Local Aggregate Assessment 2022

Covering Data from the Calendar Year of 2022

Hertfordshire County Council

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Executive Summary

Hertfordshire County Council, as the Mineral Planning Authority for the area, has a duty under the National Planning Policy Framework (NPPF) to produce a Local Aggregate Assessment (LAA) on an annual basis and to participate in the operation of an Aggregate Working Party, whose advice must be taken into account when preparing the LAA.

The Council is part of the East of England Aggregates Working Party (EoEAWP), whose advice has been taken into account in the preparation of this LAA. This LAA was prepared in 2023 and covers data from the **calendar year 2022**.

The LAA contributes towards the evidence base for the Hertfordshire Minerals and Waste Local Plan. Its primary purpose is to set out the current level of aggregate supply and demand for Hertfordshire and to calculate the current landbank of sand and gravel.

The 2022 total sales of sand and gravel stand at **1.02Mt** (million tonnes). A decrease of approximately 0.13Mt when compared to the previous year's figure of 1.15Mt.

Throughout the calendar year of 2022, no planning applications for sand and gravel extraction have been approved, meaning that no additional reserves have been added to Hertfordshire's landbank. The landbank of sand and gravel as of the end of 2022 stands at **4.9 years**.

Whilst the landbank is currently low, the reserves from Land adjoining Coopers Green Lane (3.52 Mt) will be added to supply once the Decision Notice has been issued. The reserves from this site will help to boost the landbank figure.

The emerging Minerals and Waste Local Plan will ensure mechanisms are in place to support the future supply of sand and gravel.

2022 Headline Figures

	Performance in 2022	Comparison with 2021
Land won sand and gravel sales (Mt)	1.02	↓0.13
Permitted reserves of sand and gravel at end of year (Mt)	5.71	↓0.76
Landbank based on LAA Rate (years)	4.9	↓0.6
Landbank based on 10-year sales average (years)	4.9	↓0.6
Landbank based on 3-year sales average (years)	5.2	↓0.3
Number of Allocated Sites remaining (in current adopted Minerals Local Plan) with unpermitted reserves	2	2
Remaining potential yield (Mt) from Preferred Areas	approximately 14	approximately 14
Rail depot imports of crushed rock (Mt)	0.69	↓0.05

1. Introduction

1.1 Minerals such as sand, gravel, crushed rock, chalk and clay all provide the construction industry with the raw materials required for constructing and maintaining the built environment. Minerals are also essential elements in the production of a variety of other products, such as everyday items like glass, medicine, and food. An adequate and steady supply of minerals is essential if current standards of living are to be maintained in society, as well as meeting basic needs for quality of life, such as shelter.

1.2 The National Planning Policy Framework (NPPF) recognises the importance of minerals and sets out the requirement for minerals planning authorities to produce a Local Aggregates Assessment (LAA) on an annual basis.

1.3 Paragraph 219a of the NPPF states that Minerals planning authorities should plan for a steady and adequate supply of aggregates by*:*

Preparing an annual Local Aggregate Assessment, either individually or jointly, to forecast future demand, based on a rolling average of 10 years' sales data and other relevant local information, and an assessment of all other supply options (including marine dredged, secondary and recycled sources)'

1.4 This LAA has been prepared to fulfil the requirements of the NPPF and has also been prepared in line with Planning Practice Guidance (PPG) and the Planning Officers Society and Mineral Products Association (POS/MPA) Practice Guidance on the production and use of LAAs Living Document (May 2017).

2. Mineral Resources

2.1 The main naturally occurring mineral resources in Hertfordshire include sand and gravel with smaller deposits of chalk and brick clay (as shown in Figure 1 below). Sand and gravel are the predominant minerals worked in the county. No brick clay extraction currently takes place. Chalk is extracted only on a small scale, for use as an agricultural lime and is classed as an industrial mineral rather than an aggregate used in construction.

2.2 Hertfordshire has no indigenous reserves of crushed rock (limestone) and is therefore entirely reliant on imports of this mineral through the Hertfordshire Rail Aggregate Depots (see Appendix 3) as well as by road, to meet the county's demands for this type of mineral.

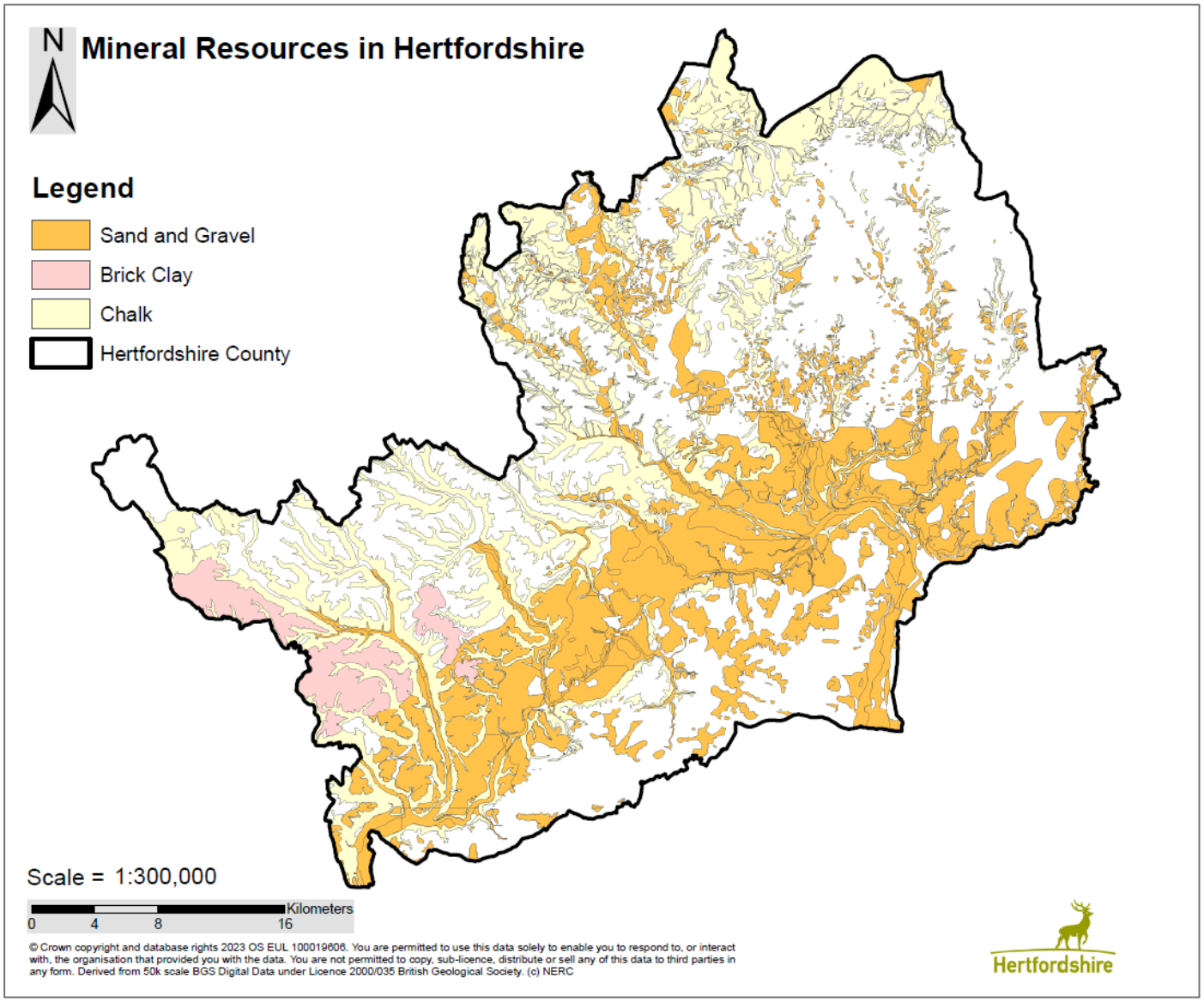
2.3 Sand and gravel resources occur in Hertfordshire within superficial or 'drift' deposits and are subdivided into a number of categories including fluvioglacial, glacial, river terrace and sub-alluvial deposits[1].

2.4 Deposits of sand and gravel are found in most parts of the county although they are concentrated in an area south of a line between Bishops Stortford in the east and Hemel Hempstead in the west (often referred to as the sand and gravel belt).

2.5 Sand and gravel from Hertfordshire is mostly used by the construction industry. 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. Building sand, also known as soft sand, is less commonly found in the county, and is mostly imported.

[1] BGS & ODPM, 2003, Technical report CR/03/075/N Mineral Resource Information in support of National, Regional and Local Planning: Hertfordshire and Northwest London Boroughs

Figure 1: Main Naturally Occurring Minerals in Hertfordshire



3. Sand and Gravel Reserves

3.1 The term ‘permitted sand and gravel reserves’ refers to the supply of sand and gravel which has planning permission to be extracted. There are six permitted sand and gravel quarries in Hertfordshire as of the end of 2022. Of these six sites, three have remaining permitted reserves of sand and gravel. The three sites are Tyttenhanger Quarry, Hatfield Quarry and Thorley Hall Farm.

