reasonable to seek to exactly match total supply with the minimum need as this provides no flexibility and ultimately the HMA will likely under-deliver against it – therefore we have applied adjustments for non-implementation to provide a realistic global figure for the developable supply.

4.141 The minimum shortfall figures are shown in Figure 15.

Figure 15: Minimum Housing Shortfall across Birmingham HMA



5 POTENTIAL ADDITIONAL URBAN LAND SUPPLY

5.1 The PBA Strategic Housing Needs Study Stage 3 Report considered the potential for 'intensification' within existing built-up areas from three broad sources:

- Existing urban land that is currently vacant, derelict or underdeveloped
- Supply that may emerge from release of employment sites currently in use
- Additional estate regeneration.

5.2 The PBA Study found that where there are vacant or derelict brownfield sites these are in most instances included in Councils evidence on available land supply, and where they are not there are genuine viability or delivery issues which affect the ability to bring sites forward. It did not find evidence of a supply of employment land likely to be available for housing over and above current plans, but identified that this was an area which should be kept under review. It found that estate regeneration would not necessarily deliver additional homes; and overall cannot be expected to deliver additional housing on a significant scale.

5.3 In this report, GL Hearn has sought to consider some of these questions further. This section considers the potential for additional land to be identified within urban areas/ settlements.

5.4 The Government published a Housing White Paper in February 2017. This set out proposals from Government to amend national planning policies relating to Green Belt, setting out that Green Belt boundaries should only be amended where it can be demonstrated that all other reasonable options for meeting the identified development needs have been examined fully, including:

- Making effective use of suitable brownfield sites and opportunities offered by estate regeneration;
- The potential offered by land which is currently under-used, including surplus public sector land where appropriate; and
- Optimising the density of development; and
- Exploring whether other authorities can help to meet some of the identified housing requirement.

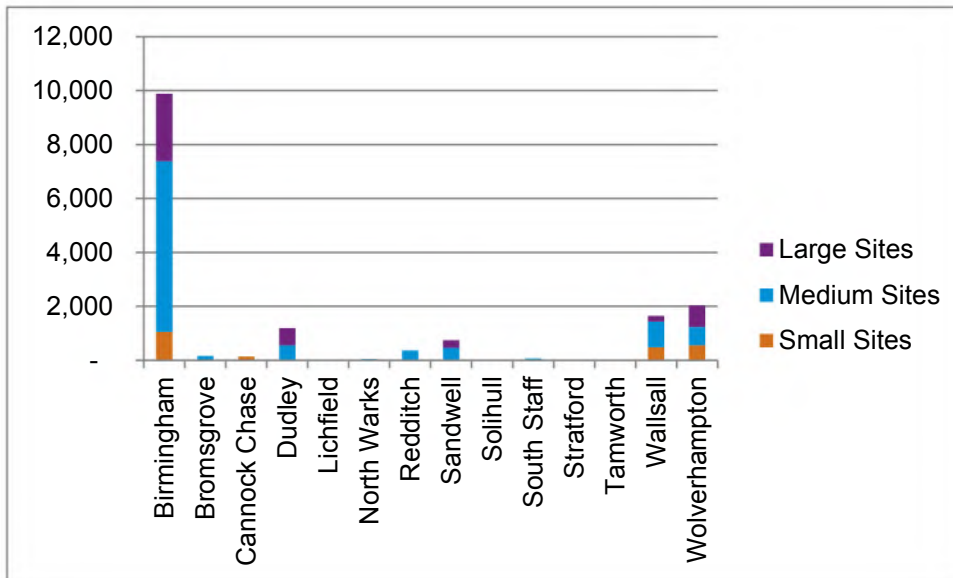
5.5 The potential of brownfield sites, public sector land, densification, action zones, and estate renewal was also identified in the West Midlands Land Commission Final Report.

5.6 To consider the potential which could be achieved from these sources, GL Hearn has sought to engage through workshops with the 14 local authorities across the sub-region. Within these workshops, GL Hearn sought to collate information on brownfield development opportunities, current and potential estate regeneration schemes, and the potential supply from employment land. We have also undertaken a sensitivity analysis considering the potential for additional land supply to arise from increasing residential development densities.

Brownfield Sites, including Employment Land

- 5.7 There are evidently a range of brownfield development opportunities within the sub-region. A significant potential component of the land supply in this respect comprises employment sites which are either now vacant, or are partly/ under-used.
- 5.8 To warrant the inclusion of sites within a developable supply, they must meet the requirements set out in Planning Practice Guidance where developable sites are defined as those that:
- “are in a suitable location for housing development and have a reasonable prospect that the site or broad location is available and could be viable developed at the point envisaged.”*
- 5.9 Sites must be suitable, available and viable. Suitability, the PPG sets out, is informed by planning policies and market/ industry requirements within the housing market area. It is influenced by physical limitations or problems, which can include infrastructure, ground conditions, flooding, pollution and contamination; potential landscape impacts; market attractiveness; and environmental/ amenity impacts. To be available it must be controlled by a developer or landowner who has expressed an intention to develop/ sell. Viability is a function of the economic viability of development of the site and the capacity of the developer to deliver.
- 5.10 Significant urban supply, principally on brownfield land, has been identified by the HMA authorities through SHLAAs and work on assessing their land supply to feed into this Study. The additional urban supply identified, which is not currently allocated for development, comprises 15,200 homes and is included in the land supply figure in Table 29 above. The split of this by authority and size of site is shown in Figure 16. It is particularly concentrated in the conurbation - in Birmingham and the Black Country authorities.

Figure 16: Urban Supply (not allocated or with planning permission)



- 5.11 Former employment land is a major component of this. This is a particularly significant component of the land supply position (commitments and allocations only) in the four Black Country local authorities, but is also expected to deliver significant housing numbers in a range of authorities more widely within the HMA – from 800 homes at Rugeley Power Station to over 900 homes in Stratford’s Canal Quarter.
- 5.12 A particular issue in respect of employment land is the complexities involved in bringing it forward for housing development. Employment sites can be in multiple ownerships and require land acquisition and business relocations before they are brought forward for development. They can require investment in site remediation and infrastructure provision. Furthermore across the HMA, former employment sites tend to be concentrated more towards lower value areas (in respect of residential values). This can result in viability issues.
- 5.13 Under the West Midlands Combined Authority’s Devolution Deal, £200 million of grant funding has been put in place for up to 10 years to support site remediation through a Land Remediation Fund. This represents a step change in available funding, and should support acceleration in delivery of brownfield development opportunities within the HMA. This has been taken into account in the considering the land supply as set out in Section 4.

- 5.14 The West Midlands Land Commission Report goes on to outline that alongside funding, there is a need for greater coordination in respect of:
- Developing a Brownfield Remediation Strategy to deliver a step change in the pace and scale of site assembly and remediation;
 - Pooling funding sources across public sector bodies and using this to prioritise key remediation projects;
 - Considering the potential to capture a proportion of the value uplift realised through planning consents in one area in the assembly and remediation of sites elsewhere;
 - Establishment of a Brownfield Research and Innovation Centre (BRIC) as a centre for excellence in brownfield development;
 - Creation of a Project Delivery Team to act as a single point of access to marshal resources and funding to support LPAs in delivering strategic sites (Action Zones).
- 5.15 Taking forward key elements of this will be important in driving forward delivery of brownfield sites, and in particular bringing forward complex former/ current employment sites in multiple ownerships and with remediation and/or infrastructure challenges.
- 5.16 Funding is important and indeed this will be essential to achieving a step change in the pace of delivery. But bringing together skills and expertise – including in compulsory purchase of land – will also be important. Given the specialist skills necessary, GL Hearn considers that there is benefit in bringing these together in a team/ teams which can work across a number of local authorities, particularly in the Black Country.
- 5.17 The Black Country Development Corporation is a local example of a local delivery vehicle which has brought together expertise and capacity to assemble and remediate land, put in place infrastructure and bring sites to market.
- 5.18 Prioritising those opportunities which deliver the greatest housing and wider regeneration outputs is clearly logical.
- 5.19 Based on our interrogation of land supply, which included reviewing maps of local authorities with planning policy officers, GL Hearn considers that there are few additional brownfield development sites which can be clearly identified at the current time which are not already included within the land supply calculations.
- 5.20 The potential uncertainty which exists in some areas relates to up-to-date employment land evidence. Employment land studies consider both the demand and supply for employment land, and assess the quality of existing supply. Consideration should be given within employment land studies to be given to the quality of sites, and it is feasible that existing employment land in some locations which performs poorly could be released; and new employment provided for through new allocations.

- 5.21 Further more detailed work on employment land evidence through the preparation of individual local plans may thus identify some limited further development potential for housing on employment sites. However it seems likely that the scale of supply from this source will be modest. GL Hearn notes that for instance within the Black Country the evidence base points to the need to identify further employment land provision, which could limit the potential for the employment land releases.
- 5.22 The challenge within the HMA is more one of marshalling resources to assembly and bring forward development land on current/former employment sites, rather than there being additional land which could be identified from this source.

Surplus Public Sector Land

- 5.23 The current land supply figures include some sites which are in public sector ownership. Public sector landowners extend beyond local authorities to include Central Government departments (health, defence, work and pensions), transport and highways authorities, the Homes and Communities Agency and others.
- 5.24 Through the workshops with individual local authorities, few further options for the release of land owned by local authorities were identified. Some areas were identified where further work on the review of local authorities' estates could have yielded some potential (e.g. in Redditch) but until the work has been undertaken it is not possible to identify what scale of additional supply this might result.
- 5.25 The Cabinet Office and Local Government Association have established a national "One Public Estate" programme, which maps existing public sector landholdings, and considers opportunities to rationalise the public sector estate – including through the co-location of organisations and functions.
- 5.26 GL Hearn would recommend that the HMA authorities engage with the Cabinet Office and this Programme to assess potential for further land supply within the HMA.

Estate Regeneration

- 5.27 Through this Study, GL Hearn has sought to engage through the workshops with individual authorities to probe opportunities for estate regeneration. The Government has put in place a £140 million Estate Regeneration Fund to support estate regeneration initiatives.
- 5.28 A number of the authorities within the HMA are already progressing estate regeneration schemes. This includes Birmingham City Council and Wolverhampton. However through the engagement with the HMA authorities, no substantive further opportunities have been identified from this source.

Town and District Centre Regeneration

- 5.29 There are opportunities to increase urban land supply through regeneration and redevelopment schemes in town and district centres. These are sustainable locations for development which provide access to a range of services and facilities. They provide opportunities in many instances to increase development densities, subject to local character.
- 5.30 With increasing online retailing, in many areas the need for town centre floorspace is falling. Through regeneration there is an opportunity to introduce greater mix of uses including residential into centres.
- 5.31 Through this Study, potential is identified for further housing provision through intensification in Redditch Town Centre and Solihull Town Centre. However design and masterplanning work would be needed to specifically quantify the contribution of this to overall housing supply.

Surplus Open Space

- 5.32 In some areas, evidence base studies may indicate local surpluses of open space. Where this is the case, there may be limited opportunities for this to make a contribution to land supply. Birmingham has implemented a programme of bringing forward surplus open space in the Council's ownership for housing. The current programme is expected to contribute 600 dwellings to the supply, and this has therefore been included within the figures. In Solihull the potential for urban golf courses to form part of its land supply will be considered through their Local Plan review.

Supply from the Above Sources

- 5.33 Where specific additional development opportunities have been identified from the above sources, this has been taken into account within the land supply position set out within this Study (in Section 4) with appropriate upward adjustments made.
- 5.34 Inevitably there is probably modest additional development opportunities – over and above those already set out in Chapter 4 under Additional Urban Supply - which could result from further work interrogating potential from the above sources – in town centres, from surplus open space etc. Land supply figures are however constantly in a state of flux as new brownfield land becomes available and other sites are developed or lost to alternative uses. The supply which could result from the further areas identified should be considered further alongside the investigation of potential from the areas of search for strategic development identified in this report. In GL Hearn's view, the scale of additional potential which these sources of supply will yield will not preclude the need for strategic development options to be identified and brought forward.

6 INCREASING URBAN DEVELOPMENT DENSITIES

- 6.1 Section 5 has considered the potential for additional development land to be identified in urban areas. In this section we move on to consider the potential to increase the housing provision delivered on the identified land supply through increasing development densities.
- 6.2 Building new housing at higher densities is an important potential component to addressing the shortfall in housing provision across the HMA. The Housing White Paper suggests that Government may amend planning policy to set out that authorities should seek to optimise the proposed density of development before considering Green Belt release.
- 6.3 Building at higher densities not only makes more efficient use of land, but can help to deliver high quality sustainable development and good quality places. With careful planning and good design, higher density development can help create successful places, with a range of house types, good space standards and an attractive public realm. They can help to create places with a mix of uses, where public transport provision is viable and can support local services.
- 6.4 Higher densities should not be conflated with tall buildings, a preponderance of flatted development or smaller units. In considering higher densities in this report, we are principally concerned with developing compact neighbourhoods, which support a mix of uses; a range of house types, with viable public transport and local services. We are looking at building at densities which are appropriate to the local context, but being clear that to do so does not necessarily mean building at existing densities.
- 6.5 This section seeks to consider the contribution which building at higher densities could have to addressing the housing land supply shortfall. In doing so, GL Hearn has however sought to consider the inter-relationship between the densities and the types of homes built and the profile of market demand for different types of homes; as well as market characteristics. These are important considerations in deriving a realistic assessment of the potential land supply which could result from revised policies on development densities. It is likely that different parts of the HMA, and indeed different areas within individual authorities, will play different roles in meeting the required range of types and sizes.

The Benefits of Higher Densities

- 6.6 Building new housing at higher densities is an important potential component of the solution to addressing the shortfall in housing land supply in the HMA. There are a number of benefits to higher densities which include the following:

Economic Benefits

6.7 Economic benefits of higher densities in particular include supporting viable public transport and local services, which in turn create employment opportunities locally. Higher densities additionally provide potential (at a more strategic level) for:

- Providing sufficient critical masses to support services and employment opportunities within neighbourhoods.
- Allow a higher degree of specialisation. As levels of economic activity increase, so does the ability of firms to specialise and increase efficiency, due to increased market size and competition.
- Reduce transport time and costs for products/goods/services from one stage to the next, or from producer to consumer, occurs in denser areas if the transport infrastructure is sufficient.
- Increase innovation density allows firms to have access to larger markets of suppliers (especially labour supply) and consumers, allowing competition to enhance the quality of inputs and outputs.
- The intensification of an area offers the opportunity for regeneration and place-making investment.

Social Benefits

6.8 Apart from the economic benefits, higher density housing can deliver social benefits. There is often a real misunderstanding about what higher density housing is. Many of the problems blamed on density are in fact a combination of problems with location, design, tenure mix, allocation policies, lack of management and maintenance. In particular:

- Higher density neighbourhoods allows a combination of housing types which can cater for different times in a person's or a family's life. Well-designed higher density housing can respond to 21st century living: flexible layouts and lifetime homes standards can be readily achieved.
- A mix of house types can enable people at different life stages to find appropriate accommodation without moving far. This is a particular consideration given an ageing population in much of the HMA.
- Higher density housing allows for private outdoor spaces and for shared spaces (such as parks) and shared facilities.
- In general high density homes are more affordable, while they can have lower land acquisition and site infrastructure costs and support energy efficiency and the ability to be oriented for passive solar gain.

6.9 Many higher-density schemes are mixed-tenure. For new residents, a key driver in selecting a new home is the quality of the area in terms of access to facilities and services, a sense of community, safety and security. The presence of shops and schools and local services – which are supported by the development density - support the attractiveness of a locality for homebuyers.

Design Benefits

- 6.10 Creating a sense of place or a local ambience it is essential for the success of any new development. Adherence to key design principles can support good design and quality. These include:
- Good offer of convenient shops and services: With more people living in an area, better local shops and schools become economically viable, as do regular bus services. Places that are not over-dependent on car use enjoy livelier streets and in turn create better neighbourhoods.
 - Continuity and enclosure: A place where public and private spaces are distinguished. Enclosing streets by buildings and trees of a scale that feels comfortable. Optimisation of the space, with no wasted space that is not maintained. The perception and identity of open spaces in high-density location are particularly important in providing inhabitants with a sense of belonging.
 - Safer streets: Streets that are overlooked by homes not only feel safer but are safer, with much lower rates of burglary. With slower car speeds, more walkers and cyclists mean it is safer for children to walk to school or play outside. Higher density development can increase site values, which in turn can provide higher-quality public spaces like Home Zones being introduced in some areas to provide safe outdoor playing space.
 - Sustainable design: Higher densities reduce energy consumption and allow efficient use of resources. In addition, high densities increase the use of public transport. All these elements contribute towards the sustainable development.
- 6.11 There are clear sustainability benefits of higher densities of development, as this identifies. It can help create neighbourhoods where people are able to access everyday services using sustainable travel modes.
- 6.12 Research for the National Housing and Planning Advice Unit (NHPAU) sets out that net densities of new development in the West Midlands region increased from 27 dwellings per hectare (dph) in 1996, to 36 dph in 2004 and 43 dph at the top of the market in 2006. The market has evidently shifted since, with less strength in the market for flatted development and a return to delivery of more traditional housing schemes.
- 6.13 CLG data indicates that across the HMA, the average development density between 2008-11 was 40 dwellings per hectare (dpa). At a local authority level, this ranged from 21 dpa in Stratford-on-Avon, 25 dpa in South Staffordshire and 27 dpa in North Warwickshire, to around 40-50 dpa in the Black Country and 67 dpa in Birmingham.

Table 30: Densities of Development Built

LPA	Dwellings per hectare			
	1996-1999	2000-2003	2004-2007	2008-2011
Birmingham	37	46	82	67
Bromsgrove	19	22	31	28
Cannock Chase	31	25	41	43
Dudley	29	34	42	50
Lichfield	24	23	30	33
North Warwickshire	25	26	39	27
Redditch	29	30	55	45
Sandwell	36	40	55	52
Solihull	26	26	39	36
South Staffordshire	22	17	27	25
Stratford-on-Avon	22	26	33	21
Tamworth	27	33	45	46
Walsall	28	36	49	48
Wolverhampton	29	41	47	43
HMA Average	27	30	44	40

Source: CLG Live Table P232

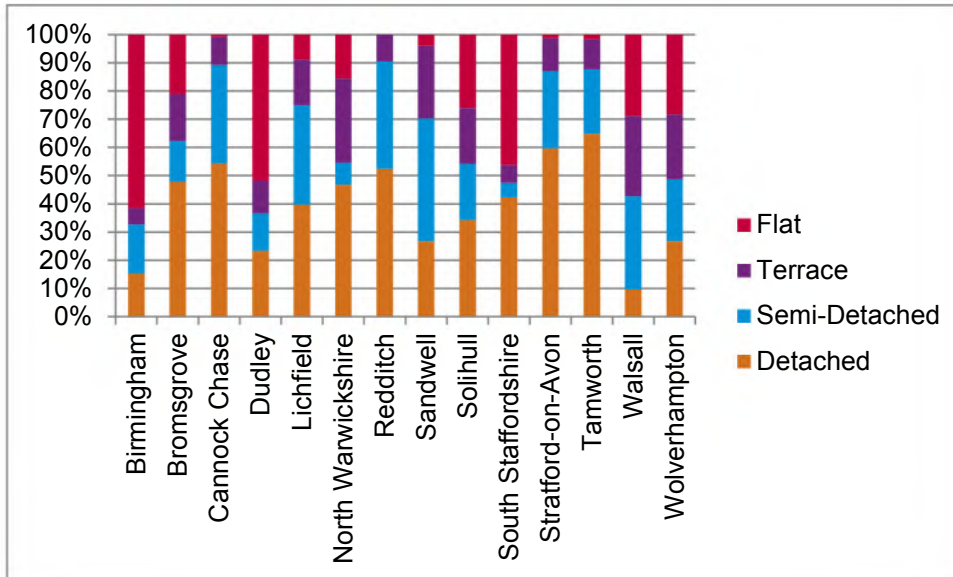
- 6.14 It is widely acknowledged that 30 dph is not considered to be “high density”, particularly when reviewing technical studies or academic journals, examples of which define suburban densities, for example as (a) low - 35 dph, (b) intermediate - 50 dph and (c) high - 120 dph. It should also be noted that higher densities do not necessarily relate explicitly to tall buildings or flatted development. In GL Hearn’s experience it is possible to create developments with densities of 40 dph or 50 dph which continue to provide for a mix of housing types and sizes, including appropriate proportions of larger family housing.
- 6.15 The focus of this Study is not to set housing density policies, but to consider to what degree an increase in densities could contribute to meeting the housing supply shortfall. Site specific considerations including the site location, context and surrounding built form will be important considerations in determining appropriate densities of individual development schemes, and some consideration of these issues would need to be given in judging the potential increases in land supply which could be achieved through review of SHLAA studies.
- 6.16 Taking account of the above considerations, GL Hearn has sought in this report to consider and model what contribution increasing development densities could potentially have to addressing the housing land supply shortfall identified.

Exploring the Potential to Increase Densities

- 6.17 GL Hearn acknowledge that although there are social, economic and design benefits from higher density development, there are equally factors to be considered in respect of viability and deliverability in areas which are not known for delivering higher density development.
- 6.18 There is little national guidance on this subject however there are some studies²³ and academic journals which have considered this topic. One study in particular titled *“The Implications of Housing Type/Size Mix and Density for the Affordability and Viability of New Housing Supply”* (February, 2010) carried out by the National Housing and Planning Advice Unit (NHPAU) found (page 40) that:
- “Generally speaking, high density neighbourhoods do not attract a premium, suggesting that consumers prefer lower density neighbourhoods. Consumers prefer houses over flats and detached properties over semi-detached and terraced (i.e. lower density suburban areas).”*
- 6.19 However what people can afford and the nature of the market in different parts of the HMA also plays an influence.
- 6.20 The chart below shows our analysis of how the proportion of sales of different properties varies across the HMA. Whilst this is influenced in part by the stock mix, it provides an indication of the relative demand for different products. This suggests a greater market for flatted properties in Birmingham and the Black Country, set against a stronger demand for larger house types in particular in Cannock Chase, Redditch, Stratford-on-Avon and Tamworth. For the latter four authorities, Table 30 shows that densities 2008-11 varied from 21-43 dpa, with higher densities in those authorities with a more constrained land supply.

²³ “The Implications of Housing Type/Size Mix and Density for the Affordability and Viability of New Housing Supply” (National Housing and Planning Advice Unit, February 2010)

Figure 17: Mix of Sales of Different Types of Properties, 2016



Source: HM Land Registry

- 6.21 Across the HMA, two thirds (66%) of sales are of houses, and just under a third flats.²⁴ Of houses, detached properties accounted for 30% sales, semi-detached 22% and terraced 15%. Only 2 of the 14 LPAs saw sales of flatted development exceed houses in 2016 which were Birmingham and Dudley, with new build flat sales making up 56% and 52% of total sales respectively.
- 6.22 The 2010 NHPAU Study noted that the relative size of the price premium or penalties for different type mix and density characteristics varies between different housing market areas.
- 6.23 The study provided analysis which sought to compare residential values for 10 schemes in six urban locations – London South West, London North East, Manchester/Salford, Nottingham, Leeds and Southampton/Eastleigh. The analysis was based on actual schemes which were tested against 3 hypothetical standard densities – 30 dph, 50 dph and 120 dph. 8 of the 10 schemes were in suburban locations, while 2 were in town centres.
- 6.24 The analysis acknowledged that density affects the residual land value in various ways i.e. higher density means more homes can be provided on the site so you can get more revenue whereas revenue per unit is likely to be lower both because the units are likely to be smaller. Smaller units cost more per square metre to build than larger units. Results included two

²⁴ In contrast in London in 2016, 58% of sales were of flats

cases, both in Leeds, which showed that the lowest density of 30 dph produced the highest residual value for developers.

- 6.25 Results also showed that in six out of ten cases (inc. London, Nottingham, Manchester and Southampton), the highest scenario of 120 dph produced the highest residual value, although notably this comprised entirely flatted development. Only in one case did the intermediate density of 50 dph produce the highest residual value, and this was assuming only 10% flatted development.
- 6.26 Academics have also contributed to the debate through literature reviews and studies, with Christine Whitehead from the London School of Economics²⁵ noting the influence density requirements have on typologies:

“The requirements also have direct impact on the types of dwelling that can be provided – as above around 60 dph the development must be mainly or entirely in the form of flats. As the requirement increases the more the need for high rise developments to meet the density requirement while at the same time meeting any outside space requirements. Moreover the suggested average sizes imply a preponderance of one or two bedroom units”.

- 6.27 Our analysis clearly indicates a greater focus of demand for housing rather than flatted development when the Birmingham HMA is considered as a whole, but with some variation between authorities within the HMA. It is clear that across the HMA as a whole, the focus of the market is for family homes. This is a consideration in assessing potential development densities.
- 6.28 Taking account of the above considerations, GL Hearn has sought to consider and model what contribution increasing development densities could have to addressing the housing land supply shortfall identified and reach a conclusion which is realistic regarding the scope for increasing densities, and takes account of the benefits and implications of higher densities in context.

Sensitivity to Increasing Densities

- 6.29 Through this project, GL Hearn has sought to collate information on existing density policies applied across the Birmingham HMA. In addition to the main sources of supply set out in Chapter 4, local authorities were also asked as part of submitting a completed Proforma, to

²⁵ “The Density Debate: A Personal Review” (Christine Whitehead, LSE)

provide information on the density assumptions used in their land supply evidence for four broad types of location:

- Rural – rural locations including villages;
- Suburban – suburban locations;
- Centre – comprising district and town centres; and
- City – Birmingham City Centre, the regional centre.

6.30 The current density assumptions used in land supply evidence are shown in Table 31. The highest density assumptions are made in Birmingham City Centre (100 dwellings per hectare, dph). Assumptions in town centres vary from 35-70 dph; in suburban locations from 30-50 dph; and in rural locations from 15-35 dph.

Table 31: Greater Birmingham & Black Country - Current Density Assumptions (dph)

Local Authority	Rural	Suburban	Centre	City Centre
Birmingham City	-	40	50	100
Bromsgrove	-	30	50	-
Cannock Chase	15-20	30	50	-
Dudley	15-20	35-45	50	-
Lichfield	30	40	50	-
North Warwickshire	30	30	50	-
Redditch	30	50	70	-
Sandwell	-	35	35	-
Solihull	36	36	36	-
South Staffordshire	30	-	-	-
Stratford	30	-	-	-
Tamworth	-	30	40	-
Walsall	-	35	60	-
Wolverhampton	-	35	-	-

6.31 In order to consider and quantify the potential impact of increasing densities, we have first identified thresholds which can subsequently be applied as minimum thresholds or “floor” thresholds. These have been based on the average density assumptions currently being planned for across the HMA for rural, suburban and urban areas (based on Table 23 above). These are as follows:

- Rural Areas: 30 dwellings per hectare
- Suburban Locations: 40 dph
- Town and District Centres: 50 dph
- Birmingham City Centre: 100 dph

- 6.32 We have sought to test the influence of applying these density thresholds to (a) extant local plan allocations, (b) emerging local plan allocations and (c) additional urban supply. It would not be appropriate to apply these thresholds to sites with planning permission as the planned density levels have been firmly established through the planning consent, and there is not the ability of planning authorities in most circumstances to require higher densities for these sites, unless permissions were to lapse.

Impact of Higher Densities on Large Sites (200+ dwellings)

- 6.33 We have first of all calculated the potential impact of increasing densities on sites without planning consent which have a capacity for 200 dwellings or more.
- 6.34 We have applied the density thresholds (as set out in Paragraph 6.31 above) to sites which are currently being planned for at a lower density, with the intention being that this study acts as the basis for further site-specific testing in extant and emerging Local Plans. It is acknowledged that site densities will vary depending on site-specific circumstances and whether they are located in rural, suburban, urban or central areas however as a high level assessment, we consider that using the density thresholds and applying these to all sites as a minimum provides the basis for further testing if and where necessary; and for the purposes of this report considering the aggregate impact which increasing densities could have. The density assumptions have been applied to the net developable area.²⁶
- 6.35 The impact on extant Local Plan allocations for large sites has been quantified for each relevant local authority below in Table 32. All sites being planned for which are below the stated minimum density threshold have been uplifted.

²⁶ Where there is not a net developable area yet established we have taken the developable area to be 60%. This has been established on the basis that the average area used across the HMA is 60% as identified through the submitted land supply Proforma's

Table 32: Increasing Densities – Extant Local Plan Allocations for 200+ dwellings

Local Authority	Existing Supply	30dph (minimum)	40dph (minimum)	50dph (minimum)
Birmingham City	8,669	8,669	9,238	10,880
Bromsgrove	1,805	1,914	2,491	3,114
Cannock Chase	0	0	0	0
Dudley	2,514	2,514	2,650	2,941
Lichfield	1,150	1,161	1,446	1,808
North Warwickshire	0	0	0	0
Redditch	4,369	4,545	5,245	6,550
Sandwell	3,962	3,962	3,962	3,962
Solihull	2,385	2,385	2,385	2,385
South Staffordshire	0	0	0	0
Stratford	8,065	8,745	10,365	12,414
Tamworth	723	723	825	1,031
Walsall	0	0	0	0
Wolverhampton	1,450	1,450	1,450	1,510
Total	35,092	36,068	40,057	46,594
Difference		976	4,965	11,502

6.36 Table 33 below quantifies the impact of increasing densities on emerging Local Plan allocations for large sites. All sites being planned for which are below the stated minimum density threshold have been uplifted.

Table 33: Increasing Densities – Emerging Local Plan Allocations for 200+ dwellings

Local Authority	Existing Supply	30dph (minimum)	40dph (minimum)	50dph (minimum)
Birmingham City	0	0	0	0
Bromsgrove	0	0	0	0
Cannock Chase	0	0	0	0
Dudley	0	0	0	0
Lichfield	2,00	2,873	3,786	4,733
North Warwickshire	5,458	6,539	8,717	10,896
Redditch	0	0	0	0
Sandwell	0	0	0	0
Solihull	6,250	6,644	8,152	8,940
South Staffordshire	0	0	0	0
Stratford	0	0	0	0
Tamworth	0	0	0	0
Walsall	722	722	722	722
Wolverhampton	0	0	0	0
Total	14,430	16,778	21,377	25,291
Difference		2,348	6,947	10,861

- 6.37 Table 34 below brings the analysis together to quantify the potential impact of increasing densities on the additional urban supply of large sites.

Table 34: Increasing Densities – Additional Urban Supply for 200+ dwellings

Local Authority	Existing Supply	30dph (minimum)	40dph (minimum)	50dph (minimum)
Birmingham City	2,514	2,601	2,713	2,825
Bromsgrove	0	0	0	0
Cannock Chase	0	0	0	0
Dudley	650	963	1,162	1,452
Lichfield	0	0	0	0
North Warwickshire	0	0	0	0
Redditch	0	0	0	0
Sandwell	281	281	281	350
Solihull	0	0	0	0
South Staffordshire	0	0	0	0
Stratford	0	0	0	0
Tamworth	0	0	0	0
Walsall	0	0	0	0
Wolverhampton	810	810	840	900
Total	4,255	4,655	4,996	5,528
Difference		400	741	1,273

- 6.38 Bringing these uplifts together, the potential impact can be shown simply as follows:

Table 35: Increasing Densities – Total (Large Sites for 200+ dwellings)

Source	Existing Supply	30dph (minimum)	40dph (minimum)	50dph (minimum)
Extant Allocations	35,092	36,068	40,057	46,594
Emerging Allocations	14,430	16,778	21,377	25,291
Additional Urban Supply	4,255	4,655	4,996	5,528
Total	53,777	57,500	66,430	77,413
Difference		3,723	12,653	23,636

- 6.39 The tables above should be interpreted as providing a sensitivity analysis considering what additional supply could be achieved through higher density development. The potential contribution in terms of additional supply from increasing densities ranges between around 3,700 and 23,600 depending on the minimum density threshold assumed.

- 6.40 It is noted that a large proportion of the uplifts from higher densities on sites above 200 dwellings is centred in mainly rural areas such as North Warwickshire, Lichfield and Stratford-on-Avon; with North Warwickshire in particular making up 29% of the increase from 30 dph as a minimum, and Lichfield (23.7%) and Stratford-on-Avon (18.2%) making up a sizeable proportion.
- 6.41 In considering the highest density of 50 dph i.e. the density taken from central areas; North Warwickshire's proportion of the uplift comprises 22% of the total. Combined, the mainly rural areas of North Warwickshire, Lichfield (14%) and Stratford-on-Avon (17%) make up over half (53%) of the uplift.
- 6.42 In areas such as Solihull or the Black Country, there are total gains of 1,900 dwellings and 1,000 dwellings respectively when using 40 dph as a minimum.

Impact of Higher Densities on Smaller Sites

- 6.43 In order to sensitivity test the impact on increasing densities on sites below 200 dwellings,²⁷ we have reviewed the evidence submitted by LPAs and followed a similar approach to those sites above 200 dwellings above in order to quantify the impact of a minimum density threshold of (a) 30 dph, (b) 40 dph and (c) 50 dph. We have taken the total supply from existing and emerging allocations and additional urban supply based on the current density assumptions, and considered, through sensitivity testing, the potential impact of higher density development.
- 6.44 Reviewing the evidence which has been submitted, the following can be concluded at this stage:
- Applying a 30 dwelling per hectare minimum to sites below 200 dwellings across the HMA has a minor impact on the supply from small sites. On the basis of the available evidence, applying a 30 dph minimum threshold results in a net gain of around only 1,000 dwellings.
 - Applying a 40 dwelling per hectare minimum to sites below 200 dwellings across the HMA has a reasonable impact on the supply from small sites based on the evidence. On the basis of the available evidence, applying a 40 dph minimum threshold results in a net gain of around 4,000 dwellings.
 - Applying a 50 dwelling per hectare minimum has a notable impact on the supply from small sites, which is to be expected given that this threshold is based on the average of LPA town centre density policy. On the basis of the available evidence submitted on small sites, applying a 50 dph minimum threshold results in a net gain of around 9,500 dwellings.
- 6.45 The impact of the minimum thresholds on sites below 200 dwellings is set out in Table 36 for the LPAs:

²⁷ Sample of over 750 sites across 14 LPAs

Table 36: Increasing Densities – Total (sites of below 200 dwellings)

LPA	Existing Supply	30 dph (minimum)	40 dph (minimum)	50 dph (minimum)
Birmingham	6,752	6,807	6,886	7,049
Black Country	17,084	17,815	20,225	24,276
Bromsgrove	165	165	169	222
Cannock Chase	1,000	1,075	1,210	1,445
Lichfield	602	642	744	824
North Warwickshire	700	768	1,020	1,275
Redditch	359	381	421	466
Solihull	1,155	1,185	1,247	1,468
South Staffordshire	891	915	1,148	1,429
Stratford	0	0	0	0
Tamworth	454	465	499	557
Total	29,162	30,219	33,570	39,010
Difference		1,057	4,408	9,848

- 6.46 The impact of applying the density thresholds to the available evidence for sites below 200 results ranges from an uplift in supply of around 1,100 dwellings to 10,000 dwellings
- 6.47 The bulk (75%) of the uplift from the upper end of the density threshold of 50 dph is from the Black Country. Aside from the Black Country, on a similar basis to larger sites above 200 dwellings the uplifts are centred on a number of rural based authorities including North Warwickshire, Lichfield and South Staffordshire.
- 6.48 At 40 dph, the contribution from small sites in the Black Country increases by around 3,000 dwellings based on the available evidence.

Drawing the Analysis Together

- 6.49 Taking account of the uplifts to sites over and below 200 dwellings, Table 37 below quantifies the results of the sensitivity testing in terms of the total impact of increasing densities to different levels using the minimum thresholds.

Table 37: Increasing Densities – Results of Sensitivity Testing (HMA-Wide)

Source	Existing Supply	30dph (minimum)	40dph (minimum)	50dph (minimum)
<i>Sites of Over 200 dwellings</i>				
Extant Allocations	35,092	36,068	40,057	46,594
Emerging Allocations	14,430	16,778	21,377	25,291
Additional Urban Supply	4,255	4,655	4,996	5,528
Sub Total	53,777	57,500	66,430	77,413
Difference		3,723	12,653	23,636
		30dph (minimum)	40dph (minimum)	50dph (minimum)
<i>Sites of Under 200 dwellings</i>				
All Sites (available evidence) ²⁸	29,162	30,219	33,570	39,010
Total	82,939	87,719	100,000	116,423
<u>Uplift from current density assumptions</u>		<u>4,780</u>	<u>17,061</u>	<u>33,484</u>

- 6.50 Reviewing the summary figures set out above, GL Hearn considers that it is unlikely that the market would support densities of 50+ dph across the board given the nature of commercial demand and the need to provide a range of housing types and sizes. This is particularly relevant where our analysis has shown that the majority of the increases from applying the minimum density thresholds are seen in the historically lower-density areas of North Warwickshire, South Staffordshire, Lichfield and Stratford-on-Avon; where new build are also typically weighted towards detached housing which tends to lend more towards low density housing.
- 6.51 However this does not mean that these areas cannot strive to achieve higher densities, and it might be reasonable to expect an increase in densities to a minimum of 30 – 40 dph given what has been achieved historically within the last 20 years (see table 29), market characteristics, existing development densities and the potential through appropriate design to provide a range of dwelling types within these parameters.

²⁸ Sample of small site information from over 750 sites across all 14 LPAs

- 6.52 Given what has been achieved historically and the Government's drive to increase densities particularly in town centres and areas of strong public transport accessibility, we consider that a minimum density threshold of 40 dph should be applied within the Birmingham and the Black Country urban area, given that this constitutes the main urban area in the HMA and is that area in which an unmet housing need principally arises. Applying this threshold within the Black Country urban area could potentially result in additional supply, subject to further localised testing.
- 6.53 Elsewhere in the HMA, we consider that for the purposes of quantifying the potential contribution which increasing development densities could have, it would be appropriate to assume a minimum density of 35 dph. This figure is the average density achieved across the HMA from 1996-2011, on the basis of what is set out in Table 30. The impact of this exercise is set out below in Table 38:

Table 38: Increasing Densities – Conclusions (Allocations & Additional Urban Supply)

Local Authority	Minimum Density	Existing Supply	Revised Supply	Uplift (dwellings)
Birmingham	40 dph	17,935	18,837	902
Black Country		27,473	31,292	3,819
Bromsgrove	35 dph	1,970	2,344	374
Cannock Chase		1,000	1,125	125
Lichfield		3,752	5,246	1,494
North Warwickshire		6,158	8,520	2,362
Redditch		4,728	5,162	434
Solihull		9,790	10,885	1,095
South Staffordshire		891	1,012	121
Stratford-on-Avon		8,065	10,458	2,393
Tamworth		1,177	1,202	25
Total	-	82,939	96,082	<u>13,143</u>

- 6.54 Applying minimum density threshold of 40 dph to available site evidence of allocations and additional urban supply in Birmingham and the Black Country would yield additional supply of around 4,700 homes. Applying a 35 dph minimum threshold to all other areas in the HMA would yield additional supply of around 8,400 homes.
- 6.55 Our analysis indicates that there is potential to make a substantive contribution to addressing the unmet housing need through increasing development densities, with GL Hearn estimating that the effect of this could be to increase supply by up to 13,000 homes, principally over the

period to 2031 (based on the expected delivery timescales for the land supply identified in Section 4). We consider that this figure could be used as a reasonable working assumption for the contribution which increasing densities could make to address the land supply shortfall.

- 6.56 In applying these density standards, consideration should be given to site characteristics and the local context, as well as Councils' evidence base on the need for different types/ sizes of homes; but being clear that in the context of an unmet housing need this does not necessarily mean necessarily building at existing local densities.
- 6.57 These densities need to be considered through the review of development management policies/ guidance as appropriate, in the review of SHLAAs and through development management decisions.
- 6.58 GL Hearn would recommend that updated land supply information, taking account of the minimum density standards set out in this report, is taken into account in setting housing targets through the development of local plans/ plan reviews, unless there is evidence that there are market capacity constraints to delivering higher housing numbers over the remainder of the plan period being considered. It is acknowledged that this Study is not evidence for setting policy directly; but should be a basis for further consideration.
- 6.59 This issue is considered further in Section 9, which indicates constraints to the delivery of further supply in North Warwickshire in particular. However in considering the aggregate scale of potential from increasing densities, this could well be offset by achieving densities above minimum assumptions on sites elsewhere within the HMA.
- 6.60 Taking account of the housing needs shortfall identified in Section 4, increasing densities could contribute to meeting up to 45% of the shortfall to 2031 and 21% of the shortfall to 2036.

Table 39: Contribution of Increasing Densities to the HMA Housing Shortfall

Dwellings	2011-31	2011-36
Minimum Shortfall	28,150	60,855
Contribution from Increasing Densities	13,000	13,000
Residual Minimum Shortfall	15,150	47,855

7 REVIEW OF NON-GREEN BELT LAND OUTSIDE URBAN AREAS

- 7.1 This Chapter considers the potential additional supply which could be identified and brought forward on land which has not been previously identified as deliverable/ developable for housing, and which is outside the Green Belt.
- 7.2 GL Hearn has sought to identify potential Areas of Search for strategic development on land outside of urban areas, not in the Green Belt. Aligned with the Strategic Green Belt Review set out in Chapter 8, the methodology has been shaped around geography, settlement pattern, nationally significant constraints and the strategic transport network. The only notable point of difference relates to national policy: there are five purposes for Green Belt identified in Paragraph 80 in the NPPF. These clearly do not apply in the same way to land beyond the Green Belt.
- 7.3 This Study is intended to provide an input to the development of local plans. It is important to recognise that further work will be undertaken in considering and testing the potential for strategic development beyond the Green Belt by local authorities through their respective local plan processes, which will include engagement and further work with statutory bodies as necessary, local communities and other stakeholders. Local authorities should also continue to engage strategically and work together moving forward to develop solutions based on the outcomes of this Study.
- 7.4 The identification of Areas of Search for strategic development in this report does not indicate that these areas will be brought forward for development. The identification of Areas of Search does not exclude or hinder the merits of areas which may be suitable for development at a more local scale through proportionate dispersal or other small schemes which may be identified through the Local Plan process or, where relevant, local Green Belt assessment. The purpose of the Study is to assess and shortlist potential Areas of Search for strategic development which can then be considered and assessed in further detail by individual councils through the preparation of review of local plans alongside other evidence.

Spatial Development Models

- 7.5 The PBA Stage 3 Study identified six spatial distribution models for addressing the housing requirement shortfall, namely:
- Urban Intensification
 - Urban Extensions
 - Public Transport Corridors
 - Enterprise
 - Dispersed Growth

- New Towns/ Settlements

7.6 The characteristics of each of these models for the purposes of this Study are set out in Table 40. These are used as a starting point for considering where, in principle; growth might be accommodated, yielding broad Areas of Search which can be subject to testing at the local level.

Table 40: Strategic Development Models

Model	Characteristics
Urban Intensification	<ul style="list-style-type: none"> • Within urban areas, brownfield sites (existing and windfall) and greenspaces (open space and back gardens) for developments which are likely to be of relatively high density compared to their surrounding context. • Of varying scale according to opportunities.
Urban Extensions	<ul style="list-style-type: none"> • Ranging from 1,500 – 7,500 homes plus services and small-scale employment, added to an existing settlement/or suburban edge. • A degree of self-containment is aimed for, but recognising their dormitory function with use of nearby employment and service centres. • Planned on Garden Village principles.
Public Transport Corridors	<ul style="list-style-type: none"> • Rail corridors with or without an existing station. • Scale is likely to vary considerably according to the nature of the receiving environment.
Employment Areas	<ul style="list-style-type: none"> • Strategic employment areas with a key employer and/or clustering of employers • Housing of the range of urban extensions (1,500 to 7,500 dwellings). • Likely to be located adjacent to, or in the vicinity of, a Motorway junction. • NB: This model concerns existing strategic sites as a focus for additional housing development in the broad vicinity and does not consider potential for further employment provision. A detailed analysis of existing and potential strategic employment areas is presented in the West Midlands Strategic Employment Sites Study (PBA, Sept 2015).
Proportionate Dispersal	<ul style="list-style-type: none"> • Smaller scale (500 – 2,500 units) with development distributed throughout an area according to local assessments of capacity (particularly services) and available sites through the SHLAA process. • Likely to be part of the identification of sites through the Local Plan process (such as identified sites but not required for the current plan period). • Would complement small-scale allocations identified through local Green Belt assessments.

New Towns/Settlements	<ul style="list-style-type: none"> • Of a significant scale: 10,000 - 15,000 homes, plus services and employment. • Possibly incorporating an existing settlement as its starting point, particularly where this is focused on a railway station. • Aspiration for self-containment, recognising that there will be some commuting to adjacent employment and service centres. • Planned on Garden Town/Village principles.
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Source: PBA Stage 3 Study

- 7.7 **In the context of this strategic study, the focus is in identifying potential Areas of Search which could in potential support a strategic scale of development.** This comprises the following:
- Urban Extensions (1,500-7,500 dwellings)
 - Employment-led Strategic Development (1,500 – 7,500 dwellings)
 - New Settlements (10,000+ dwellings)
- 7.8 Outside of the Green Belt, it is assumed that smaller scale development opportunities will be defined through individual Local Plan processes. It will be for local authorities to consider ‘proportionate dispersal’ and other small scale development opportunities outside of this range (sites for less than 500 homes), both within and beyond the Green Belt, taking account of a wide range of local constraints and site opportunities, through the preparation of individual local plans.
- 7.9 Development opportunities in areas outside of the HMA have not been considered in this Study.
- 7.10 The models are used to help guide where development could, in principle, be steered, using observation of mapping and aerial photography and a subsequent process which is set out in Figure 19.
- 7.11 The process used has allowed the consultancy team to identify broad Areas of Search which can be subjected to (a) testing later in this report for strategic level models and (b) further testing at the local level through the plan-making process.
- 7.12 Ultimately, in order to address the housing shortfall, a mix of approaches is likely to be required using the principles of the models as a starting point.

