Topic paper for the review of the
Hertfordshire County Council Minerals Local Plan

Planning for the appropriate amount of sand and gravel

Version 3 - November 2018

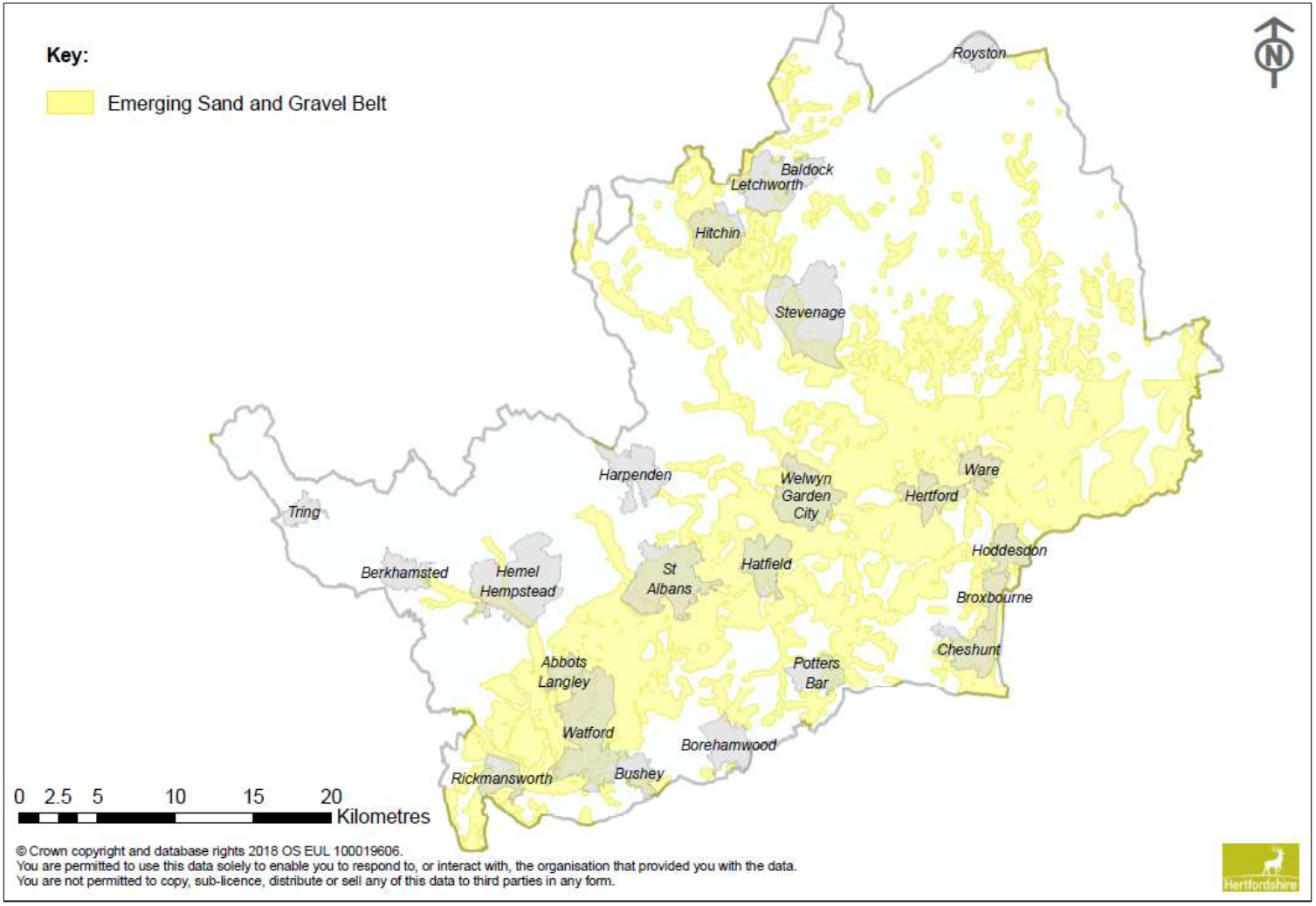
1. Introduction

This topic paper provides an overview of how the county council has assessed how much sand and gravel needs to be planned for within the emerging Minerals Local Plan, to supply Hertfordshire (and the wider area) throughout the period that it is set to cover (which will be 15 years from the date of adoption, which is anticipated for the summer of 2020).

