

Charnwood Borough housing delivery scenarios

Market impacts assessment



December 2017

Report prepared by:



Studio 432, Metal Box Factory
30 Great Guildford Street
London, SE1 0HS

enquiries@bbpregeneration.co.uk
www.bbpregeneration.co.uk

Job number: 2665
Version: FINAL DRAFT (v5.0c)
Prepared by: Ricky Thakrar, Senior Consultant
07787 904850
rthakrar@bbpregeneration.co.uk
Checked by: Andy Smith, Partner
Status: FINAL, APPROVED FOR PUBLIC RELEASE

© **BBP Regeneration 2017** - Neither the whole nor any part of this report may be published in any way without prior consent.

Disclaimer: This report is only for the benefit of the party to whom it is addressed, and no responsibility or liability is extended to any third party for the whole or any part of its contents. Whilst every effort has been made to ensure the accuracy of its content, the report has been prepared on the basis of information available at the date of publication and without any

Contents

1.	Executive Summary	1
2.	Introduction	3
	Context.....	3
	Purpose of this report	3
3.	Land availability	5
	Methodology and key assumptions	5
	Key findings	6
4.	Strategic infrastructure deliverability and lead-in times	9
	Methodology and key assumptions	9
	Key findings	10
5.	Viability.....	11
	Methodology and key assumptions	11
	Key findings	11
6.	Market Absorption Capacity (MAC)	13
	Methodology and key assumptions	13
	Key findings	25
7.	Delivery rates	26
	Methodology and key assumptions	26
	Key findings	27
8.	Market competition	36
	Methodology and key assumptions	36
	Key findings	40
9.	The Council's role	41
	All scenarios.....	41
	Scenario D - Local authority intervention to eliminate backlog of housing need earlier in Local Plan period.....	41
10.	Housing delivery trajectories.....	42
	Scenario A - Broad urban concentration strategy.....	42
	Scenario B - Dispersed strategy (excl. new standalone settlement)	47
	Scenario C - Dispersed strategy (incl. new standalone settlement).....	52
	Scenario D: Local authority intervention.....	57
11.	Summary of outputs.....	66
	Eliminating the backlog of housing need	66
	Housing completions on a rolling five-year basis	66
12.	Delivery risks and potential mitigation	68

General delivery risks	68
Potential mitigation	69
Appendix A – List and maps of 2016 SHLAA sites, by scenario	72
Appendix B – Large site pro-formas	73
Appendix C – Strategic infrastructure requirements	74
Appendix D - Residential property market analysis	81
Socioeconomic drivers.....	81
Housing need.....	82
Demand and values	82
Housing supply	84
Planning policy.....	84
Appendix E – Out-of-Borough competition	87
Introduction	87
Methodology	87
Key findings	89
Appendix F – Housing delivery trajectories, by scenario	92

1. Executive Summary

- 1.1 Like many places across the country, Charnwood Borough faces a significant challenge meeting its housing need. The Housing & Economic Development Needs Assessment (HEDNA) for Leicester and Leicestershire, published in January 2017, estimates that a further 20,591 homes must be delivered between 2017/18 and 2035/36 to meet the annual housing need and clear the backlog from previous years. This equates to an average housing delivery rate of 1,084 homes per annum, compared with historic average delivery of 710 homes per annum over the past six years, with a peak of 903 homes in 2016/17 – an increase in the annual rate of housing delivery of approximately 50% over a sustained period.
- 1.2 Charnwood Borough Council recognises this very significant challenge, and is preparing a new Local Plan for the period to 2035/36 that will seek to make adequate land available to meet its identified housing need. The Council has commissioned BBP Regeneration to model potential housing delivery trajectories across four scenarios, to inform the preparation of its new Local Plan due for adoption in November 2019. Three of the scenarios modelled in this report reflect the allocation of different spatial distributions of sites from the Council’s 2017 Strategic Housing Land Availability Assessment (SHLAA) report, as advised by Charnwood Borough Council having regard to potential reasonable alternative development strategies. The fourth scenario considers the potential to increase housing delivery in earlier parts of the Local Plan period through proactive intervention by the public sector.
- 1.3 Through our modelling, we have found that all four of the Council’s proposed scenarios provide enough available and achievable land to meet the identified housing need to 2035/36 (subject to suitability in planning policy and other terms, as per DCLG’s Planning Practice Guidance¹, to be determined by the Council separately through the Local Plan preparation process). That land is well dispersed across multiple submarket areas, and contains a mixture of site sizes appropriate to the market areas in which they are located. This distribution of available sites, which includes a large amount of land in the areas of highest demand capacity – Leicester Fringe and Loughborough – and within other towns and villages across the borough, is a real strength, enabling developers to tap into different sub-markets and maximise delivery.
- 1.4 A particular feature of the SHLAA sites is the presence of several large sites in excess of 500 units (15 in total, of which we have assessed that 13 are likely to be available over the Local Plan period). These large sites are fundamental to creating a step change in the housing delivery rate, so supporting their timely delivery will be critical. This process has already started, with three large sites – West of Loughborough SUE, North East Leicester SUE, and Direction of Growth at Birstall – being brought forward through the existing Core Strategy. Releasing more large sites alongside a good mix of smaller and medium sized sites will be essential if the Borough is to have the best possible chance of meeting its housing need.
- 1.5 However, simply allocating sufficient residential land within the Local Plan is not going to guarantee delivery. It is essential that the Council resolves the following critical dependencies:
- Adopting a Local Plan that supports and promotes appropriate and sustainable development;
 - Working with Leicestershire County Council in its role as the local highways authority, to fund and deliver transport infrastructure improvements necessary to support the delivery of housing sites allocated in the Local Plan;
 - Working with Western Power Distribution to increase electricity supply capacity around Loughborough; and
 - Determining planning applications within a timely manner.

¹ DCLG (2014) Planning Practice Guidance: Housing and economic land availability assessment

- 1.6 This report also explores some of the steps that the Council may choose to take to help mitigate delivery risk and maximise the potential for meeting housing need over the Local Plan period.
- 1.7 Furthermore, we have identified a shortfall in short term land supply within the Borough, primarily due to the lead-in times associated with bringing forward large sites. Within the short term, housing delivery rates will be insufficient to address the undersupply from previous years, and meet new housing need annually, and without proactive intervention there will remain an undersupply of housing probably into the mid to late 2020's.
- 1.8 Scenario D models some of the actions that Charnwood Borough Council may take in order to eliminate the backlog of housing need earlier. These include:
- Working with the promoters / developers of large sites with planning consent (or a planning application submitted) to accelerate delivery in early years;
 - Encouraging early pre-application discussions and planning applications from scheme promoters who may be waiting for a new Local Plan to reduce planning risk, and;
 - Encouraging investment by the institutional Private Rented Sector (PRS) and direct affordable housing delivery by Registered Providers.
- 1.9 This "intervention scenario" eliminates the backlog of housing need in 2024/25 - two to three years earlier than the three purely market-led scenarios.
- 1.10 Our analysis also considers housing completions on a rolling five-year basis, although it is important to note that our methodology goes beyond the assessment of a five-year housing land supply, by considering the impact of competition between large sites and overall Market Absorption Capacity. The percentage buffer above cumulative housing need is an output from our methodology, rather than a fixed input as in the housing land supply methodology.
- 1.11 In summary, each of the Council's four scenarios for the allocation of land for residential use from its SHLAA provides enough land to meet its housing need identified to 2035/36. However, this will require a step change in housing delivery rates brought about by the release of large sites across the Borough, and the resolution of critical infrastructure dependencies, particularly the Southern Charnwood Transport Package. Furthermore, the Council has the opportunity to intervene in order to eliminate the backlog of housing need earlier in the Local Plan period than would otherwise be the case through a purely market-led scenario.
- 1.12 The challenge of meeting housing need should not be underestimated and appropriate resources will need to be deployed by the Council to mitigate delivery risks and maximise potential housing supply.

2. Introduction

- 2.1 Charnwood Borough Council has commissioned BBP Regeneration to assess potential housing delivery trajectories across four scenarios, to inform the preparation of its new Local Plan due for adoption in November 2019. Allen Dadswell Construction Consultants assisted with the review of physical strategic infrastructure requirements. Research was primarily carried out between January and March 2017, with modelling and reporting ongoing until December 2017.

Context

- 2.2 Like many places across the country, Charnwood Borough faces a significant challenge meeting its housing need. The Housing & Economic Development Needs Assessment (HEDNA) for the Borough, published in January 2017, estimates that a further 21,585 homes must be delivered between 2017/18 and 2035/36 to meet the annual housing need (994 dwellings per annum) and clear the backlog from 2011/12 onwards (2,699 dwellings in total). This equates to an average required housing delivery rate of 1,136 homes per annum, compared with historic average delivery rate of 710 homes per annum over the past six years, with a peak of 903 homes in 2016/17 – an increase in the annual rate of housing delivery of approximately 60% over a sustained period.
- 2.3 Charnwood Borough Council recognises this very significant challenge, and is preparing a new Local Plan for the period to 2035/36 that will seek to make adequate land available to meet its identified housing need.

Purpose of this report

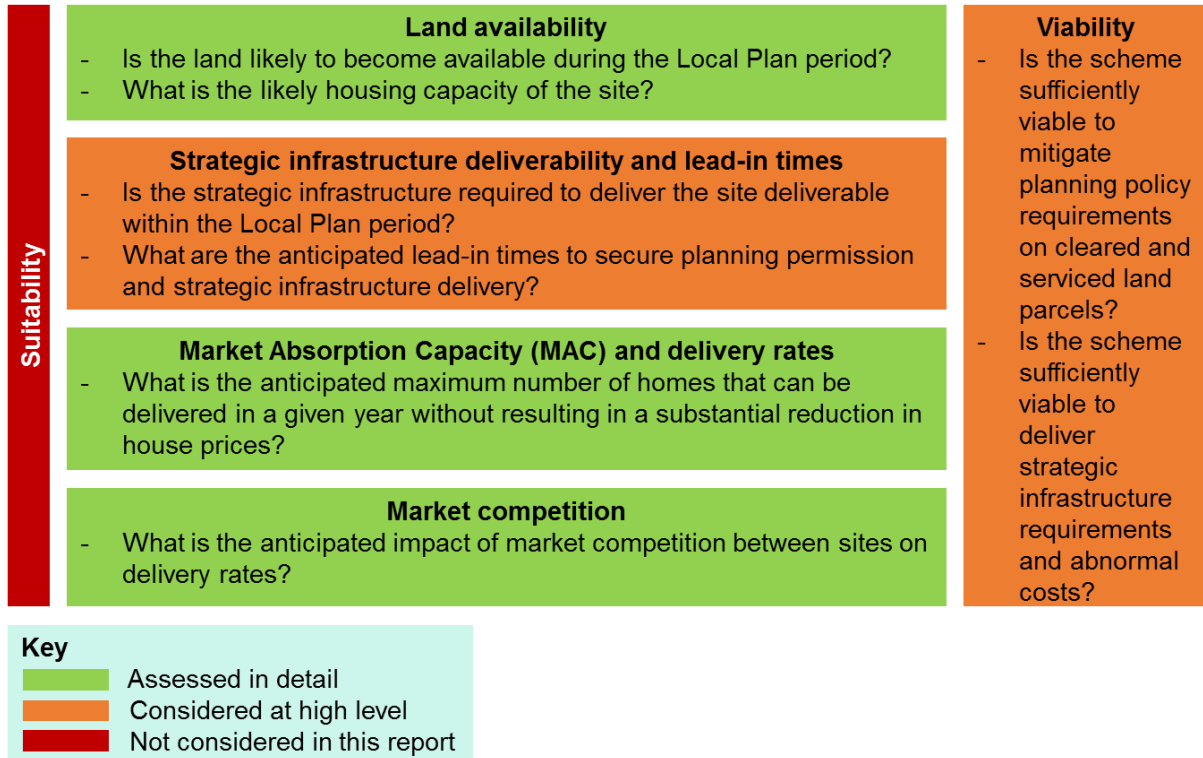
- 2.4 Three of the scenarios modelled in this report reflect the allocation of different spatial distributions of sites from the Council's 2017 SHLAA report, as advised by Charnwood Borough Council. The fourth scenario considers the potential to eliminate the backlog of housing need earlier in the Local Plan period, through proactive intervention by the public sector. The scenarios are:
- Scenario A: Broad urban concentration strategy;
 - Scenario B: Dispersed strategy (excl. new standalone settlement);
 - Scenario C: Dispersed strategy (incl. new standalone settlement); and
 - Scenario D: Local authority intervention to eliminate the backlog of housing need earlier in the Local Plan period.
- 2.5 The brief required BBP to consider the impact of market factors on housing delivery trajectories, without regard to **suitability** (in planning policy and other terms, as per DCLG's Planning Practice Guidance²). Whilst this will, of course, be a key consideration in the preparation of the local plan; this report is a "policy off" assessment, and we have been advised that other studies will be undertaken as part of the Local Plan process to consider the impacts of suitability on housing delivery trajectories. It would also be possible to re-run our assessment with "policy on" at a later stage in the plan-making process.
- 2.6 Our consideration of **strategic infrastructure deliverability** and lead-in times, and development viability were at high level, drawing heavily upon the Council's existing evidence base and published data sources – although, elements of this have been challenged and updated where appropriate. Our assessment of the 15 potential large sites (those with capacity over 500 dwellings) within the 2016 and 2017 SHLAA reports was more detailed than that of small and medium sites. Detailed methodologies for each stage, and size of site, are provided in the remaining chapters of this report.

² DCLG (2014) Planning Practice Guidance: Housing and economic land availability assessment

2.7 It should also be noted that the scope of this study does not include financial modelling, or considering **viability** on a site-by-site basis; however, we have considered at high level viability across the Borough by reviewing the existing evidence base.

2.8 Figure 1 outlines our overarching methodology for assessing housing delivery trajectories.

Figure 1 – Overarching methodology for assessing housing delivery trajectories



2.9 The findings from each stage of the methodology were input into a bespoke Microsoft Excel model to generate the housing delivery trajectories in table and graphical format.

3. Land availability

- 3.1 As set out in Paragraph 20 of DCLG's 2014 Planning Practice Guidance (PPG) on 'Housing and economic land availability assessment', "a site is considered available for development, when, on the best information available (confirmed by the call for sites and information from land owners and legal searches where appropriate), there is confidence that there are no legal or ownership problems, such as unresolved multiple ownerships, ransom strips tenancies or operational requirements of landowners. This will often mean that the land is controlled by a developer or landowner who has expressed an intention to develop, or the landowner has expressed an intention to sell."

Methodology and key assumptions

- 3.2 Our study has solely considered sites from the Council's SHLAA reports, which have been regularly updated since 2009. The majority of sites are drawn from the Council's 2016 SHLAA, and we added further sites from the Council's 2017 SHLAA when it became available.
- 3.3 It is important to recognise that inclusion of a site in the SHLAA does not indicate that planning permission will be granted. Conversely, the PPG states that, "Because persons do not need to have an interest in the land to make planning applications, the existence of a planning permission does not necessarily mean that the site is available."

Large sites

- 3.4 For each of the 15 potential large sites from the 2017 SHLAA report (500+ units), we approached the scheme promoter to understand their intentions to develop / sell the land, and update assumptions relating to housing capacity. We did not carry out any land searches, or review any title documents.
- 3.5 It is important to note that our assessment assumes that the large sites find themselves in general conformity with the new Local Plan in November 2019; many of the sites are not being actively promoted at present (though may have been in the past) due to the risk of achieving planning permission within the current planning policy framework, but owners / agents have indicated willingness to bring the sites forward in the context of supporting planning policy.
- 3.6 Further details of our findings are set out in the Large Site Pro Formas at Appendix B.

Small and medium sites

- 3.7 For the small and medium sites from the SHLAA (under 500 units), we relied upon the assessment of availability and site capacity carried out by Charnwood Borough Council through the 2016 and 2017 SHLAA process, and have not carried out any further assessment ourselves. As we were considering small and medium sites in aggregate, the annual delivery rate for each site was effectively assumed as being the simple average of total delivery within one of three periods in our model.
- 3.8 Figure 2 shows how the three periods in our model align with the 2017 SHLAA report, which assesses land availability in three five-year periods, as well as providing an estimate of residual housing capacity. For the first two SHLAA periods, our model draws upon the SHLAA report to provide the assumed total land availability within each period, and assumes a simple average each year. For the final SHLAA period, the model merges this with the estimate of residual housing capacity, and assumes that this is land becomes available as a simple average across the remainder of the Local Plan period.

Figure 2 – Assessment of land availability during the Local Plan period, for small and medium sites

		2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36
2017 SHLAA	Actual		Grouped Period 1				Grouped Period 2				Grouped Period 3				Grouped residual						
BBP model	Actual		Annual average for Period 1				Annual average for Period 2				Annual average for Period 3										

3.9 Our model also disregards the assumed land availability for 2016/17, instead accounting for actual completions as reported by Charnwood Borough Council.

Key findings

3.10 Based on the methodology above, Figure 3 sets out our assessment of land availability during the Local Plan period, for each of the potential 15 large sites.

Figure 3 – Assessment of land availability during the Local Plan period, for large sites

Large site	Is the land likely to become available during the Local Plan period?	Notes	Assumed housing capacity (adjustment from 2016 or 2017 SHLAA)
PSH106 - Nanpantan Grange, Land south west of Loughborough	Yes	Currently in agricultural use. Multiple ownership; promoter awaiting new Local Plan, following dismissed appeal in 2017.	3,000
PSH110 - North of Birstall Direction of Growth	Yes	Currently in agricultural use. Multiple ownership, with one major landowner and no known site assembly issues. Hybrid planning application submitted August 2016 (P/16/1660/2). Decision on hybrid planning application anticipated Q3 2017.	1,650
PSH120 - Land east of Leicester Road, Thurstaston	Yes	Currently in agricultural use. Two land owners; initial discussions suggest no site assembly issues. Developer interest from Davidsons Developments Ltd.	579

PSH123 - Land at Cotes	Yes	Currently in agricultural use. Promoter withdrew appeal for refused planning application but has indicated interest in bringing site forward in the context of a new Local Plan.	975
PSH125 - Land east of Barkby Thorpe, south of Beeby Road, Barkby	No	Currently in agricultural use. Single land ownership; however, land agent has confirmed that land owners have no intention to develop during the Local Plan period.	5,550
PSH134 - West of Loughborough Sustainable Urban Extension	Yes	Currently in agricultural use. Single ownership with developers engaged; promoter negotiating Section 106 agreement, following resolution to grant planning permission in 2015 (P/14/1833/2).	3,200
PSH210 - North East of Leicester Sustainable Urban Extension	Yes	Currently in agricultural use. Outline planning permission was granted in August 2016 (P/13/2498/2). Two large land owners, plus minor third party interests. Site being promoted by Commercial Estates Projects Limited; developer procurement under way.	4,500
PSH234 - Land West of Shepshed	No	Currently in agricultural use. Site has never been promoted; and is not owned by a developer. Land owner did not respond to consultation.	2,295
PSH255 - Land at Woodthorpe, East & West of A6004 Epinal Way, Loughborough	Yes	Currently in agricultural use. No known site assembly issues. Was being promoted by a planning consultant on owners' behalf up until 2012. One of the promoters is William Davis Limited, a local house builder / developer and responsible for the Grange Park development.	1,140
PSH387 & PSH388 - High Leys Farm / Manor Farm	Yes	Currently in agricultural use. Single ownership, with landowner intending to dispose once allocated in the Local Plan.	500 (decrease from 520)
PSH389 - Land off Groby Road	Yes	Currently in agricultural use. Two land owners; land under option to Davidsons Developments Ltd.	500 (increase from 395)
PSH404 - Land west of Tickow Lane	Yes	Currently in agricultural use. Single ownership, with landowner intending to procure development partner.	540 (increase from 500)
PSH69 - Land South East of Syston	Yes	Currently in agricultural use. One major landowner. Developer interest from Taylor Wimpey.	1,250 (increase from 1,200)
PSH8 - Land east of Barkby, Barkby	Yes	Currently in agricultural use. Single ownership; land agent confirmed owner interest in promoting the site for residential development.	690
PSH87 - Wymeswold Airfield, Wymeswold	Yes	Approximately half of site under contract for operation as a solar farm, with 23 years' unexpired term. However, landowner's agent confirmed that they would be keen to see the remainder of the site (plus additional surrounding land) bought forward for residential development.	770 (decrease from 1,905)

3.11 As a result of our assessment above, the following two large sites were assumed to deliver zero units over the Local Plan period on the basis that the land is unlikely to be available during the Local Plan period:

- PSH125 - Land east of Barkby Thorpe, south of Beeby Road, Barkby
- PSH234 - Land West of Shepshed

3.12 The remaining 13 large sites were taken forward for further assessment.

4. Strategic infrastructure deliverability and lead-in times

- 4.1 Whilst this report is a “policy off” assessment, and we have been advised that other studies will be undertaken as part of the Local Plan process to consider the suitability of sites within the SHLAA (in planning policy and other terms, as per DCLG’s Planning Practice Guidance³), we did need to factor the time required to secure of planning permission into our housing delivery trajectories.
- 4.2 We also needed to agree with the Council assumptions regarding the deliverability and lead-in times for strategic infrastructure (that is, infrastructure that cannot be delivered incrementally in line with housing delivery due to scale, timing or viability constraints, and therefore supports the delivery of multiple development phases or sites).

Methodology and key assumptions

Large sites

- 4.3 In terms of planning lead-in times, a study of housing delivery across 70 large sites (500+ dwellings) published in 2016⁴ found that:
- Planning lead-in times varied significantly between identification of site and planning application (ranging from two to eight years), with no obvious relationship to size. However, the time between planning application and permission was often shorter where the lead-in time between identification of site and planning application had been longer, as planning issues had been resolved through plan-making prior to applications being submitted
 - From planning application to first housing completions averaged 5.3 years for sites of 500-1,999 dwellings and 6.9 years for sites of 2,000+ dwellings
 - The time between planning application and planning permission became longer as the size of site increased (from an average of around one year for 0-99 dwellings, up to an average of around six years for 2,000+ dwellings)
 - Conversely, the time between planning permission and first housing completions were shorter for sites of over 2,000 dwellings (0.8 years) than on smaller sites (1.7-1.8 years)
- 4.4 Our high-level review of strategic infrastructure required to support housing delivery focused on transportation and utilities infrastructure together with flood mitigation, based on a review of published evidence available by March 2017 including the SHLAA, Infrastructure Delivery Plan, and transport modelling carried out to support plan-making. Allen Dadswell Construction Consultants also consulted with the local highways authority, Leicestershire County Council, and; BBP Regeneration consulted with scheme promoters and Charnwood Borough Council.
- 4.5 For the large sites our analysis of planning and strategic physical infrastructure delivery timescales was undertaken on a site-specific basis.
- 4.6 It is acknowledged that social infrastructure requirements (health, education, etc.) will also be required to mitigate development impacts and we have provided a general commentary on these, but have not undertaken site-specific analysis within the scope of this study.

³ DCLG (2014) Planning Practice Guidance: Housing and economic land availability assessment

⁴ NLP (2016) How quickly do large-scale housing sites deliver?

Small and medium sites

- 4.7 For the small and medium sites from the SHLAA (under 500 units), we relied upon the assessment of deliverability carried out by Charnwood Borough Council through the 2016 and 2017 SHLAA process, and have not carried out any further assessment ourselves. As we were considering small and medium sites in aggregate, the annual delivery rate for each site was effectively assumed as being the simple average of total delivery within one of three periods in our model. Figure 2, earlier in this report, shows how the three periods in our model align with the 2017 SHLAA report.

Key findings

- 4.8 As a result of the methodology above, we identified two critical strategic infrastructure interdependencies:
- Working with Leicestershire County Council in its role as the local highways authority, to **fund and deliver transport infrastructure improvements necessary to support the delivery of housing sites allocated in the Local Plan** - including seeking funding from Department for Transport to address existing pinch points, and from the LEP to deliver housing and jobs growth, in addition to contributions from developers subject to viability
 - Working with Western Power Distribution to **increase electricity supply capacity around Loughborough**, in advance of that capacity becoming required for the occupation of new homes
- 4.9 The Council has directed us to assume both of these are resolved in all four scenarios, with the local authority proactively monitoring and mitigating delivery risks as they arise. Both of these strategic infrastructure requirements are explored further in Appendix C.
- 4.10 In the commentary within the Large Site Pro Formas for the 13 available large sites (see Appendix B), we have highlighted the strategic infrastructure requirements which are relevant and which may create dependencies impacting on delivery timescales.
- 4.11 Based on our discussions with large site promoters, we consider that several are overly ambitious about potential lead-in times when viewed in the context of the requirement for the adoption of a new Local Plan due in November 2019, and the typical lead-in times required to secure planning consent (including the signing of a Section 106 agreement). We have sought to mitigate the potential optimism bias resulting from scheme promoters' eagerness to secure planning permission, by estimating lead in times for large sites drawing on historic performance within the Borough (using data supplied by the Council) and considering the typical lead in times achieved elsewhere (drawing on our own experiences, and the study referred to above), tailored to the specific circumstances of the site in question. The Large Site Pro Formas (see Appendix B), and housing delivery trajectories (see Appendix F) therefore reflect either the developer's assumed lead in period (where we consider this to be reasonable) or our own alternative assumptions.
- 4.12 ***We recommend that the Council considers strategic infrastructure deliverability separately and in more detail at a later stage in the plan-making process – particularly in relation to two critical dependencies identified.***

5. Viability

- 5.1 National planning policy states that in order to be considered viable, schemes must provide an acceptable return to land owners and developers in order to incentivise development. It was beyond the scope of this study to carry out financial modelling, or consider viability on a site-by-site basis; however, we have considered at high level viability across the Borough by reviewing the existing evidence base.

Methodology and key assumptions

Large sites

- 5.2 In considering whether cleared and serviced land parcels are likely to have sufficient residual land value to achieve the threshold land values before mitigating planning policy requirements, we have considered the existing use of the 15 large sites.
- 5.3 In considering whether costs and values are such that schemes can mitigate planning policy requirements, we have reviewed the viability assessment published by the Council in 2014⁵, and the housing capacity assumptions within the Council's 2017 SHLAA report.
- 5.4 In considering whether schemes are sufficiently viable to deliver strategic infrastructure requirements, we have considered at high level what those requirements may be. However, we have not considered estimates of strategic infrastructure requirements beyond those available from the existing evidence base as outlined in Appendix C.

Small and medium sites

- 5.5 For the small and medium sites from the SHLAA (under 500 units), we relied upon the trajectories published by Charnwood Borough Council through the 2016 and 2017 SHLAA process, and have not carried out any further assessment of viability. As we were considering small and medium sites in aggregate, the annual delivery rate for each site was effectively assumed as being the simple average of total delivery within one of three periods in our model. Figure 2, earlier in this report, shows how the three periods in our model align with the 2017 SHLAA report.

Key findings

- 5.6 In considering whether cleared and serviced land parcels will have sufficient residual land value to achieve the threshold land values before mitigating planning policy requirements, it is notable that all of the housing capacity being assessed at the 13 available large sites is to be delivered on greenfield land where existing use values are generally lower than brownfield land. The Council's latest viability evidence base suggests that threshold land values can be achieved on greenfield sites across the borough (Loughborough Edge, Prime Service Centres, Mid Service Centres, two SUEs, and two Directions of Growth).
- 5.7 In considering whether costs and values are such that schemes can mitigate planning policy requirements, the Council's 2017 SHLAA report makes conservative assumptions about gross to net development ratios (50:50), and housing densities (30 dwellings per hectare). The Council's latest viability evidence base suggests that affordable housing provision may have to be lower than policy targets in certain areas to ensure viability (brownfield sites, particularly in Loughborough and

⁵ DTZ (2014) Charnwood Local Plan Viability Study

Shepshed). The report also suggested that 25-30% affordable homes would be deliverable on two allocated SUEs, where the policy target is 30%. The evidence base also suggests that enhanced environmental credentials may only be viable in Loughborough Edge and Prime Service Centres, and later in the Local Plan period. We note that levels of affordable housing provision have already been agreed for some of the large sites already allocated within the current Core Strategy, with some sites justifying lower levels of affordable housing provision in order to ensure an appropriate housing mix.

- 5.8 In considering whether schemes are sufficiently viable to deliver strategic infrastructure requirements and abnormal costs, as set out in Chapter 4, we identified two critical strategic infrastructure dependencies, which we have been directed by the Council to assume are resolved in all four scenarios, with the local authority proactively monitoring and mitigating delivery risks as they arise.
- 5.9 Based on the findings above, we have assumed that housing delivery is viable across all of the large sites at the end of their planning and infrastructure lead-in times, potentially with reductions in the mitigation of planning policy requirements.
- 5.10 *We recommend that the Council considers viability separately and in more detail at a later stage in the plan-making process – particularly for those large sites that were not assessed as part of the 2014 viability study.***

6. Market Absorption Capacity (MAC)

6.1 Our modelling of potential housing delivery trajectories required an assessment of the maximum number of homes that we consider can be delivered in a given year without resulting in a substantial reduction in house prices, which may impact scheme viability. This assessment is distinct from the assessment of the objectively assessed need for new homes which is provided through the Leicester and Leicestershire Housing and Economic Needs Assessment 2017 (HEDNA).

6.2 We have relied upon two assessments of the demand for housing:

- Across each of the nine submarket areas (see Figures 7 and 8 below), resulting in an assumed Market Absorption Capacity (MAC) and;
- Across each of the 13 available large sites, resulting in assumed maximum delivery rates.

6.3 The two assessments are considered separately, because the large sites are of sufficient size to distort the existing submarket areas and potentially draw on demand from multiple sub-market areas.

Methodology and key assumptions

6.4 Our assessment of MAC followed the overarching methodology set out below, with each step described in greater detail in the rest of this section.

