

Local Aggregate Assessment 2022

Covering Data from the Calendar Year of 2021

Hertfordshire County Council



December 2022

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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 2022 and covers data from the calendar year of 2021.

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 2021 total sales of sand and gravel stand at 1.15 Mt (million tonnes). A minor increase when compared to last year's total sales figure of 1.12 Mt.

Throughout the calendar year of 2021, no planning applications for sand and gravel extraction have been approved, meaning that no additional reserves have been added to Hertfordshire's sand and gravel supply. The landbank of sand and gravel as of the end of 2021 stands at 5.5 years.

Whilst the landbank is currently low, the reserves from Land adjoining Coopers Green Lane will be added to supply once the Decision Notice has been issued. There is also a planning application on Hatfield Aerodrome which has the potential to contribute up to 8Mt of sand and gravel, should it be permitted.

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

2021 Headline Figures

| | Performance in 2021 | Comparison with 2020 |
|--|---------------------|----------------------|
| Land won sand and gravel sales (tonnes) | 1,148,486 | ↑25,861 |
| Permitted reserves of sand and gravel at end of year (tonnes) | 6,471,130 | ↓1,212,870 |
| Landbank based on LAA Rate (years) | 5.5 | ↓0.4 |
| Landbank based on 10-year sales average (years) | 5.5 | ↓1 |
| Landbank based on 3-year sales average (years) | 5.5 | ↓1 |
| Number of Allocated Sites remaining (in current adopted Minerals Local Plan) with unpermitted reserves | 2 | 2 |
| Remaining potential yield (Mt) from Preferred Areas | Up to 14 | Up to 14 |
| Rail depot imports of crushed rock (tonnes) | 739,620 | ↑19,890 |

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 roads, buildings and other infrastructure. Minerals are also essential elements in the production of a variety of other products, for example ground chalk is added to bread to give calcium and the abrasive in toothpaste comes from limestone¹. 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 NPPF recognises the importance of minerals and sets out the requirement for minerals planning authorities to produce a LAA on an annual basis.
- 1.3 Paragraph 213 of the NPPF states:

'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 The LAA has been prepared to fulfil the requirements of the NPPF and has also been prepared in line with the 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).

Update on the Hertfordshire Minerals and Waste Local Plan

- 1.5 In 2021, the Minerals and Waste Planning Authority made the decision to discontinue reviewing the current adopted Minerals and Waste Local Plan documents² separately.
- 1.6 The review of the adopted Minerals Local Plan started in 2014 and reached Proposed Submission stage. The review of the adopted Waste Local Plan started in 2017 and reached Draft Plan stage.
- 1.7 A report was presented to members of The Environment Cabinet Panel on 09 November 2021³, setting out the authority's intention to create a single Minerals and Waste Local Plan and discontinue with preparing separate documents. An updated Minerals and Waste Development Scheme (MWDS) was also presented to members on 09 November 2021, which set out the proposed timeline for the preparation of the single Minerals and Waste Local Plan.

¹ https://mineralproducts.org/qua_agg01.htm

² 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-inhertfordshire/minerals-and-waste-planning/minerals-and-waste-planning.aspx>

³ View the report here: <https://democracy.hertfordshire.gov.uk/mgAi.aspx?ID=5433#mgDocuments>

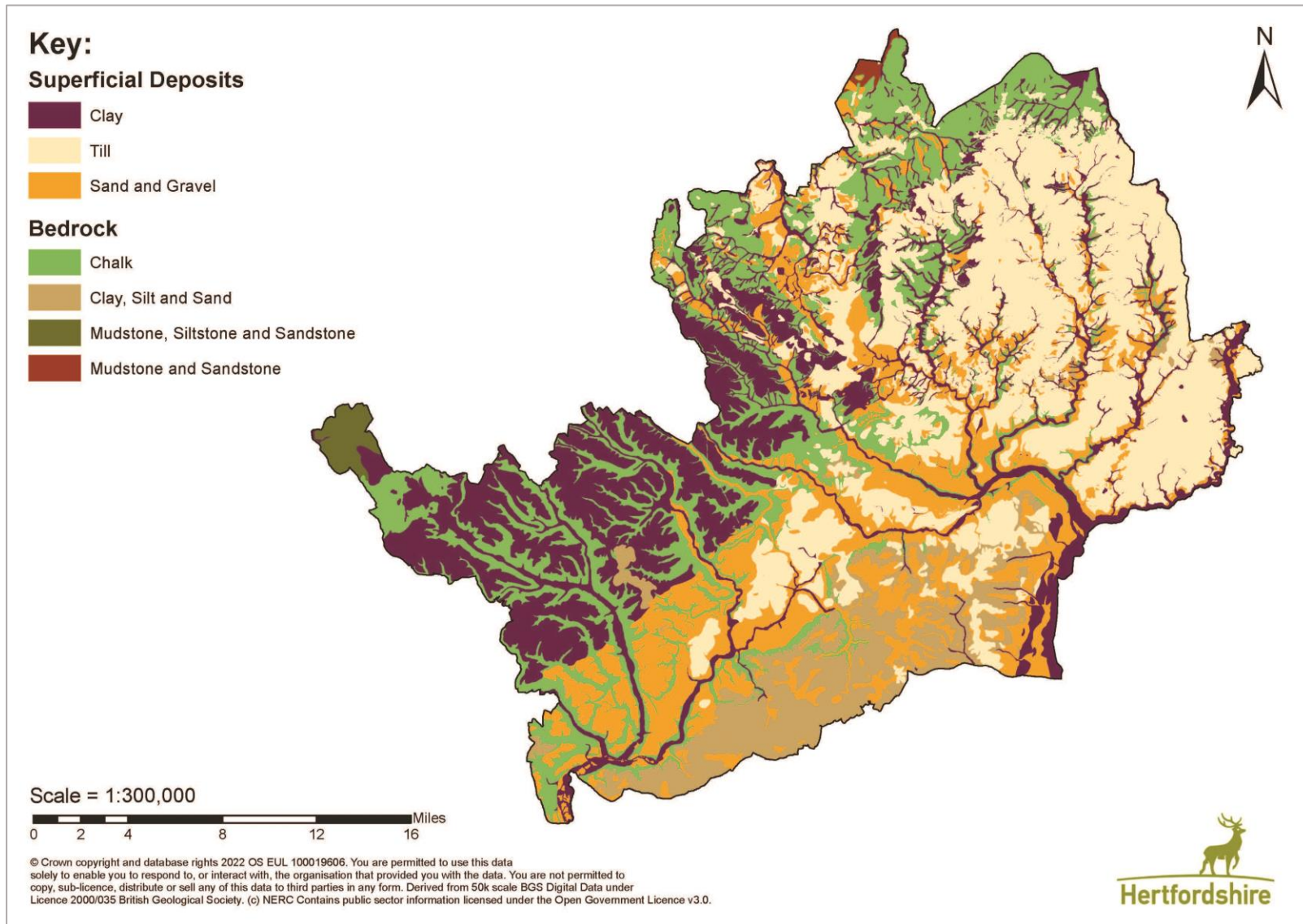
- 1.8 The proposal to prepare a single Minerals and Waste Local Plan and the proposed MWDS received final approval from members at a full Council meeting on 14 December 2021. The Plans which were under preparation prior to the approval of the single Minerals and Waste Local Plan, and their associated evidence base, were subsequently withdrawn.
- 1.9 The LAA will no longer refer to the separate documents which were withdrawn at the end of 2021 and instead will refer to the Minerals and Waste Local Plan which is now under preparation. The Minerals and Waste Local Plan is currently at Draft Plan stage and identifies three Mineral Allocation Sites (MAS). Details of the three MAS can be found in Chapter 3 of this report.

