1. Introduction

This topic paper provides an overview of how much sand and gravel needs to be planned for within Hertfordshire. This topic paper can be used as a guide to the review of the existing Minerals Local Plan 2002-2016, adopted March 2007. This topic paper has been updated since the Initial Consultation and prepared in advance of the Draft Plan consultation.

2. Sand and Gravel in Hertfordshire

Hertfordshire contains sand and gravel resources that are known as ‘drift’ deposits. Sand and gravel deposits were produced during glaciation and the flow of river channels across the county approx. 0.5-1.5 million years ago. They are found in most of the major valleys in Hertfordshire, particularly the valleys of River Mimram, River Lea, Ver and the River Colne.

Although sand and gravel deposits are found in most parts of the county, they are concentrated within a sand and gravel belt which is an area 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. This area covers the whole 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.

However, in addition, there are also sand and gravel deposits within the northern part of the county. These deposits are in pockets rather than a continuous belt in the District Council areas of North Hertfordshire and Stevenage.

Sand and gravel from 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 building purposes.

3. Extraction Sites

Currently sand and gravel extraction takes place at five quarries in
Hertfordshire;
   a. Panshanger Quarry, Hertford;
   b. Tyttenhanger Quarry, Colney Heath;
   c. Westmill Quarry, Ware;
   d. Hatfield Quarry with the linked Symondshyde extraction site;
   e. Pynesfield.

In addition, there are three sand and gravel extraction sites with extant planning permission;

- Thorley Hall Farm – permission is being implemented for the construction of an agricultural reservoir,
- Waterhall – reserves remain under the plant site, but extraction has ceased on site and the site is classed as inactive;
- Dobbs Weir – closed, plant removed and restored so the site is classed as inactive.

This map shows the location of permitted sand and gravel sites in the county:

Source: Local Aggregate Assessment 2017.
4. Planning for Sand and Gravel

Sub-Regional Apportionment

The planning for sand and gravel is guided by the National Planning Policy Framework (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 NPPF in paragraph 145 states that ‘Minerals planning authorities should plan for a steady and adequate supply of aggregates’.

Prior to the NPPF, the government allocated/apportioned Mineral Planning Authorities (Hertfordshire County Council in this instance) an amount of sand and gravel to plan for to supply to the market. This figure was known as the ‘sub-regional apportionment’. The figure was used to plan for sites that could be extracted and yield enough sand and gravel to supply the market according to what the government calculated was required over a period of 15 years. This figure took into account that there is a proportion of alternative aggregates which are used in construction and their use impacts upon the amount of primary aggregate needing to be dug from the land. 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.

The ‘sub-regional apportionment’ figure was used in the adopted Minerals Local Plan. The figure for Hertfordshire at that time was 1.99 million tonnes per year. Minerals planning has changed with the introduction of the NPPF. There is now no apportionment figure assigned to authorities within a national guidance document, however Government recognises that the apportionment figure was approved by authorities as an appropriate way forward to deal with imbalances of supply and demand for aggregates across the country. The agreement to use the sub-regional apportionment figure was taken by members of the Aggregate Working Parties (AWP) which are groups made up of Mineral Planning Authorities and key industry representatives in each former region within the country. The NPPF states that Minerals Planning Authorities should actively participate in the Aggregate Working Party and take advice from them.

The sub-regional apportionment figure has been revised since the adoption of the existing Minerals Local Plan and now stands at 1.39 million tonnes per year for Hertfordshire. This figure was underpinned by the government produced document ‘National and Regional Guidelines for Aggregates Provision in England’ for the period 2005-2020.

This ‘revised sub-regional apportionment’ figure was worked out to ensure that each authority area makes an appropriate sustainable contribution to national and local aggregate supply. The ‘revised sub-regional apportionment’

---

figure is just one piece of evidence that the MPA uses to assess the amount of aggregate needing to be planned for.

Average Sales Figures

The 10 year average sales figure for sand and gravel in Hertfordshire is another piece of evidence to establish the amount of sand and gravel that is likely to be required over the length of the emerging Plan period. The Government has introduced the 10 year average sales as a significant figure for planning for minerals as it has to be included within the Mineral Planning Authority’s Local Aggregate Assessment (LAA).