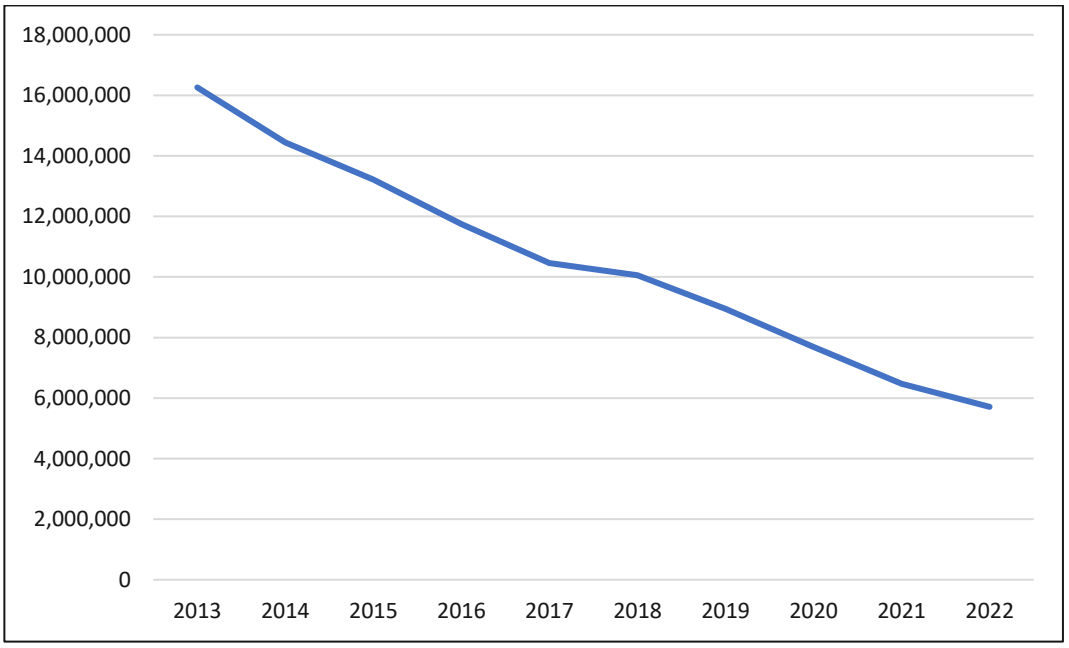
3.2 The remaining three sites are no longer extracting sand and gravel and are either in the process of infill and or restoration. See Appendix 1: Sand and Gravel Sites for further details about the sand and gravel sites in Hertfordshire.

3.3 At the end of 2022 the total permitted reserves figure stood at 5.71Mt. The reserves have decreased by approximately 0.76Mt when compared to last year’s reserves figure (6.47Mt), in line with a recalculation in reserves, provided through the operator returns[2].

3.4 A breakdown of the Hertfordshire permitted reserves over the 10-year period from 2013 to 2022 can be seen in Figure 2 below. Permitted reserves decline as sites are worked and material is supplied to the market. However, reserves figures are boosted periodically through the approval of planning applications for sand and gravel extraction. For example, the approval of Furze Field (an extension to the existing Hatfield Quarry) in October 2018 meant that the end of 2018 reserves figure remained at a similar level to that which existed at the end of 2017, as opposed to dropping in line with the sales.

[2] Operators of the sand and gravel quarries in Hertfordshire provide information to the council each year through the Annual Aggregate Monitoring Surveys

Figure 2: Permitted Reserves of Sand and Gravel (Tonnes)



3.5 Hertfordshire's permitted reserves of sand and gravel have been decreasing since 2014. The only way to address the shortfall in reserves is to ensure that suitable sites for future extraction are identified through the Minerals and Waste Local Plan.

Supply from the Preferred Areas within the Adopted Minerals Local Plan 2007

3.6 The adopted Minerals Local Plan (adopted in 2007) identifies three Preferred Areas with the intention that they would supply the county with enough sand and gravel resources over the period that it covers (2002-2016). The three Preferred Areas in the adopted Minerals Local Plan are:

Preferred Area 1 – BAE (Hatfield Aerodrome)
Preferred Area 2 – Rickneys; &
Preferred Area 3 – Coursers Road (Tyttenhanger)

3.7 There are still potentially workable reserves remaining at two of the three Preferred Areas. Details of the three Preferred Areas and their planning status are provided below.

Preferred Area 1 - BAE

Land at Hatfield Aerodrome

3.8 An application for the extraction of up to 8Mt of sand and gravel on Land at Hatfield Aerodrome (planning reference number 5/0394-16) was refused at Development Control Committee on 24 September 2020[3].

3.9 On 30 June 2021, Brett Aggregates Limited submitted an appeal to the Secretary of State against the decision of the Council to refuse planning permission for the

[3] To read the report presented to the Development Control Committee on 24 September 2020, go to: https://democracy.hertfordshire.gov.uk/ieListDocuments.aspx?CId=157&MId=1950

extraction of sand and gravel on Land at Hatfield Aerodrome (appeal reference APP/M1900/W/21/3278097).

3.10 The appeal was determined on the basis of a public inquiry which took place from 16 November 2021 to 06 December 2021. On 25 January 2022, the appeal was dismissed[4].

3.11 On 3 September 2021, the council received a revised planning application (planning reference number PL/0232/21) from Brett Aggregates Limited for the extraction of up to 8Mt of sand and gravel on Land at Hatfield Aerodrome. The application falls on the same parcel of land as the application that was dismissed at appeal.

3.12 On 31 October 2023, the revised planning application on Land at Hatfield Aerodrome was refused at Development Control Committee[5]. The status of this site will continue to be monitored in the LAA.

3.13 Preferred Area 1 has a remaining potential yield of up to 8Mt of sand and gravel.

Preferred Area 2 – Rickneys

Land at Ware Park (also known as Bengeo Quarry)

3.14 Two planning applications were submitted on Land at Ware Park, which is comprised of the southern part of Preferred Area 2 and adjoins the mothballed Rickneys Quarry. Both applications were refused at Development Control Committee on separate occasions.

3.15 The applicant appealed the decision on the first application (2.6Mt[6]) and a Public Inquiry was held for three weeks in May 2018 and for a further three days in October 2018. The Secretary of State issued a decision on 4 April 2019 which dismissed the appeal.

3.16 Preferred Area 2 has a remaining potential yield of 5-6Mt of sand and gravel.

Preferred Area 3 – Coursers Road

3.17 Preferred Area 3 is being worked as an extension to Tyttenhanger Quarry. The application for an eastern extension of the existing quarry (south of Coursers Road) was permitted on 23 February 2011.

Potential Future Supply from Mineral Allocation Sites within the emerging Minerals and Waste Local Plan

3.18 The council has identified three Mineral Allocation Sites (MAS) within the emerging

[4] To read the appeal decision search on the council's planning webpages (https://planning.hertfordshire.gov.uk/) using planning reference number 5/0394-16.
[5] To view the committee papers, follow this link: https://democracy.hertfordshire.gov.uk/ieListDocuments.aspx?CId=157&MId=5243
[6] The applicant amended the extraction limit of this application from 2.6Mt to 1.75Mt.

Minerals and Waste Local Plan (the Plan), which is currently at Draft Pan stage[7]. Once the Plan is adopted it will replace the current adopted Minerals and Waste Local Plan documents[8].

MAS01: The Briggens Estate

3.19 MAS01: The Briggens Estate has a workable reserve of up to 8.8Mt of sand and gravel. The site has not been subject to any planning applications for sand and gravel extraction.

MAS02: Hatfield Aerodrome

3.20 See paragraphs 3.8 to 3.13 above.

MAS03: Land Adjoining Coopers Green Lane

3.21 On 22 October 2020, a planning application for the extraction of 3.52Mt of sand gravel at Land adjoining Coopers Green Lane, Hatfield Quarry (planning reference number PL\0963\18) was presented to the council's Development Control Committee and received approval, subject to the signing of a Section 106 Legal Agreement (S106). Once the Decision Notice has been issued, the site will have planning permission and the reserves can be added to the total permitted reserves figure. The LAA will continue to monitor this site.

3.22 Whilst the current permitted reserves (5.71Mt) are low, there are mechanisms in place to ensure future supply. Policy 4 of the adopted Minerals Local Plan 2007 provides for the extraction of sand and gravel outside of the Preferred Areas under specified circumstances. There are also remaining workable reserves at two of the Preferred Ares in the adopted Minerals Local Plan and the emerging Minerals and Waste Local Plan identifies three Mineral Allocation Sites which, when adopted, have the potential to supply the county with sand and gravel to meet future needs.

[7] The Draft Minerals and Waste Local Plan is available to view here: https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/planning-in-hertfordshire/minerals-and-waste-planning/local-plan.aspx#DynamicJumpMenuManager_1_Anchor_1

[8] The current adopted Minerals and Waste Local Plan documents can be viewed via the following link: https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/planning-in-hertfordshire/minerals-and-waste-planning/minerals-and-waste-planning.aspx

4. Forecasting the Annual Rate of Future Demand

4.1 The LAA Rate is a figure (in Mtpa) used in the calculation of the sand and gravel landbank. The LAA Rate represents the annual rate of future demand for sand and gravel and is based on the most up to date information available. The LAA Rate is not a fixed figure and is reviewed each year through the LAA.

4.2 The landbank figure represents the number of years the permitted reserves of sand and gravel will last for. It is calculated by dividing the permitted reserves by the LAA Rate. For more information on the landbank see Chapter 5.

4.3 The 2022 LAA Rate has been set at 1.16Mtpa and is based on the 10-year sales average figure. This chapter sets out the information considered in setting the LAA Rate. The information considered is consistent with the requirements of paragraph 219a of the NPPF, which states that minerals planning authorities should plan for a steady and adequate supply of aggregates by:

'Preparing an annual Local Aggregate Assessment, either individually or jointly, to forecast future demand, based on a rolling average of 10 years' sales data and other relevant local information, and an assessment of all other supply options (including marine dredged, secondary and recycled sources)'

4.4 Paragraph 219d of the NPPF also states that minerals planning authorities should take account of any published National and Sub National Guidelines on future provision when planning for future demand.

4.5 Planning Practice Guidance (PPG) states that the 2009 National and Regional Guidelines for Aggregates Provision in England are not to be interpreted as rigid standards[9] and that minerals planning authorities may decide, collectively, to plan for more or less than set out in the Guidelines based on their Local Aggregate Assessment[10]. The Guidelines however only covered the period from 2005-2020 and therefore no longer provide an accurate basis upon which to inform future aggregate demand.

4.6 The Practice Guidance on the Production and use of Local Aggregate Assessment Living Document May 2017 states that minerals planning authorities should consider the indicators of potential future growth in demand for aggregates in order to make a qualitative forecast in the LAA to, if necessary, clearly indicate whether demand is considered likely to be above the prevailing 10-year average. The document states that there will need to be sufficiently robust information to justify deviation from the starting point of the 10 years rolling sales average (as required by the NPPF).