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). The county does not contain any naturally occurring resources of crushed rock and relies on imports of this mineral through the Hertfordshire Rail Aggregate Depots.
- 2.2 Sand and gravel resources occur in Hertfordshire within superficial or 'drift' deposits, subdivided into fluvioglacial sand and gravel, glacial sand and gravel, river terrace deposits and sub-alluvial deposits⁴.
- 2.3 Sand and gravel deposits 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).
- 2.4 Sand and gravel from Hertfordshire is mostly used by the construction industry. Material 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). Building sand, also known as soft sand, is less commonly found in the county and is mostly imported.

⁴ 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

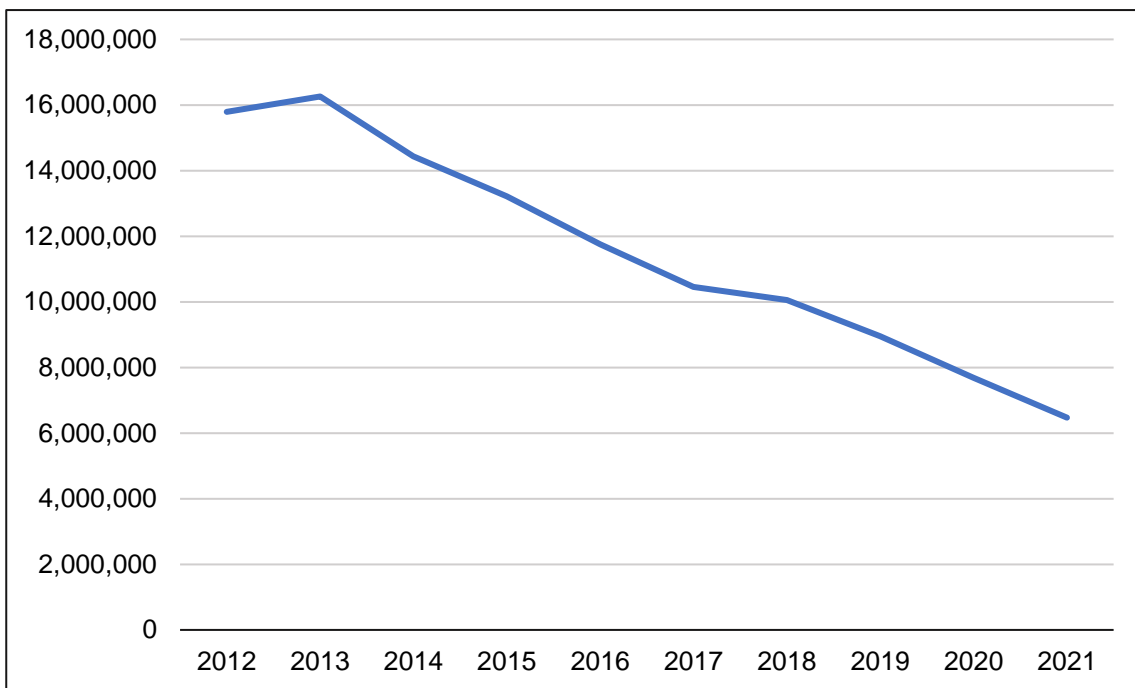


3. Sand and Gravel Reserves

- 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 seven permitted sand and gravel quarries in Hertfordshire as of the end of 2021. Of these seven 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 four sites are no longer extracting sand and gravel and are either in the process of infill/restoration or are not currently operating. See Appendix 1: Sand and Gravel Sites for further details about the sand and gravel sites in Hertfordshire.
- 3.3 At the end of 2021 the total permitted reserves figure stood at 6.47Mt. This figure is made up of the permitted reserves remaining at the three sites referred to above. The reserves have decreased by approximately 1.21Mt when compared to last year's reserves figure (7.68Mt), in line with the 2021 sand and gravel sales and in line with a recalculation in reserves, provided through the operator returns⁵.
- 3.4 A breakdown of the Hertfordshire permitted reserves over the 10-year period from 2012 to 2021 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.

⁵ Operators of the sand and gravel quarries in Hertfordshire provide information to the council each year through the Annual Aggregate Monitoring Surveys
Page | 5

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 and planning permission granted.

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 include:

- 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. One of the Preferred Areas is currently being worked and another is currently subject to a planning application for sand and gravel extraction. Details of all three Preferred Areas and their planning status are provided below.

Preferred Area 1 - BAE

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 2020⁶.

⁶ 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>

- 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 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 dismissed⁷.
- 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 site as the application that was dismissed at appeal. This application remains undetermined and will continue to be monitored in future LAAs.
- 3.12 As it currently stands, Preferred Area 1 has a remaining potential yield of up to 8Mt of sand and gravel.

Preferred Area 2 - Rickneys

Eastern Extension to Rickneys Quarry

- 3.13 On 20 November 2018, the council received an application for a variation of condition (time limit for commencement) on a previous planning application for an eastern extension to the mothballed site at Rickneys Quarry, to extract 1.24Mt of sand and gravel (planning reference number 3/2077-13).
- 3.14 Through this application, the applicant sought to vary the date of commencement for the development, to be no later than eight years from the date of the original permission (this meant that the development must commence before 31st December 2021).
- 3.15 The time frame for commencement (no later than 31st December 2021) has now passed and the planning application was not determined ahead of this date.
- 3.16 The application is no longer valid and will no longer be monitored through the LAA. Should there be any future applications on Preferred Area 2 or the mothballed site at Rickneys Quarry (which adjoins Preferred Area 2), they will be monitored through the LAA.