- **Step 1** - Analyse the **residual housing need across the Borough**, after accounting for historic delivery.
- **Step 2 - Define the submarket areas** for our analysis, based on the Council's latest evidence base⁶
- **Step 3** - Estimate a **notional distribution of Borough-wide need across the submarket areas** based on the size of the area, as measured in terms of existing households, to provide a starting point that we could then adjust to reflect demand factors
- **Step 4 - Adjust this notional housing need to reflect demand factors**, alongside a review of recent / historic housing delivery rates across each submarket area
- **Step 5 - Group the submarket areas into 'greater submarket areas'**, to reflect how the existing submarket areas may be distorted by the large sites, and how they might draw upon demand from multiple submarket areas

6.5 It is important to note that there is overlap between the MAC assessments for each area - i.e. the total MAC across all of the areas is greater than the housing need for the Borough as a whole. This overlap can be thought of as a buffer above housing need, providing allowances for:

- Potential migration between submarket areas within the Borough, driven by push and pull factors beyond a submarket area's own share of housing need;
- Potential migration from other local authorities, above and beyond the rates of migration modelled in the HEDNA, and;
- Market inefficiencies, meaning that housing delivery may not come forward precisely in line with need when and where it arises.

⁶ Three Dragons (2010) Charnwood Borough Council Affordable Housing Economic Viability Assessment

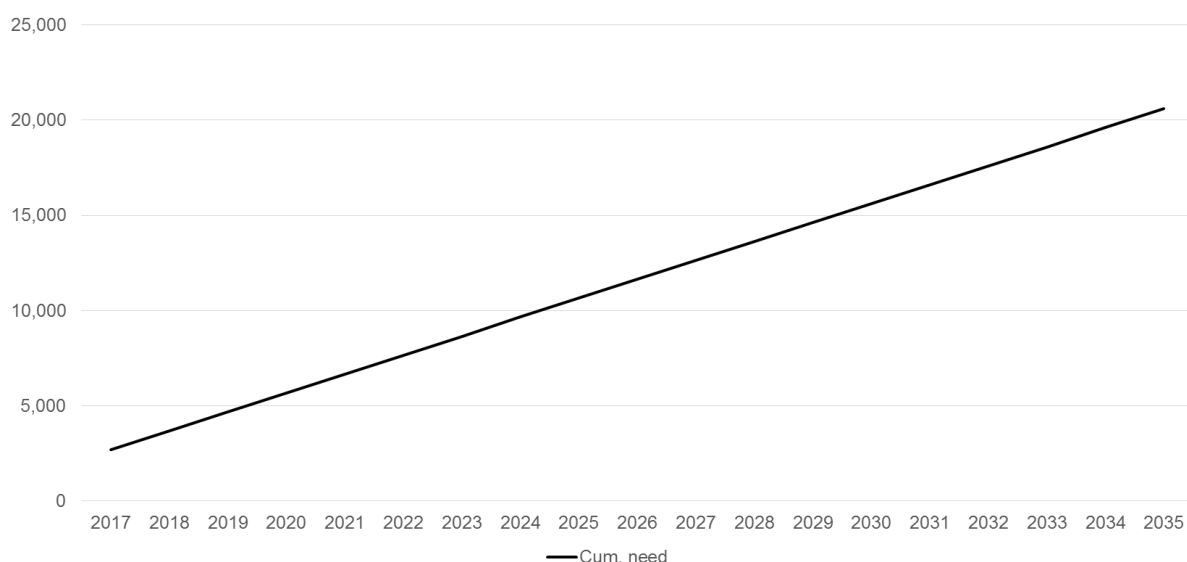
Step 1 – Analyse residual housing need across the Borough

- 6.6 In January 2017, Leicester & Leicestershire Authorities and the Leicester and Leicestershire Enterprise Partnership published a Housing & Economic Development Needs Assessment (HEDNA) setting out the Objectively Assessed Need (OAN) for each local authority over the period 2011/12 to 2035/36.
- 6.7 In total, the Borough’s Objectively Assessed Need for housing over the plan period 2011/12 through to 2035/36 equates to 24,850 new homes. As shown in Figure 4, a total of 4,259 new homes were completed within the Borough between 1 April 2011 and 31 March 2017, which leads to a residual need of 20,591 to be accommodated in the remainder of the plan period from 2017/18 to 2035/36. This profile of need is also shown graphically in Figure 5.

Figure 4 – Headline need figures

Total need OAN 2011/12 to 2035/36 (dwellings)	Average annual OAN (dpa) 2011/12 to 2035/36	Actual delivery 2011/12 to 2016/17	Residual need in 2017/18, including shortfall	Residual need 2017/18 to 2035/36
24,850	994	4,259	2,699	20,591

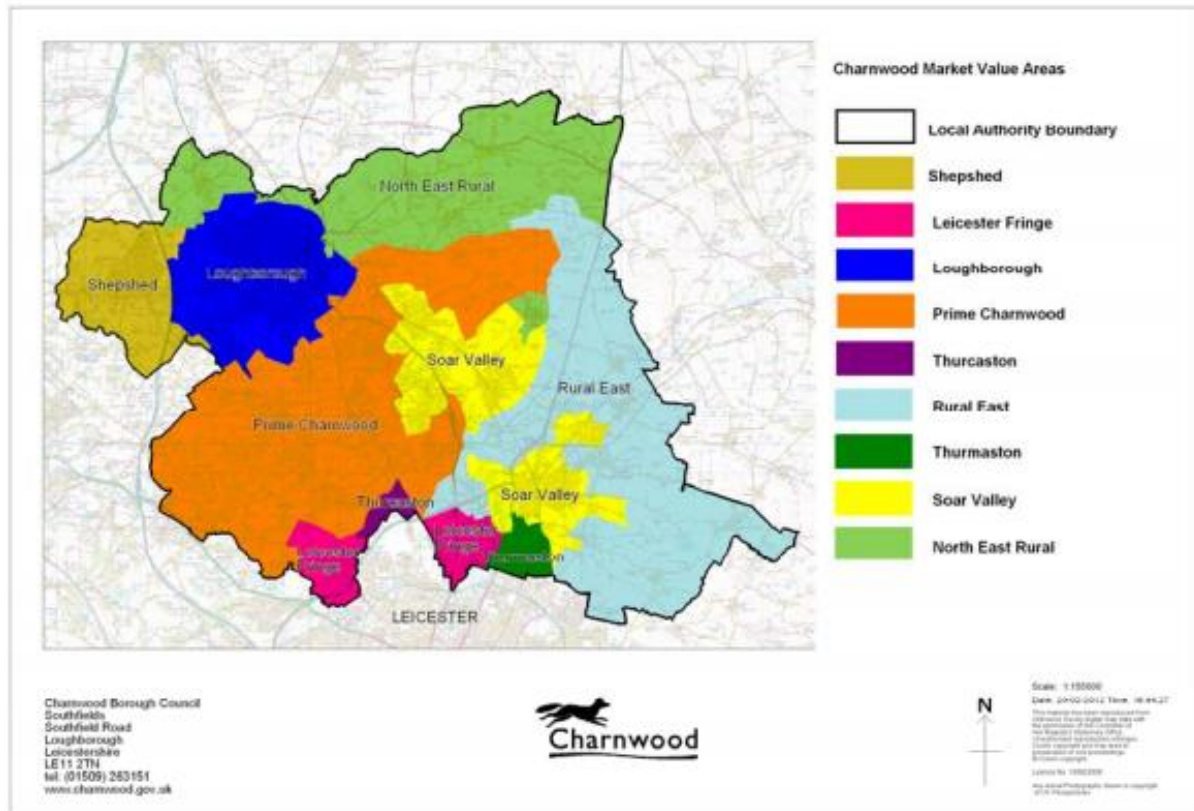
Figure 5 – Cumulative Borough-wide housing need 2017/18 to 2035/36



Step 2 - Define housing submarket areas

- 6.8 Whilst the Council has commissioned viability evidence reports more recently, its latest evidence on the definition of housing submarkets is a viability assessment published in 2010, which includes the map in Figure 6.

Figure 6 – Charnwood Market Value Areas



Source: Three Dragons (2010) Charnwood Borough Council Affordable Housing Economic Viability Assessment

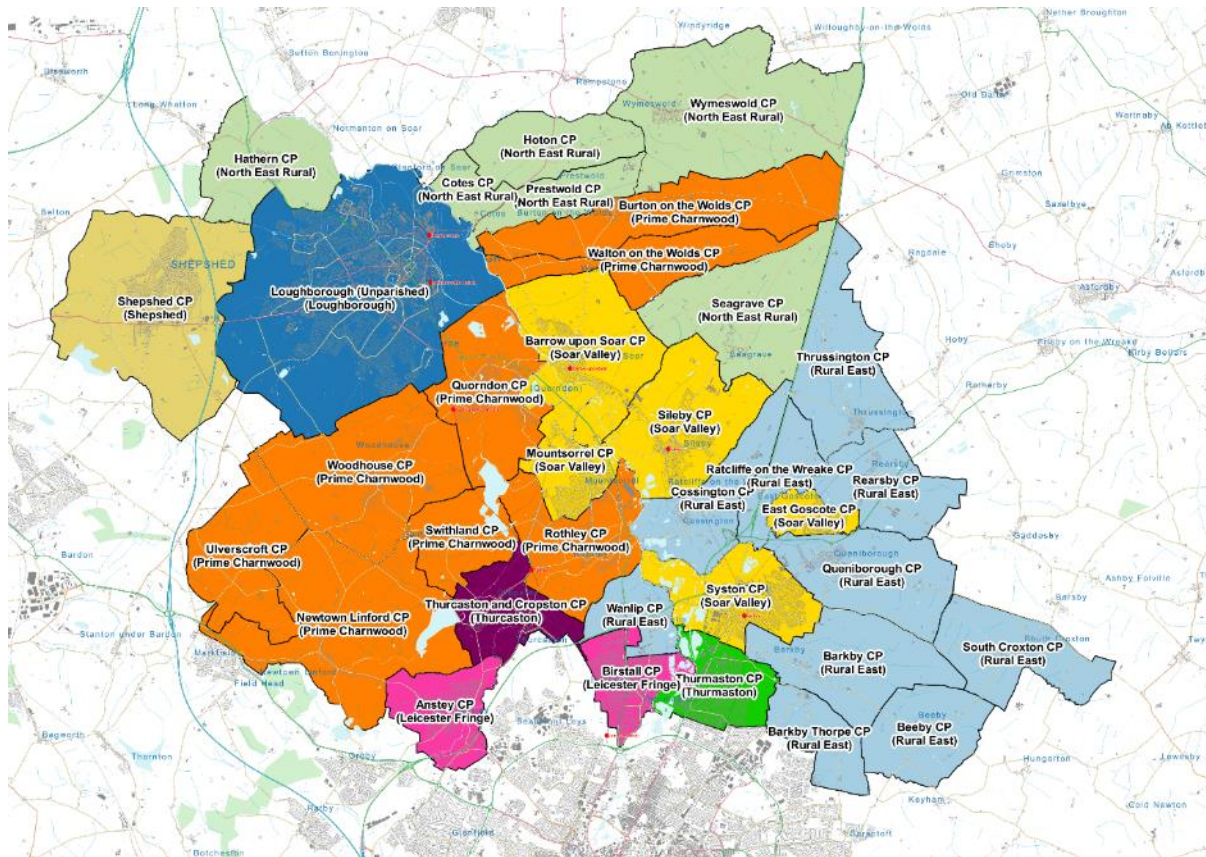
- 6.9 The available SHLAA data allocates each site to a Civil Parish (and the Loughborough unparished area). For the purposes of our analysis, we therefore allocated each Civil Parish to a specific sub-market area and greater sub-market area as shown in Figure 7, and shown graphically in Figure 8. For the Loughborough unparished area, we analysed electoral wards.

Figure 7 – Allocation of Civil Parishes to submarket areas

Civil Parish / Ward	Assumed submarket area	Assumed Greater submarket area
Burton on the Wolds Civil Parish	Prime Charnwood	Central Charnwood
Newtown Linford Civil Parish	Prime Charnwood	Central Charnwood
Quorndon Civil Parish	Prime Charnwood	Central Charnwood
Rothley Civil Parish	Prime Charnwood	Central Charnwood
Swithland Civil Parish	Prime Charnwood	Central Charnwood
Walton on the Wolds Civil Parish	Prime Charnwood	Central Charnwood
Woodhouse Civil Parish	Prime Charnwood	Central Charnwood
Loughborough Ashby ward	Loughborough	Northern Charnwood
Loughborough Garendon ward	Loughborough	Northern Charnwood
Loughborough Hastings ward	Loughborough	Northern Charnwood
Loughborough Lemyngton ward	Loughborough	Northern Charnwood

Loughborough Nanpantan ward	Loughborough	Northern Charnwood
Loughborough Outwoods ward	Loughborough	Northern Charnwood
Loughborough Shelthorpe ward	Loughborough	Northern Charnwood
Loughborough Southfields ward	Loughborough	Northern Charnwood
Loughborough Storer ward	Loughborough	Northern Charnwood
Hathern Civil Parish	North East Rural	Northern Charnwood
Hoton Civil Parish	North East Rural	Northern Charnwood
Seagrave Civil Parish	North East Rural	Northern Charnwood
Wymeswold Civil Parish	North East Rural	Northern Charnwood
Shepshed Civil Parish	Shepshed	Northern Charnwood
Barkby Civil Parish	Rural East	Southern / Central Charnwood
Beeby Civil Parish	Rural East	Southern / Central Charnwood
Cossington Civil Parish	Rural East	Southern / Central Charnwood
Queniborough Civil Parish	Rural East	Southern / Central Charnwood
Ratcliffe on the Wreake Civil Parish	Rural East	Southern / Central Charnwood
Rearsby Civil Parish	Rural East	Southern / Central Charnwood
South Croxton Civil Parish	Rural East	Southern / Central Charnwood
Thrussington Civil Parish	Rural East	Southern / Central Charnwood
Wanlip Civil Parish	Rural East	Southern / Central Charnwood
Barrow upon Soar Civil Parish	Soar Valley	Southern / Central Charnwood
East Goscote Civil Parish	Soar Valley	Southern / Central Charnwood
Mountsorrel Civil Parish	Soar Valley	Southern / Central Charnwood
Sileby Civil Parish	Soar Valley	Southern / Central Charnwood
Syston Civil Parish	Soar Valley	Southern / Central Charnwood
Anstey Civil Parish	Leicester Fringe	Southern Charnwood
Birstall Civil Parish	Leicester Fringe	Southern Charnwood
Thurcaston and Cropston Civil Parish	Thurcaston	Southern Charnwood
Thurmaston Civil Parish	Thurmaston	Southern Charnwood

Figure 8 – Allocation of Civil Parishes to Mapping of submarket areas, for the purposes of scenario modelling



Source: © Crown copyright and database rights 2017 OS 100023558

Step 3 - Estimate a notional distribution of housing need across submarket areas

6.10 Figure 9 shows a notional distribution of housing need across each of the nine submarket areas based on the size of the area, as measured by the number of existing households. It is important to note that this has been used as a starting point for further adjustments based on demand factors, and is not intended to be used on a standalone basis.

Figure 9 – Notional distribution of housing need across submarket areas, based on share of households

Submarket area	Notional housing need 2011/12 to 2035/36, by share of households (dpa)
Prime Charnwood	119
Loughborough	316
North East Rural	27
Shepshed	91
Rural East	36
Soar Valley	89
Leicester Fringe	243
Thurcaston	13
Thurmaston	61
TOTAL	994

Step 4 - Adjusting the notional distribution of housing need based on demand factors

- 6.11 Figure 10 shows our qualitative assessment of current and potential future levels of Market Absorption Capacity for each submarket area after considering demand factors such as:
- **Current demand factors**
 - Convenience of access to access to cultural, sports, leisure and/or natural assets
 - Convenience of access to employment, education and/or amenities
 - Assumed transport infrastructure capacity, based on high level review of existing evidence base
 - **Potential future demand factors**
 - Current Value for Money
 - Potential impact of planned infrastructure projects
 - Potential impact of planned regeneration initiatives
 - Potential change in access to employment and amenities
- 6.12 Our Value for Money assessment considered whether current demand factors were reflected in average residential sales values, for which we adopted the following bands:
- Low (<£170 / sq ft)
 - Moderate (£170-235 / sq ft)
 - High (>£235 / sq ft)
- 6.13 Where average residential sales values are high relative to demand factors, it is possible that other factors that we have not assessed (such as desirability of existing housing stock, quality of local schools, and the character of the local area) may be at play. Conversely, where average residential sales values are low relative to demand factors, it is possible that high quality placemaking and a more aspirational housing offer would achieve higher than current values.
- 6.14 Residential property market analysis shown in Appendix D provides further evidence supporting our assessment.

Figure 10 – Assessment of MAC across submarket areas

Submarket area	What level of MAC is anticipated relative to submarket's own share of housing need?	Current MAC commentary	What level of future potential MAC is anticipated, if planned regeneration / employment / infrastructure projects are delivered?	Future MAC commentary
Leicester Fringe	High	Submarket area offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are not fully reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase in line with new employment opportunities in the local area, and the Southern Charnwood Package of transport infrastructure improvements. Demand may also be sustained by regeneration activity at Watermead Regeneration Corridor. There may be some demand for a more aspirational housing offer relative to the current submarket area.
Loughborough	High	Submarket area offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently good. These factors are not fully reflected in what are low average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase in line with new employment opportunities at Loughborough Science and Enterprise Park. We have assumed that transport infrastructure would be improved in line with delivery. There may be some demand for a more aspirational housing offer relative to the current submarket area.

North East Rural	Moderate	Submarket area offers moderately convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and moderately convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are already reflected in what are moderate average residential sales values in the submarket area.	Moderate (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities as part of the emerging development scheme at Cotes.
Prime Charnwood	Very High	Submarket area offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are already reflected in what are high average residential sales values in the submarket area.	Very High (no change from current assessment)	In future, housing demand may increase as a result of transport improvements in the local area, and be sustained by new employment opportunities in the local area.
Rural East	Moderate	Submarket area offers moderately convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and moderately convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently relatively poor. These factors are not reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	Moderate (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities in the local area, and as a result of the Southern Charnwood Package of transport infrastructure improvements.

Shepshed	Moderate	Submarket area offers moderately convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and moderately convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently good. These factors are not fully reflected in what are low average residential sales values in the submarket area (see commentary at Section 6.13).	Moderate (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities, particularly at Loughborough Science and Enterprise Park. Housing demand will also be dependent upon the regeneration of Shepshed town centre. We have assumed that negative impacts on transport infrastructure will be mitigated in line with development. There may be some demand for a more aspirational housing offer relative to the current submarket area.
Soar Valley	High	Submarket area offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are not fully reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities in the local area and the Southern Charnwood Package of transport infrastructure improvements. There may be some demand for a more aspirational housing offer relative to the current submarket area.
Thurcaston	High	Submarket area offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are not fully reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities in the local area, and the Southern Charnwood Package of transport infrastructure improvements. There may be some demand for a more aspirational housing offer relative to the current submarket area.

Thurmaston	High	Submarket area offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are not fully reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase as a result of new employment opportunities in the local area, the Southern Charnwood Package of transport infrastructure improvements, regeneration at Watermead Regeneration Corridor. There may be some demand for a more aspirational housing offer relative to the current submarket area.
------------	-------------	---	---	--

- 6.15 Based on upon our qualitative assessment of current and potential future levels of Market Absorption Capacity for each submarket area after considering demand factors, Figure 11 sets out the adjustments that we have made to the baseline need figure to derive the Market Absorption Capacity following the assessment above.
- Submarket areas assessed as having Very High / High potential future MAC were assumed to be able to absorb more capacity from a population wider than their own;
 - Submarket areas assessed as having Moderate potential future MAC were assumed to meet their own need, and;
 - Submarket areas assessed as having Low potential future MAC were assumed to be unable to absorb the needs of their own population (not applicable in any of the submarket areas within Charnwood Borough Council).
- 6.16 In the two larger submarket areas (Loughborough, and Soar Valley) with a high MAC relative to their own share of need, and in Prime Charnwood with a very high MAC relative to its share of need, the adjustments made were +/-50 dwellings per annum. In smaller submarket areas with a high MAC relative to their own share of need, the adjustments made were +/-25 dwellings per annum. No adjustment was made for areas assessed as having a moderate MAC relative to their own share of need. The overall adjustment from need to market absorption capacity represented an increase of +20.5%.
- 6.17 In setting the scale of these adjustments, we drew upon our analysis of the residential property market, including discussions with local property professionals (see Appendix D), and our professional judgment. The distribution and scale of historic housing delivery is likely to be shaped by restrictions on land supply; however, they do provide some level of comfort that the *relative* levels of MAC between sub-market areas we have assumed are reasonable. The final two columns in Figure 11 therefore provide a sense check of our assumptions:
- Analysis of 2001 and 2011 Census data, mapped by Civil Parish / Ward, allowed for an assessment of the historic annual equivalent increase in households over that 10-year period.
 - Similarly, analysis of Land Registry data from 2013/14 to 2015/16, mapped by postcode sector, allowed for an estimate of recent delivery by submarket area over that three-year period.

Figure 11 – Assumed Market Absorption Capacity (MAC), by submarket area

Submarket area	Average need, by share of h'holds	Assessment of current MAC relative to submarket area's own share of need	Assessment of potential future MAC	Assumed MAC	Historic annual equivalent increase in h'holds, 2001-2011 (dpa)	Estimated recent delivery rate, 2013/14-2015/16 (dpa)
Leicester Fringe	100-150	High	High	125-175	83	146
Loughborough	300-350	High	High	350-400	188	147
North East Rural	0-50	Moderate	Moderate	0-50	16	17
Prime Charnwood	50-100	Very High	Very High	100-150	36	78
Rural East	0-50	Moderate	Moderate	0-50	16	46
Shepshed	50-100	Moderate	Moderate	50-100	50	28
Soar Valley	200-250	High	High	250-300	167	191
Thurcaston	0-50	High	High	25-75	15	43
Thurmaston	50-100	High	High	75-125	34	15
TOTAL	c.975			c.1,175 (+20.5%)	604	711

Figure 12 – Assumed profile of Market Absorption Capacity (MAC), by submarket area

Submarket area	Greater submarket area	Average annual MAC (dpa)	Estimated actual delivery to 2016/17 (dwellings)	Residual MAC in 2017/18, including shortfall (dwellings)	Residual MAC 2017/18 to 2035/36 (dwelling)
Leicester Fringe	Southern Charnwood	153	544	415	3,169
Loughborough	Northern Charnwood	382	1,359	1,038	7,914
North East Rural	Northern Charnwood	25	91	69	519
Prime Charnwood	Central Charnwood	102	362	277	2,113
Rural East	Southern / Central Charnwood	25	91	69	519
Shepshed	Northern Charnwood	76	272	208	1,576
Soar Valley	Southern / Central Charnwood	280	997	761	5,801
Thurcaston	Southern Charnwood	51	181	138	1,056
Thurmaston	Southern Charnwood	102	362	277	2,113
TOTALS		1,196	4,259	3,252	24,780

Step 5 - Group into 'greater submarket' areas

6.18 We then grouped the submarket areas into 'greater submarket areas', to reflect how the existing submarket areas may be distorted by the large sites, and how they might draw upon demand from multiple submarket areas

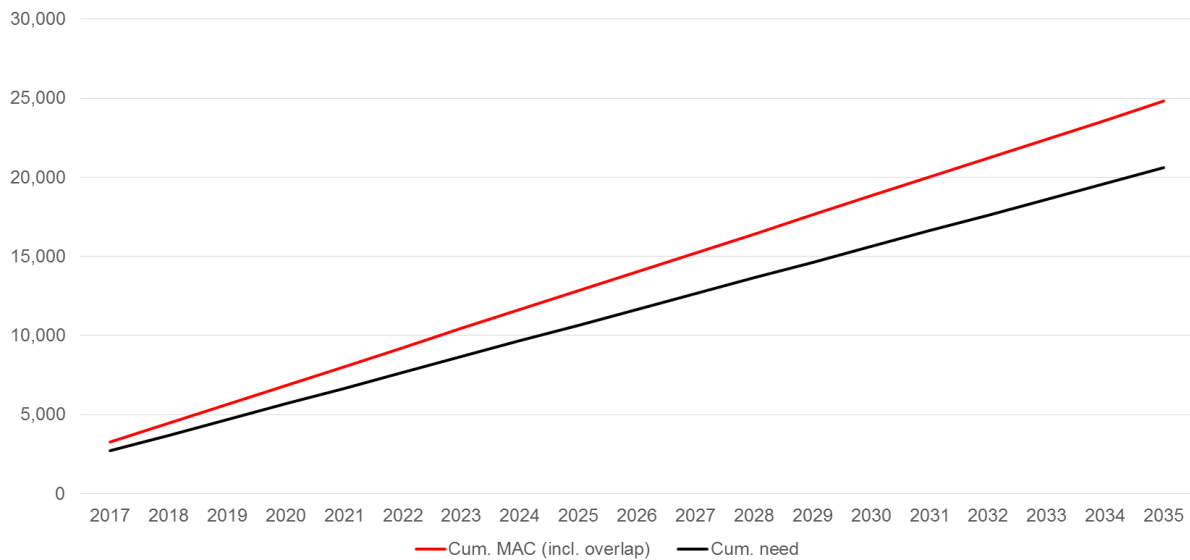
Figure 13 – Assumed profile of Market Absorption Capacity (MAC), by 'greater submarket' area

Greater submarket area	Average annual MAC (dpa)	Estimated actual delivery to 2016/17 (dwellings)	Residual MAC at 2017/18, including backlog (dwellings)	Residual MAC 2017/18 to 2035/36 (dwelling)
Central Charnwood, excl. Southern overlap	255	907	692	5,282
Northern Charnwood	483	1,719	1,315	10,009
Southern Charnwood, incl. Central overlap	459	1,633	1,245	9,507
TOTALS	1,197	4,259	3,252	24,798

Key findings

6.19 Aggregating the assumptions of MAC by 'greater submarket' area results in the profile shown in Figure 14. This shows a residual MAC of 3,252 in 2017/18 including the shortfall from 2011/12 to 2016/17, rising by 1,197 dwellings per annum to 2035/36, with a cumulative total MAC of 24,798 by the end of the period.

Figure 14 – Cumulative Borough-wide housing need and Market Absorption Capacity (MAC) 2017/18 to 2035/36



7. Delivery rates

7.1 Having completed the first of our assessments of demand in order to assess Market Absorption Capacity (MAC) across each of the nine submarket areas, we then followed a similar approach to assess the maximum delivery rates across each of the 13 available large sites, which are large enough to distort the existing submarkets.

Methodology and key assumptions

Large sites

7.2 A study of housing delivery across 70 large sites (500+ dwellings) conducted in 2016⁷ found that delivery rates:

- Were higher where the total capacity of the site was larger. Delivery rates increased by roughly 2.5 times when comparing a site of 500 dwellings (delivering c.60 dpa) to a site of 2,000+ dwellings (c. 150 dpa) despite the capacity of the site being over four times greater. One of the case studies delivered 321 dpa for a period of three years, although it was not known how long this could be sustained.
- Were higher where post-permission residential land values were higher. Delivery rates roughly doubled from c.100 dpa in areas with residential land values of £2m / ha, compared to c.200 dpa in areas with land values of £6m / ha (2014 prices, assuming cleared and serviced land parcels, before planning policy mitigation)
- Can vary significantly over the build-out period, with peak delivery rates sometimes more than double the average rate
- Were on average 1.5 times higher on Previously-Developed Land (128 dpa) than on greenfield sites (83dpa)
- Were around 1.4 times higher on sites with 30%+ affordable housing, than those with below 30% affordable housing. This dynamic is dependent on a number of factors such as availability of affordable housing grant, but reflects the difference in market segment from private sale housing and the advantages of securing bulk sales off-plan.

7.3 Our assessment of maximum delivery rates across each of the 13 available large sites was based on: our consultation with scheme promoters; an assessment of demand factors (adopting a similar methodology to that described at Section 6.11), and; research and our experience of typical delivery rates at other large sites around the country. These delivery rates include affordable housing, and were assessed on a standalone basis without regard to market competition with other large sites (other than the three already allocated within the Core Strategy). Market competition between sites was analysed at a later stage.

7.4 The maximum delivery rates for each of the large sites was individually assessed and supporting commentary is provided within the Large Site Pro Formas at Appendix B.

7.5 Based on our discussions with large site promoters and our assessment of demand factors, we consider that several are overly ambitious about potential delivery rates. We have sought to mitigate the potential optimism bias resulting from a desire to present their site in the best possible light in order to secure an allocation in the Local Plan, based on our research and experiences elsewhere. The Large Site Pro Formas (see Appendix B) and delivery trajectories (see Appendix F) therefore reflect either the

⁷ NLP (2016) How quickly do large-scale housing sites deliver?

developer's assumed delivery rate (where we consider this to be reasonable) or our own alternative assumptions where these are lower.

- 7.6 Conversely, we consider that maximum potential delivery rates are in excess of those presently being proposed by the promoters of two large sites: Birstall Direction of Growth and West of Loughborough SUE. This is particularly relevant in the shorter-term, before other land becomes available in these areas - an issue that we revisit in Scenario D.
- 7.7 Our experience is that developers who already control large sites, but are able to draw down and pay for land in phases, may not seek to maximise delivery rates to the same extent as those who purchase land outright and are seeking to recoup an initial capital outlay. Under these draw down arrangements, a developer may prefer to constrain delivery rates to maximise residential sales values, and avoid land sales to competitors who would otherwise be prepared to open additional sales outlets. The developer can then vary the number of sales outlets they have open in response to market conditions and their own particular business objectives and performance. It is not uncommon for such developers to entertain land sales to competitors only where 'land swap' arrangements can be facilitated, thus preserving their own land bank but allowing them to open up outlets in alternative geographic locations. This level of control by developers can lead to situations whereby a site's maximum delivery rate is not realised.
- 7.8 Figure 15 shows our qualitative assessment of current and potential future demand across each of the large sites, and Figure 16 shows our assumed maximum delivery rates. These delivery rates were assessed without regard to market competition with other large sites (other than the three already allocated within the Core Strategy) – i.e. on a standalone basis.