2. Sand and Gravel in Hertfordshire

The geology of a county will dictate which minerals can be worked in that area and Hertfordshire predominantly contains sand and gravel resources which were laid down following the last ice age; as glaciers melted and rivers ran through the county.

These sand and gravel deposits are found in most parts of the county and are concentrated within a wide 'belt' in the southern part of Hertfordshire. This is the main area where the extraction of sand and gravel occurs as minerals can only be worked where they are found. The extent of the resource covers the majority of the District Council areas of Three Rivers, Watford, Hertsmere, Welwyn Hatfield and Broxbourne. Large parts of the City and District of St Albans and East Hertfordshire are covered, together with a small part of Dacorum. The sand and gravel deposits are shown on a simplified geological map which shows the 'belt' to be identified within the emerging Minerals Local Plan.


Key:
Emerging Sand and Gravel Belt
Royston
Baldock
Letchworth
Hitchin
Stevenage
Harpenden
Welwyn
Garden
City
Ware
Hertford
Tring
Hoddesdon
Berkhamsted
Hemel
Hempstead
St
Albans
Hatfield
Broxbourne
Cheshunt
Abbots
Langley
Potters
Bar
Watford
Borehamwood
Rickmansworth
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Hertfordshire

Sand and gravel extracted in Hertfordshire is mostly used by the construction industry. Most is washed and screened to remove clay particles and to separate the various sized stones. Larger stones are usually crushed and screened again. Most sand extracted in Hertfordshire is sharp sand and is suitable for making concrete (when mixed with various selections of gravel sizes, cement and water). Mineral operators sell sand and gravel of different sized particles depending upon the demand and ultimate use of the mineral for different purposes.

3. Extraction Sites

Active Extraction Sites

Sand and gravel extraction currently takes place at four quarries in Hertfordshire;

a. Tyttenhanger Quarry, Colney Heath;
b. Hatfield Quarry with the linked Symondshyde extraction site;
c. Thorley Hall Farm, Bishops Stortford; &
d. Pynesfield.

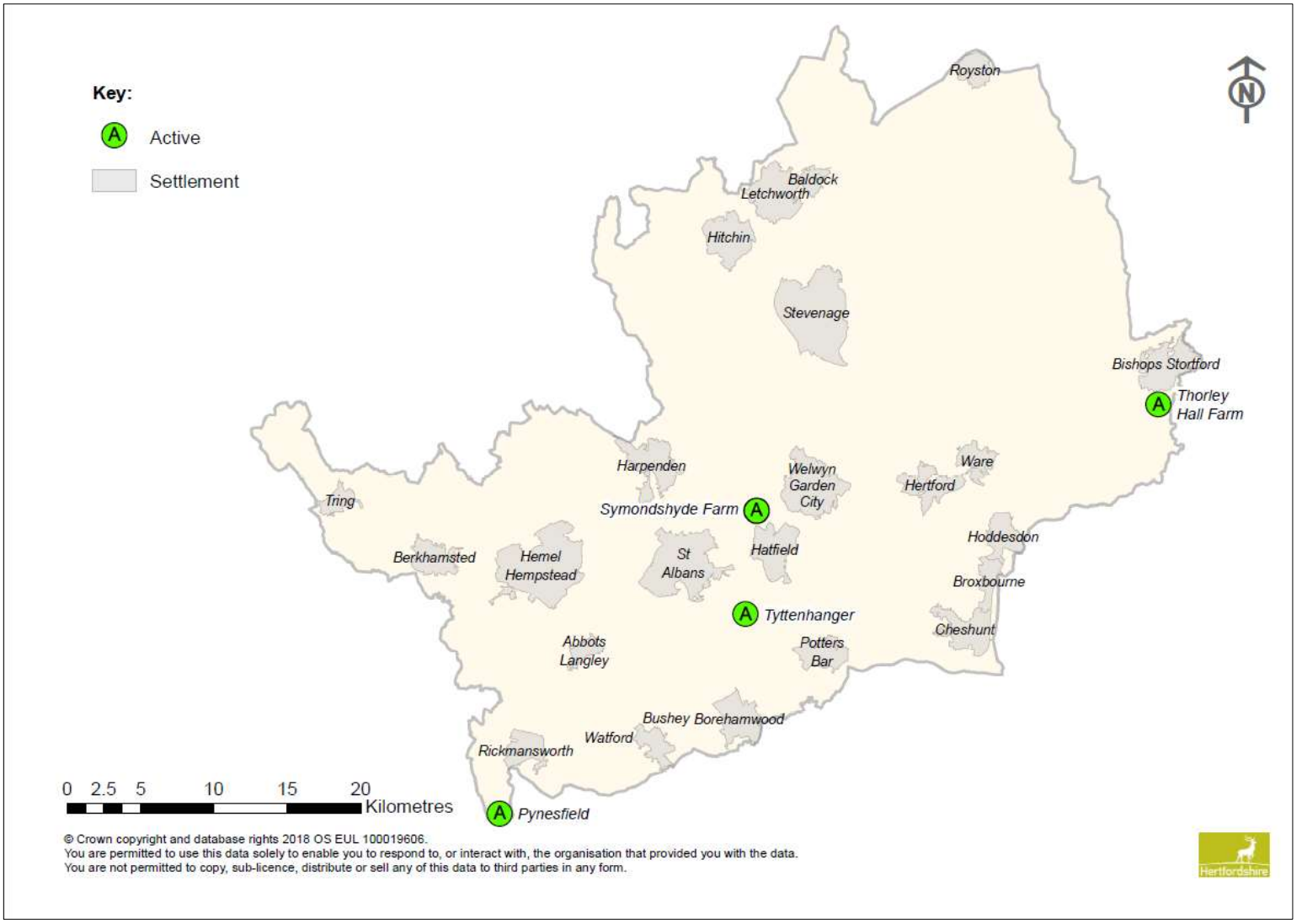
Planning permission has just (October 2018) been given for extraction at Furze Field, Hatfield and it is anticipated to be implemented soon.