The three year average sales figure is also captured to assess the most recent sales and monitor the longer term pattern of sales in the county. The Local Aggregate Assessment will form part of the evidence base for the review of the Minerals Local Plan. It contains much background information in respect of the geology within Hertfordshire, existing sand and gravel extraction sites and sales. The document can be found online at: http://www.hertfordshire.gov.uk/minerals

Of importance to the Local Aggregate Assessment is the need to include:

- other relevant local information and analysis of all supply options;
- an assessment of the balance between demand and supply; and
- the economic and environmental opportunities and constraints

All of these might influence the situation for the amount of sand and gravel that should be planned for.

Landbank

What has been a requirement even prior to the NPPF was the need for a landbank of at least seven years. This means that there should be a collection of permitted sand and gravel reserves to rely on for the supply of sand and gravel. The landbank is calculated as seven times the annual requirement for sand and gravel.

Whatever figure is used by Hertfordshire County Council to plan for mineral provision, a landbank of at least seven years needs to be calculated and sites found that can provide this amount of sand and gravel. This is calculated by multiplying the ‘revised sub-regional apportionment’ or other figure chosen for mineral planning by seven to arrive at the landbank amount.

National Policy

The NPPF (para 145) states that Local Aggregate Assessments should be based on a rolling average of 10-year sales data and other relevant local information. The relevant local information will need to be presented during the development of the Plan in order to provide robust justification for the use of a figure other than the 10-year average sales figure in the Plan. However, when considering the growth agenda promoted by Government, the 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 at all.

The NPPF (para 145) 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. Member-counties of the EEAWP have agreed as a group to use apportionment figures as they are considered a more realistic estimate of future minerals demand for the East of England so the use of the apportionment figure will provide consistency with neighbouring Plans.

The key element of planning for mineral demand in the East of England is the government’s growth agenda as is evident in the proposed housing figures being planned for in the District/Borough Local Plans. The LAA includes the potential draw on mineral reserves within the county with regard to listing key planned housing and infrastructure. In addition, the calculation of average sales over the most recent timeframe of three years shows that construction rates have started to increase as this figure is higher than the 10 year average sales figure.

5. Existing Minerals Local Plan Policy

The existing Minerals Local Plan 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.

The emphasis in the adopted Minerals Local Plan is on the ‘revised sub-regional apportionment’ which was the figure used to calculate the sand and gravel landbank. It is for the review of the Minerals Local Plan to determine whether or not a similar approach is to be taken by using the ‘revised sub-regional apportionment’ figure or to use an alternative figure and specify this figure within an overarching policy.
6. How much should Hertfordshire plan for?

The County council had to determine how much sand and gravel should be planned to be extracted within Hertfordshire over the lifetime of the next Minerals Local Plan, which is proposed to be a 15 year period running from 2016-2031. With the introduction of the Local Aggregate Assessment and the recording of 10 years average sales of sand and gravel, the choice was between the 10 year sales figure or the continuing use of the ‘revised sub-regional apportionment’ figure. This decision was based upon a justified evidence base and in line with collective decisions taken by the East of England Aggregate Working Party to which the county council belongs.

The stance that the EEAWP is currently taking is that collectively authorities have decided to continue to plan in line with the ‘revised sub-regional apportionment’ figure for which there was much work undertaken in the past to justify it and is therefore considered reliable.

The difference in the figures is the following:\(^2\):  
East of England AWP apportionment figure = 1.39 million tonnes  
10 year average sales figure (2004-2013) = 1.16 million tonnes  
3 year average sales figure (2011-2013) = 1.19 million tonnes

Other Relevant Local Information

The county council is fully aware of the Government’s agenda for growth and the resultant potential housing numbers that Local Plans have to plan for. This results in there being a rise in the amount of sand and gravel required for an increased level of development. It is important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the county and the country needs. However, since minerals are a finite resource, and can only be worked where they are found, it is important to make best use of them to secure their long-term conservation.

The Local Aggregate Assessment concludes that due to the recession, the last 10 years sales figures do not necessarily show a true picture for the real demand for sand and gravel. There is concern that it does not assist with forward planning in light of the Government’s agenda for promoting growth which is reflected in the housing being planned for in District Council Local Plans and will inevitably require sand and gravel to enable construction.

The Government’s aim is to provide a simpler and more transparent approach to calculating the supply of sand and gravel than the apportionment method that relies on a complex model incorporating a range of confidential variables. However, the apportionment figure factors in a proportion of secondary and recycled aggregate that is expected to be used in place of some primary land won aggregate. If the county council was to use a different figure for mineral planning and move away from the ‘revised sub-regional apportionment’ it would have to be clear on the precise proportion of secondary and recycled

---

\(^2\) Hertfordshire County Council local Aggregate Assessment 2016
aggregate that is used in developments in order to be able to establish a different figure to use when planning for sand and gravel.

