

# **Barking and Dagenham Local Plan**

## **Strategic Land Availability Assessment Methodology**

### **Final report**

Prepared by LUC

September 2020

# London Borough of Barking and Dagenham / Be First

## Barking and Dagenham Local Plan Strategic Land Availability Assessment Methodology

Version	Status	Prepared	Checked	Approved	Date
1.	to Support Regulation 19 Local Plan Consultation	Stuart Langer	Hong Chen / Stuart Langer	Hong Chen	29.09.2020

# Contents

<b>Chapter 1</b>		Reviewing supply against demand	27
<b>Introduction</b>	<b>1</b>		
What is the purpose of the strategic land availability assessment?	1		
<b>Chapter 2</b>			
<b>The strategic land availability assessment study methodology overview</b>	<b>3</b>		
Methodology overview	3		
<b>Chapter 3</b>			
<b>Stage 1 – Identification of sites and broad locations</b>	<b>5</b>		
What geographical area does the study cover?	5		
What is the size threshold for the sites?	6		
How are sites identified?	6		
<b>Chapter 4</b>			
<b>Stage 2 – Assessment of sites</b>	<b>7</b>		
Step 1: Data collection and collation	8		
Step 2: Assessing suitability	8		
Step 3: Assessing availability	11		
Step 4: Assessing achievability	12		
Step 5: Estimate site capacity	14		
Step 6: Finalising assessment outcome	21		
<b>Chapter 5</b>			
<b>Stage 3 – Assessment of windfall and small sites</b>	<b>24</b>		
Windfall sites	24		
Small sites	25		
<b>Chapter 6</b>			
<b>Stage 4 – Assessment Review</b>	<b>26</b>		
Introduction	26		
Allocation of sites	26		
<b>Chapter 7</b>			
<b>Stage 5 – Finalising the evidence base</b>	<b>29</b>		
Finalising the SLAA evidence base	29		
<b>Chapter 8</b>			
<b>Summary and conclusion</b>	<b>30</b>		
<b>Appendix A</b>			
<b>Detailed data sources used to inform the suitability assessment</b>	<b>A-1</b>		
<b>Appendix B</b>			
<b>Suitability assessment indicator areas</b>	<b>B-1</b>		
<b>Appendix C</b>			
<b>Assessment sites</b>	<b>C-1</b>		

# Chapter 1

## Introduction

### What is the purpose of this document?

**1.1** This document sets out the methodology undertaken to prepare the emerging Strategic Land Availability Assessment (SLAA) for the London Borough of Barking and Dagenham (LBBD). The purpose of this document is to set out the approach that has been taken when identifying strategic sites in the borough, for both housing and economic development.

**1.2** This document supports the Barking and Dagenham Draft Local Plan 2019 -2037 (Regulation 19 consultation version).

### What is the purpose of the strategic land availability assessment?

**1.3** The SLAA is part of the evidence base which forms a key part of the emerging Local Plan. It updates (in part) the London Plan Strategic Housing Land Availability Assessment (SHLAA) 2017. The main outputs of the assessment are to:

- provide a robust basis for assessing the suitability, capacity, availability and achievability of strategic sites with potential for future housing and economic development within the borough over the plan period;
- set out an indicative trajectory for deliverable and developable sites within the borough over the Local Plan period (between 2019 and 2037);
- provide key recommendations in respect of the quantum of development potential in the borough to inform the draft Local Plan; and
- identify whether there is sufficient capacity available to meet the Objectively Assessed Needs and the London Plan housing targets, as well as planning for sufficient employment and industrial space to support the borough's economic development and regeneration.

**1.4** The council has prepared this report based on best available knowledge at the time of writing. The assessment will neither allocate sites for development nor confer any permission or authorisation for development. The council's new Local Plan will provide information on site allocations. Any future development of housing and economic uses will be

## Chapter 1

### Introduction

Barking and Dagenham Local Plan  
July 2020

managed and assessed as part of the development management process.

## Chapter 2

# The strategic land availability assessment study methodology overview

### Methodology overview

**2.1** The SLAA has been undertaken in accordance with the methodology set out in the National Planning Practice Guidance (NPPG) (Paragraph 005<sup>1</sup>). In summary, the methodology comprises the following five stages:

1. Identification of sites and broad locations with potential for development;
2. Assessing their development potential (capacity), suitability (identifying key planning issues), availability and achievability;
3. Assessing potential for windfall sites;
4. Reviewing the assessment; and
5. Assessing the core outputs to from the evidence base for the Local Plan.

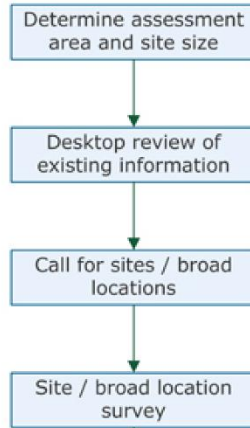
**2.2** Figure 1 provides an overview of the above stages and following this, a detailed explanation of each stage is provided.

---

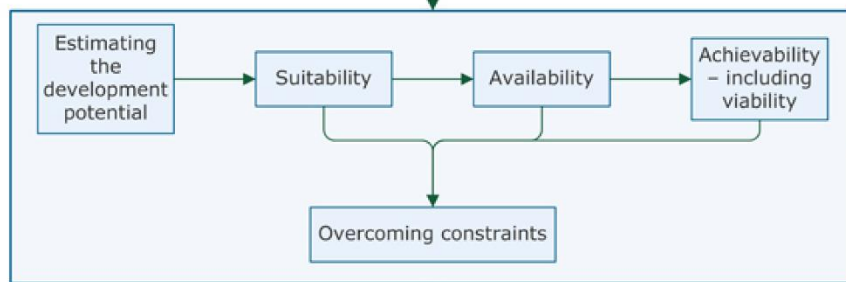
<sup>1</sup> NPPG: The method for assessing housing and economic land availability.  
<https://www.gov.uk/guidance/housing-and-economic-land-availability-assessment>

Figure 1: Strategic land availability assessment methodology overview

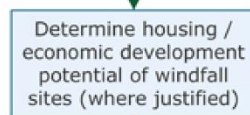
**Stage 1 - Site / broad location identification**



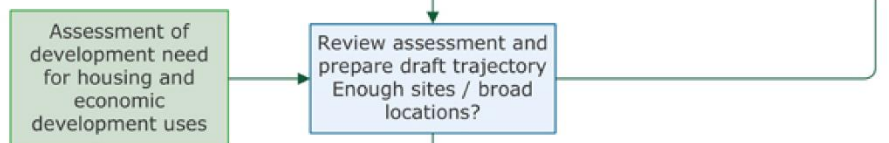
**Stage 2 - Site / broad location assessment**