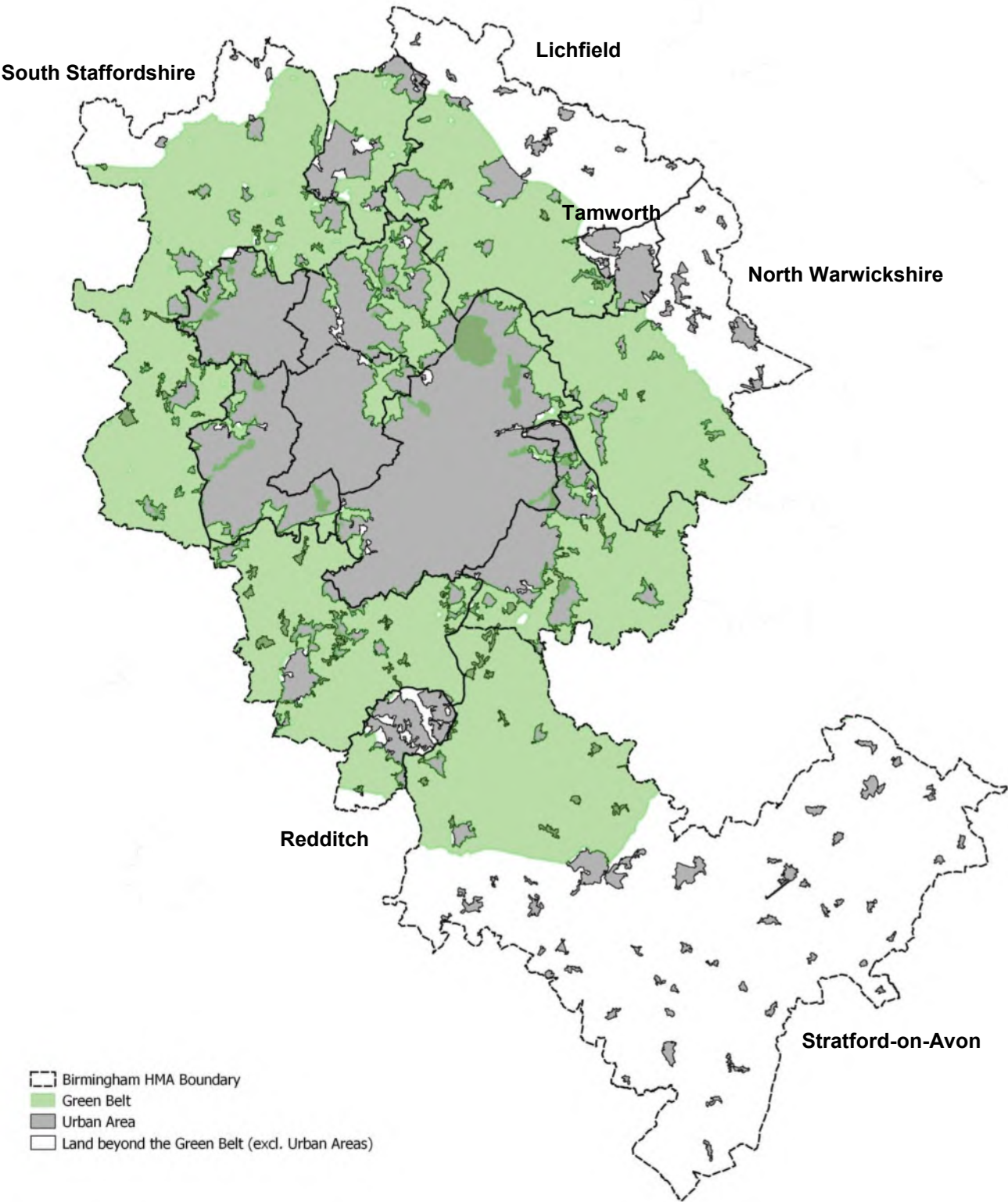
Assessment of Areas beyond the Green Belt

Preface

- 7.13 The output from this element of Study is the identification of broad Areas of Search beyond the Green Belt. The resultant Areas of Search provide a 'long list' of potential options which are then considered and assessed alongside one another, and alongside options identified in the Green Belt, in Section 9 of this Study.
- 7.14 Within the Housing Market Area, there are six local authorities (as shown in Figure 18) which include land which is outside of existing urban areas and not within the Green Belt which is considered to be of a strategic scale. These are South Staffordshire, Lichfield, North Warwickshire, Stratford-on-Avon, a small parcel of Redditch and a small parcel of Tamworth. The analysis in this section focuses these areas in terms of their geography, settlement pattern and transport connectivity. In Stratford on Avon District, it focuses on options in the western half of the District (west of the Fosse Way) which, the consultancy team considers, relates more to the Birmingham HMA.²⁹

²⁹ Our working assumption is that areas to the east of Fosse Way do not fall within the Birmingham HMA

Figure 18: District Areas beyond Green Belt (excl. Urban Areas)



South Staffordshire/South of Stafford beyond the Green Belt

Geography

Landscape Character, land use, topography and drainage

- 7.15 The area to the north west of South Staffordshire lies within the Ancient Clay Farmlands Landscape Character Type (LCT), with the exception of the area to the east and south-east which lies within the Settled Heathlands LCT, Farmlands Sub-Type.
- 7.16 The area to the south of Stafford including Coppenhall is covered by the Staffordshire Landscape Character Assessment (Planning for Landscape Change, 2000). The area west of the M6 lies within the Settled Farmlands Landscape Character Type (LCT) and the area to the east of the M6 around Acton Gate lies within the Riparian Alluvial Lowlands LCT Farmland Sub-Type.
- 7.17 This is a landscape of mixed arable and pastoral farmland, the character of which is strongly influenced by existing land use and farming practices. In the areas of pastoral farming, an intact irregular ancient pattern of hedgerows and hedgerow trees is still retained. In places this pattern is beginning to break down, with hedgerows either being allowed to grow up and become ragged, or being mechanically trimmed and becoming gappy as a result. Hedgerow oaks are characteristic of this countryside and still numerous enough to coalesce visually and filter views across the LCT. These trees are now predominantly mature or becoming over-matured and stag headed. In more intensively farmed, predominantly arable areas, field rationalisation has resulted in considerable removal of hedgerows and inappropriate maintenance of those remaining. The accompanying decline of hedgerow tree cover has led to a generally open character where landform has become dominant over vegetation cover and trees are now often viewed as individual elements.
- 7.18 This landscape has a very rural feel, with the small winding country lanes, large red brick farms and numerous old villages. Localised industrial and commuter development does not impact to any great extent on this character, although a general decline, both of village character and land cover elements, could result in long-term irreversible erosion of the landscape character. Major road corridors have a significant localised effect and result in some parts of the LCT being particularly well viewed.

Settlement Pattern

- 7.19 The area being considered beyond the Green Belt in South Staffordshire is land which extends north of the A5. The area extends from the north west of the District boundary around the villages of Great Chatwell and Weston-under-Lizard, moving north east to Wheaton Aston, Bickford and Penkridge before extending north to Acton Trussell and the south of Stafford District.

- 7.20 Moving west from the settlements of Penkridge and Acton Trussell, the rest of the area including the small village of Wheaton Aston is representative of scattered farmsteads, open Countryside and smaller village and small hamlets. The settlement pattern is therefore relatively dispersed and typified by hamlets.

Transport Connectivity

- 7.21 The area to the north east of the District contains one major transport corridor, in the M6, which connects the area to the conurbation. There are also two major and busy A roads including the A5 and A449. There is a railway line linking the north east of the District to the conurbation and Stafford, with a station at Penkridge.
- 7.22 Aside from the north eastern part of the District however, there is little in the way of transport connectivity for the proportion of the District which is situated beyond the Green Belt. Transport infrastructure thus limits the potential for strategic development in the north-west of the District.

Implications

- 7.23 The greatest potential for new strategic development within the District therefore lies in the north-eastern area. A number of strategic development options have been identified in this area, which are considered further below.

Lichfield District beyond the Green Belt

Geography

Landscape Character, land use, topography and drainage

- 7.24 North-east Lichfield and its surroundings are covered by the Staffordshire Landscape Character Assessment (Planning for Landscape Change, 2000).
- 7.25 Flat topography results in characteristic visual links with landform and land-uses in more elevated surrounding areas. Pastoral farming predominates, with arable farming present where elevations rise slightly, usually on the edges of the LCT. In parts where pastoral farming predominates, the hedgerow network remains intact and hedgerows are well maintained. The hedgerow pattern varies across the LCT from irregular to regular.
- 7.26 The Staffordshire LCA acknowledges the localised visual role of the Fradley Distribution Park on the site of a former airfield but notes that around the Distribution Park 'views across the landscape are to surrounding woodland.' Changes in the LCT close to the village of Fradley are also noted. To the west of the Distribution Park there is a high concentration of woodlands. The closest

(southern) part of the LCT presently has no visual connection with Lichfield other than occasional views of the church spire.

- 7.27 In arable areas, which predominate in the parts of the LCT close to the settlement of Fradley, hedgerow deterioration has taken place resulting in '*remnant hedgerows*' with isolated remnant hedgerow trees and extensive post and wire fencing. In these parts of the LCT landcover patterns are created by open lanes and dykes. Views in these parts of the LCT are frequently open and more likely to extend beyond the LCT. Elsewhere views are restricted where tree cover is present and/or hedgerows have been allowed to grow out. The highest level of tree cover in the LCT in this Area of Search is associated with the National Memorial Arboretum east of Alrewas. The rivers are described as '*unseen and visually unimportant*.'
- 7.28 Active and reclaimed sand and gravel extraction works are stated to be '*an increasing feature*' with '*visually intrusive processing plants, stockpiles and open excavations*'. Other built development consists primarily of red brick farms and limited other individual residential properties. These tend to be concentrated towards the slightly more elevated edges of the LCT. Many farms are now associated with large, modern, agricultural buildings. The visual dominance of built elements located outside the LCT on some parts of the LCT is noted with note made of transport routes (A38 in the relevant part of the LCT), sewage works and power lines.

Settlement Pattern

- 7.29 The area extends from the northern edge of Lichfield District around Rugeley, down past Armitage (south easterly) towards Lichfield City and Fradley & Alrewas. It includes land to the north of Tamworth as well as Whittington.
- 7.30 The settlement pattern away from the main settlements of Rugeley, Lichfield, Fradley, Alrewas and Armitage is relatively dispersed and distinct. The area is typified by scattered farmsteads and villages such as Blithbury to the north and Harlaston to the south east. Aside from these smaller villages, the District consists mainly of smaller hamlets and open countryside.

Transport Connectivity

- 7.31 The area does not benefit from any major motorways, with the nearest being the M6 Toll to the south. The area does however contain a network of major and busy A roads including the A38, A515, A513 and the A51.
- 7.32 There are two railway lines in the area. However the rail line running north does not have any stations within the area being considered, whilst the line running north-east from Lichfield Trent Valley does not have passenger rail services.

Implications

- 7.33 Overall the potential for strategic development is considered to be greatest in the corridor running north-east from Lichfield towards Burton-on-Trent. This could be either in the form of an urban extension to Lichfield, which provides a range of services; or a new settlement along the A38 Corridor in the vicinity of Fradley and Alrewas. There is a freight rail line in this area but with the potential (subject to detailed investigation and infrastructure investment) that passenger rail services could be extended north-east from Lichfield Trent Valley Station.

North Warwickshire District beyond the Green Belt

Geography

Landscape Character, land use, topography and drainage

- 7.34 A linear LCA runs along course of Anker Valley located adjacent to Polesworth's north-western, northern and eastern edges. The section of Anker Valley to the north of Polesworth is defined by distinct, steep valley sides within which the River Anker is visually indistinct. Wide views across the Valley are available from the upper slopes. On the lower valley slopes, and from the limited number of publicly accessible locations in the valley bottom, views are more likely to be framed and filtered by nearby vegetation. Where there is residential development in Polesworth and Dordon, it is sometimes visible on the upper western valley side but rarely extends down into the lower part of this section of the Anker Valley.
- 7.35 Within this area arable land-use predominates, undertaken in large fields bounded by low trimmed, often guppy, hedgerows. Limited areas of smaller, pastoral fields including flood meadows around Polesworth are evident. Tree cover is generally low, but there are several examples of higher levels of tree cover including relatively large blocks of woodland north and east of Polesworth.
- 7.36 The corridors of the M42, A5 and the West Coast Main Line, the high levels of traffic using the network of smaller roads around Polesworth and Dordon and 'urban land-uses' combine with Polesworth and Dorson's location on a low ridge with the consequence that these settlements '*have an urbanising influence upon the adjacent landscape.*'

Settlement Pattern

- 7.37 The area extends from the Newton Regis and Austrey in the north-west of the District, south to Warton and Polesworth and Dordon and further south-east towards the main town of Atherstone.
- 7.38 Further east, Hartshill also falls within this area beyond the Green Belt, and relates towards Nuneaton.

- 7.39 The settlement pattern away from the two market towns beyond the Green Belt (i.e. Atherstone and Polesworth/ Dordon) is relatively dispersed and rural in nature. The area consists of a number of other settlements including Baddeley Ensor and Austrey however these are villages; whilst the rest of the District mainly consists of hamlets and scattered farmsteads.
- 7.40 Major employment sites are located along the A5, including Birch Coppice, near Dordon; on the northern side of Atherstone; and MIRA further east along the A5.

Transport Connectivity

- 7.41 The area benefits from the M42 which extends in a south-west to north-easterly direction from the eastern edge of the conurbation. The area is also served by the A5 which extends from the south east of Tamworth through Atherstone towards Hinckley. There is one railway line which runs through this area (the West Coast Main Line) which links Atherstone to Tamworth and Rugby, and further afield.

Implications

- 7.42 The geography of this area is one of urban development and settlements particularly focused along the A5 Corridor. In considering the potential for additional strategic growth, it is relevant that significant growth in a number of these settlements is already planned influencing the potential for further strategic development.

Stratford-on-Avon District beyond the Green Belt

Geography

Landscape Character, land use, topography and drainage

- 7.43 The area is covered by the Avon Valley Vale Farmlands Local Landscape Type “LLT”, an extensive LLT and the Felon Parks LLT. The Avon Valley LLT possesses a rural agricultural character. Its flat to gently rolling topography allows wide views across and out of the LLT, but ensures that the field pattern is rarely apparent. Agricultural land-use is a mixture of arable, permanent pasture and market gardening, principally brassicas. Field boundary hedgerows are often low trimmed and guppy, except around pasture fields and alongside the limited network of roads. Tree cover is described as ‘*generally sparse*’ and, as most of the limited hedgerow trees are ash, is likely to decline further due to *cholera*. Woodlands are almost absent although there are now blocks of woodland and scrub in the extensive Long Marston Business Park. The Warwickshire Landscape Guidelines notes the detrimental impact of other land-uses such as those associated with the disused (Long Marston) airfield and military depot that are ‘*gradually introducing suburban influences*.’

- 7.44 The Felon Parks LLT is described as a flat, open, intensively farmed landscape with little sense of unity. It is also described as '*featureless*' in some parts. The large fields are poorly defined with surviving hedgerows usually being low trimmed and guppy. There are examples of vegetable cropping to the immediate north of Wellesbourne. Tree cover is low with woodlands uncommon with no examples identified in the relevant part of the LLT. Tree cover is most commonly provided alongside streams with examples alongside River Dene which is routed through the LLT and separates Wellesbourne into northern and southern parts. The area in the middle of Wellesbourne, close to the River Dene, contains the highest level of tree cover within the relevant part of the LLT. The description notes that even isolated mature trees can be locally visually prominent.

Settlement Pattern

- 7.45 For the purposes of this study, the area excludes land east of the District beyond the Fosse Way (this is not considered as it is unlikely to meet the unmet need from the conurbation with the working assumption that this does not fall within the Birmingham HMA). The area therefore extends from the west of the District on land beyond the Green Belt around Welford-on-Avon and Clifford Chambers, moving across to Stratford-upon-Avon, continuing east/south east towards Long Marston, Lower Quainton, Ettington, Halford and the Wellesbourne area.
- 7.46 The District's settlement pattern beyond the Green Belt is similar to that within the Green Belt in that it is notably dispersed and rural. As the area to the South of Stratford-upon-Avon town is not served by a railway or any major motorways, the area consists mainly of smaller villages and hamlets with open Countryside and scattered farmsteads. The exception to this characteristic small, nucleated village morphology is the larger settlements of Stratford-on-Avon Town and Wellesbourne.

Transport Connectivity

- 7.47 The area does not benefit from any motorways, with the nearest being the M40 towards the east beyond the Fosse Way. The area does include a number of A roads – the A3400, A422 and A429 – the first two of which lead to Stratford-upon-Avon town and connect the area to the M40 and eventually the conurbation; although this is a notable distance. The area is also served somewhat by the A46 to the western side of the District, which is part of the strategic road network connecting Tewkesbury to Leicester. It runs across the western and northern edge of the area, forming part of the boundary to the Green Belt and skirting around Stratford-upon-Avon town.
- 7.48 There are no railways in the area beyond the Green Belt, aside from the end of the railway line at Stratford-upon-Avon town which connects to the conurbation. The Cotswold Line (GWR) which runs from London Paddington to Worcester runs parallel along the south to south-western edge of the District, around 1 mile beyond the HMA boundary.

Implications

- 7.49 The area of Stratford-on-Avon District beyond the Green Belt which falls within the HMA is principally rural, with the largest settlements being Stratford-upon-Avon, Wellesbourne and Bidford-on-Avon. Stratford-upon-Avon has a range of existing services, employment opportunities and a rail station and is the largest town in the District. A number of housing developments are planned on the periphery of the town through the Core Strategy.
- 7.50 Wellesbourne is the next largest existing settlement in the area within the HMA (and beyond the Green Belt) and also benefits from some existing services, and whilst it does not benefit from a rail station, is in reasonable proximity to Warwick/ Leamington Spa and Stratford-upon-Avon.
- 7.51 Within the HMA, the only location which has been supported by Government for new strategic development is Long Marston, which has been designated a Garden Village. This will bring additional investment and growth to the south-east of the District. Consideration has therefore been given to the potential for enhanced strategic development in this broad location, taking account of the absence of strategic constraints in this area and potential for a greater scale of development to contribute to viable service and public transport provision.

Tamworth Borough beyond the Green Belt

Geography

Landscape Character, land use, topography and drainage

- 7.52 The area is covered by the Staffordshire Landscape Character Assessment (Planning for Landscape Change, 2000) and the North Warwickshire Landscape Character Assessment (2010).
- 7.53 The area demonstrates some variation within the primary Lowland Village Farmlands LCT: the part of the LCT closest to the northern edge of Tamworth is characterised by slightly smaller fields and a corresponding slightly higher level of tree cover in comparison with the more extensive parts of the LCT north of B5493. The urban edge of Tamworth is often visible in views and its presence in views may increase with the introduction of a residential development at Ashlands Farm inside the southern boundary of this LCT. Notwithstanding the introduction of this new development, the present urban edge against this LCT is well-defined and a sense of separation is retained between the northern edge of Tamworth and the LCT.
- 7.54 This is a well settled, low lying landscape which is often crossed by major river corridors including the River Tame and the River Anker which both have a direct influence on the areas of the Borough beyond the Green Belt, resulting in much of the areas being located in Flood Zone 3. This influences the potential for strategic development at this location.

Settlement Pattern

- 7.55 The areas cover the north-eastern edge of the Borough and a small part of the western side of the Borough beyond the Green Belt. The areas with the potential for consideration are situated within the tight administrative boundary of Tamworth Borough, on the edge of smaller villages surrounding Tamworth town.
- 7.56 On the western side, the nearest settlement is the village of Hopwa's. Towards the north-eastern edge of the Borough's boundary, settlements include the village of Amington.

Transport Connectivity

- 7.57 The areas do not benefit from any motorways, with the nearest being the M42 running in a south-west to north-easterly direction from the eastern edge of the conurbation, along the south-eastern boundary of the Borough.
- 7.58 The areas do benefit from A roads including the A513 and A51. The areas also benefit from two railway lines including the West Coast Mainline and the Cross Country line which links Tamworth to the conurbation and further afield.

Redditch beyond the Green Belt (South West)

Geography

Landscape Character, land use, topography and drainage

- 7.59 The area is covered by the Warwickshire Landscape Guidelines - Arden (1993) and the Worcestershire Landscape Character Assessment (2011).
- 7.60 The area is covered by two types of landscape. Wet Pasture Meadows lie south of Feckenham covering the west and south part of the broad location. This relates to mainly a flat, low-lying, largely uninhabited landscape associated with irregularly shaped, poorly draining basins fringed by low hills or scarps. This is a secluded pastoral landscape characterised by a regular pattern of hedged fields and ditches fringed by lines of willow and alder.
- 7.61 Principal Timber Farmlands bound Feckenham and also extend on the West towards Bradley Green. This relates to small- to medium-scale wooded, agricultural landscape characterised by filtered views through densely scattered hedgerow trees. This is a complex, in places intimate, landscape of irregularly shaped woodlands, winding lanes and frequent wayside dwellings and farmsteads. It is a landscape of great interest and exception, yet also one of balance. Key characteristics include hedgerow boundaries to fields; ancient wooded character; and notable pattern of hedgerow trees, predominantly oak.

Settlement Pattern

- 7.62 The area covers the south west of the Borough of Redditch beyond the Green Belt: it is a small area of land and does not include any settlements. The area consists of farmland, Countryside and a number of small farmland estates. The nearest settlement is the village of Feckenham to the north of area; however this is situated in the Green Belt.

Transport Connectivity

- 7.63 The area is absent from any major motorways, A roads or railway lines. This influences the potential for strategic development at this location.

Summary of Areas beyond the Green Belt

- 7.64 In terms of geography and settlement pattern, the areas of land beyond the Green Belt within the Birmingham HMA are all relatively similar in that the areas contain one to three main settlements, with the rest of the District area being rural in nature consisting of scattered farmsteads, smaller villages and small hamlets. The exception to this is the area south west of Redditch Borough, which has no settlements whatsoever. Given that this area also has no major motorways, A roads or railway lines, this area is not considered in the next sub-section when identifying Areas of Search, as it is not considered that it offers potential for strategic development. Similarly, the areas beyond the Green Belt in Tamworth Borough are not considered further in any detail, given that the areas are so heavily constrained with a network of rivers and associated flooding (this can be seen in Figure 20 for clarity).
- 7.65 In respect of the other four District areas, i.e. South Staffordshire, North Warwickshire, Lichfield and Stratford-on-Avon, there is evidently land which is served by either a motorway and/or a network of A roads, and in some instances a railway line, connecting the areas to the conurbation. As a result, it is appropriate to consider these four main areas further.

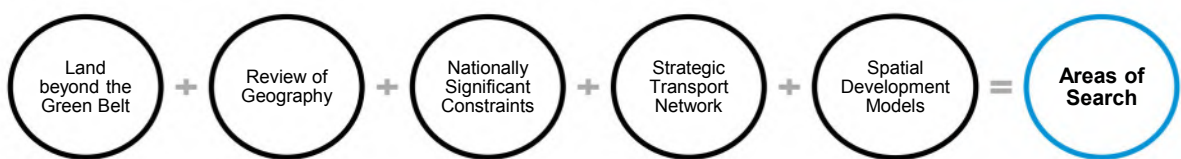
Identification of Areas of Search

- 7.66 This sub-section moves on to consider potential Areas of Search within land beyond the Green Belt from the four District areas beyond the Green Belt which are suitable for review – across South Staffordshire District beyond the Green Belt, Lichfield District beyond the Green Belt, North Warwickshire District beyond the Green Belt and Stratford-on-Avon District beyond the Green Belt.
- 7.67 The Areas of Search considered are assessed for their suitability to accommodate strategic development, in the form of urban extensions, new settlements or employment-led strategic development as defined, and are considered on the basis of the spatial development model criteria as set out in Table 40 at the beginning of this chapter focussing primarily on two things – nationally

significant constraints and the strategic transport network in correlation with and in addition to the parameters set out in Table 40 from the spatial development models.

- 7.68 Figure 19 summarises the overall process used to identify Areas of Search for strategic development within the areas beyond the Green Belt. A consistent analysis to this has been carried out for land within the Green Belt in Section 8, with the only differing stage relating to the assessment against the five Green Belt purposes, as per the NPPF (paragraph 80).

Figure 19: Overview of Process



- 7.69 We have used GIS mapping to plot (a) nationally significant constraints and (b) the strategic transport network and we have set out our analysis from this in the sub-sections below.

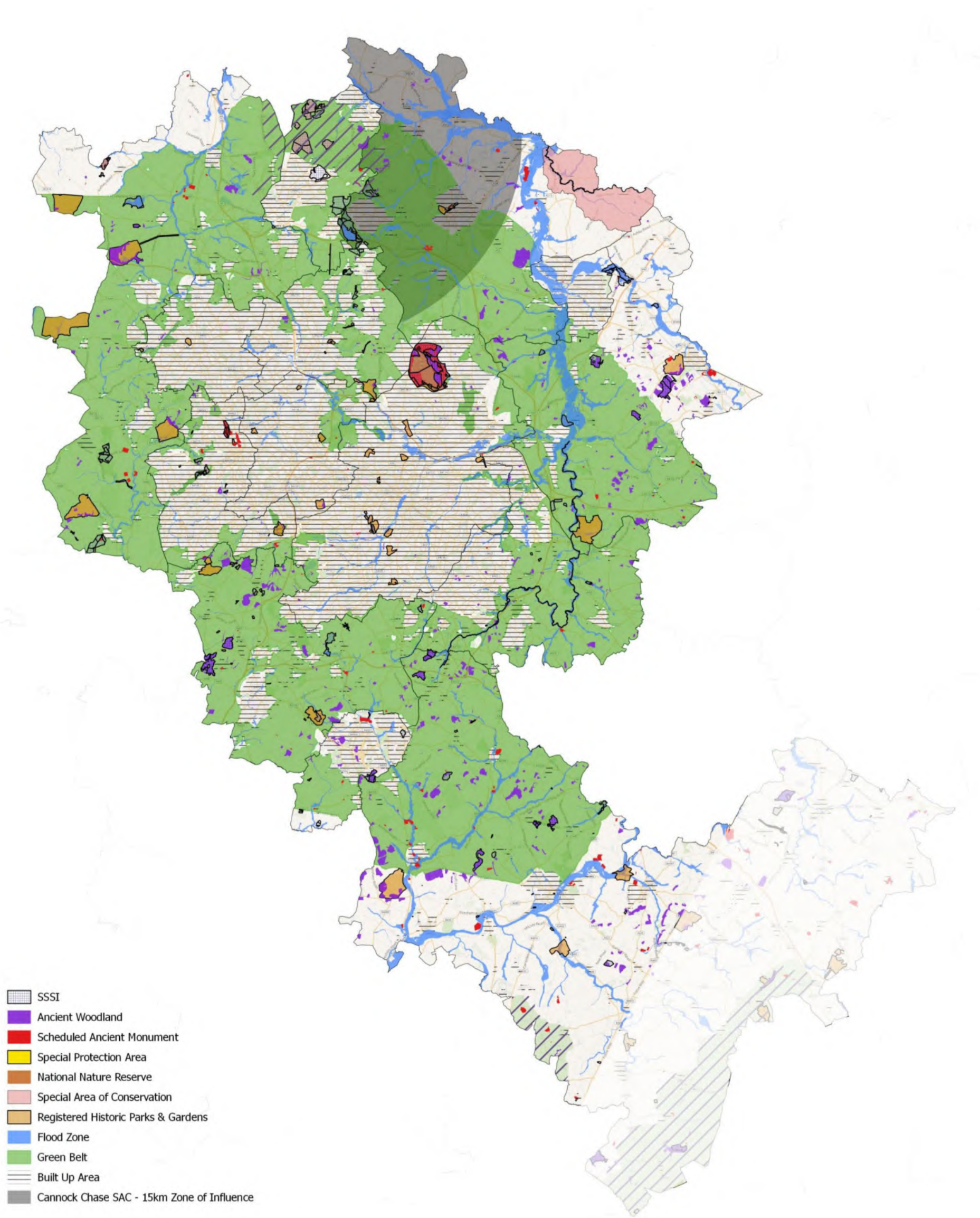
Nationally Significant Constraints

- 7.70 Nationally significant development constraints as identified in the National Planning Policy Framework (Paragraph 14, footnote 9) and the Housing White Paper (page 79) were first mapped. These include: Areas of Outstanding Natural Beauty; Flood Zone 3, Special Areas of Conservation, Special Protection Areas, Sites of Special Scientific Interest, National Nature Reserves, Regionally Important Geological Sites, Ancient Woodland, Safety Safeguarding Zones, Scheduled Ancient Monuments, Registered Historic Parks and Gardens, Green Belt, Ground Instability. The NPPF identifies that development in these areas should be restricted.
- 7.71 The NPPF (Paragraph 95 and 97) sets out that in planning for new development, local planning authorities should plan for development in locations and in ways which reduces greenhouse gas emissions; and promotes energy from renewable and low carbon sources. New development should be planned to avoid increased vulnerability to the range of impact arising from climate change. This includes steering development to areas with the lowest probability of flooding (paragraph 101).
- 7.72 Planning is also expected to contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, minimising impacts on biodiversity and providing net gains in biodiversity where possible, and preventing soil, air, water and noise pollution or land instability (paragraph 109). Plans are expected to allocate land with the least environmental and

amenity value for development, including through re-use of previously developed land which is not of high environmental value.

- 7.73 It is also noted that Areas of Outstanding Natural Beauty and European designated wildlife sites are given the highest degree of protection; with land within or likely to have an impact on Sites of Special Scientific Interest expected to be avoided. Development of Ancient Woodland is also to be avoided (paragraph 115).
- 7.74 The consultancy team consider that locations with substantial areas which are covered by these nationally significant constraints would (a) conflict with the NPPF and (b) could not be reasonably delivered as a result of this conflict. They would not be considered suitable for strategic development.
- 7.75 Figure 20 maps these nationally significant constraints. A number of prospective Areas of Search within the four Districts began to emerge which were largely free from these constraints. These areas were either entirely free from any nationally significant constraints or were only marginally constrained, with the potential for mitigation (subject to detailed investigation).
- 7.76 The extent to which these areas were constrained invariably influenced decision-making on the appropriate development model to be applied. This analysis formed the first base layer before overlaying the strategic transport network.

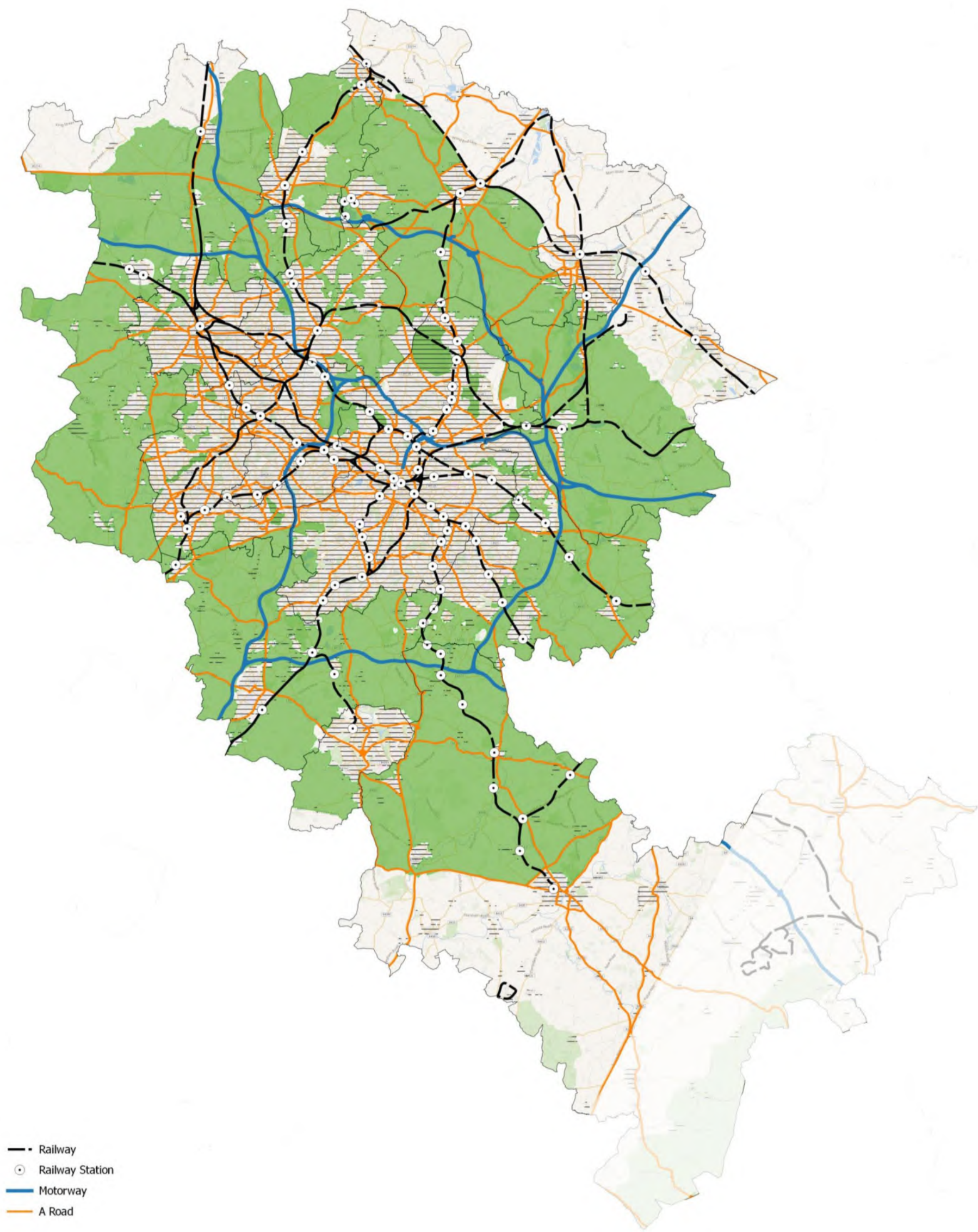
Figure 20: Land beyond the Green Belt – Nationally Significant Constraints



Strategic Transport Network

- 7.77 We have overlaid the strategic transport network in order to identify areas beyond the Green Belt which currently benefit from existing strategic transport infrastructure. The primary purpose of this stage has been to ensure growth is related to existing key transport corridors.
- 7.78 Development locations which relate to existing transport corridors can make best use of existing infrastructure. Those located away from existing corridors, and particularly public transport corridors, are likely to require significant investment to provide access, and are less likely to support travel by sustainable modes.
- 7.79 The strategic transport network is shown in Figure 21.

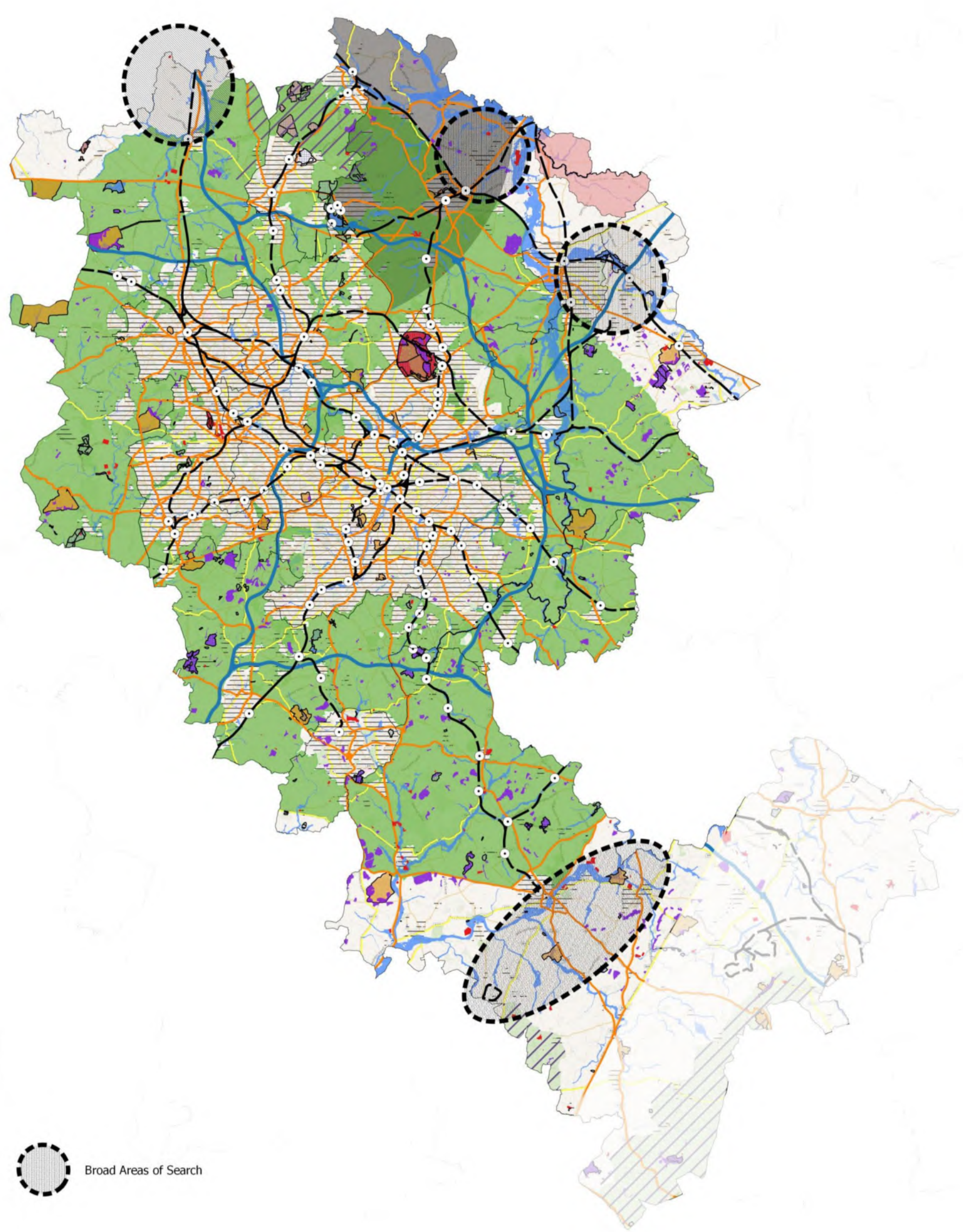
Figure 21: Land beyond the Green Belt – Strategic Transport Network



Identification of Areas of Search

- 7.80 This initial two-step approach has been used to establish broad Areas of Search which have potential to accommodate strategic development, alongside the parameters set out in Table 40.

Figure 22: Broad Areas of Search Beyond the Green Belt



7.81 Through more local analysis of nationally significant development constraints and transport infrastructure, as shown in Figures 19 and 20, a number of Areas of Search for strategic development on land beyond the Green Belt within the HMA can be identified. These are set out in Table 41 below and depicted in Figure 23. These areas represent the Areas of Search we consider should be taken forward for review. These are Areas which have been identified using (a) the analysis set out for each District area beyond the Green Belt in paragraphs 7.14 – 7.52, (b) the parameters identified under the spatial development models in Table 30 and (c) national constraints and strategic transport network mapping using GIS.

7.82 The appropriate spatial development model considered most applicable to each area is shown below. This relates to the location and scale of potential land which is largely free from nationally-significant constraints and the parameters which best identify with each Area of Search.

Table 41: Areas of Search – Beyond the Green Belt

No.	Area of Search	District	Model
1	North of Penkridge	South Staffordshire	Urban Extension
2	Around Dunston	South Staffordshire	New Settlement
3	South of Stafford	South Staffordshire	Urban Extension
4	East of Lichfield	Lichfield	Urban Extension
5	Around Fradley & Alrewas	Lichfield	New Settlement
6	North of Tamworth	Lichfield	Urban Extension
7	East of Polesworth	North Warwickshire	Urban Extension
8	South of Stratford-upon-Avon town	Stratford	Urban Extension
9	South west of Stratford-on-Avon District	Stratford	New Settlement
10	Around Wellesbourne	Stratford	New Settlement

Areas of Search – Justification for Consideration

7.83 Through applying the two-step approach above and by applying the parameters set out in Table 40, Figure 23 illustrates the resulting broad Areas of Search for strategic development. The output from this analysis is a long list of Areas beyond the Green Belt.

7.84 The Areas of Search for Urban Extensions represent areas which are (a) adjacent to urban areas, (b) substantially free from nationally significant constraints, (c) within the presence of strategic infrastructure.

7.85 The Areas of Search for New Settlements represent areas which are (a) of a scale that could accommodate size of development required, (b) substantially free from nationally significant constraints, (c) accessible from the strategic transport network.

- 7.86 Various combinations of development types, sizes of development and locations could be identified in light of this analysis, combined with the potential for Areas within the Green Belt, which are considered in Chapter 8 and Chapter 9.

New Towns/Settlements

Around Dunston

- 7.87 The potential for a new settlement in the area within South Staffordshire beyond the Green Belt has been examined, with an area identified with potential around the main transport corridors - the M6, A449 and Birmingham/Stafford Rail Line – which run in a north-south direction.
- 7.88 This is an area where a large volume of land is available around Dunston which is relatively free from nationally significant constraints and policy designations. There are two Ancient Scheduled Monuments and a small area situated within Flood Zone 3. The area is situated within the Cannock Chase SAC 15km Zone of Influence, however subject to further investigation the potential impacts of development on the SAC could be mitigated. Aside from these, the area is free from constraints.
- 7.89 It is within close proximity to a rail corridor (Birmingham-Stafford Line) - albeit that the nearest station is at Penkridge - and is close to Junction 13 of the M6, supporting potential for residential as well as employment development.
- 7.90 The area around Dunston is in relatively close proximity to the larger settlements within the District beyond the Green Belt – Penkridge and Acton Trussell; as a result a new settlement in this area of the District would not be out of keeping with the existing settlement pattern; in contrast to the north west of the District which is largely absent from existing settlements, facilities and strategic transport infrastructure.

Around Fradley & Alrewas

- 7.91 This is an area relatively free from nationally significant constraints and policy designations. There are two Ancient Scheduled Monuments within the Area of Search and a small portion of Ancient Woodland. There are also areas subject to Flood Zone 3 however a significant proportion of the area is free and unconstrained. The area is situated within the Cannock Chase SAC 15km Zone of Influence, however subject to further investigation the potential impacts of development on the SAC could be mitigated.
- 7.92 The area is served by a freight line. Passenger rail services currently terminate at Lichfield Trent Valley and the line to the north is not electrified, however it could have the potential for passenger services, as there is existing track. There are a number of A roads in the vicinity of the Area of

Search including the A38, A515, A513 and A51. The A38 allows access to the M6 toll to the south west of the Area of Search.

- 7.93 In landscape terms, a new settlement around Fradley would need to be carefully located but could potentially benefit from the residual screening provided by the relatively high level of tree cover that has been retained in the closest parts of the Landscape Character Types other than the Riparian Alluvial Lowlands LCT. In addition, the Area is not considered to disrupt the existing settlement pattern, given that there is already an existing settlement in the Area of Search.

South West of Stratford-on-Avon District

- 7.94 This area includes Long Marston Airfield, a location designated by the Government as a Garden Village. Long Marston Airfield is the only Garden Village designation in the HMA.
- 7.95 Consideration has therefore been given to the potential for enhanced strategic development in this broad location and potential for a greater scale of development to contribute to viable service and public transport provision. This will bring additional investment and growth to the south-west of the District.
- 7.96 In respect of nationally significant constraints, within the area there are areas subject to Flood Zone 3. There is one Registered Historic Park and Garden in close proximity however this would not form part of the Area of Search. Aside from this, there are no nationally significant constraints.

Around Wellesbourne

- 7.97 This area comprises an area of land which is free from nationally significant constraints aside from small areas which are subject to Flood Zone 3 and sections of Ancient Woodland, which would not be affected. Wellesbourne is the next largest existing settlement in the area after Stratford-upon-Avon Town (and beyond the Green Belt).
- 7.98 Development of the area would not be out of keeping with the existing settlement pattern given that Wellesbourne is an existing settlement which would also support the area by providing some existing services and local employment opportunities.
- 7.99 The area does not benefit from a railway station however it is within reasonable proximity to Warwick/ Leamington Spa and Stratford-on-Avon. There is also the A229 which would serve the area, connecting the Area of Search to the M40 Junction 15 to the north.

Urban Extensions

North of Penkridge

- 7.100 This is an area which is almost entirely free from nationally significant constraints and policy designations aside from small parcels of land which are subject to Flood Zone 3 around the northern edge of Penkridge. The area is situated within the Cannock Chase SAC 15km Zone of Influence, however subject to further investigation the potential impacts of development on the SAC could be mitigated.
- 7.101 The area is therefore also adjacent to the urban area of Penkridge in line with the spatial development model criteria set out in Table 40; an urban area which includes a range of services and has a rail station on the Birmingham-Stafford Line. The A449 also serves the area which runs in a north-south direction, connecting to the M6 to the north and leading to the conurbation to the south.

South of Stafford

- 7.102 This area is adjacent to Flood Zone 3 and within the Cannock Chase SAC 15km Zone of Influence, however subject to further investigation the potential impacts of development on the SAC could be mitigated. Aside from this, the Area of Search is focussed on land which is free from nationally significant constraints. It is situated to the around the southern edge of the urban area of Stafford, which includes a range of services and employment opportunities.
- 7.103 The area is in close proximity to the A449 and the M6, which runs in a north-south direction and supports the potential for employment development whilst connecting the area to the conurbation. The urban area of Stafford to the north also benefits from a station with connections to Birmingham New Street and further afield.

East of Lichfield

- 7.104 This area is substantially free from nationally significant constraints and is located on the edge of the urban area of Lichfield which includes a range of services and employment opportunities. There is one Scheduled Ancient Monument which falls within the property boundary of "the Manor House, Streethay" and small parcels of Ancient Woodland however both of these fall around the edge of the Area of Search.
- 7.105 The area is situated within close proximity to the A38, two rail corridors - the Cross-City line and West Coast Main Line - and Lichfield Trent Valley train station. There are a number of A roads in

the vicinity of the Area of Search including the A38, A515, A513 and A51. The A38 allows access to the M6 toll to the south west of the Area of Search.

- 7.106 The area is situated within the Cannock Chase SAC 15km Zone of Influence, however this is not considered as a reason for exclusion as subject to investigation impacts could potentially be mitigated.

North of Tamworth

- 7.107 This area is substantially free from nationally significant constraints. There is a large proportion of land to the west of the Area of Search which is subject to Flood Zone 3, however within the Area of Search there are no nationally significant constraints.
- 7.108 The area is situated around the northern edge of the urban area of Tamworth which includes a range of services and employment opportunities in line with the spatial development model criteria set out in Table 40.
- 7.109 In respect of the strategic transport network, the area is in close proximity to two railway corridors – the Cross Country line and the West Coast Main Line which connects the area to the conurbation and beyond. The area is also served by the A513. It is noted that there are identified local highway network constraints to further development which warrant further exploration.