Land at Ware Park (also known as Bengo Quarry)

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

⁷ To read the appeal decision search on the council's planning webpages (<https://planning.hertfordshire.gov.uk/>) using planning reference number 5/0394-16. Under the application documents please see the document called 'Appeal Decision 25.01.22'.

- 3.18 The applicant appealed the decision on the first application (2.6Mt⁸) 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 and refused planning permission.
- 3.19 As it currently stands, Preferred Area 2 has a remaining potential yield of 5-6Mt of sand and gravel.

Preferred Area 3 – Coursers Road

- 3.20 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

- 3.21 The council has identified three Mineral Allocation Sites (MAS) within the emerging Minerals and Waste Local Plan, which is currently at Draft Pan stage⁹. Once the Minerals and Waste Local Plan is adopted (adoption anticipated for 2024) it will replace the current adopted Minerals and Waste Local Plan documents¹⁰.

MAS01: The Briggens Estate

- 3.22 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

- 3.23 MAS02: Hatfield Aerodrome is currently subject to a planning application for the extraction of up to 8Mt of sand and gravel.

MAS03: Land Adjoining Coopers Green Lane

- 3.24 On 22 October 2020, a planning application for the extraction of approximately 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.
- 3.25 Whilst the current permitted reserves (6.47Mt) are low, there are mechanisms in

⁸ The applicant amended the extraction limit of this application from 2.6Mt to 1.75Mt.

⁹ 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>

¹⁰ 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-inhertfordshire/minerals-and-waste-planning/minerals-and-waste-planning.aspx>

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 Areas in the adopted Minerals Local Plan 2007 and the emerging Minerals and Waste Local Plan identifies three Mineral Allocation Sites which have the potential to supply the county with an adequate supply of sand and gravel to meet future needs.

4. The Annual Provision Rate

- 4.1 Hertfordshire's current Annual Provision Rate is 1.31Mtpa.
- 4.2 Hertfordshire's Annual Provision Rate has changed over time due to periodic reviews. The current adopted Minerals Local Plan (adopted March 2007) was prepared using the Annual Provision Rate (sometimes referred to as the sub-regional apportionment figure) of 1.99Mtpa¹¹. This figure was reviewed through the 2009 National and Regional Guidelines for Aggregates Provision, resulting in a decreased Annual Provision Rate of 1.39Mtpa. This figure was used in the preparation of the separate Minerals Local Plan which was withdrawn at the end of 2021 (see Paragraphs 1.5 to 1.9).
- 4.3 The current Annual Provision Rate (1.31Mtpa) was set in 2021 (by the 2021 LAA) and has been used to forecast sand and gravel demand over the period of the emerging Minerals and Waste Local Plan (2020-2040).
- 4.4 To forecast demand over the period of the emerging Minerals and Waste Local Plan, the Annual Provision Rate is multiplied by the number of years the plan covers (1.31 x 21). The permitted reserves of sand and gravel at the base date of the plan (1 January 2020) are then subtracted from this figure to give the overall remaining requirement for the plan-period.
- 4.5 The current Annual Provision Rate is based on the 2020 10-year sales average figure (1.19Mt) plus a ten percent uplift. The figure was purposely set higher than the 10-year sales average figure to incorporate flexibility and make an allowance for the likely increase in demand for sand and gravel over the 21-year period of the Minerals and Waste Local Plan.
- 4.6 The Mineral Products Association reports that demand projections for Great Britain suggest that, by 2035, some 277 to 323 million tonnes of aggregates will need to be supplied each year. Cumulatively, this means that between 3.8 and 4.1 billion tonnes of aggregates will be required between 2022 and 2035, compared to a total of 3.2 billion tonnes of aggregates supplied in the previous period, between 2008 and 2021¹².

¹¹ As detailed in former Minerals Planning Guidance Note 6: Guidelines for Aggregates Provision in England, 1994-2016, dated April 1994, as amended June 2003

¹² Text taken from Mineral Products Association Press Release dated 20 September 2022

5. Forecasting Future Demand

The LAA Rate

- 5.1 The LAA Rate is a figure (in Mtpa) used to calculate the landbank of sand and gravel. 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. Unlike the Annual Provision Rate, the LAA Rate is not a fixed figure and is reviewed each year through the LAA.
- 5.2 The landbank is calculated by dividing the permitted reserves by the LAA Rate and is reported in years. The landbank represents the number of years the permitted reserves of sand and gravel will last for. For more information on the landbank see Chapter 6.
- 5.3 Paragraph 213 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)'*
- 5.4 Paragraph 213 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.
- 5.5 Planning Practice Guidance (PPG) states that the 2009 National and Regional Guidelines for Aggregates Provision in England are not to be interpreted as rigid standards¹³ 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 Assessment¹⁴. 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.
- 5.6 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).
- 5.7 The 2021 LAA Rate has been set at 1.17Mtpa and is based on the 10-year sales average figure. The remainder of this chapter sets out data on sales and explores the other relevant local information that has been considered in forecasting future demand (i.e. the LAA Rate), as well as an assessment of the other supply options

¹³ Paragraph: 068 Reference ID: 27-068-20140306

¹⁴ Paragraph: 070 Reference ID: 27-070-20140306

that contribute towards aggregate demands in Hertfordshire.