[9] Paragraph: 068 Reference ID: 27-068-20140306
[10] Paragraph: 070 Reference ID: 27-070-20140306

Sales Data

Total Sales

4.7 The 2022 total sand and gravel sales figure stands at 1.02Mt; a decrease by approximately 0.13Mt when compared to last year's total sales figure of 1.15Mt.

4.8 After a drop in sales in 2016 (1.16Mt), sales of sand and gravel saw a gradual increase over the period from 2017 to 2019, indicating that demand was slowly increasing. In 2019, the total sales of sand and gravel stood at 1.25Mt. The highest figure recorded since 2011 (1.27Mt).

4.9 In 2020, sales of sand and gravel dropped to their lowest (1.12Mt) since 2012. It is thought that the drop in sales in 2020 reflected the temporary slowdown and shut down in the construction sector because of the Coronavirus pandemic.

4.10 In 2021 the sales figure marginally increased up to 1.15Mt. The Mineral Products Association (MPA) reported that at the end of 2021, construction activity increased back up above pre-pandemic levels and that as a result, construction demand for aggregates and mineral products saw double-digit growth during 2021 (in Great Britain) [11].

4.11 Whilst there was an increase in construction activity, this was not necessarily reflected in the 2021 total sales figure. This could be partially explained by the fact that the recovery in ready-mixed concrete demand in 2021 was held back by a weaker recovery in new commercial tower projects which had a subsequent drag on recovery in demand for sand & gravel, the majority of which is used in the manufacture of concrete[12]. A range of other factors likely had a part to play in the lowered demand for sand and gravel reported for 2021, such as supply chain bottlenecks, labour and raw material shortages and soaring energy prices.

4.12 The 2022 sales figure (1.02Mt) is the lowest recorded since 2008. A low construction recovery rate and decreased demands for mineral products helps to explain this year's lowered sales figure.

4.13 The Mineral Products Association (MPA) has reported that the output in the construction sector grew by 5.6% in 2022 but the momentum of that growth decreased at the end of the year due to increased interest rates, continuing cost pressures and doubts over the resilience of the UK economy.

4.14 In June 2022, the signs of a slowdown in sales of aggregates, asphalt and ready mixed concrete first started to emerge. The construction sector started to accumulate vulnerabilities affecting costs and project viability, alongside factors such as lower consumer and business confidence.

4.15 Infrastructure is predicted to be the main driver of the 2022 construction sector growth, supported by projects in the regulated sectors (water, rail and roads) and

[11] Mineral Products Association, Regional Overview and Forecasts of Construction and Mineral Products Markets in Great Britain Spring 2022

[12] Mineral Products Association, Aggregate Supply and Demand in Great Britain: Scenarios for 2035

projects such as High Speed 2 and Hinkley Point C.

4.16 The MPA reports that a lack of new projects to substitute those ceasing in the latter part of 2022 is being reported by construction firms. Clients are hesitant to give the go ahead for new projects due to concerns over a UK economic downturn, cost viability and financing. This is particularly the case for large commercial tower projects and infrastructure.

4.17 Prospects for construction demand for mineral products in 2023 are weak, given the unfavourable outlook for growth and heightened delivery risks for construction projects. In Great Britain, sales volumes for primary aggregates and ready-mixed concrete are expected to reduce by a further 3% in 2023.

4.18 The Construction Products Association (CPA) have forecasted that construction output is expected to reduce by 6.8% in 2023 ahead of a further marginal fall by 0.3% in 2024. Throughout 2024, the UK economy is expected to flatline, holding back the recovery in major sectors of construction activity to 2025. Infrastructure output is also expected to marginally fall[13].

4.19 The predicted reduction in the sales volumes for primary aggregates and construction output in 2023 could be reflected in next year's total sales figure (which will cover the calendar year of 2023) and possibly into following years, depending on the speed of construction recovery and demand for mineral products.

10-year Sales Average

4.20 The 2022 the 10-year sales average figure stood at 1.16Mt. As a comparison, this figure was 1.17Mt at the end of 2021 and 1.19Mt at the end of 2020.

4.21 The 2022 10-year sales average figure is used as the starting point to forecast future demand (i.e., to set the LAA Rate).

3-year Sales Average

4.22 In addition to looking at sales figures across the most recent 10-year period, it is also necessary to assess trends in more recent years, as these could help to predict a more accurate rate of future demand that better reflects current circumstances.

4.23 The PPG states:

'Mineral Planning Authorities should also look at average sales over the last 3 years in particular to identify the general trend of demand as part of the consideration of whether it might be appropriate to increase supply[14].'

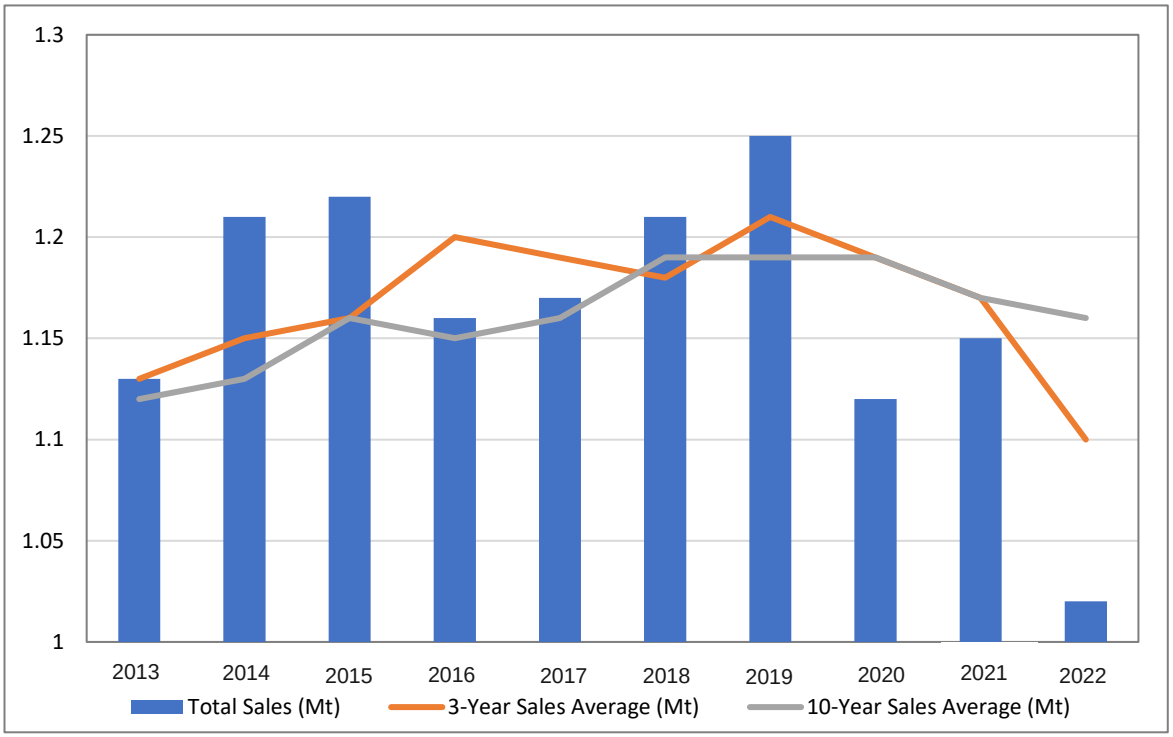
4.24 The average sales of sand and gravel in Hertfordshire over the 3-year period from 2020-2022 stands at 1.1Mt. This figure was 1.17Mt at the end of 2021 and 1.19Mt at the end of 2020. The drop in the 3-year sales average figure reflects the sharper

[13] https://www.constructionproducts.org.uk/news-media-events/news/2023/october/construction-recession-set-to-hit-industry-until-2025/
[14] PPG Paragraph: 064 Reference ID: 27-064-20140306

drop in the total sales figure this year.

4.25 The total annual sales figures and the 10 and 3-year sales average figures over the period from 2013 to 2023 are shown in Figure 3 below. The figures are based on actual sales data from the county's annual Aggregate Monitoring Surveys and the British Geological Survey (BGS) Aggregate Minerals Survey 2014 for England and Wales.

Figure 3: Total Annual Sales vs 10 and 3-Year Sales Average



Other Supply Options

Imports and Exports of Sand and Gravel

4.26 Some of Hertfordshire's demand for sand and gravel is met through imports from both land won and marine sand and gravel.

4.27 A national four-yearly Aggregate Minerals Survey (AMS) provides in–depth information of regional and national sales, inter–regional flows, transportation, consumption and permitted reserves of primary aggregates in England and Wales.

4.28 Conducted by MHCLG[15] and the British Geological Survey (BGS), the latest survey was carried out in 2020 to capture data for 2019. The figures from the 2019 National AMS are set out in Table 1 below against the figures reported through the 2014 National AMS[16].

[15] Ministry of Housing, Communities and Local Government (formerly Department for Communities and Local Government) is now called Department for Levelling Up, Housing & Communities

[16] For a further breakdown on the 2019 figures including where the imports were received from please refer to the 2021 LAA, which can be found on the council's minerals and waste planning webpages at: https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/planning-in-hertfordshire/minerals-and-waste-planning/minerals-and-waste-planning.aspx

Table 1: 2019 AMS data vs 2014 AMS data

	2019 Data (tonnes)	2014 Data (tonnes)	Difference (tonnes)
Imports of land won sand and gravel	222,000	434,000	↓ 212,000
Imports of marine sand and gravel	216,000	19,000	↑ 197,000
Imports of crushed rock	729,000	591,000	↑ 138,000
Exports of land won sand and gravel	324,483[17]	520,099[18]	↓195,616
Consumption of land won sand and gravel	1,148,000	1,126,000	↑ 22,000
Consumption of marine sand and gravel	216,000	19,000	↑ 197,000
Consumption of crushed rock	729,000	591,000	↑ 138,000
Total Consumption for all sand and gravel (marine + land won)	1,364,000	1,146,000	↑ 218,000
Total Consumption for Primary Aggregates (marine + land won + crushed rock)	2,093,000	1,737,000	↑ 356,000

4.29 In 2019, Hertfordshire received 438,000 tonnes of imported sand and gravel and in total consumed[19] 1,364,000 tonnes of sand and gravel.