East of Polesworth

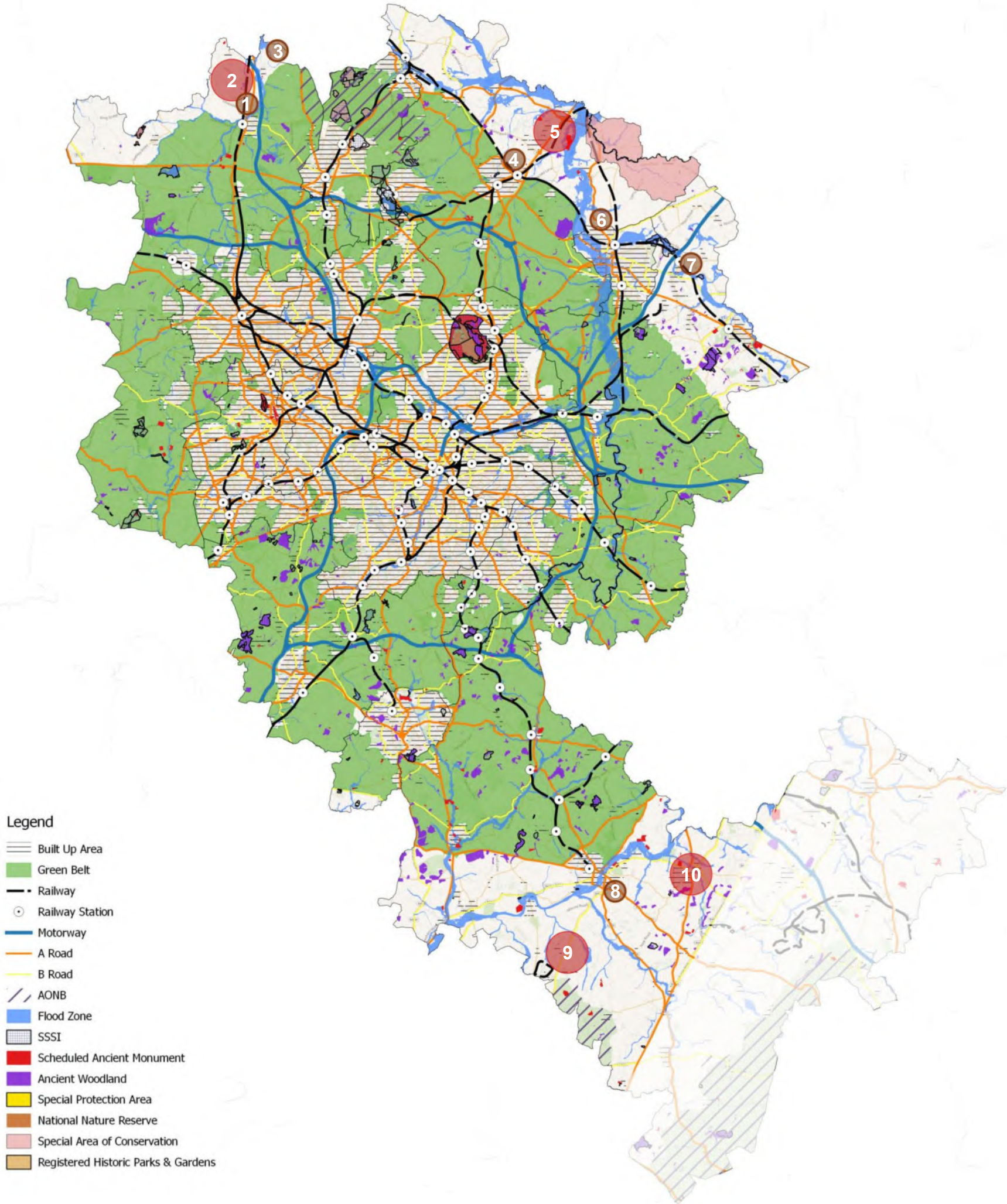
- 7.110 This area is substantially free from nationally significant constraints. The area includes a small parcel of Ancient Woodland and an area subject to Flood Zone 3 to the north of the Area of Search however this is not considered to hinder further consideration of this area.
- 7.111 The area is situated around the eastern edge of the urban area of Polesworth which includes a range of services and employment opportunities in line with the spatial development model criteria set out in Table 40. There are a range of major employment sites nearby, located along the A5 including Birch Coppice, near Dordon.
- 7.112 The area is in close proximity to the M42 which extends in a south-west to north-easterly direction from the eastern edge of the conurbation. The area is also served by the A5. In addition, the area is situated on the West Coast Main Line, however it is noted that Polesworth train station would require significant improvements as only one service per day stops at Polesworth.

South of Stratford-upon-Avon town

- 7.113 This is an area substantially free from nationally significant constraints and policy designations. Whilst this area itself is substantially free from nationally significant constraints and policy designations, there are such constraints in the wider locality.
- 7.114 The area is situated around the southern edge of the urban area of Stratford-on-Avon which includes a range of services and employment opportunities in line with the spatial development model criteria.
- 7.115 The area is within close proximity to Stratford-upon-Avon Train Station which connects the area to the conurbation. The area is also served by the A3400, A46 and the A422.

Figure 23: Areas of Search Beyond the Green Belt

- Urban Extensions
- New Settlement



Landscape Character Appraisals

- 7.116 A landscape character appraisal for each of these Areas of Search has been produced by Wood Plc.
- 7.117 Landscape character appraisals were undertaken for the Areas of Search beyond the Green Belt as well as those within the Green Belt. The character of the receiving environment is an important consideration in respect of its sensitivity and capacity to accommodate development. At a strategic scale, an indication of these matters can be given, thereby providing (along with sustainability considerations) an additional reference point against which the principle of development in a particular location can be judged. This analysis was undertaken through a series of Strategic Landscape Character Appraisals of the Areas of Search identified beyond the Green Belt (as well as those within the Green Belt, which are reviewed in Section 8).
- 7.118 Based on aerial and OS mapping, the Strategic Landscape Character Assessment provides an initial high level desktop appraisal of landscape quality in terms of the extent to which typical character is represented in individual areas and the intactness of the landscape (i.e. the degree to which it is altered/modified or weakened through the loss of characteristic elements or incongruous uncharacteristic additions).
- 7.119 We summarise the conclusions of the landscape character appraisals (LCA) for each Area of Search beyond the Green Belt for context below:

North of Penkridge, South Staffordshire

- 7.120 Typical character is represented within many areas of landscape surrounding Penkridge. The presence of built development along roads and within clusters (i.e. including that associated with the college, conference centre and school) within the vicinity of the town slightly erodes the rural character of these landscapes.
- 7.121 The landscapes around Penkridge are in many places representative of typical character although the area has an urbanising influence on the local landscape.

Around Dunston & South of Stafford, South Staffordshire

- 7.122 The parts of the two Landscape Character Types ("LCT" i.e. a distinct and recognisable pattern of elements, or characteristics in the landscape that make one landscape different from another) that are located to the south of Stafford, particularly the Settled Farmlands LCT around Dunston, exhibit most of the characteristic landscape features associated with these LCTs but only a limited number of the incongruous landscape features. The condition of many of the characteristic landscape features is moderate, although in both LCTs there is evidence for a long-term decline in hedgerow

function and management resulting in hedgerows having a diminishing landscape and visual role in some areas.

- 7.123 Although there are localised exceptions, such as the recent solar farm in the Settled Farmlands LCT, and commercial development around Acton Gate in the Riparian Alluvial Lowlands Farmland Sub-Type, both LCTs, especially the Settled Farmlands LCT, continue to have a 'rural feel'. The part of the Settled Farmlands LCT around Dunston and close to the south-western edge of Stafford could be considered an 'intact rural landscape' as described by the Staffordshire LCA's description of visual character. The M6 corridor and southern parts of Stafford have little visual presence.
- 7.124 The Area of Search around Dunston and to the south of Stafford is generally representative of the landscape features and visual characteristics of the two principal LCTs located within it. The urbanising influence of the southern part of Stafford and the M6 is low. An urban extension of Stafford into the northern part of the Area of Search would be highly likely to substantially increase the number of incidences of incongruous landscape features. Consideration might be given to smaller scale development at some locations on the edge of Dunston and/or Hyde Lea.

East of Lichfield, Lichfield

- 7.125 The key LCT in this area is the Settled Farmlands LCT that wraps around the north-eastern (and north-western) edge of Lichfield extending outwards for 1-2km. Any urban extension would have direct landscape and visual effects upon this LCT (as will be the case with the ongoing Roman Height development between the north-eastern edge and Streethay). Potential direct effects could be sustained in the Sandstone Estate Land Farmland Landscape Character Sub-Type depending on the form of any urban extension. Positive landscape features in these two LCTs are already under pressure from agricultural intensification and a variety of urbanising influences. Their intactness is reducing and in some parts of the LCT features such as hedgerows have been completely lost. The condition of many of the remaining features is in decline and most new landscape features are described '*incongruous*'.
- 7.126 The descriptions for both LCTs frequently note the presence of urban elements such as the A38, the railway lines, power lines and the existing north-eastern edge of Lichfield whose role is increased by the relative openness and lack of screening elements in the adjacent LCTs. The veracity of these descriptions is supported by the review of aerial photography and Google Earth Street View with new or unmentioned urbanising influences identified such as the Roman Heights residential development and the Darnford Moors Golf Club.
- 7.127 The Area of Search around north-east Lichfield is representative of many of the characteristics of the four LCTs within it, especially the wide range of adverse characteristics identified in the Staffordshire LCA. Some of these adverse characteristics are likely to be been exacerbated by

recent development that has resulted in increased urbanising effects in the parts of all four LCTs especially the Settled Farmlands LCT and the Sandstone Estatelands Farmlands Landscape Character Sub-Type adjacent to the north-eastern edge of Lichfield. In this manner the urban extension of Lichfield into these LCTs has already commenced in terms of effects upon landscape character. Opportunities to minimise existing and future adverse effects restoring relevant landscape features and patterns need to be identified and implemented to allow urban extensions to be accommodated.

Around Fradley & Alrewas, Lichfield

- 7.128 The presence of five LCTs makes generalised appraisal difficult. The parts of the LCTs located in the Fradley Area of Search exhibit many, although not all, of landscape features and positive and negative visual characteristics of the LCTs. Several of the LCTs are adversely affected by adjacent urban development and all LCT commentaries reference the adverse effects of inappropriate built development at farms and/or settlements. In the case of the Settled Heathlands LCT some of the commentary relates specifically to the village of Fradley and the Distribution Park. The wish of the authors of the Staffordshire LCA to control development in the area around Fradley is manifested in the comments relating to the village and the management recommendations.
- 7.129 Review of aerial photography and images provided on Google Earth Street View indicates that notwithstanding the landscape changes resulting from the presence of the Distribution Park and residential development at Fradley South, the parts of the LCTs close to Fradley continue to be in moderate to good condition and the hedgerow and woodland pattern to be largely intact. Levels of enclosure in this part of the Area of Search therefore continue to be generally high away from the river valley bottoms. Consequently the presence of the commercial buildings within the Distribution Park is rarely discernible from publicly accessible locations outside of the closest part of the host Settled Heathlands LCT. The A38 and associated development (aside from the Distribution Park) is likely to be an urbanising influence to all parts of the LCTs located alongside this transport corridor
- 7.130 The Area of Search around Fradley is representative of the landscape features and visual characteristics of the LCTs located within it for both positive and negative characteristics. In the parts of LCTs located away from the A38 transport corridor and the immediate vicinity of the Distribution Park there are long term adverse influences upon landscape quality and condition but these are the same influences that apply to most LCTs in the Birmingham HMA e.g. deterioration of hedgerows, increased pressure on rural lanes, the presence of large modern farm buildings and the gradual decline of many semi-natural landscape features.
- 7.131 A new settlement associated with Fradley would need to be carefully located but could potentially benefit from the residual screening provided by the relatively high level of tree cover that has been retained in the closest parts of the LCTs other than the Riparian Alluvial Lowlands LCT. Strong

justification would nevertheless be required for its siting in most parts of the Settled Heathlands LCT. The Staffordshire LCA's assessments regarding the landscape value of new woodland planting in providing screening and/or reinforcing and enhancing landscape structure provide scope for potentially accommodating a suitably sited and designed new settlement. This has been demonstrated with relative success with Fradley South and the Distribution Park.

North of Tamworth, Lichfield

- 7.132 The area to the north-west of Tamworth demonstrates some variation although the differentiation between the two principal LCTs (Lowland Village Farmlands and Riparian Alluvial Lowlands) is not strong across much of the Area of Search. The parts of the LCTs that are closest to the urban edge of north-west Tamworth exhibit only a limited number of incongruous landscape features and it is germane to note that the presence of the existing urban edge is limited and localised even with only moderate or low levels of tree cover on or close to the edge of the development.
- 7.133 However, the parts of these two LCTs closest to the north-western edge of Tamworth are assessed by the Staffordshire LCA as being landscapes at risk of rapid loss of character and quality. This is likely to be due to their openness, especially in the Lowland Village Farmlands LCT. In this LCT the risk associated urban development extending into the LCT is also demonstrated by examples of localised ribbon development south of Wigginton and around the Rawlett School. Openness is likely to be increased in the future as the already moderate to low levels of tree cover decrease further as a proportion of the trees are already aged being stag-headed.
- 7.134 The two smaller and more peripheral LCTs possess distinctive characters and are assessed as being high or moderate-high quality with most of their key landscape features in good condition.
- 7.135 Overall the area around north-west Tamworth conforms with some of the landscape characteristics ascribed to the Riparian Alluvial Lowlands and Lowland Village Farmlands LCTs. It is also subject to some of the issues that are gradually reducing the strength of these two LCTs' characteristic landscape features and have led to a substantial proportion of the area being defined as an area at risk of rapid loss of character and quality. Key issues include the low levels of tree cover, the diminishing role and presence of hedgerows and the corresponding lack of landscape structure within which any further northern expansion of this part of Tamworth could be accommodated without such expansion becoming visually prominent across a greater proportion of the Lowland Village Farmland LCT than is presently adversely affected by the existing development in north-west Tamworth. Similarly, any expansion of development into the Riparian Alluvial Lowlands (other constraining factors notwithstanding) would be likely to reduce the sense of openness within this LCT and reduce the sense of separation from Hopwas that is currently provided by the limited tree cover close to the western edge of Coton.

- 7.136 Across most of the Area of Search there would be limited scope for urban extension without substantial modifications to the key characteristics of the receiving Lowland Village Farmlands LCT to the north of Tamworth. If it were necessary to provide an urban extension to the north of Coton Green and Gillway towards Wigginton and the Comberford Road, extensive effects upon the closest part of the Lowland Village Farmlands LCT and the eastern edge of the closest part of the Riparian Alluvial Lowlands LCT could be at least partially mitigated in the medium to long term by implementation of the proscribed policy of Landscape Enhancement. It should be noted that woodland planting which would be the most effective implementation strategy to screen development and soften the urban edge is assessed in the Staffordshire LCA for this LCT as an opportunity to restore landcover structure that is being lost and reduce the scale of the landscape. The Staffordshire LCA considers that the planting of larger woodlands would be particularly appropriate in this LCT.

East of Polesworth, North Warwickshire

- 7.137 The parts of the three LCAs located within the Area of Search for potential urban extension around Polesworth and Dordon are representative of the positive and negative characteristics that are attributed to the LCAs in the North Warwickshire LCA.
- 7.138 The Anker Valley LCA exhibits moderate to low strength of character and most of its positive landscape features are in moderate to poor condition. The LCA's management strategy considers the potential for settlement expansion and sets some broad parameters for such expansion. Aside from the corridor of the West Coast Main Line on the north-eastern edge of Polesworth the edges of Polesworth and Dordon against this LCA are not strongly defined. The key consideration would be how to design any urban extension to reflect the slightly elevated location of these settlements and to avoid encroachment into the closest sections of the Anker Valley utilising existing woodland and tree cover where present.
- 7.139 The Baddesley to Hartshill Uplands LCA has a greater and more distinctive sense of character in its north-western part adjacent to the southern edge of Dordon with a higher level of tree cover and natural landscape features with a sense of time depth. There is likely to be a desire to prevent further settlement coalescence in this part of the Area of Search avoiding any expansion of the residential ribbon development along the A5.
- 7.140 The Tamworth Fringes LCA is assessed as being a run-down landscape with a weak strength of character whose limited retained landscape features are generally in a poor condition. The visual role of the western edge of Dordon and Polesworth is noted and the management strategy considers the pressures driving and potential for settlement expansion in the LCA. It is also notable that Birchmoor, the closest settlement to Polesworth, is not one of the settlements in the LCA

whose setting is assessed as needing to be safeguarded. Hence there could be potential for urban extension to incorporate the identified green infrastructure and to provide a mechanism to design and implement the landscape restoration in the now isolated northern part of the LCA in accordance with the overarching management strategy

- 7.141 Many of the characteristics of the two main LCAs around Polesworth and Dordon as described in the North Warwickshire LCA and verified in the strategic LCA review are potentially supportive of carefully designed urban extension development. Both LCAs, especially the Tamworth Fringes LCA, possess only a limited amount of positive landscape features and these could be utilised within well-design extensions. There is a need to acknowledge the visual role that the settlement edges already play in the wider LCAs and the generally adverse direct and indirect landscape effects arising from urbanising influences. Nevertheless, the management strategies for both LCAs have considered the potential for urban extensions around Polesworth and Dordon and provide initial guidance on how this could be accommodated. In the case of urban extension to the west, there is scope for it to be used to restore part of an LCA whose character has been severely depleted.

South of Stratford-upon-Avon town

- 7.142 The review of OS mapping and aerial photography concludes that the parts of the Avon Valley River Meadows and Feldon Parklands Local Landscape Types that are located close to the south of Stratford do not exhibit all the key positive landscape characteristics identified for these LLTs in the Warwickshire Landscape Guidelines – Avon and Feldon. The strength of character of both LLTs is slightly diminished due to the absence or reduced numbers of some key characteristics e.g. traditionally managed flood meadows in the Avon Valley River Meadows LLT and woodlands, copses and hedgerow trees in the Feldon Parklands LLT. Similarly, there are extensive parts of the Avon Valley River Meadows LLT where less characteristic land-uses prevail i.e. intensive arable encroaching up to the River Avon and the improved and intensively managed grassland in Stratford Racecourse. In the northern part of the Feldon Parklands LLT some fragmentation of the field pattern has resulted in increased openness which is not a widespread characteristic. The strategic review concludes that the northern part of the Feldon Parklands LCT (north of Clifford Chambers) now forms a transitional area with the closest part of the Avon Valley River Meadows LLT.
- 7.143 The three parts of the third LLT: the Avon Valley Terrace Farmlands LCT does exhibit many of the LLT's landscape characteristics but these are not generally positive characteristics given that the LLT is described in the Guidelines as possessing little sense of landscape unity and in parts being almost without landscape features.

- 7.144 Some of the landscape characteristics identified in the Guidelines and as verified and expanded upon in the strategic review are supportive of accommodating some form of urban extension. The present southern urban edge of Stratford is only mentioned once as having any visual role in the LLTs and the strength of character of two of the LLTs has become weakened close to the southern edge of Stratford and in the case of the third LLT was never strong to begin with.
- 7.145 A suitably designed urban extension would therefore not inevitably lead to the large-scale loss of key landscape features. It would need to incorporate extensive new landscape features, principally different forms of tree cover, to provide a replacement and/or restored landscape structure and to soften its edges minimising any adverse visual effects in nearby LLTs where open views are often a prominent characteristic.

South west of Stratford-on-Avon District

- 7.146 The review of OS mapping and aerial photography concludes that the part of the Avon Valley Vale Farmlands LLT that are located around Long Marston and Long Marston Airfield exhibit most of the landscape characteristics that are attributed to this LLT in the Guidelines. The strength of character of the Avon Valley Vale Farmlands LLT is moderate as the geometric field boundary pattern remains largely intact. As with most rural areas, the condition of the hedgerows that define the pattern is declining. The already low number of hedgerow trees is also likely to be declining in number and condition.
- 7.147 As the characteristic orchards that are described as a key component in the visual character of the settlements were mostly derelict at the time the Guidelines were written in 1993 it is likely that their condition has declined further. The review could not identify many examples of orchards in the Area of Search. In summary, it is concluded that some of the landscape features and hence landscape characteristics of the LLT are in long term decline, consequently the LLT is gradually losing its distinctiveness which was never strong.
- 7.148 Some of the landscape characteristics identified in the Guidelines as verified and expanded upon in the strategic review are supportive of accommodating a new settlement. In some locations in the LLT, such as Long Marston Airfield, a development of this scale would not result in the loss of a large proportion of key landscape features. It is noted that existing development at the Airfield and the Business is considered a 'suburban influence' which is inappropriate in an LLT where agricultural land-uses and features are dominant. Any new settlement would be likely to exacerbate this influence. This potential effect could be reduced or minimised by appropriate landscape structure planting with screen planting being effective due to the flat topography. However, the Guidelines advise against the large-scale introduction of woodland into an LLT where one of the key characteristics is the absence of woodlands and a low level of tree cover.

Around Wellesbourne, Stratford-on-Avon

- 7.149 The review of OS mapping and aerial photography concludes that the parts of the Avon Valley Terrace Farmlands and Feldon Parklands LLTs that are located close to the Wellesbourne exhibit most of the key landscape characteristics identified for these LLTs in the Warwickshire Landscape Guidelines – Avon and Feldon. It should be noted that in the case of the Avon Valley Terrace Farmlands LLT some of the key landscape characteristics are not positive. The strength of character is strong for the Feldon Parklands LLT but relatively weak for the Avon Valley Terrace Farmlands LLT. The only variation noted in the Avon Valley Terrace Farmlands LLT is that the growth of Wellesbourne means that it is no longer a small, nucleated settlement. With regard to the Feldon Parklands LLT, the only variation noted was that the small part of the LLT between Wellesbourne and Newbold Pacey has a number of characteristics that are more applicable to the adjacent Avon Valley Terrace Farmlands LLT although topographically it is within the Feldon Parklands LLT.
- 7.150 Some of the landscape characteristics identified in the Guidelines as verified and expanded upon in the strategic review are supportive of accommodating a suitable located and designed new settlement. These characteristics are found principally in the Avon Valley Terrace Farmlands LLT and possibly in a small part of the Feldon Parklands LLT. In these parts of the LLTs a suitably designed new settlement would not inevitably lead to the large-scale loss of key landscape features. It would need to incorporate extensive new landscape features, principally different forms of tree cover, to provide a replacement and/or restored landscape structure to fit the new settlement into the surrounding agricultural landscape. Appropriate planting would soften the edges of a new settlement minimising any adverse visual effects in LLTs where open views are often a prominent characteristic.

Summary of Potential Areas of Search beyond the Green Belt

- 7.151 These 'Areas of Search' have been identified through consideration of land beyond the Green Belt focussing on geography, the existing strategic transport network, settlement pattern, and nationally significant constraints mapping.
- 7.152 This section identifies Areas of Search which would potentially be suitable and able to accommodate strategic development. Their identification does not mean that development could or would be acceptable. It simply sets out the development potential should be considered. Issues relating to land availability, infrastructure requirements and delivery require further local-level consideration through further work as part of the development of local plans.

8 STRATEGIC GREEN BELT REVIEW

Approach and Methodology

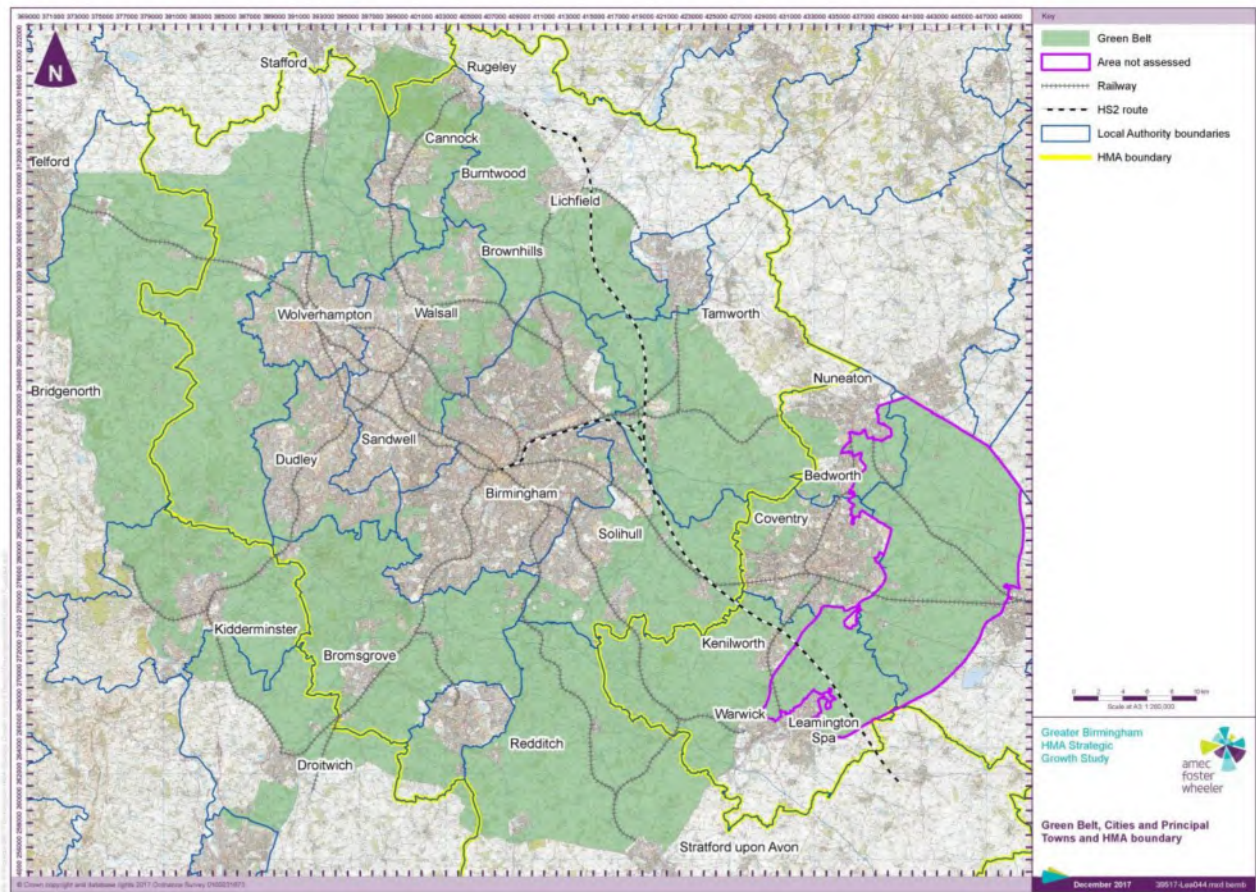
Background and Study Approach

- 8.1 In the context of seeking to address the shortfall in housing need across the HMA, this section moves on to present a strategic review of the Green Belt.
- 8.2 A significant proportion of the land in the HMA Area outside the built-up areas is covered by Green Belt policy, requiring the demonstration of Exceptional Circumstances through Local Plan Review for any alterations to be made to its extent.
- 8.3 The West Midlands Green Belt was created following the publication of Circular 42/55 which invited local planning authorities to consider the establishment of Green Belts in their development plans. As in other parts of the country, the designation of Green Belt was a reaction to the urban sprawl along transport corridors along with growing car ownership increasing the accessibility of rural areas. Land had already been bought by local authorities on the edge of the major urban areas to prevent further outward sprawl, when, in the early 1960s there were proposals for a Green Belt around the Birmingham conurbation.
- 8.4 Green Belt proposals were put forward as amendments to development plans but remained formally unapproved until 1975, when the Secretary of State approved the West Midlands Green Belt, although a quarter remained 'interim' and was only introduced in later reviews of structure and local plans. The West Midlands Green Belt covers approximately 900 square miles and extends between 6 and 15 miles from the built edge of the conurbation, surrounding and abutting a number of towns and cities: Kidderminster, Bromsgrove, Redditch, Cannock, Coventry, Lichfield, Tamworth, Rugby, Stratford upon Avon, Warwick/Leamington, Bridgnorth and Telford (Figure 24). A large number of villages and suburbs of varying sizes have been excluded from the Green Belt.
- 8.5 The approach to the Study is a high-level one³⁰, analysing the form and strategic function of the Green Belt against the purposes of Green Belt policy set out in the National Planning Policy Framework (NPPF) (Para 80), namely:
- to check the unrestricted sprawl of large built-up areas;
 - to prevent neighbouring towns merging into one another;
 - to assist in safeguarding the countryside from encroachment;
 - to preserve the setting and special character of historic towns; and
 - to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

³⁰ See for example studies undertaken for Solihull, Stratford upon Avon, Warwick, North Warwickshire, Coventry, Tamworth, South Staffordshire, Lichfield and Cannock Chase.

8.6 The analysis is part of a wider process (see Methodology section below) to assist the HMA Authorities in determining where significant development could, in principle, be accommodated.

Figure 24: The West Midlands Green Belt and the Greater Birmingham HMA Boundary



Green Belt Assessment Methodology

Definition of the Scale of Analysis and Green Belt Functions

- 8.7 There is no prescribed methodology for the assessment of the form and function of Green Belts. However, practice has evolved which typically divides the Green Belt into parcels which are then described and their contribution to Green Belt function analysed against the purposes of Green Belt policy set out in the NPPF. In determining the fulfilment of Green Belt functions, some studies use a quantitative scoring and ranking approach, whilst others use a more qualitative approach to identify the relative contribution of Green Belt to its policy purposes. The latter is the approach followed in this study.
- 8.8 Using strong permanent boundaries which can be applied in a consistent fashion (Motorways/Trunk Roads, A-Roads and railways), some 120 parcels have defined across the Green Belt (Figure 25).

The alternative would be to seek strong boundaries from other physical features, but this approach invites inconsistent application and would, especially in the vicinity of urban areas, generate a large number of parcels which would make the analysis unwieldy. In addition, in the context of this study, this exercise could prompt speculation as to 'potential development parcels'. The parcels are used to help describe the character of the Green Belt, and are not used as the basis for assessing relative contribution to Green Belt purposes or used to determine development boundaries. Green Belt within the built-up area of the conurbation is labelled 'C' and has not been assessed as part of this study. This reflects their scale, complex local geography and roles as part of the Green Infrastructure of Birmingham and the Black Country (serving biodiversity and recreational functions) and the local separation of urban areas (Green Wedges).

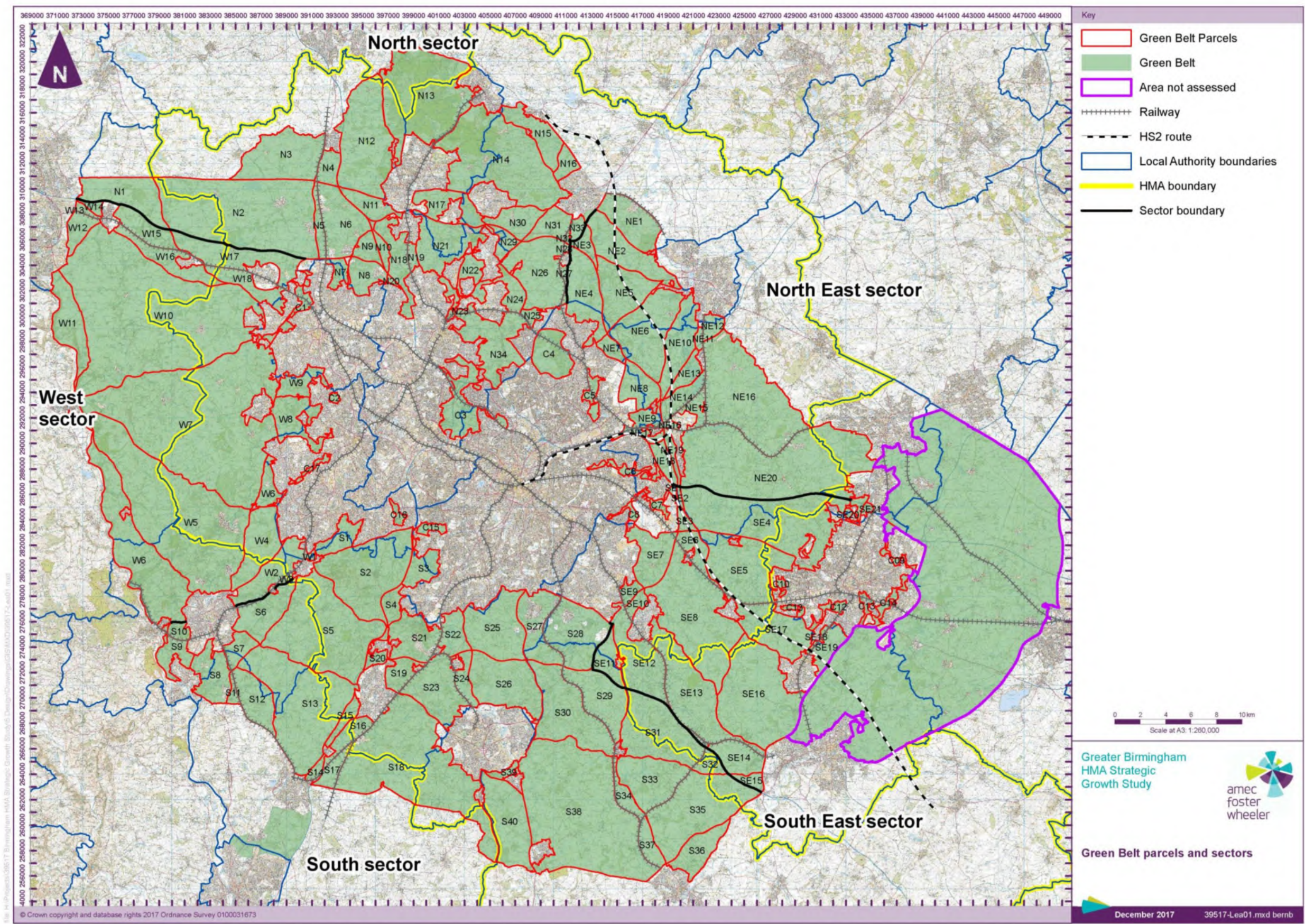
- 8.9 The administrative boundaries that define the HMA often do not coincide with the clear boundary features that have been used to define the parcels. Consequently, whilst land to the east of Coventry is excluded from the assessment, reflecting its location clearly outside the Greater Birmingham HMA, the Green Belt in other locations, whilst being outside the Greater Birmingham HMA, merits assessment because of its shared character and functional connection through transport corridors (notably: Codsall to Albrighton, Dudley/South Staffordshire/Wyre Forest; Bromsgrove to Droitwich; Birmingham to Coventry; Coventry/Bedworth/Nuneaton edges). To further aid analysis and reflect the geography of the conurbation and its rural context, five Sectors across the HMA (West, North, North East, South East, South) have been identified. These are used as the basis for the assessment of the character and function of the Green Belt.
- 8.10 A fundamental purpose of Green Belt policy is to maintain the openness (i.e. a general absence of built development) of land (NPPF para.79). It does this through providing a clear limit beyond which development should not advance (often where this has not been defined on the ground by a substantial physical feature of various kinds – roads, waterways etc); this is termed the 'containment of sprawl'. 'Sprawl' is often seen as ribbon development along transport corridors, but also in the piecemeal extension of urban areas into open countryside. Complementing the prevention of sprawl is the maintenance of the separation between built-up areas, maintaining their separate physical identity through the presence of undeveloped land of varying extents. Strategically (and against the purposes of the Green Belt set out in the NPPF), this refers to towns, but locally it can also be important in respect of settlements of varying sizes.
- 8.11 Green Belt policy is also applied to prevent the incremental erosion of open land by development which would result in an urbanised character, termed 'encroachment', and widely seen along fragmented urban edges which developed prior to Green Belt designation. In the absence of Green Belt policy this trend would continue. In addition, there are many areas adjacent to large urban areas where Green Belt policy prevents this pattern from starting, particularly in the light of their

high degree of accessibility by car, a role which can be highly localised and subtle. For the purposes of this study, such patterns have been sought to be identified at a strategic scale.

Assessment of the Fulfilment of Green Belt Purposes

- 8.12 Professional judgement is used to identify spatially where four of the five Green Belt purposes are being fulfilled (excluding the 'assisting regeneration' purpose which is associated with the Green Belt as a whole) by inspection of Ordnance Survey maps and aerial photography. No site visits have been undertaken, reflecting the strategic nature of the study. Areas demonstrating the fulfilment of individual Green Belt purposes are mapped.

Figure 25: Green Belt Parcels and Sectors Identified for Analysis



- 8.13 Whilst the assessment of the individual purposes of Green Belt policy demonstrates the various complex interrelationships between built-up areas of various scales and their wider context, determination of the strategic role of the Green Belt is required to help to identify where, in principle, development might be located without comprising that strategic role. As strategic policy tool, the West Midlands Green Belt was established to contain the pressures for sprawl of the conurbation into open countryside and maintain the separation between the conurbation and its surrounding towns (i.e. preventing the coalescence of built-up areas thereby maintaining their identity). Safeguarding the countryside from encroachment and protection of the setting of historic towns are judged, for the purposes of this strategic study, to be more diffuse or localised in character. (Note: the NPPF does not make a distinction between the five purposes of Green Belt policy).
- 8.14 To assist with the judgement of where the strategic purposes of the Green Belt are being met, the mapping outputs of the individual purposes of *checking sprawl* and *preventing the merger of towns* (i.e. what can be regarded as the key functions of the West Midlands Green Belt) are combined to show areas making a **Principal Contribution**, with all other areas shown as making a **Supporting Contribution**. Areas making a Principal Contribution reflect the combination of two purposes of Preventing Sprawl and Maintaining Separation, and areas making a Supporting Contribution covering the remainder of the Green Belt which includes areas identified as specifically safeguarding the countryside from encroachment related to the edge of a built-up area, but also more generally though preventing incremental change in remoter areas, where development would damage their character. In this way, the strategic contribution of the Green Belt is discernible, in turn acting as a guide to determining where development is more likely to compromise its strategic function.
- 8.15 Figure 26 summarises the Green Belt Study method and Table 42 sets out the definitions, evaluation criteria and mapping symbols which have been used to identify where Green Belt purposes are being met.

Figure 26: Green Belt Study Approach

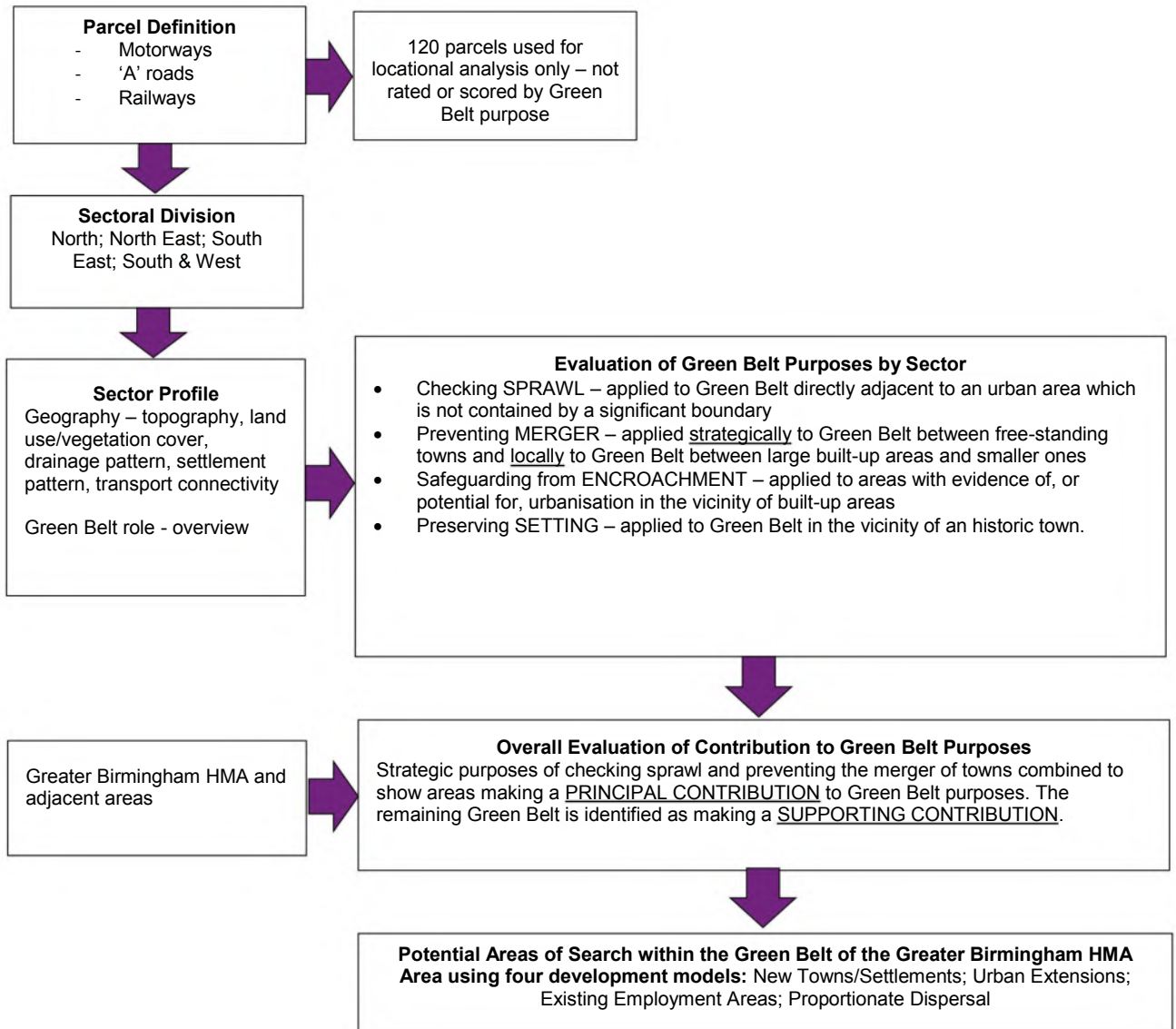








Table 42: Definition of Terms, Assessment Criteria and Mapping Symbols

NPPF Green Belt Purposes	Definition of Terms	Assessment Criteria and Mapping Symbols
To check the unrestricted sprawl of large built-up areas	<p>Sprawl – spread out over a large area in an untidy or irregular way (Oxford Dictionary online). This includes ribbon development which is development along a main road, especially one leading out of a town or village (Oxford Dictionary Online). This includes historical patterns of, or current pressures for, the spread of all forms of development along movement corridors, particularly major roads.</p>	<p>Assessment Criteria - Green Belt prevents the extension of a built-up area into open land where development would not otherwise be restricted by the presence of a <u>permanent</u> boundary such as a road, railway or river. Whilst Green Belt policy prevents 'leap-frogging' of such containing features, these are taken as a clear limit of development where it would <u>in principle</u> be more challenging to argue they should be breached. It is accepted that locally there will be instances of where development from an uncontained edge could be rounded off to a more substantial feature, thereby contributing to good urban form.</p> <p>Symbols – applied to Green Belt directly adjacent to an urban area where there is no significant boundary which clearly contains that development.</p> 
To prevent neighbouring towns from merging	<p>Merger/Coalescence – the physical or visual linking of two settlements or areas of built form.</p>	<p>Assessment Criteria - Green Belt prevents development which would result in the merger or erosion of a gap (physically or visually) between settlements.</p> <p>Symbols – applied STRATEGICALLY to Green Belt lying between (free-standing) towns or the Birmingham conurbation and satellite towns, and also LOCALLY to Green Belt between large built-up areas and smaller ones.</p> 
To assist in safeguarding the countryside from encroachment	<p>Encroachment – a gradual advance beyond usual or acceptable limits (Oxford Dictionary online).</p> <p>The countryside – open land with an absence of built development and urbanising influences, and characterised by rural land uses including agriculture and forestry.</p> <p>Openness – absence of built development or other urbanising elements (i.e. not openness in a landscape character sense which concerns topography and woodland / hedgerow cover).</p>	<p>Assessment Criteria - Green Belt maintains the openness, or prevents the further erosion, of un-urbanised areas, particularly in relation to a settlement edge. The wider role of this purpose across the Green Belt as a whole is noted.</p> <p>Symbols – applied in the vicinity of built-up areas where there is evidence of change or risk thereof, reflecting an area's accessibility and vulnerability to incremental change.</p> 
To preserve the setting and special character of historic towns	<p>Historic town – settlement or place with historic features identified through conservation area or other historic designation(s). The historic towns identified for the purposes of this study are: Stratford upon Avon, Kenilworth, Lichfield, Rugeley, Penkridge, Bridgnorth and Bewdley.</p>	<p>Assessment Criteria - Green Belt helps to preserve the setting and character of an historic town.</p> <p>Symbols – applied to the broad vicinity of historic towns</p> 

	<p>Overall contribution to Green Belt purposes – to determine where the Green Belt performs a strategic function. .</p>	<p>Symbols – two-fold division of:</p> <p>PRINCIPAL CONTRIBUTION being areas meeting the purpose of checking unrestricted sprawl and/or the maintenance of strategic separation.</p> <p>SUPPORTING CONTRIBUTION being all remaining areas.</p>	 
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Development Models to be tested

- 8.16 The PBA Study³¹ identified six types of development model as the basis for the spatial distribution of large-scale development. Table 43 defines the characteristics of these models which are used for testing where and how, in principle; growth might be accommodated, yielding broad areas of search which can be subjected to testing at the local level by spatial location and mix of model (Chapter 3). Other, more complex, combinations of spatial development model have been proposed³². However, for the needs of this study, using a smaller range of development types provides a more focused means of testing the principle of accommodating development in the Green Belt. The identification of areas where the development models could, in principle, be applied is not part of an exhaustive inventory of all potential locations.
- 8.17 Alongside this, councils within the HMA will need to progress work to identify small and medium-sized sites which can contribute to meeting the housing needs shortfall through the preparation of local plans. This process will include preparation of local Green Belt assessments considering the performance of sites against green belt purposes at a finer grain. Small and medium-sized development opportunities arising from this work will play an important contribution in meeting the housing needs shortfall, particularly in the short- and medium-term.

³¹ Peter Brett Associates (2015) Greater Birmingham and Solihull LEP/Black Country Local Authorities: Strategic Housing Needs Study Stage 3 Report

Note: the PBA Report used detailed intelligence from local authorities to determine, authority-by-authority, whether development of each type could be located in respect of quantity, feasibility and timing. The report notes overlap between the typologies, for example development along a public transport corridor can be an extension to an existing settlement; or if large enough when added to a small settlement, a new town might be created.

³² See Greater Birmingham & Solihull LEP (2013) The Spatial Plan for Recovery and Growth – Consultation Draft Ten potential models were identified: 1. Urban Consolidation; 2. Enterprise Belt including the M42 Gateway; 3. New Towns / Settlements; 4. Extend Existing Major Urban Areas; 5. Dispersed Growth; 6. Corridors of Growth – Rail; 7. Corridors of Growth - M6 Toll; 8. Multi Centred Targeted Approach (small towns outlying Birmingham); 9. Dormitory Settlements; 10. Accommodating some of the GBSLEP's growth elsewhere.

Table 43: Strategic Development Models

Development Model	Characteristics to assist identification of possible locations
Urban Intensification	<ul style="list-style-type: none"> • Within urban areas, brownfield sites (existing and windfall) and greenspaces (open space and back gardens) for developments which are likely to be of relatively high density compared to their surrounding context. • Of varying scale according to opportunities. • NOT USED IN THE GREEN BELT STUDY.
Urban Extensions	<ul style="list-style-type: none"> • Ranging from 1,500 to 7,500 dwellings plus services and small-scale employment, added to an existing settlement/or suburban edge. • A degree of self-containment is aimed for, but recognising their dormitory function with use of nearby employment and service centres. • Planned on Garden Village principles.
Public Transport Corridors	<ul style="list-style-type: none"> • Rail corridors with or without an existing station. • Scale is likely to vary considerably according to the nature of the receiving environment. • USED AS PART OF THE CONSIDERATION OF URBAN EXTENTIONS/NEW SETTLEMENTS.
Employment Areas	<ul style="list-style-type: none"> • Strategic employment areas with a key employer and/or clustering of employers • Housing of the range of urban extensions (1,500 to 7,500 dwellings). • Likely to be located adjacent to, or in the vicinity of, a Motorway junction. • NB: This model concerns existing strategic sites as a focus for additional housing development in the broad vicinity and does not consider potential for further employment provision. A detailed analysis of existing and potential strategic employment areas is presented in: Peter Brett Associates (September 2015) West Midlands Strategic Employment Sites Study
Proportionate Dispersal	<ul style="list-style-type: none"> • Smaller scale (500 to 2,500 dwellings) with development distributed throughout an area according to local assessments of capacity (particularly services) and available sites through the SHLAA process. • Likely to be part of the identification of sites through the Local Plan process (such as identified sites but not required for the current plan period). • Would complement small-scale allocations identified through local Green Belt Reviews.
New Towns/ Settlements	<ul style="list-style-type: none"> • Of a significant scale: 10,000 to 15,000 dwellings, plus services and employment. • Located on a public transport corridor, in practice a railway line, with or without an existing station. • Possibly incorporating an existing settlement, particularly where this is focused on a railway station. • Aspiration for self-containment, recognising that there will be some commuting to adjacent employment and service centres. • Planned on Garden Town/Village principles.