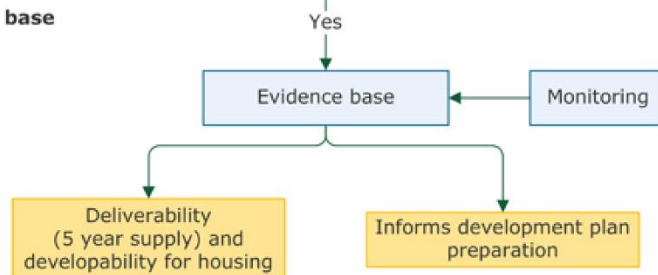
**Stage 3 - Windfall assessment**



**Stage 4 - Assessment review**



**Stage 5 - Final evidence base**





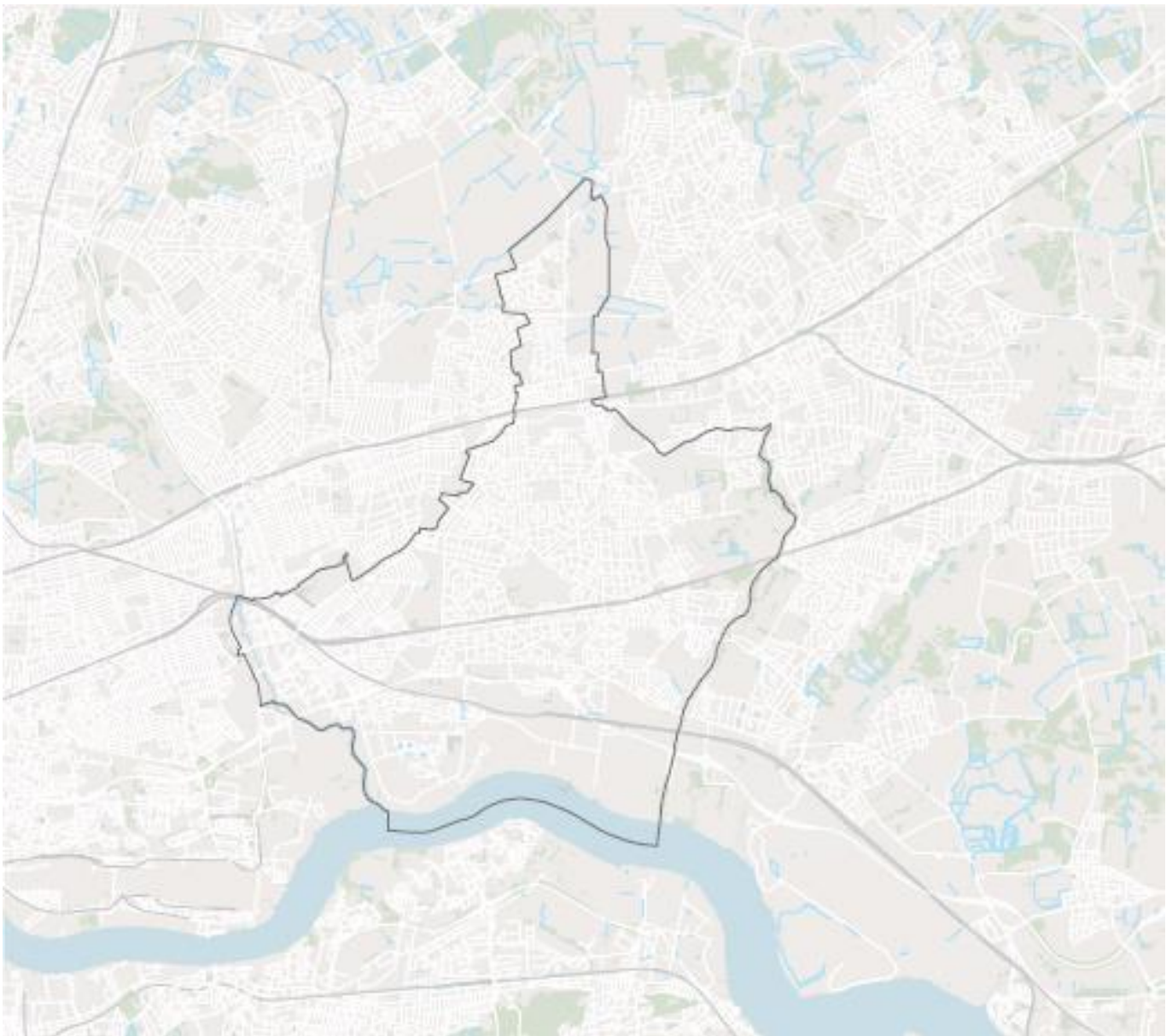
## Chapter 3

### Stage 1 – Identification of sites and broad locations

#### What geographical area does the study cover?

**3.1** The assessment area covers the whole London Borough of Barking and Dagenham area. This is set out in Figure 2.

Figure 2: London Borough of Barking and Dagenham Area Boundary (LBBD 2019)





## What is the size threshold for the sites?

**3.2** The SLAA considers housing and economic sites. A different threshold for these was set, as explained below.

### Residential

**3.3** In relation to sites which are anticipated to be developed wholly or primarily for housing, the assessment has considered all sites which are anticipated to provide for 5 units or greater. This reflects the guidance set out in NPPG.

**3.4** This approach varies from that utilised in the GLA SHLAA (2017) in that it does not take into account the site area in defining a minimum size (the GLA SHLAA 2017 considered sites above 0.25Ha only). This approach was taken because whilst sites may be small in area, their development potential may still be significant.

### Economic

**3.5** Economic sites considered included sites which can provide for commercial uses including retail, leisure, cultural, office and warehousing.

**3.6** All economic sites above 0.25Ha in area or 500 sqm or more? of floorspace were considered in the SLAA. This reflects the guidance set out in NPPG.

### Treatment of mixed-use sites

**3.7** Where mixed use sites are proposed which include both housing and economic uses, sites which meet the threshold for either housing or economic use (i.e. at least 5 units for residential land or 0.25ha / 500sqm for economic land) were included in the SLAA.

**3.8** For example, mixed use sites of 5 units and above are included in the assessment even if they do not provide 0.25ha or 500sqm or economic use.

## How are sites identified?

**3.9** Sites are identified from the following sources:

- Additional new sites submitted during the 'call for sites' exercise which was carried out between 12th April and 27th May 2019;
  - Sites with lapsed or refused planning permissions and those where applications have been withdrawn;
  - The industrial sites and retail / economic development study evidence base; and
  - Other sites identified by council officer intelligence.
- The assessment sets out the source of each individual site.
- Sites with planning permission/consent which are under construction;
  - Sites with unimplemented planning permission/consent;
  - Allocated housing/mixed use sites shown in the Site Allocations DPD and Barking Town Centre AAP, which have not received planning permission/consent;
  - Allocated economic development sites shown in the Site Allocations DPD and Barking Town Centre AAP, which have not received planning permission/consent;

## Chapter 4

### Stage 2 – Assessment of sites

**4.1** The site assessment methodology aligns with the NPPG, and assesses both housing and economic sites to determine their development potential (capacity), suitability (identifying key planning issues), availability and achievability;

The methodology utilises five steps in order to achieve this, as outlined in Figure 3.

Figure 3: Six steps of site assessment



## Step 1: Data collection and collation

**4.2** This step involves the collection and assignment of information relevant to each site including:

- Site name;
- Site ID;
- Site address;
- Site boundary;
- Ward;
- Whether there are any planning permissions / consents on the site;
- Whether there are any lapsed consents;
- Current use;
- What occupies the site at present (e.g. other buildings or vacant land);
- Whether there would be a loss of existing units as a result of redeveloping the site;
- Whether the site is currently being built out;
- Contact details for site promoters; and
- Owner intentions;
- Legal issues;
- Availability.

**4.3** The above information was collected from various sources, including desk-based research, site allocation information from the extant Local Plan<sup>2</sup>, the call for sites process and liaison with the site promoters (these are a mix of developers, agents and landowners). Where site information was missing and the promoters unknown, land registry searches were undertaken and the landowners were contacted.

**4.4** It is important to note that data collection and collation is undertaken on a continual basis, whereby any relevant information which becomes available is used to update the database, and as such it remains a 'live document', which will be monitored through the Local Plan monitoring process such as Authority Monitoring Report (AMR) where appropriate.

## Step 2: Assessing suitability

**4.5** This step involves the assessment of each site to determine whether it is suitable for development at a high level

and whether there are any potential planning issues which may inhibit the site from coming forward, or affect the timescale for delivery.

**4.6** The methodology for assessing suitability utilises a map-overlay based geographical information systems (GIS) approach to make a high-level judgement as to whether the site may be considered suitable in planning terms for either housing or economic development. This appraises each site against 19 different environmental indicators. These are set out in Table 4.1.

**4.7** Different suitability issues have the potential to affect sites in different ways. For example, some suitability issues are likely to cause a significant impairment to developing a site, whilst others may simply be issues which a development may need to address. In order to differentiate between the potential severity of an issue, a 'level of constraint' has been identified to the suitability indicators. these are:

- Whether there was likely to be a constraint which could prevent the development of the site (identified as a critical constraint); or
- Whether the constraint affected the site but could most likely be addressed through the planning application process using relatively straight forward and commonplace mitigation practices such as Section 106 agreement, or allow partial development of the site (identified as an intermediate constraint); or
- Whether no constraint was identified at all (no constraint identified).

**4.8** These have been given a red / amber / green colour code to signify the severity of the potential issue. Some indicators only result in 'critical' or 'intermediate' effects, due to the potential severity of the implications of different suitability indicators.

**4.9** It should be noted that whilst critical constraints have the potential to make a site undeliverable, this may not be the case as site specific design and mitigation may be able to overcome such constraints.