4.30 Data on imports and exports is limited by the fact that it is only collected every 4 years (5 years between the most recent surveys) and only covers data for the year prior to collection.

4.31 On 20 January 2023, the council wrote to the Minerals Planning Authorities it has aggregate movements with, to understand if there are any reasons why the movements identified through the 2019 National AMS might not continue or might change, such as depletion in reserves or quarry closures.

4.32 According to the results of the 2019 National AMS, Hertfordshire shares sand and gravel movements with five authority areas. The county received imports from all five authority areas and exported land won sand and gravel to three of the five authority areas.

4.33 Of the five authority areas, two responded to the survey and confirmed that they know of no reasons why the identified sand and gravel movements might not continue in the short term.

[17] Approximately 26% of Hertfordshire's total sand and gravel sales (1,248,011) were exported out of county in 2019

[18] 43% of Hertfordshire's total sand and gravel sales (1,209,532) were exported out of county in 2014

[19] Consumption is an overall figure combining imports from external sources as well as the supply consumed from in-county sources

4.34 This clarification provides the council with some certainty that the sand and gravel movements identified through the 2019 National AMS are likely to continue for the foreseeable future and therefore their contribution towards overall supply can be considered when forecasting the future rate of demand (i.e. the LAA Rate).

4.35 Whilst the county does consume some imported sand and gravel, it is important to also consider the quantity of sand and gravel that is exported out of Hertfordshire. The 2019 National AMS reports that 324,483 tonnes of sand and gravel was exported out of county. This equated to approximately 26% of Hertfordshire's total sand and gravel sales for 2019 (1.25Mt).

4.36 When comparing the 2019 imports figure (438,000 tonnes) against the 2019 exports figure (324,483 tonnes), it is found that overall, the county was a net importer of sand and gravel.

4.37 The next National AMS is set to commence in early 2024 and will collect data for 2023. Next year's LAA will report the results of the National AMS, should the data be available before the end of the calendar year.

Secondary and Recycled Aggregates

4.38 Definitions of secondary and recycled aggregates can be seen below.

Secondary aggregates are by-products of other industrial processes. Examples of secondary aggregates include blast furnace iron and steel slags, incinerator bottom ash, slate, and chalk waste. Depending on their quality and composition, and subject to customer specification, secondary aggregates can be used as replacement construction aggregates, in the manufacture of concrete products and a range of other construction applications.

Recycled aggregates are materials derived from construction, demolition and excavation wastes (CD&E) which can be reprocessed and/or re-used as an aggregate for construction purposes whenever possible. This includes crushed concrete, stone and brick, asphalt road planings and railway ballast.

4.39 CD&E waste represents the largest waste stream in the UK economy[20]. The "hard" element of CD&E waste (i.e., construction and demolition wastes) can include materials such as concrete, bricks, tiles and ceramics, and metal. The extent to which CD&E waste can be recycled or recovered, is determined by the individual constituents of which it is comprised.

4.40 The MPA reports that recycled and secondary materials accounted for 28% of total aggregates supply in Great Britain in 2020 and that Great Britain is in a leading position internationally in the use of recycled and secondary aggregates[21].

[20] Mineral Products Association, From Waste to Resource, a UK Mineral Products Industry Success Story (2019)

[21] Mineral Products Association, Aggregates demand and supply in Great Britain: Scenarios for 2035 (2022)

4.41 With its obvious benefits, the use of secondary and recycled aggregates is encouraged. Due to the high levels of growth planned for in Hertfordshire and the volumes of waste coming in from London, Hertfordshire will have a significant proportion of CD&E waste that needs to be managed.

4.42 Recycling of CD&E waste can allow for its re-use within construction projects. The recycling of CD&E waste occurs both directly where it originates (on construction sites) or off-site at fixed processing sites. Details of the fixed processing facilities can be seen in Appendix 2: Aggregate Recycling Facilities.

4.43 Recycling of CD&E waste at aggregate recycling facilities generally involves a combination of crushing, mechanical screening and washing operations to reprocess the materials for re-use.

4.44 Table 2 below provides an overview of the secondary and recycled aggregate figures over the 10-year period from 2013 to 2023.

Table 2: Total recycled and secondary aggregate processed over the last 10 years

Year	Recycled and Secondary Aggregate Processing (tonnes)
2013	329,457
2014	362,203
2015	317,314
2016	234,783
2017	246,105
2018	272,656
2019	237,792
2020	236,069
2021	315,000
2022	311,000

4.45 As explained in last year's LAA (published in December 2022 and covering 2021 data) the council relies on the Environment Agency's Waste Data Interrogator (WDI) for its total recycled and secondary aggregate processing figure.

4.46 This year's (2022) total secondary and recycled aggregate processing figure stands at 311,000 tonnes.

4.47 The council is unable to monitor the reuse and recycling of inert CD&E waste on construction sites and receives very limited information through Site Waste Management Plans. The total processing figure in Table 2 was obtained through the WDI and incorporates a 20% increase on top of that figure, to account for the material that is reused and recycled directly on construction sites.

4.48 According to a study undertaken by Capita Symonds in 2005 a rate of 80% of recycled aggregate is derived from fixed processing sites and 20% is from mobile plants at construction sites. Therefore, to ascertain the overall recycled aggregate figure an additional 20% could be applied to the figure to give an overall tonnage of recycled aggregate production. However, although a figure of 20% from mobile plant was suggested in the Capita Symonds report, this is now significantly dated and

therefore should be treated with caution. In addition, certain facilities that process waste materials for recycled aggregate do not require an environmental permit and therefore will not report data to the Environment Agency and that data will not be included in the WDI[22].

Whilst the study undertaken by Capita Symonds is outdated, the council does not have a more up to date study upon which to base an assumption. The inert CD&E waste reused and recycled on construction sites helps to reduce reliance on primary aggregate and therefore contributes towards aggregate supply.

4.49 Generally, it is assumed that all CD&E waste which can be recycled as aggregates is being used, with little scope for a much higher contribution of this waste towards the aggregates market. Research by DCLG[23] into CD&E waste markets suggests that this was already the case in 2005, indicating that very little evidence was found of hard C&D waste being landfilled where it could be recycled into aggregate[24].

4.50 As noted in Paragraph 4.40, the MPA estimate that nationally, recycled and secondary aggregates materials account for 28% of aggregate supply. It is anticipated that the contribution made by recycled and secondary aggregates will remain at this level (28%) by 2035. Table 2 above also confirms this, showing no great change in the amount of recycled and secondary aggregate being processed annually over the past 10 years. Secondary and recycled aggregates are contributing towards supply and reducing demand for primary material; however, a continued supply of primary aggregates will continue to be necessary to meet overall demand.

4.51 The use of secondary and recycled materials will go some way in meeting Hertfordshire's demands for aggregate, but it is not possible to determine its exact contribution due to limited data. Whilst the MPA report that the contribution made by secondary and recycled aggregates towards overall demand in Great Britain will likely remain at a rate of approximately 28%, this does not mean that an increase in the use of secondary and recycled aggregate cannot be encouraged at a local level.

4.52 The emerging Minerals and Waste Local Plan includes policies that encourage an increased use of secondary and recycled aggregates. Policy 10: Secondary and Recycled Materials aims to maximise the re-use, recycling and recovery of CD&E waste to minimise its disposal wherever possible and to ensure that this is achieved through the most appropriate means. It also supports the expansion of existing and the provision of new facilities to increase the capacity for processing, distribution and where necessary the re-processing of aggregates.

4.53 Policy 11: Sustainable Design and Resource Efficiency will also require all major planning applications to be accompanied by a Circular Economy Statement which

[22] PDF of Capita Symonds report available at: https://go.walsall.gov.uk/sites/default/files/2022-09/Survey%20of%20Arisings%20and%20Use%20of%20Alternatives%20to%20Primary%20Aggregates%20in%20England%2C%202005%20Construction%2C%20Demolition%20and%20Excavation%20Waste%20%28February%202007%29%20DCLG.pdf

[23] Research conducted by Department for Communities and Local Government (now called the Department for Levelling Up, Housing and Communities)

[24] Mineral Products Association, The Contribution of Recycled and Secondary Materials to Total Aggregates Supply in Great Britain – 2020 Estimates (2022)

includes details of the management of waste through all stages of development. This aims to encourage and increase the reuse and recycling of CD&E waste on site as well as encourage the use of secondary and recycled aggregates over primary aggregate.

4.54 It is hoped that over time Circular Economy Statements will help to build a clearer picture on how much CD&E waste is recycled and re-used on construction sites in the county[25].

Crushed Rock

4.55 Hertfordshire does not plan for crushed rock because it does not have any naturally occurring resources. The county is reliant on imports and safeguards the rail aggregate depots through adopted Minerals Local Plan Policy 10: Railheads and Wharves.

4.56 Crushed rock has a wide range of uses. However, its main use is in road construction, primarily for the foundations. It is bound with either bitumen (to produce 'coated roadstone') or cement in the upper layers[26].

4.57 Of the total aggregates consumed within Great Britain, crushed rock accounts for the largest proportion of the total sales. Of the total aggregates sales in Great Britain in 2018, the total amount of crushed rock sold was 117.3Mt, whereas total sand and gravel sales stood at 62.6Mt[27]. As of 2019, there were 263 active crushed rock quarries within Great Britain, with the number of active sand and gravel quarries only slightly higher, at 270[28].

4.58 Hertfordshire relies on imports of crushed rock via the rail aggregate depots (See Appendix 3: Rail Aggregate Depots) as the geology of the county does not allow for local extraction. Currently Hertfordshire has a total of five such sites which are as follows:

- Langley Sidings, Stevenage;
- Walsworth Road, Hitchin;
- Rye House, Hoddesdon;
- Harper Lane, Radlett; &
- Orphanage Road, Watford

4.59 In 2022, the county received 688,547 tonnes of imported crushed rock. This is a decrease when compared to last year's crushed rock imports figure which stood at 739,620 tonnes.