Small and medium sites

- 7.9 For the small and medium sites from the SHLAA (under 500 units), we relied upon the trajectories published by Charnwood Borough Council through the 2016 and 2017 SHLAA process, and have not carried out any further assessment ourselves. As we were considering small and medium sites in aggregate, the annual delivery rate for each site was effectively assumed as being the simple average of total delivery within one of three periods in our model. Figure 2, earlier in this report, shows how the three periods in our model align with the 2017 SHLAA report.

Key findings

- 7.10 Our qualitative assessment of current and potential future demand across each of the large sites anticipates moderate levels of demand for four of the 13 available large sites, and high levels of demand for the remaining nine large sites. This assessment is summarised at Figure 15.

Figure 15 – Assessment of maximum delivery rates across large sites

Large site	Submarket area	What level of demand is anticipated, relative to the capacity of the site?	Current delivery rates commentary	What potential future level of demand is anticipated, relative to the capacity of the site, if planned regeneration / employment / infrastructure projects are delivered?	Future delivery rates commentary
PSH106 (Nanpantan Grange, Land south west of Loughborough)	Loughborough	High	Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently good. These factors are not fully reflected in what are low average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase in line with new employment opportunities at Loughborough Science and Enterprise Park. We have assumed that transport infrastructure would be improved in line with delivery. There may be some demand for a more aspirational housing offer relative to the current submarket area.
PSH110 (North of Birstall Direction of Growth)	Leicester Fringe	High	Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are not fully reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase in line with new employment opportunities in the local area. Demand may also be sustained by regeneration activity at the Watermead Regeneration Corridor. We have assumed that transport infrastructure would be improved in line with delivery. There may be some demand for a more aspirational housing offer relative to the current submarket area.

PSH120 (Land east of Leicester Road, Thurstaston)	Thurstaston / Leicester Fringe	High	Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are not fully reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities in the local area, and the Southern Charnwood Package of transport infrastructure improvements. There may be some demand for a more aspirational housing offer relative to the current submarket area.
PSH123 (Land at Cotes)	Loughborough / North East Rural	High	Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently good. These factors are not fully reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase in line with new employment opportunities at Cotes and Loughborough Science and Enterprise Park. There may be some demand for a more aspirational housing offer relative to the current submarket area.
PSH125 (Land east of Barkby Thorpe, south of Beeby Road, Barkby)	Leicester Fringe / Rural East	Moderate	Location offers moderately convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and moderately convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently relatively poor. These factors are already reflected in what are moderate average residential sales values in the submarket area.	Moderate (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities in the local area. Demand may also be sustained by regeneration activity at the Watermead Regeneration Corridor. We have assumed that negative impacts on transport infrastructure would be mitigated.

PSH134 (West of Loughborough Sustainable Urban Extension)	Loughborough	High	Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently good. These factors are not fully reflected in what are low average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase in line with new employment opportunities at Loughborough Science and Enterprise Park. We have assumed that transport infrastructure would be improved in line with delivery. There may be some demand for a more aspirational housing offer relative to the current submarket area.
PSH210 (North East of Leicester Sustainable Urban Extension)	Leicester Fringe	High	Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are not fully reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase in line with new employment opportunities in the local area. Demand may also increase as a result of regeneration activity at the Watermead Regeneration Corridor. We have assumed that transport infrastructure would be improved in line with delivery. There may be some demand for a more aspirational housing offer relative to the current submarket area.
PSH234 (Land West of Shepshed)	Shepshed	Moderate	Location offers moderately convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and moderately convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently good. These factors are not fully reflected in what are low average residential sales values in the submarket area (see commentary at Section 6.13).	Moderate (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities, particularly at Loughborough Science and Enterprise Park. Housing demand will also be dependent upon the regeneration of Shepshed town centre. We have assumed that negative impacts on transport infrastructure will be mitigated in line with development. There may be some demand for a more aspirational housing offer relative to the current submarket area.

PSH255 (Land at Woodthorpe, East & West of A6004 Epinal Way, Loughborough)	Loughborough	High	Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently good. These factors are not fully reflected in what are low average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase in line with new employment opportunities at Loughborough Science and Enterprise Park. We have assumed that transport infrastructure would be improved in line with delivery. There may be some demand for a more aspirational housing offer relative to the current submarket area.
PSH387 & PSH388 - High Leys Farm / Manor Farm	Leicester Fringe	High	Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are not fully reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase in line with new employment opportunities in the local area. There may be some demand for a more aspirational housing offer relative to the current submarket area.
PSH389 - Land off Groby Road	Leicester Fringe	High	Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are not fully reflected in what are moderate average residential sales values in the submarket area (see commentary at Section 6.13).	High (no change from current assessment)	In future, housing demand may increase in line with new employment opportunities in the local area. There may be some demand for a more aspirational housing offer relative to the current submarket area.

PSH404 - Land west of Tickow Lane	Shepshed	Moderate	<p>Location offers moderately convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and moderately convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently good. These factors are not fully reflected in what are low average residential sales values in the submarket area (see commentary at Section 6.13).</p> <p>However, local agents suggest that there is a risk that the market around West Loughborough and Shepshed will be saturated with an oversupply of new housing in competition with the SUE, however Shepshed is identified as a separate Sub-Market area and there is an opportunity to attract value driven purchasers seeking larger properties than they can afford elsewhere in Loughborough area.</p>	Moderate (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities, particularly at Loughborough Science and Enterprise Park. Housing demand will also be dependent upon the regeneration of Shepshed town centre. We have assumed that negative impacts on transport infrastructure will be mitigated in line with development. There may be some demand for a more aspirational housing offer relative to the current submarket area.
PSH69 (Land South East of Syston)	Leicester Fringe / Soar Valley	High	<p>Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are already reflected in what are moderate average residential sales values in the submarket area.</p>	High (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities in the local area. Demand may also be sustained by regeneration activity at the Watermead Regeneration Corridor. We have assumed that transport infrastructure would be improved in line with delivery.

PSH8 (Land east of Barkby, Barkby)	Rural East	Moderate	Location offers moderately convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and moderately convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently relatively poor. These factors are reflected in what are moderate average residential sales values in the submarket area.	Moderate (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities in the local area, and as a result of the Southern Charnwood Package of transport infrastructure improvements.
PSH87 (Wymeswold Airfield, Wymeswold)	Loughborough / North East Rural	Moderate	Location offers highly convenient access to quality of life attractions (cultural, sports, leisure, and/or natural assets), and highly convenient access to employment, education and/or amenities. We have assumed that transport infrastructure capacity is currently moderate. These factors are already reflected in what are moderate average residential sales values in the submarket area.	Moderate (no change from current assessment)	In future, housing demand may be sustained by new employment opportunities at Cotes.

7.11 As shown in Figure 16, our assumed maximum delivery rates - without regard to market competition with other large sites (other than the three already allocated within the Core Strategy) - range from 80 to 150 dwellings per annum for large sites with capacity below 1,000 dwellings, and; 150 to 250 dwellings per annum for large sites with capacity above 1,000 dwellings. Large sites with moderate anticipated levels of demand generally have lower assumed maximum delivery rates than those with high anticipated levels of demand of a similar housing capacity.

Figure 16 – Assumed maximum delivery rates across large sites

Large site	Total site capacity (dwellings)	What potential future level of delivery is anticipated, relative to the capacity of the site, if planned regeneration / employment / infrastructure projects are delivered?	Assumed average maximum delivery rate (dpa)	Notes
PSH210 (North East of Leicester Sustainable Urban Extension)	4,500	High (no change from current assessment)	250	
PSH106 (Nanpantan Grange, Land south west of Loughborough)	3,000	High (no change from current assessment)	250	Modelled at 200 dpa, due to competition from Core Strategy sites
PSH134 (West of Loughborough Sustainable Urban Extension)	3,200	High (no change from current assessment)	240	Modelled at 160 dpa in Scenarios A to C, due to developer intentions
PSH110 (North of Birstall Direction of Growth)	1,650	High (no change from current assessment)	200	Modelled at 130 dpa in Scenarios A to C, due to developer intentions
PSH69 (Land South East of Syston)	1,250	High (no change from current assessment)	200	
PSH255 (Land at Woodthorpe, East & West of A6004 Epinal Way, Loughborough)	1,140	High (no change from current assessment)	150	
PSH123 (Land at Cotes)	975	High (no change from current assessment)	150	Modelled at 80 dpa due to developer intentions
PSH120 (Land east of Leicester Road, Thurcaston)	579	High (no change from current assessment)	150	Modelled at 100 dpa, due to competition from Core Strategy sites
PSH87 (Wymeswold Airfield, Wymeswold)	770	Moderate (no change from current assessment)	120	

PSH387 & PSH388 - High Leys Farm / Manor Farm	500	High (no change from current assessment)	100	
PSH389 - Land off Groby Road	500	High (no change from current assessment)	100	Modelled at 70 dpa due to developer intentions
PSH404 - Land west of Tickow Lane	540	Moderate (no change from current assessment)	100	Modelled at 75 dpa due to developer intentions
PSH8 (Land east of Barkby, Barkby)	690	Moderate (no change from current assessment)	80	

Figure 17 – Summary of assumed maximum delivery rates across large sites

What potential future level of delivery is anticipated, relative to the capacity of the site, if planned regeneration / employment / infrastructure projects are delivered?			
Total site capacity (dwellings)	Low	Moderate	High
500-999	n/a	80-120 dpa	100-150 dpa
1,000-1,999	n/a	n/a	150-200 dpa
2,000+	n/a	n/a	200-250 dpa

8. Market competition

- 8.1 Having assessed Market Absorption Capacity (MAC) by submarket area and greater submarket area, and; maximum delivery rates for large sites on a standalone site-by-site basis, we then considered the potential impact of market competition between sites.

Methodology and key assumptions

- 8.2 A survey of attitudes towards delivery rates across 18 house builders conducted in 2008⁸ found that they:

- Experience competition from other housebuilders within around 5.5 to eight miles of their greenfield sites (smaller radius for city centre apartments, and schemes in London). However, this competition is fiercer during the acquisition of land for development, rather than during the sales period. That is to say, sales prices are relatively inelastic across outlets, unless one developer pursues a predatory pricing strategy
- Bid for land based on an assumed delivery rate, based on market conditions – bidding higher and delivering slower when house price growth is fast relative to build cost inflation and finance costs
- Achieve only modest economies of scale for large sites, finding it most efficient to deliver a maximum of around 45-80 dpa on greenfield sites, and 55-80 dpa on Previously-Developed Land. However, two-thirds of house builders said that they would increase delivery if more greenfield land was released
- Are generally undeterred by the presence of other house builders selling units in the vicinity of their sites (generally within 5.5 to 8 miles), as they are confident that their own product will sell more readily than their competitors. Indeed, the presence of other developers in the vicinity is seen as a vote of confidence in the quality of their acquisition, and they can benefit from increased marketing spend from other scheme promoters
- Are more likely to adjust specification, pricing and marketing as a result of sales performance exceeding or falling to meet expectations, rather than adjusting delivery rates
- Are reluctant to vary development mix once they have started on site, due to the additional time and resources required to vary planning permissions

- 8.3 The findings from each stage of the methodology were input into a bespoke Microsoft Excel model to generate the housing delivery trajectories in table and graphical format.

Large sites

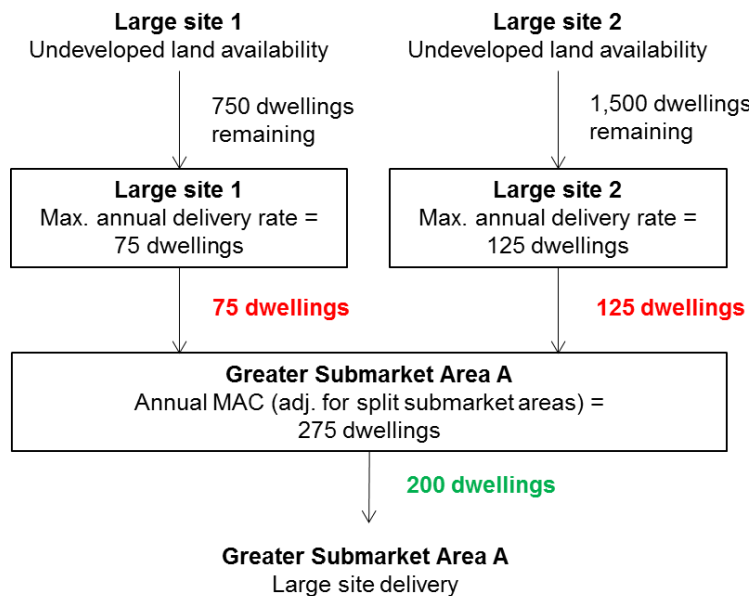
- 8.4 The maximum delivery rates estimated within the Large Site Pro Formas (see Appendix B) reflect competition between that large site and the three large sites already allocated in the Charnwood Borough Core Strategy. They also take account of known large deliverable / developable sites outside of the Borough (see Appendix E for further details). Any available undeveloped land was assumed to be developed only as fast as the constraint of these maximum delivery rates.
- 8.5 We then considered the large sites included in each scenario together, manually adjusting the delivery rates for each of the large sites to reflect the level of market competition from competing large sites within the same greater sub-market area. In doing this we considered the MAC of the greater sub-market area so that the combined annual delivery rate from large sites within a greater sub-market area did not exceed the assessed annual MAC. In order to stay within the assessed annual MAC this

⁸ DCLG & Glasgow University (2008) Factors Affecting Housing Build-out Rates

required us to reduce assumed delivery rates or delay large sites coming forward based on our professional judgement and an understanding of the sub-market location and geographic distance between sites (and therefore the relative level of competition anticipated), and the timing and scale of each development. Due to the land purchase arrangements that many developers have, we assumed that they would only draw down land and open one or more new outlets at a new large site once there was sufficient Market Absorption Capacity within the greater submarket area to do so – based on market signals and competitor surveillance. Large sites with higher assumed market demand and a broader offer due to scale were assumed to sustain a greater number of outlets in an area with competition than those with lower assumed market demand.

- 8.6 Once developers of a large site had opened one or more outlets, we assumed that they would continue to operate at least one outlet until the housing capacity had been delivered, to avoid additional preliminary costs due to demobilising and remobilising labour and plant. In some instances of high market competition, we have assumed that developers are forced to reduce the number of outlets operating in parallel on a site once competing sites come on-stream and/or delivery from existing outlets falls below optimum build rates.
- 8.7 These market adjustments to large site trajectories were made individually for each site and each Scenario. These market dynamics mean that in some circumstances, overall delivery rates from large sites may not increase as the amount of land available increases, or the number of large sites increases, due to market constraints.
- 8.8 These modelling assumptions for available large sites are visualised in Figure 18, using ‘dummy’ data. In the example, if the annualised MAC for the greater submarket area had been below 200 dwellings per annum, then the combined supply from Large Site 1 and Large Site 2 would also have been capped at that lower level.

Figure 18 – Worked example (using ‘dummy’ figures) of modelling the impact of competition on large sites in a particular year

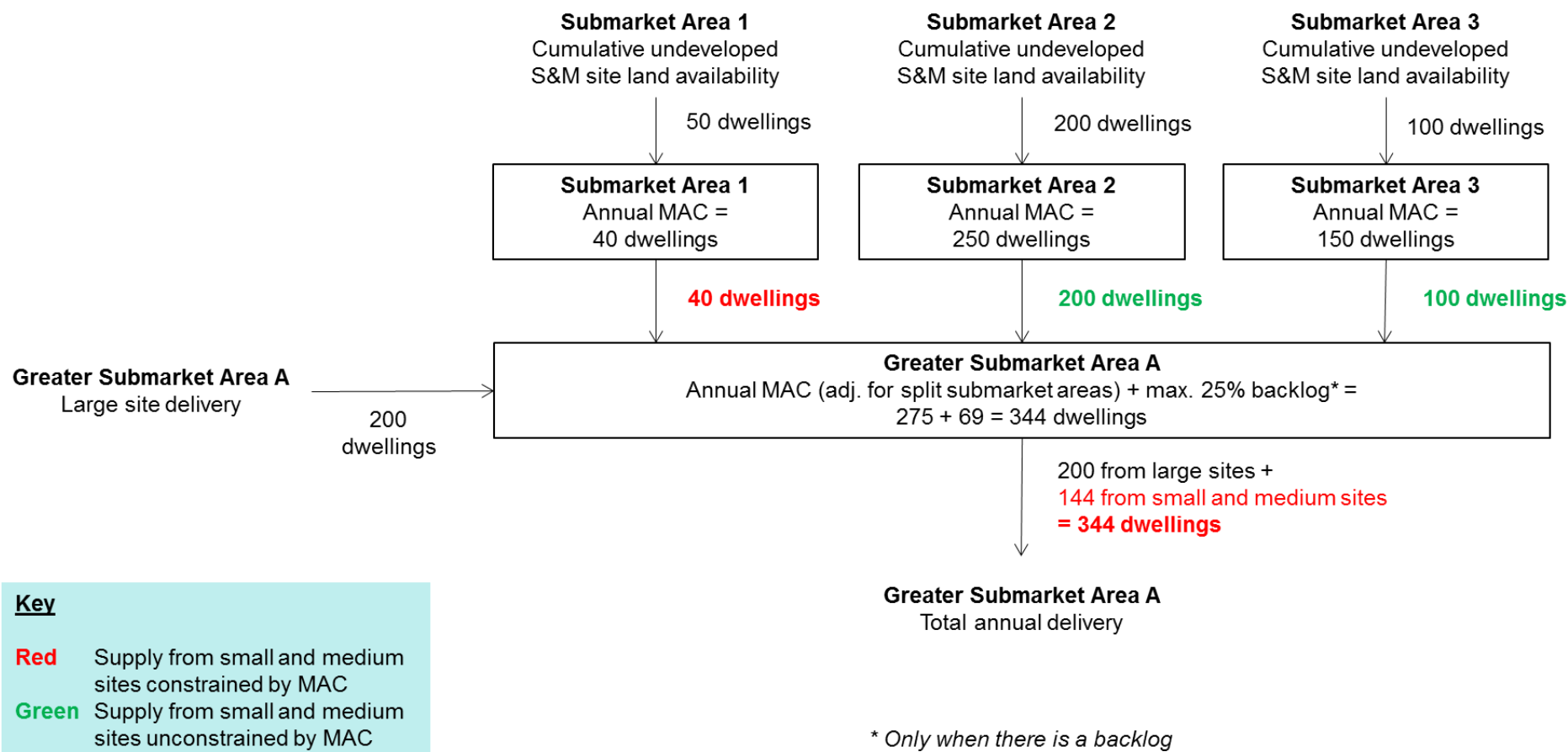


Key	
Red	Supply from large sites constrained by site maximum delivery rates / greater submarket area MAC
Green	Supply from large sites unconstrained by site maximum delivery rates / greater submarket area MAC

Small and medium sites

- 8.9 Our bespoke Microsoft Excel model was set up to make automated adjustments to the assumed housing delivery from small and medium sites. Any available undeveloped land was assumed to be developed only as fast as the Market Absorption Capacity in their submarket area would allow.
- 8.10 Due to the site economies of scale achievable on large sites, and the company economies of scale of the volume housebuilders that they tend to attract, we assumed that the small and medium sites would not compete fiercely for Market Absorption Capacity with large sites in their greater submarket area in any given year, in order to safeguard their expectations for return on investment. However, where Market Absorption Capacity remained after large site delivery, they would be able to compete without impacting prices. In essence, we have assumed that large sites “squeeze out” small and medium sites where there inadequate Market Absorption Capacity, but small and medium sites are able to be brought forward quickly to fill in demand “gaps”. This reflects the inherently more dynamic and responsive nature of smaller sites compared with large sites with long lead in times and more significant infrastructure requirements.
- 8.11 In addition, recognising that there may be a shortfall of delivery from previous years, we assumed that developers of small and medium sites would cater for this backlog of demand, ensuring that they chose sites significantly different in location and specification to delivery at large sites at that time. We assumed that the backlog would be cleared at a rate of one year of backlog taking four years to deliver.
- 8.12 These modelling assumptions for small sites are visualised in Figure 19 overleaf.

Figure 19 – Worked example (using ‘dummy’ figures) of modelling the impact of competition on small and medium sites in a particular year



Key findings

- 8.13 Assessing the impacts of market competition between sites was the final stage of our overarching methodology.
- 8.14 The key findings from our modelling, reflecting the assumptions from all of the stages, can be found in Chapter 10.

9. The Council's role

All scenarios

- 9.1 Across all four of the Council's scenarios, the planning and infrastructure lead-in time assumptions outlined in Chapter 4 assume that the Council is adequately resourced and works proactively to resolve the following critical dependencies:
- **Adopting a Local Plan that supports and promotes appropriate and sustainable development, by November 2019** – including allocation of adequate housing land
 - Working with Leicestershire County Council in its role as the local highways authority, to **fund and deliver transport infrastructure improvements necessary to support the delivery of housing sites allocated in the Local Plan** - including seeking funding from Department for Transport to address existing pinch points, and from the LEP to deliver housing and jobs growth, in addition to contributions from developers subject to viability
 - Working with Western Power Distribution to **increase electricity supply capacity around Loughborough**, in advance of that capacity becoming required for the occupation of new homes
 - **Determining planning applications** within a timely manner, to ensure that lead-in times are kept to a minimum
- 9.2 Further details on the critical strategic infrastructure dependencies can be found in Chapter 4, and Appendix C.
- 9.3 There are also a number of delivery risks that apply to all scenarios; these are outlined along with potential mitigation steps for the Council to consider in Chapter 12.

Scenario D - Local authority intervention to eliminate backlog of housing need earlier in Local Plan period

- 9.4 Scenario D assumes specific Council interventions beyond the general duties described for all scenarios above, in order to eliminate the backlog of housing need earlier in the Local Plan period than Scenarios A to C. These interventions are explored in detail as part of the analysis of Scenario D in Chapter 10.
- 9.5 Until the Borough's new Local Plan is adopted, its Objectively Assessed Need (OAN) remains based upon the current Charnwood Local Plan Core Strategy at 820 dwellings per annum. However, this report tests potential delivery against OAN of 994 dwellings per annum, based on the findings from the HEDNA.

- 9.6 Appendix F compares the housing delivery trajectories for each scenario against the cumulative backlog of housing need.

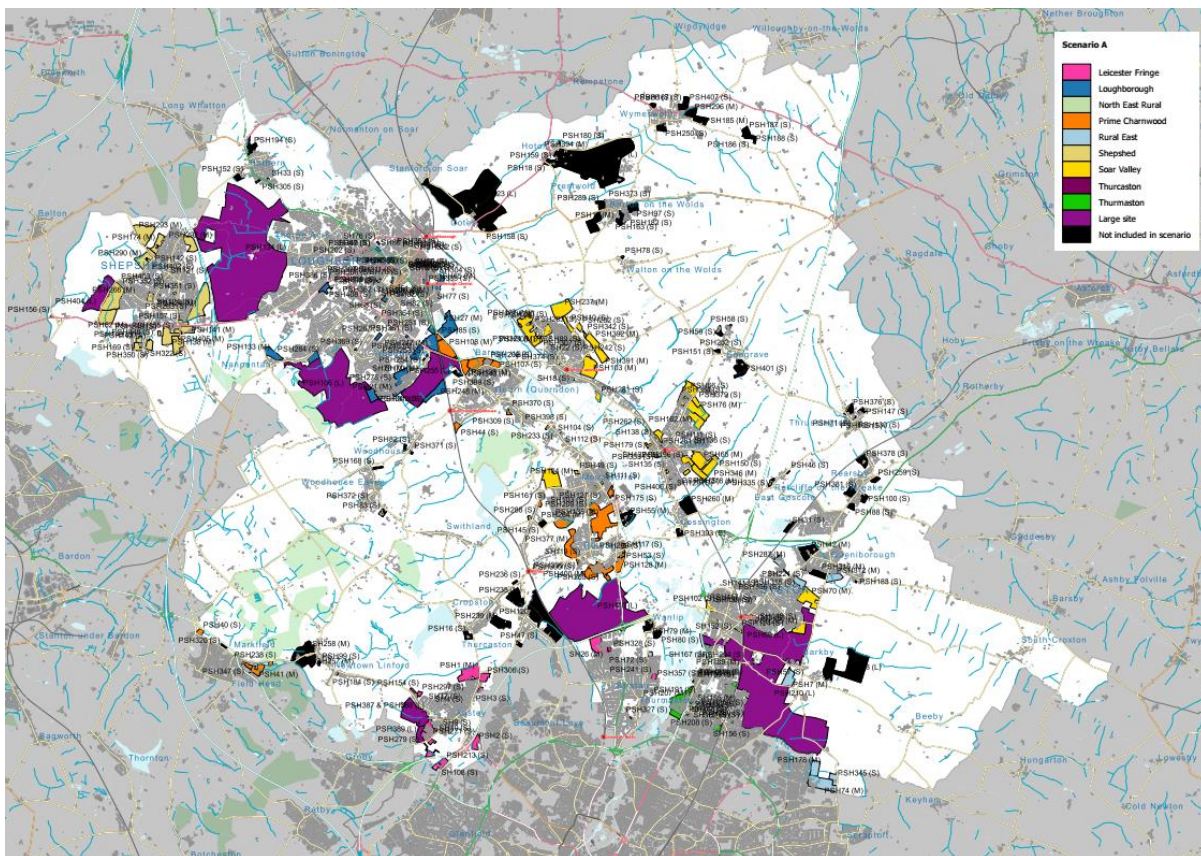
10. Housing delivery trajectories

Scenario A - Broad urban concentration strategy

Assumptions

- 10.1 Scenario A assumes the allocation of 234 small, medium and large sites from the SHLAA (plus micro sites) with an estimated capacity of 29,766 homes from 2017/18 within a broad urban concentration strategy. Figure 20 shows the nine large sites forming urban extensions to Loughborough, Leicester and Shepshed. The Soar Valley and Loughborough submarket areas each contribute approximately one quarter of the small and medium sites. The Thurcaston and North East Rural submarket areas contribute only one small site each, with the remaining half of small and medium sites distributed across the other five submarket areas. A full list of sites can be found at Appendix A.

Figure 20 – Map showing Scenario A sites



Source: © Crown copyright and database rights 2017 OS 100023558

Key findings

Borough-wide

- 10.2 As shown in Figure 21, the model estimates that 23,253 dwellings could be delivered from 2017/18 to 2035/36, meeting the Borough's need of 20,591 units, and providing a buffer of 12.9%.

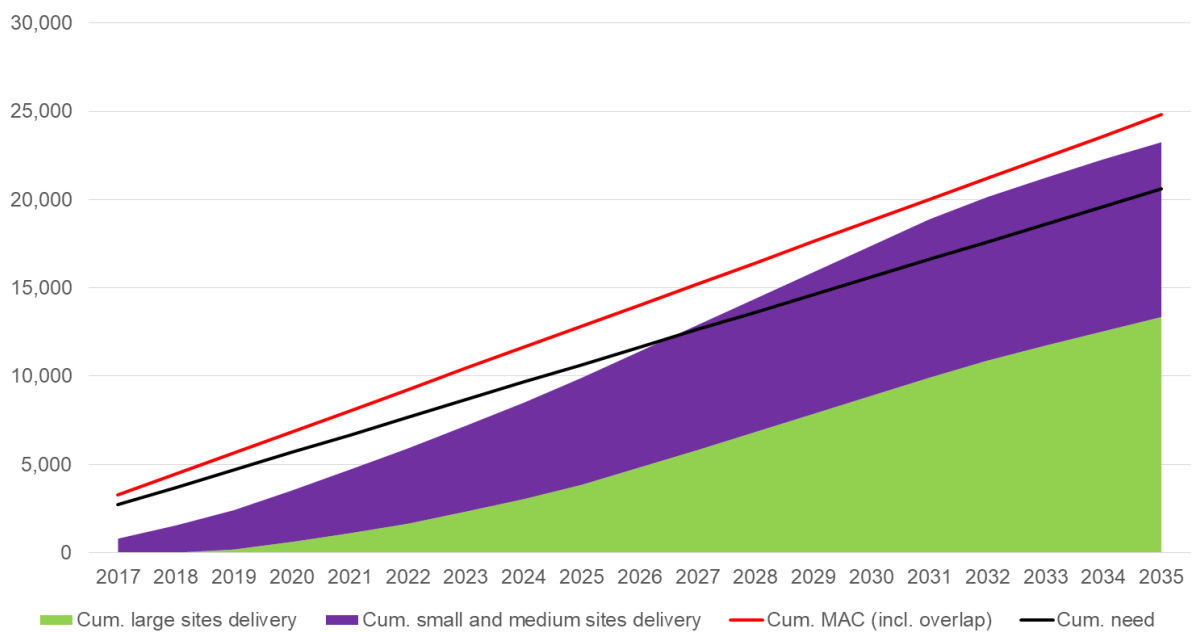
10.3 In Scenario A, the backlog of need is cleared in 2027/28. At the end of the Local Plan period, there remains undeveloped residential land capacity to deliver over 6,500 homes.