<sup>2</sup> The extant Local Plan comprises the following documents: Core Strategy (2010); Borough Wide Development Policies Development Plan Document

(2011) and Policies Map; Site Specific Allocations Development Plan Document (2010); Barking Town Centre Area Action Plan (2011).

Table 4.1: Suitability indicators

Indicator	Description	Critical constraint	Intermediate constraint	No constraint identified
1	Green Belt	The site intersects an area designated as Green Belt	N/A	The site does not intersect an area designated as Green Belt
2	Flood risk	The site intersects an area identified as flood zone 3 (and does not benefit from flood defences) <sup>3</sup>	The site intersects with an area identified as flood zone 3 (but benefits from flood defence) or flood zone 2 <sup>4</sup>	The area is wholly within flood zone 1
3	Listed buildings, Scheduled Monuments and Conservation Areas	The redevelopment of the site is considered likely to require the loss of a listed building or a scheduled monument	The site contains / intersects a listed building, or a scheduled monument, or a conservation area	The site does not contain / intersect with a listed building, or a scheduled monument, or a conservation area
4	Land Contamination	N/A	The site is considered likely to contain contaminated land	The site is not considered likely to contain contaminated land
5	Strategic Industrial Locations (SIL)	The site intersects an area designated as SIL <sup>5</sup> (for sites proposed to include housing) <sup>6</sup>	N/A	The site does not intersect an area designated as SIL (for sites proposed to include housing)  OR Any site proposed solely for economic use
6	Designated Public open space	N/A	The site intersects with an area of public open space	The site does not intersect with an area of public open space
7	Metropolitan Open Land (MOL)	The site intersects with an area designated as MOL	N/A	The site does not intersect with an area designated as MOL
8	Designated Nature Conservation Areas	The site intersects with an internationally or nationally important nature conservation designation (e.g. SAC, SPA, Ramsar, national nature reserve, SSSI)	The site intersects with an area designated as a locally defined nature conservation designation (e.g. SINC, Country Park or local nature reserve)	The site does not intersect with an area designated as a nature conservation site
9	Designated Allotments	N/A	The site intersects with an area designated as an allotment	The site intersects with an area designated as an allotment

<sup>3</sup> Although NPPG sets out that some economic uses may be acceptable in flood zone 3a, the data used in this assessment does not distinguish between flood zone 3a and 3b, therefore the location of any site in flood zone 3 is taken to be a critical constraint.

<sup>4</sup> Although NPPG sets out that some types of economic use are appropriate for provision in flood zone 2, there are some economic uses which are classed as 'highly vulnerable' and therefore location within flood zone 2 is identified as an intermediate constraint.

<sup>5</sup> For the purposes of this assessment, it has been assumed that the changes to SIL boundaries which are proposed in the latest draft Industrial Land Strategy (June 2020) have taken effect.

<sup>6</sup> For sites which proposed economic land only, the designation of a site as SIL is not considered to form a constraint.

Indicator	Description	Critical constraint	Intermediate constraint	No constraint identified
10	Tree Preservation Orders (TPOs)	N/A	The site contains / intersects with an area designated as a TPO	The site does not contain / intersect with an area designated as a TPO
11	Designated Protected wharves <sup>7</sup>	N/A	The site contains / intersects with an area designated as a protected wharf	The site does not contain / intersect with an area designated as a protected wharf
12	Locally Significant Industrial Sites (LSIS) <sup>8</sup>	N/A	The site intersects with an area designated as LSIS (for sites proposed to include housing) <sup>9</sup>	The site does not intersect with an area designated as LSIS
13	Allocated for Alternative Use	N/A	The site intersects with an area designated for an alternative use (i.e. for non-housing or non-economic uses)	The site does not intersect with an area designated for an alternative use (i.e. for non-housing or non-economic uses)
14	Noise	N/A	The site intersects with an area identified as having high noise levels	The site does not intersect with an area identified as having high noise levels
15	Topography	The site topography is such that it is likely to constrain development of the site including construction and access issues (i.e. where 50% or more of the site is considered too steep to develop)	The site topography is such that it is likely to substantially constrain development of the site (i.e. where 25% or more of the site is considered too steep to develop)	The site topography is not likely to substantially constrain development capacity
16	Access to bus services	N/A	Over 5% of the site is further than 400m from the nearest bus stop	At least 95% of the site is within 400m of a bus stop
17	Access to rail services	N/A	Over 5% of the site is further than 1 kilometre from a Train, Tube or Overground Station or Future Train, Tube or a train, tube or Overground Station which will be delivered over the plan period	At least 95% of the site is within 1 kilometre of a Train, Tube or Overground Station or Future Train, Tube or a train, tube or Overground Station which will be delivered over the plan period
18	Proximity to centres	N/A	Over 5% of the site is further than 1km from the nearest Town Centre (Major, District or Neighbourhood Centre)	At least 95% of the site is within 1km of Town Centre (Major, District or Neighbourhood Centre)
19	Previously undeveloped land	N/A	The majority of the site (greater than 50%) has	at least half of the site is previously undeveloped land

<sup>7</sup> Although a site proposed for economic use may be compatible with a protected wharf (i.e. propose uses which utilise or complement the wharf), this is not the case for all economic uses and as such this is raised as an intermediate constraint for all economic sites which include an area designated as a protected wharf.

<sup>8</sup> For the purposes of this assessment, it has been assumed that the changes to Locally Significant Industrial Sites boundaries which are proposed in the latest draft Industrial Land Strategy (June 2020) have taken effect.

<sup>9</sup> For sites which proposed economic land only, the designation of a site as a LSIS is not considered to form a constraint.

Indicator	Description	Critical constraint	Intermediate constraint	No constraint identified
			not been developed previously	

**4.10** Appendix 1 sets out the specific GIS datasets which have been used to inform the appraisal of each suitability indicator.

**4.11** It should be noted for indicators 16 (proximity to a bus stop), 17 (proximity to a rail station) and 18 (proximity to centres), the amount of site area (i.e. the 5/95% split) was assessed using GIS analysis. However, for indicator 19 (previously developed land), the amount of site area (50% split) was assessed approximately by visual interpretation, rather than by undertaking a specific calculation of site area. This is because the GIS data for brownfield land areas does not show all previously developed land, and a more accurate assessment could be made by visual interpretation of base maps.

**4.12** The purpose of the 5/95% split applied in indicators 16, 17 & 18 is to recognise that where a small proportion of a site may fall outside of the specified distance, this is not likely to cause a constraint until this reaches a certain point. As such, a 5% tolerance has been included in the assessment.

**4.13** It is important to note that there are no suitability indicators which relate to air quality. This is because the whole of the borough has been designated as an Air Quality Management Area (AQMA)<sup>10</sup>, and the most recent annual status report<sup>11</sup> identifies that there are no exceedances of the air quality objectives. Because of this, it was not considered necessary to include an air quality indicator, as it is not considered that air quality variations across the borough would be sufficient to inhibit development potential in some locations and not others.

**4.14** Where a site has received planning permission, or a resolution to grant subject to legal agreement, the suitability assessment was not undertaken, as it is considered that the granting of a planning permission (or approval subject to the legal agreement) demonstrates that the site is suitable for development. The exception to this is where a site context has changed since that approval, such as updated information relating to designations.

### Suitability conclusion

**4.15** Where constraints are identified, these were assessed to determine whether they were likely to result in the site being suitable or not suitable for development.

## Step 3: Assessing availability

**4.16** This SLAA considers whether a site is available for development or likely to become available within the plan period (2019-2037). In terms of what constitutes an available site, the NPPG sets out that this is a site where 'there is confidence that there are no legal or ownership impediments to development'.

**4.17** Considering availability over the length of the plan period is a complex process. In interpreting guidance set out in the NPPG, the assessment involves a judgement as to when a site may become available.

**4.18** In order to assess availability, the following factors were considered:

- Owner / developer intentions
- Known legal issues; and
- Availability period.

**4.19** Further information on the judgements made in relation to each of these is set out below:

### Owner / promoter intentions

**4.20** This considered the intentions of the owner or other parties who are involved in or interested in the development of the relevant site. It was considered that where a site has planning consent, or a resolution to grant planning permission subject to a legal agreement, that the owner / promoter intention was to make the site available for development as soon as practicably possible.