Assessment of Green Belt Character and Purposes

Preface

- 8.18 Each of the five sectors (south, west, north, north east and south east) identified in Figure 25 above is described in terms of its broad geography (landscape and settlement pattern etc) and its Green Belt role, which has in turn drawn on the more detailed analysis of the fulfilment of Green Belt purposes by sector set out in Appendix B.

South Sector (The M40 to the A456, including Stratford, Redditch, Bromsgrove, Droitwich and Kidderminster) (see Appendix B pp.1–8)

Geography

Landscape Character, Topography, Land Use and Drainage Pattern

- 8.19 The majority of the southern sector lies within National Character Area (NCA) 97 Arden. The southern-most edges south of Bromsgrove and Redditch lie within the NCA 106 Severn and Avon Vales; and the western edge falls within NCA 66 Mid Severn Sandstone Plateau.
- 8.20 The sector has a complex geology that supports a varied topography. Whilst the area is dominated by rolling or gently undulating landform, it contains a number of notable escarpments, ridges and hills such as the Clent and Lickey Hills located to the north-west of the sector between Hagley and Bromsgrove. It also contains a number of meandering clay river valleys.
- 8.21 Land use is predominantly rural farmland and former wood-pasture. Field patterns are diverse and range from small scale well defined irregular arable and pastoral fields and woods to a more regular pattern of medium to large scale arable fields associated with former estates. To the north, near the southern edge of the conurbation, there is a complex landscape of relic commons and former wood pasture. This is a well wooded or timbered landscape with frequent large woodlands often associated with rising land, ridgelines and hills. There are a number of sports and playing field uses located within the vicinity of the main settlements and include a number of golf courses located on the edge or within the vicinity of the conurbation itself i.e. the Hagley Golf and Country Club, Rose Hill Golf Club, Hollywood Golf Club, Shirley Golf Club.
- 8.22 The Rivers Arrow and Alne run through the centre of the sector and flow into the River Avon to the south. A section of the River Stour flows eastwards between the Clent Hills and Halesowen. These lie within the catchment of the River Severn. The sector also contains sections of both the Worcester to Birmingham Canal and the Stratford-upon-Avon Canal and a number of large reservoirs typically located on the fringes of the conurbation i.e. Bentley and Frankley Reservoirs and the Upper and Lower Bittell Reservoirs.

Settlement pattern

- 8.23 The main settlements are Birmingham (forming the southern edge of the West Midlands conurbation), Kidderminster, Bromsgrove, Redditch, Droitwich Spa and Stratford upon Avon. There are many smaller settlements including those dispersed across the rural farmland (i.e. Stourport-on-Severn, Droitwich Spa, Wychbold, Astwood Bank, Studley, Alcester and Henley-in-Arden) and those found dotted around the fringes of the conurbation itself (i.e. Hagley, Romsley, Lickey and

Barnt Green, Hopwood, Alvechurch, Hollywood, Wythall, Dickens Heath, Cheswick Green and Majors Green).

- 8.24 Of note is the higher occurrence of small scale settlements, clusters of dwellings and ribbon development associated with the Hollywood, Dickens Heath and Cheswick Green part of the sector (south of the Shirley and west of the M42) and in the Lickey, Barnt Green, Cofton Hackett, Marlbrook and Catshill area. In addition, the edge of the conurbation at Frankley/Bartley Green is heavily incised resulting in a complex and less distinct settlement pattern.
- 8.25 Settlement pattern away from the conurbation and within the rural farmland is relatively well dispersed with many discrete clusters of dwellings and villages and frequent farmsteads and wayside dwellings in more settled landscapes.

Transport connectivity

- 8.26 The M5, M42 and M40 form major transport corridors within this sector. There are also a number of major and busy A roads radiating from the conurbation, including the A456, A491, A38, A441 and A435. The principal railway lines crossing and adjacent to the sector are: Birmingham to Kidderminster, the Redditch to Lichfield cross-city line, Birmingham to Cardiff/the south west, Birmingham to Stratford-upon-Avon; and Birmingham to London (Marylebone).

Green Belt Role

- 8.27 The strategic function of the Green Belt in this sector principally relates to a combination of containing the southwestward and southern extension of the Birmingham conurbation, through containing sprawl and maintaining the separate identity of the towns to the south. There are clear areas of separation between the conurbation and principal towns in the sector, and between principal towns, that is: Birmingham and Kidderminster, Birmingham and Bromsgrove, Birmingham and Redditch, Bromsgrove and Redditch and Bromsgrove and Droitwich. This role is, complemented by the prevention of wider encroachment through incremental change, both directly from the urban edge and from numerous settlements of various sizes located in the Green Belt.
- 8.28 Whilst the broad distinction between contiguous built development and open countryside has been largely maintained, there are many examples of its blurring both as a result of development prior to the application of Green Belt policy and the effects of severance by motorways. Consequently, in the gap between the Birmingham conurbation (at Rubery/Longbridge) and Bromsgrove, for example, the Green Belt acts to maintain strategic separation, prevent sprawl and prevent further incremental encroachment, the latter issue being notable around the smaller settlements of Lickey, Blackwell and Barnt Green.

Key

- Green Belt
- Green Belt Parcels
- Local Authority boundaries
- HMA boundary
- Area not assessed
- Railway
- HS2 route
- Containment of sprawl
- Strategic separation
- Local separation
- Safeguarding from encroachment
- Setting of historic towns

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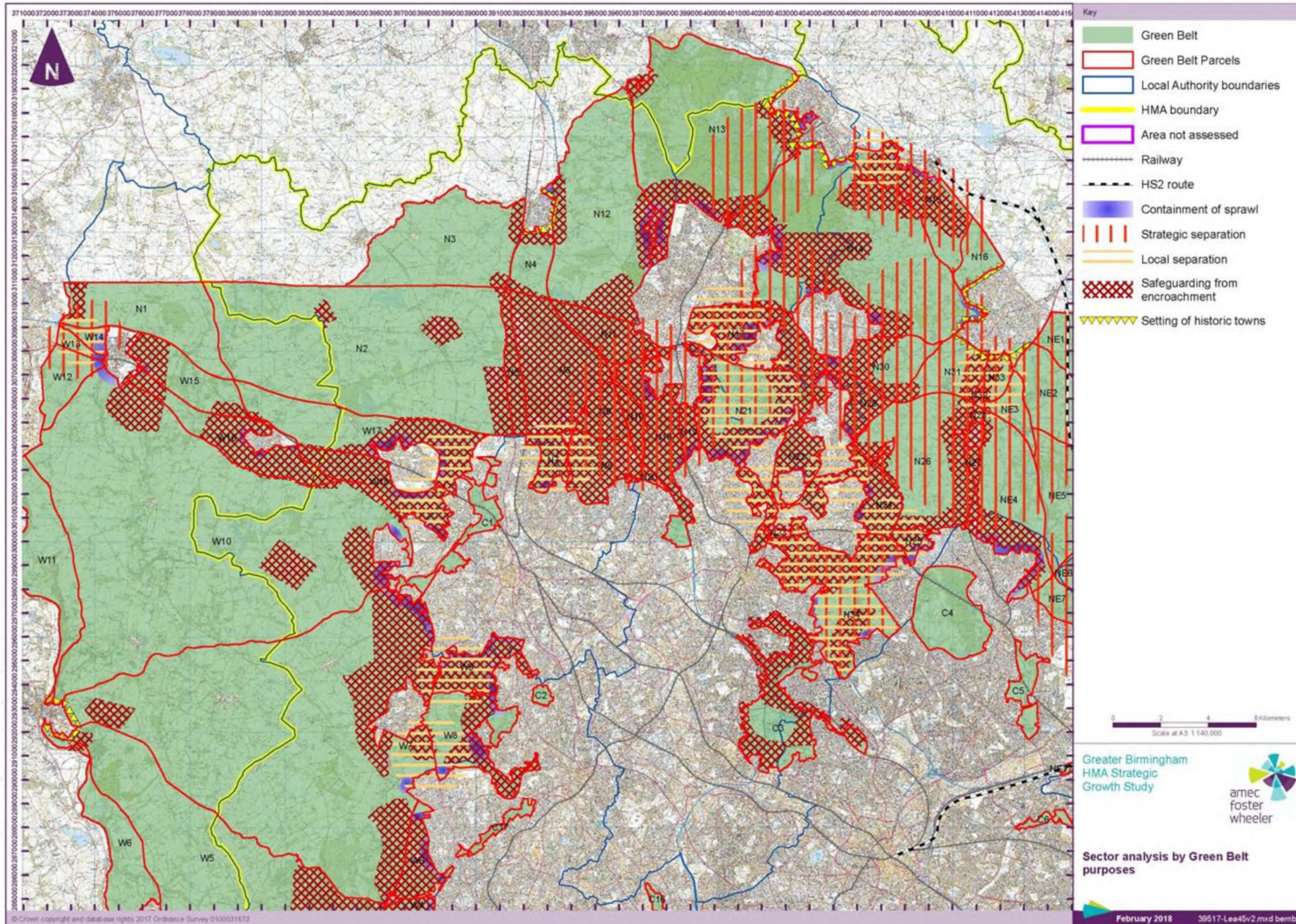
Greater Birmingham
HMA Strategic
Growth Study

amec
foster
wheeler

Sector analysis by Green Belt
purposes

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Figure 28: West Sector – Meeting of Green Belt Purposes



West Sector – The A456 to the M54, including Kidderminster (N) and Telford (S)
(see Appendix B pp 9-15)

Geography

Landscape Character, Topography, Land Use and Drainage Pattern

- 8.29 The majority of the western sector lies within NCA 66 Mid Severn Sandstone Plateau. The northern most edge lies within NCA 61 Shropshire, Cheshire and Staffordshire Plain. The sector is dominated by a sandstone plateau that underpins an undulating landscape, with tree-lined ridges. It is drained by the Rivers Stour and Worfe and a number of fast flowing streams within small steep-sided valleys. By contrast, the topography within the western fringes of the area, associated with the River Severn valley, is irregular with steep gorges.
- 8.30 Land use is predominantly rural and arable across the extensive sandstone plateau that extends eastwards to the urban edge of the West Midlands conurbation. Large open arable fields dominate the core and eastern parts of the area and are punctuated by remnant areas of lowland heath, acid grassland and small wooded streamside dells known locally as dingles. Further west, associated with the Severn Valley, land use is a mix of arable and pasture land associated with a smaller and more irregular shaped fields.
- 8.31 Interlocking blocks of mixed woodland and old orchards provide a well-wooded landscape and coniferous plantations combine with parklands to give an estate character. There are a number sports and playing field uses located on the edges, or within the vicinity, of the main settlements and the conurbation. These include a large number of golf courses associated with the edge of the conurbation i.e. the Wergs Golf Club, the South Staffordshire Golf Club, Perton Park Golf Club, Penn Golf Club, Himley Park, Sedgley Golf Centre and the Stourbridge Golf Club.
- 8.32 The sector lies within the catchment areas of both the River Severn and River Stour. The River Severn runs along the western edge of the area and the River Stour forms the main water course within the area. There are a number of small streams and rivers including the River Wolfe. Sections of both the Staffordshire and Worcestershire Canal and the Shropshire Union Canal are located within the area with sections linking to the river system. Large open water bodies are limited in number and generally confined to reservoirs.

Settlement Pattern

- 8.33 The sector lies immediately west of the towns of Wolverhampton, Dudley and Stourbridge that combines to form the western edge of the West Midlands conurbation. The towns of Telford and Bridgnorth lie to the west and Kidderminster to the south.

- 8.34 Beyond the conurbation, the main settlements are Telford, Kidderminster, Bridgnorth, Albrighton, Wombourne and Codsall. The latter two are large villages located within close proximity to Wolverhampton but are compact and physically distinct from the conurbation itself. However the fringes of Wolverhampton and Dudley are less distinct with a higher density of ribbon development, small scale settlements and clusters of dwellings, creating a less distinct settlement pattern. This is compounded by the more complex heavily incised edge of the conurbation itself in this location.
- 8.35 Away from the conurbation there is a concentration of towns and villages along the main river systems with the larger towns and villages i.e. Kidderminster, Bewdley and Bridgnorth, located in and around the Severn Valley. Settlement patterns away from the river valleys are of a more rural character of small hamlets and isolated farmsteads. Other settlements lie alongside the Birmingham to Shrewsbury Railway line that runs between Wolverhampton and Telford and includes the villages of Codsall, Albrighton and Shifnal.
- 8.36 The settlements of Bridgnorth and Bewdley, associated with Severn Valley, are notable historic towns within the sector.

Transport connectivity

- 8.37 Large infrastructure is limited to the M54 (roughly between Telford and Wolverhampton) that forms the northern boundary and the Birmingham to Shrewsbury Railway line. A number of 'A' roads extend across the area connecting the larger towns and villages; and the A456 forms the southern boundary to this sector. In addition, Wolverhampton Airport at Halfpenny Green (west of Wolverhampton) is used by both aviation schools and private aviation operators and is also has a number of non-aviation land uses.

Green Belt Role

- 8.38 The strategic function of the Green Belt to the west of the Birmingham conurbation primarily relates to containing potential sprawl and the maintenance of a reasonably strong distinction between the urban edge and the wider open countryside. As such the principal role of the Green Belt relates to the immediate urban edges, although large expanses of Green Belt play a more generalised role in safeguarding the accessible countryside from encroachment. The large village of Kinver is an example of the pressures for generalised encroachment into the surrounding open countryside.
- 8.39 Locally, the potential for sprawl associated with the settlements of Kidderminster, Wombourne, Codsall/Bilbrook, Albrighton and Shifnal is checked, along with more generalised encroachment which blurs the distinction between town and country. Strategic separation between Telford and Shifnal, Kidderminster and Bewdley and Kidderminster and Stourbridge/Hagley is notable, as is localised separation between Wombourne and Himley and Codsall/Bilbrook and Wolverhampton. Protection of the setting of Bewdley and Brignorth is also notable.

North Sector – The M54 to A38, including Telford (N) and Lichfield (see Appendix B pp 16-24)

Geography

Landscape Character, Topography, Land Use and Drainage Pattern

- 8.40 The central and eastern parts of the north sector lie within NCA 67 Cannock Chase and Cank Wood. The western part lies within NCA 61 Shropshire, Cheshire and Staffordshire Plain with its outer edges falling into NCA 66 Mid Severn Sandstone Plateau. The central and eastern parts have an elevated and rolling landform associated with underlying sandstone and the South Staffordshire Coalfield. In contrast, the western part is lower lying and predominantly flat or gently undulating with a series of small sandstone ridges. The area contains a number of river valleys.
- 8.41 Land use across the majority of the area is mixed rural farmland although large areas have become fragmented and urban fringe in character due to the proximity/ density of urban development and settlements. These include the northern edges of the West Midlands conurbation (i.e. Wolverhampton, Bloxwich, Walsall and Sutton Coldfield) that are heavily incised and interrupted (or heavily enclosed) by urban development and the corridor of land extending from the conurbation itself towards Cannock and Burntwood in the north. Within areas of rural farmland there are a variety of field patterns ranging from small scale pasture and arable fields to large scale arable fields. Interspersed amongst farmland within the central and eastern areas is a number of large scale working aggregate quarries.
- 8.42 This is a well treed landscape with frequent woodlands and tree cover associated Cannock Chase, heathland, parkland and sandstone ridgelines. Cannock Chase is an extensive area of open heathlands and plantation woodlands located to the north of Cannock. The area also contains a number open spaces uses (such as Sutton Park, Sandwell Valley Country Park) and golf courses located on the edge or within the vicinity of the conurbation itself i.e. the Golf Academy, Bloxwich Golf Club, Druids Heath Golf Club, Aston Wood Golf Club, Sutton Coldfield Golf Club, Little Aston Golf Club, Calderfield Golf and Country Club, Walsall Golf Club and the Great Barr Golf Club.
- 8.43 The River Penk is the main watercourse in the area, this small river flows through the western part of the area towards the River Sow (a tributary of the River Trent). The central and eastern areas are drained by small streams that drain radially from the elevated landform around Cannock. The southern parts of this area contain the Wyrley and Essington Canal, the Staffordshire and Worcestershire Canal and the Shropshire Union Canal. There are a large number of large reservoirs (i.e. Belvide Reservoir, Calf Heath Reservoir, Gailey Lower and Gailey Upper Reservoirs and the Chasewater reservoir) and pools associated with aggregate quarries.

Settlement pattern

- 8.44 The area extends from the northern edge of Wolverhampton and Birmingham (the West Midlands conurbation) towards Telford (north-west), Penkridge and Rugeley (north) and Lichfield (north-east). These together with Cannock, Burntwood, Norton Canes, Brownhills and Aldridge form the main settlements within the area.
- 8.45 There is a distinct contrast between settlement patterns across the area. The settlement pattern within the area between the Bloxwich (northern edge of the conurbation), Cannock, Burntwood and Aldridge is a less distinct with a high density of settlements, ribbon development and large scale urban development. This is also the case within the areas that fringe the complex and heavily incised northern edges of the conurbation. By contrast, the settlement pattern associated with the western and eastern parts of the area is relatively dispersed and typified by large farmsteads, hamlets, villages and market towns (i.e. Penkridge).

Transport connectivity

- 8.46 The area contains a number of major transport corridors i.e. the M6, M6 Toll and M54. There are also a number of major and busy A roads serving the conurbation and main settlements, including the A5, A41, A449, A34, A460, A461, A452 etc. There are a number of railway lines linking the major settlements and the conurbation.

Green Belt Role

- 8.47 The role of the Green Belt in the north sector is exceptionally complex, reflecting the evolution of an intricate urban form associated with mining activity, the A5/M6 Toll/A38 corridor, and the subsequent application of Green Belt policy. Whilst Green Belt prevents the 'natural' tendency towards the coalescence of the various settlements, this is difficult to discern in many places. The dominant strategic role of the Green Belt is the maintenance of the separation of the various towns, principally Cannock and Wolverhampton/Walsall, Cannock and Burntwood, Cannock and Rugeley, Burntwood and Lichfield, Burntwood and Brownhills and Lichfield and Burntwood/Brownhills, Aldridge and Sutton Coldfield. This complements various instances of local separation such as between Bloxwich and Pelsall.
- 8.48 The containment of sprawl across the sector is equally complex, reflecting the multitude of urban edges associated with the various settlements, with particular contributions made along the northern edge of Sutton Coldfield, the eastern edges of Cannock, the south western and southern edges of Rugeley, and the north eastern edges of Walsall. Protection of the remaining open countryside from more general encroachment complements the immediate containment of sprawl.

The historic settlements of Penkridge, Rugeley and Lichfield benefit from the protection of their setting.

Figure 29: North Sector – Meeting of Green Belt Purposes

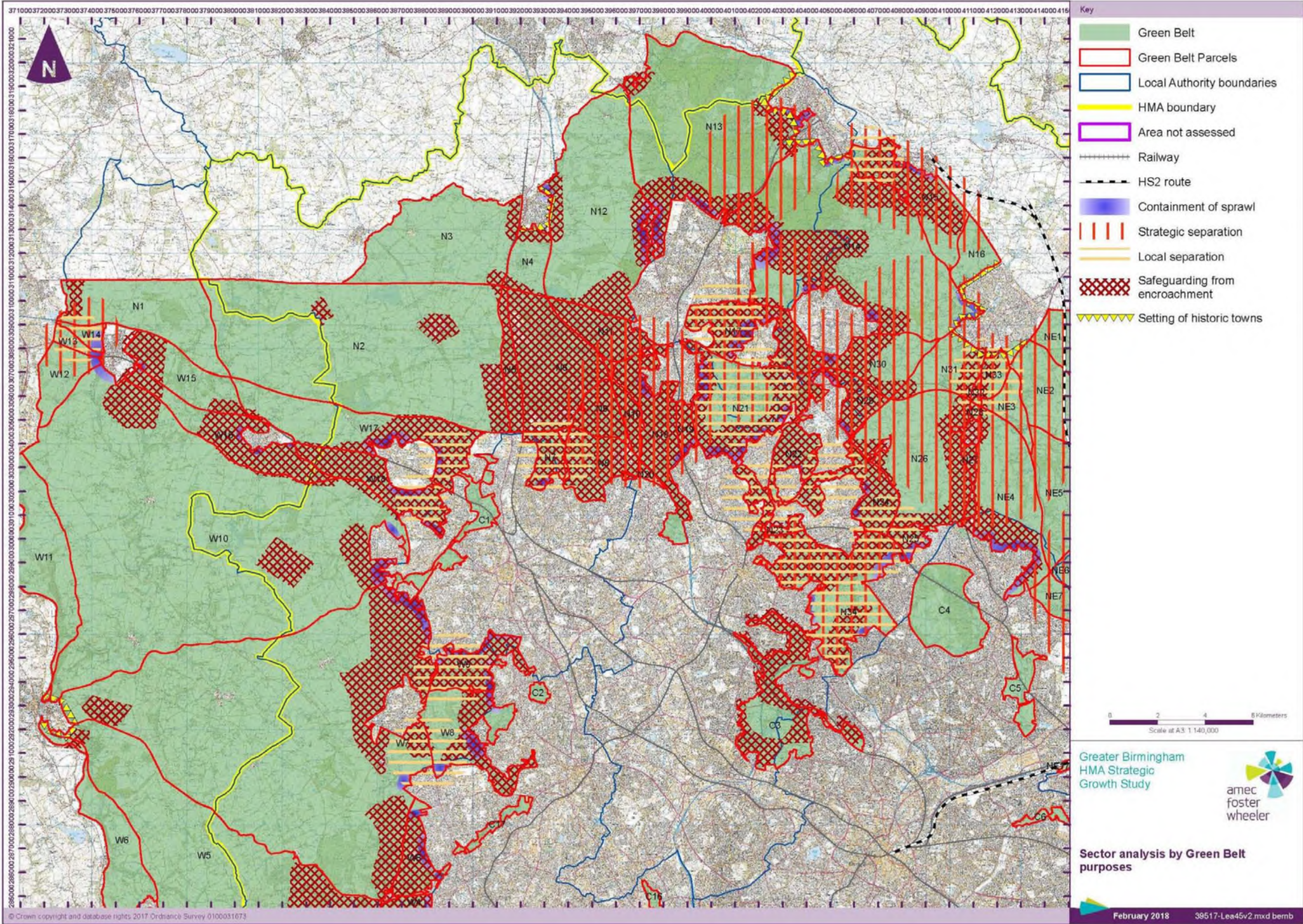
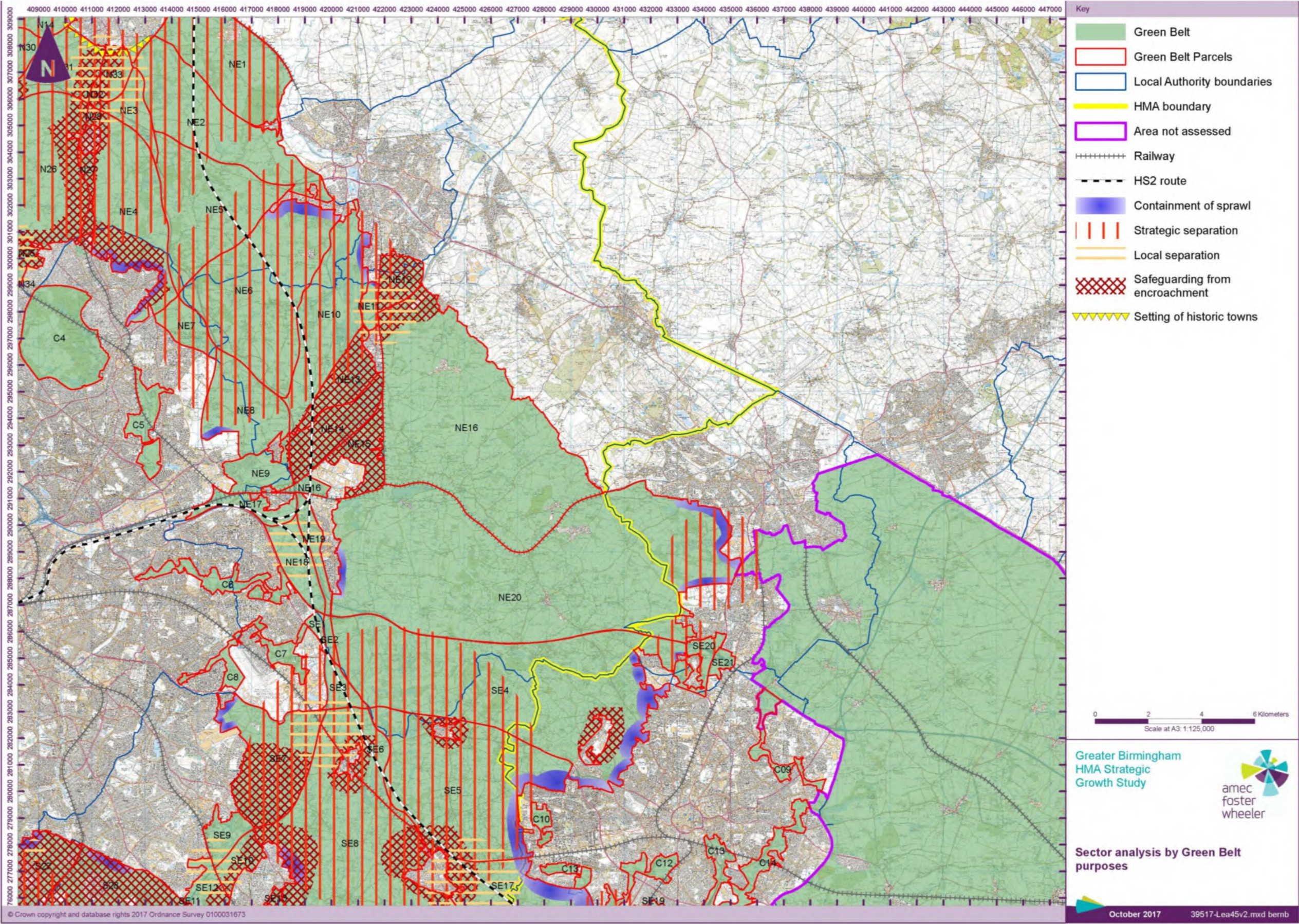


Figure 30: North East Sector – Meeting of Green Belt Purposes



North East Sector – The A38 to the M6, including Tamworth and Nuneaton (see Appendix B pp 25-28)

Geography

Landscape Character, Topography, Land Use and Drainage Pattern

- 8.49 The central part of the north east sector lies within NCA 97 Arden. The western part lies within NCA 67 Cannock Chase and Cank Wood and the area east of Coventry and Nuneaton lies within NCA 94 Leicestershire Vales. In addition, the southern section of the linear NCA 69 Trent Valley Washlands extends into the sector south of Tamworth (associated with the River Tame).
- 8.50 The sector has a complex geology and landform that supports a varied landscape. The area west of the River Tame and Tamworth has an elevated landform associated with the underlying sandstone and the South Staffordshire Coalfield and contains few river systems. The narrow and low-lying landscape of the River Tame forms a distinctive linear feature to the east that is often clearly delineated by adjoining higher ground. The central area is dominated by elevated landform associated with the Warwickshire Coalfields west of Coventry and Nuneaton and merges into an area of low lying clay valleys and ridges with a more elevated glacial plateau to the east. The area contains a number of river valleys.
- 8.51 Land use across the majority of the area is predominantly mixed rural farmland although broad areas of landscape have become notably fragmented and urban fringe or industrial in character due to the influence of mining, quarrying and the proximity/ density of urban development. These include the edges of Tamworth (south), Nuneaton (south), Bedworth and Coventry (north) and areas near small settlements such as New and Old Arley and Ansley.
- 8.52 Field patterns are diverse, irregular in shape and range from small scale arable and pastoral fields and woods to medium to large scale arable fields often associated with former estates. Within the River Tame valley corridor, pastoral fields dominate the floodplain and the river terraces are dominated by arable fields. This corridor has also been subject the historic sand and gravel extraction with many landscapes restored to agriculture, water bodies and wetlands, some of which serve as leisure facilities such as the Kingsbury Water Park south of Tamworth. This is a well treed landscape with frequent woodlands and tree belts often associated parkland, hill tops and ridgelines.
- 8.53 There are a number of golf courses located on the edge or within the vicinity of the conurbation itself i.e. Moor Hall Golf Club, the Belfry, Wishaw Golf Club, Maxstoke Park, Walmley Golf Club and Pype Hayes Park.

- 8.54 The River Tame is the main watercourse in the area and is the main tributary of the River Trent. It runs from the eastern edge of the conurbation near Lee Marston and flows north through Tamworth. River Blythe runs northwards along the eastern edge of Coleshill and flows into the River Tame near Lea Marston. There are numerous of small rivers and streams within this sector. There a large number of water bodies or pools associated with gravel and sand extraction within the River Tame and Shustoke Reservoir forms the largest reservoir in the area.

Settlement pattern

- 8.55 The area extends from the north-eastern edge of Birmingham (eastern edge of the conurbation) towards Coventry and Nuneaton in the east, Tamworth in the north-east and Lichfield in the north. These form the main settlements within this sector and the next tier of settlements includes Coleshill (east of Birmingham) and Bedworth and Bulkington (between Coventry and Nuneaton).
- 8.56 The settlement pattern away from the conurbation and main settlements is relatively dispersed and distinct (typified by small villages, scattered farmsteads and large country houses). However the fringes of Birmingham and the other main settlements are less distinct with a higher density of ribbon development, small scale settlements and clusters of large scale urban development (often commercial) along major transport corridors. The eastern edge of Birmingham contains a dense network of major transport corridors and the associated settlement pattern is both complex and diverse. This is notable within the area associated with Coleshill, Water Orton and Cudworth where M42, M6 and M6 Toll roads converge. Similar settlement patterns occur on the fringes of all the main settlements and also within the corridor between Nuneaton and Coventry and between Tamworth and Birmingham (near Lea Marston). The physical distinction between the settlements of Nuneaton and Bedworth has been severely eroded.

Transport connectivity

- 8.57 The area contains a number of major transport corridors i.e. the M6, M42, M6 Toll and M69. There are also a number of major and busy A roads serving the conurbation and main settlements, including the A38, A5, A444 etc. There are a number of railway lines linking the major settlements and the conurbation.

Green Belt Role

- 8.58 The role of the Green Belt to the north east of Birmingham predominantly relates to the strategic separation of Lichfield from Sutton Coldfield and Tamworth, and Tamworth from Sutton Coldfield, Bedworth and Nuneaton, as well as the containment of sprawl from unbounded edges of particular areas of these settlements, such as at Roughley (Sutton Coldfield) and Fazeley.

- 8.59 Local separation is apparent between Birmingham (Castle Bromwich/Kingshurst) and Coleshill, and between Tamworth and Kingsbury. Prevention of encroachment is concentrated on land between Sutton Coldfield and Lichfield and Tamworth and Coleshill. The course of the River Tame, its floodplain and extensive past gravel extraction plays a significant role in steering the direction of development pressure in the sector and consequently the role of the Green Belt in managing this.

South East Sector – The M6 to the M40 including Coventry, Rugby and Leamington/Warwick (see Appendix B pp.29–33)

Geography

Landscape Character, Topography, Land Use and Drainage Pattern

- 8.60 The western and central parts of the south east sector lie within NCA 97 Arden. The sector has a complex geology that supports a varied topography. Whilst the area is dominated by rolling or gently undulating landform. The location of the Warwickshire coalfields to the west of Coventry supports a more elevated landform than the lower lying Knowle Basin located to the east of Birmingham.
- 8.61 Land use is predominantly rural farmland. Field patterns are diverse and range from small scale arable and pastoral fields to medium to large scale arable fields often associated with former estates. To the west, near the edges of the conurbation, there is a complex landscape of well-defined small fields, woods and pasture. This is a well treed landscape with frequent woodlands and tree belts, often associated with rising ground, estates and mature parkland.
- 8.62 The area has also undergone significant land use change associated with an extensive area of gravel and sand extraction associated with the Knowle Basin (near Little Packington and Meriden). Whilst mineral working continues within this area, a number of landscapes have been restored to agricultural or leisure uses such as golf courses (i.e. Stonebridge Golf Club, North Warwickshire Golf Club). There are also a number open spaces, sports/ playing field land uses located on the edge or within the vicinity of the conurbation itself i.e. Elmdon Nature Park, Hatchford Brook Golf Course, Copt Heath Golf Club and Widney Manor Golf Club.
- 8.63 The area contains a number of meandering river valleys. The River Blythe and the River Avon are the main watercourses in the area. The River Blythe is located centrally and runs between Solihull and Coleshill. The River Avon runs between Leamington Spa and Rugby within the eastern part of the area. There are a number of small rivers and streams. The sector contains sections of both the Stratford-upon-Avon Canal and the Grand Union Canal. There a large number of water bodies or pools associated with the Knowle Basin gravel and sand extraction area.

Settlement pattern

- 8.64 The area extends south-east from Solihull towards Stratford-on-Avon, Leamington Spa, Warwick and Rugby. The main settlements are Solihull (forming the south-eastern edge of the West Midlands conurbation), Leamington Spa, Coventry and Rugby. The next tier of settlement includes the town of Kenilworth and a small number of large villages such as Dorridge/ Knowle and Balsall Common.
- 8.65 Of note is a higher density of small scale settlements and ribbon development located to the east of Solihull associated with the Dorridge/Knowle area and between the edge of the West Midlands conurbation and the M42 near Catherine-de-Barnes and Bickenhill. Higher density and less distinct settlement pattern is also characteristic of the fringes of Coventry. Of note are the heavily incised edges of the settlement, the areas of Green Belt surrounded by urban development within the town itself, and large urban development associated with Coventry Airport (to the south west). In addition, the physical distinction between the settlements of Coventry and Bedworth has been severely eroded.
- 8.66 By contrast, the settlement pattern away from the conurbation and main settlements remains relatively dispersed, typified by small nucleated villages and scattered farmsteads. Smaller settlements of Balsall Common, Hampton in Arden and Meriden remain relatively distinct and well dispersed.

Transport connectivity

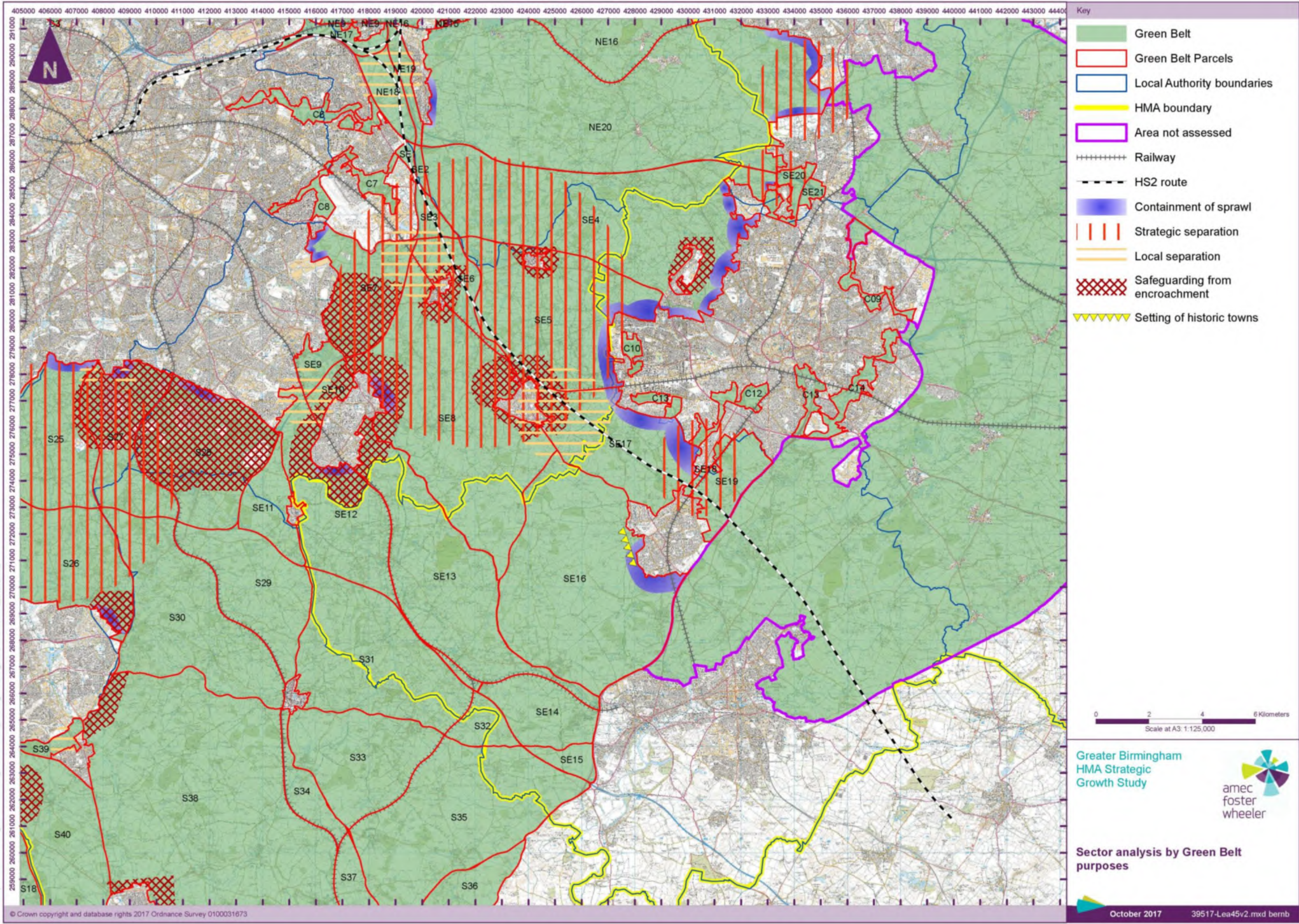
- 8.67 The M42 and M6 form major transport corridors within this sector. There are also a number of major and busy A roads serving the conurbation, including the A446, A41, A452, A45, A46, A423, etc. There are two railway lines linking the major settlements with the conurbation.
- 8.68 Birmingham Airport and the National Exhibition Centre (NEC) are both located on the edge of Birmingham conurbation, off the A45 and M42. Coventry Airport is located to the south west of Coventry and is used by both private and commercial/ cargo operators.

Green Belt Role

- 8.69 The role of the Green Belt between Birmingham and Coventry is dominated by the strategic separation of the two urban areas, complemented by the containment of sprawl along the western edge of Coventry and Kenilworth in particular. The urban edge around the Birmingham conurbation appears to be better contained, but also is heavily influenced by the presence of the M42 corridor. More localised separation is apparent between Dorridge and Solihull, Birmingham (NEC/Airport) and Hampton in Arden, and between Coventry and Balsall Common.

- 8.70 Prevention of encroachment into open countryside, either through evidence of past change or potential for future change, is particularly apparent in the vicinity of Dorridge, Catherine-de-Barnes, Balsall Common, Hampton-in-Arden, Meriden and Allesley to the west of Coventry.

Figure 31: South East Sector – Meeting of Green Belt Purposes



Analysis of Overall Contribution to Green Belt Purposes

- 8.71 Figures 32-34 separate out the role of the Green Belt across the study area to illustrate the broad pattern of individual Green Belt roles identified in the Assessment. Figure 32 shows where the Green Belt serves to prevent the unrestricted sprawl of large built-up areas; Figure 33 shows where the strategic separation of towns along with more localised separation; and Figure 34 shows where encroachment into open countryside is prevented and the setting of historic towns protected.
- 8.72 Figure 35 illustrates where the four Green Belt purposes are met across the study area. This does not imply that areas of Green Belt without a specific mapping symbol applied make no contribution to Green Belt purposes, rather that this role is more diffuse and/or localised.
- 8.73 Taking this approach a stage further, Figure 36 splits the four Green Belt purposes into two categories: **Principal Contribution** (which combines the purpose of preventing sprawl and maintaining strategic separation) and **Supporting Contribution** (which is all other areas of the Green Belt not identified as making a Principal Contribution). The pattern of Principal and Supporting Contributions shown in Figure 35 reflects both the relationship between the conurbation and its satellite settlements and the vulnerability of land at the edges of large built-up areas to sprawl where the containment of development by permanent boundaries is not always strong. The relationship between Principal and Supporting Contributions is subtle but important because the division between the two is not a clear line and there will be examples of local geography where Green Belt policy has acted strongly to steer development pressures.
- 8.74 Identification of Principal and Supporting Contributions in this way does not imply a differing value between areas of Green Belt *per se*, but rather that it is possible to identify where change (i.e. development) could in principle undermine the overall strategic role of the Green Belt as a planning policy tool applied to the West Midlands conurbation.
- 8.75 As with the identification of the fulfilment of individual Green Belt purposes, the summary of Principal and Supporting Contribution is intended to be an indication of the presence of strategic function in a particular locality, and not related to precise boundaries. This would be the role of local studies which make use of detailed fieldwork to support their analysis as part of the Local Plan making process.