Figure 21: Headline outputs for Scenario A

Mix of sites	Total site capacity 2017/18 to 2035/36 (dwellings)	Estimated delivery to 2017/18 to 2035/36 (dwellings)	Clears backlog of need in	Peak delivery rate (number of dwellings and timing)	Residual site capacity beyond 2035/36 (dwellings)
9 large 54 medium 171 small TOTAL 234 Plus micro sites	29,766	23,253 Buffer: 12.9%	2027/28	1,497 in 2026/27	6,513

10.4 Figure 22 shows the estimated cumulative delivery trajectory across the Borough over the Local Plan period.

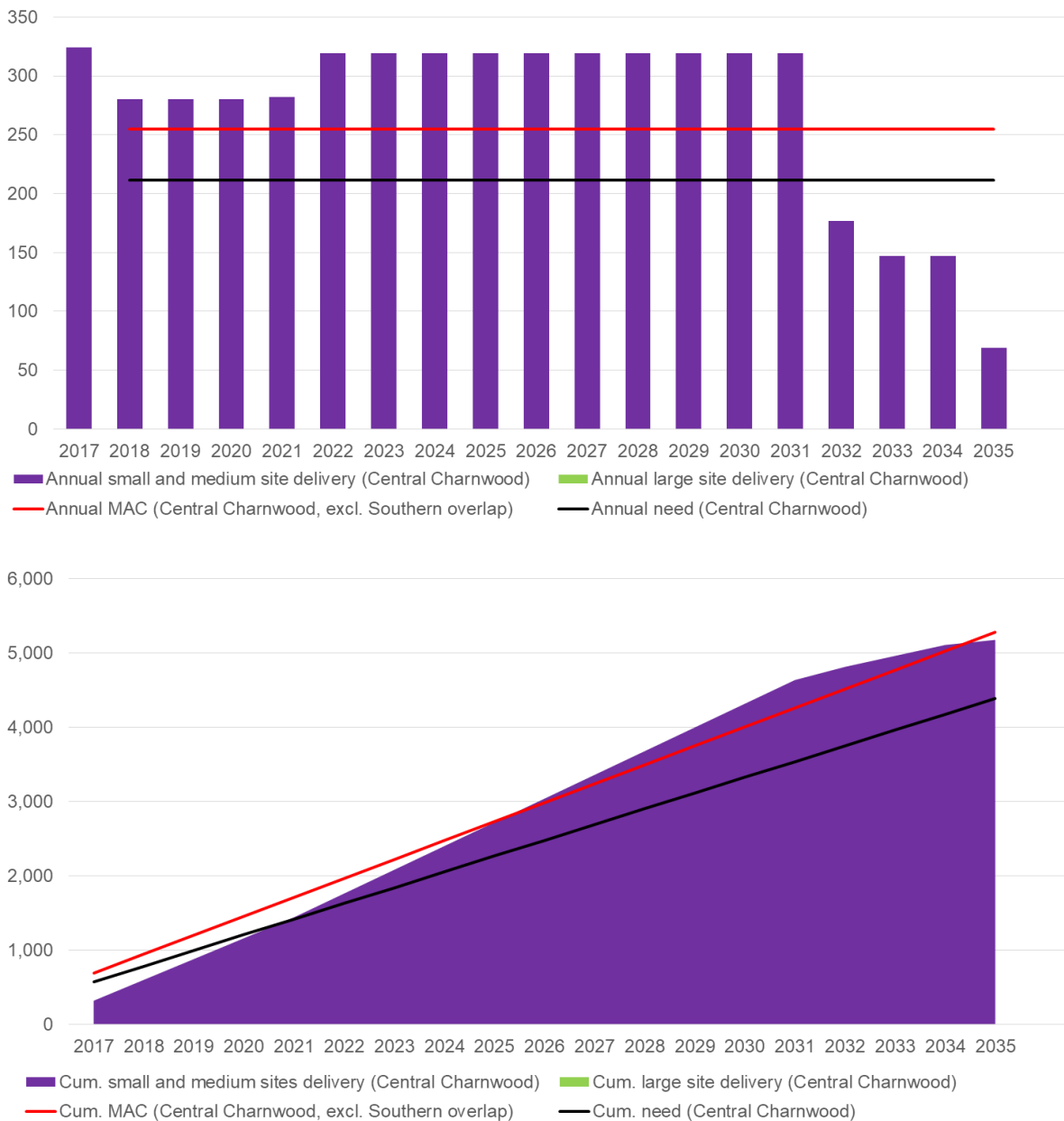
Figure 22 – Scenario A, Borough-wide cumulative delivery trajectory



Central Charnwood

- 10.5 In this study, 'Central Charnwood' comprises Prime Charnwood, Soar Valley and Rural East sub-market areas. No large sites are allocated in Central Charnwood; 100% of delivery is from small and medium sites.
- 10.6 The model estimates that in Scenario A, Central Charnwood provides enough available land to deliver 5,176 homes 2017/18 to 2035/36, meeting its housing need of 4,387 over the same period, with a buffer of 18.0%.
- 10.7 Emerging housing need is met from the first year, but the backlog of need is not cleared until 2021/22, and delivery peaks from 2022/23. In order to assess the potential buffer, the model does not cap cumulative delivery - and thus in Scenario A, Central Charnwood delivers at between 1.00 and 1.25 times annual MAC (the annual cap) from 2017/18 to 2032/33.

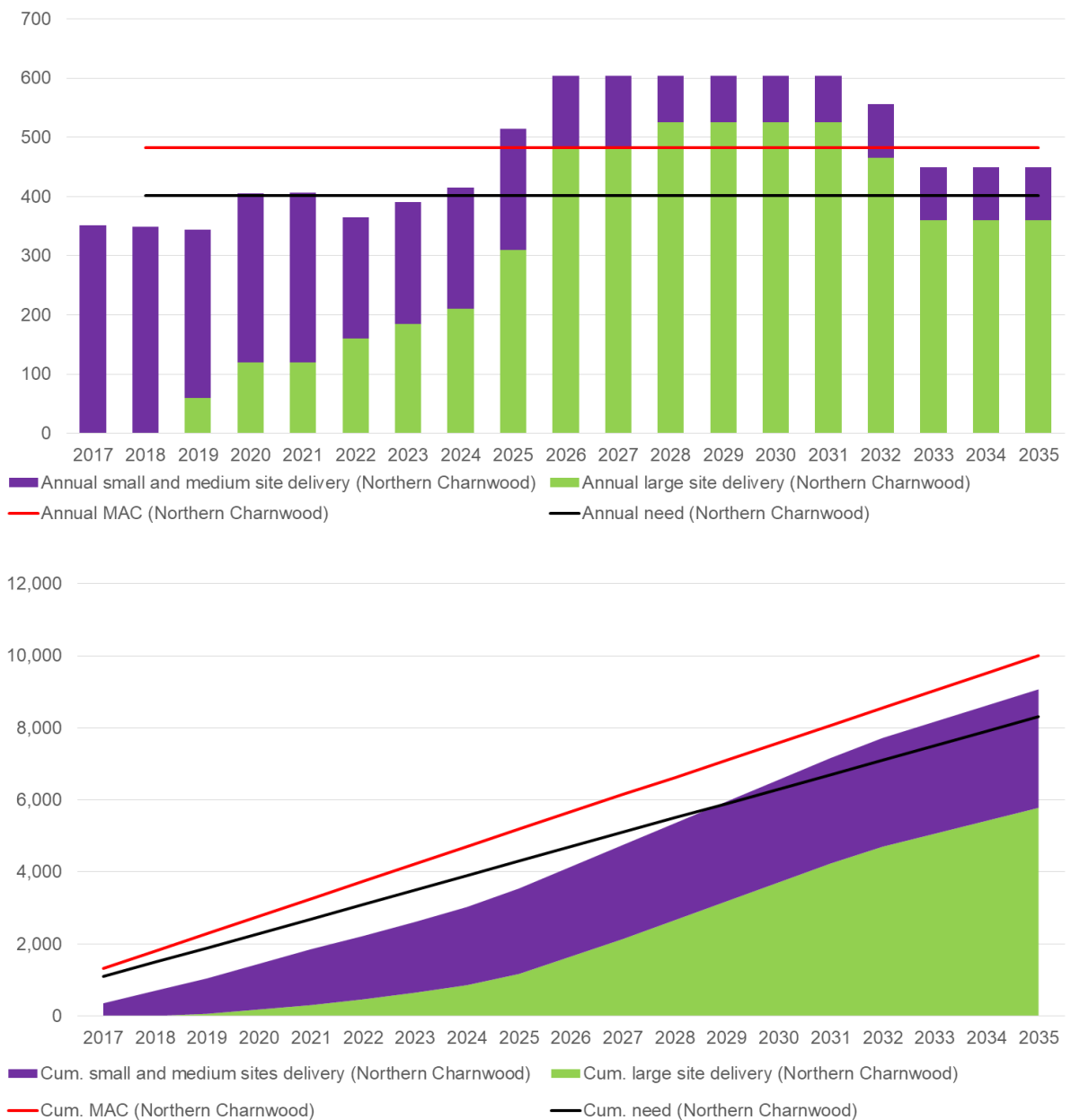
Figure 23 – Scenario A, Central Charnwood



Northern Charnwood

- 10.8 In this study, 'Northern Charnwood' comprises Loughborough, Shepshed and North East Rural sub-market areas. In Northern Charnwood, 64% of delivery is from large sites. Large sites begin to deliver housing completions in 2019/20, but housing delivery does not hit its peak until 2026/27 due to the lead in times for large sites that are not within the Core Strategy.
- 10.9 The model estimates that in Scenario A, Northern Charnwood provides enough available land to deliver 9,070 homes 2017/18 to 2035/36, meeting its housing need of 8,309 with a buffer of 9.2%. However, the backlog of need is not cleared until 2029/30.
- 10.10 There remains considerable land availability at the end of the Local Plan period, with over 2,100 units undeveloped at Nanpantan Grange and West of Loughborough SUE.

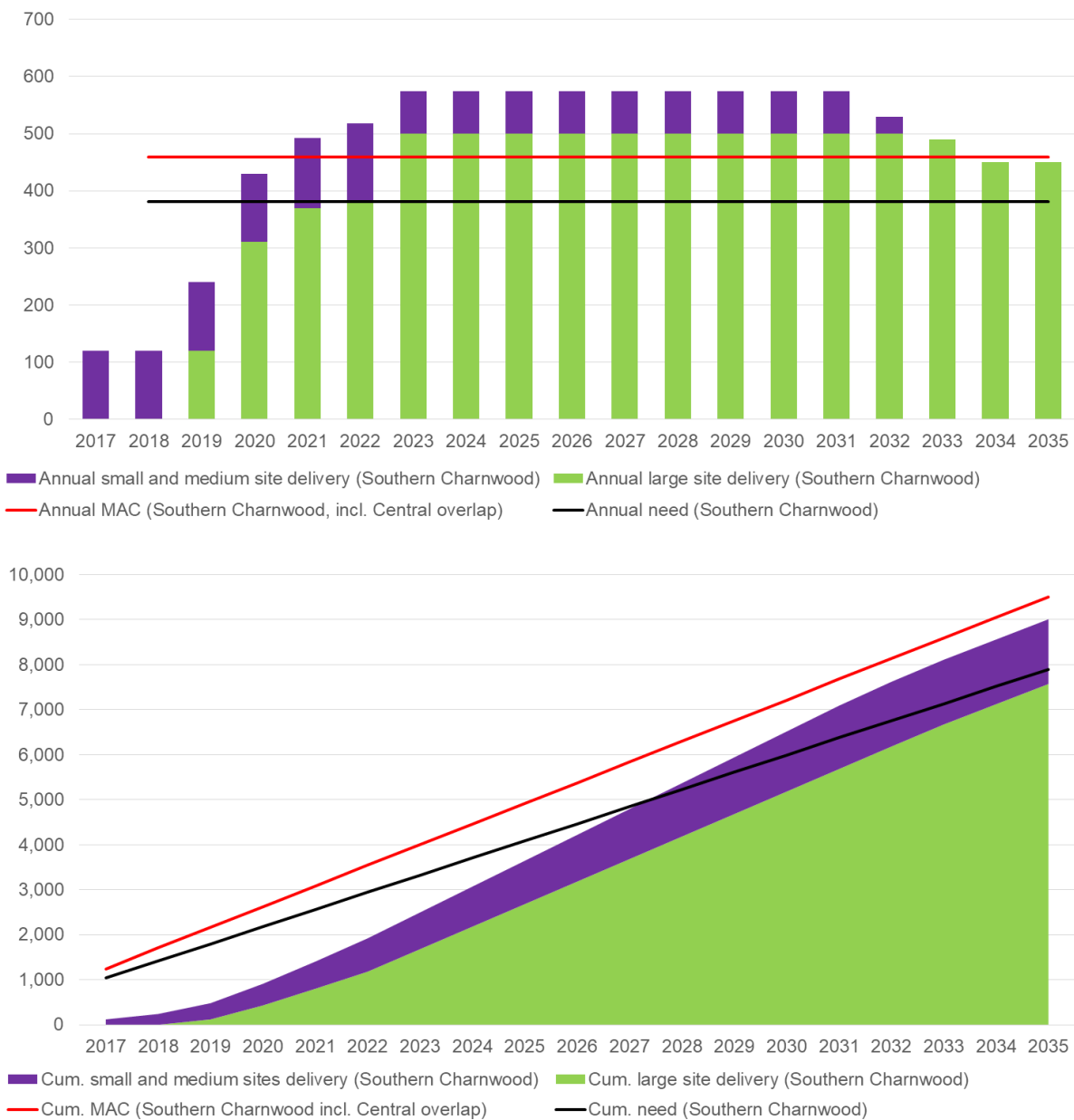
Figure 24 – Scenario A, Northern Charnwood



Southern Charnwood

- 10.11 In this study, 'Southern Charnwood' comprises Leicester Fringe, Thurmaston and Thurcaston sub-market areas.
- 10.12 In Southern Charnwood, 84% of delivery is from large sites. Large sites begin to deliver housing completions from 2019/20, with housing delivery peaking from 2023/24 to 2033/34, when four to five large sites are anticipated to be delivering in parallel.
- 10.13 The model estimates that in Scenario A, Southern Charnwood provides enough available land to deliver 9,007 homes 2017/18 to 2035/36, meeting its housing need of 7,896 with a buffer of 14.1%. The backlog of need is not cleared until 2028/29.
- 10.14 There remains considerable land availability at the end of the Local Plan period, with approximately 780 units undeveloped at the North East of Leicester SUE.

Figure 25 – Scenario A, Southern Charnwood

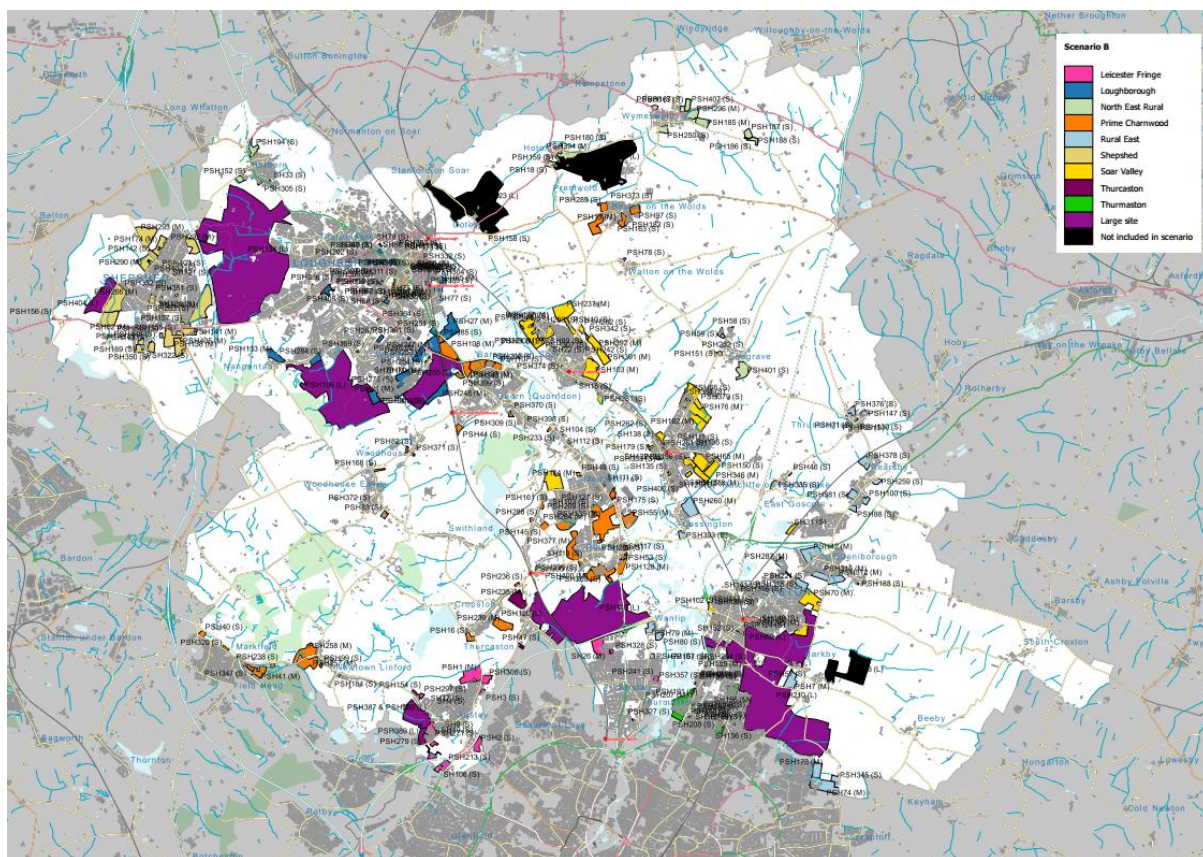


Scenario B - Dispersed strategy (excl. new standalone settlement)

Assumptions

- 10.15 Scenario B assumes the allocation of 304 small, medium and large sites (plus micro sites) from the SHLAA with an estimated capacity of 34,009 homes from 2017/18 within a dispersed development strategy excluding new standalone settlement. Figure 26 shows the 10 large sites forming urban extensions to Loughborough, Leicester and Shepshed. The Soar Valley, Loughborough, and Prime Charnwood submarket areas each contribute approximately one fifth of the small and medium sites. The Thurcaston submarket area contributes only three small and medium sites, with the remaining two-fifths of small and medium sites distributed across the other five submarket areas. A full list of sites can be found at Appendix A.

Figure 26 – Map showing Scenario B sites



Source: © Crown copyright and database rights 2017 OS 100023558

Key findings

Borough-wide

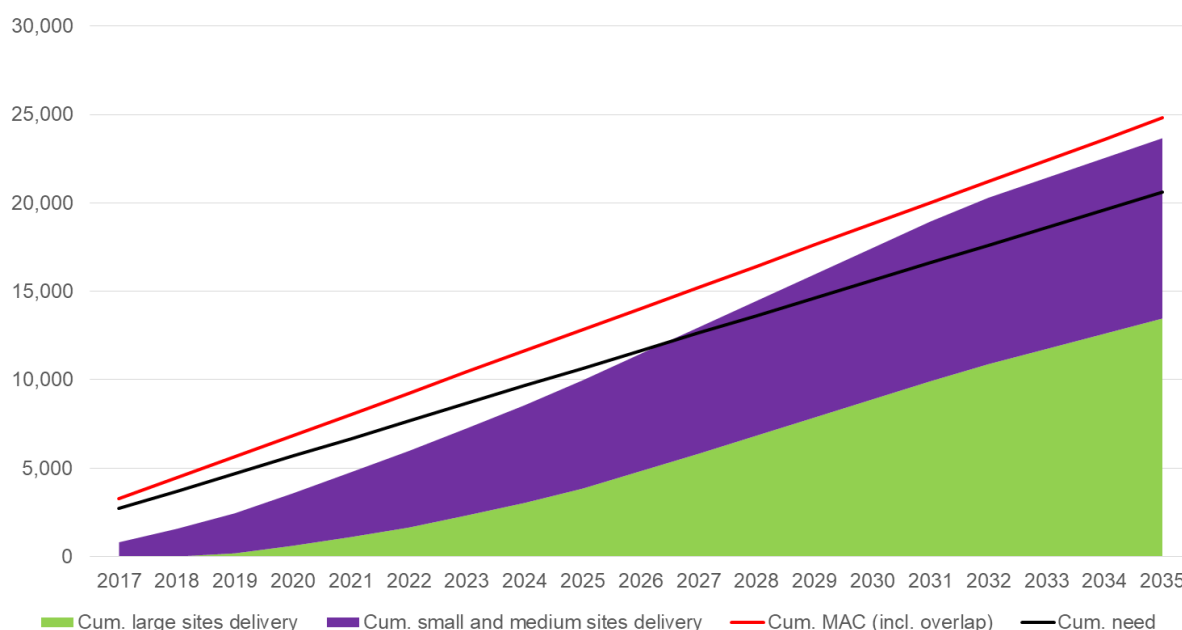
- 10.16 As shown in Figure 27, the model estimates that 23,791 dwellings could be delivered 2017/18 to 2035/36, meeting the Borough's need of 20,591 units, and providing a buffer of 15.5%.
- 10.17 In Scenario B, the backlog of need is cleared in 2027/28. At the end of the Local Plan period, there remains undeveloped residential land capacity to deliver over 10,200 homes.

Figure 27 – Headline outputs for Scenario B

Mix of sites	Total site capacity 2017/18 to 2035/36 (dwellings)	Estimated delivery to 2017/18 to 2035/36 (dwellings)	Clears backlog of need in	Peak delivery rate (number of dwellings and timing)	Residual site capacity beyond 2035/36 (dwellings)
10 large 67 medium 227 small TOTAL 304 Plus micro sites	34,009	23,791 Buffer: 15.5%	2027/28	1,497 in 2026/27	10,218

10.18 Figure 28 shows the estimated cumulative delivery trajectory across the Borough over the Local Plan period.

Figure 28 – Scenario B, Borough-wide cumulative delivery trajectory



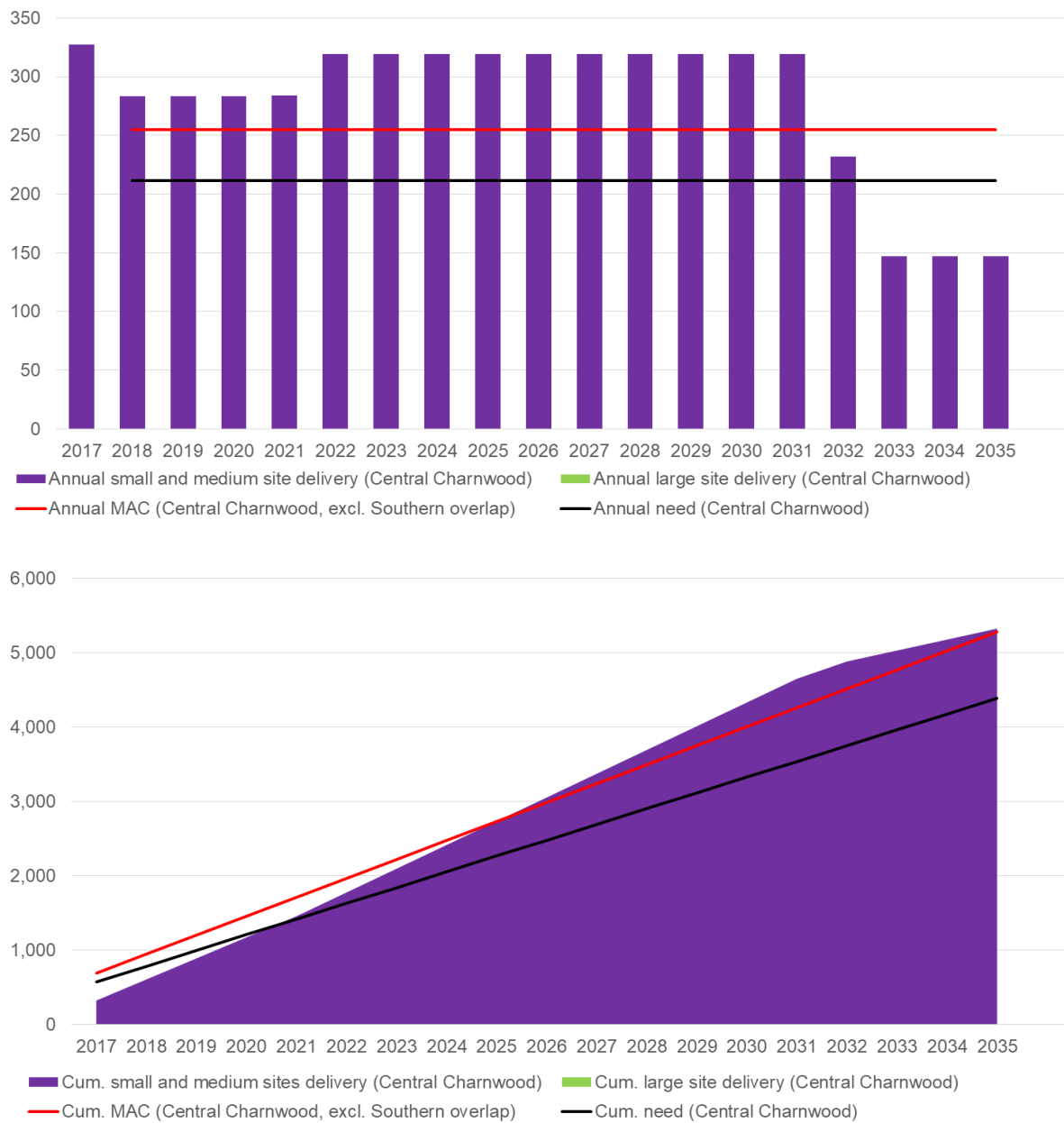
Central Charnwood

10.19 In this study, ‘Central Charnwood’ comprises the Prime Charnwood, Soar Valley and Rural East submarket areas. No large sites are allocated in Central Charnwood; 100% of delivery is from small and medium sites.

10.20 The model estimates that in Scenario B, Central Charnwood provides enough available land to deliver 5,323 homes 2017/18 to 2035/36, meeting its housing need of 4,387 with a buffer of 21.0%.

10.21 Emerging housing need is met from the first year, but the backlog of need is not cleared until 2021/22, and delivery then peaks from 2022/23 to 2031/32. In order to assess the potential buffer, the model does not cap cumulative delivery - and thus in Scenario B, Central Charnwood delivers at between 1.00 and 1.25 times annual MAC (the annual cap) from 2017/18 until 2031/32.

Figure 29 – Scenario B, Central Charnwood

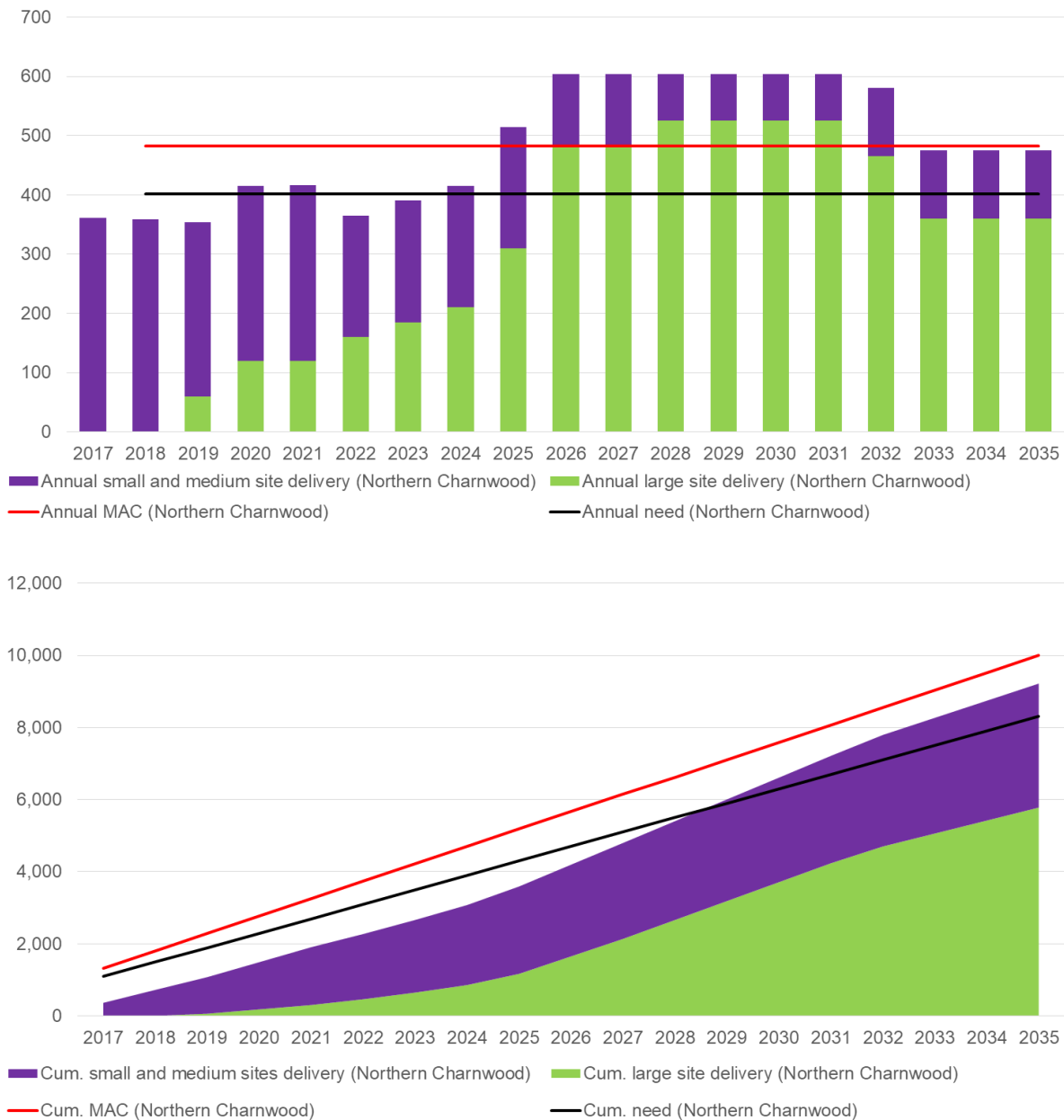


Northern Charnwood

- 10.22 In this study, ‘Northern Charnwood’ comprises Loughborough, Shepshed and North East Rural sub-market areas.
- 10.23 In Northern Charnwood, 63% of delivery is from large sites. Large sites begin to deliver housing completions in 2019/20, but housing delivery does not hit its peak until 2026/27 due to the lead in times for large sites that are not within the Core Strategy.
- 10.24 The model estimates that in Scenario B, Northern Charnwood provides enough available land to deliver 9,220 homes 2017/18 to 2035/36, meeting its housing need of 8,309 with a buffer of 11.0%.
- 10.25 Land availability is sufficient to meet emerging need on a sustainable basis from 2024/25, but the backlog of need is not cleared until 2029/30.

10.26 There remains considerable land availability at the end of the Local Plan period, including 2,100 units undeveloped at Nanpantan Grange and West of Loughborough SUE.