Inactive Extraction Sites

Waterhall Quarry also has remaining reserves of sand and gravel (which have permission to be worked up until 31 December 2019) but no extraction is currently taking place due to ongoing enforcement issues at the site.

When calculating how much sand and gravel needs to be planned for in the emerging Minerals Local Plan, the county council must factor in the amount of sand and gravel that these existing sites contribute to the amount needed. This is explained further in section 9 of this paper.

The map on the next page shows the existing sand and gravel extraction sites across the county.


Key:
Active
Settlement
Royston
Baldock
Letchworth
Hitchin
Stevenage
Bishops Stortford
Thorley
Hall Farm
Harpenden
Welwyn
Garden
City
Ware
Hertford
Tring
Symondshyde Farm
Hoddesdon
Berkhamsted
Hemel
Hempstead
St
Albans
Hatfield
Broxbourne
Tyttenhanger
Cheshunt
Abbots
Langley
Potters
Bar
Bushey
Borehamwood
Watford
Rickmansworth
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Hertfordshire

4. Current Adopted Minerals Local Plan

The current Minerals Local Plan was adopted in 2007 and includes a policy in relation to the planned provision for sand and gravel which is as follows:

Minerals Policy 1 – Aggregates Supply

Planning permission for the extraction of proven economic mineral reserves will only be granted where it is necessary to ensure that adequate supplies are available to meet the county's agreed apportionment of regional supply.

The County Council will seek to maintain an appropriate landbank of sand and gravel reserves in accordance with government guidance, throughout the Plan period, consistent with the above apportionment, to enable an appropriate contribution to be made to meet the region's varying needs.

As the above policy outlines, a key consideration when determining whether to grant permission for a planning application (for sand and gravel extraction) is whether additional supply is needed to meet the county's agreed *apportionment of regional supply.* This is also known as the 'sub-regional apportionment'.

<u>The Sub-Regional Apportionment Figure</u>

Prior to the NPPF, which was first published in March 2012, the Government produced specific guidelines to allocate/apportion an amount of sand and gravel to be planned for by each Mineral Planning Authority to ensure that each authority area makes an appropriate, sustainable contribution to national and local aggregate supply.

This figure, known as the 'sub-regional apportionment', was published in the National and Regional Guidelines for Aggregates Provision in England' for the period 2005-2020.