Figure 32: Checking the Sprawl of Large Built-up Areas

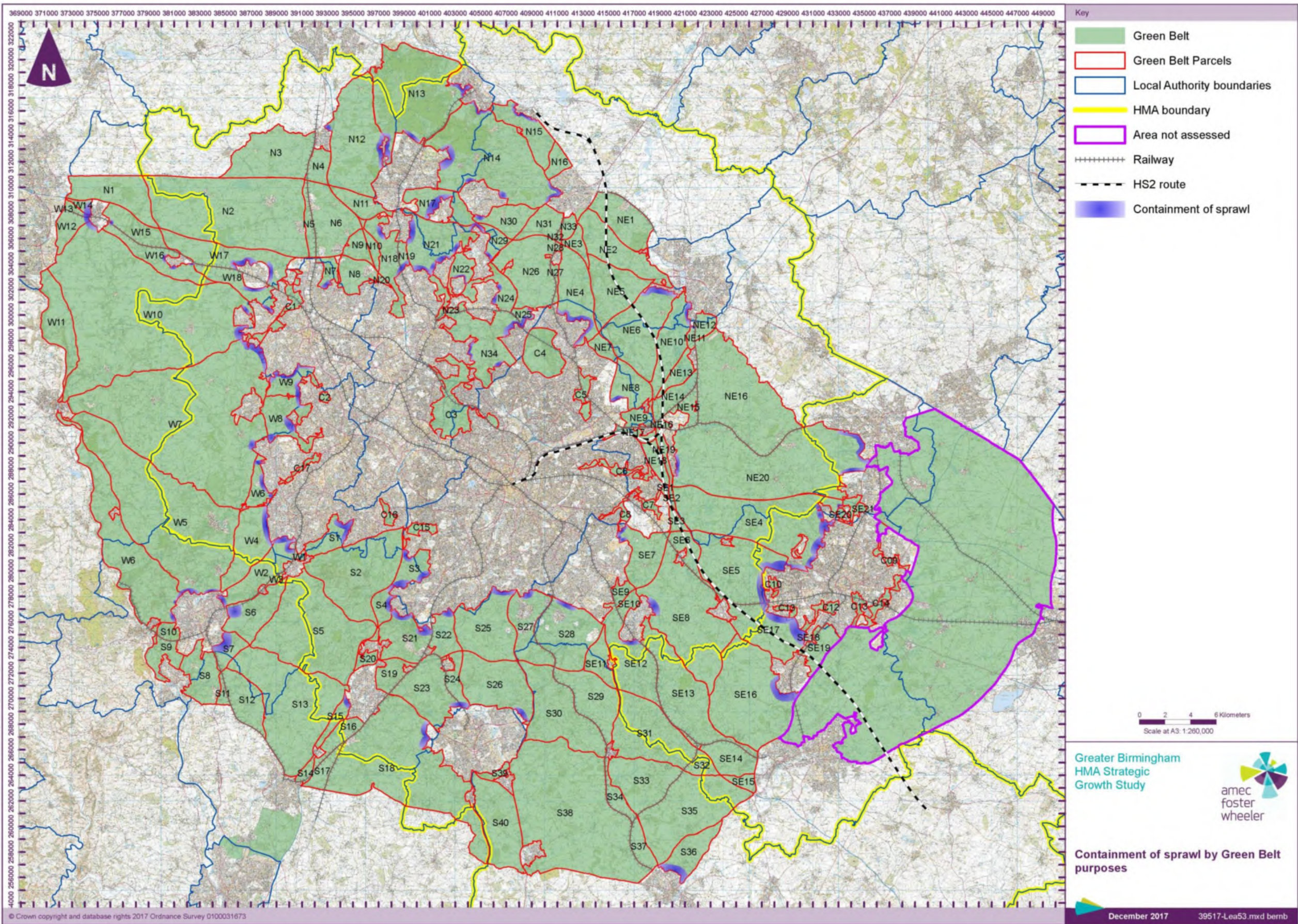


Figure 33: Preventing Towns from Merging

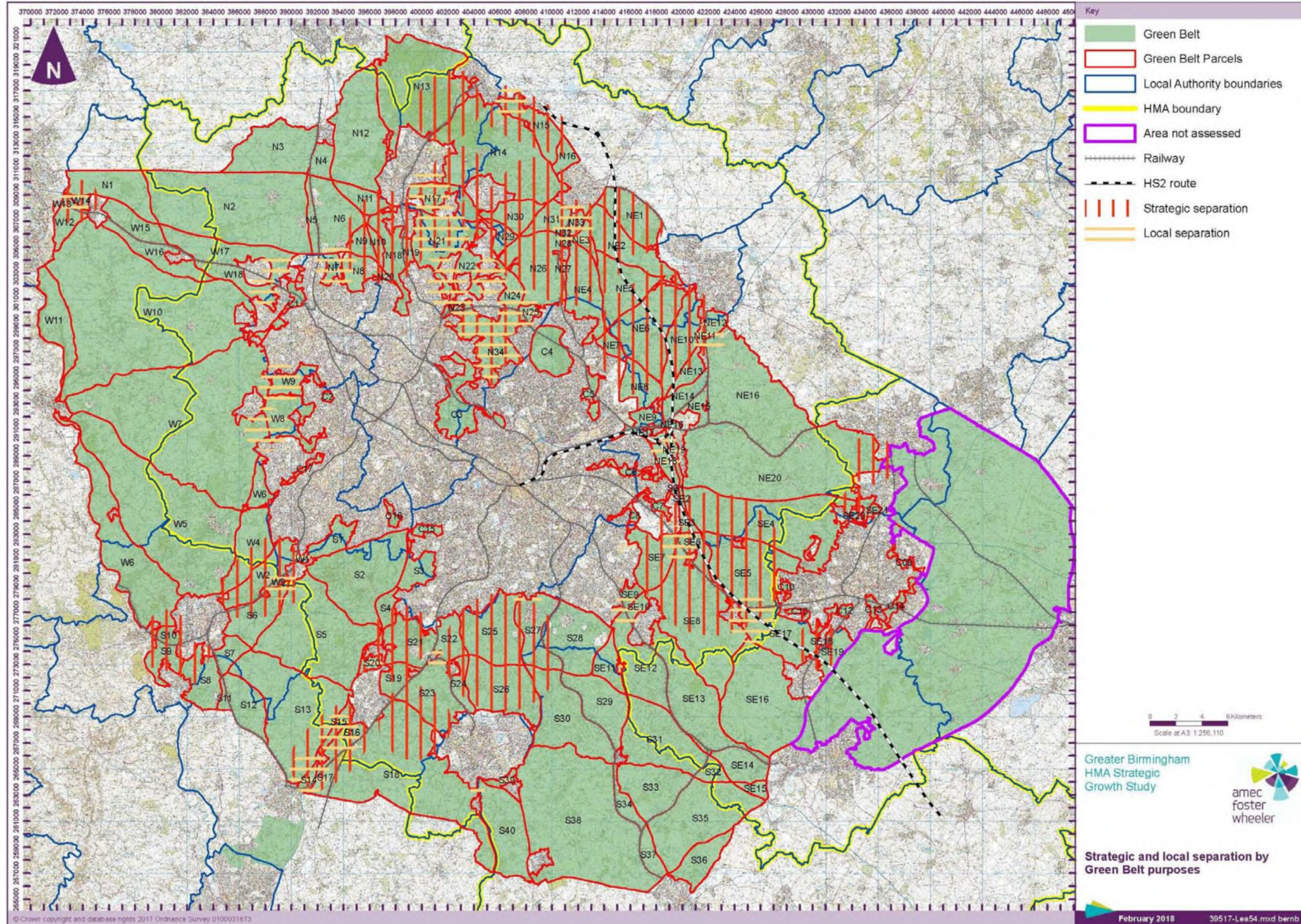


Figure 34: Safeguarding the Countryside from Encroachment and Protecting the Setting of Historic Towns

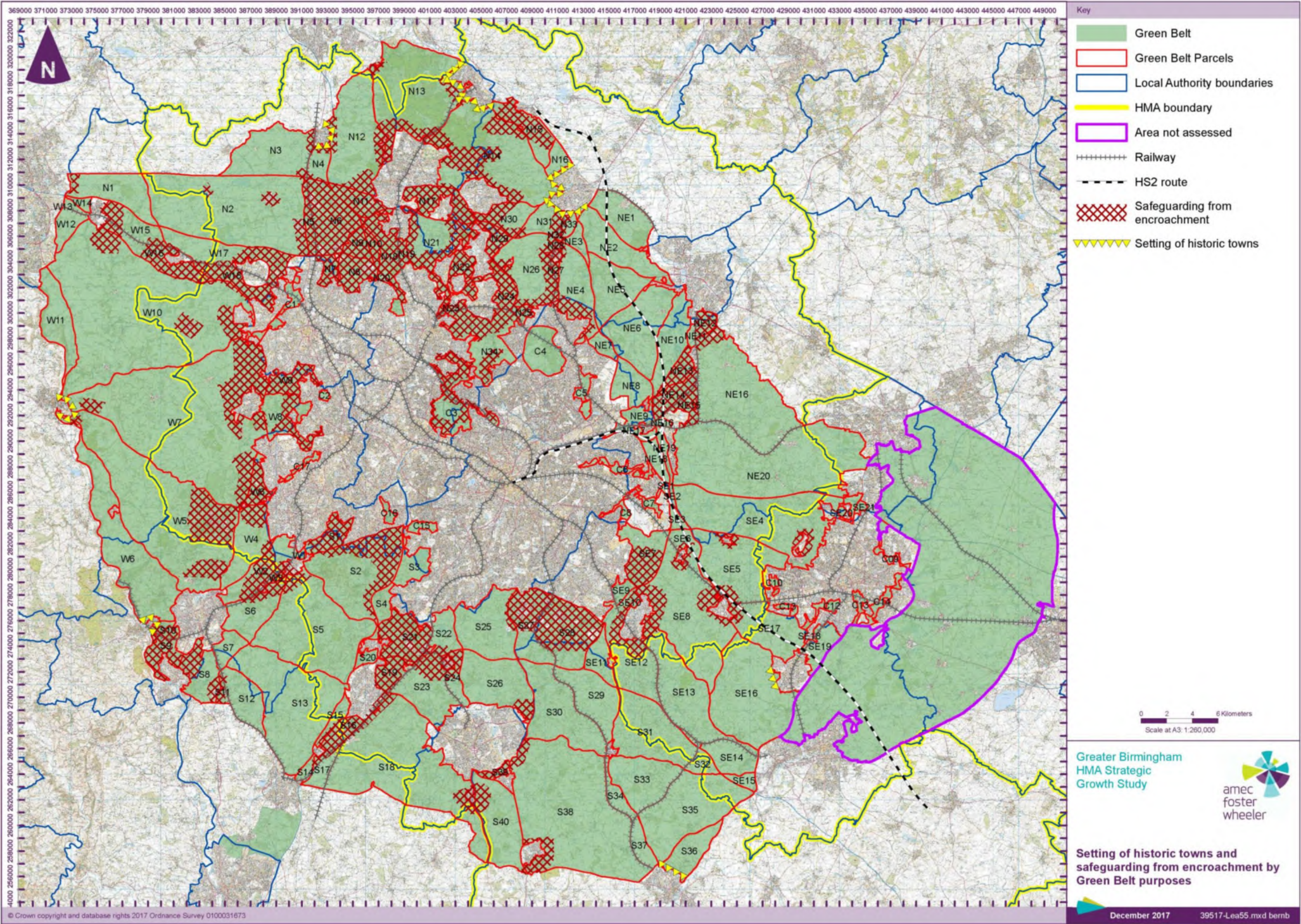


Figure 35: Contribution to Green Belt purposes (Study Area)

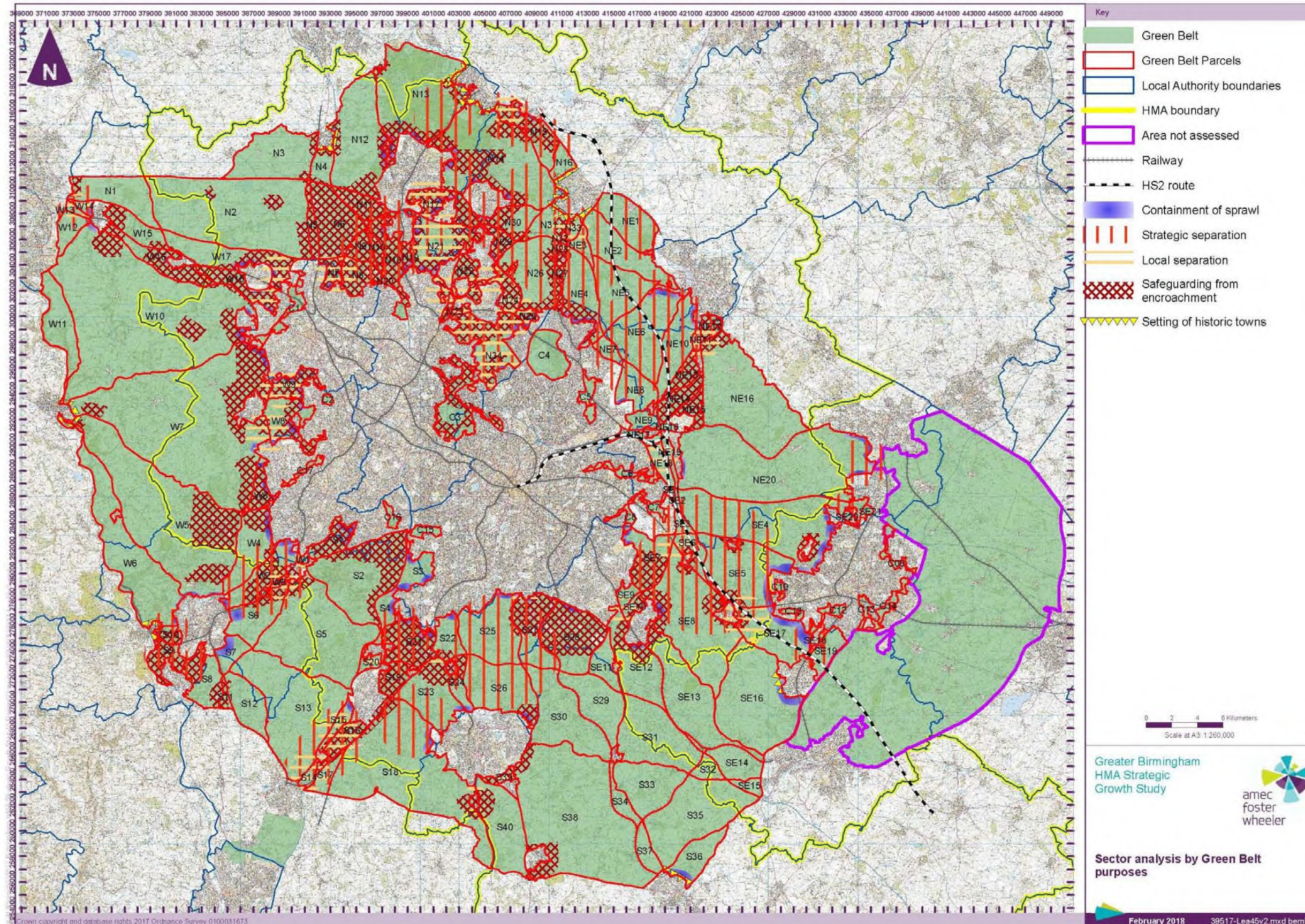
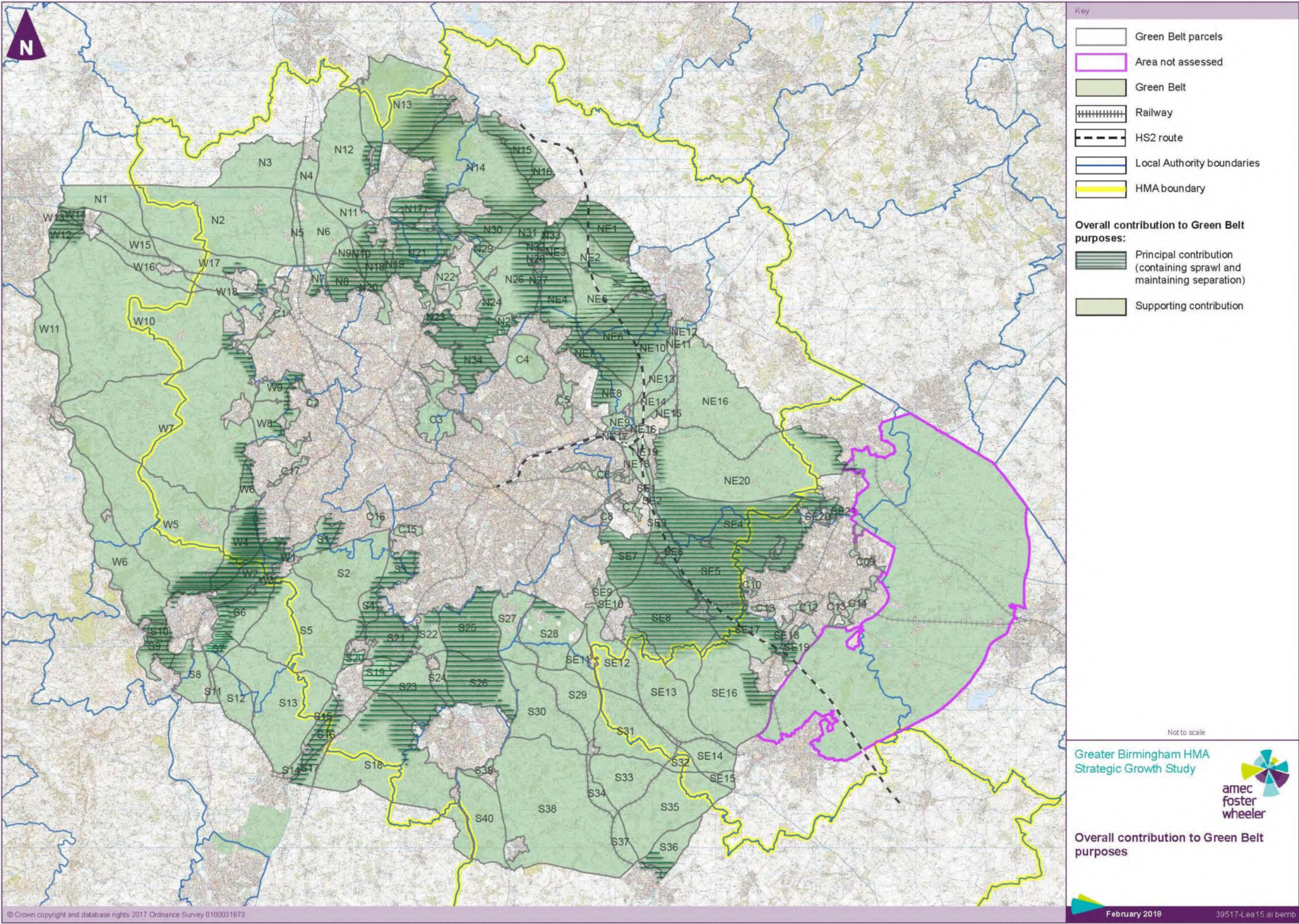


Figure 36: Overall Contribution to Green Belt Purposes by Principal and Supporting Contribution



Identification of Areas of Search

Order of Identification

- 8.76 This section moves on to consider potential areas within the Green Belt which might be suitable to receive development. It is part of a broader sequential approach to identifying areas of search as follows:
- The use of previously developed sites and buildings, and other suitable urban areas not protected for amenity or other purposes.
 - Sites outside the Green Belt.
 - Sites adjoining urban areas which are, or can be, well served by public transport.
 - Sites in locations not adjoining urban areas which are, or can be, well served by public transport, which in practice are rail corridors.

Consideration of Green Belt Locations

- 8.77 The West Midlands Green Belt fulfils both strategic and more localised purposes. Strategically the Green Belt contains pressures for sprawl of the conurbation into surrounding countryside and maintains the separation between the conurbation and surrounding towns. More diffusely and often locally, the Green Belt contributes to protecting the countryside from encroachment and the separation of individual settlements from adjacent urban areas. This twofold division is recognised in the analysis of Green Belt judged to be making a Principal Contribution to Green Belt purposes (i.e. sprawl and strategic separation) and that judged to be making a Supporting Contribution (i.e. encroachment, local separation and the setting of historic towns).
- 8.78 Table 44 sets out the criteria for identifying Areas of Search using the six PBA development models. Whilst the avoidance of areas making a Principal Contribution to Green Belt purposes is a starting point, there are clear exceptions which can be reasonably applied. Notably these relate to the presence of a railway line or a key employment area, but also areas which because of the nature of existing development, local geography and locational guidance identified in the NPPF, can still be considered as potential Areas of Search. Their early exclusion could mean a significant missed opportunity for achieving a balanced planning outcome across the study area. As part of taking forward any of the proposed Areas of Search, additional detailed scrutiny of both the strategic and local effects on the role of the Green Belt would be required, as well as the application of sustainable development and landscape considerations.
- 8.79 This approach accords with guidance in the NPPF (para. 84) which states that: *“when drawing up or reviewing Green Belt boundaries local planning authorities should take account of the need to promote sustainable patterns of development. They should consider the consequences for sustainable development of channelling development towards urban areas inside the Green Belt*

boundary, towards towns and villages inset within the Green Belt, or towards locations beyond the outer Green Belt boundary.” The approach is also supported by the NPPF (para. 17) which notes that planning should: “actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development on locations which are or can be made sustainable.”

- 8.80 Areas outside the HMA but covered by Green Belt have not been considered for Areas of Search. There could be areas adjacent to the HMA which would meet the locational criteria set out in Table 44 and thereby join the areas identified in this report for further consideration.

Table 44: Strategic Development Models and their Application to Green Belt Areas

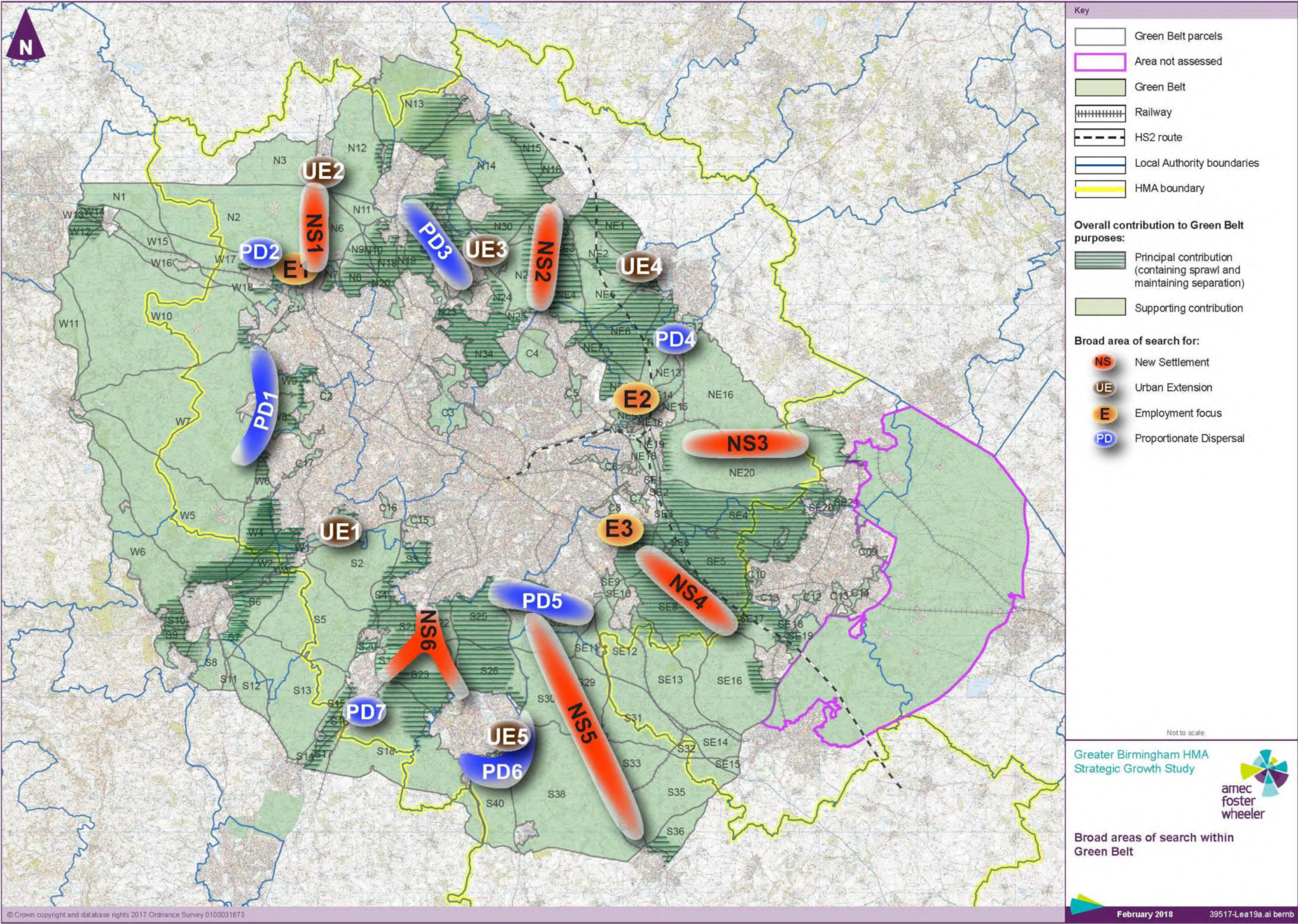
Development Model	Application to Green Belt Areas
Urban Intensification	Not applied to the Green Belt within urban areas, given their size, complex local geography and roles as part of the Green Infrastructure of Birmingham and the Black Country (having biodiversity and recreational functions) and the local separation of urban areas (Green Wedges). In addition, some urban areas have significant local ground constraints such as contamination and/or subsidence.
Urban Extensions	Considered in areas adjacent to a contiguous urban area, with the presence of key infrastructure such as a main road (which could be the focus for public transport). In some cases this coincides with areas identified as making a Principal Contribution to Green Belt purposes. Whilst locations adjacent to existing urban areas are more likely to be served by public transport, it is accepted that significant local constraints could exist in respect of infrastructure capacity and land assembly.
Public Transport Corridors	Not considered as development areas in their own right, but as part of the location of New Towns/Settlements and Urban Extensions.
Employment-Led Strategic Development	Considered in localities with a current strategically significant employment focus (namely Solihull/NEC/Birmingham Airport, i54 (South Staffordshire) and Coleshill/Minworth). In some cases this coincides with areas identified as making a Principal Contribution to Green Belt purposes.
Proportionate Dispersal	Used as a complement to existing proposals and/or potential larger development where because of the character of the Green Belt and urban edge, larger development models are unlikely to be appropriate (for example areas poorly served by transport infrastructure). Whilst the Green Belt along many edges of large built-up areas has been identified as making a Principal Contribution to the strategic role of the Green Belt because of its role in containing sprawl, development would not necessarily compromise its wider strategic function.
New Settlements	Applied to rail corridors where there is sufficient land such that development would not result in the physical coalescence between the new settlement and an existing town. In some cases this coincides with areas identified as making a Principal Contribution to Green Belt purposes.

Areas of Search

- 8.81 Applying the parameters set out in Table 43, Figure 37 illustrates a preliminary set of potential areas of search which have been identified for more detailed scrutiny. These areas of search are indicative and have been identified using both the analysis of Green Belt contribution (Figures 20 – 24 and Appendix B) and the inspection of constraints mapping, OS mapping and aerial photography. Paragraphs 8.82 – 8.108 detail each proposed Area of Search by development model. Where specific Areas of Search are to be further scrutinised, local Green Belt reviews (existing and proposed) will help to further refine the selection process³³.
- 8.82 The output from this particular analysis is a range of areas of search and development types which, in combination with areas of search outside the Green Belt, can be used to help test scenarios for accommodating the overspill requirement. Various combinations of development types, sizes of development and areas of search could be identified in light of this analysis. Should Green Belt locations be identified as part of the scenario-testing process, then detailed scrutiny against local Green Belt Reviews would be required, as well as a separate exercise on the likely cumulative impact on the Green Belt.
- 8.83 As part of this exercise, no significant areas of previously developed land in the Green Belt were identified. Should any such sites come to light, these would present a clear opportunity for development, either in their own right or as the focus for a larger development.
- 8.84 Alongside this Study, more local Green Belt Assessments considering the performance against Green Belt purposes at a finer grain may identify small and medium-sized development sites.

³³ See for example studies undertaken for Solihull, Stratford upon Avon, Warwick, North Warwickshire, Coventry, Tamworth, South Staffordshire, Lichfield and Cannock Chase.

Figure 37: Potential Areas of Search by Development Model



Areas of Search for New Towns / Settlements

- 8.85 The scale of development associated with new towns/settlements (10,000 to 15,000 dwellings) is such that there are relatively few areas with the combination of sufficient space and the presence of a rail corridor with a station or potential for a station. The following broad areas of search reflect this specific locational requirement. Their impact on the strategic function of the Green Belt would not only be in respect of altering the current relationship between built-up areas, but creating a new one where an area of Green Belt acquires a strategic separation role, for example. In all cases, there would be a fundamental change in the local settlement pattern and also potentially to the strategic settlement pattern of a broad locality.

Table 45: Potential New Settlement Broad Locations in Green Belt

Broad Location	Appendix B Green Belt Analysis Reference	Potential Effect of Strategic Function of the Green Belt	Potential Effect on Local Function of the Green Belt	Potential Constraints
Between Wolverhampton and Penkridge (Location NS1)	North Sector pp.14-20	Could introduce strategic separation issues between Penkridge and Wolverhampton	Setting of Penkridge.	Proposed rail freight interchange at Four Ashes
Between Lichfield and Sutton Coldfield (Location NS2)	North Sector pp.14-20 North East Sector pp.21-23	Part of the strategic gap between Lichfield and Birmingham	-	-
Between Birmingham and Nuneaton (Location NS3)	North East Sector pp.21-23	-	-	No existing infrastructure
Between Birmingham and Coventry (Location NS4)	South East Sector pp.24-27	Part of the strategic gap between Birmingham and Coventry	-	Alignment and severance effects of HS2
Between Birmingham and Stratford upon Avon (Location NS5)	South Sector pp.2-7	-	Setting of Stratford upon Avon	Limited road infrastructure
Between Birmingham and Bromsgrove/Redditch (Location NS6)	South Sector pp.2-7	Part of the strategic gap between Birmingham and Bromsgrove and Birmingham and Redditch	Local separation of Barnt Green and Alvechurch.	Significant existing development

- **Between Wolverhampton and Penkridge (Location NS1)** ³⁴

- 8.86 Development in this area, whilst being part of the busy corridor between Wolverhampton and Stafford (M6, A449, railway), would have a limited effect on the strategic role of the Green Belt because of the containment of the conurbation to the south by the M54 and the absence of a strategic separation function.
- 8.87 In terms of outlining an Area of Search, the West Coast Mainline (Wolverhampton – Stafford) forms a focus for development, although the nearest station is Penkridge, meaning that a new station is required. It is recognised that development of this scale could prompt the re-evaluation of the role of the Green Belt in this location which would acquire a strategic separation role between a new development and Stafford to the north, Cannock to the east and Wolverhampton to the south.

³⁴ Area of Search No 5, Table 49, Figure 38

Locally, the separation of settlements such as Coven and Brewood from new development would have to be considered.

8.88 There are relatively few nationally significant constraints in the area aside from small areas covered by Flood Zone 3 and potentially a number of Scheduled Ancient Monuments.

8.89 It should be noted that this area is also identified as a potential location for an urban extension (South of Penkridge) and it is unlikely that both could be accommodated. Furthermore, there is a proposal for development of a new Strategic Rail Freight Interchange in this Area of Search, with a Development Consent Order application due to be submitted in 2018. If this development was to be approved, then the principle of a new settlement in this location and/or its potential location would need to be reconsidered.

- **Between Lichfield and Sutton Coldfield i.e. Around Shenstone (Location NS2)**³⁵

8.90 Although part of the strategic gap between Lichfield and the Birmingham conurbation at Sutton Coldfield, the size of the gap and presence of a railway line and station at Shenstone means that it merits further scrutiny. The area around the existing settlement of Shenstone is largely free from nationally significant constraints (excl. Green Belt) aside from small areas covered by Flood Zone 3 and a small number of Ancient Scheduled Monuments.

8.91 The area contains the M6 Toll (which parallels the original A5) which has created a significant east-west boundary separating Lichfield from the edge of the conurbation at Sutton Coldfield to the south. Development in this location would further emphasise the strategic separation role of land to the north of Sutton Coldfield.

- **Between Birmingham and Nuneaton i.e. Around New Arley (Location NS3)**³⁶

8.92 This is part of open countryside between the Birmingham conurbation and towns to the east (Atherstone, Nuneaton and Bedworth). There is no strategic Green Belt function across much of the extent of this locality (this limited to land in the vicinity of urban areas), the Green Belt consequently playing a supporting role.

8.93 In respect of identifying a broad Area of Search, whilst being a relatively remote location with no major road infrastructure, the rail corridor running through the north of New Arley - could in principle be the focus for development of a substantial scale, although the scale of infrastructure provision is a significant consideration.

³⁵ Area of Search No 10, Table 49, Figure 38

³⁶ Area of Search No 14, Table 49, Figure 38

8.94 Aside from areas of Ancient Woodland which could be protected, there are no nationally significant constraints. The presence of the rail corridor, connecting the Area to the conurbation helps to define a broad Area of Search around New Arley.

- **Between Birmingham and Coventry i.e. Around Balsall Common (Location NS4)** ³⁷

8.95 This land is part of the strategic gap between Birmingham and Coventry, although it contains significant development at Balsall Common where there is a station. The A452 Birmingham – Kenilworth road traverses the corridor northwest – southeast. Development would further narrow the gap between Birmingham and Coventry, although this would be towards its southern extent.

8.96 The potential scale and orientation of development in this location would need careful consideration given the route of the West Coast Mainline and HS2 which, from Balsall Common, will run broadly parallel to the A452.

8.97 This area is free from nationally significant constraints. There are small portions of Ancient Woodland and areas covered by Flood Zone 3 further afield however it is considered these could be mitigated, given the strategic nature of a new settlement. The presence of the railway corridor running north east-south west from the conurbation and a railway station at Balsall Common supports the potential for residential as well as employment development around this area.

- **Between Birmingham and Stratford upon Avon i.e. South of Birmingham (Location NS5)** ³⁸

8.98 This corridor is part of open countryside with small communities and associated stations strung along the Birmingham – Stratford upon Avon railway line: Wythall, Earlswood, The Lakes, Wood End, Danzey, Henley-in-Arden, Wootton Wawen and Wilmcote. The A3400 and the A4189 traverse the corridor. No effect on the strategic function of the Green Belt has been identified, and as with other locations of this nature, very substantial development would fundamentally alter the settlement pattern, locally and more generally, along this corridor.

8.99 In order to define a broad Area of Search for further consideration which sits within NS5, nationally significant constraints and the strategic transport network have been reviewed. The area around Wood End, Tanworth-in-Arden and Hockley Heath is largely free from nationally significant constraints with only small pockets of Ancient Woodland and areas of land covered by Flood Zone 3 identified.

8.100 Furthermore, the Stratford-upon-Avon to Birmingham rail corridor is in close proximity with stations at Danzey and Wood End. In addition, the M42 and M40 are circulated in close proximity, with the A3400 located to the south-east of this area connecting to the M40.

³⁷ Area of Search No 19, Table 49, Figure 38

³⁸ Area of Search No 21, Table 49, Figure 38

- **Between Birmingham and Bromsgrove/Redditch (Location NS6)³⁹**

- 8.101 The rail corridors between Birmingham and Bromsgrove and Birmingham and Redditch (shared until Barnt Green), whilst already containing some large villages, could, in principle, be the focus for extensive development, focused on public transport provision. Whether there is sufficient space for a development of this scale is uncertain. It is noted that parts of these corridors, particularly to the north around Barnt Green, are identified as making a Principal Contribution to Green Belt purposes, being part of the separation of Birmingham and Bromsgrove.
- 8.102 This area is only constrained by small parcels of Ancient Woodland. Aside from this, there are no nationally significant constraints. The area is situated on a rail corridor (Worcester-Birmingham) with stations nearby in Alvechurch (Red Lion) and Barnt Green (from Redditch). The area is also in close proximity to the M42.

Areas of Search for Urban Extensions

- 8.103 The scale of these developments (ranging from 1,500 to 7,500 dwellings) is such that they are likely to transform their receiving environment, creating a focus for homes, services and employment, and ideally complementing their parent urban area.

Table 46: Potential Urban Extension Broad Locations in Green Belt

Broad Location	Appendix B Green Belt Analysis Reference	Potential Effect of Strategic Function of the Green Belt	Potential Effect on Local Function of the Green Belt	Potential Constraints
To the south of Dudley (Location UE1)	South Sector pp.2-7	Part contains sprawl from built edge of Halesowen/Cradley	-	-
To the south of Penkridge (Location UE2)	North Sector pp.14-20		Southerly setting of Penkridge	-
The vicinity of Cannock, Great Wyrley, Burntwood, Brownhills and Aldridge (Location UE3)	North Sector pp.14-20	Complex urban edge with various instances of strategic separation and containment	Local separation of various settlements	-
To west/north west of Tamworth (Location UE4)	North East Sector pp.21-23	Part of the strategic gap between Tamworth and Birmingham	Local separation of various settlements	Flood risk?
To the south east of Redditch (Location UE5)	South Sector pp.24-27	-	Local separation of Studley?	Limited strategic infrastructure?

³⁹ Area of Search No 23, Table 49, Figure 38

- **To the south of Dudley (Location UE1)⁴⁰**

8.104 There is likely to be only a limited effect on the strategic function of the Green Belt in this location, given the high degree of containment by the A456 to the south. The area nevertheless retains some qualities of open countryside, despite progressive intrusion on the fringes, particularly from the east where there are examples of unbounded edges associated with past incremental additions to this part of Dudley. Development to the north and west at Cradley and Wollescote appears to be more contained by topography and watercourse features, although the development is still generally unbounded.

8.105 Aside from Green Belt, there are no nationally significant constraints around this area. The Area of Search would be situated around the urban edge of Dudley Borough in close proximity to the existing service centres and employment. The area is in close proximity to the A458 and a rail corridor to the west (Worcester – Birmingham).

- **To the south of Penkridge (Location UE2)⁴¹**

8.106 Part of the corridor between Wolverhampton and Stafford. Development in this area would have a limited effect on the strategic role of the Green Belt because of the containment of the conurbation to the south by the M54 and the absence of a strategic separation function. This area is almost entirely free from nationally significant constraints aside from small parcels of Ancient Woodland to the south east of Penkridge. The area is located on a rail corridor, albeit the nearest station is Penkridge. The area is thus adjacent to the urban edge of Penkridge in line with the spatial development models set out in Table 43, which provides a range of services.

8.107 For a larger scale development, the role of the Green Belt in this location could change such that it acquires a strategic separation role between a new development and Stafford to the north, Cannock to the east and Wolverhampton to the south. Note: the area is also identified as the potential location for a new settlement and it is unlikely that both could be accommodated.

- **The vicinity of Cannock, Great Wyrley, Burntwood, Brownhills and Aldridge i.e. North of Walsall around Brownhills (Location UE3)⁴²**

8.108 Whilst the Green Belt separates the various towns in this location, and more generally between Birmingham and Lichfield/Rugeley, there could be opportunities for accommodating various scales of development on the complex urban edges. Depending on the scale of development, there could be effective loss of strategic separation (and separate identity) of settlements, although the significance of this would have to be further considered given the current high degree of interconnection (functional and physical) between these areas. The broad location is also identified

⁴⁰ Area of Search No 20, Table 49, Figure 38

⁴¹ Area of Search No 2, Table 49, Figure 38

⁴² Area of Search No 11, Table 49, Figure 38

as holding potential for proportionate distribution of development, using the complex settlement edges.

- 8.109 This area is situated on the urban edge of Walsall District and is free from nationally significant constraints aside from small parcels of land covered by Flood Zone 3. The area falls within the Cannock Chase SAC 15km Zone of Influence however subject to further investigation, the potential impacts could be mitigated. The area is also in close proximity to the M6 Toll, A5 and A461.

- **To west/north west of Tamworth (Location UE4)⁴³**

- 8.110 The Birmingham & Fazeley Canal and River Tame form the broad western boundary of Tamworth, to the south of the A5 the distinction between town and country is less distinct. The A5 is a strong boundary feature which creates a division between western and southwestern areas which could hold potential for both significant development in the form of an urban extension and also more modest dispersed development. Development in this locality, whilst impinging on the strategic gap between Birmingham (at Sutton Coldfield) and Tamworth, would not significantly compromise the strategic role of the Green Belt in this location. Given the close relationship of a number of smaller settlements to the west of Tamworth (for example Fazeley, Mile Oak & Bonehill along with smaller villages such as Drayton Bassett), the issue of local separation and settlement identity would need to be scrutinised"

- 8.111 The area is situated on the north-western urban edge of Tamworth Borough and is free from nationally significant constraints aside from small parcels of Ancient Woodland. There are large areas covered by Flood Zone 3 adjacent to the Area of Search beyond the Green Belt however it is considered that an extension would mitigate any impact. The area is in close proximity to the A5 and A51 and is in relatively close proximity to Tamworth railway station.

- **To the south east of Redditch (Location UE5)⁴⁴**

- 8.112 Bordering open countryside to the southeast, development would have no effect on the strategic function of the Green Belt. Whilst largely being defined by the A435, the urban edge in this location is somewhat fragmented with various examples of historic and more modern development intruding into the rural hinterland. An appropriate scale of extension is uncertain at this stage and in any case would require the definition of an external boundary to limit sprawl into open countryside and potential issues with local coalescence (such as with Studley) to be addressed.

- 8.113 This area is not constrained by any nationally significant constraints, aside from a section of land covered by Flood Zone 3. There are a small number of Scheduled Ancient Monuments in close

⁴³ Area of Search No 9, Table 49, Figure 38

⁴⁴ Area of Search No 18, Table 49, Figure 38

proximity to the Area of Search. The area is situated on the urban edge of Redditch, in line with the development model criteria set out in Table 43, which provides a range of existing facilities.

Areas of Search for Employment-led Developments

- 8.114 These potential areas of search are related to current key employers or clusters of employment opportunities which have a strategic significance. Whilst there could be others, three areas have been identified where additional housing development (in the range 1,500 to 7,500 dwellings) could complement the provision of existing jobs, in principle helping to reduce commuting.

Table 47: Potential Employment-Led Strategic Development Locations in Green Belt

Broad Location	Appendix B Green Belt Analysis Reference	Potential Effect of Strategic Function of the Green Belt	Potential Effect on Local Function of the Green Belt	Potential Constraints
North of Wolverhampton, in the vicinity of i54 South Staffordshire (M54, J2) (Location E1)	West Sector pp.8-13 North Sector pp.14-20	Complex urban edge/transport corridor with various instances of strategic containment	Local separation between Codsall/Bilbrook and Wolverhampton?	Limited space?
In the vicinity of Coleshill and Minworth (M42, J9) (Location E2)	North East Sector pp.21-23	Complex urban edge/transport corridor with various instances of strategic containment	Local separation between Coleshill and Birmingham	Limited space? Flood risk issues? Route/effect of HS2?
In the vicinity of Birmingham Airport & the NEC (M42, J6) (Location E3)	South East Sector pp.24-27	Complex urban edge/transport corridor with various instances of strategic containment	-	Limited space? Route/effect of HS2/UK Central Hub proposals?

- **North of Wolverhampton, in the vicinity of i54 South Staffordshire (M54, J2) (Location E1)**⁴⁵

- 8.115 This is a complex area defined by major road infrastructure (M54 and A449 and the Wolverhampton – Stafford railway to the east. Whilst having an overall limited likely significant strategic effect on the Green Belt in this location (the M54 acting as a generalised northern edge to the conurbation), there are potentially local separation issues in what is part of a complex urban area and transport corridor. In addition, should development extend north of the M54, to consolidate that already around Featherstone, for example, then role of the Green Belt between Wolverhampton and Stafford would acquire a strategic separation function.

- **In the vicinity of Coleshill and Minworth (M42, J9) i.e. East of Birmingham (Location E2)**⁴⁶

- 8.116 This area is part of a complex urban edge and transport corridor to the north east of Birmingham where the distinction between town and country has become indistinct. Additional development would potentially impinge upon the strategic role of the Green Belt, the land broadly separating Birmingham and Tamworth lying to the north of this area. However, the character of the area, being dissected by roads, railways and various forms of industrial development, could lend itself to the redefinition of development boundaries in the locality as part of new development.

⁴⁵ Area of Search No 24, Table 49, Figure 38

⁴⁶ Area of Search No 13, Table 49, Figure 38

- **In the vicinity of Birmingham Airport & the NEC (M42, J6) (Location E3)⁴⁷**

8.117 This is a much-intruded part of the Green Belt to the east of Birmingham, being part of a complex urban edge and transport corridor which has created various parcels of land with varying degrees of openness. The land is strategically part of the gap between Birmingham and Coventry, and development would by definition compromise this to a degree. However, the strategic gap is a substantial one, and the area includes the corridor of HS2 which could present opportunities for defining the edge of the conurbation. The location is also identified as holding potential for an urban extension.

Proportionate Dispersal

8.118 This type of development (500 to 2,500 dwellings, either on a single site or cluster of sites in a local area), or indeed perhaps smaller scale development schemes, is most appropriate to complex settlement edges where the strategic role of the Green Belt is less coherent, allowing for localised infill and rounding off. As with the siting of other development models, detailed appraisal of the likely effect on the local role of the Green Belt would have to be undertaken. Seven areas where this type of development could be accommodated without significantly compromising the strategic function of the Green Belt have been identified. These areas vary in geographical scale considerably, reflecting the detail of local geography.

Table 48: Potential Proportionate Dispersal Locations in Green Belt

Broad Location	Appendix B Green Belt Analysis Reference	Potential Effect of Strategic Function of the Green Belt	Potential Effect on Local Function of the Green Belt	Potential Constraints
The western edge of the conurbation between Stourbridge and Wolverhampton (Location PD1)	West Sector pp.8-13	Complex urban edge with various examples of strategic containment	Examples of local separation e.g. at Wombourne	-
To the north of Codsall/Bilbrook (Location PD2)	West Sector pp.8-13	-	-	-
The vicinity of Cannock, Great Wyrley, Burntwood, Brownhills and Aldridge (Location PD3)	North Sector pp.14-20	Complex urban edge with various instances of strategic separation and containment	Local separation of various settlements	-
To the west / southwest of Tamworth (Location PD4)	North East Sector pp.21-23	Part of the strategic gap between Tamworth and Birmingham	-	Flood risk?
To the south of Birmingham around Hollywood, Whitlock's End and Cheswick Green (Location PD5)	South Sector pp.2-7	Some examples of strategic containment, also part of the strategic gap between Birmingham and Redditch	Local separation of settlements	-
To the south and southeast of Redditch (Location PD6)	South Sector pp.2-7	-	Local separation of Studley?	-

⁴⁷ Area of Search No 22, Table 49, Figure 38

To the south of Bromsgrove (Location PD7)	South Sector pp.2-7	Part of the strategic gap between Bromsgrove and Droitwich	Local separation of Stoke Prior?	-
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8.119 These areas are considered below. Local green belt studies may define additional potential development sites in the Green Belt both within and beyond these areas.

- **The western edge of the conurbation between Stourbridge and Wolverhampton (Location PD1)**

8.120 There would be a limited likely overall strategic effect on Green Belt function associated with the rounding-off and development to appropriate boundaries from what is currently an artificial edge (i.e. where development has been halted at the administrative boundary) in many locations. The opportunities for accommodating development of this type are likely to vary significantly across this extensive edge which often borders open countryside, extending across Staffordshire and into Shropshire. There is limited strategic infrastructure in this location, which combined with a general absence of substantial boundaries which could be used to contain significant development, makes proportionate dispersal the most appropriate locational model. The potential for proportionate dispersal development in the Sandwell Valley, east of Walsall, requires detailed consideration.

- **To the north of Codsall/Bilbrook (Location PD2)**

8.121 There would be a limited likely significant strategic effect in this location, being part of edge-of-conurbation development which is generally well contained. There are containment (and local separation) issues to the east of Codsall (as both opportunities and challenges) which would have to be considered as part of any detailed local assessment.

- **The vicinity of Cannock, Great Wyrley, Burntwood, Brownhills and Aldridge i.e. North of Walsall around Brownhills (Location PD3)**

8.122 Whilst the Green Belt in this location separates the various towns from one another, and more generally between Birmingham and Lichfield/Rugeley, there could be opportunities for accommodating various scales of development on the complex urban edges which characterise the area. Given the character of the settlement pattern, significant compromise to the strategic function of the Green Belt is unlikely with this kind of development, although the issue of local separation and settlement identity would need to be scrutinised.

- **To the west / southwest of Tamworth (Location PD4)**

8.123 Smaller scale development would have a limited effect on the strategic function of the Green Belt in this location, despite being to the south of the A5 part of the strategic gap between Tamworth and

Birmingham (at Sutton Coldfield). To the south of the A5 in particular, there is a generally poorly defined urban edge with opportunities for various small-scale 'rounding off'.

- **To the south of Birmingham around Hollywood, Whitlock's End and Cheswick Green (Location PD5)**

- 8.124 Whilst in part having a strategic role in broadly containing the southern edge of Birmingham, there is a complex settlement pattern which has seen the incremental growth of both the larger settlements and smaller ones across the area resulting in an urbanised character. The introduction of smaller scale additional development is unlikely to compromise the overall strategic role of the Green Belt in this location, although detailed local appraisal would be required to determine settlement-specific effects and potential to accommodate change.

- **To the south and southeast of Redditch (Location PD6)**

- 8.125 Bordering open countryside to the southeast, development would have no significant effect on the strategic function of the Green Belt, although there could be local sensitivities which would need to be explored, including local separation between Redditch and adjacent settlements. Whilst largely being defined by the A435, the urban edge in this location is somewhat fragmented as a result of both historic and more modern development.

- **To the south of Bromsgrove (Location PD7)**

- 8.126 There is a complex development pattern associated with the corridor between Bromsgrove and Droitwich, including a substantial business park. Whilst being broadly part of the strategic separation of Bromsgrove and Droitwich, additional modest development, through rounding-off the edges of development, for example, would not overall compromise the strategic function of the Green Belt in this location, although local sensitivities which would need to be explored, including local separation between Bromsgrove and adjacent settlements.

Conclusions

Fulfilment of Green Belt Purposes

- 8.127 The assessment of the strategic role of the Green Belt in the West Midlands has identified where Green Belt purposes (containing the sprawl of large built-up areas, preventing the merger of towns, safeguarding the countryside from encroachment and preserving the setting of historic towns), as set out in the NPPF are being met. Individual purposes are mapped.
- 8.128 Strategically, checking unrestricted sprawl of large built up areas and maintaining separation between towns, it can be argued, are key purposes which can be combined to produce a composite map which shows a two-fold division into areas making a Principal Contribution and those making a Supporting Contribution to Green Belt purposes.
- 8.129 The broad areas identified as making a Principal Contribution to Green Belt purposes are:
- between Birmingham and Coventry (around Balsall Common)
 - between Birmingham and Tamworth
 - immediately to the north of Birmingham
 - at various locations between Birmingham, Cannock, Brownhills/Burntwood/Aldridge and Lichfield
 - south west of Dudley between Dudley and Kidderminster and north of Wolverhampton
 - between Birmingham and Kidderminster
 - between Birmingham and Bromsgrove/Redditch
- 8.130 The remainder of the Green Belt makes a Supporting Contribution by virtue of safeguarding the open countryside from encroachment, specifically related to the edge of a built-up area or more generally though preventing incremental change in remoter areas, where development would damage their character. In this way, Green Belt policy, viewed strategically, enables the systematic and consistent application of development restraint, ensuring both the strategic containment of development at the edges of built-up areas, and its wider supporting context.
- 8.131 There are various examples of the Green Belt performing a more local role in terms of the prevention of the coalescence of settlements which cannot be classed as large built-up areas, as well as containing localised sprawl from smaller settlements which could be damaging to the openness of the countryside.
- 8.132 Detailed local analysis of the fulfilment of Green Belt purposes should be considered alongside this work, particularly in respect of the relationship between the Green Belt and specific settlement

edges. Some studies have already been completed where detailed fieldwork will have been carried out⁴⁸.