**4.21** Where a site does not have planning permission or resolution to grant, information of owner / promoter intentions was collected from either the call for sites submissions (the form included comments about the ownership to be made) or from direct liaison with the site owner / promoter (see Step 1 'data collection and collation').

**4.22** In all cases where the site owner / promoter intends for the site to be developed, in accordance with the NPPG definition of what constitutes an available site, legal restrictions applying to a site also need to be considered. This is explained below.

<sup>10</sup> All London boroughs have declared AQMAs covering some or all of their areas in accordance with the London Plan.

<sup>11</sup> <https://www.lbld.gov.uk/sites/default/files/attachments/LBBD-Air-quality-annual-status-report-2018.pdf>

### Known legal issues

**4.23** This considered whether there were any known legal issues that would mean that the site was not available for development, such as unresolved multiple ownerships, ransom strips tenancies or operational requirements of landowners. A number of sites in Barking and Dagenham involve the redevelopment of sites which are previously developed land and therefore may be subject to leases or long-term leaseholds. Such factors are likely to restrict the development of the site unless all parties are in agreement that the site should be developed.

**4.24** Information on legal issues was collected from either the call for sites submissions (the form included comments about the ownership to be made) or from direct liaison with the site owner / promoter (see Step 1 'data collection and collation').

**4.25** Where identified, legal issues relating to sites are taken to mean that the site is not available for development, unless robust information has been provided by site owners / promoters that these legal issues are likely to be resolved within the plan period, for example if leasehold purchase procedures are being put in place, or there was an agreed consensus amongst owners for development.

**4.26** If a site is identified as having a site owner / promoter who intends for the site to be developed and where there are no known legal issues, or any legal issues are likely to be resolved within the plan period, a site is considered to be available.

**4.27** In order to identify the likely effects of matters related to these two issues, the period that the site was likely to become available was also assessed. This is explained below.

### Availability period

**4.28** In addition to assessing owner / promoter intentions and legal issues, the assessment also considers the likely timescale against which the site is likely to become available for development. This is relevant to the consideration of achievability (see Step 4 'Assessing achievability').

**4.29** Information in relation to this was collected from either the call for sites submissions (dated in June 2019) - the form included comments about the ownership to be made - or from direct liaison with the site owner / promoter (see Step 1 'data collection and collation').

**4.30** For the purposes of this assessment, this delivery phasing was broken into five-year periods, with comments added if the site was considered to be immediately available, or likely to be so in 12 months. In some cases, where the delivery timescale for completion of a site has been provided by owners / promoters, this is included in the availability period comments, in order to provide additional context to the reader.

**4.31** For some sites it has not been possible to identify when such issues may be resolved and these are identified as having 'unknown' availability.

### Availability conclusion

**4.32** In conclusion of the above considerations, sites were identified as being either 'available' or 'not available'.

### Suitability summary

**4.33** For each site, an availability summary has been provided in order to clearly set out the availability considerations.

## Step 4: Assessing achievability

**4.34** The assessment includes a review of the achievability of each site. In order to assess achievability, the following factors were considered:

- Market factors;
- Cost factor dependencies; and
- Other delivery factors.

**4.35** Further information on the judgements made in relation to each of these is set out below:

### Market factors

#### Residential

**4.36** The assessment of market factors for residential sites was primarily based on the London Borough of Barking and Dagenham Draft Local Plan Viability Study (2019). This identifies that although there are challenging viability issues in some areas of the borough, emerging policies are suitably flexible in relation to developer contributions that development can come forward, even in low value areas or if they comprise high density schemes. The SLAA assesses individual sites against the draft viability study to determine whether they are located within an area of high or low residential value, for context.

#### Economic

**4.37** As set out above, the Local Plan Viability Study sets out that due to the flexibility of emerging policies, development within the borough is viable. This is reflected in the draft Industrial Land Strategy which sets out that there is significant demand for new, up to date and modern employment space. As such it is assumed that all economic sites are considered to be viable.

**4.38** Where a site has received planning permission, or a resolution to grant subject to legal agreement, this was taken



as evidence that the site is viable, given the market interest in obtaining permission, and as developer contributions appropriate to suitably mitigate impacts will be considered achievable.

### Cost factor dependencies

**4.39** The cost of bringing development forward ranges from site to site, and the assessment undertaken to inform the Viability Study includes assumptions which account for development costs which are commonplace and likely to apply to all sites. The SLAA assessment does not, therefore, consider these in relation to cost factor dependencies. However, abnormal cost factors which are not common to a wide number of schemes, such as significant infrastructure or below ground constraints, are taken into account where these have been identified in the information collected in Stage 2 Step 1.

### Other delivery factors

**4.40** Other factors which may affect site delivery have been taken into account – providing a summary of the likely delivery timescale given the site availability period, progress through the planning system and anticipated construction timescales.

### All site typologies

**4.41** For sites where specific information was not available the following assumptions on lead in time to first completion of housing / economic units have been used:

- +0 months for sites where works on site have commenced;
- +24 months for sites with a current full planning permission;
- +30 months for sites with prior approval for development and “hybrid” permission; and,
- +36 months for sites with a current outline planning permission.

**4.42** Specific notes in relation to delivery of housing, economic and mixed-use typologies are set out below.

### Residential

**4.43** For housing, it is assumed that all sites will be constructed at a rate of up to 250 units per year, unless there is specific evidence indicating that the delivery rate will likely be different, for example where developers have provided specific development trajectories (see Step 1 ‘data collection

and collation’). This is a conservative approach, and Be First is committed to actively encouraging and enabling modern methods of construction (MMC) which might increase the build out rate in the future.

### Economic

**4.44** For economic sites, the London Office Policy Review Report<sup>12</sup> suggests that it will normally take about 3 years between obtaining a commercial site (normally for offices), gaining planning permission and then starting the building process on site. The construction of the site will then depend on a number of factors including scale, location, structure (concrete/frame) and whether off-site manufacturing is included. For the purposes of this assessment, it has been assumed that a site will take on average 36 months to be completed following granting of full planning consent.

**4.45** The council will continue to monitor build out rates for development within the Borough.

### Mixed use

**4.46** It is assumed that the economic uses are provided in step with housing delivery on these sites.

### Achievability Conclusion

**4.47** In conclusion of the above considerations, sites were identified as being either ‘achievable’ or ‘not achievable’.

**4.48** The timescale for delivering sites has also been identified for both housing and economic land sites. This identifies the sites into the following delivery periods:

- Short term – within 5 years.
- Medium term – 5-10 year period.
- Long term – beyond 10 years but within the plan period (i.e. by 2037).
- Where sites are not considered deliverable within the plan period these are recorded as ‘Not Achievable’.

**4.49** Where it is considered likely that development will begin in one period but continue to subsequent period(s), then the site is identified in all relevant periods.

### Residential

**4.50** In considering which achievability period a housing site falls within, Annexe 2 of the NPPF sets out which sites should and should not be considered deliverable over the next five years. It states:

<sup>12</sup>  
[https://www.london.gov.uk/sites/default/files/london\\_office\\_policy\\_review\\_2017\\_final\\_17\\_06\\_07.pdf](https://www.london.gov.uk/sites/default/files/london_office_policy_review_2017_final_17_06_07.pdf) (section 5.1).

a) sites which do not involve major development and have planning permission, and all sites with detailed planning permission should be considered deliverable until permission expires, unless there is clear evidence that homes will not be delivered within 5 years (for example because they are no longer viable, there is no longer a demand for the type of units or sites have long term phasing plans).

b) where a site has outline planning permission for major development, has been allocated in a development plan, has a grant of permission in principle, or is identified on a brownfield register, it should only be considered deliverable where there is clear evidence that housing completions will begin on site within 5 years.

policy including locally determined policies on density. When assessing development potential, plan makers should seek to make the most efficient use of land in line with policies set out in the NPPF<sup>13</sup>.

#### Housing sites

**4.53** The approach to capacity initially utilises a formula-based approach, which is amended if suitable evidence is available to indicate that a different capacity is more feasible. A net capacity was also provided taking account of both existing development quantum on the site (e.g. number of existing dwellings on site at present), or current delivery (if the site is currently being constructed).