Sales Data

- 5.8 The total sand and gravel sales for the calendar year of 2021 stood at 1.15Mt; an increase by 0.03Mt when compared to last year's total sales figure of 1.12Mt.
- 5.9 The 2021 10-year sales average figure stands at 1.17Mt. As a comparison, this figure was 1.19Mt at the end of 2020 and 1.19Mt at the end of 2019.
- 5.10 The 2021 10-year sales average figure has been used as the starting point to forecast future demand.
- 5.11 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.
- 5.12 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 supply¹⁵.'*
- 5.13 The average sales of sand and gravel in Hertfordshire over the 3-year period from 2019-2021 stand at 1.17Mt. This figure was 1.19Mt at the end of 2020 and 1.21Mt at the end of 2019.
- 5.14 In 2019 the total sales of sand and gravel reached their highest figure since 2011 (2011 total sales figure stood at 1.27Mt). In 2020, the total sales of sand and gravel dropped to their lowest figure (1.12Mt) since 2012. It is thought that the drop in sales in 2020 reflects the temporary slow and shut down in the construction sector because of the Coronavirus pandemic. The 2021 total sales figure (1.15Mt) has only marginally increased when compared to the 2020 total sales figure.
- 5.15 The Mineral Products Association (MPA) published a report in Spring 2022¹⁶ which states that at the end of 2021, construction activity leapt back up above pre-pandemic levels. The recovery was driven by record growth in infrastructure, private housing repair and maintenance and non-housing repair and maintenance. As a result, construction demand for aggregates and mineral products saw double-digit growth during 2021 (in Great Britain).
- 5.16 The tonnages of primary aggregates sales rose by 15.7% on an annual basis in 2021, 14.1% for ready-mixed concrete, 12.5% for asphalt and 24.4% for mortar. Within aggregates, crushed rock demand was supported, in particular by the acceleration in infrastructure work, including roads and major infrastructure projects such as High Speed 2, a high-speed railway line that is under construction between London and Wigan, via Birmingham and Manchester. This boosted the demand for

¹⁵ PPG Paragraph: 064 Reference ID: 27-064-20140306

¹⁶ Regional Overview and Forecasts of Construction and Mineral Products Markets in Great Britain Spring 2022

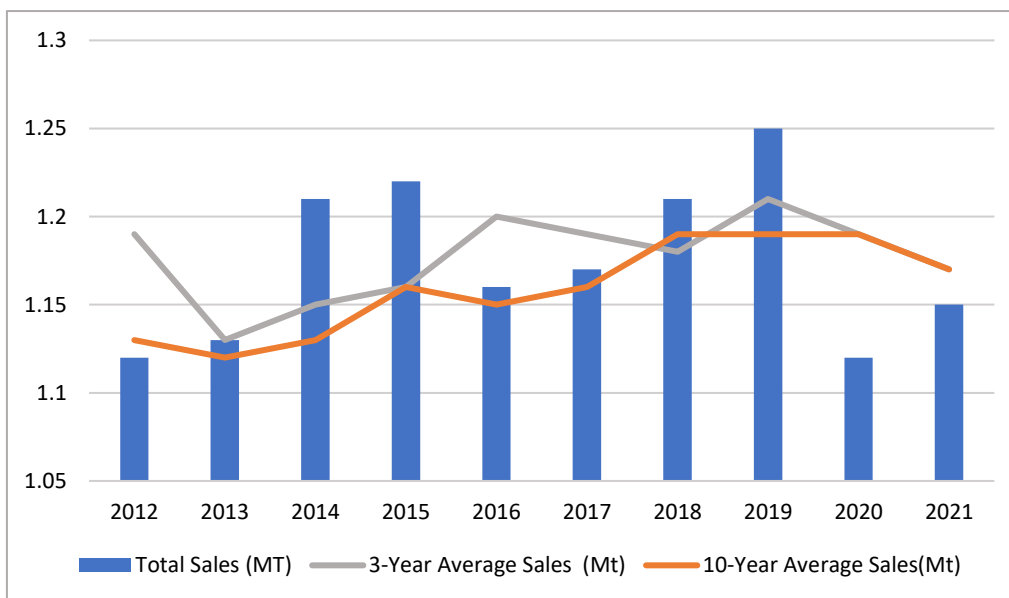
fill materials and asphalt manufacture.

5.17 By contrast, the recovery in ready-mixed concrete demand is being held back by a weaker recovery in new commercial tower projects and is dragging on the recovery in demand for sand & gravel, two-thirds of which is used in the manufacture of concrete¹⁷. The drag on demand for sand & gravel helps to explain only a marginal increase in the 2021 total sales when compared to the 2020 total sales.

5.18 Over the 10-year period from 2012 to 2021, the 3-year sales average figure has frequently exceeded 10-year sales average figure, however, this year the 3-year and 10-year sales average figures have aligned and are heading in a downward direction, reflecting the drop in sand and gravel sales since 2019.

5.19 The total annual sales figures and the 10- and 3-year sales average figures over the period from 2012 to 2021 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



5.20 UK Gross Domestic Product recovered its pre-pandemic (Feb-20) level at the end of 2021 and posted a record-breaking 7.4% annual growth in 2021 compared with 2020. However, a combination of supply chain bottlenecks, labour and raw material shortages and soaring energy prices have challenged many industries and slowed momentum. These challenges are expected to continue during 2022, holding back growth and pushing inflation. The Bank of England expects GDP growth of 3.8% in 2022, before stagnating (-0.25%) in 2023¹⁸.

¹⁷ Text taken from Page 11 of the Mineral Products Association publication titled: Aggregate Supply and Demand in Great Britain: Scenarios for 2035

¹⁸ Text taken from Page 11 of the Mineral Products Association publication titled: Aggregate Supply and Demand in Great Britain: Scenarios for 2035

5.21 Growth momentum is expected to slow toward the end of 2022, as surging inflation and cost pressures are expected to drag on construction demand. The predicted slow in growth momentum towards the end of 2022 could have a knock-on effect on next year’s total sand and gravel sales (which will cover the calendar year of 2022) and possibly into following years, depending on the speed of construction recovery.

Other Supply Options: Imports and Exports of Sand and Gravel

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

5.23 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.

5.24 Conducted by MHCLG¹⁹ 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 AMS²⁰.

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 ²¹ | 520,099 ²² | ↓ 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 | 2,093,000 | 1,737,000 | ↑ 356,000 |

¹⁹ Ministry of Housing, Communities and Local Government (formerly Department for Communities and Local Government) is now called Department for Levelling Up, Housing & Communities

²⁰ 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>

²¹ Approximately 26% of Hertfordshire’s total sand and gravel sales (1,248,011) were exported out of county in 2019

²² 43% of Hertfordshire’s total sand and gravel sales (1,209,532) were exported out of county in 2014

| | | | |
|------------------------------------|--|--|--|
| (marine + land won + crushed rock) | | | |
|------------------------------------|--|--|--|

- 5.25 In 2019, Hertfordshire received 438,000 tonnes of imported sand and gravel and in total consumed²³ 1,364,000 tonnes of sand and gravel.
- 5.26 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.
- 5.27 In February 2022, the council wrote to the minerals planning authorities it has aggregate movements with, to understand if there are any planning reasons why the movements identified through the 2019 National AMS might not continue. Reasons such as depletion in reserves or quarry closures could result in discontinuation of movements.
- 5.28 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.
- 5.29 Of the five authority areas, three responded to the survey and confirmed that they know of no planning reasons why the identified sand and gravel movements might not continue in the short term.
- 5.30 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). This position will be monitored each year.
- 5.31 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).
- 5.32 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.
- 5.33 Given the challenges noted in Paragraphs 5.21 and 5.22, it is possible to assume that there could be a decrease in the amount of sand and gravel imported and exported over 2022/23. However, this is something that the council is unable to regularly monitor due to information on imports and exports only being collected every four years.