At the time the adopted Minerals Local Plan was prepared, the sub-regional apportionment figure for Hertfordshire was 1.99 million tonnes per annum (Mtpa). That figure was used to calculate the amount of sand and gravel the adopted Minerals Local Plan planned for.

The sub-regional apportionment figure subsequently changed. The 1.99 Mtpa figure was reviewed through the National and Regional guidelines in 2009 and now stands at 1.39 Mtpa for the time period 2005-2020. This apportionment was approved by the East of England Aggregates Working Party and is in line with the Managed Aggregate Supply System (MASS).

5. Requirements for the Planning of Sand and Gravel

The role of the County Council as Minerals Planning Authority is set out in legislation (Town and country Planning Act 1990 (Schedule 1; Local Planning Authorities: Distribution of Functions)) and planning for sand and gravel is guided by the National Planning Policy Framework[1] (NPPF) and National Planning Practice Guidance (NPPG).

In recognition of the importance of minerals to support sustainable economic growth and our quality of life, the National Planning Policy Framework (NPPF) (paragraph 207) states that *'Minerals planning authorities should plan for a steady and adequate supply of aggregates*'. When carrying out this requirement a range of information needs to be taken into account. This information is summarised in the following sections.

National Policy Requirements

National Policy states that Minerals Planning Authorities should plan for a steady and adequate supply of aggregates and sets out how this should be achieved. In particular, para 207 states that:

*'**Local Aggregate Assessments** should be used to 'forecast future demand, based on **a rolling average of 10 years' sales data** and **other relevant local information** and an **assessment of all supply options**.'*

The following paragraphs of this section expand on the above requirements of the NPPF

Local Aggregate Assessment

Hertfordshire's Local Aggregate Assessment (LAA) sets out the sales of sand and gravel in Hertfordshire and the reserves (i.e the amount of sand and gravel left in the ground at the sand and gravel quarries which is yet to be extracted) of sand and gravel as they stand at the end of each year. The LAA is used to determine the most appropriate way to calculate the amount of sand and gravel which should be planned for in the emerging Mineral Local Plan and sets out the 'landbank' for Hertfordshire at the end of each calendar year (see section 8 for more information on the 'landbank' and how it is calculated).

Average Sales Figures

As the NPPF states, the 10 years average sales figure can also be used to forecast future demand of sand and gravel. Hertfordshire's 10 year average sales figure at the end of 2017 stood at 1.16 million tonnes (this is calculated by adding up the total end of year sand and gravel sales over the past ten years and dividing the figure by ten).

[1] https://www.gov.uk/government/publications/national-planning-policy-framework--2

The total sand and gravel sales figure at the end of 2017 was 1.17million tonnes. Considering the economy is still recovering out of recession, the growth agenda promoted by Government, the high levels of housing currently being planned for in Local Planning Authority Local Plans and the relatively low output of housing and infrastructure during the past decade of recession, the 10 year average sales figure is unlikely to provide any flexibility should demand increase in line with these growth factors.

This average figure is just one piece of evidence which helps to inform the amount of sand and gravel that is likely to be required over the length of the emerging Minerals Local Plan period. The 10 year average sales figure is important as it has to be included within the Mineral Planning Authority's Local Aggregate Assessment (LAA), which is published every year.

The three year average sales figure is also captured in Hertfordshire's LAA to assess more recent sales and monitor the shorter term trends in the county. The most recent LAA states, that the three-year average sales figure at the end of 2017 stood at 1.19 million tonnes.

The LAA will form part of the evidence base for the review of the Minerals Local Plan. It contains background information in respect of the geology within Hertfordshire, existing sand and gravel extraction sites and sales figures. The document can be found online at: http://www.hertfordshire.gov.uk/minerals

Other Relevant Local Information

The county council is fully aware of the Government's agenda for growth and the resultant potential housing numbers and associated infrastructure that Local Plans have to plan for. This planned growth will cause a rise in the amount of sand and gravel needed to meet the increased level of development. It is important that there is sufficient supply of material to provide the infrastructure, buildings, energy and goods that the county needs.

Other Supply Options

As National Policy states, the Local Aggregate Assessment should be used to forecast future demand. In so doing, it must provide an assessment of all supply options such as marine and recycled aggregates.

As section 2 of this paper explains, Hertfordshire predominantly contains sand and gravel resources.