**4.51** The SLAA is consistent with these definitions.

### Step 5: Estimate site capacity

**4.52** This step involves identifying a site capacity for each site. The Planning Practice Guidance states that

“the development potential of each identified site can be guided by the existing or emerging plan

Figure 4: Stage 1 – Density calculation

#### Formula based approach to housing capacity

**4.54** In order to identify a potential capacity for each site, a formula-based approach was utilised. This was based on the capacity formula used to inform the 2017 GLA SHLAA.

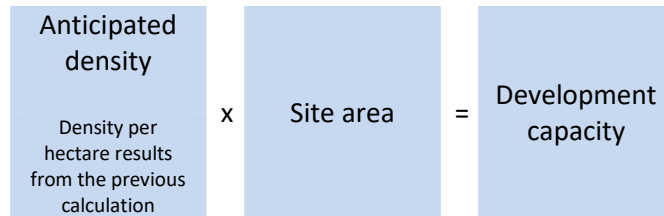
**4.55** The formula utilised includes a 2-stage as shown in Figure 4 and Figure 5:

Character area		Density area		PTAL RATING		Anticipated density
This was based on the character area typologies in the GLA SHLAA 2017 of central, urban and suburban.	X	This was based on the density area typologies in the GLA SHLAA 2017 of central, urban and suburban.	X	Based on the PTAL rating for 2021	=	Density per hectare

**4.56** In order to undertake these calculations, GIS was used, where possible, to measure the area of each site within the relevant area.

<sup>13</sup> NPPG Paragraph: 016 Reference ID: 3-016-20190722  
<https://www.gov.uk/guidance/housing-and-economic-land-availability-assessment>

Figure 5: Stage 2 – Capacity calculation based on density and site area



Specific notes about the assumptions which are inputted into the formula are set out below:

accordance with the GLA methodology document, the different character areas are defined as set out in Table 4.2.

#### Stage 1 – Density Calculation: Character areas

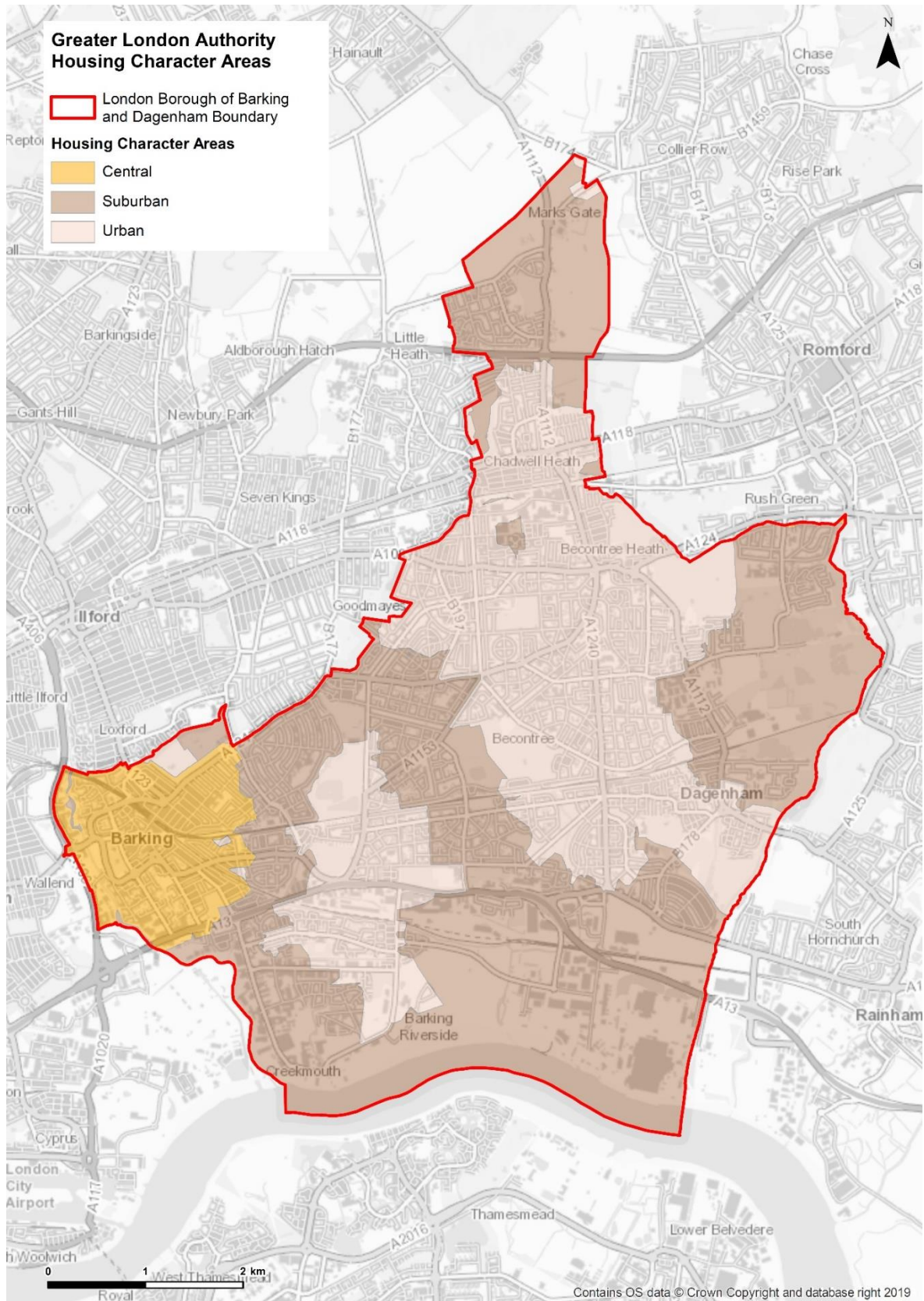
**4.57** The character areas used to inform the 2017 GLA SHLAA were received directly from the GLA and added to a GIS database, which included the site boundaries. In

Table 4.2: Character Area Definition

Character area	Attributes	
	Housing stock	Proximity to town centre
Central	>75% flats	1km of International, Metropolitan or Major town centre boundary
Urban	>75% flats and terraced housing	1km of District town centre boundary
Suburban	<75% flats and terraced housing	All other areas
An area only needs to fulfil one of these criteria to be classified as 'central', 'urban' or 'suburban'		

The character areas are shown in Figure 6.