²³ Consumption is an overall figure combining imports from external sources as well as the supply consumed from in-county sources

Other Supply Options: Secondary and Recycled Aggregates

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

Secondary aggregates are by-products of other industrial, production or extractive processes, which can be used as an aggregate for construction purposes. These include blast furnace iron and steel slags, incinerator bottom ash, fly ash, furnace bottom ash, china clay, slate and chalk waste, as well as colliery spoils. Collectively, these materials make an important contribution to total aggregates supply and, depending on their quality and composition, can be used as replacement construction aggregates, in the manufacture of concrete and concrete products, and in a range of other construction applications²⁴.

Recycled aggregates are materials derived from construction, demolition and excavation wastes (CD&E) which are 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.

5.35 CD&E waste represents the largest waste stream in the UK economy. C and D waste constitutes the “hard” element of CD&E waste, typically containing waste types that include concrete, bricks, tiles and ceramics, wood, glass and plastic and metal. The individual constituents that comprise CD&E waste ultimately influence the extent to which they can be recycled or recovered²⁵.

5.36 In 2021, the MPA published the 2020 edition of the ‘Profile of the UK Mineral Products Industry’. The publication states that recycled and secondary materials accounted for 28% of total aggregates supply in Great Britain in 2018. The publication also identifies that Great Britain is in a leading position in the use of recycled and secondary aggregates when compared to other European countries.

5.37 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.

5.38 Recycling of CD&E waste allows for its re-use within construction projects. The recycling of CD&E waste occurs both directly where it originated (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.

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

5.40 Table 2 below provides an overview of the secondary and recycled aggregate figures over the last 10-year period.

²⁴ Definition copied from Mineral Products Association publication titled: The Contribution of Recycled and Secondary Materials to Total Aggregates Supply in Great Britain – 2020 Estimates (published 2022)

²⁵ Text sourced from Mineral Products Association publication titled: ‘From Waste to Resource, a UK Mineral Products Industry Success Story’

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

| Year | Recycled and Secondary Aggregate Processing (tonnes) |
|-------------|---|
| 2012 | 316,941 |
| 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 |

- 5.41 Data on secondary and recycled aggregate (from fixed facilities) is usually collected through the council's own annual Aggregate Monitoring Surveys. The response rate from the secondary and recycled aggregate facilities to the most recent survey (undertaken in 2022 collecting 2021 data) was low and consequently the WDI has been relied upon this year to provide a clearer picture. Moving forwards, the council will continue to rely on WDI data.
- 5.42 This year's total secondary and recycled aggregate processing figure stands at 315,000 tonnes.
- 5.43 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 records data from the fixed processing facilities in Hertfordshire (252,000 tonnes) 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.
- 5.44 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 WDI²⁶.
- 5.45 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

²⁶ PDF of report available at:

<https://go.walsall.gov.uk/Portals/0/images/importeddocuments/surveyconstruction2005.pdf>

aggregate and therefore contributes towards aggregate supply. Moving forwards therefore, the council will continue to add a 20% buffer²⁷ to the WDI figure to account for the material which is being reused and recycled directly on construction sites.

- 5.46 It is generally assumed that all CD&E waste which can be recycled as aggregates is being used, with limited opportunity for a significantly higher share of CD&E waste in aggregates markets. Research by DCLG²⁸ into CD&E waste markets suggests that this was already the case in 2005, indicating that very little evidence was found of hard construction and demolition waste which could be recycled into aggregate being landfilled as waste²⁹.
- 5.47 As noted in Paragraph 5.36, 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. Whilst secondary and recycled aggregates are providing a valuable source of supply, significant tonnages of primary aggregates will continue to be necessary to meet overall demand³⁰.
- 5.48 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 remain at a rate of approximately 28%, this does not mean that an increase in the use of secondary and recycled aggregate cannot be achieved at a local level.
- 5.49 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.
- 5.50 Policy 11: Sustainable Design and Resource Efficiency will require all major planning applications to be accompanied by a Circular Economy Statement which 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 on site as well as encourage the use of secondary and recycled aggregates over primary aggregate.
- 5.51 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

²⁷ In actuality 25% is added to the fixed processing site figure to give the overall 80%/20% split

²⁸ Research conducted by Department for Communities and Local Government (now called the Department for Levelling Up, Housing and Communities)

²⁹ Text sourced from Mineral Products Association publication titled: The Contribution of Recycled and Secondary Materials to Total Aggregates Supply in Great Britain – 2020 Estimates (published 2022)

³⁰ Text sourced from Mineral Products Association publication titled: Aggregate Supply and Demand in Great Britain: Scenarios for 2035

the county³¹.

Other Supply Options: Crushed Rock

- 5.52 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.
- 5.53 Crushed rock has a wide range of uses including as a source of both coarse and fine concrete aggregate, other screened and graded aggregates, and for other construction uses, including fill. However, its main use is in road construction, both unbound ('dry stone'), primarily for the foundations of roads and bound with either bitumen (to produce 'coated roadstone') or cement in the upper layers³².
- 5.54 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 62.6Mt³³. 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 270³⁴.
- 5.55 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
- 5.56 In 2021, the county received 739,620 tonnes of imported crushed rock. This is an increase when compared to last year's crushed rock imports figure which stood at 719,730 tonnes.
- 5.57 Crushed rock can be used as a substitute material for sand and gravel and therefore provides an additional supply option that must be considered when assessing the potential rate of future demand.
- 5.58 The MPA report titled 'Aggregates Demand and Supply in Great Britain: Scenarios for 2035' states the following about crushed rock:

³¹ The council will only begin to receive Circular Economy Statements once the new Minerals and Waste Local Plan is adopted (adoption anticipated for 2024).