[25] The council will only begin to receive Circular Economy Statements once the new Minerals and Waste Local Plan is adopted
[26] Paragraph 4.3, Collated results of the 2019 Aggregate Minerals Survey for England and Wales
[27] Table 1a of the Mineral Products Association publication entitled: 'Profile of the Mineral Products Industry -2020 Edition'
[28] Table 1b from the 'Profile of the Mineral Products Industry -2020 Edition'

Other Relevant Local Information

Planned Housing

4.60 At least 100,000 new homes and jobs are aspired to be created in Hertfordshire by 2031[29] and an estimated 50% of these new homes will be situated along the A414 corridor (within a 5-mile radius)[30].

4.61 The majority of the ten District and Borough Councils within Hertfordshire are in the process of preparing new Local Plans or have recently adopted Local Plans. The Local Plans look ahead, typically over a 15-year period. In revising their Local Plans, the District and Borough Councils must calculate the housing need for their local areas, in line with national requirements.

4.62 Many of the larger housing allocations/mixed use allocations in the recently adopted Local Plans are starting to come forward and are either at planning application stage, have received planning permission or are under construction.

4.63 These allocations are of strategic importance and will help to deliver the county's aspiration of building 100,000 new homes by 2031. The below list provides some examples of the larger allocations (and their housing numbers) in Hertfordshire which are at planning application stage or have recently been granted planning permission:

- Gilston Garden Town- 10,000 homes
- Bishops Stortford North- 2,200 homes
- East of Stevenage – 618 homes
- East of Luton – 1,400 homes
- North of Baldock- 2,800 homes
- Stevenage Town Centre- 1,867 homes
- North of Stevenage- 800 homes
- Watford Junction – 1,200 homes
- Broadwater Road, Former Shredded Wheat Site- 1,340 homes
- Birchall Garden Suburb – 2,650 homes

4.64 Development planned for within the District and Borough Local Plans will require aggregate materials for the construction of dwellings and associated infrastructure such as employment, roads, schools and retail. This includes both the need for land won aggregates and secondary and recycled aggregates.

Housing Delivery

4.65 Information on gross housing completion rates in Hertfordshire has been obtained from the council's Information Monitoring Team [31] covering the period from 2001/2002 – 2021/2022 and from the Minerals and Waste Planning Team for 2022/2023[32]. This information can be seen in Appendix 4: Housebuilding.

[29] https://www.hertfordshiregrowthboard.com/about/
[30] a414-corridor-strategy-report-8.10.19-pdf-12mb.pdf (hertfordshire.gov.uk)
[31] Formerly known as the Strategic Land Use Team
[32] All data obtained from the council's planning monitoring and information system, SMART Herts.

4.66 To meet the county's aspiration of delivering 100,000 new homes by 2031, Hertfordshire authorities have identified housing growth over the 13-year period from 2018 to 2031 of on average of 6,425 dwellings per annum. This compares to average annual completions of 3,189 dwellings per year across Hertfordshire from 2011/12 to 2016/17[33].

4.67 The gross housing completion rates reached a peak in 2019/20, standing at 4,922. The figures saw a slight reduction down to 4,856 in 2020/21 and reduced again the following year (2021/22), down to 4,597.

4.68 The gross housing completion figure for 2022/23 stands at 4,921**.** A figure almost identical to that reported for 2019/20.

4.69 Housebuilding rates can help to provide an indication of the demand for aggregates, but they can only be used as a partial guide to future demand as aggregates sales reflect much wider demands including refurbishment of the housing stock and infrastructure maintenance[34].

4.70 Whilst housebuilding rates increased in 2022, the overall demand for aggregates in Great Britain is reported to have decreased and construction output is expected to contract in 2023, resulting from a sharp slowdown in activity in the sectors which are most exposed to households spending and confidence[35].

4.71 To achieve the aspiration of 100,000 new homes by 2031 (2018 as the starting year), it is clear that a much higher housing delivery rate will need to be achieved than what is currently, or indeed proposed to be delivered.

Major Infrastructure

4.72 For Hertfordshire, the major infrastructure projects currently being delivered include:

High Speed 2 (HS2)

4.73 HS2 is a Department for Transport project to build a new high-speed railway between London and Birmingham. Phase 2 of HS2, also known as the 'Northern Leg' will no longer go ahead. The route will now only run from London to Birmingham Interchange, with branches to central Birmingham and Handsacre, near Lichfield. HS2 trains for Manchester, Liverpool and Scotland will join the West Coast Main Line at Handsacre.

4.74 A section of the line, due to open in 2026, passes within Hertfordshire's county boundary and requires significant construction works.

4.75 The 3.4km Colne Valley Viaduct will carry the HS2 route from Harefield in Hillingdon, over the Colne Valley into Buckinghamshire, before it enters the Chiltern

[33] Hertfordshire Infrastructure and Funding Prospectus 2018-2031
[34] Practice Guidance on the production and use of Local Aggregate Assessments, Living Document (May 2017), Planning Officers Society and Minerals Products Association
[35] Mineral Products Association, Profile of the UK Mineral Products Industry 2023 Edition (2023) (see Figure 3.4)

Tunnel (16km) South Portal in Hertfordshire.

4.76 Within Hertfordshire, infrastructure such as the Colne Valley Viaduct, the Chiltern Tunnel South Portal and the Colne Valley Western Slopes will be constructed.

4.77 The Chilterns South Portal Chalk Grassland Project is the largest project in the HS2 Green Corridor programme. The site will be transformed into one of the largest areas of new chalk grassland in the Chiltern hills. The chalk grassland will cover 90 hectares and will be seeded into re-profiled soil layers using the nutrient poor subsoils mixed with chalk resulting from the tunnelling works and with recycled concrete and aggregates arising from construction works[36].

Updates to the A602 from Stevenage to Ware

4.78 The scheme includes a series of Improvements to major junctions (such as the A119 junction, Hertford Road junction and the A120 junction) and roads, including Westmill Road and Ware Road. Works to realign the A602 Ware Road between Heath Mount school and Stoneyhills, including the new Dane End bridge, have been completed[37]. Some finishing works currently continue.

Active Travel Fund

4.79 A plethora of walking and cycling improvements are being delivered across the county. The council received a further £4.6 million of funding from Active Travel England's active travel fund in May 2023. This funding will be used for schemes in Digswell, Hemel Hempstead, Hertford, Watford, Welwyn Garden City and Wheathampstead (due to be underway by spring 2024). The improvements support the objectives in the Local Transport Plan (LTP4) and Sustainable Hertfordshire strategy, to make it easier and safer to walk, wheel and cycle[38].

4.80 In southwest Hertfordshire, two large-scale infrastructure projects are at the early planning stage. These two projects are detailed below.

The West Hertfordshire Hospitals NHS Trust

4.81 The proposals would involve the redevelopment of Watford General, alongside significant improvements to the trust's other sites in St Albans and Hemel Hempstead[39].

The Hertfordshire Essex Rapid Transit

4.82 The Hertfordshire Essex Rapid Transit (HERT) is intended to be a new, sustainable passenger transport network. HERT will run from Hemel Hempstead and West Watford, joining just south of St Albans, to Harlow in Essex and onwards to Stansted Airport. It will connect with north-south rail lines and create new journey possibilities

[36] https://www.hs2.org.uk/in-your-area/local-community-webpages/hs2-in-hertfordshire/
[37] https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/roadworks-and-road-closures/major-roadwork-projects/a602-improvements.aspx#DynamicJumpMenuManager_1_Anchor_4
[38] https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/roadworks-and-road-closures/major-roadwork-projects/active-travel-fund.aspx
[39] https://www.swhertsplan.com/planning-for-infrastructure

across the county and beyond[40].

Other Relevant Local Information

Major Projects in Neighbouring Authority Areas

4.83 The Managed Aggregate Supply System requires minerals planning authorities which have adequate resources of aggregates to make an appropriate contribution to national as well as local supply[41]. As explained in this Chapter, Hertfordshire exports some sand and gravel outside of the county. This exported material contributes to national supply.

4.84 In addition to considering major infrastructure projects within Hertfordshire, it is important to consider planned projects outside of Hertfordshire which could have the potential to draw from the county's supply of sand and gravel resources.

4.85 Paragraph 3.8 of The Planning Officers Society and Mineral Products Association Practice Guidance on the production and use of LAAs Living Document (May 2017) states that LAAs should consider, where relevant, projects actually referred to in the National Infrastructure Delivery Plan which are within about 30 miles of the mineral planning authority, as this could have aggregate demand implications, although the source of construction materials will be determined by the market.

4.86 Whilst the National Infrastructure Delivery Plan (2016 to 2021) is now out of date, the below list provides some examples of major long-term projects within neighbouring authority areas (within a 30-mile radius of Hertfordshire) which have the potential to draw from the county's supply of sand and gravel resources in the future. These planned major projects include a mixture of housing, retail, employment and leisure uses as well as the infrastructure required to support them (e.g., roads).