Potential Areas of Search

- 8.133 The strategic analysis of potential locations for various types of development reveals opportunities for more detailed consideration in light of the overall development requirement. The strategic transport network and nationally significant constraints have been used to help draw broad Areas of Search and these are presented alongside those beyond the Green Belt in Table 49 and Figure 38 in Chapter 9.
- 8.134 The Areas of search identified include areas making a Principal Contribution to Green Belt purposes. In these cases, because of the nature of existing development, local geography and locational guidance identified in the NPPF, these can still be considered as potential Areas of Search. Their early exclusion could mean a significant missed opportunity for achieving a balanced planning outcome across the study area.
- 8.135 As part of taking forward any of the proposed Areas of Search, additional detailed scrutiny of both the strategic and local effects on the role of the Green Belt would be required, as well as the application of sustainability and landscape considerations.

⁴⁸ See for example studies undertaken for Solihull, Stratford upon Avon, Warwick, North Warwickshire, Coventry, Tamworth, South Staffordshire, Lichfield and Cannock Chase.

9 REVIEW OF POTENTIAL STRATEGIC DEVELOPMENT LOCATIONS

- 9.1 Chapters 7 and 8 have identified a number of potential Areas of Search for Strategic Development. This section of the report moves on to provide a comparative assessment of the locations/ areas of search.
- 9.2 The NPPF sets out that local planning authorities should seek opportunities to achieve sustainable development including net gains across each of the economic, social and environmental dimensions, and avoid significantly adverse impacts wherever possible. Plans should set out locations for strategic development. They also need to be deliverable.
- 9.3 The latter sections of this report are particularly dealing with potential Areas of Search for strategic development. By their nature, strategic development locations will be able to deliver some infrastructure and local services alongside new development. Given the nature of the Study, the focus of this section is on assessing potential Areas of Search for Strategic Development. It provides an initial comparative consideration of these, in terms of their strategic accessibility, relationship to meeting housing need, sustainability, and deliverability. The analysis is strategic and high level in nature, and inevitably further more detailed assessment would need to be taken forward through the preparation of individual local plans and to support allocations therein.
- 9.4 Addressing the housing need shortfall will require a blend of different forms of development, with intensification within urban areas, smaller scale development schemes (in line with the Proportionate Dispersal model) and larger strategic development all playing a role. However for the purposes of this cross-boundary strategic study, the focus has been on identifying potential strategic development locations.

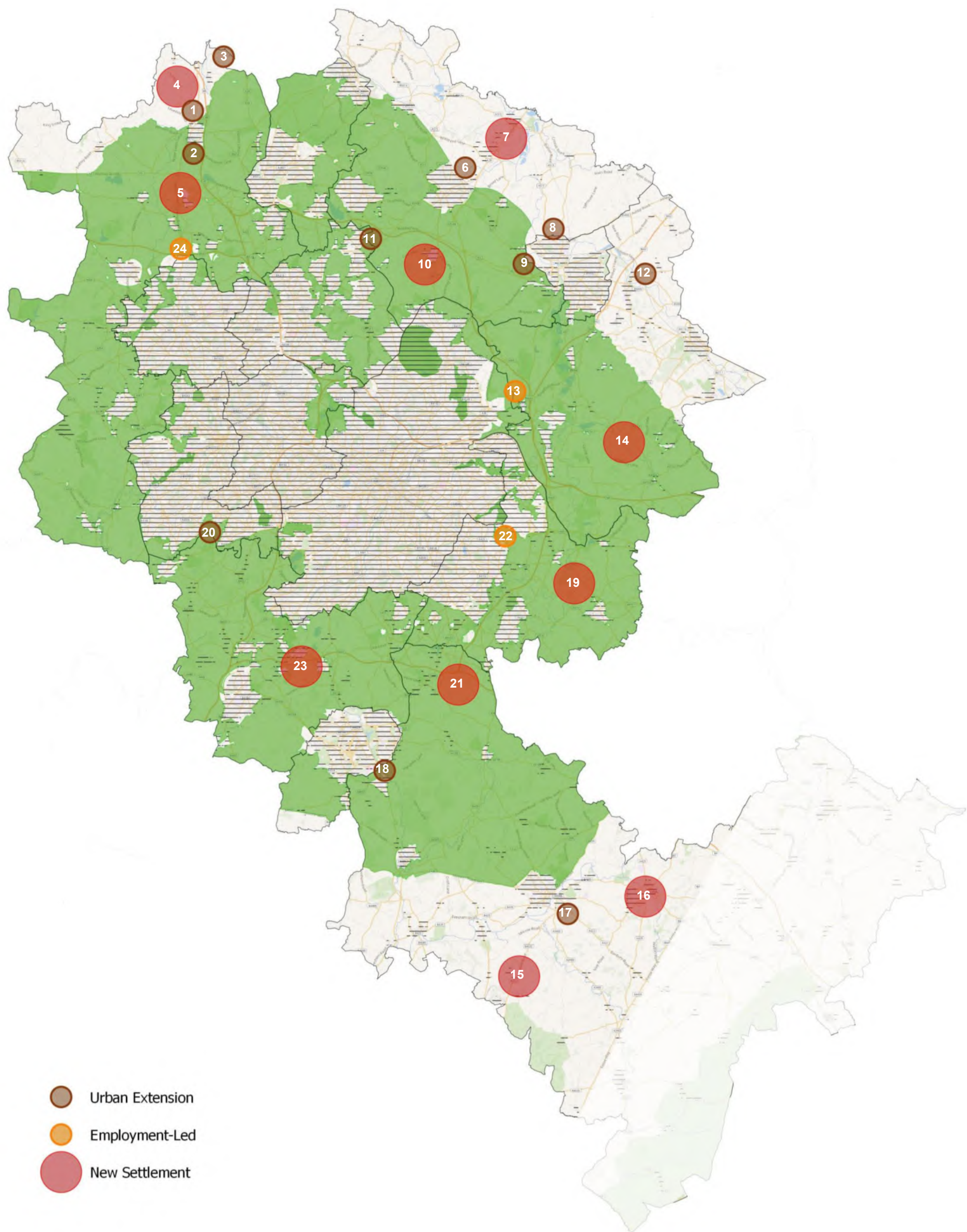
The Strategic Development Locations

- 9.5 Twenty four Areas of Search have been identified as possible broad locations that could meet the demand for housing. Figure 38 and Table 49 present the Areas of Search identified through Chapters 7 and 8.

Table 49: Areas of Search – Beyond Green Belt & Green Belt

No	Area of Search	Authority	Growth Option
1	North of Penkridge	South Staffordshire	Urban Extension
2	South of Penkridge	South Staffordshire	Urban Extension
3	South of Stafford	South Staffordshire	Urban Extension
4	Around Dunston	South Staffordshire	New Settlement
5	Between Wolverhampton and Penkridge	South Staffordshire	New Settlement
6	East of Lichfield	Lichfield	Urban Extension
7	Around Fradley & Alrewas	Lichfield	New Settlement
8	North of Tamworth	Lichfield	Urban Extension
9	North west of Tamworth	Lichfield	Urban Extension
10	Around Shenstone	Lichfield	New Settlement
11	North of Walsall around Brownhills	Walsall, Lichfield and Cannock Chase	Urban Extension
12	East of Polesworth	North Warwickshire	Urban Extension
13	East of Birmingham	North Warwickshire	Employment-Led
14	Around New Arley	North Warwickshire	New Settlement
15	South west of Stratford-on-Avon District	Stratford	New Settlement
16	Around Wellesbourne	Stratford	New Settlement
17	South of Stratford-upon-Avon town	Stratford	Urban Extension
18	South east of Redditch	Stratford	Urban Extension
19	Around Balsall Common	Solihull	New Settlement
20	South of Dudley	Dudley	Urban Extension
21	South of Birmingham	Stratford	New Settlement
22	Birmingham Airport & NEC	Solihull	Employment-Led
23	Between Birmingham and Bromsgrove/Redditch	Bromsgrove	New Settlement
24	North of Wolverhampton	South Staffordshire	Employment-Led
25	South of Birmingham Airport	Solihull	Urban Extension

Figure 38: Areas of Search for Strategic Development



Assumptions on Social and Community Infrastructure

9.6 The table below sets out the consultancy team's assumptions on social and community infrastructure which would be supported by each of the strategic development models.

Table 50: Social and Community Infrastructure Assumptions for Development Models

Development Model	Infrastructure Assumptions
Urban Extensions	<ul style="list-style-type: none"> Assumed that development contains mixed-tenure homes and housing types. Assumed that development contains employment land provision. At lower end of the development range, the additional demand for health service needs met through increasing GPs/nurses in existing medical centres, supported by developer contributions. At development scale above 3,500 dwellings, it is assumed that the provision of a new medical practice would be needed. Assumed that development will include the provision of primary school(s) when above 2,500 dwellings. At high end of the development range, assumed that the development would also include a secondary school. Provision at lower range dependent on capacity and proximity of existing provision. Where no direct provision in the development, assumed additional educational demand met through developer contributions to existing primary and secondary schools. Assumed that development will include local centre(s) for provision of everyday convenience shopping needs and basic services. Assumed that the development will include the provision of recreational and sporting facilities (excluding swimming pool) within the urban extension at middle and higher development range. Assumed that the development will include comprehensive green infrastructure on site.
Employment Areas	<ul style="list-style-type: none"> Potential for provision of local centre to meet convenience shopping needs.
Proportionate Dispersal	<ul style="list-style-type: none"> Assumed that development contains mixed-tenure homes and housing types. Assumed that the additional demand for health service needs met through increasing GPs/nurses in existing medical centres, supported by developer contributions. Assumed that additional educational demand met through developer contributions to existing primary and secondary schools. Assumed that development will include local centre(s) for provision of everyday convenience shopping needs towards middle and higher quantum of housing provision. Assumed that the development includes green infrastructure provision in line with quantum of development. Assumed that the development includes the provision of recreational facilities to meet needs related to the quantum of development.
New Towns/Settlements	<ul style="list-style-type: none"> Assumed that development contains mixed-tenure homes and housing types. Assumed that development contains employment land provision sufficient to meet aspiration of self-containment. Assumed that development will include integrated health care practice or practice(s). Assumed development will include provision of primary school(s) and secondary school. Assumed development will include provision of local centres to meet everyday convenience shopping needs and provision of 'town centre' incorporating a range of comparison and convenience stores. Assumed development will provide facilities for community/cultural activities. Assumed that development would use zero-carbon and energy-positive technologies. Assumed that development will provide co-ordinated recreational and sporting facilities (including a swimming pool) that meet the needs of the development. Assumed delivery of comprehensive green infrastructure within the new settlement.

Relationship to Unmet Need

- 9.7 An important consideration in determining the suitability of potential strategic development locations is the geographical proximity of these locations to the unmet housing need. This is the first of five considerations in identifying a set of preferred options for strategic development.
- 9.8 Whilst there has historically been a modest unmet need arising from Tamworth and Cannock Chase, the major strategic unmet need within the HMA arises from Birmingham, with a land supply shortfall from the Black Country Authorities, i.e. the Conurbation.
- 9.9 In order to establish the performance of an Area of Search in relation to the ability for each Area to meet the unmet housing need, we have set the following parameters which deal with the distance from the conurbation – see Table 51 below.

Table 51: Relationship to Unmet Need – Criteria

Distance Threshold		Ability to Meet the Need
0	<2.5km	Directly addresses substantial proportion of the need
>2.5km	<5km	Helps to meet significant proportion of the need
>5km	<10km	Helps to meet reasonable proportion of the need
>10km	<15km	Likely to meet only some of the need
>15km		Unlikely to address the need

- 9.10 GL Hearn considers therefore that the geographical relationship of Areas of Search for strategic development and the Conurbation is an important consideration in assessing the relative merits of different potential Areas of Search. We have therefore assessed Areas of Search in respect of their geographical proximity to the conurbation.
- 9.11 The results of undertaking this exercise are shown below in Table 52 in which each Area of Search is paired with a distance threshold from the conurbation, which relates to its ability to meet the unmet need.

Table 52: Ability to Meet Unmet Need – Results

No	Area of Search	Type	Distance (km)	Threshold (km)
24	North of Wolverhampton	Employment-Led	0	<2.5
22	South of Birmingham Airport around the NEC	Employment-Led	0	<2.5
20	South of Dudley	Urban Extension	0.7	<2.5
13	East of Birmingham	Employment-Led	1.8	<2.5
23	Between Birmingham & Bromsgrove/Redditch	New Settlement	2.7	<5.0
5	Between Wolverhampton and Penkridge	New Settlement	3.5	<5.0
10	Around Shenstone	New Settlement	3.9	<5.0
19	Around Balsall Common	New Settlement	4.4	<5.0
21	South of Birmingham	New Settlement	4.7	<5.0
11	North of Walsall around Brownhills	Urban Extension	5.7	<10.0
9	North West of Tamworth	Urban Extension	6.6	<10.0
14	Around New Arley	New Settlement	8.0	<10.0
2	South of Penkridge	Urban Extension	8.5	<10.0
8	North of Tamworth	Urban Extension	9.5	<10.0
6	East of Lichfield	Urban Extension	10.2	<15.0
1	North of Penkridge	Urban Extension	10.4	<15.0
18	South East of Redditch	Urban Extension	12.5	<15.0
4	Around Dunston	New Settlement	13.3	<15.0
12	East of Polesworth	Urban Extension	13.5	<15.0
7	Around Fradley & Alrewas	New Settlement	14.9	<15.0
3	South of Stafford	Urban Extension	15.3	>15.0
17	South of Stratford-upon-Avon town	Urban Extension	23.7	>15.0
16	Around Wellesbourne	New Settlement	24.4	>15.0
15	South West of Stratford-on-Avon District	New Settlement	28.2	>15.0

9.12 A number of Areas of Search perform relatively well in respect of meeting the unmet need of the conurbation, including employment-led areas i54, South of Birmingham Airport and East of

Birmingham, with all located on the fringe of the conurbation. An urban extension to the South of Dudley would also perform well in meeting the unmet need.

- 9.13 Five potential new settlements would also help to meet a significant proportion of the need including Between Birmingham and Bromsgrove/Redditch; Between Wolverhampton and Penkridge; Around Balsall Common; Around Shenstone and South of Birmingham.
- 9.14 In contrast, Areas of Search South of Stafford; South of Stratford-upon-Avon town; the Wider Wellsbourne Area and South West of Stratford-on-Avon District would perform less well in terms of their ability to meet the unmet need, given that these Areas are situated over 15km from the conurbation.

Sustainability Appraisal

- 9.15 To inform decisions on which strategic development locations should be taken forward for further testing, a high level Sustainability Appraisal (SA) has been undertaken of the development models and broad areas of search (AoS) which have been identified as possible options for meeting this demand.
- 9.16 A strategic sustainability appraisal framework matrix was developed (which was consulted on with stakeholders in the HMA group) which details the SEA themes, objectives, decision making criteria, strategic locational indicators and assumptions that are to be used. This has been used to appraise the 4 development models and the 24 broad areas of search that have been identified.
- 9.17 Table 53 below shows the scoring system which has been used to undertake the SA.

Table 53: Sustainability Appraisal Scoring System

+++	Significant Positive Outcome
++	Major Positive Outcome
+	Minor Positive Outcome
0	Neutral Outcome
-	Minor Negative Outcome
--	Major Negative Outcome
---	Significant Negative Outcome
?	Uncertain Outcome

- 9.18 The full SA framework is included at Appendix C.

Assessment of Development Models

- 9.19 Appendix E sets out the results of the SA of the four development models. Table 54 below provides a summary table showing the results.
- 9.20 The four development models have similar effects on some of the SA objectives, particularly in relation to natural resources and overall on economic growth, although for urban extensions and proportionate dispersal the extent of positive effects is reduced reflecting that the urban extension model would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment and that for the proportionate development model would not support employment land development. On the other hand, the Employment led model is considered to support existing strategic employment locations, therefore having a significant positive effect.

Table 54: Results of the SA of the Development Models

SA Objective	New Town/Settlement	Urban Extension	Employment Areas	Proportionate Dispersal
Natural Resources and Waste	+/-	+/-	+/-	+/-
Contribute to Climate Change Mitigation	+++	++	++	+
Adapt to the Effects of Climate Change	+++/-	++/-	++/-	-
Transport, Connectivity and CO ₂ Emissions	+++/-	++/-	++/-	-/?
Historic Environment, Landscape, Biodiversity and Geodiversity	++/-	+/-	+/-	0/?
Pollution	++/-	++/-	++/-	-/?
Economic Growth	+++	++	+++	+
Communities, Healthy Lifestyles and Equality	+++	++	++	+/-
Housing	+++	++	++	+

- 9.21 The development models would have varying positive effects on the housing objective. This reflects that the quantum of housing envisaged in the new town/settlement development model would make a significant contribution to meeting the housing needs of the HMA, with lesser contributions from urban extensions, employment led and proportionate dispersal.

- 9.22 Small scale proportionate dispersal and other small sites have the potential to be very sustainable through making best use of existing infrastructure and resources, and enhancements where necessary. Completed matrices for the four development models are included in **Appendix B**.

Assessment of Areas of Search

- 9.23 There are 24 Areas of Search (AoS) for strategic development which have been appraised. In summary these are:
- **10 new settlements/towns:** around Dunston, between Wolverhampton and Penkridge, Fradley and Alrewas, Shenstone, New Arley/Old Arley, South west of Stratford-on-Avon District, Around Wellesbourne, Balsall Common; South of Birmingham and Between Birmingham and Bromsgrove/Redditch;
 - **11 urban extensions:** North of Penkridge, South of Penkridge, South of Stafford, East of Lichfield, North of Tamworth, North West of Tamworth, North of Walsall, East of Polesworth, South of Stratford-upon-Avon town, South East of Redditch and South of Dudley; and
 - **3 employment:** In the vicinity of i54, to the north of Wolverhampton (M54, J2), East of Birmingham (M42, J9), and In the vicinity of Birmingham Airport & the NEC (M42, J6).

New Settlements/Towns

- 9.24 Table 55 provides a summary table showing the results of the SA of the 10 New Town/Settlements Areas of Search.
- 9.25 The 10 new town/settlements overall perform similarly against the SA objectives. However, there are some locational differences, for example Balsall Common and South of Birmingham perform better against the economic growth objective due to accessibility to the motorway network and thus enabling better accessibility of major employment areas. Fradley and Alrewas is located where there are a number of areas at highest risk of flooding so scores negatively in part against the climate change mitigation objective.
- 9.26 For the communities, healthy lifestyles and equality objective, New Arley/Old Arley, South west of Stratford-on-Avon District and Around Wellesbourne only have major, rather than significant positive effects and the two airfields also have some uncertain effects due to their being no existing higher level service centres in these locations. These locations also have some uncertain impacts in relation to housing as significant transport infrastructure investment would be required.

Urban Extensions

- 9.27 Table 56 provides a summary table showing the results of the SA of the Areas of Search for Urban Extensions.

- 9.28 There are only marginal differences between the Urban Extension AoS. These relate to some uncertain impacts around climate change mitigation (due to areas of flood zone 3 North and North West of Tamworth and South of Stratford-upon-Avon town) and no negative impacts in relation to economic growth (North of Tamworth and South East of Redditch have particularly good access to local employment opportunities).
- 9.29 The effects on the environment and landscape are a mixture of minor positive and negative, reflecting opportunities for enhancements but that inevitably deliver the scale of development envisaged there will be loss of Greenfield land. The pollution impacts are a mixture of major positive and negative, reflecting opportunities to promote and increase sustainable modes of transport but also significant growth in car use.
- 9.30 Each of the urban extension AoS have equally significant positive effects on communities, healthy lifestyles and equality, and housing reflecting major opportunities through urban extensions to provide for example green infrastructure and new sporting facilities and to deliver a range of housing types and tenure.

Table 55: Results of the SA of the New Town/Settlement Areas of Search

SA Objective	Around Dunston	Between Wolverhampton and Penkridge	Around Fradley and Alrewas	Around Shenstone	Around New Arley/Old Arley	South west of Stratford-on-Avon District	Around Wellesbourne Area	Around Balsall Common	South of Birmingham	Between Birmingham and Redditch/Bromsgrove
Natural Resources and Waste	+ / ---	+ / ---	+ / ---	+ / ---	+ / ---	+ / ---	+ / ---	+ / ---	+ / ---	+ / ---
Contribute to Climate Change Mitigation	+++	+++	++ / --	+++	+++	+++	+++	+++	+++	+++
Adapt to the Effects of Climate Change	+++ / --	+++ / --	+++ / ---	+++ / --	+++ / --	+++ / ---	+++ / --	+++ / --	+++ / ---	+++ / ---
Transport, Connectivity and CO ₂ Emissions	+++ / --	+++ / --	+++ / --	+++ / --	++ / ---	++ / ---	++ / ---	+++ / --	+++ / --	+++ / --
Historic Environment, Landscape, Biodiversity and Geodiversity	++ / --	++ / --	++ / --	++ / --	++ / ---	++ / --	++ / --	++ / ---	++ / --	++ / --
Pollution	++ / ---	++ / ---	++ / ---	++ / ---	+ / ---	++ / ---	++ / ---	++ / ---	++ / ---	++ / ---
Economic Growth	+++ / -	+++ / -	+++ / --	+++ / -	++ / --	+++ / --	++ / --	+++	+++	+++
Communities, Healthy Lifestyles and Equality	+++	+++	+++	+++	++	++ / ?	++ / ?	+++	+++	+++
Housing	+++	+++	+++	+++	+++ / ?	+++ / ?	+++ / ?	+++	+++	+++

Table 56: Results of the SA of the Urban Extension Areas of Search

SA Objective	North of Penkridge	South of Penkridge	South of Stafford	East of Lichfield	North of Tamworth	North West of Tamworth	North of Walsall around Brownhills	East of Polesworth	South of Stratford-upon-Avon Town	South East of Redditch	South of Dudley
Natural Resources and Waste	+/--	+/--	+/--	+/--	+/--	+/--	+/--	+/--	+/--	+/--	+/--
Contribute to Climate Change Mitigation	++	++	++	++	++/?	++/?	++	++	++/?	++	++
Adapt to the Effects of Climate Change	++/-	++/-	++/-	++/-	++/-	++/-	++/-	++/-	++/-	++/-	++/-
Transport, Connectivity and CO ₂ Emissions	++/--	++/--	++/--	++/-	++/-	++/-	++/-	++/--	++/--	++/--	++/--
Historic Environment, Landscape, Biodiversity and Geodiversity	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Pollution	++/--	++/--	++/--	++/--	++/--	++/--	++/--	++/--	++/--	++/--	++/--
Economic Growth	++/-	++/-	++	++/-	++	++/-	++/-	++/-	++/--	++	++/-
Communities, Healthy Lifestyles and Equality	++	++	++	++	++	++	++	++	++	++	++
Housing	++	++	++	++	++	++	++	++	++	++	++

Employment

- 9.31 Table 57 provides a summary table showing the results of the SA of the three Employment Led Areas of Search.

Table 57: Results of the SA of the Employment Led Areas of Search
SA Objective

	North of Wolverhampton, around I54	East of Birmingham	South of Birmingham Airport & NEC
Natural Resources and Waste	+/-	+/-	+/-
Contribute to Climate Change Mitigation	++	++/?	++
Adapt to the Effects of Climate Change	++/-	++/-	++/-
Transport, Connectivity and CO₂ Emissions	++/-	++/-	++/-
Historic Environment, Landscape, Biodiversity and Geodiversity	+/-	+/-	+/-
Pollution	++/--	++/--	++/--
Economic Growth	+++	+++	+++
Communities, Healthy Lifestyles and Equality	++	++	++/?
Housing	++	++	++

- 9.32 The employment led AoS perform similarly against the SA objectives. The only areas of difference reflect some uncertainty in relation to climate change mitigation for East of Birmingham around Coleshill AoS (due to areas of flood zones 2 and 3) and in relation to the communities, health lifestyles and equality for South of Birmingham Airport & the NEC AoS (due to uncertainty relating to the impacts of the airport on future residents).
- 9.33 The complete SA matrices for each AoS are included in **Appendix D**.

Overall Findings from the SA

- 9.34 Overall, there are only marginal differences between locations for the different types of development model, which reflect location and key constraints, such as the prevalence of areas at highest risk of flooding. However, it is notable that there are some more negative effects for some of the objectives reflecting that there would likely be fewer opportunities through the employment and proportionate dispersal models to deliver environmental enhancements to mitigate any potential adverse environmental effects.

9.35 For the AoS appraisal there are overall marginal differences between different AoS reflecting locational issues. For example, the urban extension south of Stratford-upon-Avon town scores more negatively against the economic development objective due to its distance to employment compared to the other urban extensions, the Fradley & Alrewas new settlement location is more affected by flood risk than other new settlements locations and that some urban extensions and new settlements are better located for access to sustainable modes of transport than others.

9.36 The SA indicates that:

- All score positively for the housing, healthy and employment objectives, albeit that for the proportionate dispersal model there are likely to be few opportunities to deliver comprehensive green infrastructure provision, particularly at the lower end of the quantum of development envisaged in the development model, and so the opportunities to reinforce a sense of place are therefore limited;
- Some score less well for some of the environmental objectives (depending on the proximity to constraints - for example some areas have larger areas of flood zone 3);
- Significance of the effects reflects the scale of the development envisaged;
- There are only marginal differences between locations for the different types of development model and AoS (these reflect location and key constraints). However, it is notable that there are some more negative effects for some AoS (the urban extension south of Stratford-upon-Avon town for example scores more negatively against the economic development objective due to its distance to employment compared to the other urban extensions, the Fradley & Alrewas new settlement location is more affected by flood risk than other new settlements locations and that some urban extensions and new settlements are better located for access to sustainable modes of transport than others);
- There would be less opportunities through the employment and proportionate dispersal models to secure environmental enhancements to mitigate potentially adverse impacts, for example in relation to green infrastructure provision, flood risk mitigation or biodiversity enhancements; and
- The sequencing of infrastructure will be important to realise full sustainable benefits.

Public Transport

9.37 At a strategic level, we consider it is important to further our understanding of the existing public transport network in the Areas of Search, focussing primarily on the distance to rail stations and the associated journey time to Birmingham New Street/Snow Hill as the centre of the conurbation.

9.38 In order to understand how each Area of Search performs under this category, we have established criteria in relation to distance to the nearest train station and the journey time from this station to the centre of Birmingham, as the largest employment centre in the sub-region, as follows:

Table 58: Public Transport – Criteria

Distance (km)	Journey (mins)	Public Transport
<2	<20	Adjacent to a public transport hub i.e. train station and short travel time
<2	>20, <30	Adjacent and reasonable travel time
>2, <4	30-40	Within reasonable walking distance
		Further away from hub with longer travel time
4+ or no station	40+	No train station or at some distance from hub

- 9.39 The results of undertaking this exercise are shown below in Table 59; where each Area of Search is assessed in accordance with the proximity to the nearest train station and associated journey time to the centre of Birmingham.

Table 59: Public Transport – Results

No	Area of Search	Distance (km)	Journey Time (mins)
Urban Extensions			
1	North of Penkridge	1.5	32
2	South of Penkridge	1.5	32
3	South of Stafford	3	33
6	East of Lichfield	2	32
8	North of Tamworth	2	20
9	North West of Tamworth	3.5	20
11	North of Walsall around Brownhills	8.5	23
12	East of Polesworth	-	-
17	South of Stratford-upon-Avon town	1.5	50
18	South East of Redditch	4.5	50
20	South of Dudley	5	40
New Settlements			
4	Around Dunston	4.5	32
5	Between Wolverhampton and Penkridge	6.5	32
7	Around Fradley & Alrewas	4	40
10	Around Shenstone	1	30
14	Around New Arley	-	-
15	South West of Stratford-on-Avon District	-	-
16	Around Wellesbourne	-	-
19	Around Balsall Common	2	20
21	South of Birmingham	1	30
23	Between Birmingham and Bromsgrove/Redditch	1	35
Employment-Led			
22	South of Birmingham Airport & the NEC	1	10
13	East of Birmingham	1.5	15
24	North of Wolverhampton	5	15

- 9.40 A number of the Areas of Search perform well, as areas which are adjacent to train stations with a short journey time including the employment-led areas East of Birmingham around Coleshill where the nearest station is around 1.5km away and the journey time is only 15 minutes; and South of

Birmingham Airport & the NEC where the nearest station is around 10 minutes away where services reach Birmingham New Street in only 10 minutes.

- 9.41 Better performing Areas considered for Urban Extensions include North of Tamworth (2km distance and 20 minute journey) and South of Dudley (2km and 30 minute journey). A number of the New Settlement areas perform well including Around Shenstone (1km distance and 30 minutes journey) and Around Balsall Common (2km distance and 20 minutes journey).
- 9.42 Areas which do not have a station or are at a disadvantage due to longer journey times, such as East of Polesworth, Around New Arley, South West of Stratford-on-Avon District and the Wider Wellesbourne Area, perform poorly.

Deliverability

Potential Highways, Utilities and Waste Water Infrastructure Requirements

- 9.43 It is important to understand the relationship between the potential scale of development and the potential scale of infrastructure required i.e. what is the scale of infrastructure likely to be required to support development of urban extensions and new settlements.
- 9.44 CAPITA, as commissioned by GL Hearn, has undertaken a high-level review of prospective physical infrastructure requirements, reinforcement and delivery factors associated with the Areas of Search specifically focussing on (a) highways, (b) utilities and (c) waste water. These physical infrastructure requirements are key considerations which in GL Hearn's experience vary between locations for developments of a similar scale.
- 9.45 Strategic development of the scale envisaged (1500+ dwellings) will invariably require new social infrastructure (schools, healthcare, open space etc) but the factors influencing this are influenced to a greater degree by the scale of development proposed.
- 9.46 CAPITA has sought to identify high-level highways infrastructure requirements which are likely to result from development in each Area of Search.
- 9.47 The starting point has been to estimate the required road infrastructure for the Areas of Search is to identify the likely level of road based trip making which could occur at the sites. For each site, a range of the number of dwellings which could be developed has been estimated – based on the development models - and assumptions on trip rates per dwelling, mode split and the proportion of trips which are likely to be outside the development have been applied to derive an estimate of the likely daily trips to and from the development to external areas. These assumptions have been

estimated based on a combination of information from the National Travel Survey, National Census 2011 and professional judgement.

- 9.48 CAPITA has used recommended flow ranges from the DfT Design Manual for Roads and Bridges to calculate the number of new road lanes which would be required to cater for this new road traffic to and from the Areas of Search.
- 9.49 From a review of aerial mapping of the Areas of Search and the adjacent highway network, we identified routes of road which would be required (to provide sufficient road capacity to cater for the development traffic) to connect with the existing highway network. Also identified was any requirement for new or improved junctions or bridges which could be required which would add additional infrastructure costs.
- 9.50 The assessment should be considered as an initial high-level indicative assessment which can be used to provide a comparison between locations for the purposes of this Study. More specific local assessments of network capacity and infrastructure requirements will be required for Areas of Search which are taken forward, but this is beyond the scope of this Study.
- 9.51 In respect of utilities, GL Hearn first approached National Grid to enquire about the capacity of transmission networks across the HMA and the ability for the network to accommodate residential growth. National Grid's Development Consent Order Liaison Officer confirmed in September 2017 that it was highly unlikely that National Grid's transmission networks would require any reinforcement for residential growth. Details of the relevant contacts at the respective distribution companies – Cadent for gas and Western Power for electricity – were provided.
- 9.52 GL Hearn subsequently approached the relevant distributors. First in respect of gas, GL Hearn were able to speak with Cadent Gas's distribution team however they were unable to accommodate our request for commentary on reinforcement requirements across the HMA network; rather dealing only with smaller scale connections such as household. Cadent Gas did however confirm that generally speaking, the further from the conurbation, the more likely that reinforcement would be required.
- 9.53 In respect of electricity, Western Power's Distribution Manager for Birmingham provided feedback on the electricity network across the HMA and the capacity of the primary networks to accommodate residential growth. We liaised directly with the relevant network planners across the HMA who then returned information on each Area of Search and the likely network reinforcement works associated with these.
- 9.54 GL Hearn also approached Severn Trent and liaised with the Sewerage Management Planning Team Manager to prepare a high level sewer capacity appraisal of each Area of Search. The

respective planning teams for each catchment area covering the Areas of Search then carried out desk-based assessments and provided commentary to indicate where proposed residential growth may have a detrimental impact on the performance of the existing public sewerage network. The commentary provided is not supported by detailed modelling and further local level assessments will be necessary to determine whether additional flows can be accommodated. Discussions should also be had with the Lead Local Flood Authorities.

- 9.55 The outputs from the highways, utilities and waste water work are set out below in Table 60 for each Area of Search.

Table 60: Areas of Search – Highways & Utilities (inc. Waste Water)

Area of Search	Highways	Utilities	Waste Water
Around Dunston	It is anticipated that one dual 2 ⁴⁹ and one single 2 ⁵⁰ access - from A449 and A518 to the north respectively (all with new junctions) will be required. Improvements to A449 and A518 for 1km either side of junctions (i.e. 4km of improvement). A449 / M6 junction assumed to require upgrading. In addition, one bridge crossing rail line for link to access A449 would be required.	This is a known area of weak network. Even the smallest of developments would trigger significant reinforcement. Minimal work required would be Primary Sub Station upgrade with new HV circuits.	There are some reported flooding incidents downstream in Stafford. The topography of the Area of Search suggests that if flows were to drain north, then a pumped solution to drainage would be required with potential connection point in Coppenhall. If flows were to drain to the south then a gravity solution is more likely. Further investigation and modelling is required to determine the current network could handle extra flows from the Area of Search. Depending on scale, future development could potentially have a large impact on assets downstream.
Between Wolverhampton and Penkridge	It is likely that one dual 2 and one single 2 access will be required from A449 and station drive respectively (2 new junctions assumed). Improvements to A449 and Station Drive either side of junctions (i.e. 4km of improvement). A449 / A5 junction assumed to require upgrading.	This is a known area of weak network. Even the smallest of developments would trigger significant reinforcement. Minimal work required would be Primary Sub Station upgrade with new HV circuits.	There is one reported flooding incident downstream from the Area of Search. Foul flows are likely to drain through Coven Heath/Coven Village pumping station and be pumped to Coven Heath Sewage Treatment Works (STW). There are also a number of other pumping stations in and around the Area of Search. Further investigation is required to determine if they would be impacted by significant development. The topography in the Area suggests a gravity connection with flows draining in a general east to west direction before being pumped to the STW. There are some 225mm and 150mm foul pipes in and around the Area which could facilitate flows.

⁴⁹ Dual 2 is a dual carriageway with two lanes in either direction

⁵⁰ Single 2 is a single carriageway with two lanes (one in either direction)

Around Fradley and Alrewas	It is likely that one single carriageway access (A38) and one single carriageway (A513) both with new junctions. Improvements to roads either side of junctions (i.e. 4km of improvement). Two junctions assumed to require upgrading - A513/A38 and Hillards Cross.	To facilitate development in this area, it would require significant reinforcement including 132KV network reinforcement, additional Primary substation with associated 11kv network to the proposed development. A new Primary substation at Fradley would have some benefits with the transfer of load from the existing Lichfield site but to fully utilise any spare capacity gained significant 11kV reinforcement would still be required.	There are a number of reported flooding incidents downstream of the development near the Alrewas STW. Any future development could conceivably connect to the existing network that drains to Lichfield STW. The topography of the Area suggests a general drop from south to north suggesting a gravity connection is possible, avoiding pumping stations downstream being overly affected. There is not a sufficient surface water system in Alrewas that could accommodate the flows from future development however there are a number of watercourses in and around the Area which could potentially take these flows and there is a surface water system in Fradley that outfalls to a nearby watercourse with a possible connection point.
Around Shenstone	One dual 2 access to A38 and one single onto the A5127 (one new junction on A5127) likely to be required. Improvements to roads either side of junctions (i.e. 4km of improvement). Upgrade of A38/A5148 assumed. One new bridge to access site west of A5127 to cross railway line.	A new Primary substation at Shenstone would be an option due to the distance from the existing Primary location i.e. 11kV feeders in excess of 10km's. This may enable the transfer of load from the existing Primary location to a new site although significant 11kV reinforcement would still be required to fully utilise any spare capacity gained at the existing Primary Substation.	There are a number of reported flooding incidents downstream of the Area of Search. Development of a significant scale at this location (i.e. towards the higher end of the spatial development model), has the potential to have a severe impact at the downstream pumping station and combined sewage overflow. The Area of Search is located west of the existing STW and it is expected that flows would flow via gravity sewers into the existing network. The largest downstream pipe is 300mm which may pose significant issues depending on scale. There are multiple watercourses within the Area and there is a surface water network downstream.
Around New Arley	Area is distant from major roads. It will need significant length of higher capacity routes to	Two potential options – both of which are significant:	There is known hydraulic flooding within the network downstream of the Area of Search. Any future

	connect with strategic roads. New dual carriageway to the north (to new A5 junction) and a single carriageway to the south to connect with local roads at Fillongley will be required. Additionally, two new junctions will be required. Will require improvements to roads either side of junctions and allow for additional lengths of road improvement along local lanes connected to new roads (say 6km of improvement).	<p>(1) A new 33/11kV PSS connected from Nuneaton BSP. This will be subject to Modification Application for reinforcement at Coventry GSP(Grid Supply Point); or</p> <p>(2) A new 132/11kV PSS connected off the 132kV network fed from Lea Marston GSP.</p>	development within the Area of Search would drain directly into the STW via gravity or pumping. It is considered that any surface water would be managed on site through Sustainable Urban Drainage systems and any excess runoff discharged to the local watercourse which presents no risks.
South west of Stratford-on-Avon District	Area is distant from major roads. Needs significant length of higher capacity routes to connect with strategic roads. New dual carriageway to the east to connect with A3400 and a single road to connect with the B4632 which connects with the SS Relief Road to the north. Two new junctions required. Improvements to roads either side of junctions (4km of improvement).	This area is at the end of 11kV overhead circuit between two Primary's (Stratford & Long Marston) both of which would need reinforcement works and new 11kV circuits. It is likely that a new Primary would be required in this area	<p>There are no known network constraints downstream of the Area of Search. Flows from the Area are assumed to be pump to Milcote STW.</p> <p>It is considered that any surface water would be managed on site through Sustainable Urban Drainage systems and any excess runoff discharged to the local watercourse which presents no risks.</p>
Around Wellesbourne	One dual to A429 and one single lane road to Loxley Lane, with two new junctions will be required. Improvements to roads either side of junctions (4km of improvement).	To accommodate any new demand up to approx. 28MVA will require a third 132kV circuit between Berkswell and Warwick BSP, uprate two 33kV circuits to Wellesbourne and replace two 33/11kV transformers at Wellesbourne. New demand greater than an additional 28MVA will require a third 132kV circuit between Berkswell and Warwick BSP, and an additional PSS located within the development site. Both options are also Subject to Modification	There is known hydraulic flooding within the network downstream of the Area of Search. Any flows from future development within the Area of Search are assumed to flow via gravity to Wellesbourne STW. Abandonment of these works and transfer to Milcote STW would require a 10km rising main which may not be feasible. It is considered that any surface water would be managed on site through Sustainable Urban Drainage systems and any excess runoff discharged to the local watercourse which presents no risks.

		Application for demand on Berkswell GSP.	
Around Balsall Common	By-pass assumed to be required to serve the area, providing 2 dual 2 routes for access to the development which is sufficient. Further local level work will be required to confirm this. Improvements required to roads either side of junctions (4km of improvement). One bridge included to cross railway line.	HV in the area overhead. The existing primary substation is not close and therefore the area would probably need a new primary.	The Area of Search encompasses Balsall Common STW so sewer capacity is not considered to be a significant constraint however obvious nuisances should be considered. The Area of Search is assumed to drain directly to the STW and further investigation/discussion is required to understand capacity concerns. The River Blythe and multiple ponds are within the Area of Search and therefore surface water flows are unlikely to discharge to the sewer system.
South of Birmingham	New dual carriageway to east to connect with A3400 at new junction will be required. Improvements to roads either side of junction (3km of improvement, 2kms to M40 junction and 1km south). Some improvements to M40 junction assumed.	HV in the area overhead. The existing primary substation is not close and therefore the area would probably need a new primary.	At present there is no existing STW or obvious point of connection which means that either a new STW would be required or the Area of Search would have to be served by means of an inset appointment. It is considered that any surface water would be managed on site through Sustainable Urban Drainage systems and any excess runoff discharged to the local watercourse which presents no risks.
Between Birmingham and Bromsgrove/Redditch	New single carriageway to west to connect with B4096 at new junction. New dual carriageway to the east to connect with the A441 with a new junction at Redditch Road. Improvements to existing roads either side of the new junctions (around 4km of improvement). New bridge over rail line may be required to the east.	HV in the area overhead. The existing primary substation is not close and therefore the area would probably need a new primary.	The Area of Search is situated in a location where the closest existing STW of relatively significant size is located to the south-east of Alvechurch which drains to the River Arrow. Depending on the scale of any new settlement, it is considered that significant reinforcement would be required, given that the current STW serves around 4,000 dwellings. It is considered that any surface water would be managed on site through Sustainable Urban Drainage systems and any excess runoff

			discharged to the local watercourse.
North of Penkridge	A single 2 lane access from A449 to new junction is likely to be required. Likely to require improvements to A449 1km either side of new junction (i.e. 2km of improvement).	This is a known area of weak network and per today this would have to be classified red. Even the smallest of developments would trigger significant reinforcement. Minimal work required would be Primary Sub Station upgrade with new HV circuits. Penkridge is likely to require a new Primary Sub Station.	There are no reported incidents of flooding downstream of the Area of Search. There are assets downstream i.e. Stafford Road pumping station and combined sewage overflow. The topography of the Area suggests that flows would gravity connect to the existing network, further investigation is required to determine if the existing network could cope with the extra flows generated. There is a surface water network to the south of the Area that outfalls into the River Penk and further analysis is needed to establish the ability to accommodate new flows.
South of Penkridge	A single 2 lane access from A449 to new junction is likely to be required. Likely to require improvements to A449 1km either side of new junction (i.e. 2km of improvement).	This is a known area of weak network and per today this would have to be classified red. Even the smallest of developments would trigger significant reinforcement. Minimal work required would be Primary Sub Station upgrade with new HV circuits. Penkridge is likely to require a new Primary Sub Station.	There are no reported incidents downstream of the Area of Search. Foul flows are likely to drain through Stafford Road pumping station and combined sewage overflow. The topography of the Area suggests that flows would gravity connect to the existing network, further investigation is required to determine if the existing network could cope with the extra flows generated. There is a surface water system directly north of the Area of Search which could accommodate the extra flows.
South of Stafford	Two single access points likely to be required - one from A449 to existing junction and one from A34 (new junction required). Improvements to A449 and A34 for 1km either side of both junctions (i.e. 4km of improvement). A449 / M6 junction assumed to require upgrading.	This area has negligible existing network capacity. As a bare minimum, significant modifications to the nearest primary substation and new 11kV circuit(s) will be required.	There are some reported flooding incidents downstream of the Area of Search which may be exacerbated from any future development in this Area. Current flows from Walton on the Hill and the east of Stafford pass through Baswich pumping station and combined sewage overflow which could be impacted. The topography of the area suggests that a gravity connection could take flows from

			any future development there, with further modelling required to determine the true impact.
East of Lichfield	Likely to require one single access with A5192 (new junction). Improvements to roads either side of junction (2km of improvement). A5192 / A5127 roundabout assumed to require upgrading. A tunnel / bridge required to cross railway line also likely to be required.	To facilitate development in this area, it would require significant reinforcement including 132KV network reinforcement, additional Primary substation with associated 11kv network to the proposed development. A new Primary substation at Shenstone would be one option due to the distance from the existing Primary location i.e. 11kV feeders in excess of 10km's. This may enable the transfer of load from the existing Primary location to a new site although significant 11kV reinforcement would still be required to fully utilise any spare capacity gained at the existing Primary Substation	The Area of Search is in relatively close proximity to the STW. There are no known sewer flooding problems immediately downstream and there are no pumping stations or combined sewage overflows downstream of the development. There is an existing pumped sewer that pumps from the east of the catchment to the treatment works. This pumped sewer runs across the new development. Elevation shows a high point in the middle of the Area so two separate connection points may be required. There are existing surface water outfalls which spill to Curborough Brook.
North of Tamworth	It is assumed a range of highway mitigation schemes will be needed including new roads and junctions to enable north/south and east/west movements, improvements to existing roads within Tamworth and improvements to key junctions within Tamworth. Any new roads may need to cross railway lines and flood zone 3. It is noted that a high level study has been carried out in relation to an extension in this area in 2013, where it concluded that the capacity of the highway network was 700 dwellings. It identified a range of transport measures including a new road which would allow a total of 1,350 dwellings. Given the high costs of these	This area would require replacement of existing two 132/33kV transformers at Tamworth Town Bulk Supply Point and possibly replace 33KV switchgear to match new transformers. Likely to require new 33/11 KV primary for the scale of development.	There are a number of reported flooding incidents downstream of the Area of Search dependent on where the connection point is. Flows are unlikely to affect pumping stations or combined sewerage overflows downstream of the Area as there are no assets on a direct downstream leg. The STW is located at the south west edge of the Area of Search. The topography of the area shows that the terrain drops from the north east towards the south west suggesting that a gravity connection may be sufficient. There is a surface water system in Tamworth to the south.

	measures and the impact on viability it was concluded they were only likely to be delivered with public funding. It is noted that planning consent has been granted for the 700 homes and these are currently being built out. A planning application made to Lichfield District Council in 2014 for a further 1,000 homes has been called in by the Secretary of State for his determination		
North West of Tamworth	Likely to require one dual 2 access to A51 in the north (at new junction). Improvements to roads either side of junctions (2km of improvement).	This area would require replacement of existing two 132/33kV transformers at Tamworth Town Bulk Supply Point and possibly replacement of 33KV switchgear to match new transformers. Likely to require new 33/11 KV primary for the scale of development.	There are no known flooding incidents downstream of the Area. Flows from the Area are likely to use Hopwas pumping station and combined sewage overflow and therefore would impact them. The topography in the area suggests that a gravity sewer could take flows towards the treatment works. Further investigation as to whether the assets and network could accommodate the extra flows should be carried out. There is a surface water system in Tamworth but this may be too far away from the Area to be a viable option.
North of Walsall around Brownhills	It is assumed that one single 2 access A5190 to north via new junction and a single 2 to A5195 via existing bridge will be required. Improvements to roads either side of junctions (i.e. 4km of improvement). Upgrade of A5185 junction assumed.	This area would require replacement of existing two 132/33kV transformers at Tamworth Town Bulk Supply Point and possibly replace 33KV switchgear to match new transformers. Upgrade existing two 33/11KV transformers at Polesworth PSS. Upgrade two 33KV circuits which feed Polesworth.	There are no reported flooding incidents downstream. There is existing network within the Area which is pumped into Burntwood STW, any future flows could utilise this, although there would be impact to Brownhills pumping station and combined sewage overflow. There is an existing surface water system to the west of the Area of Search that outfall to the Wryley and Essington canal and Anglesey river. As the Area is on the other side of these watercourses, new outfalls could potentially drain to them. On the east side, Crane Brook

			watercourse could also potentially accept flows.
East of Polesworth	Likely to require one single 2 access to existing local roads although these will require upgrading. Improvements to roads either side of junctions and possibly some further lengths particularly along station road (approx. 6km of improvement). The possibility of rerouting A5 north of Tamworth as noted by the LPA is unlikely to be required to accommodate smaller development	This area would require replacement of existing two 132/33kV transformers at Tamworth Town BSP and possibly replacement of 33KV switchgear to match new transformers.	There is known hydraulic flooding in the Area of Search. The existing rising main crossing the Area of Search should be drained to the sites new gravity system. This should then be directly pumped to Polesworth STW. It is considered that any surface water would be managed on site through Sustainable Urban Drainage systems and any excess runoff discharged to the local watercourse which presents no risks.
South of Stratford-upon-Avon town	Likely to require new single carriageway to west to connect with SS Relief Road. Only one upgraded junction required. Improvements to roads either side of junctions (2km of improvement).	This area would require new circuits out of Stratford Primary which is on the other side of the river. Stratford District Council will not let us use existing bridges for new cables therefore we have to rely on 3rd party landowners to bring cables under or over the river.	There is known hydraulic flooding on Loxley Road. The western section of the Area of Search would drain to Lucy's Mill pumping station via the existing network requiring off site drainage. The Eastern section of the Area of Search would drain to Loxley Road which would require capacity improvements. It is considered that any surface water would be managed on site through Sustainable Urban Drainage systems and any excess runoff discharged to the local watercourse.
South east of Redditch	Likely to require a new single carriageway to east to connect with A448 at new junction. Improvements to roads either side of junction (2km of improvement).	This area would need reinforcement of the 11kV network and Possibly 66/11 Tx Changes at Redditch South. HV reinforcement would be required but close to existing primary, New EHV network if new primary required.	There is known hydraulic flooding downstream of the Area of Search towards Priest Bridge STW. The Area is located to the south of Redditch and cannot drain to the trunk sewer, which drains to Priest Bridge STW, as there is no spare capacity. It will either gravitate or be pumped to Astwood Bank STW via a dedicated system.
South of Dudley	Likely to require a new dual carriageway to west along Wassell Grove Lane to connect with A456 at existing roundabout. Improvements to roads	This is an area with poor infrastructure so would require new 11KV circuits and minimal Primary upgrades with an extension to the 11KV circuit	There is known flooding locations on Glen Road and Landsgate. Additional flows from the proposed development could lead to a detriment at these locations.

	either side of junction (2km of improvement).	breaker board and transformer upgrades / possible additional transformer. The area is near the primary network however.	No overflows known to be located downstream of the possible connection points. There are multiple ponds located across development catchment, therefore surface water flows are unlikely to discharge to the sewer system.
South of Birmingham Airport & the NEC	Likely to require a new single carriageway to east to connect with Damson Parkway at new junction. Improvements to Damson Parkway either side of junction (2km of improvement) likely to be required.	HV reinforcement would be required but the area is close to the existing primary network however Primary reinforcement is likely.	There is a single reported flooding location on Valley Road downstream of the Area of Search. Additional flows from the proposed development could lead to a detriment at this location. There are multiple ponds located across development catchment, therefore surface water flows are unlikely to discharge to the sewer system.
North of Wolverhampton	This area benefits from main road infrastructure and connections to the wider highway network as a result of the employment development, therefore new infrastructure would not be required of any great scale. However likely to require additional access and circulation within any new residential-focussed expansion.	This is a known area of relatively weak network. Even the smallest of developments would trigger significant reinforcement. Minimal work required would be Primary Sub Station upgrade with new HV circuits.	The Area of Search is located in the near vicinity to Coven Heath STW. Subject to modelling, once potential connection points and flow rates are confirmed, sewer capacity upgrades are envisaged to be low due to the proximity to the STW. Any prospective upgrades to the STW are not envisaged to be significant.
East of Birmingham	The area is constrained by M6 and M6 Toll. It is assumed that access will be from Birmingham road single 2. One new junction likely to be required. Improvements to roads either side of junction (2km of improvement).	HV reinforcement would be required but the area is close to the existing primary network however Primary reinforcement is likely.	There is an external reported flooding location on Roman Way located directly upstream of the Coleshill STW. Additional flows from the proposed development could lead to a detriment at this location. There are multiple ponds located across development catchment, therefore surface water flows are unlikely to discharge to the sewer system.