³² Paragraph 4.3 from the Collated results of the 2019 Aggregate Minerals Survey for England and Wales

³³ Table 1a of the Mineral Products Association publication entitled: 'Profile of the Mineral Products Industry -2020 Edition'

³⁴ Table 1b from the 'Profile of the Mineral Products Industry -2020 Edition'

'The share of sand & gravel in aggregates supply has declined significantly since the late 1980s due to a reduction in landwon extracted tonnages. This was initially offset by significant increases in the share of recycled and secondary aggregates until 2010, whilst recent years saw a marked increase in primary crushed rock tonnages, likely to be driven in part by the ongoing substitution of sand & gravel for crushed rock and crushed rock fines in the manufacture of concrete.'

Other Relevant Local Information: Planned Housing, Housing Delivery and Major Infrastructure

Planned Housing

- 5.59 At least 100,000 new homes and jobs are aspired to be created in Hertfordshire by 2031³⁵ and an estimated 50% of these new homes will be situated along the A414 corridor (within a 5-mile radius)³⁶.
- 5.60 The majority of the ten District and Borough Councils within Hertfordshire are in the process of preparing new Local Plans or have recently adopted³⁷ Local Plans. The Local Plans look ahead over the period up to 2031, with some spanning up to 2038. In revising their Local Plans, the District and Borough Councils must calculate the housing need for their local areas, in line with national requirements.
- 5.61 Many of the larger housing 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.
- 5.62 These housing 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 larger housing allocations 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
- 5.63 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.

³⁵ <https://www.hertfordshiregrowthboard.com/about/>

³⁶ [a414-corridor-strategy-report-8.10.19-pdf-12mb.pdf \(hertfordshire.gov.uk\)](#)

³⁷ Stevenage Borough Council adopted on 22 May 2019, East Herts Council adopted on 23 October 2018 and Broxbourne adopted on 23 June 2020

Housing Delivery

- 5.64 Information on gross housing completion rates in Hertfordshire has been obtained from the council's Strategic Land Use Team covering the period from 2001/2002 – 2021/2022. This information can be seen in Appendix 4: Housebuilding.
- 5.65 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 2016/17³⁸.
- 5.66 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 have taken a more notable reduction this year (2021/22) down to 4,597.
- 5.67 The most recent gross housing completion figures do suggest the beginnings of a downward trend. Growth momentum is expected to slow toward the end of 2022, as surging inflation and cost pressures are expected to drag on construction demand³⁹. The predicted slow in construction demand could have an impact on next year's gross housing completion figure.
- 5.68 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 being delivered.
- 5.69 Whilst housebuilding rates can help to provide an indication of the demand for aggregates, 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 maintenance⁴⁰.

Major Infrastructure

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

High Speed 2 (HS2)

- 5.71 HS2 is a Department for Transport project to build a new high-speed railway between London and Birmingham, with later extensions to Manchester and Leeds. A section of the line, due to open in 2026, passes within Hertfordshire's county boundary and requires significant construction works.
- 5.72 The 3.6km Colne Valley Viaduct will carry the HS2 route from Harefield in Hillingdon, over the Colne Valley into Buckinghamshire, before it enters the Chiltern Tunnel South Portal in Hertfordshire.

³⁸ Hertfordshire Infrastructure and Funding Prospectus 2018-2031

³⁹ Information provided by the Mineral Products Association

⁴⁰ Practice Guidance on the production and use of Local Aggregate Assessments, Living Document (May 2017), Planning Officers Society and Minerals Products Association

- 5.73 Within Hertfordshire, infrastructure such as the Colne Valley Viaduct, the Chiltern Tunnel South Portal and the Colne Valley Western Slopes will be constructed.
- 5.74 On 31 August 2021, the council received a Scoping Opinion Request for a proposed sand and gravel borrow pit in connection with HS2 (Planning reference: PL/0227/21-Scoping). The site covers about 9 hectares of land off Watford Road, Hunton Bridge (locally known as Circus Field) and is located just to the south of Junction 20 of M25, to the east of A41.
- 5.75 Borrow pits are areas of sand and gravel deposits which are used exclusively for specific named construction projects and are normally located in close proximity to the project they serve. Material supplied from borrow pits cannot be added to the landbank.
- 5.76 The proposal would supply aggregate materials to the HS2 project and provide essential void space for the disposal of inert infill created as part of railway construction. The proposal would involve the extraction of approximately 390,000 tonnes of sand and gravel, together with progressive restoration back to agricultural land and a range of priority wetland and grassland habitats.
- 5.77 Whilst the HS2 project may still import materials from other supply sources within Hertfordshire and further afield, the proposed Borrow Pit will help to reduce that need should it be permitted.
- 5.78 Other parts of the HS2 project within Hertfordshire are also utilising materials sustainably. The Chilterns South Portal Chalk Grassland Project is the largest project in the HS2 Green Corridor programme and will see the transformation of what is now an HS2 construction site into one of the largest areas of new chalk grassland in the Chiltern hills. The project will deliver 90 hectares of chalk grassland which will be seeded into re-profiled soil layers using the nutrient poor subsoils on the site and mixing these soils with chalk from the tunnelling and recycled concrete and aggregates from construction works⁴¹.

Updates to the A602 from Stevenage to Ware

- 5.79 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, is progressing. The programme has been impacted by the Coronavirus pandemic and other factors, and the new alignment is now due to open in summer 2023⁴².
- 5.80 Two important large scale infrastructure projects are at the early planning stage in the southwest of Hertfordshire. These two projects are detailed below:

The West Hertfordshire Hospitals NHS Trust

⁴¹ <https://www.hs2.org.uk/in-your-area/local-community-webpages/hs2-in-hertfordshire/>

⁴² https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/roadworks-and-road-closures/major-roadwork-projects/a602-improvements.aspx#DynamicJumpMenuManager_1_Anchor_2
Page | 22

5.81 The West Hertfordshire Hospitals NHS Trust has been identified by Government as one of eight 'Pathfinder' Trusts to deliver their plans to build 40 new hospitals across the UK by 2030. The proposals would see Watford General redeveloped, together with significant improvements to the trust's other sites in St Albans and Hemel Hempstead, improving the range and quality of services on offer and the way in which they are delivered.

The Hertfordshire Essex Rapid Transit

5.82 The Hertfordshire Essex Rapid Transit (HERT) is intended to be a new, sustainable passenger transport network running from Hemel Hempstead and West Watford, joining just south of St Albans in Hertfordshire, to Harlow in Essex and onwards to Stansted Airport. It will carry more people than a car but will be more convenient and reliable than a traditional bus.