Figure 6: Housing Character Areas



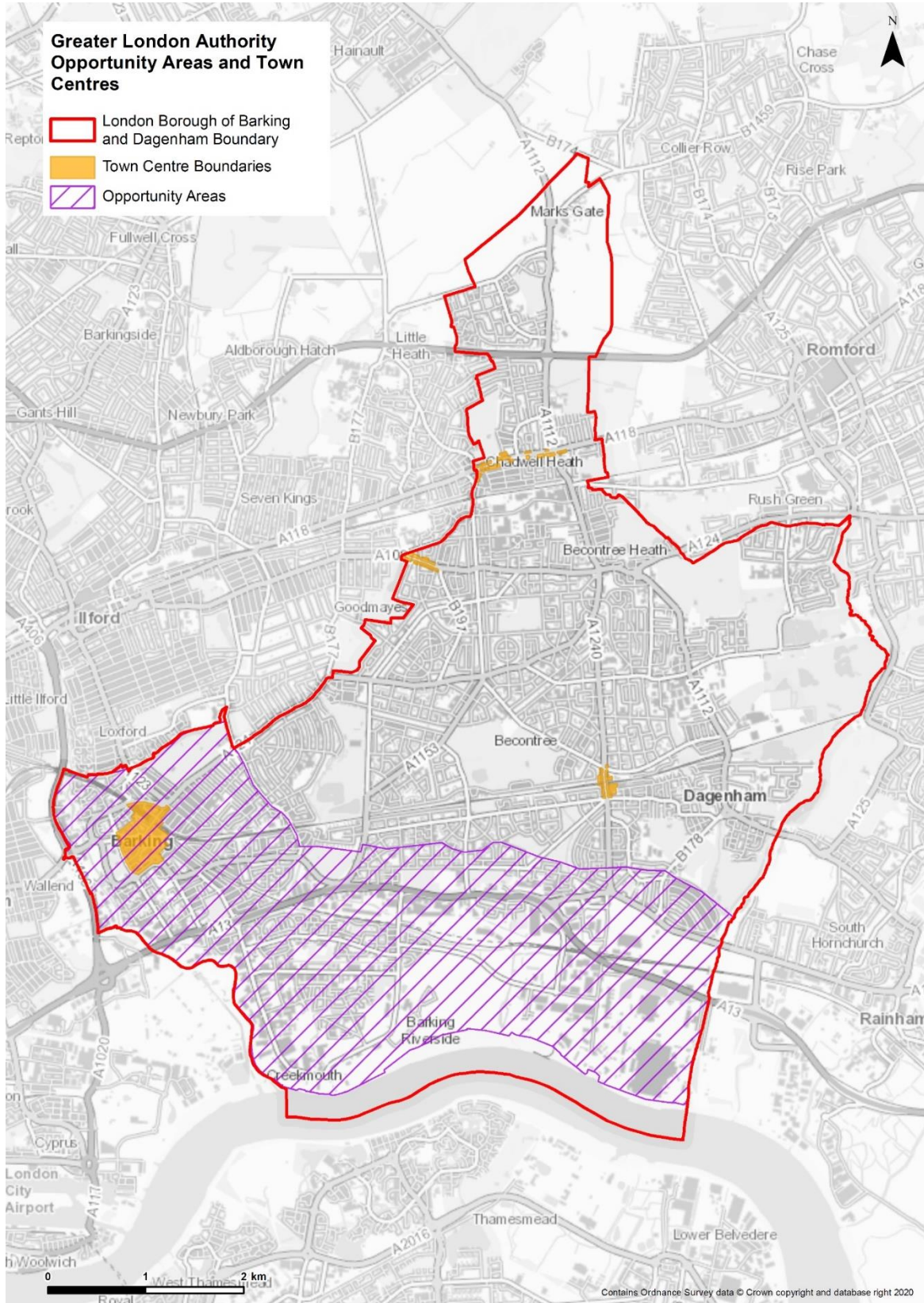
The area of each site within each character area was calculated to ensure the density assumption was accurate for sites which fall into more than a single character area.

#### Stage 1 – Density Calculation: Density areas

**4.58** In accordance with the 2017 GLA SHLAA, different density calculations are applied depending on the location of the site. Specifically, developments in Opportunity Areas are assumed to provide the highest density, followed by those town centres. 'Standard' density assumptions are applied elsewhere. The opportunity areas and town centre boundaries were downloaded from GLA datastore and added to the GIS database. The standard assumptions were applied outside these. The Density Areas are shown in Figure Figure 7.



Figure 7: Opportunity Areas and Town Centres



### Stage 1 – Density Calculation: PTAL

**4.59** PTAL stands for ‘public transport accessibility level’. PTAL levels for different areas are provided online<sup>14</sup>. Areas are modelled based on their distance from frequently served public transport stops. The PTAL model consists of a base year model, a 2021 predicted scenario and a 2031 predicted scenario. It is anticipated that the Local Plan will be adopted in 2021, and therefore it was determined to use the 2021 predicted PTAL levels rather than the baseline levels. All sites were assessed against the 2021 predicted PTAL levels for consistency.

Table 4.3: Standard density assumptions

PTAL	0 - 1	2 - 3	4 - 6
Suburban	65	80	115
Urban	80	145	225
Central	100	210	355

Table 4.4: Town centre density assumptions

PTAL	0 - 1	2 - 3	4 - 6
Suburban	-	-	-
Urban	95	170	260
Central	110	240	405

Table 4.5: Opportunity area density assumptions

PTAL	0 - 1	2 - 3	4 - 6
Suburban	80	145	225
Urban	100	210	355
Central	250	350	450

### Density and capacity calculations: worked examples

**4.62** The following worked examples demonstrate how the density and capacity calculations are applied to sites.

**4.60** It should be noted that because the 2021 predicted PTAL level areas are not available for downloading, that estimation of the site coverage by different PTALs was undertaken using visual interpretation of the approximate site split between different PTAL levels.

### Stage 1 – Density Calculation: density assumptions

**4.61** Consistent with the 2017 GLA SHLAA methodology, the following density assumptions were utilised (see Table 4.3, Table 4.4 and Table 4.5). The figures used are dwellings per hectare.

<sup>14</sup> The PTAL levels were identified from the Transport for London WebCAT planning tool, available at <https://tfl.gov.uk/info-for/urban-planning-and-construction/planning-with-webcat/webcat>



**Example 1: Site DJ ‘Clockhouse Avenue’**

This site is located entirely within the Opportunity area (see Table 4.5), within a Central character area and in an area identified as PTAL level 6 in the 2021 predicted scenario. The total site area is 0.742515.

The stage 1 density calculation is as follows:

Character area		Density area		PTAL RATING		Anticipated density
Central	x	Opportunity area	x	6	=	450 dwellings per hectare

The stage 2 capacity calculation is as follows:

Anticipated density		Site area		Development capacity
450 dwellings per hectare	x	0.742515 hectares	=	334 dwellings

**Example 2: site DM ‘Dagenham Heathway Mall’**

This site is located entirely within a Urban character area, 0.92Ha of the site is in the Town Centre density area (see Table 4.4) and 0.42Ha of the site are outside the opportunity area and town centres (i.e. Standard density applies – see Table 4.3). The whole site is within in an area identified as PTAL levels 4-6 in the 2021 predicted scenario. The total site area is 1.34332.

The stage 1 density calculation is as follows:

Character area		Density area		PTAL RATING		Anticipated density
Urban (whole site)	x	0.92Ha Town Centre density;	x	4-6	=	0.92Ha of 260 dwellings per hectare;
		0.42Ha Standard density				0.42Ha of 225 dwellings per hectare

The stage 2 capacity calculation is as follows:

Anticipated density		Site area		Development capacity
260 dwellings per hectare	x	0.92Ha;	=	239.2
225 dwellings per hectare	x	0.42Ha	=	94.5
				=
				333 dwellings (rounded down)

**4.63** The application of a formula-based approach is considered to be a robust methodology for the basis of this assessment, and it should be noted that it is our intention that all sites which are allocated in the local plan are subject to more robust, site feasibility assessment to determine their likely capacity.

**4.64** It is important to note that the borough is evolving, the new Local Plan recognises the potential for larger areas, such as Barking Riverside, Thames Road, Castle Green and Chadwell Heath, to define their own character and density through more detailed masterplan work. Therefore, the formula-based approach to estimating development capacity at this stage provides a starting point for the consideration of any future planning application subject to design and other detailed matters.

#### Amending capacity based on site-specific information

**4.65** Where a site has planning permission or a resolution to grant permission subject to a legal agreement, the quantum of development in the permission is used as the site capacity. For these sites, the formula-based capacity calculation was not undertaken.

**4.66** In other cases, where information was collected (see Step 1 'data collection and collation'), which suggested that a different capacity figure is more appropriate then this was taken into account. For example, where initial development capacity work has been undertaken the quantum of development in the capacity study is used. Where non-consented residential sites were identified through the call for sites process, anticipated capacity identified in the call for sites form were utilised. For these sites, the formula-based calculation was undertaken to provide context.

#### Net capacity

**4.67** Following calculation of the capacity of the site in total, using either the formula based approach or using site specific figures, a net capacity was also provided. This is the full site capacity, minus the existing development quantum on the site. For example, a number of sites involve regeneration of existing council owned sites, which have residential buildings on them at present. Many of these sites are proposed to be demolished with entirely new buildings provided. In such cases, the number of existing dwellings on the site has been taken off the total development capacity, in order to reflect the number of new homes that each site will provide.

**4.68** In other cases, some sites are very large, strategic sites that will take many years to deliver in full. A key example is site AA Barking Riverside, which has a site capacity of 10,800 homes and will continue to be delivered to 2034. Delivery on this site commenced in 2012 and to date 1,158 dwellings have been completed. Accordingly, these homes cannot be counted as coming forward in future years, so they are removed from the site capacity figures.

#### Economic

**4.69** For economic uses a different approach was taken to calculating capacity. Rather than utilise a formula-based approach, information from the call for sites and planning applications / approvals was used to inform site capacity. Where possible, capacity by different planning use classes has been recorded.