Figure 30 – Scenario B, Northern Charnwood



Southern Charnwood

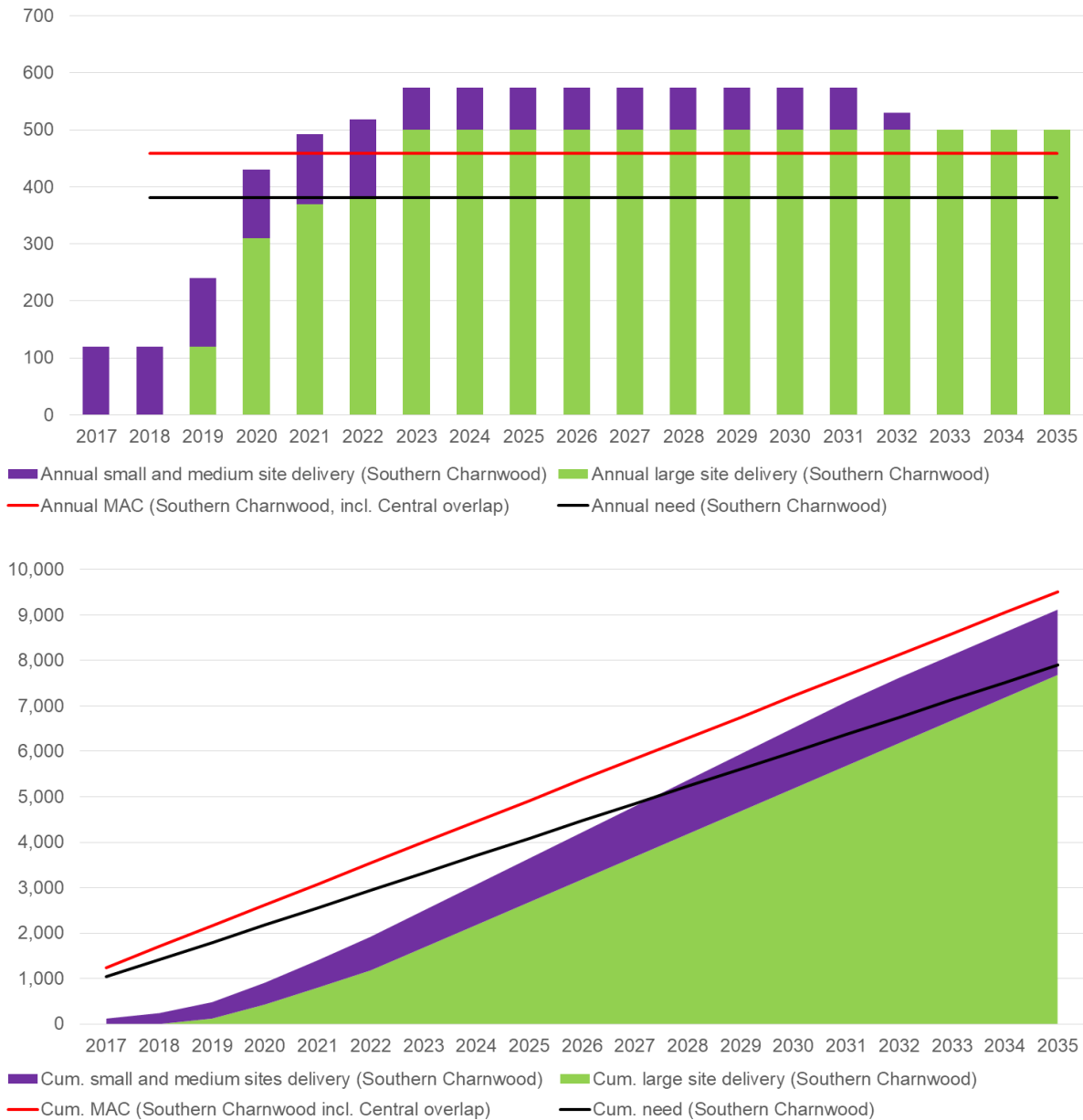
10.27 In this study, ‘Southern Charnwood’ comprises Leicester Fringe, Thurmaston and Thurcaston sub-market areas.

10.28 In Southern Charnwood, 84% of delivery is from large sites. Large sites begin to deliver housing completions from 2019/20, with housing delivery peaking from 2023/24 until 2031/32, during which up to six large sites are anticipated to be delivering in parallel.

10.29 The model estimates that in Scenario B, Southern Charnwood provides enough available land to deliver 9,117 homes 2017/18 to 2035/36, meeting its housing need of 7,896 with a buffer of 15.5%.

- 10.30 Land availability is sufficient to meet emerging need on a sustainable basis from 2020/21, but the backlog of need is not cleared until 2028/29.
- 10.31 There remains considerable land availability at the end of the Local Plan period, including over 1,200 units at the North East of Leicester SUE and Land South East of Syston.

Figure 31 – Scenario B, Southern Charnwood

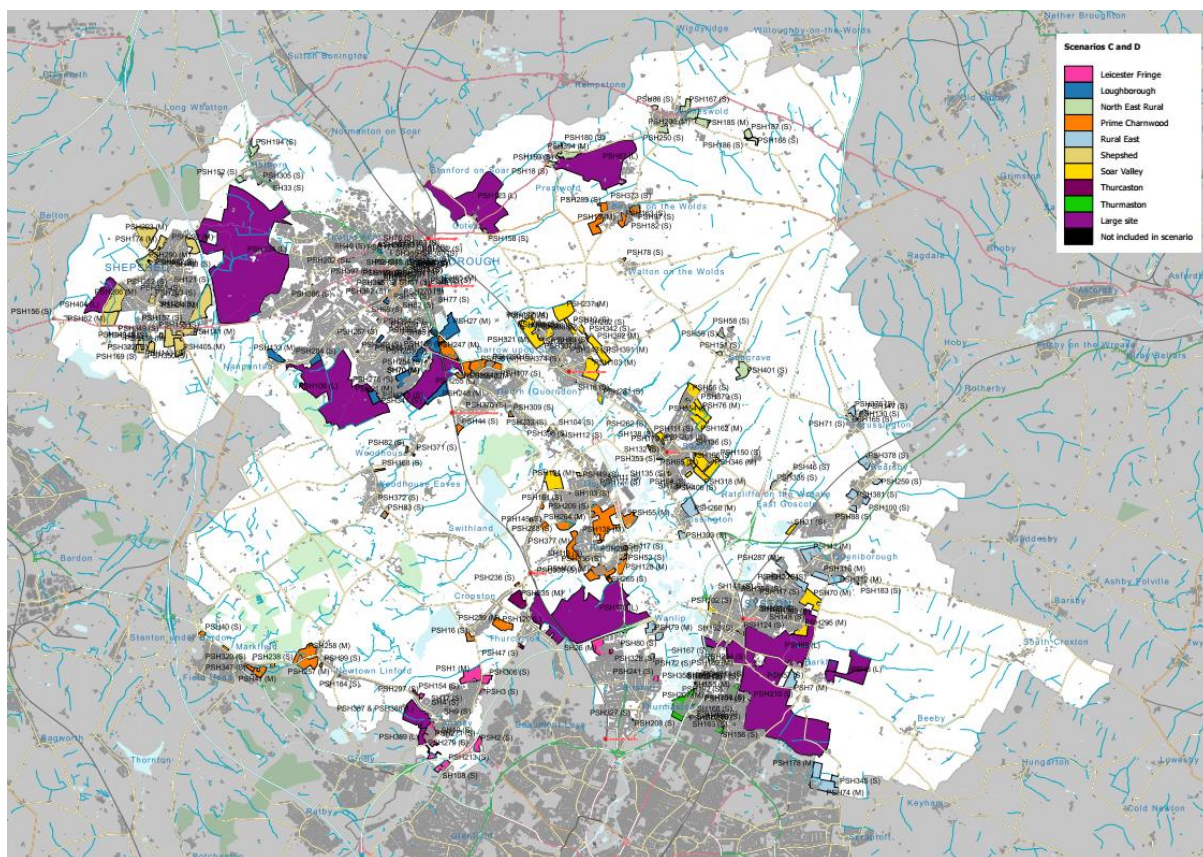


Scenario C - Dispersed strategy (incl. new standalone settlement)

Assumptions

10.32 Scenario C assumes the allocation of 308 small, medium and large sites (plus micro sites) from the SHLAA with a dispersed strategy, including the allocation of new standalone settlements. Figure 32 shows the 13 large sites forming urban extensions to Leicester, Loughborough, and Shepshed, plus; three 'new settlements' at Cotes, Wymesold, and Barkby. The Soar Valley, Loughborough, and Prime Charnwood submarket areas each contribute approximately one fifth of the small and medium sites. The Thurcaston submarket area contributes only three small and medium sites, with the remaining two-fifths of small and medium sites distributed across the other five submarket areas. A full list of sites can be found at Appendix A.

Figure 32 – Map showing Scenario C and D sites



Source: © Crown copyright and database rights 2017 OS 100023558

Key findings

Borough-wide

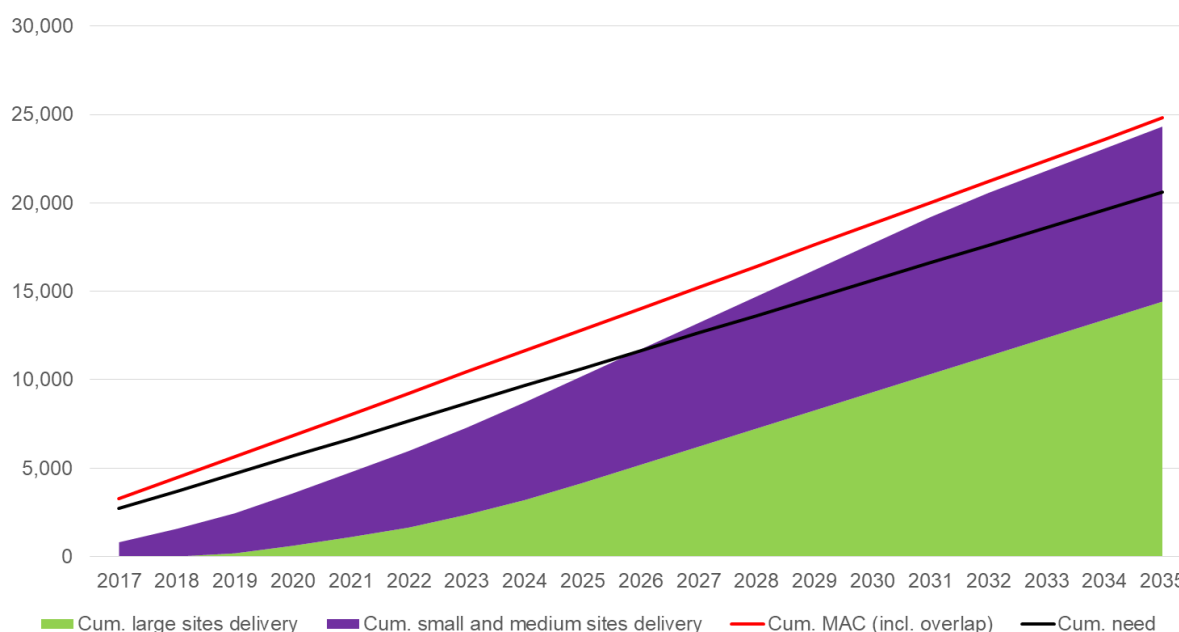
- 10.33 As shown in Figure 33, the model estimates that 24,319 dwellings could be delivered 2017/18 to 2035/36, meeting the Borough's need of 20,591 units, and providing a buffer of 18.1%.
- 10.34 In Scenario C, the backlog of need is cleared in 2026/27. At the end of the Local Plan period, there remains undeveloped residential land capacity to deliver over 12,100 homes.

Figure 33 – Headline outputs for Scenario C

Mix of sites	Total site capacity 2017/18 to 2035/36 (dwellings)	Estimated delivery to 2017/18 to 2035/36 (dwellings)	Clears backlog of need in	Peak delivery rate (number of dwellings and timing)	Residual site capacity beyond 2035/36 (dwellings)
13 large 67 medium 228 small TOTAL 308 Plus micro sites	36,471	24,319 Buffer: 18.1%	2026/27	1,497 in 2025/26	12,152

10.35 Figure 34 shows the estimated cumulative delivery trajectory across the Borough over the Local Plan period.

Figure 34 – Scenario C, Borough-wide cumulative delivery trajectory



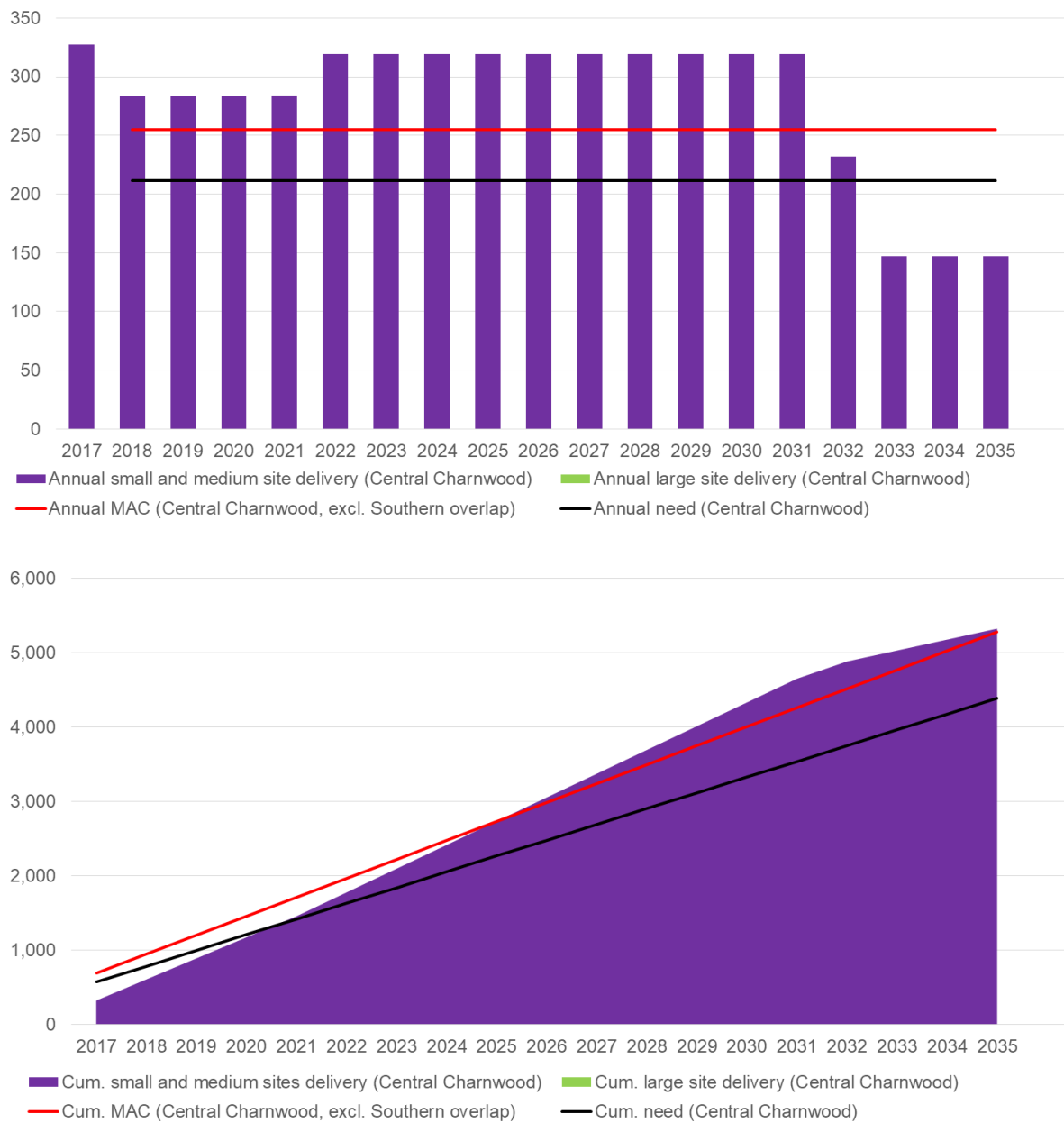
Central Charnwood

10.36 In this study, ‘Central Charnwood’ comprises the Prime Charnwood, Soar Valley and Rural East submarket areas. No large sites are allocated in Central Charnwood; 100% of delivery is from small and medium sites.

10.37 The model estimates that in Scenario C, Central Charnwood provides enough available land to deliver 5,323 homes 2017/18 to 2035/36, meeting its housing need of 4,387 with a buffer of 21.3%.

10.38 Emerging housing need is met from the first year, but the backlog of need is not cleared until 2021/22 (the same year as in Scenario B), and delivery peaks from 2022/23 to 2031/32. In order to assess the potential buffer, the model does not cap cumulative delivery - and thus in Scenario C, Central Charnwood delivers at between 1.00 and 1.25 times annual MAC (the annual cap) from 2017/18 until 2031/32.

Figure 35 – Scenario C, Central Charnwood

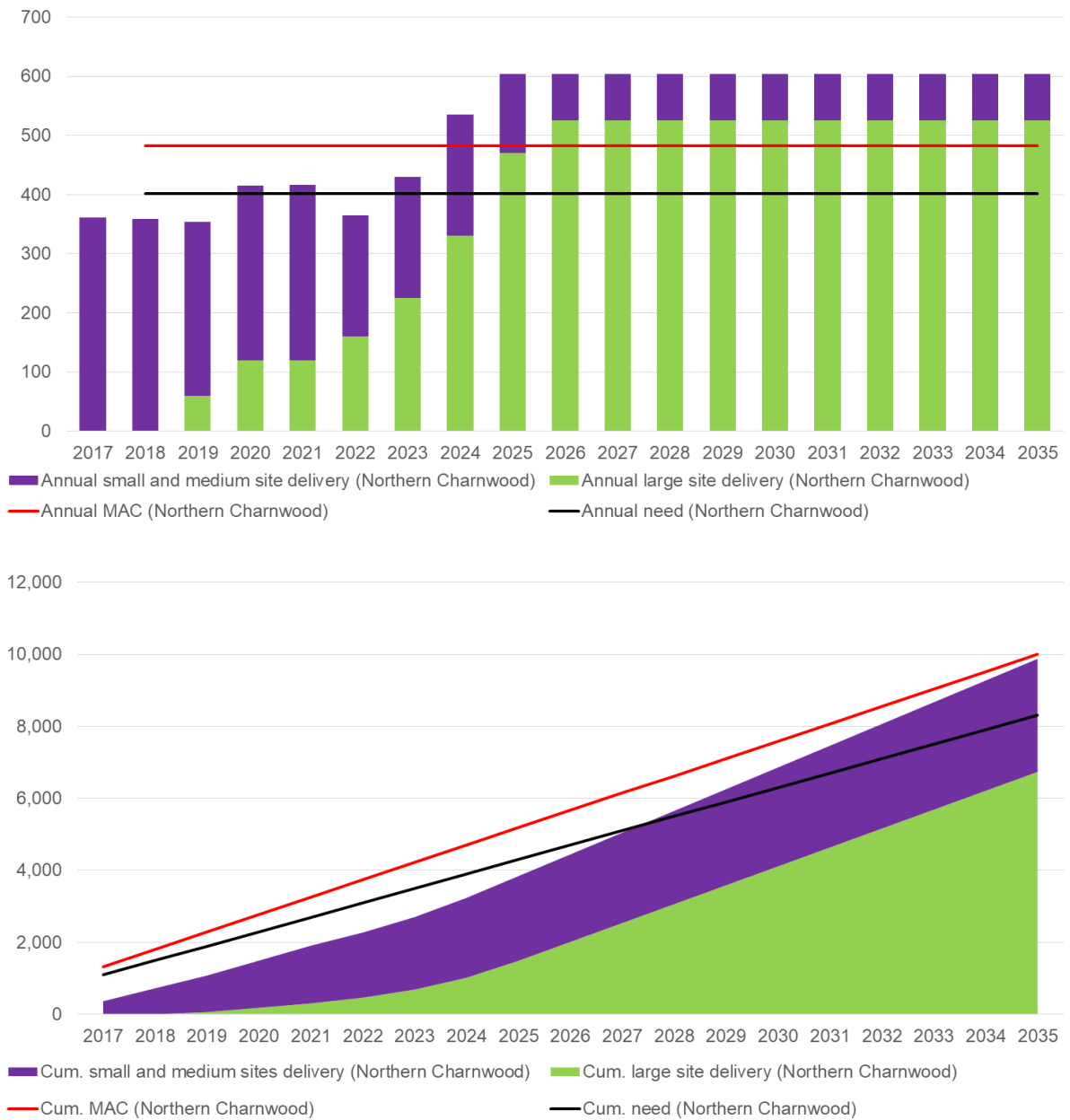


Northern Charnwood

- 10.39 In this study, 'Northern Charnwood' comprises the Loughborough, Shepshed and North East Rural submarket areas.
- 10.40 In Northern Charnwood, 68% of delivery is from large sites. Large sites begin to deliver housing completions in 2019/20, but housing delivery does not hit its peak until 2025/26 due to the lead in times for large sites that are not within the Core Strategy.
- 10.41 The model estimates that in Scenario C, Northern Charnwood provides enough available land to deliver 9,879 homes 2017/18 to 2035/36, meeting its housing need of 8,309 with a buffer of 18.9%.
- 10.42 However, land availability is not sufficient to meet emerging need on a sustainable basis until 2023/24, and the backlog of need is not cleared until 2028/29.

10.43 There remains considerable land availability at the end of the Local Plan period, with over 2,600 units undeveloped at Nanpantan Grange and West of Loughborough SUE.

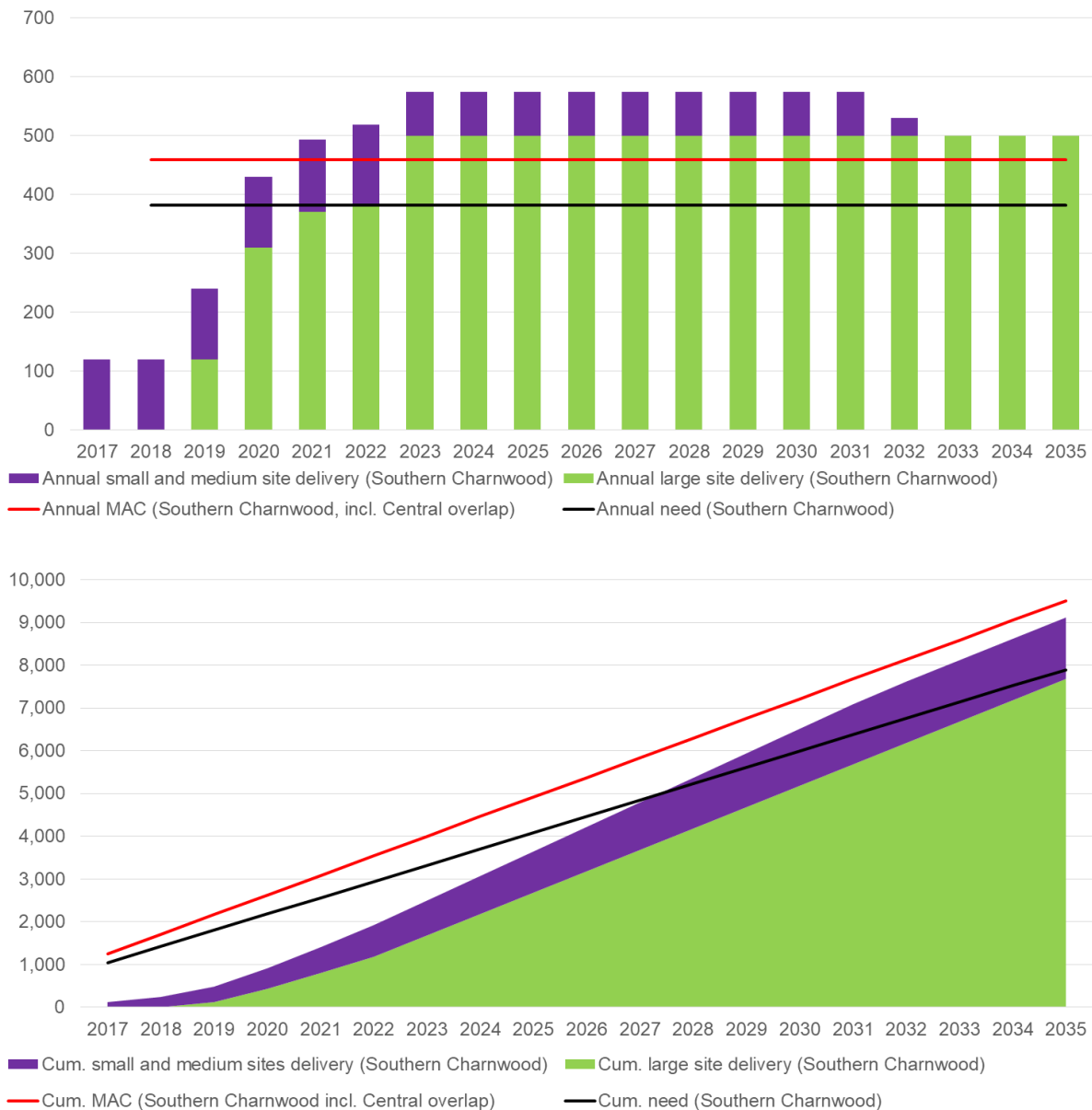
Figure 36 – Scenario C, Northern Charnwood



Southern Charnwood

- 10.44 In this study, 'Southern Charnwood' comprises Leicester Fringe, Thurmaston and Thurcaston sub-market areas.
- 10.45 In Southern Charnwood, 84% of delivery is from large sites. Large sites begin to deliver housing completions from 2019/20, with housing delivery peaking from 2023/24 until 2031/32, during which between four and seven large sites are anticipated to be delivering in parallel.
- 10.46 The model estimates that in Scenario C, Southern Charnwood provides enough available land to deliver 9,117 homes 2017/18 to 2035/36, meeting its housing need of 7,896 with a buffer of 18.9%.
- 10.47 Land availability is sufficient to meet emerging need on a sustainable basis from 2020/21, but the backlog of need is not cleared until 2028/29.
- 10.48 There remains considerable land availability at the end of the Local Plan period, including approximately 1,400 units at the North East of Leicester SUE.

Figure 37 – Scenario C, Southern Charnwood



Scenario D: Local authority intervention

Assumptions

- 10.49 Scenario D assumes the allocation within the Local Plan of the same 308 small, medium and large sites (plus micro sites) as Scenario C (see previous Figure 32).
- 10.50 We have assumed that Charnwood Borough Council will continue to provide an appropriate service that delivers the duties explored in Chapter 9. In addition, we have assumed that the Council will intervene in three ways **with the aim of eliminating the backlog of housing need earlier in the Local Plan period**.

Intervention 1: Encourage early pre-application discussions and planning applications from scheme promoters who may be waiting for a new Local Plan to reduce planning risk

- 10.51 This intervention involves Charnwood Borough Council proactively advising promoters of sites without planning permission on the prospects of compliance with the Core Strategy, or material considerations that may justify deviation from it, specifically where this would align with emerging Local Plan policy. It is important to point out that this potential intervention has been modelled as part of the exploration of options for housing delivery. Nothing in this work should be taken to convey permission for the sites or as a statement that any sites will feature in the Local Plan.
- 10.52 By taking a pro-active approach to engaging landowners and developers Charnwood Borough Council may be able to achieve two outcomes:
- Allow sites to begin to deliver earlier in the Local Plan period, making a material contribution towards eliminating the backlog of housing need, and;
 - Proactively exert influence over which land comes forward compared to costly planning appeals, to help ensure that delivery is more closely aligned with emerging Local Plan policy.
- 10.53 The current development strategy set by CS1 of the Charnwood Local Plan Core Strategy does provide an opportunity for development industry to explore the compatibility of new and previously unknown development proposals with the existing development plan. It is important to point out, however, that that the suitability of a site or sites / acceptability of a scheme or schemes in planning terms is outside the scope of this commission. All planning applications are, of course, to be considered on their own merits at the time of determination in accordance with the development plan unless material considerations indicate otherwise.
- 10.54 Any decision to encourage early pre-application discussions and applications must be managed appropriately. There is potential for some in the development industry or the community to perceive the planning process as lacking openness and transparency. As a result there is a risk for public confidence in the planning system. Any discussions to explore the prospects for early delivery with potential developers would have to be without prejudice to the outcome of the formal planning process. We recommend that the Council seeks specialist planning advice on such matters, as appropriate.
- 10.55 For the purposes of modelling Scenario D, we have assumed that Charnwood Borough Council is able to successfully work with promoters to secure early planning consents on a number of medium-sized sites across the Borough sufficient to accommodate a further 450 completions by 2021/22 and 900 completions by 2026/27, on land that the SHLAA presently shows as being delivered later in the plan period. This potential scale of intervention was derived by testing combinations of sites that align most closely with the current Core Strategy, whilst considering the scale of intervention required to ensure effective use of local authority resource, and allowing an appropriate contingency for sites that are later found to be unsuitable.

Intervention 2: Work with promoters of large sites that already have planning consent (or a planning application submitted) to accelerate delivery in early years

- 10.56 BBP Regeneration has assessed maximum delivery rates in excess of the delivery rates presently being proposed by the promoters of two large sites: Birstall Direction of Growth and West of Loughborough SUE. This intervention involves Charnwood Borough Council continuing to work with the landowners and developers of those two sites to encourage them to increase their proposed delivery rates in the early years of the Local Plan period.
- 10.57 In particular, the Council should seek to engage the promoters in a dialogue that recognises the potential for increased delivery rates prior to increased delivery emerging from other large sites allocated through the Local Plan process (as anticipated in all of the Delivery Scenarios we have tested). The Council should also continue to identify any known factors constraining delivery rates, and understand whether it can help to overcome these.
- 10.58 For the purposes of modelling Scenario D, we have assumed that Charnwood Borough Council is able to work with the promoters to secure an *additional* 150 completions beyond Scenario C from Birstall Direction of Growth by the end of 2022/23 and 400 completions from West Loughborough SUE by the end of 2024/25. It is assumed that additional completions would be secured as a result of a faster build out rate by the housebuilders, rather than by assumptions around a shorter lead-in time to when housing delivery starts.