5.83 Initial public consultation has been carried out to help inform the business case that will be submitted to government. This will explore what benefits the HERT could provide, the different options available and potential costs⁴³.

Other Relevant Local Information: Major Projects in Neighbouring Authority Areas

5.84 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 supply⁴⁴. As explained in this Chapter, Hertfordshire exports some sand and gravel outside of the county. This exported material contributes to national supply.

5.85 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.

5.86 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.

5.87 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).

⁴³ Text on West Hertfordshire Hospitals and HERT taken from the South West Herts Joint Strategic Plan September 2022

⁴⁴ Planning Practice Guidance Paragraph: 060 Reference ID: 27-060-20140306

- Harlow Gilston Garden Town- approx. 23,000 units (10,000 of the 23,000 will be built in Hertfordshire)⁴⁵
- Houghton Regis Development, Central Bedfordshire- approx. 7,000 units⁴⁶
- North of Luton, Bedfordshire- approx. 3,600 units⁴⁷
- East of Arlesey, Bedfordshire – approx. 2,000 units⁴⁸
- Northstowe New Town, Cambridgeshire – approx. 10,000 units⁴⁹
- Meridian Water, Enfield – approx. 10,000 units⁵⁰
- South East Milton Keynes Strategic Urban Extension – approx.3,700 units⁵¹

Other Relevant Local Information: Population

5.88 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 available⁵². By mid-2043, the total population of Hertfordshire is projected to be 1,243,138.

5.89 The main population base for the Census 2021 is the usual resident population. A usual resident of the UK is anyone who, on 21 March 2021, is in the UK and has stayed, or intends to stay, in the UK for 12 months or more or has a permanent UK address and is outside the UK and intends to be outside the UK for less than 12 months. The only exception is members of the armed forces on deployment on operations, who remain usual residents of the UK regardless of length of deployment⁵³.

5.90 Based on the Census 2021 data, the estimated usual resident population of Hertfordshire in March 2021 stood at 1,198,800. When comparing the total population figure for 2021 based on the 2018 projections (1,196,465), against the Census 2021 estimate, there is a difference of 2,335 between the two. 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%)⁵⁴.

⁴⁵ <https://hgggt.co.uk/>

⁴⁶ Houghton Regis North Sites 1 and 2 both have planning permission for strategic scale development

⁴⁷ https://www.centralbedfordshire.gov.uk/info/153/central_bedfordshire_local_plan_2015_to_2035/1043/expanding_luton

⁴⁸ https://www.centralbedfordshire.gov.uk/info/153/central_bedfordshire_local_plan_2015_to_2035/1042/new_homes_near_arlesey

⁴⁹ <https://www.northstowe.com/>

⁵⁰ <https://www.meridianwater.co.uk/about/>

⁵¹ [https://www.milton-keynes.gov.uk/planning-and-building/planning-policy/south-east-milton-keynes-strategic-urban-](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(SE MK)%20is%20an,Bow%20Brickhill%20to%20the%20west.)

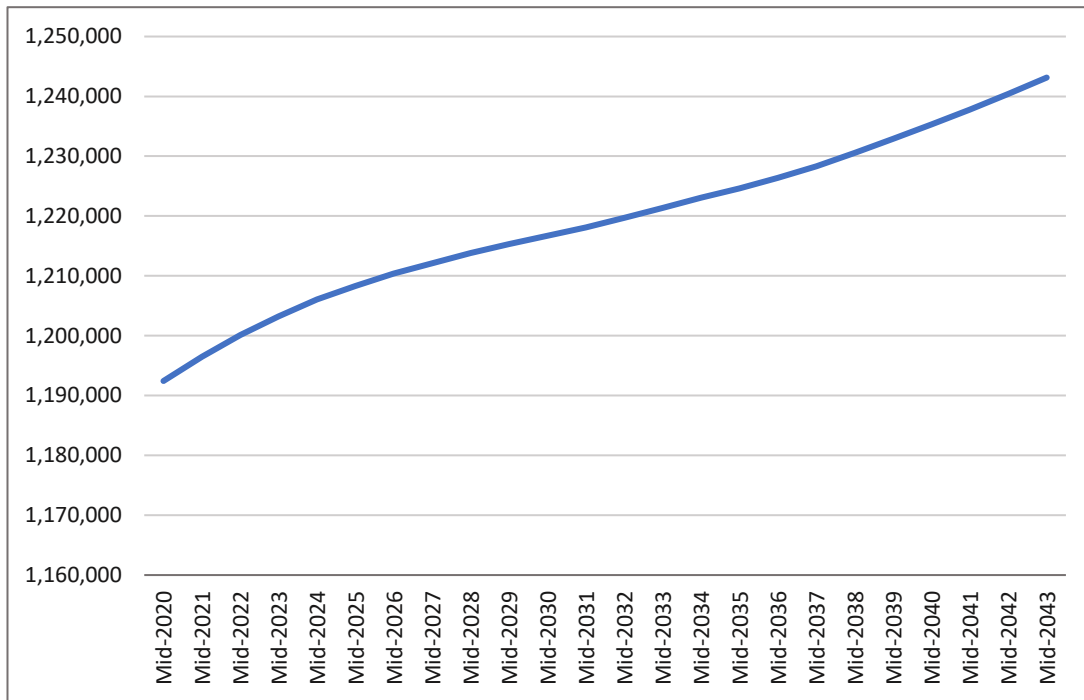
[extension#:~:text=South%20East%20Milton%20Keynes%20Strategic%20Urban%20Extension%20\(SE MK\)%20is%20an,Bow%20Brickhill%20to%20the%20west.](https://www.milton-keynes.gov.uk/planning-and-building/planning-policy/south-east-milton-keynes-strategic-urban-extension#:~:text=South%20East%20Milton%20Keynes%20Strategic%20Urban%20Extension%20(SE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

⁵² Available here: <https://reports.instantatlas.com/view-report/881ccb3a8b2b44afa72d1dc3d7db3aca/E10000015?clear=true#>

⁵³ Text taken from: <https://reports.instantatlas.com/view-report/79b7917a1c72415ea39bca5ed45c6094/E10000015#usualresdata>

⁵⁴ Source: ONS, Census 2011 and Census 2021 (First Release)