The Local Aggregate Assessment includes a section on key planned infrastructure requirements which lists the potential major developments being planned for which, if permitted and implemented, may draw on minerals within the county. Due to uncertainty of delivery and their timing it is difficult to programme this supply of material for the projects into the planning of minerals in the county over the next 15 years. If the county council was to factor this development into the supply figure and move away from the ‘revised sub-regional apportionment’ it would have to be clear on the precise amount and timing of the need for this supply of mineral in order to establish a different figure and plan for the delivery of sites coming on stream at different stages over the 15 year plan period.

7. Initial Consultation

The Minerals Local Plan Initial Consultation document included chapter 7: Quantity of Sand and Gravel Provision which asked consultees what quantity of sand and gravel should the county council plan for each year?

The options suggested within the consultation document that the county council could base the annual quantity upon were as follows:

- Sub-regional apportionment (1.39mtpa);
- 10 year average sales; or
- An alternative figure.

Approximately two-thirds of responses supported the use of the East of England Aggregate Working Party (EEAWP) apportionment figure of 1.39 million tonnes per year as the figure on which to plan for a steady and adequate supply of sand and gravel supply so this is what the Minerals Local Plan will use.

8. 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 to establishing how much sand and gravel to plan for over the lifetime of their Mineral Local Plans has been considered.

One Mineral Local Plan that has been looked at (Cambridgeshire & Peterborough) was adopted in 2011 prior to the publication of the NPPF on 27 March 2012 and subsequently the NPPG (2014). 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 approval by the East of England AWP 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 is lower. This is in line with the conclusions of Hertfordshire’s Local Aggregate Assessment.

9. Developing a strategy for identifying sufficient provision of sand and gravel

The county council has a duty to continue to produce a Local Aggregate Assessment which will be updated annually to ensure an up to date record of sand and gravel sales and demand within the county. In addition the council will continue to be a contributing member of the Aggregate Working Party for the East of England which is the platform to discuss the continuing use of the ‘revised sub-regional apportionment’ figure when preparing Mineral Local Plans or any such alternative figure to plan for.

The new Minerals Local Plan must be consistent with the NPPF and take on board the guidance set out within the NPPG. It will need to be clear in respect of how much sand and gravel the Mineral Planning Authority is proposing to plan for and provide justification for this. Should the situation change in light of new guidance and/or a change in the opinion of the Aggregate Working Party, the county council will need to adapt the Minerals Local Plan accordingly. As such it is essential to have a precise audit trail to show when decisions have been made and how the Local Plan has reflected this.

The figure will dictate how many sites will be required to fulfil the county’s supply of sand and gravel dependent upon the size and quality of the reserves. Associated with this, when you establish how much sand and gravel to plan for, this enables operators and development management officers at the council (who determine mineral planning applications) to understand the sites which need to be worked before other less suitable sites, based upon a sound and reasoned evidence base.

10. Way Forward for the Draft Minerals Local Plan

Hertfordshire needs to be clear on how much sand and gravel needs to be planned for. Any deviation from the ‘revised sub-regional apportionment’ will require substantial evidence to support it and at this point in time other East of England AWP members are not wishing to deviate from the use of this figure for their respective authority areas and Hertfordshire considers it is not in a strong position to plan for any other figure.
The demand for sand and gravel is predicted to rise. In light of this, the council does not wish to restrict development in any way and therefore considers there needs to be sand and gravel made available for an upturn in development, especially in light of housing numbers being planned for throughout the county.

The county council has developed the Draft MLP to provide a steady and adequate supply of sand and gravel in line with the sub-regional apportionment figure of 1.39 million tonnes per annum. The County Council and majority of consultees consider that the apportionment remains the most appropriate figure for which to plan for mineral provision within Hertfordshire.

As such, the site selection methodology will identify sufficient sites for the provision of 30.58 million tonnes to ensure an adequate landbank of at least seven years can be maintained throughout the 15 year plan period. This total figure is calculated by multiplying the annual apportionment by the length of the Plan period plus the required landbank at the end of the Plan period.

\[1.39 \text{ million tonnes} \times (15\text{yrs} + 7\text{yrs}) = 30.58 \text{ million tonnes}\]

The 30.58 million tonnes will include sites with extant planning permission for mineral extraction, as detailed in the up to date Local Aggregate Assessment, and newly identified sites and/or areas for extraction.