Intervention 3: Encourage institutional Private Rented Sector (PRS) investment and direct Affordable Housing delivery by Registered Providers

- 10.59 Given market trends, we believe that there is a reasonable prospect of securing two alternative housing delivery mechanisms that appear to have featured very little in the Charnwood Housing market over recent years: institutional Private Rented Sector (PRS) investment and direct affordable housing delivery by Registered Providers – as set out in Boxes 1 and 2. The particular advantage of these mechanisms is that they not only bring in additional supply capacity, but by diversifying tenure they appeal to different consumers and reduce the market impact on private market housing delivery.
- 10.60 We have assumed that additional delivery on large sites funded through institutional PRS investment begins in 2020/21, with an initial tranche of 500 homes delivered over five years. We have not modelled any further tranches, although this model may be replicated throughout the Local Plan period.
- 10.61 The Council will need to promote the benefits of this intervention to promoters of large sites, to secure their engagement with the institutional PRS sector, such as: reduced sales risk due to bulk sale and the early establishment of a vibrant community; improved cash flow as a result of higher delivery rates in earlier phases, and; potential increases sales values as a result of the introduction of high quality housing stock and proactive management on site from an early phase⁹. Charnwood Borough Council may also play a key role in promoting the investment opportunity to PRS investors at a strategic level.
- 10.62 If the process of attracting interest from PRS investors takes too long, the benefits will diminish, as our modelling shows that housing land supply is adequate to meet housing need in the medium to long term. It is also possible that the large sites within the Borough do not currently meet the investment criteria of institutional PRS investors. In this case, the Council will need to take a view on whether there is any prospect of closing the gap between investor expectations and conditions across the large sites, although we note a reported increasing level of interest from PRS investors in family homes and in areas outside of major cities.
- 10.63 We have also assumed that the Council will encourage Registered Providers to acquire sites for direct affordable housing delivery from 2020/21 at a rate of 100 dpa up until at least 2024/25 (although, we would hope that once established this delivery mechanism could continue indefinitely).

⁹ Knight Frank (2014) The Rental Revolution

- 10.64 The Council should consider approaching Registered Providers and the Homes and Communities Agency to secure development interest and funding for affordable housing in an area of proven need. The Council may also wish to consider brokering introductions between landowners and Registered Providers, particularly targeting sites where there is limited developer interest due to the potential short term over-supply of housing land within a particular submarket area.
- 10.65 Our research found that Registered Providers typically prefer sites with housing capacity in the range of 10 to 100 units, and in order to maximise the additionality of this potential land release we would advise that the Council targets land in Central Charnwood where there is a potential over-supply of land for residential use on small and medium sized sites during the early part of the Local Plan period.
- 10.66 When combined, the two delivery mechanisms under Intervention 3 would see Charnwood Borough Council actively engaging to seek to secure an additional 1,000 homes by 2025/26.

Additionality

- 10.67 As with any public sector intervention to increase housing outputs within a given target area, it is important to distinguish between the gross impact, and the net additional impact – that is, the impact after making allowances for what would have happened in the absence of the intervention.
- 10.68 Comparing Scenarios C and D provides an estimate of deadweight – the level of outputs that would be delivered without the interventions assumed in Scenario D. However, the net additional outputs may also be reduced by: leakage outside of the target area (for example, increased inward migration from other local authorities); displacement of other housing delivery within the target area between firms (for example, one submarket area becoming relatively more attractive to consumers than another, slowing delivery elsewhere), or; substitution within firms (for example, a developer starting work on a site brought forward earlier, causing another site to be delayed). Conversely, there may be multiplier effects, where one site coming forward earlier increases land and property values on neighbouring sites such that they become more viable.
- 10.69 As highlighted in the HCA's Additionality Guide¹⁰ different types of intervention also have different levels of additionality.
- 10.70 In light of these factors, the Council may wish to consider additionality in greater detail when assessing the costs and benefits of particular interventions.

¹⁰ HCA (2014) Additionality Guide, Fourth Edition

Box 1: Institutional Private Rented Sector (PRS) investment

Around one in five households in England currently live in private rented accommodation – far lower than in Germany (three in five) and the US (one-third). The vast majority (87%) of private rented properties in the UK are currently owned by small landlords - with a portfolio of five or fewer units.

In 2011, the government set out its intention to encourage institutional investment into the PRS sector, as part of its wider housing strategy. Following the creation of a taskforce, the government created a £1bn Build-to-Rent fund for loans and equity investments, as well as offering a PRS Housing Guarantee Scheme for investments of £10m or more in new build properties to rent. Legal and General's PRS fund is now £600m, and the government is set to take a direct 10% equity stake in a new Real Estate Investment Trust (REIT) dedicated to PRS investment, with access to £450m of funding. As a result of such activity, the PRS sector is expected to make up one in four households by 2020, despite a fall in buy-to-let transactions in 2016 due to changes in tax reliefs and stamp duty.

PRS schemes generally comprise higher density development (typically apartments) of 100 units or more, located in city centres or close to transport hubs. Durability of fit out and quality of amenities are key investment criteria, and good customer service and proactive management influence investment performance.

The big advantage of PRS schemes in terms of housing delivery is that new homes can be delivered beyond the market absorption rates at which sales prices are affected – some sources find that build rates can be around three times faster than private for sale.

Leicester town centre is becoming an increasingly proven market for institutional PRS investment:

- In May 2017, £214m institutional PRS fund Long Harbour Income Fund invested in a 297-home build-to-rent development
- In December 2016, Aberdeen Asset Management bought a 232-unit standalone block of flats at a yield of 5.5%

PRS REIT has stated that it will target cities outside of London with good road and rail links. Your Housing Group, which operates a number of PRS schemes across the North West, has already invested in small clusters of houses within five minutes' drive of a city centre, railway station, or motorway junction.

Based on market trends, we believe that there is a reasonable prospect that institutional PRS investment could be attracted to some of the large sites around Leicester - and perhaps around Loughborough – as the market continues to develop.

Box 2: Direct development by Registered Providers

There are over a million people on Housing Registers across England - by definition, different households to those who are willing and able to buy or rent private housing. As such, Affordable Housing can be delivered at rates beyond the market absorption rates at which sales prices are affected. In 2015/16, Affordable Housing completions in England totalled 32,630, or 23% of total housing completions.

Registered Providers manage 61% of Affordable Housing stock, typically acquiring it through bulk stock transfers from local authority Housing Revenue Accounts, and bulk transfers from housebuilders under Section 106 obligations. Some also deliver affordable housing directly on land that they acquire themselves, or through partnerships with local authorities and landowners.

In May 2017, there were almost 1,800 Registered Providers in England, of which the vast majority (87%) were non-profit private companies (Housing Associations). Some Registered Providers are of institutional scale, and have ambitious development pipelines:

- Hyde Housing Association has a turnover of £200m, and plans to build 3,000 homes between 2018 and 2020. Since 2010, it has secured planning permission for social housing schemes outside of London ranging from 16 to 120 units.
- Clarion Housing Group's plans to build 50,000 homes over 10 years, and its predecessor Affinity Sutton had a turnover of £335m. Since 2010, Affinity Sutton secured planning permission for social housing schemes outside of London ranging from 10 to 50 units.
- Peabody Trust has a turnover of £150m, and its development pipeline includes plans to build 20,000 homes at Thamesmead in east London. Since 2010, it has secured planning permission for social housing schemes ranging from 17 to 171 units.

The Registered Provider market is also evolving:

- In January 2017, British Land REIT sought Registered Provider status for one of its subsidiaries, in order to manage the affordable housing that it develops.
- Cherwell District Council transferred its affordable housing stock to a Registered Provider in 2003. It has since set up a wholly owned Local Housing Company to deliver a mixture of affordable, self-build and market housing. This organisation itself has Registered Provider status, enabling it to secure affordable housing grant funding. Its development pipeline includes developments of 11, 18, and 42 homes.

Based on market trends, we believe that with the correct policy and funding support there is a reasonable prospect that Registered Providers could be attracted to directly deliver affordable housing on small and medium sites across Charnwood Borough, beyond those delivered through Section 106 obligations alone.

Charnwood Borough Council, which has retained its Affordable Housing stock, may also wish to consider options for undertaking affordable (and/or PRS) housing delivery either directly or with a development partner, leveraging its borrowing capacity to increase housing supply and provide a long term income stream for the Council. This is an increasingly popular initiative being explored by Local Authorities across England in light of housing need and revenue funding constraints.

Key findings

Borough-wide

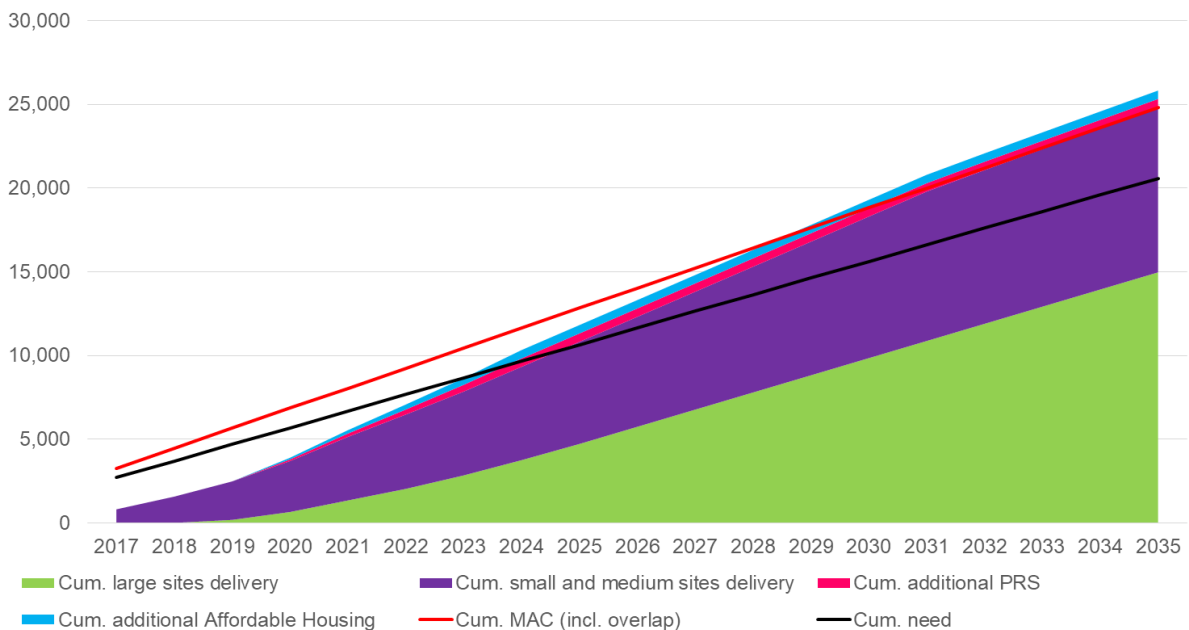
- 10.71 As shown in Figure 38, the model estimates that 25,826 dwellings could be delivered 2017/18 to 2035/36, meeting the Borough’s need of 20,591 units with a buffer of 25.4%.
- 10.72 In Scenario D, the backlog of need is cleared in 2024/25 (two years earlier than Scenario C). At the end of the Local Plan period, there remains undeveloped residential land capacity to deliver over 10,600 homes.

Figure 38 – Headline outputs for Scenario D

Mix of sites	Total site capacity 2017/18 to 2035/36 (dwellings)	Estimated delivery to 2017/18 to 2035/36 (dwellings)	Clears backlog of need in	Peak delivery rate (number of dwellings and timing)	Residual site capacity beyond 2035/36 (dwellings)
13 large 67 medium 228 small TOTAL 308 Plus micro sites	36,471	25,826 Buffer: 25.4%	2024/25	1,679 in 2024/25 (aided by additional PRS and affordable housing delivery)	10,645

- 10.73 Figure 39 shows the estimated cumulative delivery trajectory across the Borough over the Local Plan period.

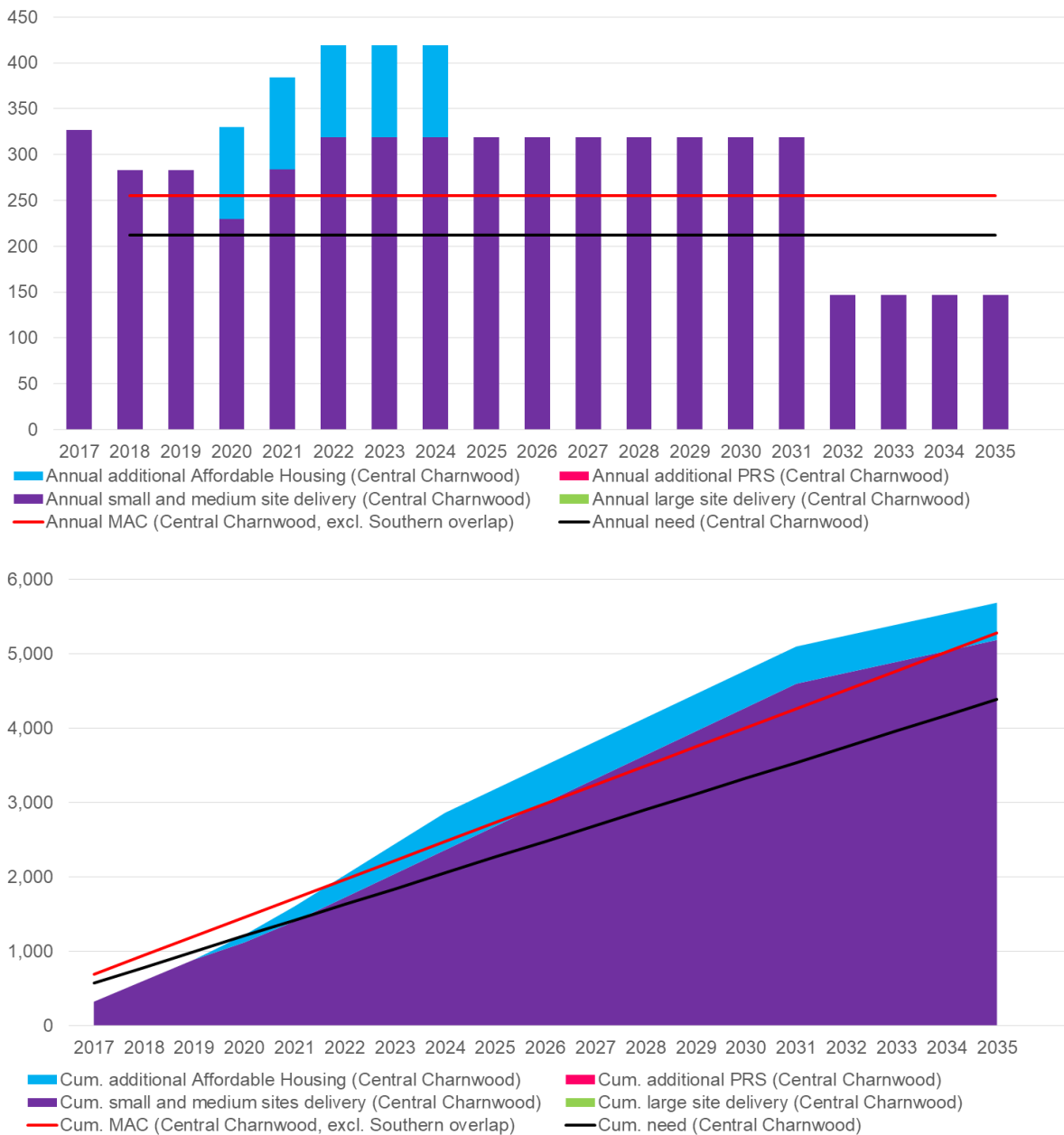
Figure 39 – Scenario D, Borough-wide cumulative delivery trajectory



Central Charnwood

- 10.74 In this study, 'Central Charnwood' comprises Prime Charnwood, Soar Valley and Rural East sub-market areas. No large sites are allocated in Central Charnwood; 100% of delivery is from small and medium sites.
- 10.75 The model estimates that in Scenario D, Central Charnwood is capable of delivering 5,685 homes meeting its housing need of 4,387 2017/18 to 2035/36, with a buffer of 29.6%.
- 10.76 Emerging housing need is met from the first year, but the backlog of need is not cleared until 2020/21, and delivery peaks from 2022/23 to 2024/25, aided by the assumed affordable housing delivery intervention. In order to assess the potential buffer, the model does not cap cumulative delivery - and thus in Scenario D, Central Charnwood delivers at between 1.00 and 1.25 times annual MAC (the annual cap) from 2017/18 until 2031/32.

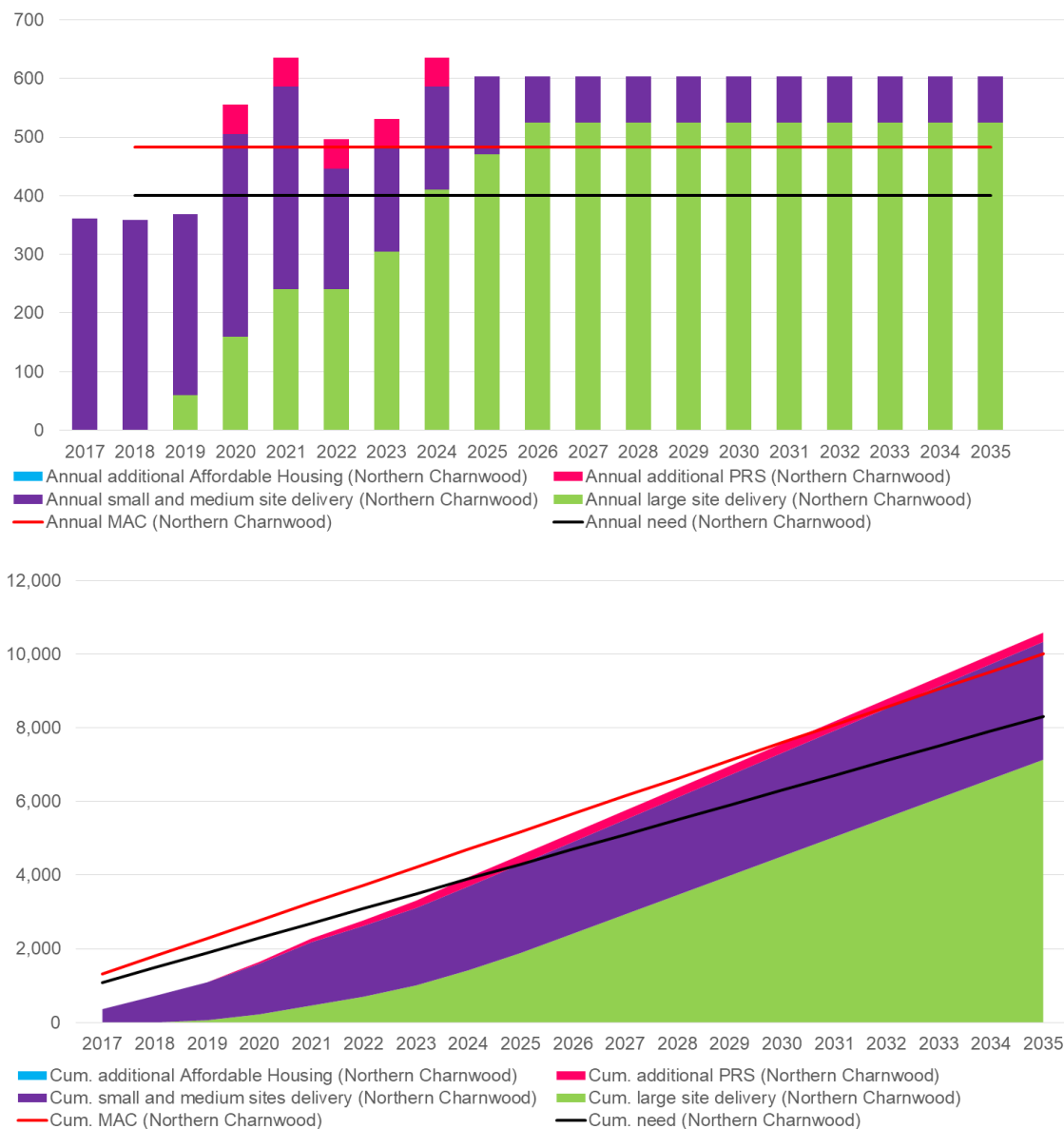
Figure 40 – Scenario D, Central Charnwood



Northern Charnwood

- 10.77 In this study, 'Northern Charnwood' comprises Loughborough, Shepshed and North East Rural sub-market areas.
- 10.78 In Northern Charnwood, 70% of delivery is from large sites, a slightly higher percentage than Scenario C due to the additional private sale and rented units delivered on large sites through public sector intervention. Large sites begin to deliver housing completions in 2019/20, and additional housing delivery on large sites funded through institutional PRS investment begins in 2020/21. Housing delivery peaks in 2024/25.
- 10.79 The model estimates that in Scenario D, Northern Charnwood is capable of delivering 10,587 homes 2017/18 to 2035/36, meeting its housing need of 8,309 with a buffer of 27.4%.
- 10.80 Land availability is sufficient to meet emerging need on a sustainable basis from 2020/21, but the backlog of need is not cleared until 2024/25; this is, however, some four years earlier than Scenario C.
- 10.81 There remains considerable land availability at the end of the Local Plan period, including almost 2,000 units undeveloped at Nanpantan Grange.

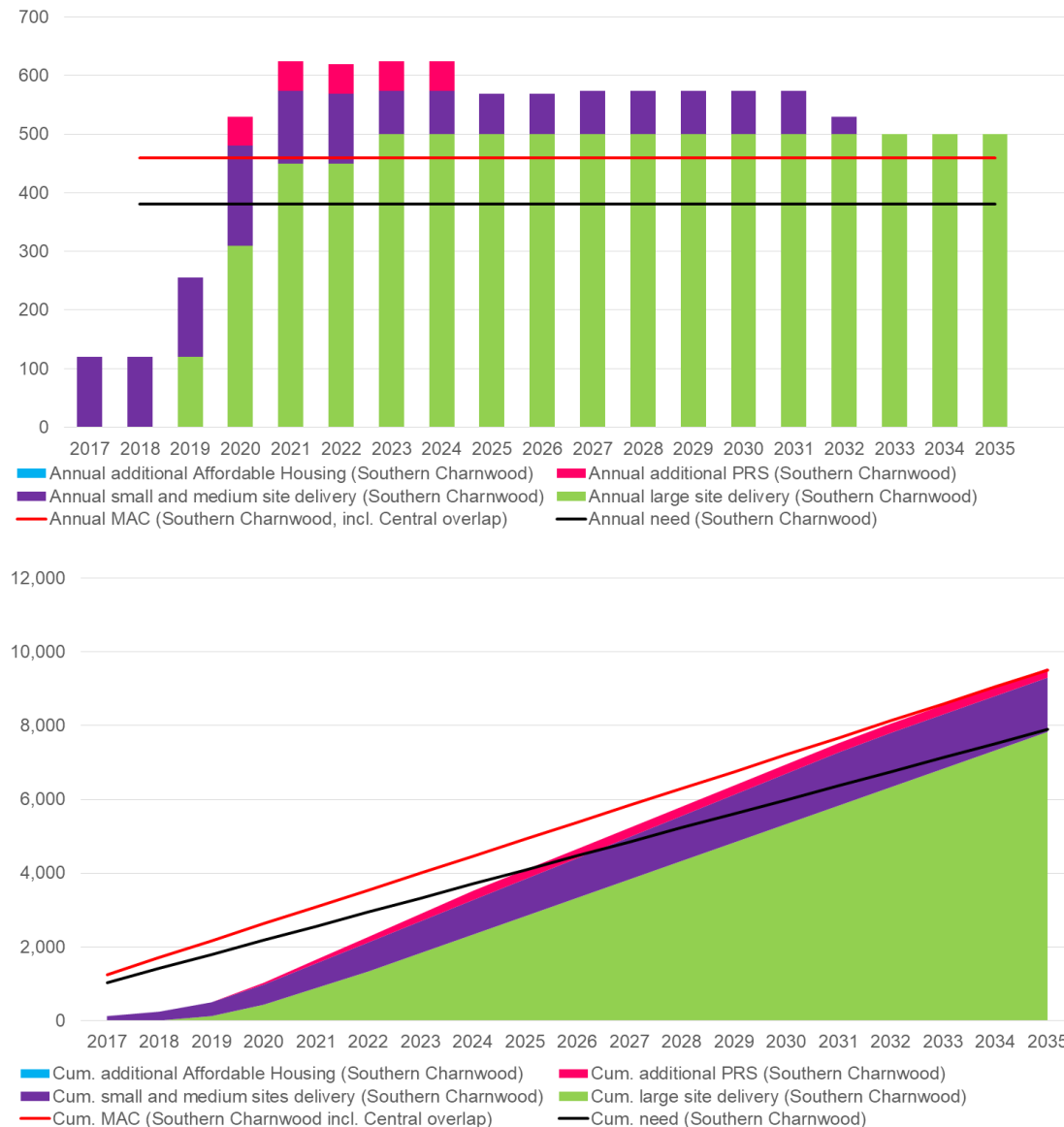
Figure 41 – Scenario D, Northern Charnwood



Southern Charnwood

- 10.82 In this study, 'Southern Charnwood' comprises Leicester Fringe, Thurmaston and Thurcaston sub-market areas.
- 10.83 In Southern Charnwood, 85% of delivery is from large sites, a slightly higher percentage than in Scenario C, due to the additional private sale and rented units delivered through public sector intervention. Large sites begin to deliver housing completions in 2019/20, and additional housing delivery on large sites funded through institutional PRS investment begins in 2020/21. Housing delivery peaks from 2021/22 to 2024/25, aided by the PRS delivery intervention.
- 10.84 The model estimates that in Scenario D, Southern Charnwood is capable of delivering 9,554 homes 2017/18 to 2035/36, meeting its housing need of 7,896 with a buffer of 21.0%.
- 10.85 Land availability is sufficient to meet emerging need on a sustainable basis from 2020/21, but the backlog of need is not cleared until 2025/26; this is, however, some three years earlier than Scenario C.
- 10.86 There remains considerable land availability at the end of the Local Plan period, including over 1,100 units undeveloped at the North East of Leicester SUE.

Figure 42 – Scenario D, Southern Charnwood



11. Summary of outputs

Eliminating the backlog of housing need

- 11.1 Our modelling shows that all four scenarios allocate enough land to meet the Borough's residual OAN of 20,591 over the period 2017/18 to 2035/36, with the following buffers:
- Scenario A: 12.9% buffer
 - Scenario B: 15.5% buffer
 - Scenario C: 18.1% buffer
 - Scenario D: 25.4% buffer
- 11.2 The scenarios clear the backlog of need in the following years:
- Scenario A: Clears backlog of need in 2027/28
 - Scenario B: Clears backlog of need in 2027/28
 - Scenario C: Clears backlog of need in 2026/27
 - Scenario D: Clears backlog of need in 2024/25

Housing completions on a rolling five-year basis

- 11.3 Our analysis also considers housing completions on a rolling five-year basis, although it is important to note that our methodology goes beyond the assessment of a five-year housing land supply, by considering the impact of competition between large sites and overall Market Absorption Capacity (MAC).
- 11.4 The percentage buffer above cumulative housing need is an output from our methodology, rather than a fixed input as in the housing land supply methodology (e.g. 5% or 20%, as per the National Planning Policy Framework).
- 11.5 In addition, until the Borough's new Local Plan is adopted, its Objectively Assessed Need (OAN) remains based upon the current Charnwood Local Plan Core Strategy at 820 dwellings per annum. However, this report tests potential delivery against OAN of 994 dwellings per annum, based on the findings from the HEDNA.
- 11.6 The full outputs from our analysis are available at Appendix F, with the following headlines:
- Scenario A: Five-year forecast housing completions provides 5% buffer above five-year OAN in 2023/24; 20% buffer achieved in 2025/26
 - Scenario B: Five-year forecast housing completions provides 5% buffer above five-year OAN in 2023/24; 20% buffer achieved in 2025/26
 - Scenario C: Five-year forecast housing completions provides 5% buffer above five-year OAN in 2023/24; 20% buffer achieved in 2024/25
 - Scenario D: Five-year forecast housing completions provides 5% buffer above five-year OAN in 2020/21; 20% buffer achieved in 2021/22
- 11.7 Across the four scenarios, at the end of the Local Plan period, there remains undeveloped residential land capacity to deliver between 6,500 and 12,200 homes.
- 11.8 Figure 43 below provides a headline comparison of the four scenarios.

Figure 43 - Headline comparison of scenarios

Scenario	Mix of sites	Total site capacity 2017/18 to 2035/36 (dwellings)	Estimated delivery to 2017/18 to 2035/36 (dwellings)	Clears backlog of need in	Peak delivery rate (number of dwellings and timing)	Residual site capacity beyond 2035/36 (dwellings)
A: Broad urban concentration strategy	9 large 54 medium 171 small TOTAL 234 Plus micro sites	29,766	23,253 Buffer: 12.9%	2027/28	1,497 in 2026/27	6,513
B: Dispersed strategy (excl. new standalone settlement)	10 large 67 medium 227 small TOTAL 304 Plus micro sites	34,009	23,791 Buffer: 15.5%	2027/28	1,497 in 2026/27	10,218
C: Dispersed strategy (incl. new standalone settlement)	13 large 67 medium 228 small TOTAL 308 Plus micro sites	36,471	24,319 Buffer: 18.1%	2026/27	1,497 in 2025/26	12,152
D: Enhanced local authority intervention to achieve adequate five-year housing land supply earlier in Local Plan Period	13 large 67 medium 228 small TOTAL 308 Plus micro sites	36,471	25,826 Buffer: 25.4%	2024/25	1,679 in 2024/25 (aided by additional PRS and affordable housing delivery)	10,645

12. Delivery risks and potential mitigation

- 12.1 The peak housing delivery rates predicted in the scenarios of around 1,500 to 1,700 units per annum are unprecedented in the Borough and significantly beyond the relatively high 900 completions achieved in 2016/17. It is possible that some aspects of the supply chain may constrain housing supply from reaching these rates, particularly over the shorter term - although we have not been made aware of any such factors through our consultations, beyond those noted elsewhere in this report.
- 12.2 However, it is also important to note that historic delivery rates have been achieved without the contribution of any large sites. Our modelling assumes that with between nine and 13 large sites delivering an additional 1,025 units per annum at their peak, delivery rates from small and medium sites would remain between approximately 400 and 900 units per year.