Delivery Models

- 9.56 For strategic development of the scale considered in this section, deliverability issues are particularly a function of the inter-relationship between the value generated by the development (which is particularly a function of the scale of development and residential values) and the costs of delivering strategic infrastructure.
- 9.57 GL Hearn has sought to assess the delivery issues associated with the different strategic development models. There are typically greater development costs and increasing complexities for larger strategic development schemes; however garden villages and settlements bring with them increased opportunities for public funding support.

Table 61: Assessment of Delivery Models

Development Model	Deliverability Issues
Proportionate Dispersal	<ul style="list-style-type: none"> • Shortest lead-in times, typically 3-5 years, to initial completions • Typically lower requirements for strategic infrastructure, with consequently less requirements for public sector funding support. • Some contribution to delivering social infrastructure and open space depending on scale and existing local provision. • Delivery through typical private-sector led development model, with several housebuilders depending on scale. Delivery of typically 50-80 dwellings per year per developer. • Cumulatively may not deliver strategic infrastructure requirements to support scale of growth taking place across HMA.
Employment-Led	<ul style="list-style-type: none"> • Lead in times of 3-5 years to initial completions depending on scale of housing provision • Larger infrastructure requirements, influenced by scale, location and existing provision. Possibility for greater support financially for infrastructure if tied in with employment provision. • Some contribution to delivering social infrastructure and open space depending on scale and existing local provision and the surrounding environment.
Urban Extensions	<ul style="list-style-type: none"> • Lead-in times of typically 5+ years to initial completions, taking account of greater complexities associated with planning and infrastructure delivery. • Larger and more costly infrastructure requirements, influenced by scale, location and existing provision. Strategic infrastructure typically required to support. • Can draw on existing local infrastructure, including highways, schools, health care etc depending on existing provision and capacity of this. • Scale brings opportunities for place-making investment, which can contribute to creating value within the development scheme.

	<ul style="list-style-type: none"> • At lower end of size range, delivery model is typically private-sector led, with several housebuilders delivering concurrently. Typically 50-80 dwellings per year per developer. • At higher end of scale range, greater potential need for public sector involvement/ JV to drive the pace of delivery given likely larger upfront infrastructure costs and impacts on cash flow. • Nature and scale of developments may create fewer opportunities to attract significant public funding investment to deliver strategic infrastructure.
New Settlements	<ul style="list-style-type: none"> • Scale brings opportunities for attracting Central Government investment both in creating capacity and supporting infrastructure delivery. • Difficult for private sector to absorb costs alone, given significant upfront infrastructure costs and implications on cash flow and risk. Important public sector role on this basis in partnering and reducing risk through Local Delivery Vehicle or public/private Joint Venture. • 5-10 year lead-in time in most instances, but could be longer where particular development or infrastructure complexities arise. Delays can have a significant overall impact on delivery rates in an area. • Opportunities for place-making investment to set tone of scheme and create value, with potential for up to 20% value uplift which can support delivery of infrastructure. • Need for bespoke delivery model with delivery through a greater range of housing providers than traditional private-sector led development model in order to create place and critical mass. This could involve public sector role (e.g. accelerated construction), custom build development, build-to-rent etc.

9.58 Public sector funding opportunities include:

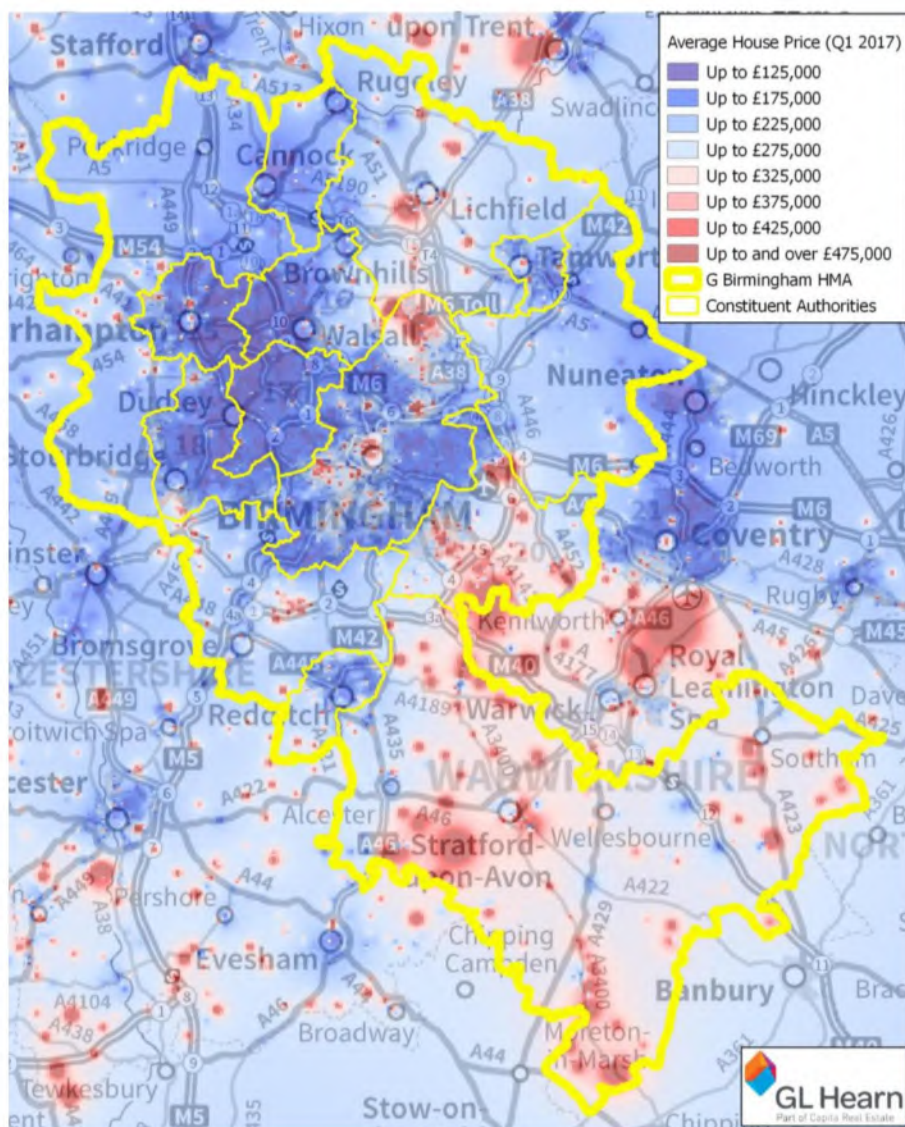
- £3 billion Home Building Fund – managed by the HCA providing development finance and infrastructure finance of up to £250 million to drive forward housing delivery;
- £2.3 billion Housing Infrastructure Fund – managed by CLG, with opportunities to bid for funding through the Combined Authority to support infrastructure delivery which opens up homes;
- Housing Zones and Large Sites Capacity Fund – funding of £6.3 million is available to drive forward delivery of brownfield sites. The large sites capacity fund provided support to local authorities, including funds to support additional consultancy, to deliver large schemes of 1500+ homes.
- Accelerated Construction – a £1.7 billion fund available to support schemes which accelerate construction of homes, including modular construction and direct commissioning (whereby HCA commissions a contractor to build homes);
- Garden Villages and Towns – a programme of funding available through CLG to support planning and development activities to support delivery of a new generation of garden villages and towns.

9.59 Detailed work will be needed to assess infrastructure requirements associated with strategic development, to cost these and to consider cash flow issues to support viability. This detailed work

is beyond the scope of this exercise, and may well require further specific evidence studies to consider infrastructure requirements.

- 9.60 However what can be considered at this stage is the relationship between potential Areas of Search for strategic development and the house price 'value geography.' Figure 39 shows higher house prices in Stratford-on-Avon District, around Sutton Coldfield and Lichfield. House prices are lower within the conurbation and other urban centres. It is acknowledged that housebuilding will naturally have an effect on future property values over time however this is considered to be the most appropriate point of reference.

Figure 39: House Price Value Heat map



Source: GLH Analysis of HMLR House Price Data

- 9.61 Of the urban extension options, it is evident that the extension options to Stratford-on-Avon and Lichfield relate to higher value housing markets; whilst prices towards the south of Dudley are higher than in many other parts of the conurbation. This will support viability.
- 9.62 Of the new settlement options, the options South of Birmingham, in Stratford District (Around Wellesbourne) and South west of Stratford-on-Avon District) sit within higher value housing markets, as does the Balsall Common area. Values are also reasonable around Shenstone. Values are lower for those options in North Warwickshire and South Staffordshire.
- 9.63 The issue of deliverability is however not just about house prices but about market capacity. Past housing completions on their own are not necessarily a good measure of the future delivery potential as they are potentially influenced by land supply as well as market factors. To address this, we have looked at housing stock growth rates.
- 9.64 Table 62 compares historical growth in the housing stock, measured in terms of annual growth in the housing stock over the 2011-16 period and 2001-16 period. In the longer-term housing delivery rates in the HMA authorities have varied from 0.4% pa – 1.0% pa, with the highest rates achieved in Stratford-on-Avon District.

Table 62: Historical Housing Delivery Rates Assessment

	5 Year CAGR 2011-16	CAGR 2001-16
Birmingham	0.4%	0.5%
Dudley	0.5%	0.4%
Sandwell	0.5%	0.6%
Solihull	0.5%	0.5%
Walsall	0.6%	0.5%
Wolverhampton	0.5%	0.5%
Stratford-on-Avon	0.9%	1.0%
North Warwickshire	0.4%	0.5%
Cannock Chase	0.3%	0.8%
Lichfield	0.5%	0.9%
South Staffordshire	0.5%	0.6%
Tamworth	0.2%	0.6%
Bromsgrove	0.6%	0.8%
Redditch	0.5%	0.7%
Rugby	0.9%	1.2%
Stafford	0.7%	1.0%
Telford and Wrekin	1.3%	0.7%
South Derbyshire	1.0%	1.5%
England	0.7%	0.8%

- 9.65 GL Hearn would consider that given that there are a range of authorities nationally, including a number of examples within the Midlands, of authorities delivering 1.3% through to 1.6% stock growth pa that there remains considerable potential to boost housing delivery relative to those which have been seen historically. On average nationally, housing stock has grown by 0.8% pa across England over the 2001-16 period.
- 9.66 However the gauge the market capacity to deliver further housing provision, over-and-above what is already planned, it is necessary to consider what delivery of the housing requirement figures (targets) in current or emerging plans would imply. To do so we have considered the residual housing requirement taking account of completions to the base date used in the land supply calculations, and what delivery of this would imply in terms of a rate of growth in the housing stock.
- 9.67 The analysis in Table 63 shows that there are particular constraints to introducing further residential land supply in North Warwickshire, which is already planning in its emerging Local Plan to deliver housing growth of 1.8% pa. Given moderate house prices in the District and the very strong rate of housing delivery proposed, our analysis indicates no effective potential for additional supply to be brought forward in North Warwickshire.
- 9.68 Over the period to 2028, Lichfield would need to deliver 1.4% pa and Stratford-on-Avon 1.3% pa stock growth to 2031 to meet housing targets in these areas. These are towards the higher level of the range shown in the Table for authorities in the HMA, and the comparators shown in Table 62, implying limited potential for additional supply to be brought forward.

Table 63: Assessing Market Capacity – Delivering Existing Housing Targets

	Plan	Plan Period to	CAGR	Median House Price	Median Price - Semi-Detached
Cannock Chase	Adopted	2028	0.5%	£142,950	£132,000
Black Country	Adopted	2026	0.8%	£135,000	£137,500
Tamworth	Adopted	2031	0.6%	£164,000	£160,000
Birmingham	Adopted	2031	0.6%	£150,000	£165,000
South Staffordshire	Adopted	2028	0.2%	£194,000	£168,000
North Warwickshire	Draft	2031	1.8%	£175,000	£170,000
Redditch	Adopted	2030	1.1%	£175,000	£178,000
Lichfield	Adopted	2028	1.4%	£213,000	£184,000
Bromsgrove	Adopted	2030	1.0%	£246,250	£224,950
Solihull	Draft	2033	0.8%	£245,000	£245,000
Stratford on Avon	Adopted	2031	1.3%	£289,000	£254,000

- 9.69 Conversely there are a range of areas across the HMA with a growth rate of below 1.0%, with the lowest being South Staffordshire at 0.2% pa. GL Hearn considers that across many of these areas additional supply could be introduced.

Drawing the Analysis Together

Approach

9.70 In drawing the analysis in this section together, the consultancy team considers that there are a range of considerations in identifying a set of preferred options for strategic development to form the basis of Study recommendations. These include:

- **Ability to meet housing needs** – as identified the unmet housing need is particularly that of “the conurbation” and thus the geographic relationship to the conurbation and distance of locations from this is, we think, an important consideration;
- **Impact on the Green Belt** – making a distinction between locations which are within and outside the Green Belt, and those which are beyond it;
- **Sustainability** – drawing from the SA the best performing locations, and excluding those with ‘significant negative outcomes’ against one of more of the SA objectives;
- **Public Transport** – for strategic development, the accessibility to public transport and particularly to the rail network, is an particularly important consideration within the wider sustainability of different development options; and
- **Deliverability** – drawing together analysis to comment on the relative market attractiveness and delivery challenges associated with different strategic development locations.

Figure 40: Influences on Shortlisting and Prioritisation



- 9.71 We have sought to bring these factors together in a series of Venn diagrams which capture the relative merits of different strategic growth locations. The options appraisal framework is shown in Table 64.

Table 64: Options Appraisal Framework

Rating	Housing Need	Green Belt	Sustainability	Public Transport	Deliverability
Highest	Likely to substantially meet the defined needs of the conurbation	Not in the Green Belt	Significant Positive outcome overall	Adjacent to a train station and short journey time to Birmingham	Highest relative deliverability
High	Likely to meet a significant proportion of the defined needs of the conurbation	Partially within an area making a Supporting Contribution to GB purposes	Positive outcome overall	Within a reasonable distance of a train station and reasonable journey time to Birmingham	High relative deliverability
Moderate	Likely to meet a reasonable proportion of the defined needs of the conurbation	Within an area making Supporting Contribution to GB purposes	Neutral outcome overall	In the broad vicinity of a train station moderate journey time to Birmingham	Average relative deliverability
Low	Likely to meet some of the defined needs of the conurbation	Partially within an area making a Principal Contribution to GB purposes	Negative outcome overall	At some distance from a station and moderate journey time to Birmingham	Notable delivery complexities
Lowest	Likely to meet relatively few of the defined needs of the conurbation	Wholly within an area making a Principal Contribution to GB purposes	Significant Negative outcome overall	No train station or remote from a station and long journey time to Birmingham	Significant delivery complexities

- 9.72 In assessing the ability to meet housing needs, consideration has been given to the geographical proximity of the Areas of Search to the conurbation by applying buffer zones of (1) <2.5km, (2) 2.5km – 5km (3) 5km – 10km; (4) 10km to 15km and (5) 15km +.
- 9.73 In considering the Green Belt, Wood Plc has evaluated each relevant Area of Search on the basis of the criteria set out above in Table 64.
- 9.74 With regards to sustainability, Wood Plc has considered each Area of Search's overall outcome from the Sustainability Appraisal and rated it accordingly, ranging from a significant positive outcome overall down to a significant negative outcome overall.
- 9.75 Public transport accessibility has been assessed taking account of the distance to a rail station, the journey time from the station to Central Birmingham as the largest employment centre in the sub-region, with some regard had to service frequency (noting that with strategic development this could potentially be improved).

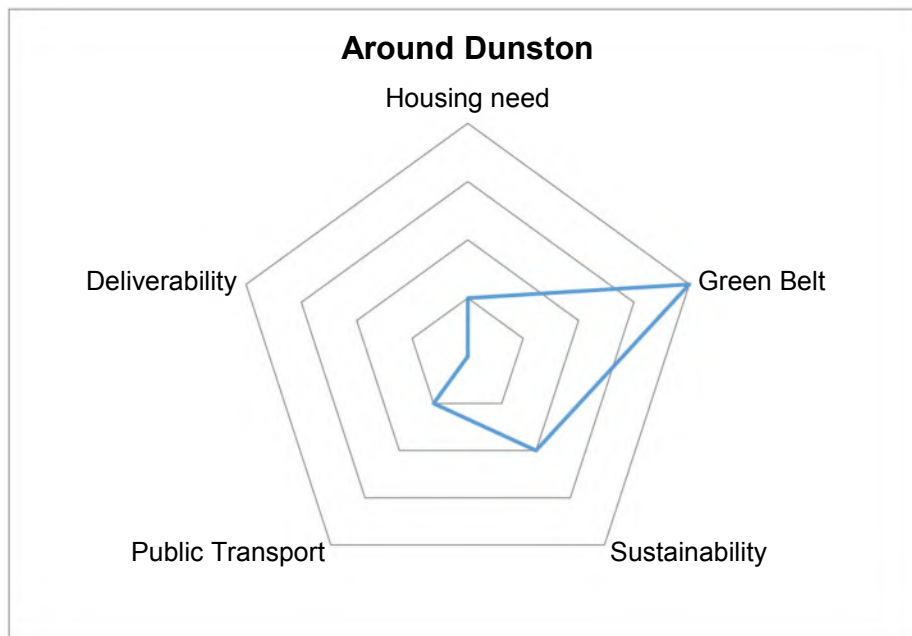
- 9.76 In assessing deliverability, GL Hearn has had regard to:
- The potential scale of development;
 - Our analysis of the merits of the different development models;
 - The potential physical infrastructure requirements, in respect of highways and utilities; and
 - The geography of housing values.
- 9.77 It is for the Client Group to make decisions on which locations should be taken forward for detailed consideration, but the assessment is intended to provide a framework for this.

Assessment of the Areas of Search & Venn Diagrams

- 9.78 The options are assessed against the appraisal framework shown in Table 64. The results of this are shown in the Venn diagrams from page 242 to page 265 which visually indicate the relative merits and performance of the different options for strategic development. Whilst it may be appropriate for the authorities to weight different considerations in assessing what growth options to take forwards, in general terms the larger the area within the pentagon the stronger the performance of the option in question.

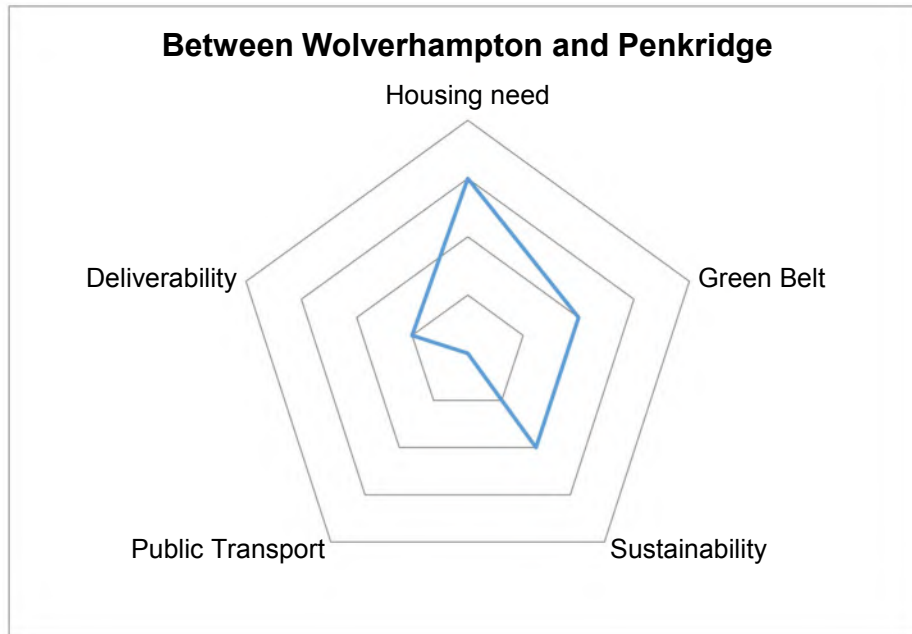
New Settlements

9.79 Around Dunston



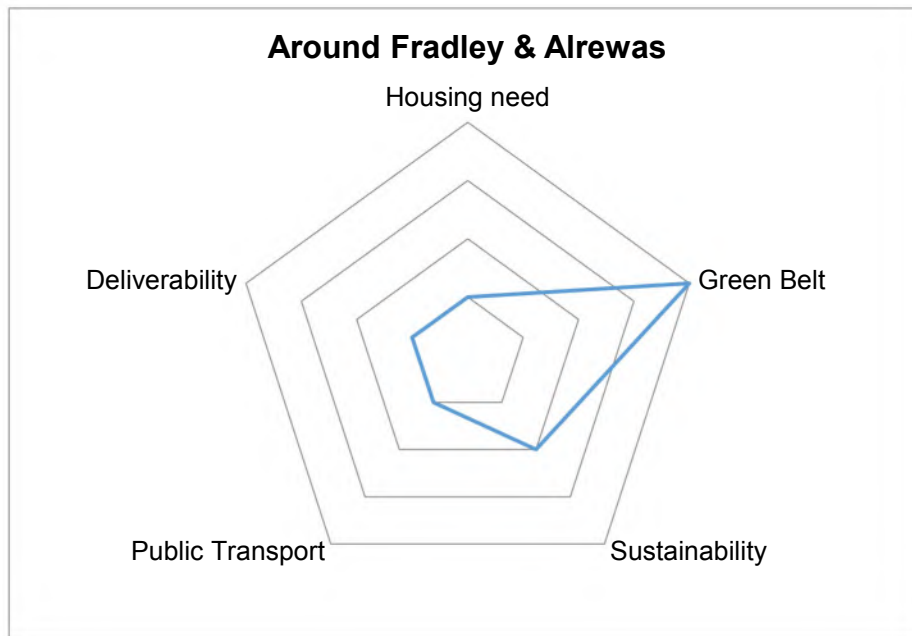
- The area is within 15km of the conurbation but beyond 10km and will therefore help to meet some of the need;
- Not in the Green Belt;
- Neutral outcome overall from Sustainability Appraisal;
- Around 4.5km from the nearest train station with a journey time of 32 minutes to Birmingham New Street; and
- Potentially significant highways works required to support development; together with significant utilities infrastructure reinforcement. Lower housing values.

9.80 Between Wolverhampton and Penkrigde



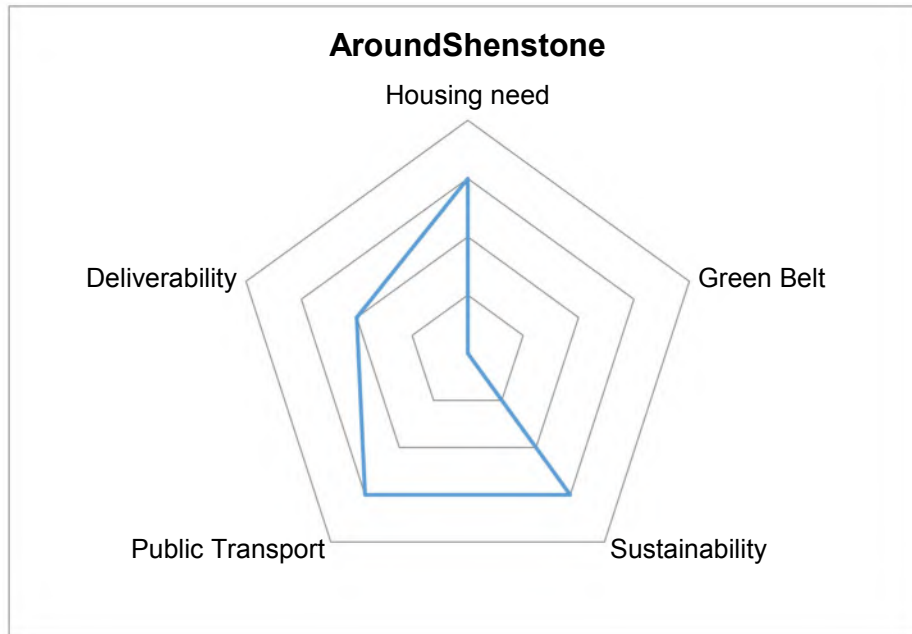
- The area is within 5km of the conurbation but beyond 2.5km and will therefore help to meet a relatively significant proportion of the need;
- Within an area making Supporting Contribution to the Green Belt purposes;
- Neutral outcome overall from Sustainability Appraisal;
- Around 6.5km to the nearest train station with a journey time of 32 minutes to Birmingham New Street; and
- Potentially more modest highways works required, but significant utilities infrastructure reinforcement required. Lower housing values.

9.81 Around Fradley and Alrewas



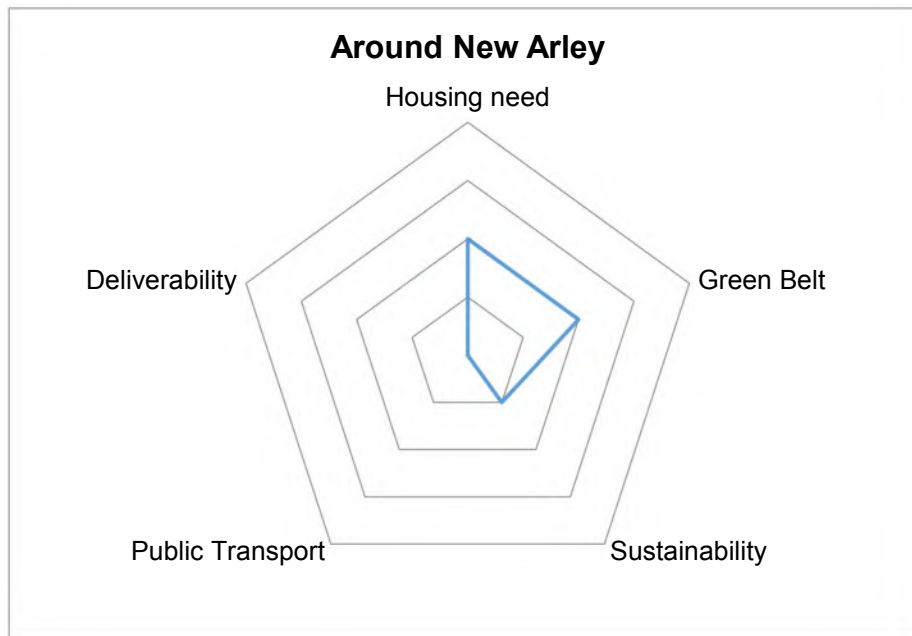
- The area is within 15km of the conurbation but beyond 10km and will therefore help to meet some of the need;
- Not in the Green Belt;
- Neutral outcome overall from Sustainability Appraisal;
- Around 4km to the nearest train station with a journey time of 40 minutes to Birmingham New Street; and
- Significant highways works required, plus delivery of new station and extension of rail service to support sustainable development. Very significant utilities infrastructure reinforcement required. Medium housing values.

9.82 Around Shenstone



- The area is within 5km of the conurbation but beyond 2.5km and will therefore help to meet a relatively significant proportion of the need;
- Wholly within an area making a Principal Contribution to Green Belt purposes;
- Positive outcome overall from Sustainability Appraisal;
- Around 1km to the nearest train station with a journey time of 30 minutes to Birmingham New Street; and
- Less significant potential highways infrastructure required relative to some other new settlement locations, however utilities infrastructure requirements significant. Reasonable housing values.

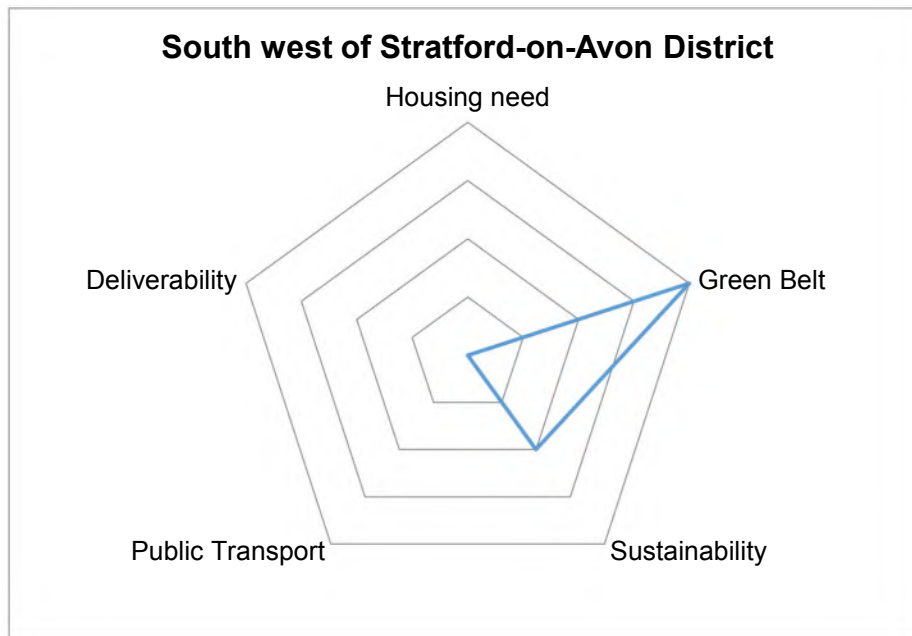
9.83 Around New Arley



- The area is within 10km of the conurbation but beyond 5km and will therefore meet a reasonable proportion of the defined need;
- Within an area making Supporting Contribution to the Green Belt purposes;
- Negative outcome overall from Sustainability Appraisal;
- Remote from any train station; and
- Significant potential highways works required with new road links to connect area to strategic road network; together with significant utilities network development/ reinforcement. Lower housing values.

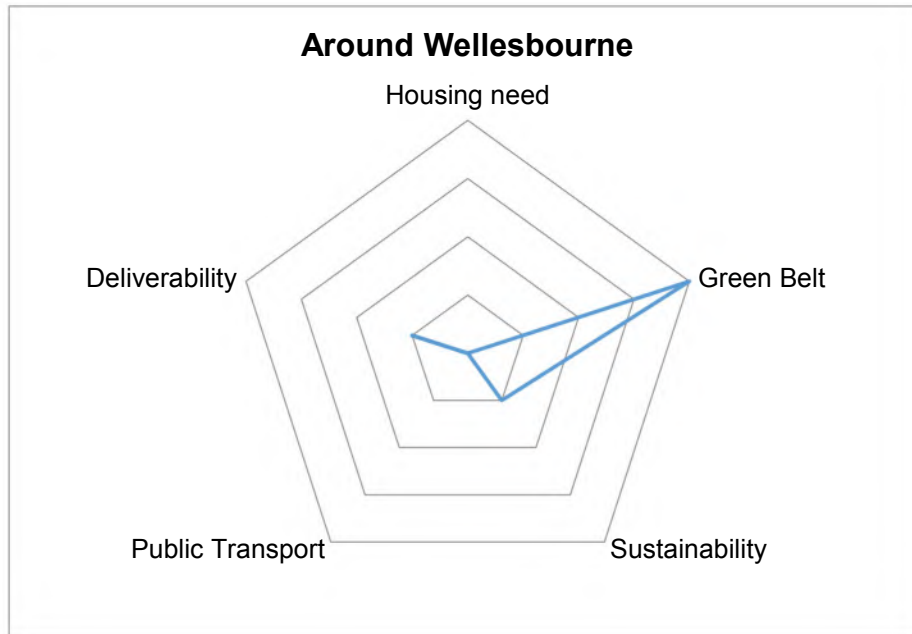
9.84 GL Hearn's findings, as set out above, are of no effective market capacity to introduce deliver further housing provision over-and-above what is being planned for already in North Warwickshire.

9.85 South west of Stratford-on-Avon District



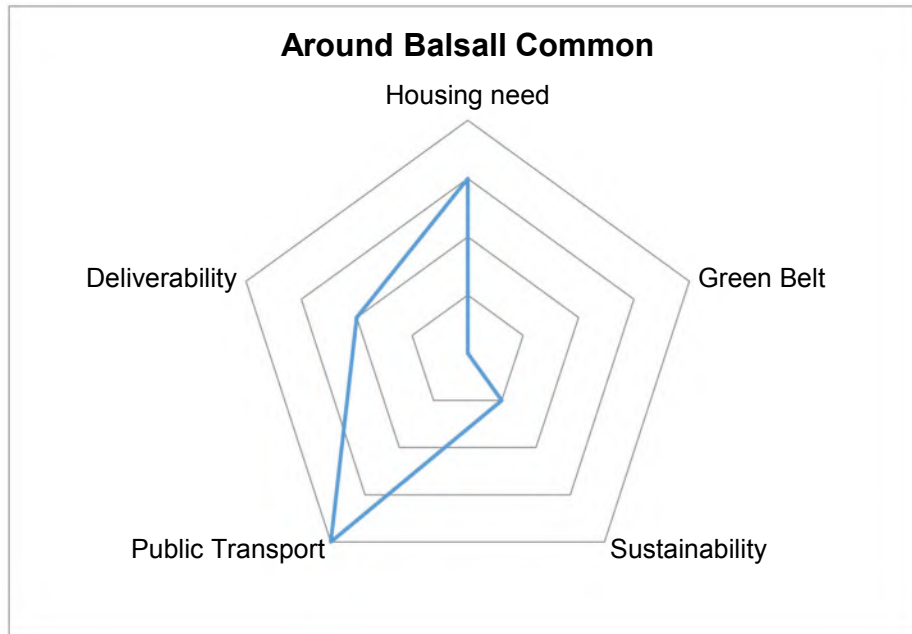
- The area is beyond 15km from the conurbation (specifically 28km) and is therefore unlikely to meet the need;
- Not in the Green Belt;
- Neutral outcome overall from Sustainability Appraisal;
- Remote from any train station; and
- At distance from major roads, with potentially significant new road infrastructure required; together with significant new utilities network infrastructure. Housing values relatively strong.

9.86 Around Wellesbourne



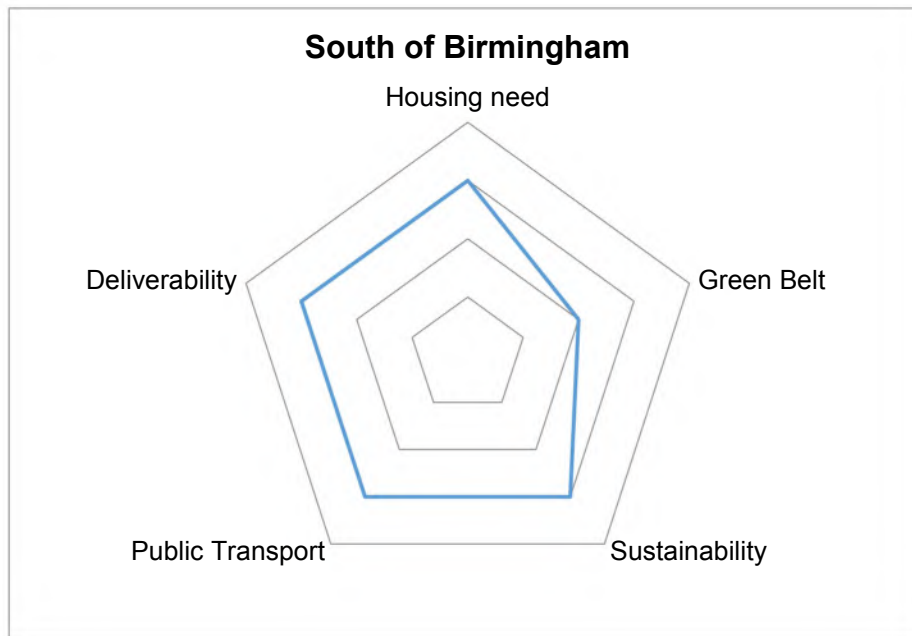
- The area is beyond 15km from the conurbation (specifically 24km) and is therefore unlikely to meet the need;
- Not in the Green Belt;
- Negative outcome overall from Sustainability Appraisal;
- Remote from any train station; and
- Reasonably significant highways and utilities infrastructure required. Strong market and residential values, but major growth already taking place at Gaydon/Lighthorne Heath which is in relative proximity.

9.87 Around Balsall Common



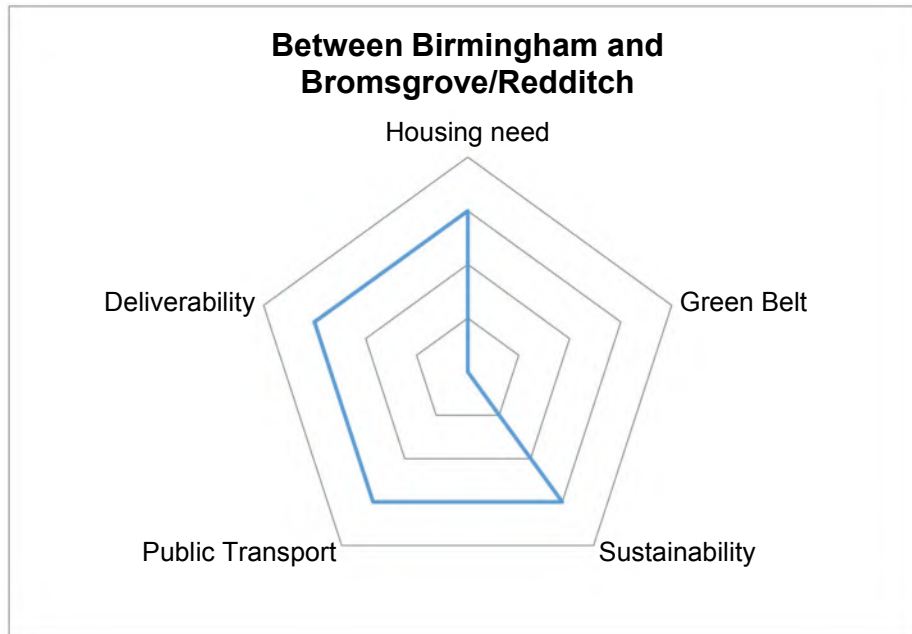
- The area is within 5km of the conurbation but beyond 2.5km and will therefore help to meet a relatively significant proportion of the need;
- Wholly within an area making a Principal Contribution to Green Belt purposes;
- Negative outcome overall from Sustainability Appraisal;
- Around 2km to the nearest train station with a journey time of 20 minutes to Birmingham New Street; and
- More modest highways infrastructure potentially required for this location relative to others however utilities infrastructure likely to be significant. Strong market and residential values, and relationship to employment centres. Scoring takes account of funding potential with major growth.

9.88 South of Birmingham



- The area is within 5km of the conurbation but beyond 2.5km and will therefore help to meet a relatively significant proportion of the need;
- Within an area making Supporting Contribution to the Green Belt purposes;
- Positive outcome overall from Sustainability Appraisal;
- Around 1km to the nearest train station with a journey time of 30 minutes to Birmingham New Street; and
- More modest highways infrastructure potentially required for this location relative to others however utilities could be significant. Strong market and residential values. Scoring takes account of funding potential with major growth.

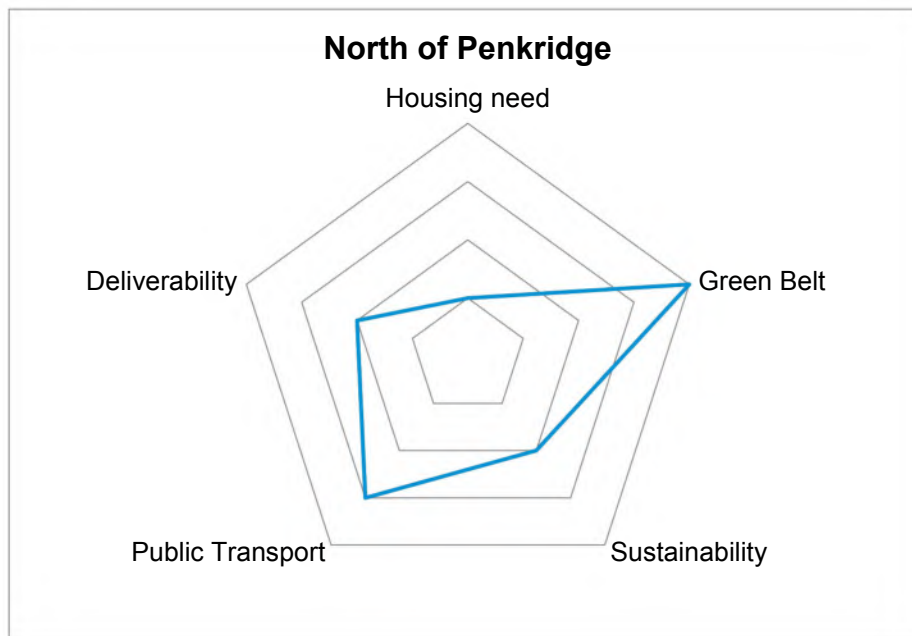
9.89 Between Birmingham and Bromsgrove/Redditch



- The area is within 5km of the conurbation but beyond 2.5km and will therefore help to meet a relatively significant proportion of the need;
- Wholly within an area making a Principal Contribution to Green Belt purposes;
- Positive outcome overall from Sustainability Appraisal;
- Around 1km to the nearest train station with a journey time of 35 minutes to Birmingham New Street; and
- More modest highways infrastructure potentially required for this location relative to others however utilities could be significant. Reasonably strong market and residential values. Scoring takes account of funding potential with major growth.