### Step 6: Finalising assessment outcome

This step comprises summarising the suitability, availability and achievability assessment of the sites to conclude whether sites are considered capable of providing development within the plan period (by 2037). The likely delivery timescale is

taken into account in coming to a conclusion to account for cases where delivery may extend beyond the plan period. The sites are identified against the outcomes set out in Table 4.6.

Table 4.6: Assessment outcome options

Site Outcome	Description
<b>Deliverable</b>	The site is considered to be deliverable and is expected to be delivered within the next five years.
<b>Part Deliverable/ Part Developable</b>	Development is expected to commence within the deliverable period (i.e. the next five years) and delivery of some of the development is anticipated within this period. However, due to the scale, or due to the likely timing of the development commencement, the site will continue to be developed past the developable period.
<b>Developable</b>	This site is not considered likely to commence within the next five years (due to current availability or achievability considerations), however, it is a suitable site and it is expected that development will commence over the emerging plan period in future years and within the plan period).
<b>Unsuitable</b>	The site is not suitable for residential development.
<b>Not Developable</b>	The site is not considered likely to deliver any element of completed development within the plan period.

**4.70** Each site features detailed commentary explaining the outcome.

## Chapter 5

### Stage 3 – Assessment of windfall and small sites

#### Windfall sites

**5.1** The NPPF defines windfall sites as ‘sites not specifically identified in the development plan’. As such, it can be assumed that the majority of windfall sites that come forward over the plan period are not within the SLAA database, as it is likely that if they were identified and considered suitable for development, then they would be allocated in the local plan. Alternatively, it is also possible that the sites do not meet the criteria for selection as set out in Chapter 3.

**5.2** Paragraph 70 of the NPPF sets out that ‘where an allowance is to be made for windfall sites as part of anticipated supply, there should be compelling evidence that they will provide a reliable source of supply. Any allowance should be realistic having regard to the strategic housing land availability assessment, historic windfall delivery rates and expected future trends’.

**5.3** During the preparation of the new draft London Plan (2019)<sup>15</sup>, modelling of the potential for delivery of dwellings on small sites was undertaken by the GLA. This was undertaken in support of proposed London Plan policy H2 ‘Small sites’, which includes provisions that will increase the delivery of dwellings on small sites (which are below 0.25Ha). This modelling identified that small sites in Barking and Dagenham are capable of providing 199 dwellings per year. This modelling is based on trends in housing completions on sites of this size and the estimated capacity for net additional housing supply from intensification in existing residential areas, taking into account PTAL, proximity to stations and town centres, and heritage constraints (paragraph 4.2.4). The same paragraph also specifies that ‘the small sites target can be taken to amount to a reliable source of windfall sites which contributes to anticipated supply and so provides the compelling evidence in this respect required by paragraph 70 of the NPPF.’

**5.4** However, whilst this is the case, analysis of previous windfall trends suggests that this is not a realistic target for the borough. Analysis of previous delivery of windfall sites identifies a trend of 69 units per annum, which is significantly below the London Plan figure (in fact it is approximately 35% of it). Given this disparity between the modelled figures and past trends of actual delivery, it is considered appropriate for

---

<sup>15</sup> [https://www.london.gov.uk/sites/default/files/intend\\_to\\_publish\\_-\\_clean.pdf](https://www.london.gov.uk/sites/default/files/intend_to_publish_-_clean.pdf)

the purposes of planning ahead to use the figures which are considered more realistic and achievable, accepting that any provision above this would be advantageous. As such, the trend-based figure of 69 dwellings per year has been used to inform the housing trajectory in relation to windfall sites.

**5.5** No windfall assumptions have been made for economic land sites.

## Small sites

**5.6** NPPF paragraph 68 sets out that planning authorities should identify sufficient land to 'accommodate at least 10% of their housing requirement on sites no larger than one hectare; unless it can be shown, through the preparation of relevant plan policies, that there are strong reasons why this 10% target cannot be achieved'. Compliance with this target is reviewed below in chapter 6 'assessment review'.

## Chapter 6

### Stage 4 – Assessment Review

#### Introduction

**6.1** Stage 4 of the land availability assessment methodology set out in the NPPG includes a review of the capability of the identified sites to meet the development needs of the borough. For Barking and Dagenham, both strategic housing and economic land needs assessments have been commissioned, which are used to set out the 'need' against which the housing and economic sites deliver against.

**6.2** In order to inform how the need for housing and economic sites will be met, it is important to consider those that are likely to come forward within the plan period. This is expected to comprise the following types of site:

- Allocated sites;
- Sites which are not allocated but which have planning permission;
- Windfall sites.

**6.3** A detailed housing trajectory has been prepared, setting out the anticipated delivery from sites over the plan period. This includes the types of site listed above. Further information about site allocation is included below.

#### Allocation of sites

**6.4** The sites which are considered to be deliverable within the plan period have the potential to be allocated within the local plan. In order to focus the allocated sites to those sites which can make the greatest contribution to development of the Borough, a series of criteria were developed to select sites for allocation from those included in the SLAA database. These are explained below.

#### Residential

**6.5** In relation to sites which are anticipated to be developed wholly or primarily for housing, all sites which meet the following criteria will be allocated.

**6.6** All housing sites must:

- have a total site area or remaining developable area (where applicable), of greater than 0.25Ha; and



- deliver 150 dwellings or more over the Local Plan period; or
- can deliver a critical/essential piece of identified infrastructure for the area over the Local Plan period; or
- small sites (less than 0.25Ha) that contribute to meeting the overall housing target.

### Economic

**6.7** Economic sites considered included sites which can provide for commercial uses including retail, leisure, cultural, office and warehousing. All economic sites which meet the following criteria will be allocated.

**6.8** All economic sites must:

- be above 0.25Ha in area; or
- provide 500 sqm or more of commercial floorspace over the Local Plan period; or
- can deliver a critical/essential piece of identified infrastructure for the area over the plan period.

### Treatment of mixed-use sites

**6.9** Where mixed use sites have been identified which include both housing and economic uses, sites which meet the criteria for either housing or economic use are proposed to be

*Table 6.1: Housing sites delivery phasing*

Delivery period (from date of publication)	2019/20 – 2023/24	2024/25 – 2028/29	2029/30 – 2037/38	Total
No. of dwellings	10,817	18,470	13,450	42,737

**6.13** As set out in chapter five of this report, NPPF paragraph 68 sets out that planning authorities should identify sufficient land to ‘accommodate at least 10% of their housing requirement on sites no larger than one hectare; unless it can be shown, through the preparation of relevant plan policies, that there are strong reasons why this 10% target cannot be achieved’. The housing trajectory identifies that 3,545 homes are anticipated to come forward on sites of this 1Ha or less over the plan period. Whilst this is less than 10% of the overall housing requirement, significant effort has been made to identify all sites which are able to come forward in the plan period, as such it is considered to be the case that there is not a sufficient supply of sites of 1Ha or less which are able to be brought forward. This reflects the nature of LBBD, in that the greatest provision of new housing is to be achieved on large scale sites, particularly within the identified Transformation Areas. It is possible that additional work to bring forward sites under the small sites programme being prepared to meet the requirement of the emerging New London Plan Policy H2 will

allocated in the local plan. For example, a site comprising over 150 dwellings but less than 0.25Ha of economic use would be allocated, because it meets the housing criteria. In such cases the economic element of the site is identified to inform decision making and policy preparation in relation to the site.

### Reviewing supply against demand

**6.10** The potential for the sites identified in the SLAA and detailed housing trajectory to meet the needs identified are set out below.

### Housing

**6.11** The Draft Barking and Dagenham Local Plan (Regulation 19 Consultation) sets out a housing target in policy SP3 ‘Delivering homes that meet people’s needs’ of at least 40,000 homes in the plan period. The housing trajectory identifies potential capacity for 42,737 new dwellings over the plan period (this is a net figure which takes account of existing homes which are lost to make way for new, more intensive, housing schemes). As such, it can be seen that sufficient housing sites have been identified to meet the anticipated need.

**6.12** In considering when these are likely to come forward, Table 6.1 sets out the number of units anticipated in different time periods:

identify more sites of 1Ha or less which can be included in future versions of the SLAA and housing trajectory.