General delivery risks

- 12.3 There are a number of general risks that could impact the delivery of housing across the Borough in all scenarios:
- **Political and social risks:** Changes in Council/Cabinet vision and/or political direction could cause consequential delay to programme or aborted work. The additional uncertainty may increase the perceived risk to developers with knock-on viability impacts, and ultimately delay housing starts – particularly if this manifests as planning application refusals or delays in determination. Neighbouring local authorities may also be viewed as having a more positive approach to growth, and attract investment away from Charnwood. Securing cross-party support for growth plans, and an ongoing programme of community engagement may help to mitigate these risks.
 - **Economic risks:** We can expect the period to 2035/36 to include at least one full economic cycle, with significant variation in macroeconomic conditions – affecting viability, affordability and access to finance. In particular, the UK's proposed exit from the European Union is a driver that may lead to a period of sustained economic contraction or volatility. It will be necessary to adapt public sector interventions to housing market cycles, as explored in the next section.
 - **Legal and policy risks:** Changes in national political landscape, policy or guidance may affect the direction of the Local Plan and cause consequential delay or aborted work, delaying housing starts until such time as these can be revised. There are also local policy risks until the emerging Local Plan is further progressed and begins to carry weight in determining planning applications. Changes in policy such as building regulations may also have viability implications.
 - **Local authority resource constraints:** Local authority resources are under sustained pressure from increasing demand for services and public sector austerity. Delays in determining planning applications may deter investment, increase risk to developers with knock-on viability impacts, and ultimately delay housing starts. Similarly, a considerable investment of local authority resources is likely to be required in order to deliver some of the strategic infrastructure required to support growth.
 - **Infrastructure capacity constraints:** The failure to deliver infrastructure in line with growth may delay housing starts or, where growth is delivered in advance of required infrastructure, may affect political and public opinion of established growth plans. Strategic infrastructure delivery issues are explored further in Chapter 4 and Appendix C.
 - **Construction supply chain constraints:** Since the economic downturn of 2007-08, the capacity of the construction industry has been diminished and spread amongst a smaller number of consolidated firms. The cost of materials has increased, and the UK's proposed exit from the European Union is a driver that may lead to a period of reduced international migration, reducing

the labour market capacity of the industry. There is also a risk that the industry will fail to respond positively to higher technological and environmental standards, and the changing needs and expectations of consumers.

- **Quality of placemaking and housing specification:** The public sector can play an important role in preparing masterplans and design codes that raise the quality of place and product, and therefore increase Market Absorption Capacity. However, this issue should be considered alongside the need to diversify product choice, as explored in the next section.

12.4 In addition to the general risks outlined above, through our research, it has become apparent that a small number of scheme promoters control multiple sites across the Borough. The small number of scheme promoters active within the Borough may reduce incentives to deliver at pace, especially in times of lower demand when prices are stagnant or falling. As shown in Figures 44 and 45, this issue affects over 50% of the total housing capacity in the Borough 2017/18 to 2035/36.

Figure 44 – Developers with interests in multiple sites

Developers	Number of sites	Total capacity
Barwood Homes	3	2,079
Davidsons Homes	5	5,853
David Wilson Homes	4	4,917
Persimmon	2	3,470
Taylor Wimpey	4	1,718
William Davis	5	4,243
TOTAL (excluding overlap)	23	18,359

Source: BBP Regeneration analysis of data from Charnwood BC

Figure 45 – Land owners with interests in multiple sites

Land owners	Number of sites	Total capacity
The Barber Family	2	429
Parkers	2	1,335
Prestwold Estates	2	2,880
Shields Engineering (Syston) Ltd	2	242
TOTAL	8	4,886

Source: BBP Regeneration analysis of data from Charnwood BC

Potential mitigation

12.5 Beyond the assumptions made in Chapter 9, we recommend that the Council considers the following measures to potential mitigate delivery risks.

Ensuring diversity of product

12.6 In order to maximise delivery rates, the Council should ensure that it allows for the delivery of sufficiently different product by each housebuilder operating within a submarket area (such as design, tenure mix, size and type of housing).

12.7 In particular, the Council should ensure that design codes for large sites are sufficiently flexible, and that applications to vary existing planning applications are determined in a timely manner.

Adapting public sector intervention to housing market cycles

12.8 In times of low demand, the following interventions may help remove barriers to housing delivery:

- **Where land owners do not yet have investors and developers in place, actively promoting development opportunities across the Borough** – This could include advertising in trade magazines, promotional events, or a website. We would encourage the Council to focus on attracting a broad range of investors and developers with a proven track record of delivering housing with short lead in times and at pace.
- **Where there is a viability gap, providing grant funding for developments with high abnormal costs** – Subject to State Aid requirements, this could be funded through the investment of anticipated funding such as the New Homes Bonus, effectively at no net cost to the Council – although we appreciate that there will be other demands upon this funding. The Council could also invest to reduce its spending on temporary accommodation, offsetting the costs and benefits.
- **Taking a more proactive role in delivery, such as by considering the creation of a revolving fund to reinvest the proceeds of investment** – The Council may wish to fund or commission site investigations, securing planning permission, or delivering abnormal works. By acquiring land or working with land owners, the Council could share in the land value uplift, or development profit and reinvest this in other sites.
- **Making balanced decisions on planning applications** - Having regard across, amongst other things, the Council's Local Plan, the presumption in favour of sustainable development as set out in the National Planning Policy Framework, and to central government housing objective of significantly boosting supply in areas of high demand in order to improve affordability of home ownership.

Encouraging delivery at pace

12.9 The Council may wish to consider the following interventions to increase incentives to deliver new housing at pace:

- **Where schemes do not yet have planning permission, incentivising higher delivery rates through Section 106 triggers** – for example the Mayor of London's Affordable Housing and Viability SPG (2017) proposes an Early Stage Viability Review that will be triggered within two years of permission, if agreed progress has not been achieved, with the potential for increased developer obligations, incentivising delivery at pace.
- **Where cooperation with the developer has failed to increase delivery rates, requesting a completion notice from the Secretary of State** – This would require the developer to make substantive progress with the delivery of planning permissions or face having them withdrawn. However, this may strain relations and as many market commentators point out, removing planning permission is not a particularly sensible way to speed up housing delivery. However, the Government's recent Housing White Paper proposes to review and sharpen these powers.

12.10 Some of the interventions in Scenario D may also help to broaden the number of private sector bodies operating in the Borough.

Investing in growth and renewal

12.11 Our forecasting of land availability and demand are based on current conditions and planning policy; however, the regeneration of underperforming town centres and industrial areas, allocation of large sites beyond the current development plan, or delivery of infrastructure projects may all affect Market Absorption Capacity significantly.

Learning from other Local Authorities

12.12 In total, 120 local authorities outside of London have achieved an increase in housing completions of 50% or greater between 2010/2011 and 2015/2016. Figure 46 lists three particular authorities, where housing completions in 2010/11 were at a similar level to CBC in recent years.

Figure 46 – Local authorities outside of London, where housing completions have increased 50% or greater between 2010/11 and 2015/16

Local authority	Housing completions 2010/11	Housing completions 2015/16	Increase 2010/11 to 2015/16 (+/-)
Northumberland UA	600	920	+53%
Telford and Wrekin UA	710	1,100	+55%
Wakefield	910	1,630	+79%

Source: *BBP Regeneration analysis of DCLG (2016) Table 253a - Housebuilding: permanent dwellings started and completed, by tenure and district*

12.13 The Council may wish to evaluate the experiences of a selection of these local authorities, using a mixture of desktop research and consultation to understand what interventions were effective for which authorities, and why. We would expect such an evaluation to consider:

- **Spatial factors** – Settlement hierarchy within the local authority, and its relationship to key settlements nearby (relative population size, key economic drivers, commuting patterns, development constraints, etc.)
- **Property market factors** – Nature of market demand (residential sales values, affordability, major infrastructure / regeneration initiatives)
- **Planning policy** – Growth strategy (geographic distribution, previous land use, mix of sites, etc.)
- **Development pipeline** – Nature and scale of housing delivery (diversity of developers / delivery models / tenure, delivery rates, etc.)
- **Public sector interventions** – Engagement with the private sector (Registered Providers, institutional PRS investors, etc.), direct interventions by the local authority / HCA, loans and grants from the LEP and other bodies

Appendix A – List and maps of 2016 SHLAA sites, by scenario

[See separate files]

Appendix B – Large site pro-formas

[See separate files]

Appendix C – Strategic infrastructure requirements

Introduction

We have undertaken a high-level review of strategic infrastructure required to support development. Our focus has been on identifying significant transportation and utilities infrastructure together with flood mitigation, based on a review of published evidence available by March 2017 including the SHLAA, Infrastructure Delivery Plan (IDP), and transport modelling carried out to support plan-making. Allen Dadswell Construction Consultants also consulted with Leicestershire County Council's transportation team.

It is acknowledged that education, health and other infrastructure requirements will be required to mitigate development impacts and we have provided a general commentary on these, but we have not undertaken site specific analysis which is outside the scope of this study.

In the commentary within the Large Site Pro Formas for each of the 15 potential large sites (see Appendix B), we have highlighted the strategic infrastructure requirements which are relevant and which may create dependencies impacting on delivery timescales.

Utilities

Core Strategy Policy CS 24 'Delivering Infrastructure' sets out how the Council will seek to ensure that the key pieces of infrastructure required to support growth will be delivered, including giving consideration to the implementation of a Community Infrastructure Levy.

Key evidence, mechanisms and processes which have informed this policy include the Infrastructure Delivery Plan (Charnwood BC, 2014). This document contains the proposed schedule of key pieces of infrastructure identified so far at a strategic level to support growth proposals in the emerging Core Strategy, and where known, the anticipated costs of that infrastructure and the funding partners.

Electricity

The IDP states that the electricity distribution company Western Power Distribution (WPD) have confirmed that there is sufficient supply capacity to service development proposed within the Core Strategy around the Leicester Fringe and only local reinforcement may be required as sites are built out; however, in the vicinity of Loughborough, they advised that the network is close to maximum capacity.

WPD and the Council have been carrying out feasibility work and discussions to agree the package of upgrade works for the West of Loughborough SUE - potentially increasing capacity beyond the Minimum Scheme, in order to provide for further growth in the area over the longer term, including the opportunity to transfer load from infrastructure serving Shepshed, increasing capacity there.

We understand that works at the connection voltage and one level above, must be paid for by the customer - either up front up to the cost of the Minimum Scheme for speculative development, and retrospectively through connection charges thereafter. WPD would pay for works at the higher voltage levels. As the additional capacity is required to support longer term growth, delivered in phases, with the detailed timing of load requirements unclear, it is likely to be considered speculative development, and therefore lower voltage costs of reinforcement would be charged to the customer in full.

Charnwood BC has advised us to assume that all required works are delivered in advance of other timing constraints.

Gas

National Grid is responsible for the local gas distribution network in the area. Discussions have been held with representatives of National Grid to ascertain future capacity requirements. In summary, the gas supply network throughout the affected areas of the Borough is robust and resilient and considered able to absorb the forecast additional demand as a result of growth proposals. Local reinforcement of the network may however be necessary as detailed phasing and layout plans are confirmed but it is not anticipated that any strategic improvements to the network will be required.

Water services

Severn Trent Water is the responsible water and sewerage company. Early indications did not identify major issues but this work will be further refined as a result of detailed discussions. There are likely to be some local reinforcements to cope with growth, but no 'show-stoppers' as regards water supply.

The Waste Water Treatment Works (WWTW) at Wanlip has spare capacity to service the development of the North East Leicester SUE as well as other potential sites subject to further modelling work. The WWTW near Cotes has capacity to cope with the proposed West of Loughborough SUE. The water supply network in the vicinity of the two SUEs is robust and resilient. Local reinforcement of the network may be required but no strategic interventions are anticipated.

Flooding

The River Soar and the River Wreake are the two principle sources of fluvial flooding in Charnwood Borough; both have Flood Zone 2 and 3 areas in their respective valleys that impose a development constraint. We have relied upon the assessments contained in the Charnwood Borough Strategic Housing Land Availability Assessment 2016 site pro formas to confirm whether a site is developable and whether there are any known irresolvable physical/environmental constraints preventing development.

In addition to this, we have reviewed the Environment Agency Flood Map for Planning available online to confirm the extent of flood zone restrictions for the large sites. Our analysis shows that whilst most of the large sites are impacted to a minor extent by Flood Zone 2 or 3 the areas concerned are minimal and are not anticipated to impact the net areas assumed in the SHLAA. PSH69 Land South East of Syston is significantly impacted by Flood Zone 2 but this has been accounted for in the low net to gross developable area ratio.

We have not been made aware of any major flood defence or strategic mitigation works that are required to facilitate development.

Transport

Local context

Commuting patterns: Almost two-thirds (63.5%) of the working age population (who are in employment) in Charnwood travel to work by car or van. Inward commuting totals around 16% of the workplace population, and is widely distributed across destinations. Outward commuting totals around 26% of the resident population, with the most common origins being Leicester City (13%) and North

West Leicestershire (7%)¹¹. Given the pattern of settlements within the Borough adjoining the City boundary it may be assumed that the majority of journeys to work will be relatively short in nature¹².

Highways: In terms of the Strategic Road Network, there is good access to the M1 Motorway and the A46 which helps meet the wider needs of the manufacturing, distribution and logistics sectors in Charnwood. However, there are congestion 'hotspots' on the network; for example, J23 of the M1 Motorway operates at capacity during peak hours. Junctions 21 and 24 (although outside of Charnwood Borough) are also heavily congested at peak times, which impacts on journey times within Charnwood. There are queues and delays at the A46/A607 Hobby Horse Roundabout and there are increasing delays along the route of the A46 Leicester Western Bypass (LWB).

In terms of the Local Road Network, the A6 provides a key link between Loughborough and Leicester and frequently suffers from peak period congestion which affects inter-urban connectivity, particularly through Birstall. Access to the A6 can also be affected by flooding in the Soar Valley, which can have a hugely disruptive influence on traffic movements in a wide area from Loughborough southwards to Cossington.

Other congested local routes include the A512 which connects Loughborough to the M1 Motorway at Junction 23, and the A60 which connects Loughborough and Nottingham. There are also peak period delays at 'The Nook' in Anstey, whilst congestion on the A5630 Anstey (particularly in the morning peak) affects access to and from the village (and from the A46 LWB) to Leicester.

There tends to be an overreliance on the private car (although car ownership tends to be lower in the more urban and deprived areas of the Borough), and there are peak period congestion problems in and around Loughborough and on parts of the strategic road network in the area¹³.

Buses: Travel by bus offers the main alternative to travel by private car¹⁴. Leicester County Council have found that by locating new development adjacent to existing urban areas there is greater potential for residents in Charnwood to make their journeys by public transport¹⁵. There is a Park and Ride site at Birstall, adjacent to the A46 Leicester Western Bypass which has parking for 1,000 cars, and there is scope to increase usage¹⁶.

We understand that there are no significant projects planned locally in terms of bus services¹⁷.

Rail: Midland Mainline train services provide high speed connectivity from Loughborough to strategic centres such as Nottingham, Derby and Sheffield to the north, and Leicester and London to the south. Whilst travel to work by rail was only 1.5% in 2011, Loughborough station has recently undergone extensive improvements, and the planned improvements and electrification of the Midland Mainline (estimated completion 2023¹⁸) will help to improve journey times between these strategic centres¹⁹.

Local passenger services run along the Ivanhoe Railway Line and serve some of the Service Centres in Charnwood, including Syston, Sileby and Barrow-upon-Soar. The 'Bridging the Gap' project has secured funding to improve the Great Central Railway, providing continuous track for 18 miles between Birstall (Leicester) and Ruddington (Nottingham).

¹¹ Charnwood BC (2013) TP7 – Transport Topic Paper

¹² Charnwood BC (2013) TP7 – Transport Topic Paper

¹³ Charnwood BC (2013) TP7 – Transport Topic Paper

¹⁴ Charnwood BC (2013) TP7 – Transport Topic Paper

¹⁵ Charnwood BC (2013) TP7 – Transport Topic Paper

¹⁶ Charnwood BC (2013) TP7 – Transport Topic Paper

¹⁷ Conversation between Charnwood BC and Leicestershire CC, 4 January 2017

¹⁸ Conversation between Charnwood BC and Leicestershire CC, 4 January 2017

¹⁹ Charnwood BC (2013) TP7 – Transport Topic Paper

Cycling and walking: National Cycle Route 6 connects Leicester to Birstall in the south of the Borough and to Loughborough in the north via the Soar Valley villages. It is part of a network of safe cycle routes which includes the Connect 2 project in the Watermead area.

Whilst there has been significant investment in cycling and walking infrastructure since 2000²⁰, we understand that there are no significant projects planned locally in terms of cycling infrastructure²¹.

Transport modelling and mitigation measures

A number of transport modelling studies have been undertaken during the period from 2007 to 2013, both on an individual site basis and with cumulative scenarios. The findings have set out the broad requirements for transport infrastructure needed to support the delivery of the development strategy. The transport requirements include new and enhanced bus services, changing the road layout of highway junctions, signalisation of some existing roundabouts, dualling of sections of roads, new link roads and traffic calming measures. The findings have supported the Council's strategy of urban concentration and regeneration by illustrating that locating development at the edge of existing urban areas, where there is a greater range of services and facilities and better access to public transport, reduces the need to travel by private car.

Large sites modelled for inclusion in Core Strategy: In October 2013, the Borough Council commissioned a transport assessment of the single emerging development strategy, assessing the impact of 10,756 new homes and 111.7 hectares of new employment land, with and without mitigation measures in place.

- North East of Leicester Sustainable Urban Extension – 4,534 households modelled
- North of Birstall Direction of Growth – 1,466 households modelled
- West of Loughborough Sustainable Urban Extension - 3,268 households modelled
- Land West of Shepshed – 513 households modelled

Public transport schemes were estimated to significantly increase usage (20% AM peak, 23% PM peak) - serving growth and latent demand - but not have a significant impact on modal shift from the private car.

Strategic highways schemes were estimated to provide full mitigation of development-related congestion across most indicators. Although travel distances were increased, travel times were partly mitigated. At least a dozen junctions see congestion fall below 85%, whilst a new junction on A607 north of the ASDA roundabout would experience congestion beyond 85%.

The mitigation measures were modelled as a package, without indicating which schemes made which contribution. The package totalled £78.136m, of which 91.8% is attributable to 12 schemes over £1m (see Figure 1, and the map at Figure 3).

Figure 1 – Strategic highways mitigation measures from 2013 modelling

BBP ref	Mitigation measure	Indicative cost (£)	Cost including 15% risk and 40% OB (£)
T1	M1 J23 improvements	750,000	1,162,500
T2	Partial Western Distributor Road from A512 to A6 south of Hathern	11,000,000	17,050,000

²⁰ Charnwood BC (2013) TP7 – Transport Topic Paper

²¹ Conversation between Charnwood BC and Leicestershire CC, 4 January 2017

T3	Dualling of A512	5,000,000	7,750,000
T4	Direct link from Shepshed residential development to A512 via a new junction	1,375,000	2,131,250
T5	Spine Road via East Thurmaston from Barkby Thorpe Lane to King St / Hamilton Lane	11,000,000	17,050,000
T6	Link to Sandhills Avenue	2,500,000	3,875,000
T7	Link road from NE Leicester SUE westward to link Melton Road and A607 north of the A607/Barkby Thorpe Lane junction	3,570,000	5,533,500
T8	Improvements at Hobby Horse roundabout	825,000	1,278,750
T9	Dualling of Troon Way	2,000,000	3,100,000
T10	A6 / Red Hill Way junction improvements	750,000	1,162,500
T11	Mitigation associated with North of Birstall	6,000,000	9,300,000
T12	Public transport mitigation	1,500,000	2,325,000
Subtotal – £1m+		46,270,000	71,718,500
Subtotal – Below £1m		4,140,000	6,417,000
Grand total		50,410,000	78,135,500

Source: *BBP Analysis of MVA (2013) Setting Strategic Direction – Stage 2.*

Consultation with Charnwood BC suggests that improvements to Junction 23 of the M1, dualling of A512, and direct link from Shepshed residential development to A512 via a new junction are all committed.

In the large sites pro formas, we have referred to measures T5 through to T11 as the “Southern Charnwood Transport Package”. These measures are required both to mitigate existing capacity issues and facilitate further housing and economic growth north of Leicester. Those measures that are not fully funded through developer obligations at North of Birstall Direction of Growth and North East Leicester SUE are likely to require a mixture of mainstream public funding (such as through DfT, Highways England, Local Growth Deal) and developer contributions (such as through Section 106/278 agreements, CIL, and other land value capture mechanisms). This will clearly require further work by relevant stakeholders; however, for the purposes of this study Charnwood BC has advised us to assume that all required works are delivered in advance of other timing constraints.

Large sites modelled in 2008/09: In 2008, the Borough Council commissioned transport modelling on a number of sites that are not allocated in the latest Core Strategy, but are now being considered once more.

- Land North and South of Groby Road – 2,500 dwellings plus 20 ha employment land modelled
- Nanpantan Grange, Land south west of Loughborough - 1,250 dwellings plus 20 ha employment land modelled
- Land at Woodthorpe, East & West of A6004 Epinal Way, Loughborough – 2,000 dwellings modelled
- Land at Cotes – 4,200 dwellings plus 20 ha employment land modelled
- Wymeswold Airfield, Wymeswold – 5,000 dwellings plus 20 ha employment land modelled

Mitigation measures were modelled by association to particular sites or clusters of sites. The mitigation measures relevant to the sites listed above totalled £79m plus risk and Optimism Bias (see Figure 2, and the map at Figure 3).

Figure 2 – Strategic highways mitigation measures from 2008/09 modelling

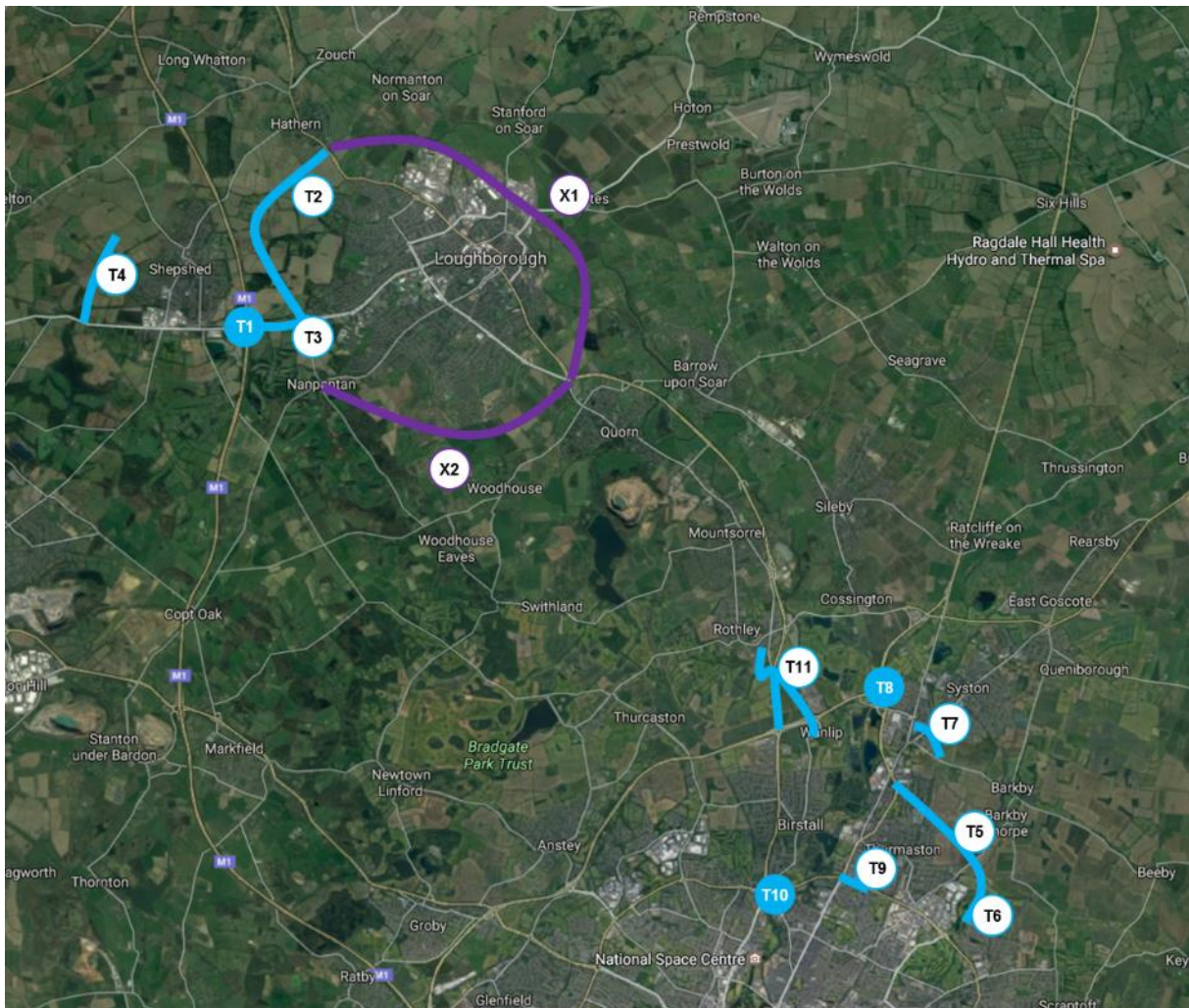
BBP ref	Site(s)	Mitigation measure	Indicative cost (£) excl. risk and OB
X1	Land at Cotes	Full Eastern Distributor Road (EDR) at Loughborough	71,000,000
X2	Nanpantan Grange, Land south west of Loughborough and Land at Woodthorpe, East & West of A6004 Epinal Way, Loughborough	South Western Distributor Road (WDR) at Loughborough	8,000,000
X3	Wymeswold Airfield, Wymeswold	Unspecified measures associated with Wymeswold Road and A60, especially between B676 and A6004	Not costed
X4	Land North and South of Groby Road	Unspecified measures associated with A46, particularly along the section between the A50 and A6530, as well as local roads around the option; minor roads eastwards towards Anstey	Not costed
Grand total			79,000,000

Source: *BBP Analysis of MVA (2008) Delivering Strategies - Transport Assessments for the Charnwood 2026 LDF*

Large sites not modelled to date: We have also highlighted potential sites that were not included in the original modelling.

- PSH69 - Land South East of Syston (a portion assessed in 2008/09 as “Option 3 - South of Syston”)
- PSH125 - Land east of Barkby Thorpe, south of Beeby Road, Barkby
- PSH8 - Land east of Barkby, Barkby
- PSH120 - Land east of Leicester Road, Thurgate
- PSH387 & PSH388 - High Leys Farm / Manor Farm
- PSH404 - Land west of Tickow Lane

Figure 3 – Strategic highways mitigation measures (over £1m)



NB – Approximate locations, for indicative purposes only. Source: BBP Analysis of MVA (2013) Setting Strategic Direction – Stage 2, and; MVA (2008) Delivering Strategies - Transport Assessments for the Charnwood 2026 LDF. Imagery (c) 2017 Google, Map data (c) 2017 Google

Other Infrastructure

We have not reviewed other infrastructure needs as these are unlikely to prove development ‘showstoppers’. However, it is worth noting that the IDP states that The Local Education Authority has advised that no public capital investment is envisaged for this infrastructure and it will therefore rely upon developer contributions to provide a site and fund all construction costs where a new school is required. In addition, developer contributions may be sought to fund the extension and / or adaptation of existing schools. Contributions are calculated on a needs basis based on the capacity and forecast number on roll for the catchment school and any other school within a two mile walking route of the development site for primary schools and three miles for secondary schools.

Contributions to health services are based on a formulaic calculation and the investment requirements are based on PCT Investment Plans, the IDP provides a high level summary of the requirements across the different geographies in Charnwood.

Appendix D - Residential property market analysis

Socioeconomic drivers

A summary of the key socioeconomic indicators for Charnwood Borough and a number of comparator areas has been provided below:

Figure 1 – Socio-economic indicators

Indicator	Charnwood Borough	Leicester City	Leicestershire	GB
Total Population	176,700	342,000	675,300	63,258,400
All People Aged 16-64	65.6%	66.8%	62.5%	63.3%
Economically active	70.5%	67.9%	77.2%	79.9%
Employment by occupation				
Managers/ Professionals	51.5%	21.7%	47.1%	44.9%
Admin/ Skilled Trades	18.8%	18.9%	21.2%	21.2%
Caring/Leisure/Sales	14.2%	16.7%	15.3%	16.8%
Machine/ Elementary Occupations	15.5%	33.5%	16.5%	17.2%
Qualifications				
NVQ4 and Above	35.7%	28.8%	34.5%	37.1%
NVQ2 and Above	79.9%	62.3%	77.5%	73.6%
No Qualifications	n/a	12.8%	5.1%	8.6%
Earnings by place of residence (FT)	£535.1	£436.1	£533.2	£541.0
Earnings by place of work	£498.1	£487.6	£496.6	£540.2
Benefits Claimants	7.6%	13.7%	7.5%	11.5%
Job density	0.64	0.82	0.76	0.82

Source: ONS

Figure 2 – Commuting patterns 2011 (Workplace-based)

% Workforce resident in ...	Blaby	Charnwood	Harborough	Hinckley and Bosworth	Leicester	Melton	North West Leicestershire	Oadby and Wigston	Containment in LLLPA Authorities
Workplace									
Blaby	52%	11%	2%	7%	16%	1%	3%	4%	97%
Charnwood	2%	68%	1%	1%	7%	1%	6%	1%	87%
Harborough	11%	3%	48%	4%	9%			1%	75%
Hinckley and Bosworth	6%	3%	3%	56%	4%		4%	2%	78%
Leicester	10%	8%	5%	5%	51%	1%	1%	8%	89%
Melton		7%	1%	1%	3%	61%			73%
North West Leicestershire	2%	8%	1%	5%	2%		51%	1%	68%
Oadby and Wigston	5%	4%	3%		25%			55%	93%

Source: Annual Population Survey. NB: Data for whole districts has been used.