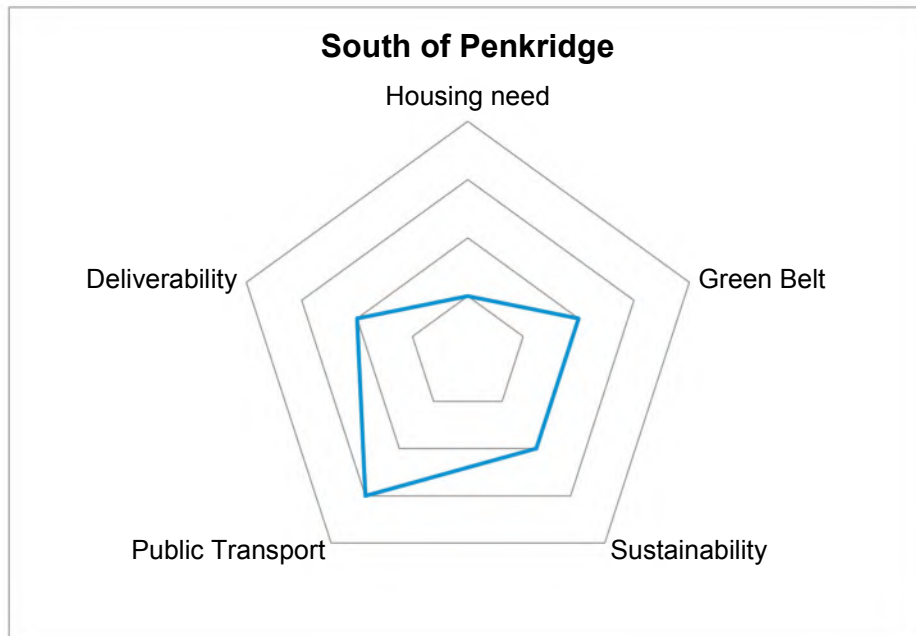
Urban Extensions

9.90 North of Penkrige



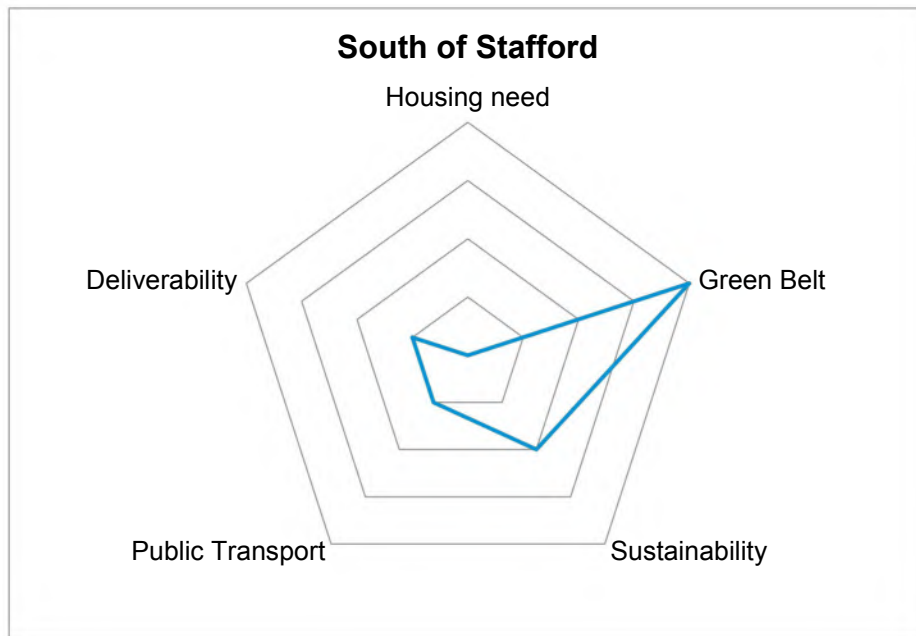
- The area is within 15km of the conurbation but beyond 10km and will therefore help to meet some of the need;
- Within an area making Supporting Contribution to the Green Belt purposes;
- Neutral outcome overall from Sustainability Appraisal;
- Around 1.5km to the nearest train station with a journey time of 32 minutes to Birmingham New Street; and
- Potentially significant highways works required to support development; together with significant utilities infrastructure reinforcement. Lower housing values.

9.91 South of Penkridge



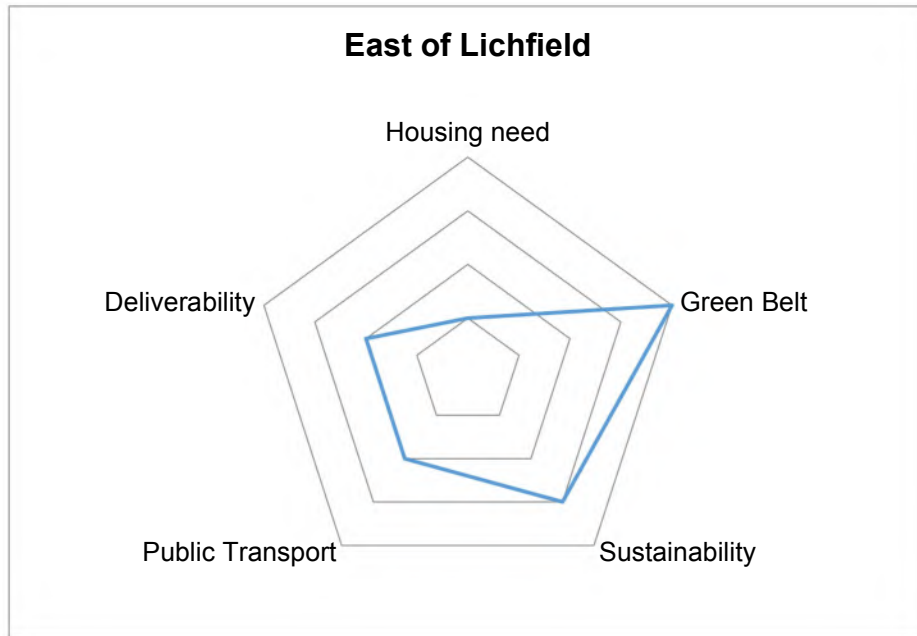
- The area is within 10km of the conurbation but beyond 5km and will therefore help to meet some of the need;
- Within an area making Supporting Contribution to the Green Belt purposes;
- Neutral outcome overall from Sustainability Appraisal;
- Around 1.5km to the nearest train station with a journey time of 32 minutes to Birmingham New Street; and
- Potentially significant highways works required to support development; together with significant utilities infrastructure reinforcement. Lower housing values.

9.92 South of Stafford



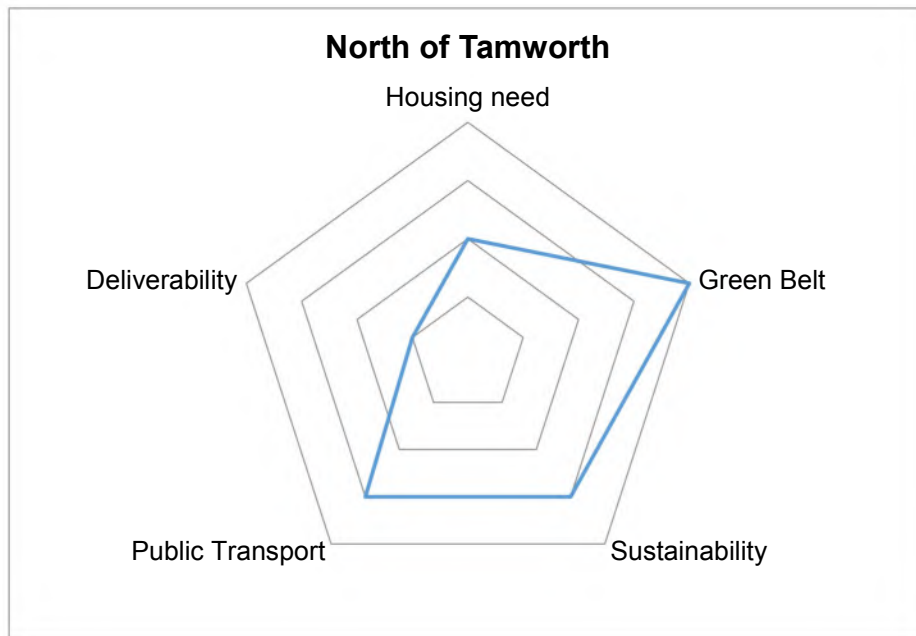
- The area is beyond 15km from the conurbation and is therefore unlikely to meet the need
- Not in the Green Belt;
- Neutral outcome overall from Sustainability Appraisal;
- Around 3km to the nearest train station with a journey time of 33 minutes to Birmingham New Street; and
- Reasonably significant highways works required, and negligible existing utilities network capacity. Significant investment required. Lower housing values.

9.93 East of Lichfield



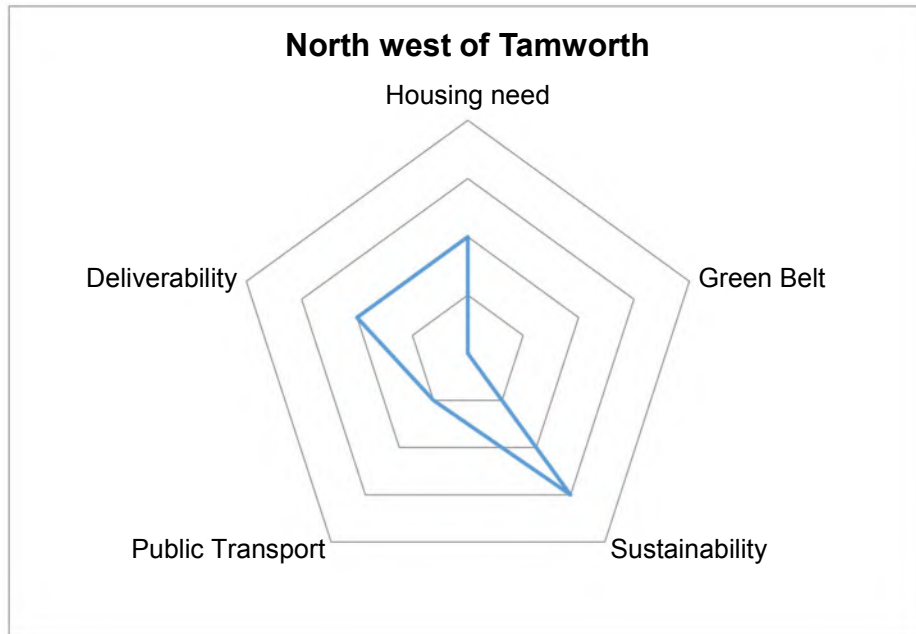
- The area is within 15km of the conurbation but beyond 10km and will therefore help to meet some of the need;
- Not in the Green Belt;
- Positive outcome overall from Sustainability Appraisal;
- Around 2km to the nearest train station with a journey time of 32 minutes to Birmingham New Street; and
- Significant highways works required. Very significant utilities infrastructure reinforcement required. Medium housing values.

9.94 North of Tamworth



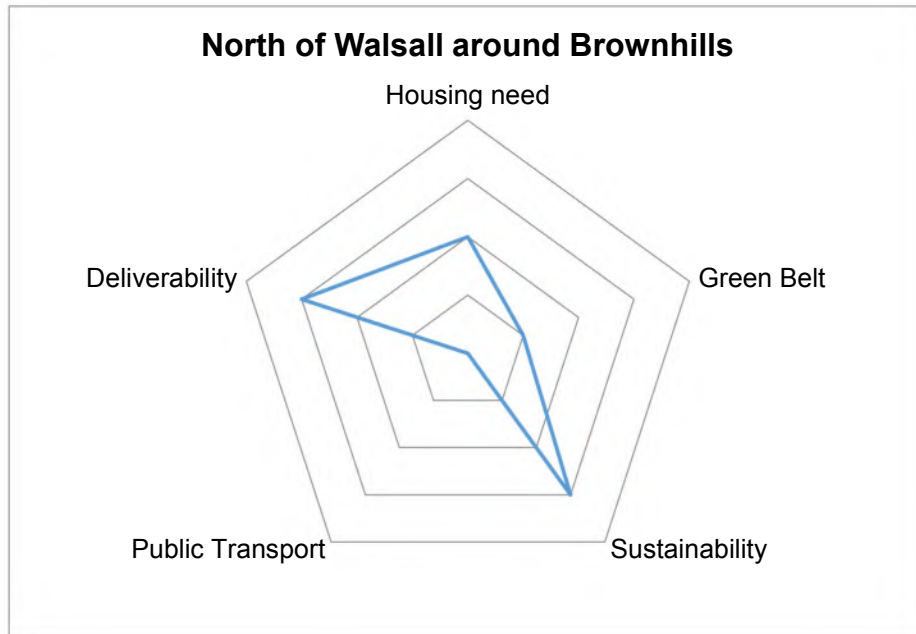
- The area is within 10km of the conurbation but beyond 5km and will therefore help to meet some of the need;
- Not in the Green Belt;
- Positive outcome overall from Sustainability Appraisal;
- Around 2km to the nearest train station with a journey time of 20 minutes to Birmingham New Street; and
- Potential requirement for new roads and junctions and enhancement of existing roads and junctions, together with significant utilities network reinforcement. Lower value market.

9.95 North West of Tamworth



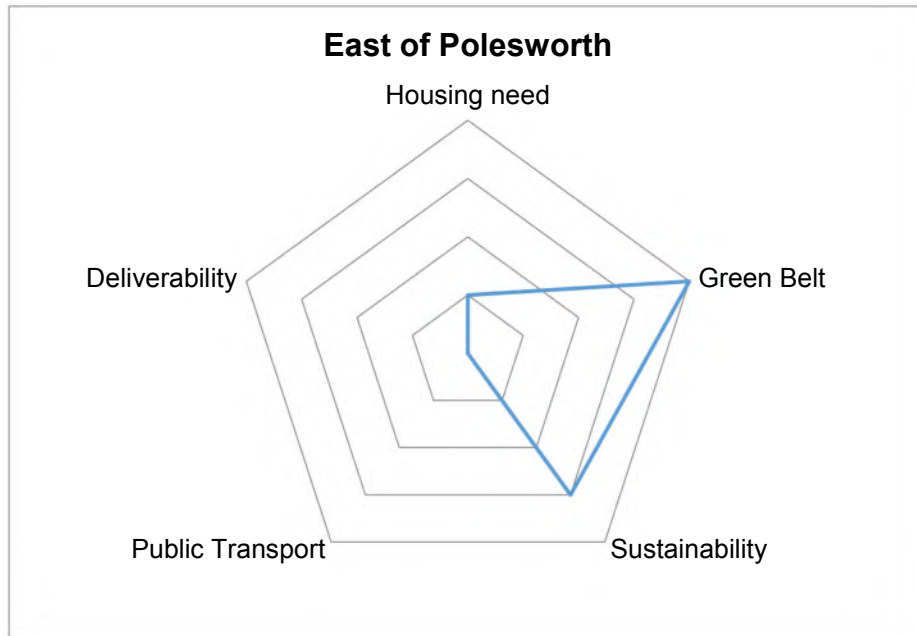
- The area is within 10km of the conurbation but beyond 5km and will therefore help to meet some of the need;
- Wholly within an area making a Principal Contribution to Green Belt purposes;
- Positive outcome overall from Sustainability Appraisal;
- Around 3.5km to the nearest train station with a journey time of 20 minutes to Birmingham New Street; and
- Some highways investment required together with significant utilities network reinforcement. Lower value market.

9.96 North of Walsall around Brownhills



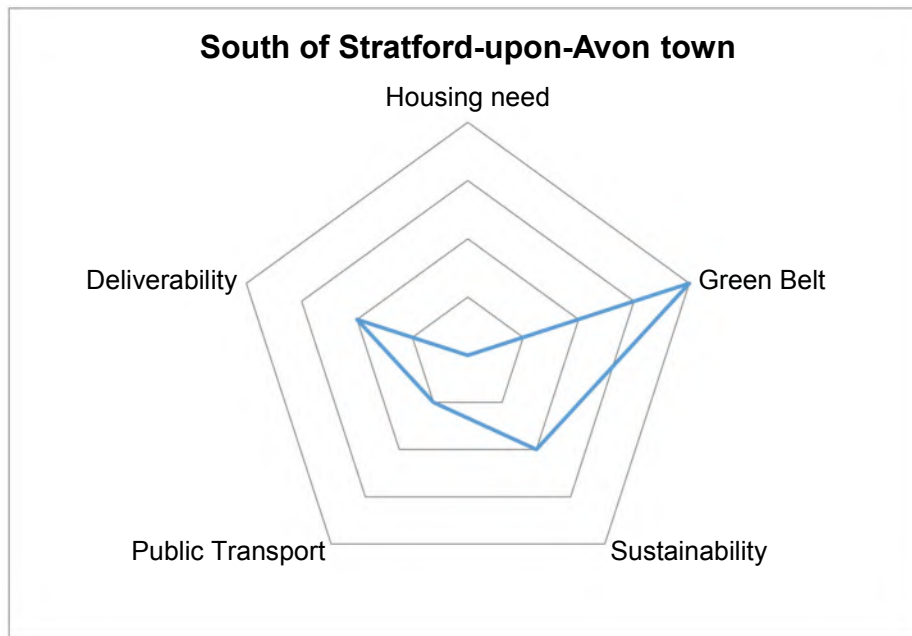
- The area is within 10km of the conurbation but beyond 5km and will therefore help to meet some of the need;
- Partially within an area making a Principal Contribution to Green Belt purposes;
- Positive outcome overall from Sustainability Appraisal;
- Remote from any train station; and
- Relatively modest highways works required relative to other options; but upgrading of utilities infrastructure. Medium residential values.

9.97 East of Polesworth



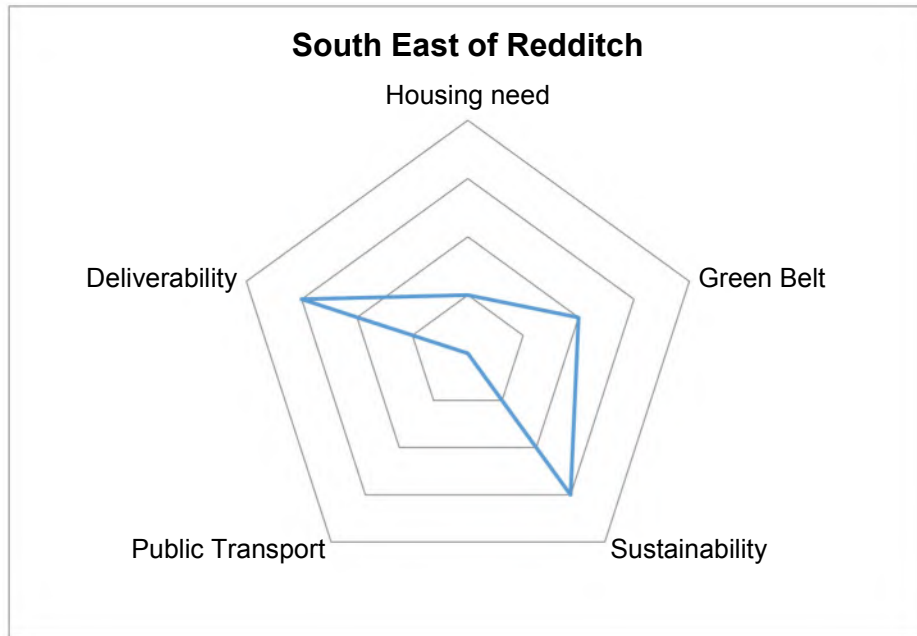
- The area is within 15km of the conurbation but beyond 10km and will therefore help to meet some of the need;
- Not in the Green Belt;
- Positive outcome overall from Sustainability Appraisal;
- Around 1km to the nearest train station with a journey time of 30 minutes to Birmingham New Street; and
- Improvements required to A5 to support development in this area, together with significant investment in rail service and provision of access over West Coast Main Line. Lower value market.

9.98 South of Stratford-upon-Avon town



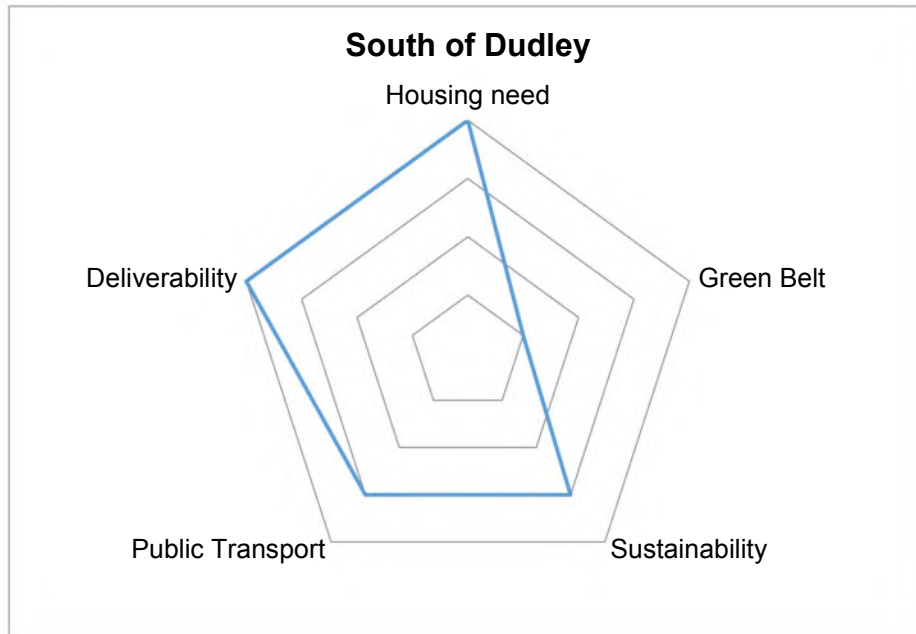
- The area is beyond 15km from the conurbation and is therefore unlikely to meet the need;
- Not in the Green Belt;
- Neutral outcome overall from Sustainability Appraisal;
- Around 1.5km to the nearest train station with a journey time of 50 minutes to Birmingham Snow Hill; and
- Relatively modest utilities network costs, but potential requirement for relief road. Higher value housing market.

9.99 South east of Redditch



- The area is within 15km of the conurbation but beyond 10km and will therefore help to meet some of the need;
- Within an area making Supporting Contribution to the Green Belt purposes;
- Positive outcome overall from Sustainability Appraisal;
- Around 5km to the nearest train station with a journey time of 40 minutes to Birmingham New Street; and
- Reasonable existing infrastructure provision with more modest improvements required than other options. Medium residential values.

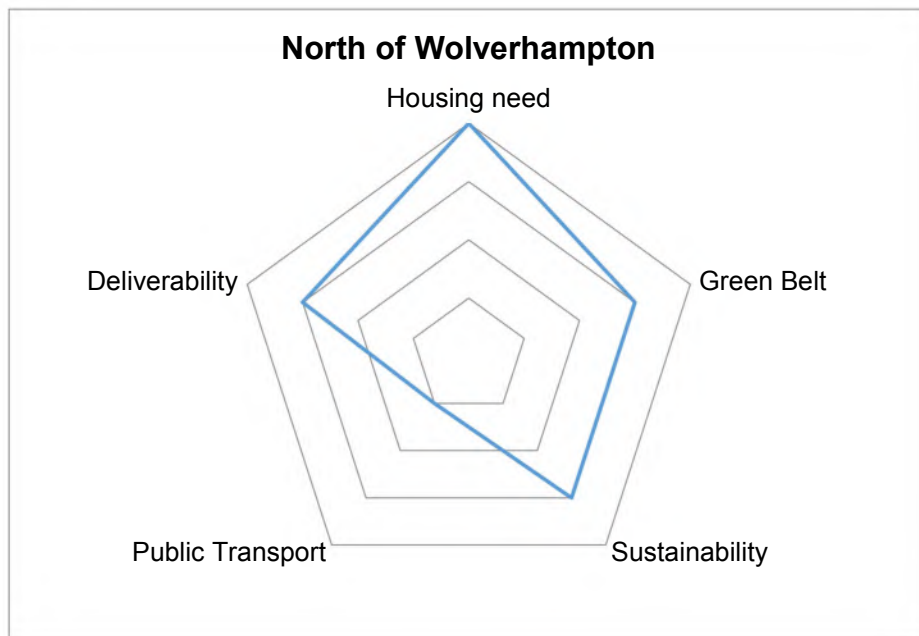
9.100 South of Dudley



- This area is within 2.5km of the conurbation and will therefore directly help to meet the need;
- Partially within an area making a Principal Contribution to Green Belt purposes;
- Positive outcome overall from Sustainability Appraisal;
- Around 2km to the nearest train station with a journey time of 30 minutes to Birmingham New Street; and
- Modest additional highways works required together with modest additional utilities infrastructure.

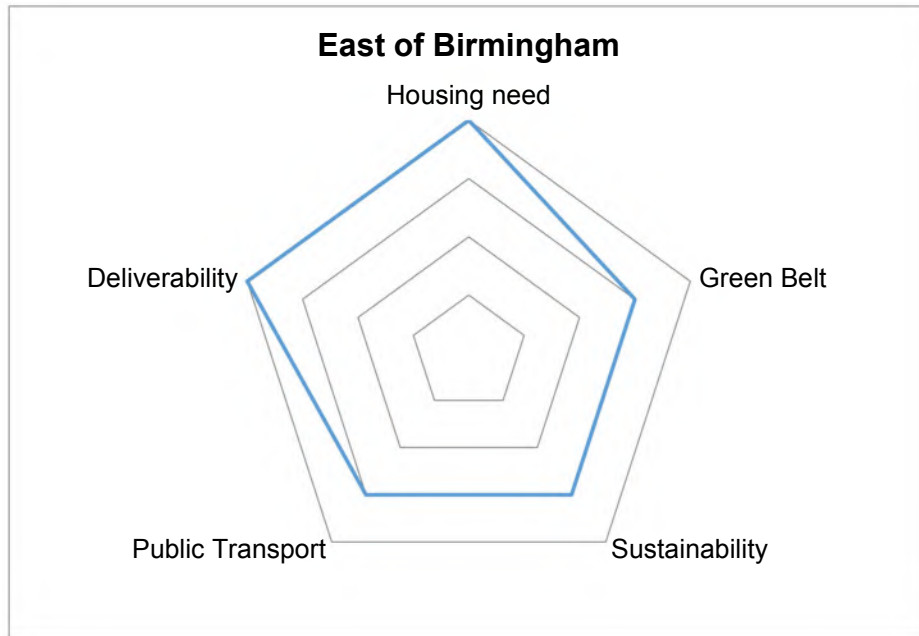
Employment-Led

9.101 North of Wolverhampton



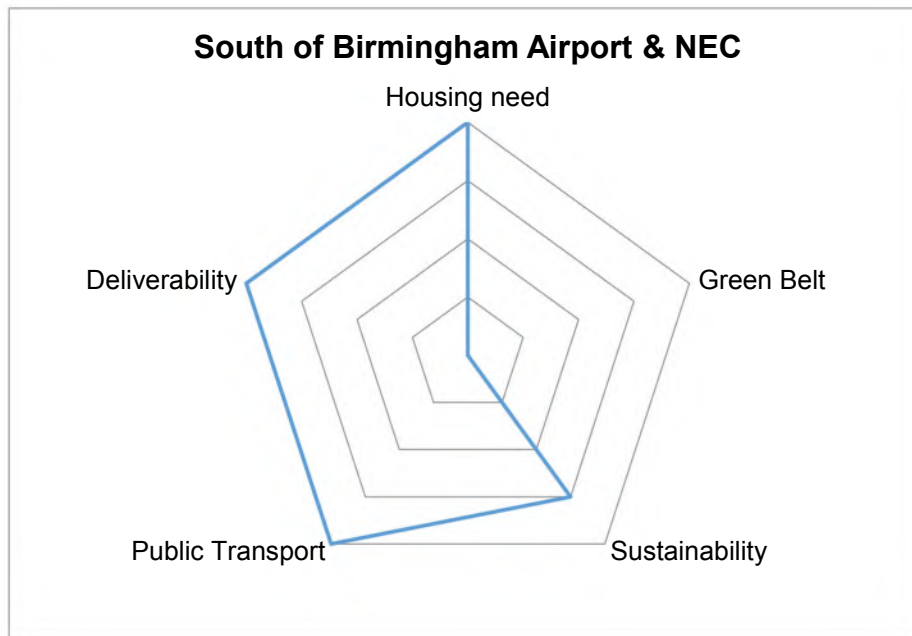
- This area is within 2.5km of the conurbation and will therefore directly help to meet the need;
- Partially within an area making a Principal Contribution to Green Belt purposes;
- Positive outcome overall from Sustainability Appraisal;
- Around 3.5km to the nearest train station with a journey time of 26 minutes to Birmingham New Street; and
- Area benefits from recent infrastructure investment. Some utilities reinforcement likely required. Area of lower values.

9.102 East of Birmingham



- This area is within 2.5km of the conurbation and will therefore directly help to meet the need;
- Partially within an area making a Principal Contribution to Green Belt purposes;
- Positive outcome overall from Sustainability Appraisal;
- Around 1.5km to the nearest train station with a journey time of 15 minutes to Birmingham New Street; and
- Reasonably modest highways infrastructure required. Close to primary utilities network, meaning primary reinforcement required.

9.103 South of Birmingham Airport & the NEC



- This area is within 2.5km of the conurbation and will therefore directly help to meet the need;
- Wholly within an area making a Principal Contribution to Green Belt purposes;
- Positive outcome overall from Sustainability Appraisal;
- Around 1km to the nearest train station with a journey time of 10 minutes to Birmingham New Street; and
- Modest additional highways works required together with modest additional utilities infrastructure. Area of higher residential values. Major development in this area will support infrastructure provision.

10 CONCLUSIONS AND NEXT STEPS

Housing Need Parameters

- 10.1 Over the 2011-31 period, the updated evidence presented in this report shows a baseline or minimum housing need for 205,000 homes. This would support trend-based demographic projections and economic growth. However delivery of the higher Economy Plus scenario, as set out in the West Midlands Combined Authority's Strategic Economic Plan, would require higher provision of 246,000 homes to 2031. To 2036, a baseline or minimum need for 255,000 dwellings is shown; with the Economy Plus Scenario requiring additional in-migration result in a need for 310,000 homes (2011-36).
- 10.2 GL Hearn conclude that on the basis of the current evidence, provision of between 205,000 – 246,000 homes across the Birmingham HMA to 2031; and 256,000 – 310,000 homes to 2036 (from a 2011 baseline) to meet the Birmingham HMA's housing needs.
- 10.3 The Economy Plus Scenario is clearly a policy-driven scenario for employment growth which is aspirational in nature, seeking to achieve stronger relative economic performance than has been seen historically. There are questions for the authorities to collectively consider regarding the degree to which this growth is desirable, sustainable and achievable. Set against this, it should however be borne in mind that planning for demographic needs only should really be regarded as a *minimum* level of housing provision, and there is a clear basis in national policy for seeking to deliver additional housing provision over-and-above this to support long-term improvements in the affordability of housing.
- 10.4 The Government's proposed standardised methodology shows a need, based on existing data for 187,800 homes to 2031 and 239,300 homes to 2036; with the uncapped figures indicating a need for 206,800 homes to 2031 and 264,600 homes to 2036.
- 10.5 Alongside the HMA's housing needs, it needs to be borne in mind that North Warwickshire and Stratford-on-Avon Districts fall within two housing market areas, and these authorities are making provision for meeting Coventry's unmet housing needs. This should be captured in drawing conclusions on housing need across the Birmingham HMA.
- 10.6 In considering supply across the Birmingham HMA as a whole, this report therefore identifies that a minimum provision of 208,000 dwellings to 2031, and 258,500 homes to 2036 is needed.

Housing Land Supply Baseline

- 10.7 A review of land supply across the Housing Market Area has been undertaken. GL Hearn has sought to provide a consistent position on land supply, and to make some provision for delays or

non-implementation which are inevitably likely to occur to some extent. It would not be robust to assume that every site or plot of land identified on paper now would be developed and built-out within the timescales considered herein.

- 10.8 The analysis indicates that based on current supply assumptions; there is a developable land supply of around 180,000 dwellings to 2031 and 197,000 dwellings to 2036. This takes into account proposed allocations in emerging plans, including site allocations plans and the strategic plans under development in North Warwickshire and Solihull, and assumes delivery of these.
- 10.9 **Bringing together the need and currently identified supply, there is an outstanding minimum shortfall of 28,150 dwellings to 2031 and 60,900 dwellings to 2036 across the Birmingham HMA.**

Table 65: Minimum Shortfall in Housing to 2031 and 2036

	2011-31	2011-36
Minimum Housing Need	205,099	254,873
C/W Unmet Need	2,880	3,600
Supply Baseline	179,829	197,618
Min. Shortfall	28,150	60,855

Potential Additional Urban Supply

- 10.10 GL Hearn has investigated the potential to bring forward additional supply within urban areas, including through brownfield sites, estate regeneration, and surplus public sector land. Where these opportunities are known and exist, they have been included within the baseline land supply figures.
- 10.11 Inevitably there are probably modest additional development opportunities which could result from further work interrogating potential from these sources. Land supply figures are however constantly in a state of flux as new brownfield land becomes available and other sites are developed or lost to alternative uses. The supply which could result from the further areas identified should be considered further alongside the investigation of potential from the areas of search for strategic development identified in this report. However based on the work undertaken GL Hearn's considers that the scale of additional potential which these sources of supply will yield will not preclude the need for strategic development options to be identified and brought forward.

Increasing Urban Development Densities

- 10.12 GL Hearn has sought to test through the Study the potential to increase residential development densities. Building new housing at higher densities is an important potential component to addressing the shortfall in housing provision across the HMA. It not only makes more efficient use

of land, but can help to deliver high quality sustainable development and good quality places. With careful planning and good design, higher density development can help create successful places, with a range of house types, good space standards and an attractive public realm. They can help to create places with a mix of uses, where public transport provision is viable and can support local services.

- 10.13 The analysis undertaken has tested what densities could be achieved by applying the following minimum densities (floor thresholds):
- Rural Areas: 30 dwellings per hectare
 - Suburban Locations: 40 dph
 - Town and District Centres: 50 dph
 - Birmingham City Centre: 100 dph
- 10.14 It quantifies the potential impact which this could have if applied to all sites, large and small, without planning consent.
- 10.15 Based on the analysis undertaken, GL Hearn concludes that it would be reasonable to assume minimum densities of 40 dph are achieved in the conurbation (Birmingham and the Black Country urban area), with minimum densities of 35 dph in other parts of the HMA. **On this basis, increasing densities could potentially yield additional supply of 13,000 dwellings, principally over the period to 2031. This is a significant contribution to meeting the housing shortfall.** This is the working assumption on the contribution to supply which increasing densities could make.
- 10.16 These densities need to be applied through the review of development management policies/ guidance at appropriate, in the review of SHLAAs and through development management decisions. In applying the density standards set out, consideration should be given to site characteristics and the local context, as well as Councils' evidence base on the need for different types/ sizes of homes; but being clear that in the context of an unmet housing need this does not necessarily mean necessarily building at existing local densities.
- 10.17 It will be important that the local authorities seek to maximise the density which can be achieved in individual development schemes, taking account of the site characteristics, local context, nature of local housing demand and viability. GL Hearn's estimates of the supply which can be achieved from this source take account of the nature of market demand and what can realistically be achieved given market dynamics and viability.

Identifying and allocating additional land

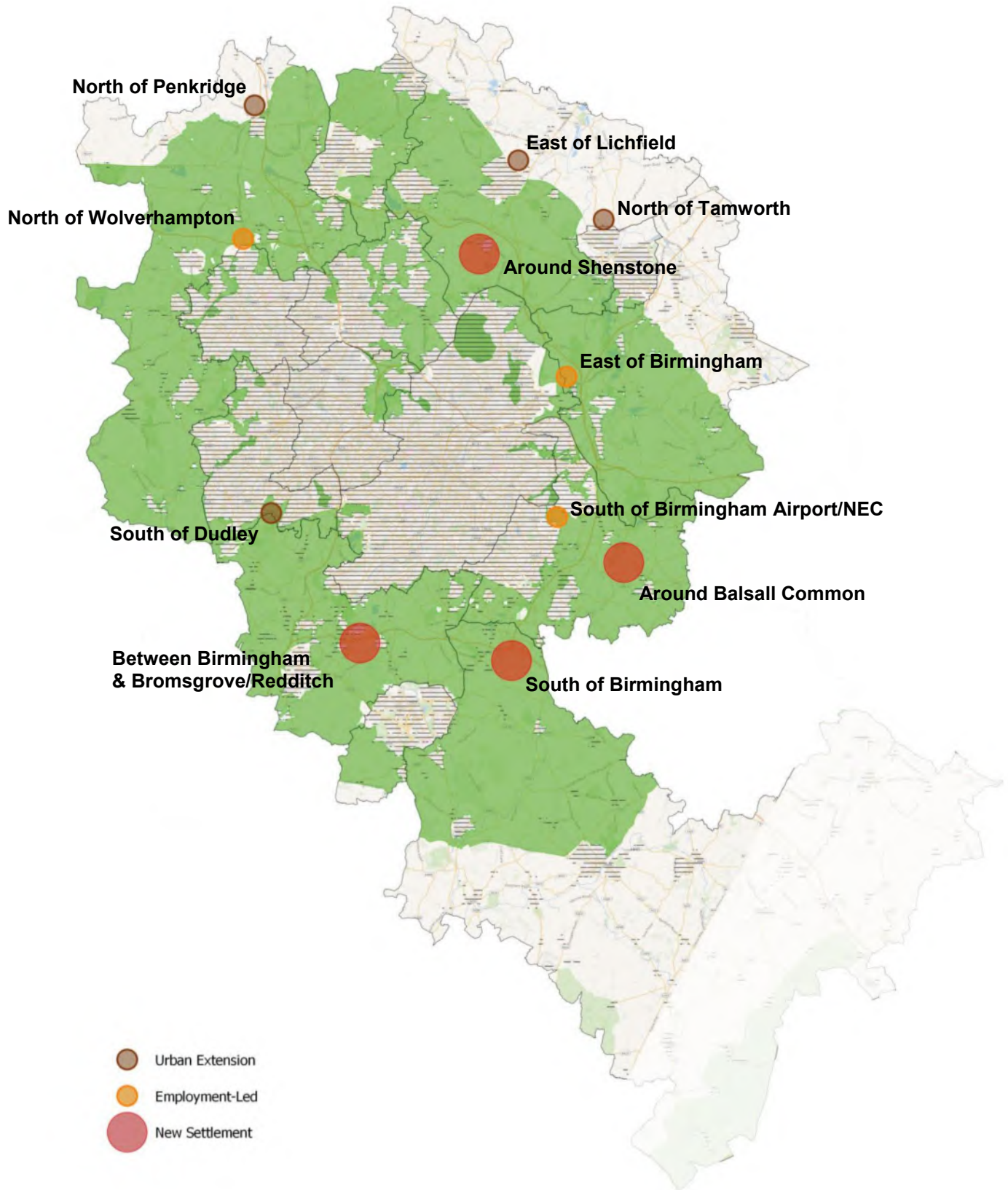
- 10.18 Taking into account the potential housing supply which could be achieved by increasing densities, there remains a need to identify capable of supporting delivery of over 15,000 homes to 2031, and a total of over 47,800 homes to 2036. Additional land needs to be identified and allocated to meet this. This provides a clear basis for progressing a strategic review of the Birmingham Green Belt and considering land available within the HMA but beyond the Green Belt to inform councils plan-making activities.
- 10.19 Alongside this, councils within the HMA will need to progress work to identify small and medium-sized sites which can contribute to meeting the housing needs shortfall through the preparation of local plans. This process will include identifying additional smaller sites beyond the Green Belt through SHLAAs and local Green Belt assessments considering the performance of sites against green belt purposes at a finer grain. Small and medium-sized development opportunities arising from this work will play an important contribution in meeting the housing needs shortfall, particularly in the short- and medium-term.
- 10.20 The report demonstrates clearly that some development is needed outside urban areas. As a result, the report moves on to consider further options for meeting the outstanding shortfall in housing land. The PBA Stage 3 Study identified a number of development models for addressing the shortfall. These have been considered further in this report.
- 10.21 The solution to meeting the housing need shortfall will clearly require a multi-faceted response, including not just maximising urban supply and accelerating the delivery of this, but the identification of further development land and the progression of local Green Belt reviews. This should reasonably include sites of a range of sizes including smaller extensions to settlements of less than 2,500 homes, together with the identification and delivery of larger strategic development locations. This Study has sought to identify and shortlist potential Areas of Search for strategic development locations on a consistent basis across the HMA.

Areas of Search for Strategic Development

- 10.22 Given the scale of unmet need and the strategic nature of this Study, it has focused on considering strategic development options for addressing the housing needs shortfall, in terms of considering Areas of Search which could potentially (subject to further investigation) support development of 1,500+ homes. It considers options for accommodating the following:
- Urban Extensions (1,500 - 7,500 dwellings);
 - Employment-led Strategic Development (1,500 – 7,500 dwellings); and
 - New Settlements (10,000+ dwellings).
- 10.23 The models are used to help guide where development could, in principle, be located taking account of geography (landscape character, land use, drainage and topography), nationally-significant development constraints as listed in Footnote 9 in the NPPF, and the strategic transport network (road and rail). These issues have considered for areas both within and beyond the Green Belt.
- 10.24 Twenty-four Areas of Search for strategic development have been identified. Our assessment has sought to draw out the comparative merits from a strategic high-level assessment, across five key factors:
- The contribution to meeting housing needs
 - Contribution to Green Belt purposes
 - Sustainability
 - Public transport accessibility, particularly by rail
 - Comparative deliverability.
- 10.25 The results of this assessment were presented in Section 9. Each of the three employment-led options perform strongly against the range of criteria. These potentially offer the opportunity for some residential development alongside employment. These options relate to development in the following Areas of Search:
- North of Wolverhampton/ i54
 - East of Birmingham
 - South of Birmingham Airport/ NEC
- 10.26 Drawing together the analysis in Section 9, the consultancy team consider that the strongest performing urban extension options which should be taken forward for more detailed consideration by the HMA authorities are:
- South of Dudley
 - North of Tamworth
 - East of Lichfield
 - North of Penkridge

- 10.27 The area south of Dudley falls partially or fully within areas which make a principal contribution to Green Belt purposes, but against other criteria perform very strongly. There are notable infrastructure issues associated with development in a number of these areas which will require further consideration.
- 10.28 The consultancy team considers that new settlements should also form part of the solution to meeting the housing shortfall, recognising that whilst they will require significant infrastructure, they can contribute positively to meeting longer-term development needs against a context whereby a significant proportion of the HMA housing need shortfall relates to the period beyond 2031; and they provide the opportunity to secure significant funding support from Government given their scale and impact. The areas of search for new settlements which perform strongest, and we recommend should be taken forward for further assessment are:
- South of Birmingham
 - Between Birmingham and Bromsgrove
 - Around Shenstone
 - Around Balsall Common
- 10.29 Of these however, the latter three all fall in locations which are identified as making a principal contribution to Green Belt.
- 10.30 There are clear choices to be made regarding what weight in decision-making is attributed to different factors which warrant joint consideration by HMA partners.
- 10.31 There are also interactions between areas for strategic development which are taken forward. Taking South Staffordshire as an example, that the cumulative effects of (for example) of an urban extension coming forward South of Penkridge may affect the ability of a new settlement in a nearby location, and visa-versa.
- 10.32 For the strategic development locations identified, further work will need to be progressed in assessing constraints and opportunities at a more local level, including the form and scale of development, infrastructure requirements, feasibility and delivery issues through individual local plan processes. This is considered further below.

Figure 41: Recommended Areas of Search for Strategic Development



Moving Forwards

- 10.33 Taking forward locations identified as Areas of Search for Strategic Development will require further work to be undertaken to assess their feasibility, the scale of development which could be accommodated and delivery timescales.
- 10.34 GL Hearn envisage that this would need to involve technical studies/ analysis considering:
- Landownership
 - Transport Assessment
 - Utilities Infrastructure Assessments
 - Detailed Green Belt Studies (where appropriate)
 - Landscape Capacity Assessments
 - Phase 1 Habitats Survey
 - Flood Risk Assessment
 - Desktop Ground Investigations
 - Employment Potential Study
 - Social Infrastructure Assessment
 - Green Infrastructure Assessment
- 10.35 Technical evidence will need to be brought together through the plan-making process with a level of masterplanning, which considers potential growth options and engagement with the local community.
- 10.36 Progression of transport and utilities assessments, landscape and green belt assessment and landownership should in particular be taken forward as a priority. The transport analysis should consider, taking account of other growth proposed within a plan, what infrastructure is required to support strategic growth, the technical feasibility and cost of this. Engagement with utilities providers should assess specific requirements for reinforcement or upgrading of existing infrastructure and how this could feed into providers' asset management plans.
- 10.37 A masterplanning process would consider potential development locations and the land use mix (informed by technical studies above), including appropriate locations for housing; employment additional social infrastructure and services; and green infrastructure. Technical analysis regarding green belt, ecology, landscape, flood risk, landownership and ground conditions would be needed to inform this.
- 10.38 Concept masterplanning could consider alternative options for the scale and locations of development, and the associated impact and benefits of each. This would then be subject to refinement through community and stakeholder engagement, and as appropriate further technical analysis. This includes through engagement with local communities, as well as statutory consultees.

- 10.39 Further engagement will also be necessary with service providers as options are developed and refined. This includes with the highways authority, and with utilities providers (electricity, gas, water supply and waste water) in understanding existing infrastructure; capacity assessment for the existing network; and options, costs and timeframes for reinforcement of existing infrastructure and/or delivery of additional infrastructure.
- 10.40 The cost of infrastructure and cash flow issues will inform the delivery model and funding requirements. For large-scale strategic developments such as the new settlements, it may be appropriate to consider whether a delivery vehicle should be set up to take these forwards.

Addressing the Housing Needs Shortfall

- 10.41 To address the housing needs shortfall, it is important that housing requirement figures (targets) within local plans are amended and make provision for addressing unmet housing needs.
- 10.42 The initial task is to address the unmet need to 2031. The evidence suggests that the land supply position based on current evidence indicates a residual need to identify further opportunities for housing development. A minimum shortfall of 28,150 dwellings is shown.
- 10.43 Our analysis indicates that by implementing minimum density thresholds through planning policy, and following this through in development management decisions, increases in development densities could potentially contribute 13,000 homes to addressing the housing needs shortfall.
- 10.44 This report demonstrates clearly that additional land for residential development needs to be identified to meet development needs to 2031. GL Hearn considers that a range of small and medium-sized development schemes of up to 2,500 homes, will make a principal contribution to this as well as other smaller scale development opportunities. This is likely to include a need for such sites both within and beyond the Green belt.
- 10.45 It is assumed that smaller scale development opportunities will be defined through individual local plan processes. It will be for local authorities to consider proportionate dispersal and other small scale development opportunities outside of this range in these terms, both within and beyond the Green Belt, taking account of a wide range of local constraints and site opportunities, through the preparation of individual local plans and local Green Belt reviews.
- 10.46 GL Hearn would expect larger strategic development options to make some contribution to meeting the housing needs shortfall to 2031, but principally through the delivery of urban extensions which would contribute to housing delivery from the mid 2020s onwards.

- 10.47 Based on the evidence within this report, it does look likely that the HMA's housing needs to 2031 can be met in full within the Housing Market Area. Besides the Green Belt, there is relatively modest coverage of nationally-significant strategic development constraints in the HMA.
- 10.48 In addition to this, there is a need to identify additional land to cater for development needs between 2031-36. There is a minimum shortfall of 32,700 homes over this period.⁵¹ Proportionate dispersal sites, and other smaller sites, will be able to meet some of this requirement, in line with the rates expected for the period up to 2031. There is a need for new strategic development options to be identified in particular to address housing needs over this period and beyond. If a number of strategic development options are taken forward there is the theoretical potential to meet the HMA's development needs in full.
- 10.49 There is typically a significant lead-in time to delivery of large strategic development sites, given the requirements for technical work, masterplanning, establishing the policy framework, progressing planning applications, and bringing forward development and infrastructure. This can take 10+ years. Taking this into account, there is a need to progress further technical and feasibility studies considering the potential for strategic development in these areas now.

⁵¹ This is based on subtracting the 28,150 shortfall 2011-31 from the 60,855 shortfall 2011-36, as set out in Table 65