- Harlow Gilston Garden Town- approx. 23,000 units (10,000 of the 23,000 will be built in Hertfordshire)[42]
- Houghton Regis Development, Central Bedfordshire- approx. 7,000 units[43]
- North of Luton, Bedfordshire- approx. 3,600 units[44]
- East of Arlesey, Bedfordshire – approx. 2,000 units[45]
- Northstowe New Town, Cambridgeshire – approx. 10,000 units[46]
- Meridian Water, Enfield – approx. 10,000 units[47]

[40] https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/roadworks-and-road-closures/major-roadwork-projects/hert.aspx#DynamicJumpMenuManager_1_Anchor_1
[41] Planning Practice Guidance Paragraph: 060 Reference ID: 27-060-20140306
[42] https://hggt.co.uk/
[43] Houghton Regis North Sites 1 and 2 both have planning permission for strategic scale development
[44] https://www.centralbedfordshire.gov.uk/info/153/central_bedfordshire_local_plan_2015_to_2035/1043/expanding_luton
[45] https://www.centralbedfordshire.gov.uk/info/153/central_bedfordshire_local_plan_2015_to_2035/1042/new_homes_near_arlesey
[46] https://www.northstowe.com/
[47] https://www.meridianwater.co.uk/about/

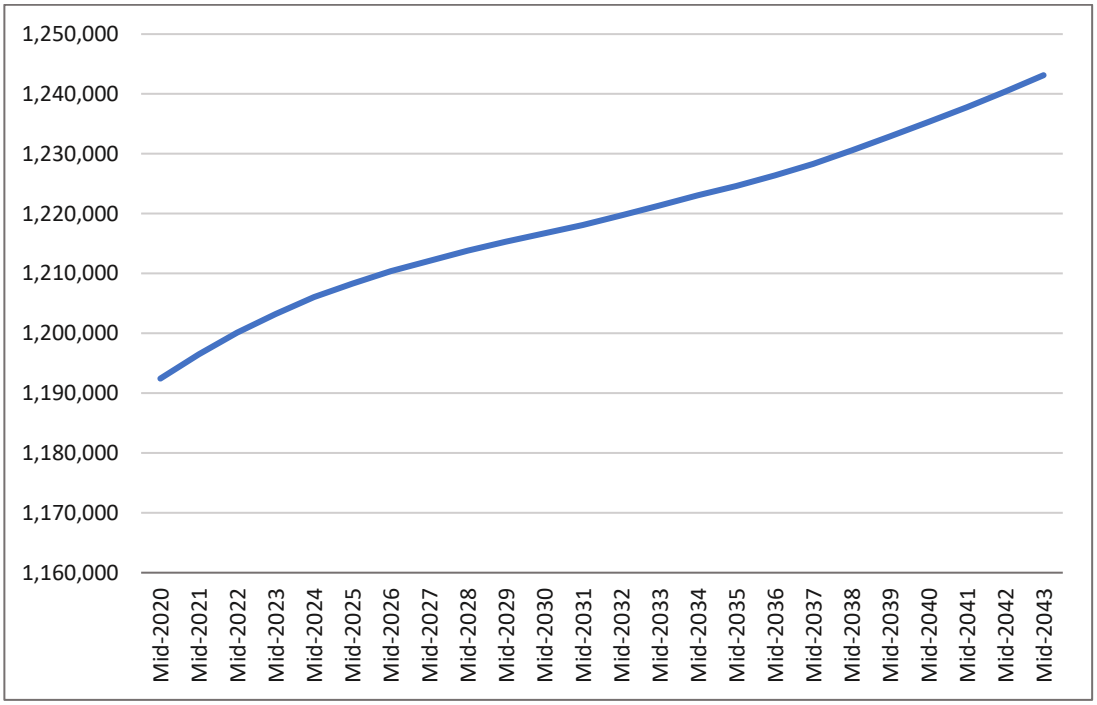
- South East Milton Keynes Strategic Urban Extension – approx.3,700 units[48]

Population

4.87 Population projections help to give an indication of possible household growth and wider overall demand. Figure 4 below sets out the projected population of Hertfordshire up to 2043. The figures are based on the Office for National Statistics 2018- based population projections and are the most up to date projections available[49]. By mid-2043, the total population of Hertfordshire is projected to be 1,243,138.

4.88 The main population base for the Census 2021 is the usual resident population[50]. Based on the Census 2021 data, the estimated usual resident population of Hertfordshire in March 2021 stood at 1,198,800. When comparing this to the 2018 projections (1,196,465), there is a difference of 2,335. This indicates that there has been a greater increase in the total population of Hertfordshire than what was initially projected. Between March 2011 and March 2021, the usual resident population increased by approximately 82,700 (7.4%)[51].

Figure 4: Population projections



[48] https://www.milton-keynes.gov.uk/planning-and-building/planning-policy/south-east-milton-keynes-strategic-urban-extension#:~:text=South%20East%20Milton%20Keynes%20Strategic%20Urban%20Extension%20(SEMK)%20is%20an,Bow%20Brickhill%20to%20the%20west.

[49] The 2018-based population projections are the latest available (at the time of writing). Events such as the UK leaving the European Union and the Covid-19 pandemic were not taken into account when these projections were produced. Such events may have caused changes to the population compared to the assumptions made in the projections.

[50] https://reports.instantatlas.com/view-report/79b7917a1c72415ea39bca5ed45c6094/E10000015#usualresdata

[51] Source: ONS, Census 2011 and Census 2021 (First Release)

Summary

4.89 As of the end of 2022, the 10-year sales average figure stood at 1.16Mt, a minor decrease from last year's figure of 1.17Mt. In line with the NPPF and The Practice Guidance on the Production and use of Local Aggregate Assessment Living Document May 2017, the LAA Rate should be based on the 10-year sales average figure. Any deviation from this figure would need to be supported by sufficiently robust information.

4.90 With regards to other supply options outside of Hertfordshire's own permitted reserves of sand and gravel, the county does meet some of its demands through imports from both land won and marine sources.

4.91 When balanced against the sand and gravel exports, the imported supply does not amount to a quantity which could be said to be making a significant contribution towards meeting demands in Hertfordshire.

4.92 Secondary and recycled aggregates represent an alternative supply option to primary sand and gravel. This year's total secondary and recycled aggregate processing figure stands at 311,000 tonnes.

4.93 Whilst secondary and recycled aggregates are contributing towards supply and subsequently reducing demand for primary material, it's not possible to understand the impact this is having locally in terms of the extent to which it reduces demand for primary sand and gravel.

4.94 It is estimated that nationally recycled and secondary aggregates materials account for 28% of aggregate supply and this level of contribution will sustain up until 2035. A continued supply of primary aggregates will therefore continue to be necessary to meet overall demand.

4.95 The level of planned housing needs to be balanced against housing delivery rates. Whilst there is an aspiration to build a significant number of new homes in the county, the historic and planned housing delivery rate is much lower than what would be necessary to achieve these aspirations. Housing delivery rates can only be used as a partial guide to future demand as aggregates sales reflect much wider demands.

4.96 In terms of major projects, the county's supply of sand and gravel will be used to meet demands for these projects, both inside and outside of the county. As with planned housing, a realistic view of delivery needs to be applied. Whilst there are several projects planned or under construction, the rate of delivery will greatly influence the demand for sand and gravel. It is not possible to predict which major projects outside of the county will draw from the county's resource of sand and gravel.

4.97 The demand for sand and gravel in recent years has been particularly unstable. Following the slowdown and temporary shut down in the construction sector caused by the pandemic in 2020, construction demand for aggregates saw a rebound in 2021, albeit a very small rebound for the Hertfordshire total sand and gravel sales figure.

4.98 The construction sector did see slight overall growth in 2022 but the demand for aggregates started to slow again towards the end of 2022. This was because of a wider economic and construction slowdown caused by the war in Ukraine and global supply chain bottlenecks post-pandemic[52].

4.99 In balancing all the above, the council cannot justify an LAA Rate which deviates from the 10-year sales average figure.

[52] Mineral Products Association, Profile of the UK Mineral Products Industry 2023 Edition (2023)

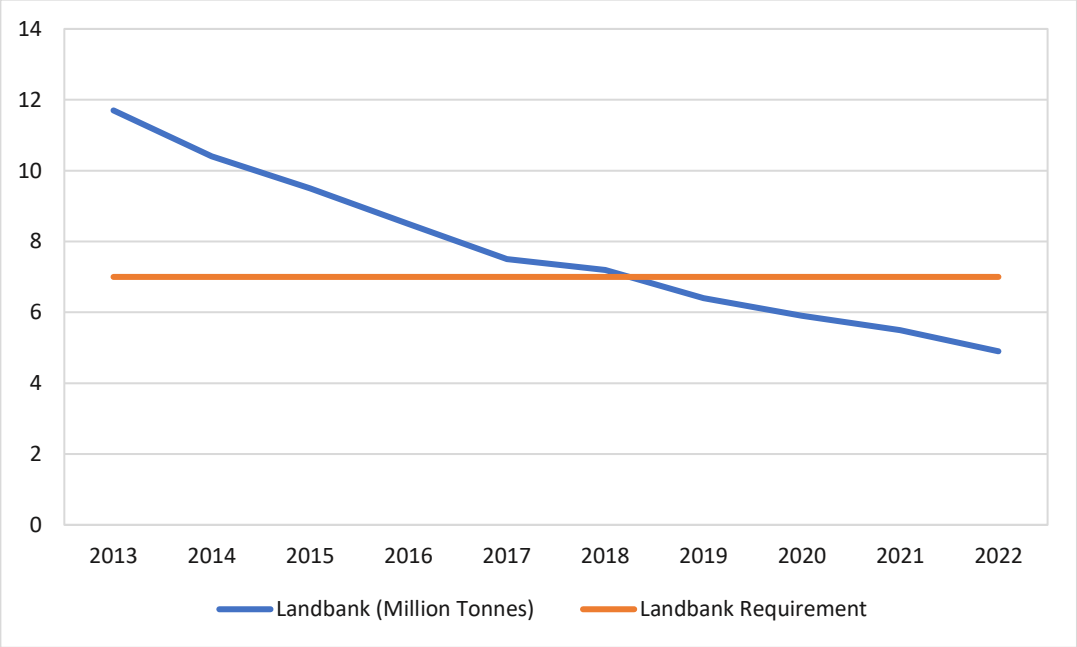
5. The Hertfordshire Landbank

5.1 Paragraph 219f of the NPPF states that minerals planning authorities should maintain a landbank of at least 7 years for sand and gravel. The PPG also states:

'How and when do I calculate aggregate landbanks?
Aggregate landbanks should be recalculated each year. The length of the aggregate landbank is the sum in tonnes of all permitted reserves for which valid planning permissions are extant, divided by the annual rate of future demand based on the latest annual Local Aggregate Assessment'[53]

5.2 The LAA Rate for 2022 is 1.16Mt. This results in a landbank of 4.9 years as of the end of 2022. Figure 5 below shows the landbank figures over the 10-year period from 2013 to 2022.