**6.14** In relation to the requirements set out within Policy H2 of the Intend to Publish version of the London Plan, specifically it’s reference to the target to bring forward 199 homes a year on sites smaller than 0.25Ha, the trajectory identifies that this target will not be achieved on the basis of sites which are currently known. However, it is important to note that this is a relatively new requirement and Be First are preparing a programme to bring forward delivery of small sites, which is anticipated to significantly boost supply from these small sites.

### Economic land

**6.15** The Draft Barking and Dagenham Local Plan (Regulation 19 Consultation) sets out in policy SP5 ‘Promoting inclusive economic growth’ that 20,000 new jobs are required within the plan period. There is no target for land area, however the policy also includes provision that a wider

employment base is desired. The SLAA identifies that there is capacity for at least 1,263,429 sqm of economic uses development which can be delivered on sites within the borough. It is not possible to determine how many jobs this will result in given that different types of industry have different job to area densities. However this does demonstrate a significant supply of economic land.

**6.16** It should be noted that the SLAA identifies sites which are considered to be available and deliverable within the plan period. It is the role of the local plan to consider whether these sites may be suitable for allocation.

## Chapter 7

### Stage 5 – Finalising the evidence base

#### Finalising the SLAA evidence base

**7.1** Stage 5 of the land availability assessment methodology set out in the NPPG is the production of the final SLAA evidence base, which must include:

- A list of all sites or broad locations considered, cross-referenced to their locations on maps;
- An assessment of each site or broad location, including:
  - where these have been discounted, evidence justifying reasons given;
  - where these are considered suitable, available and achievable, the potential type and quantity of development, including a reasonable estimate of build out rates, setting out how any barriers to delivery could be overcome and when;
  - an indicative trajectory of anticipated development based on the evidence available.

**7.2** The boundaries of the site assessed to date are included as the appendices to this document. A snapshot of the

**7.3** It is important to note that the SLAA is a dynamic database that is continually updated to take into account new information. As such, the published documentation should be considered as a snapshot of the database, which is up to date at the time of publication.

## **Chapter 8**

### **Summary and conclusion**

**8.1** This document sets out the proposed methodology used to undertake the strategic land availability assessment for the London Borough of Barking and Dagenham.

**8.2** The methodology complies with the relevant requirements of the NPPF and NPPG, as well as the current and emerging London Plan.

**8.3** The SLAA identifies sufficient housing and economic sites to deliver the objectively assessed needs for these land uses.

## Appendix A

### Detailed data sources used to inform the suitability assessment

Indicator reference	Description of indicator	Spatial datasets used
Indicator 1	Green Belt	Green Belt boundaries – utilising the Green Belt parcels as identified in the LBBD Green Belt Review (LBBD). 2015. Available from: <a href="https://www.lbbd.gov.uk/local-plan-review">https://www.lbbd.gov.uk/local-plan-review</a>
Indicator 2	Flood risk	Environment Agency flood zones – Flood Map for Planning (Rivers and Sea) (Environment Agency). 6 March 2020 version. Available from: <a href="https://environment.data.gov.uk/searchresults;query=flood%20map;page=1;pagesize=20;orderby=Relevancy">https://environment.data.gov.uk/searchresults;query=flood%20map;page=1;pagesize=20;orderby=Relevancy</a>
Indicator 3	Listed buildings, Scheduled Monuments and Conservation Areas	Listed Buildings and Scheduled Monuments from Historic England Mapping. 2019. Available From: <a href="https://historicengland.org.uk/listing/the-list/data-downloads/">https://historicengland.org.uk/listing/the-list/data-downloads/</a>  Conservation areas as defined in the Extant Policies Map (LBBD). 2012. Available from: <a href="https://www.lbbd.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf">https://www.lbbd.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf</a>
Indicator 4	Contamination	Contaminated land data from Barking and Dagenham records.
Indicator 5	Strategic Industrial Land (SIL)	Strategic Industrial Land (Greater London Authority). 2019. Available from: <a href="https://data.london.gov.uk/dataset/strategic-industrial-land">https://data.london.gov.uk/dataset/strategic-industrial-land</a>  As amended by Borough's Industrial Strategy (September 2020).
Indicator 6	Public open space	Public Open Space as defined in the Extant Policies Map (LBBD). 2012. Available from: <a href="https://www.lbbd.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf">https://www.lbbd.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf</a>
Indicator 7	Metropolitan Open Land (MOL)	MOL as defined in the Extant Policies Map (LBBD). 2012. Available from: <a href="https://www.lbbd.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf">https://www.lbbd.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf</a>
Indicator 8	Nature conservation	Local Nature Reserves (Natural England). 2019. Available from: <a href="https://naturalengland-defra.opendata.arcgis.com/datasets/local-">https://naturalengland-defra.opendata.arcgis.com/datasets/local-</a>

Indicator reference	Description of indicator	Spatial datasets used
		<a href="https://data.london.gov.uk/dataset/nature-reserves-england?geometry=-0.003%2C51.542%2C0.324%2C51.580">nature-reserves-england?geometry=-0.003%2C51.542%2C0.324%2C51.580</a>
Indicator 9	Allotments	Allotment Locations (Greater London Authority). 2014. Available from: <a href="https://data.london.gov.uk/dataset/allotment-locations">https://data.london.gov.uk/dataset/allotment-locations</a>
Indicator 10	Tree Preservation Orders (TPOs)	Tree Preservation Orders (LBBD). 2013.
Indicator 11	Protected wharves	Safeguarded Wharves (Greater London Authority). 2019. Available from: <a href="https://data.london.gov.uk/dataset/safeguarded-wharves">https://data.london.gov.uk/dataset/safeguarded-wharves</a>
Indicator 12	Locally Significant Industrial Land (LSIS)	Local Industrial Sites as defined in the Extant Policies Map (LBBD). 2012. Available from: <a href="https://www.lbdd.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf">https://www.lbdd.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf</a>  As amended by Borough's Industrial Strategy (September 2020).
Indicator 13	Allocated use	Local Plan Allocations as defined in the Extant Policies Map (LBBD). 2012. Available from: <a href="https://www.lbdd.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf">https://www.lbdd.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf</a>  (N.B importantly, the review of this dataset only included allocated employment and hotel sites for review against housing sites. This is because other allocated uses are considered to be compatible with residential uses, and may come forward as mixed use development).
Indicator 14	Noise	Rail Noise LAeq16h Round 3 (DEFRA). 2017.  Rail Noise Lden Round 3 (DEFRA). 2017.  Rail Noise Night Round 3 (DEFRA). 2017.  Road Noise LAeq16h Round 3 (DEFRA). 2017.  Road Noise Lden Round 3 (DEFRA). 2017.  Road Noise Night Round 3 (DEFRA). 2017.  Available from: <a href="https://environment.data.gov.uk">https://environment.data.gov.uk</a>
Indicator 15	Topography	Copernicus terrain data for all areas with greater than 5 degree slope. © European Union, Copernicus Land Monitoring Service 2016, European Environment Agency (EEA)", f.ex. in 2018: "© European Union, Copernicus Land Monitoring Service 2018, European Environment Agency (EEA).
Indicator 16	Access to bus services	Bus stops (DfT NaPTAN). 2019.
Indicator 17	Access to rail services	Rails stations (Ordnance Survey Vector Mapping). 2019.

Appendix A

Detailed data sources used to inform the suitability assessment

Barking and Dagenham Local Plan

July 2020

Indicator reference	Description of indicator	Spatial datasets used
Indicator 18	Proximity to town centres	<p>Town Centres, District Centres and Neighbourhood Centres as defined in the Extant Policies Map (LBBD). 2012. Available from: <a href="https://www.lbld.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf">https://www.lbld.gov.uk/sites/default/files/attachments/Proposals-Map-DPD.pdf</a></p> <p>Town Centre Boundaries (Greater London Authority). 2019. Available from: <a href="https://data.london.gov.uk/dataset/town_centre_boundaries">https://data.london.gov.uk/dataset/town_centre_boundaries</a></p>
Indicator 19	Previously undeveloped land	Aerial photography. © Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



## **Appendix B**

### **Suitability assessment indicator areas**

**B.1** The indicators set out in Appendix A are shown in the following figures

## **Appendix C**

### **Assessment sites**

**C.1** The boundaries of the sites assessed under the strategic land availability assessment process are included on the following pages.