The LAA provides an assessment of the other supply options which can be used in construction as an alternative to primary land won sand and gravel. The use of secondary and recycled aggregates in construction helps to minimise the need to extract primary sand and gravel resources.

Other supply options for Hertfordshire include recycled aggregate (derived from reprocessing materials previously used in construction), secondary aggregate (usually by-products of other industrial processed not previously used in construction) and marine aggregate which is dredged from the sea.

Additional National Policy Requirements

The NPPF (para 207) also states that minerals planning authorities should:

'participate in the operation of an Aggregate Working Party and take advice of that Party into account when preparing their Local Aggregate Assessment'

Aggregate Working Parties (AWP) are bodies set up to collect, share and analyse data and provide the opportunity for minerals planning authorities, industry and statutory bodies to engage with central government regarding the information needed to predict future needs. In recognition of this, the NPPF also states that Minerals Planning Authorities should actively participate in their Aggregate Working Party and take advice from them.

Hertfordshire County Council plays an active role in the East of England Aggregates Working Party and presents its Local Aggregate Assessment to them on an annual basis for their consideration. Until recently (2016), members of the East of England AWP agreed, collectively, to continue using the sub-regional apportionment figure as a suitable means for planning ahead. As authorities collect further sales data, take into account their local needs and start to review their minerals plans; some have decided to plan for future supply based on the past ten years sales figure (with a buffer to offer some flexibility) rather than the apportionment. Others, such as Hertfordshire, continue to plan on the basis of apportionment.

6. Other Mineral Authority Examples

In order to appropriately plan for sand and gravel in Hertfordshire it is beneficial to look at what other Mineral Planning Authorities have done to address this issue in their Minerals Local Plans. The approach taken by surrounding county councils in establishing how much sand and gravel to plan for over the lifetime of their Mineral Local Plans has been considered.

The Cambridgeshire & Peterborough, Minerals Local Plan was adopted in 2011, prior to the publication of the NPPF and NPPG. The wording within the document is very specific as the 'revised sub-regional apportionment' figure was the only figure that Mineral Planning Authorities were planning for.

Two other councils on the other hand (Essex – adopted July 2014 and Bedford/Central Bedfordshire/Luton– adopted January 2014) have prepared new Minerals Local Plans since the NPPF was introduced, and chose to use the apportionment figure. The justification for this led to a detailed explanation in the text with reference to the agreement by the East of England AWP, at that time, for members to continue to use the 'revised sub-regional apportionment' figure. In addition they also refer to this figure providing flexibility in the Plan for the UK economy to recover rather than relying on the sales figures which are lower.

In reviewing their plans more recently, Norfolk CC is proposing to use a 20 year sales average figure on which to base future need, Suffolk is proposing to use a 10 year sales average figure and Cambridgeshire and Peterborough are in the process of consulting on the potential figure to use in their local plan

review. Each authority will base their final decisions in line with the NPPF, taking advice from the AWP.

7. Approach taken to calculating the amount of sand and gravel planned for in the emerging Minerals Local Plan

Taking all of the above information into account, the Hertfordshire LAA concludes that the use of the 1.39 Mtpa (the sub-regional apportionment) figure is the most appropriate way to plan for sand and gravel supply within the emerging Minerals Local Plan.

As stated above, using the 10 year average sales figure to calculate supply runs the risk of undersupplying of sand and gravel resources to meet the future demand. The sand and gravel sales are already exceeding the 10 year average sales figure which is indicative that the demand for sand and gravel is increasing as we continue to recover out of recession.

The use of the 1.39 Mtpa sub-regional apportionment figure provides flexibility which will enable the county to meet the future demand for sand and gravel, which will be higher than it is now, due to the high levels of growth planned for within the District/Borough Local Plans.

The sub-regional apportionment figure also takes into account the proportion of alternative aggregates which could be used in construction as opposed to primary sand and gravel resources. These alternative aggregates include recycled aggregate (derived from reprocessing materials previously used in construction), secondary aggregate (usually by-products of other industrial processed not previously used in construction) and marine aggregate which is dredged from the sea.

This approach (using the 1.39Mtpa figure) has been discussed at the EEAWP who have stated that, in line with the NPPF, it is for individual authorities to determine whether to continue to plan in line with the 'revised sub-regional apportionment' or the rolling ten years' sales average, taking into account other local information.