Figure 5: Landbank (in Years)



5.3 As can be seen from Figure 5 above, Hertfordshire currently has a landbank under 7 years. Paragraph 219e of the NPPF states that minerals planning authorities should use 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.

5.4 As explained in Chapter 3, there are mechanisms in place to help secure a future supply of sand and gravel and there is currently one site (Land adjoining Coopers Green Lane) which has the potential to boost reserves (and subsequently the landbank figure) in the near future.

[53] Paragraph: 083 Reference ID: 27-083-20140306

6. Conclusion

6.1 The current stock of permitted reserves of sand and gravel in Hertfordshire is insufficient to meet future demands.

6.2 As of the end of 2022, the landbank stands at 4.9 years and is therefore 2.1 years below the required 7-year minimum.

6.3 The emerging Minerals and Waste Local Plan is being prepared to address this matter by identifying sand and gravel sites considered to be the most appropriate for future extraction. The supply from Land adjoining Coopers Green Lane will be added to the permitted reserves once the Decision Notice has been issued and this will provide a boost to the landbank.

6.4 In addition, two of the three Preferred Areas in the adopted 2007 Minerals Local Plan still contain potentially workable reserves. This means that there are potentially workable resources still available whilst the new Minerals and Waste Local Plan is being prepared.

6.5 The LAA Rate for 2022 is based on the 10-year sales average figure (1.16Mt) and is considered a realistic forecast of the current annual rate of future demand. The NPPF requires mineral planning authorities to prepare an LAA to forecast future demand, based on a rolling average of 10 years sales data.

6.6 In deciding the LAA Rate, the council has considered trends in the sand and gravel sales data and has assessed all other options that contribute towards supply, as well as other local information such as housebuilding rates and major projects.

6.7 The forecasted slowdown in construction delivery rates and decrease in demand for aggregates must be considered against this information. Prospects for construction demand for mineral products in 2023 are weak, given the poor outlook for growth and increased delivery risks for construction projects.

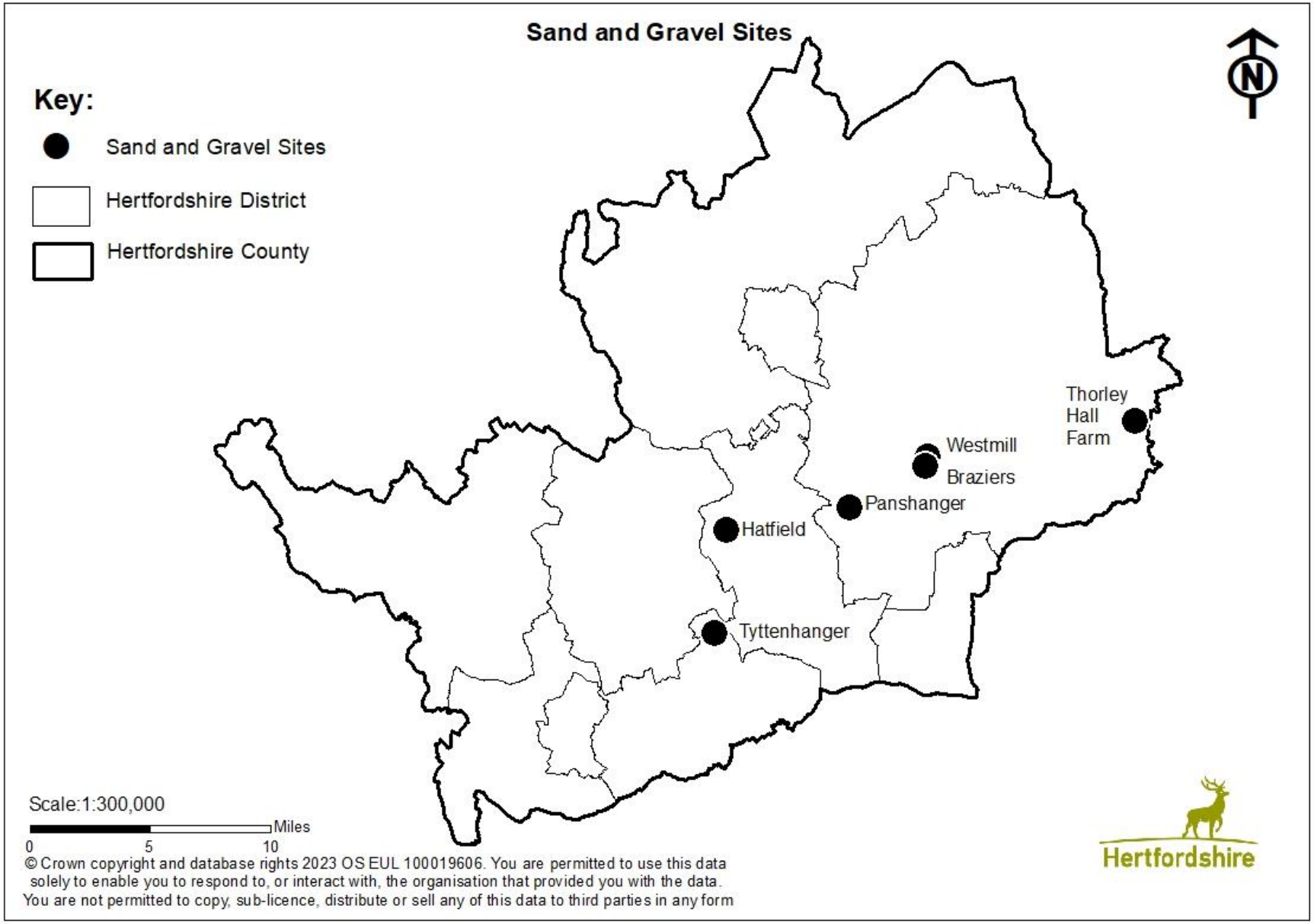
6.8 In balancing the information on sales, other supply options and other local information against the current and predicted slowdown in growth momentum and aggregate demands, the council cannot justify an LAA Rate which deviates from the 10-year sales average figure.

Appendix 1: Sand and Gravel Sites

Site Name	Operator	Status	Restoration	Cessation dates
Hatfield Quarry Hatfield Quarry is comprised of the following permitted sites: Symondshyde Farm (planning reference number: 6/0439-03) Furze Field (planning reference number: PL\0820\16) Cutfield Landfill (restoration of Cutfield Lagoon) - Inert fill only (planning reference number: 5/1240-14)	Cemex UK Ltd	Active. Extraction and inert fill	Inert restoration	Symondshyde Farm to be completed by 31-12-2023[54] Furze Field to be completed by summer 2023
Tyttenhanger Quarry (planning reference number: 0/1353-06)[55]	Tarmac Ltd	Active. Extraction and inert fill.	Inert restoration	Extraction and site permission 31-12-2032
Thorley Hall Farm (planning reference number: PL\0549\13)	Ingrebourne Valley Ltd	Active. Extraction taking place.	Agricultural reservoir	Reservoir construction & restoration works are to be completed by 30-10-2024[56]

[54] Cessation date extended. Search using planning reference PL/0165/20
[55] Tyttenhanger has a long and complicated planning history. This is the most relevant planning reference number, which relates to the most recently permitted area for extraction. To search the 2001 planning consent (50.5 hectare extraction area) use reference number 5/0250-97
[56] Cessation date extended. Search using planning reference PL/0188/20

Westmill Landfill (planning reference number: PL\0750\15)	Biffa Waste Services Ltd	Active. Excavation is complete. Site active as a landfill only. The site receives restoration soils and inert materials.	Non-hazardous restoration	Final restoration to be completed by 31-12-2027.
Panshanger Landfill (planning reference number: PL\0684\15)	Tarmac Ltd BP Mitchell Haulage Limited	Active. Excavation is complete. Inert restoration taking place.	Inert restoration	Restoration to be completed within 10 years of commencement of importation of infill (Infill commenced on 28 January 2019).
Braziers Landfill (planning reference number: 3/1416-97. Inert restoration taking place on an extant planning permission)	Frank Lyons Services Group	Active Inert restoration taking place on extant permission granted in 1998. The site began taking waste on 05 March 2018.	Inert restoration	Minerals/depositing of waste shall cease on or before 21 February 2042.