In terms of migration, the City and County are seeing high numbers of people moving to and from London. Approximately 3,600 people moved to Leicester and Leicestershire from all London Boroughs (primarily to Leicester and Charnwood), whilst around 120 more per annum move to the capital from Leicester and Leicestershire.

Housing need

Please refer to Section 6 of the main report for a discussion on Borough-wide housing need.

Demand and values

Housing submarket areas

Please refer to Section 6 of the main report for a discussion on defining the submarket areas.

Our estimates of Market Absorption Capacity in Section 7 of the main report have been informed by the following demand characteristics across each of the submarket areas.

Loughborough: Loughborough and the surrounding areas tend to be popular locations due to excellent transport links, a highly regarded university, local schools and attractive countryside.

South Loughborough is characterised by easy access to the M1 south or to travel to Leicester. It is expected to command a premium as urban extensions in this direction will be associated with the Soar Valley villages / service centres of Quorn, Mountsorrel etc. which are always in high demand. Purchasers who aspire to move out of Loughborough or from further afield wishing to move to the Soar Valley are expected to see this as a more affordable option, but still with significant aspirational value. It is anticipated that further land allocations in this area would therefore continue to build on and enhance this trend allowing higher price points to be achieved.

Areas to the west of Loughborough are also readily accessible from the M1 corridor and hence will be attractive to buyers seeking easy access to the M1 corridor, University or Science & Enterprise Park.

Shepshed: The local market at Shepshed tends to be attractive to the same geographic market area as West of Loughborough, being only a few minutes' drive apart, with easy access to the M1 corridor as well as the amenities of Shepshed and Loughborough. Shepshed appears to perform less robustly in terms of desirability and sales values, compared with Loughborough, as it is perceived as being a slightly less affluent location, appealing to those on lower to middle incomes. We know from our previous work in Shepshed that the town has suffered a period of sustained economic and retail decline, but that considerable efforts are being made to reverse this trend. Marketing focus for new developments on the edge of Shepshed is likely to focus on rural setting / access to the countryside and excellent road transport links.

North East Rural: Areas to the east of Loughborough are more rural in character, being associated with the "Wolds" villages, and less accessible from the M1. The lack of large scale recent developments in this location means it feels like a less proven market but the area is relatively accessible from Loughborough and Coates in particular is close to the station if highway capacity can be overcome. It was recognised that this location may prove popular with those wishing to commute into Leicester or Nottingham and but wanting to live in a quieter rural setting as opposed to the city environment. For sites located further away from Loughborough, travel times to major employment and service centres are likely to limit scale of demand.

Prime Charnwood: The sub-market area offers a high quality rural setting, which tends to command the highest residential sales values in the borough and is regarded as a highly desirable location with Quorn being one of the key serviced centres in Charnwood. Transport is somewhat less easily

accessible, however, the area is sandwiched between the M1 and A6, offering access to both Loughborough and Leicester.

Rural East: This sub-market covers a relatively large area to the south-east of the borough, characterised by its rural setting and limited transport/ amenities.

NB - Some of the larger sites around Barkby are likely to be seen as “extensions” to the North East of Leicester SUE, and depending on transport links may have more in common from a market perspective with Thurmaston than the Rural East sub-market area in which they are presently located.

Soar Valley: Soar Valley sub-market area with its quality environment, villages and service centres is a desirable location, popular with more affluent Leicester commuters. Demand is reportedly strong, being highly accessible via A6, A46 and public transport services.

Thurcaston: This sub-market areas is located to the north of Leicester’s urban edge, immediately adjacent to Leicester Western Bypass. Desirability and demand appear to be moderate with medium average house price values.

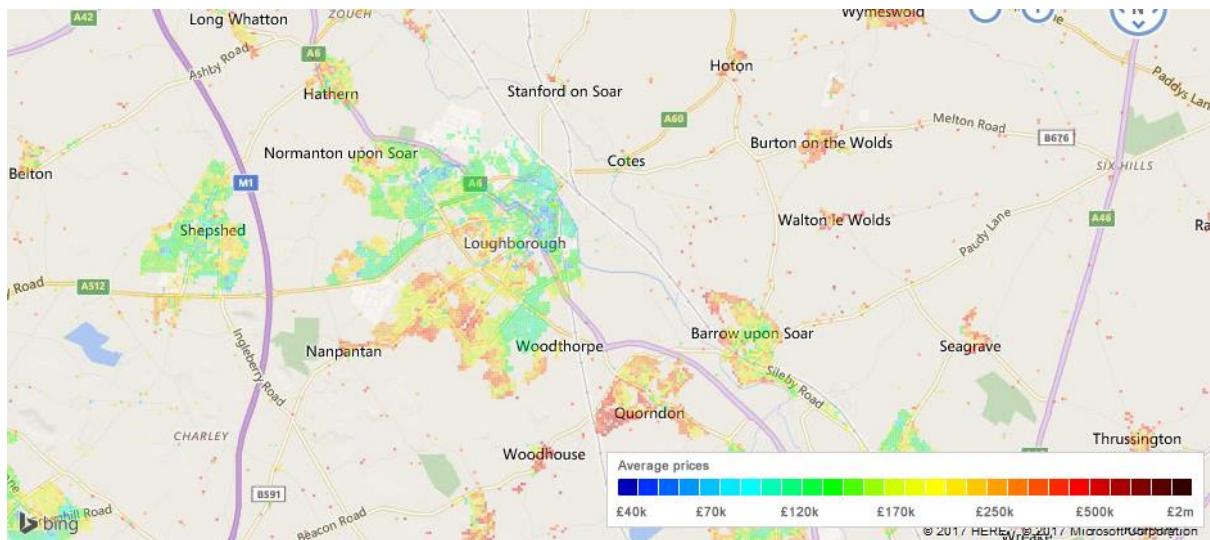
Thurmaston: Thurmaston, located on the fringes of Leicester, is traditionally considered to be a lower priced part of Charnwood. It is nonetheless an aspirational location to those living in less affluent areas of Leicester. While Thurmaston itself does not have a notable service offer, it is very much viewed as a town location being part of the Leicester Urban Area and its employment, education and range of amenities.

Leicester Fringe: This sub-market area operates more or less within the Leicester market context. Agents report that this is an aspirational location and buyers tend to be middle class working families or possibly older couples retiring out of Leicester, looking for access to countryside as well as Leicester’s employment, education and urban facilities at medium residential values.

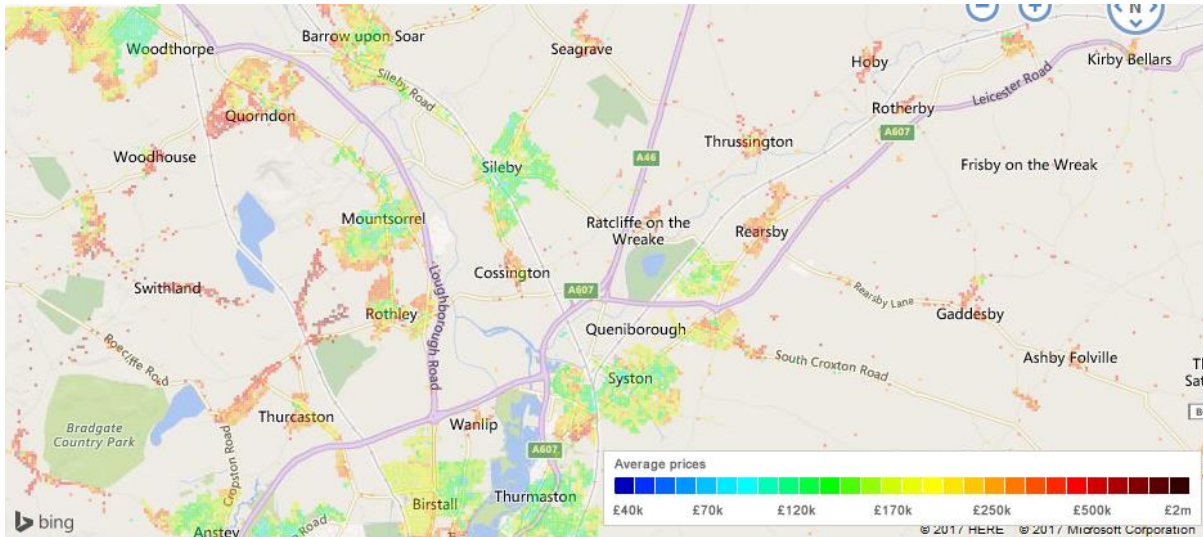
Private residential sales values

The heat maps below indicate the relative private residential sales values across the local area.

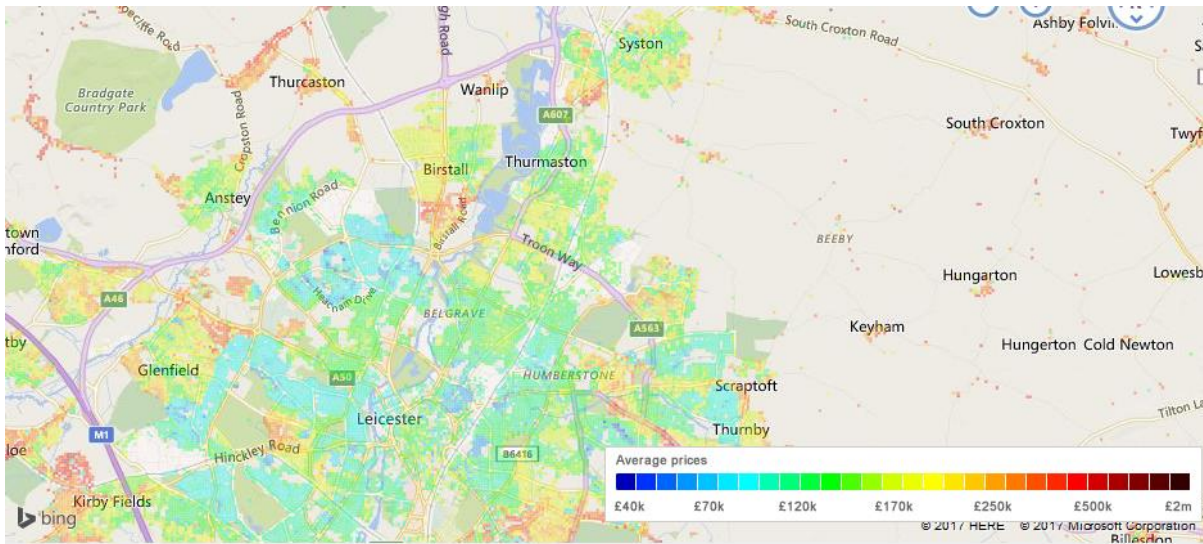
Figure 3 – Private residential sales value heat maps



Source: Mouseprice.com (January 2017)



Source: Mouseprice.com (January 2017)



Source: Mouseprice.com (January 2017)

Housing supply

Annual Monitoring Report data and consultation with the Council indicates the following recent historic delivery rates across the Borough.

Figure 4 – Recent housing delivery in Charnwood Borough

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Total housing delivery	697	503	602	723	831	903
Of which, affordable housing	202	99	151	155	181	n/a
% affordable housing	29%	20%	25%	21%	22%	n/a

Planning policy

The Core Strategy is the primary document of the Charnwood Local Plan, providing a strategy for delivering growth for Charnwood up to 2028.

There are two key strategic policies relevant to our commission, which are outlined below.

Policy CS 1 - Development Strategy

The Council has made provision for at least 13,940 new homes between 2011 and 2028, with distribution of housing growth as follows.

Leicester Principal Urban Area: Priority location for growth will be the Leicester Principal Urban Area, where provision will be made for at least 5,500 new homes and up to 46 hectares of employment land between 2011 and 2028.

- a sustainable urban extension of approximately 4,500 homes to the north east of Leicester, delivering approximately 3,250 homes and up to 13 hectares of employment land by 2028 and the remaining homes beyond the plan period as part of a comprehensive and integrated development;
- a direction of growth for approximately 1,500 homes as part of a sustainable urban extension to the north of Birstall, delivering approximately 1,345 homes and up to 15 hectares of employment land by 2028 and the remaining homes beyond the plan period as part of a comprehensive development;
- a direction of growth for up to 8,750 sq m of offices and up to 16 hectares of general employment land within the Watermead Regeneration corridor;
- and sustainable development which contributes towards meeting the remaining development needs, supports our strategic vision, makes effective use of land and is in accordance with the policies in this strategy.

Loughborough and Shepshed: The majority of our remaining growth will be met at Loughborough and Shepshed where provision will be made for at least 5,000 new homes and up to 22 hectares of employment land between 2011 and 2028.

- a sustainable urban extension of approximately 3,000 homes to the west of Loughborough, delivering approximately 2,440 homes and up to 16 hectares of employment land by 2028 and the remaining homes beyond the plan period as part of a comprehensive and integrated development;
- approximately 1,200 homes within and adjoining Shepshed to support its regeneration;
- up to 6 hectares of employment land within and adjoining Loughborough/Shepshed;
- and sustainable development which contributes towards meeting the remaining development needs, supports our strategic vision, makes effective use of land and is in accordance with the policies in this strategy.
- In addition, 77 hectare are planned for the expansion of Science and Enterprise Park to the West of Loughborough University.

Service Centres: The role of Service Centres (Anstey, Barrow Upon Soar, Mountsorrel, Quorn, Rothley, Sileby and Syston) is also key to:

- Provide at least 3,000 new homes and approximately 7 hectares of employment land within and adjoining our Service Centres between 2011 and 2028;
- safeguard services and facilities; and
- respond positively to sustainable development which contributes towards meeting our development needs, supports our strategic vision, makes effective use of land and is in accordance with the policies in this strategy.

Other Settlements: The strategy provides for meeting the local social and economic need for development in other settlements (Barkby, Burton on the Wolds, Cossington, East Goscote, Hathern, Newtown Linford, Queniborough, Rearsby, Thrussington, Thurcaston, Woodhouse Eaves and Wymeswold). We will do this by:

- providing for at least 500 new homes within settlement boundaries identified in our Site Allocations and Development Management Development Plan Document between 2011 and 2028;
- responding positively to small-scale opportunities within defined limits to development;
- responding positively to affordable housing developments in accordance with Policy CS3 (see below);
- safeguarding services and facilities; and
- responding positively to development which contributes to local priorities as identified in Neighbourhood Plans.

Small Villages and Hamlets: Services and facilities will be safeguarded to respond positively to development that meets a specific local social or economic need in our smallest settlements (Barkby Thorpe, Beeby, Cotes, Cropston, Hoton, Prestwold, Ratcliffe on the Wreake, Ridgeway Area of Rothley, Seagrave, South Croxton, Swithland, Ulverscroft, Walton on the Wolds, Wanlip, Woodhouse and Woodthorpe).

- the specific local social or economic need is identified by a Neighbourhood Plan or other appropriate community-led strategy; or
- the development supports sustainable businesses in accordance with Policy CS10.

Policy CS 3 - Strategic Housing Needs

In order to balance the housing stock and meet the local community's housing needs, the Council has set the following targets for affordable homes within housing developments, having regard to market conditions, economic viability and other infrastructure requirements:

- 30% affordable housing within the sustainable urban extensions north east of Leicester and west of Loughborough and the direction of growth north of Birstall;
- On sites of 10 dwellings or more in the following urban areas and service centres:
 - Thurmaston and Shepshed – 20%
 - Birstall, Loughborough, Anstey, Borrow Upon Soar, Mountsorrel, Sileby, Syston – 30%
 - Quorn and Rothley – 40%
- On sites of 5 dwellings or more in the following rural locations:
 - East Goscote and Thurcaston – 30%
 - Barkby, Barkby Thorpe, Beeby, Burton on the Wolds, Cossington, Cotes, Cropston, Hathern, Hoton, Newtown Linford, Prestwold, Queniborough, Ratcliffe on the Wreake, Rearsby, Ridgeway Area of Rothley, Seagrave, South Croxton, Swithland, Thrussington, Ulverscroft, Walton on the Wolds, Wanlip, Woodhouse, Woodhouse Eaves, Woodthorpe, Wymeswold – 40%

The Council is:

- seeking an appropriate mix of types, tenures and sizes of homes, having regard to identified housing needs and the character of the area;
- seeking all new housing to be built to 'Lifetime Homes', where feasible;
- securing the delivery of affordable homes on-site and integrated with market housing unless there are exceptional circumstances which contribute to the creation of mixed communities;
- working with our partners to deliver small-scale rural exceptions sites in accordance with Policy CS1 that meet an identified local need, and;
- monitoring the delivery of affordable homes through our Annual Monitoring Report.

Appendix E – Out-of-Borough competition

Introduction

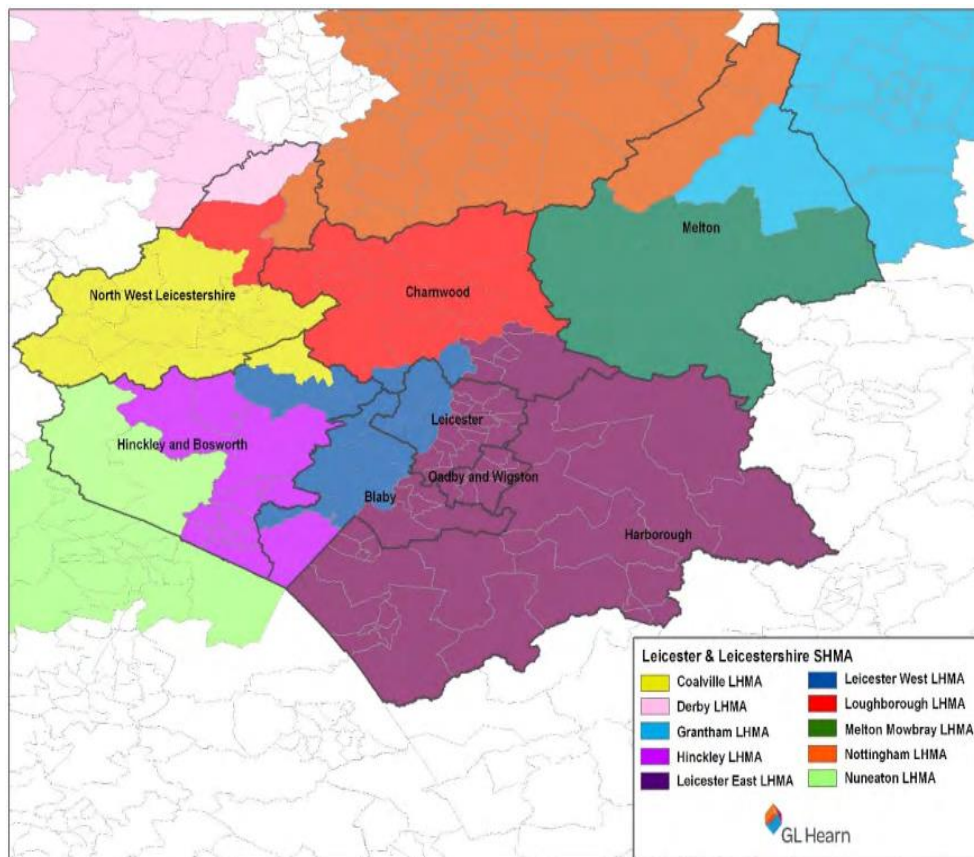
In modelling the delivery trajectories for each of the four scenarios, we sought to account for competition from deliverable / developable large sites in relevant parishes / wards outside of Charnwood Borough.

Methodology

Identifying relevant local authorities

According to the 2014 Leicester and Leicestershire Strategic Housing Market Assessment, Charnwood Borough spans three Local Housing Market Areas (HMAs): Loughborough, Leicester West and Leicester East. These three Local HMAs span seven local authorities (including Charnwood District) - as shown in Figure 1. The Boroughs of Melton and Rushcliffe do not share any Local HMAs with Charnwood Borough but are directly adjacent, and large sites located there are also likely to compete with large sites within Charnwood Borough.

Figure 1 – Local Housing Market Areas within the Leicester and Leicestershire SHMA



In order to assist our assessment of the likely competition from the potential competitor sites, we mapped them overlaid with an approximation of the Local HMAs, based on the parishes / wards shown in Figure 2.

Figure 2 – Local Housing Market Areas overlapping with Charnwood BC

Local HMA	Local Authorities	Parishes / wards
Loughborough	Charnwood BC	Hathern CP, Shepshed CP, Loughborough (Unparished), Woodhouse CP, Ulverscroft CP, Swithland CP, Newtown Linford CP, Thurstaston and Cropston CP, Quorndon CP, Barrow upon Soar CP, Mountsorrel CP, Sileby CP, Rothley CP, Cossington CP, Cotes CP, Hoton CP, Prestwold CP, Wymeswold CP, Burton on the Wolds CP, Walton on the Wolds CP, Seagrave CP, Thrusington CP, Ratcliffe on the Wreake CP, Rearsby
Loughborough	North West Leicestershire DC	Belton CP, Breedon on the Hill CP, Isley cum Langley CP
Leicester West	Charnwood BC	Anstey CP, Birstall CP, Wanlip CP
Leicester West	Blaby DC	Elmesthorpe CP, Potters Marston CP, Croft CP, Thurlaston CP, Glenfields CP, Huncote CP, Leicester Forest West CP, Leicester Forest East CP, Kirby Muxloe CP, Braunstone CP, Lubbesthorpe CP, Enderby CP, Narborough CP
Leicester West	Hinckley and Bosworth BC	Bagworth and Thornton CP, Ratby Cp, Groby CP
Leicester West	Leicester CC	Beaumont Leys Ward, Abbey Ward, Fosse Ward, Western Ward, Westcotes Ward, Braunstone Park and Rowley Fields Ward
Leicester East	Charnwood BC	Syston CP, Thurmaston CP, Barkby CP, Barkby Thorpe CP, Beeby CP, Queniborough CP, East Goscote CP, South Croxton
Leicester East	Blaby DC	Glen Parva CP, Blaby CP, Kilby CP, Countesthorpe CP, Whetstone CP, Cosby CP
Leicester East	Harborough	[Whole district]
Leicester East	Leicester CC	Rushey Mead Ward, Troon Ward, Humberstone and Hamilton Ward, Thurncourt Ward, Evingtown Ward, North Evington Ward, Belgrave Ward, Wycliffe Ward, Stoneygate Ward, Spinney Hills Ward, Saffron Ward, Aylestone Ward, Eyres Monsell Ward, Knighton Ward, Castle Ward
Leicester East	Oadby and Wigston BC	[Whole district]

Source: GL Hearn (2014) Leicester and Leicestershire SHMA

Identifying relevant large sites

Due to the different stages of Local Plans across the local authorities, we primarily drew upon their latest SHLAA data, without regard to planning policy status of the sites ('policy off').

NB - The inclusion of a site in our list of deliverable / developable large sites does not signify whether the site is or will ever be allocated for residential development.

The following evidence base was compiled in consultation with the relevant local authorities.

- Blaby DC (2016) SHLAA
- Harborough DC (2016) SHLAA – 2015 update
- Harborough DC (2016) 5 Year Housing Land Supply – Interim 2016/17
- Hinckley and Bosworth BC (2016) Residential Land Availability – Monitoring statement 2015/16
- Hinckley and Bosworth BC (2014) SHLAA
- Hinckley and Bosworth BC (2014) Earl Shilton and Barwell Area Action Plan
- Leicester CC (2016) SHLAA Update - 2016
- Melton BC (2016) Proposed Submission Policies Map
- Melton BC (2016) Five Year Land Supply and Housing Trajectory
- North West Leicestershire DC (2016) SHLAA
- North West Leicestershire DC (2016) Local Plan – Publication version
- Oadby and Wigston BC (2016) SHLAA
- Oadby and Wigston BC (2016) Residential Land Availability Report 2015-2016
- Oadby and Wigston BC (2016) Local Plan - Preferred Options
- Rushcliffe BC (2016) SHLAA 2016

Key findings

From the evidence base above, plus consultation with the relevant local authorities, we compiled the following list of large sites (over 500 dwellings).

Figure 3 – List of deliverable / developable sites over 500 dwellings, in relevant local authorities

BBP Ref	Local authority	LA Ref	Location	Site area (ha)	Capacity (dwellings)	Delivery timescale	Estimated build rate (dwellings per annum)
BL01	Blaby DC	END004	Land south of Grove Park	33.67	631	2027-31	50-80
BL02	Blaby DC	KMU007	Blood's Hill, Kirby Muxloe	53.40	1,058	2027-31	300-400
BL03	Blaby DC	KMU015	Land at Leicester Forest East, north and south of A47	117.24	2,321	2027-31	300-400
BL04	Blaby DC	KMU017	Land to north of Hinckley Road (A47), Leicester Forest East	39.89	797	2027-31	300-400
BL05	Blaby DC	LUB001	Land west of Leicester, south of L.F.E.	329.00	4,250	n/a	300-400
BL06	Blaby DC	BLA004	Land east of Lutterworth Road and west of Winchester Road, Blaby	29.00	543	2031+	50-80
BL06	Blaby DC	CRO005	Land at Croft Quarry	103.79 (51.9 avail)	586	2027-31	50-80
BL07	Blaby DC	SAP015	Land to south of Hinckley Road, Sapcote	52.53	787	2027-31	300-400
HA01	Harborough DC	A/BA/MXD/05	Land at Glebe Farm	39.00	585	2021-30	n/a
HA02	Harborough DC	A/LT/MXD/03 and A/LT/HSG/15	Land east of Lutterworth	217 (incl. A/LT/HS G/15); 84.5 avail	2,704	2021-30	n/a
HA03	Harborough DC	A/MH/HSG/35	Land at Overstone Park	35.70	536	2015-25	n/a
HA04	Harborough DC	A/CD/HSG/69	Stoughton Estate A, Land West of Stoughton	55.67	835	2026+	n/a

HA05	Harborough DC	A/SC/HSG/13	Land East of Scraftoft	129.6 (45.94 avail)	1,470	2031+	n/a
HA06	Harborough DC	A/SC/HSG/16	Land north of Scraftoft	71.81	1,077	2021-30	n/a
HA07	Harborough DC	A/KB/MXD/22	Land West of Kibworth v1	85.5 (34.91 avail)	1,117	2021-30	n/a
HA08	Harborough DC	A/KB/MXD/27	Land to north and east of Kibworth Harcourt	146 (50.3 avail)	1,610	2021+	n/a
HA09	Harborough DC	11/00112/O UT Outline Permission granted 13.05.16	Land at Airfield Farm	55.78	924	2018+	n/a
HI01	Hinckley and Bosworth BC	058	Barwell South	133.32	2,500	2014-29	n/a
HI02	Hinckley and Bosworth BC	217	Earl Shilton West	24.45	611	2019-24	n/a
HI03	Hinckley and Bosworth BC	287	Hinckley West and Wykin	48.93	734	2019-24	n/a
HI04	Hinckley and Bosworth BC	299	Hinckley West and Wykin	118.56	2,237	2019-24	n/a
HI05	Hinckley and Bosworth DC	AAP	Earl Shilton Sustainable Urban Extension	n/a	1,550	2018+	120-160
LE01	Leicester CC	051	Newarke Street/Oxford Street/Jarrom Street DMU	12.05	600	n/a	n/a
LE02	Leicester CC	055	Ashton Green (Sustainable Urban Extension)	134.56	3,000	n/a	n/a
LE03	Leicester CC	060	Abbey Meadows BUSM Site	10.59	1,019	n/a	n/a
LE04	Leicester CC	061/068/37 0/377	Abbey Meadows - Wolsey Island and remainder of site	7.85	702	n/a	n/a
LE05	Leicester CC	062	Strategic Regeneration Area - other remaining capacity	n/a	1,000	n/a	n/a
LE06	Leicester CC	070/071/33 0	Bath Lane/Blackfriars - Phases 1, 2 and 3	1.85	791	n/a	n/a
ME01	Melton BC	NMSN	North Melton Sustainable Neighbourhood	112.89	1,700	2019+	100
ME02	Melton BC	MSSN	Melton South Sustainable Neighbourhood	124.39	2,000	2018+	100
NW01	North West Leicestershire DC	A5/A22 (H3a)	Land north of Ashby de la Zouch	133.13	1,904	2016+	122
NW02	North West Leicestershire DC	A7	Packington Nook, Ashby	63.35	950	2027+	n/a
NW03	North West Leicestershire DC	CD4 (H1i)	Park Lane, Castle Donington	76.67	895	2016+	80
NW04	North West Leicestershire DC	C23 (H1q / H2c)	Bardon Grange, Coalville	224.00	3,500	2016+	159
NW05	North West Leicestershire DC	M6/M7	Measham Brickworks, Atherstone Road, Measham	35.17	664	2016+	n/a

NW06	North West Leicestershire DC	R10	North of Leicester Road, Ravenstone	27.58	517	2027+	n/a
NW07	North West Leicestershire	C19	Stephenson Green, Whitwick	31.70	594	2027+	n/a
OA01	Oadby and Wigston BC	OWBC13 and OWBC14	Wigston Direction for Growth (Phase 1) and Wigston Further Direction of Growth (Phase 2)	n/a	1,000	2017+	90
RU01	Rushcliffe BC	350	Land at Melton Road, Edwalton	93.60	1,500	2016-27	150
RU02	Rushcliffe BC	502	Land at Former RAF Newton Phase 2	35.40	550	2018-23	150
RU03	Rushcliffe BC	578	Land north of Bingham	98.00	1,050	2018-26	150
RU04	Rushcliffe BC	697	Land south of Clifton	176.00	3,000	2018+	250
RU05	Rushcliffe BC	574	East of Gamston/North of Tollerton	245.60	4,000	2019+	250

Figure 4 – Map of deliverable / developable sites over 500 dwellings, in relevant local authorities

[See separate file]

Appendix F – Housing delivery trajectories, by scenario



[See separate files]