The below sections explain how the sub-regional apportionment figure has been used to calculate the amount of sand and gravel planned for in the emerging Minerals Local Plan.

8. Calculating the Landbank

What has been a requirement, even prior to the NPPF, is the need for a 'landbank' of at least seven years.

Paragraph 207 of the NPPF states:

'Minerals Planning Authorities should plan for a steady and adequate supply of aggregates by:

"Using landbanks of aggregate minerals reserves principally as an indicator of the security of aggregate minerals supply, and to indicate the additional provision that needs to be made for new aggregate extraction and alternative supplies in mineral plans;"

"maintaining landbanks of at least 7 years for sand and gravel"

The 'Landbank' describes the number of years the total amount of permitted sand and gravel reserves (i.e the sand and gravel that has planning permission to be extracted) would supply the market for. The current landbank is calculated by dividing the amount of permitted reserves of sand and gravel by the annual apportionment figure (1.39 Mtpa for Hertfordshire). For example, if there is a total of 13.9 m tonnes of sand and gravel that has planning permission to be extracted across the sand and gravel quarries of Hertfordshire, and the apportionment figure is 1.39 m tonnes per year, that amount would last for 10 years.

Example landbank calculation: 13.9 mt ÷ 1.39 mtpa = 10 years

The LAA 2018 (which covers the calendar year of 2017) states that the landbank for Hertfordshire at the end of 2017 stood at 7.5 years.

9. Calculating the total required supply

National policy requires a landbank of at least seven years needs to be maintained throughout the life of the local plan and that sites should be identified in the Minerals Local Plan that can provide for this amount of sand and gravel[2].

The amount of mineral that needs to be planned for over the period that the emerging Minerals Local Plan is set to cover (which is 15 years from its date of adoption, which is anticipated for the summer of 2020) is therefore the annual requirement (1.39Mtpa) multiplied by the length of the plan period, which must cover 15 years.

However, delivering a local plan can be a very lengthy process and it is sensible to plan for the required minimum seven year land bank on top of the 15 year plan period. This means that the emerging Minerals Local Plan plans for a supply of sand and gravel to cover a period of 22 years (15 year supply + 7 year minimum landbank = 22 years). So for Hertfordshire, this would mean planning for 22 years' worth of the annual requirement.

Hertfordshire's requirement calculation: 1.39 mtpa x 22 years = 30.58 mt

In order to identify the appropriate amount of sites and not 'over supply', the level of sand and gravel which is supplied through existing permissions is subtracted from the total of 30.58 million tonnes. The most recent LAA (2018) states that the permitted reserves of sand and gravel at the end of 2017 stand

2 This is the requirement of paragraph 207 c of the NPPF 2018

at: 10,458,308 mt. This means that the Minerals Local Plan needs to make provision for the following:

30.58 million tonnes – 10.46 million tonnes = **20.13 million tonnes**

The sites and areas identified to meet this need and their estimated tonnages are:

Specific Site 1 - BAe = 8 Mt

Specific Site 2 - Hatfield Quarry - Furze Field = 0.45Mt

Specific Site 3 - Hatfield Quarry - Land adjoining Coopers Green = 3.5Mt

Preferred Area 1 - The Briggens Estate (Olives Farm) = 10.2Mt

Estimated Total provision = 22.15mt

For further information on how the above sites were identified for inclusion within the emerging Minerals Local Plan, please see the 'Mineral Site Selection' and 'Specific Mineral Sites and Preferred Area' Topic Papers.

10. The Proposed Submission Minerals Local Plan

The county council has developed the proposed submission Mineral Local Plan as an appropriate strategy to provide for a steady and adequate supply of sand and gravel in line with the sub-regional apportionment figure of 1.39 million tonnes per annum. For the reasons set out in this paper, the county council considers that the apportionment remains the most appropriate figure for which to plan for mineral provision within Hertfordshire.

As such, the sites identified in the Proposed Submission Plan (which are the same as those identified in the Draft Minerals Local Plan) provide opportunities for the provision of 22.15 million tonnes of sand and gravel supply over the emerging Minerals Local Plan period, to ensure an adequate landbank of at least seven years can be maintained throughout the 15 year plan period.