Sand and Gravel Sites
Key:
Sand and Gravel Sites
Hertfordshire District
Hertfordshire County
N
Thorley Hall Farm
Westmill
Braziers
Panshanger
Hatfield
Tyttenhanger
Scale:1:300,000
Miles
0
5
10
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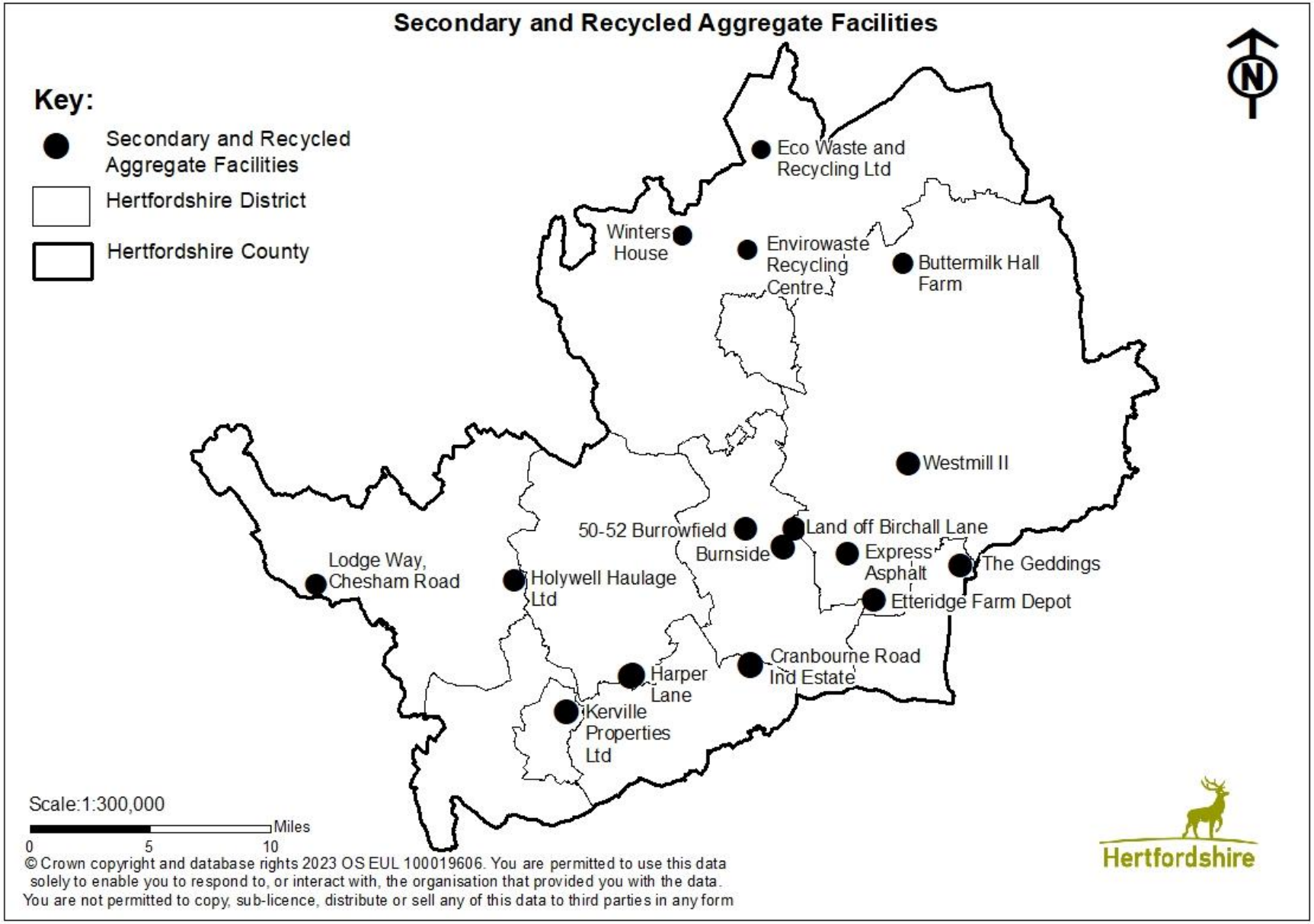
Hertfordshire

Appendix 2: Fixed Aggregate Recycling Facilities

Site	Company
Burnside	Peter Brothers Ltd & BP Mitchell
Harper Lane (Rail Loop)	Tarmac Ltd
50-52 Burrowfield	Ground Waste Recycling Ltd
Land off Birchall Lane, Cole Green, Welwyn Garden City	BP Mitchell Ltd
Envirowaste Recycling Centre	Stevenage Skip Hire Ltd
Express Asphalt, Hertford	Aggregate Industries UK Ltd T/A Express Asphalt
Etteridge Farm Depot	A H Nicholls & Sons Limited
The Geddings	Advanced Demolition Limited
Westmill II Waste Management Facility	Biffa Waste Services Limited
Winters House	USKIP Hire Limited
Eco Waste and Recycling Ltd	Eco Waste and Recycling Limited
Buttermilk Hall Farm	Park 'N' Load Metal Recycling Limited
Lodge Way, Chesham Road	A G Evans Limited
Cranbourne Road Ind Estate, Potters Bar	Coley Limited
Holywell Haulage Ltd, Hemel Hempstead	Holywell Haulage Limited
Kerville Properties Ltd	Kerville Properties Limited


Secondary and Recycled Aggregate Facilities
Key:
Secondary and Recycled Aggregate Facilities
Hertfordshire District
Hertfordshire County
N
Eco Waste and Recycling Ltd
Winters House
Envirowaste Recycling Centre
Buttermilk Hall Farm
Westmill II
50-52 Burrowfield
Land off Birchall Lane
Burnside
Express Asphalt
The Geddings
Lodge Way, Chesham Road
Holywell Haulage Ltd
Etteridge Farm Depot
Cranbourne Road Ind Estate
Harper Lane
Kerville Properties Ltd
Scale:1:300,000
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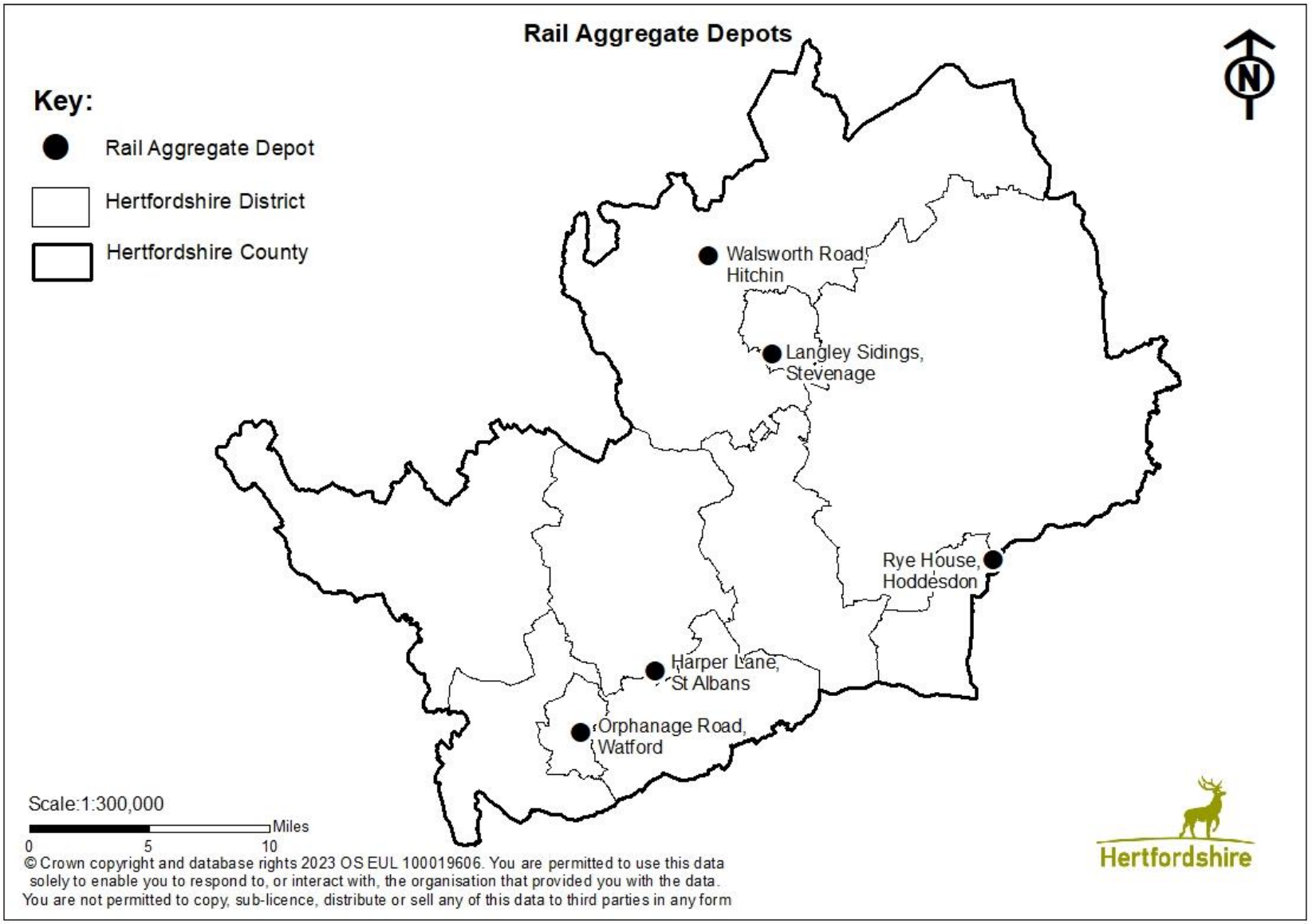
Appendix 3: Rail Aggregate Depots



Appendix 4: Housebuilding

District/Borough	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Broxbourne	155	267	916	508	287	298	202	333	278	180	192
Dacorum	705	446	333	250	480	472	459	259	636	477	364
East Herts	397	297	381	644	812	599	597	494	304	445	729
Hertsmere	111	215	251	341	285	409	328	331	225	217	334
North Herts	685	482	437	569	662	769	488	390	455	422	314
St Albans	357	285	668	379	439	337	466	329	495	466	400
Stevenage	101	58	171	130	414	471	400	255	312	196	90
Three Rivers	255	186	94	229	369	286	351	69	160	261	208
Watford	192	277	379	638	292	336	369	540	665	479	568
Welwyn Hatfield	504	825	682	737	708	768	348	83	216	309	170
Total	**3462**	**3338**	**4312**	**4425**	**4748**	**4745**	**4008**	**3083**	**3746**	**3452**	**3369**

District/Borough	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Broxbourne	119	184	183	276	260	483	165	211	337	541	**6550**
Dacorum	254	402	701	764	628	532	522	760	845	662	**11326**
East Herts	394	535	739	668	613	943	989	853	904	898	**13871**
Hertsmere	473	225	406	340	562	677	623	521	352	218	**7771**
North Herts	274	251	360	556	346	249	338	601	348	474	**10230**
St Albans	504	398	457	404	493	731	474	604	378	448	**9934**
Stevenage	179	154	155	704	77	295	328	154	126	163	**5108**
Three Rivers	172	308	243	164	286	174	510	277	203	220	**5406**
Watford	431	271	308	384	357	292	278	454	812	787	**9188**
Welwyn Hatfield	254	356	338	370	314	505	695	421	292	510	**9500**
Total	**3054**	**3084**	**3890**	**4630**	**3936**	**4881**	**4922**	**4856**	**4597**	**4921**	**88884**

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