Figure 4: Population projections



6. The Hertfordshire Landbank

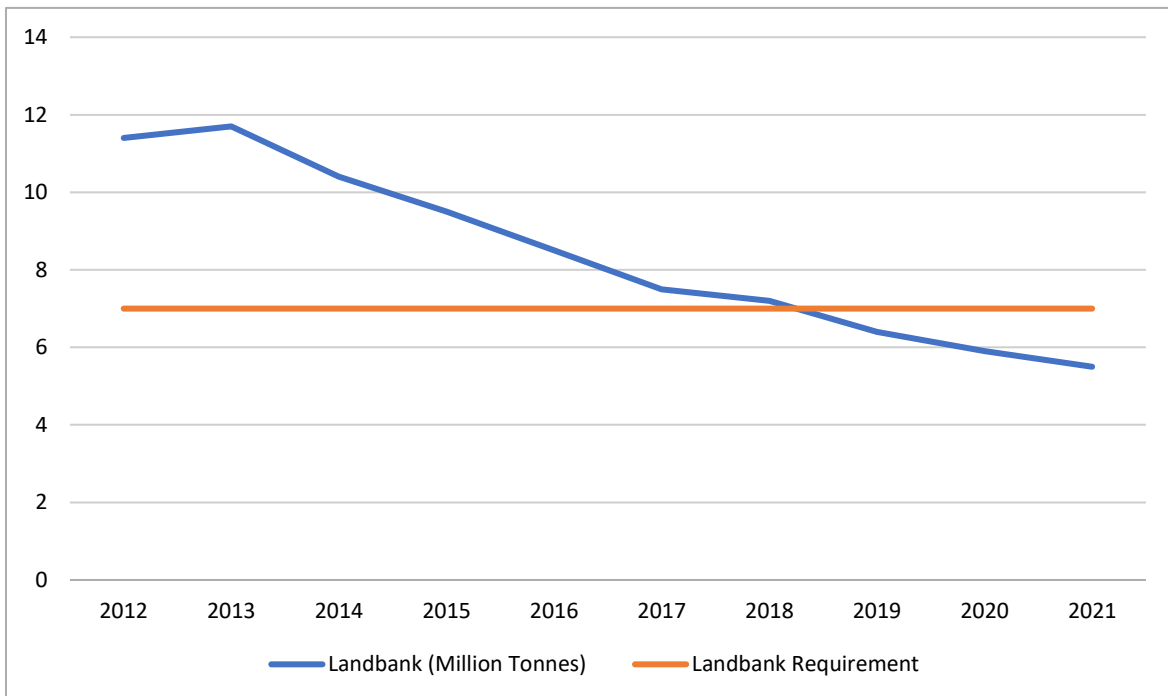
6.1 Paragraph 213 of the NPPF states that minerals planning authorities should maintain a landbank of at least 7 years for sand and gravel. The PPG states:

'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 Assessment⁵⁵

6.2 The LAA Rate for 2021 is 1.17Mt. This results in a landbank of 5.5 years as of the end of 2021. Figure 5 below shows the landbank figures over the 10-year period from 2012 to 2021.

Figure 5: Landbank (in Years)



6.3 As can be seen from Figure 5 above, Hertfordshire currently has a landbank under 7 years. Paragraph 213e 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.

6.4 As explained in Chapter 3, there are mechanisms in place to help secure a future supply of sand and gravel and there are currently two sites (Hatfield Aerodrome and Land adjoining Coopers Green Lane) which have the potential to boost reserves (and subsequently the landbank figure) in the near future.

⁵⁵ Paragraph: 083 Reference ID: 27-083-20140306

7. Conclusion

- 7.1 The current stock of permitted reserves of sand and gravel in Hertfordshire is insufficient to meet future demands. 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. In addition, two of the three Preferred Areas in the adopted 2007 Minerals Local Plan still contain potentially workable reserves.
- 7.2 The reserves from Land adjoining Coopers Green Lane will be added to the permitted reserves once the Decision Notice has been issued. There is also a planning application on Hatfield Aerodrome which has the potential to contribute up to 8Mt of sand and gravel to the permitted reserves, should it receive approval. These two applications will continue to be monitored within the LAA.
- 7.3 As of the end of 2021, the landbank stands at 5.5 years. The landbank has been calculated based on the 2021 LAA Rate which has been set at 1.17Mtpa. The LAA Rate for 2021 is based on the 10-year sales average figure (1.17Mt) and is considered a realistic forecast of future demand.
- 7.4 In deciding the LAA Rate, the 10-year sales average is the starting point. Where demand is considered likely to be above the 10-year sales average, there must be sufficiently robust information to justify deviation from the figure.
- 7.5 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, which could help provide an indication of the possible future demands for sand and gravel.
- 7.6 The sand and gravel sales have declined in recent years. In 2019 the total sales of sand and gravel reached their highest figure since 2011. In 2020, the total sales of sand and gravel dropped to their lowest figure (1.12Mt) since 2012 and in 2021 the total sales figure only marginally increased to 1.15Mt.
- 7.7 The other supply options including imports and exports of sand and gravel, secondary and recycled aggregates, and crushed rock, will go some way in meeting Hertfordshire's aggregate demands and will help to reduce the demand for virgin sand and gravel.
- 7.8 The imports of sand and gravel not only help to balance the material which is lost through exports but also provide some additional supply for Hertfordshire.
- 7.9 Secondary and recycled aggregates help reduce reliance on virgin sand and gravel. The contribution made by inert wastes (CD&E waste) that are reused and recycled directly on-site must be factored in when assessing how far secondary and recycled aggregates go towards meeting demands. Whilst it is estimated that secondary and recycled aggregates account for 28% of total aggregate supply in Great Britain, this does not mean that an increased use of these materials cannot be achieved locally.
- 7.10 Whilst there are significant aspirations for housing growth in the county, the gross

housebuilding completion rates suggest the beginnings of a downward trend. A much greater housing delivery rate will need to be achieved if aspirations are to be met. Other major projects have the potential to draw from the county's sand and gravel supply, but the source of construction materials will be determined by the market at the time of construction.

- 7.11 When considering sand and gravel sales data, the contribution made by other supply options, and other local information against the predicted slow in growth momentum caused by a combination of supply chain bottlenecks, labour and raw material shortages and soaring energy prices, 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 |
|--|------------------------|---|------------------------|--|
| <p>Hatfield Quarry</p> <p>Hatfield Quarry is comprised of the following permitted sites:</p> <p>Symondshyde Farm (planning reference number: 6/0439-03)</p> <p>Furze Field (planning reference number: PL\0820\16)</p> <p>Cutfield Landfill (restoration of Cutfield Lagoon) - Inert fill only (planning reference number: 5/1240-14)</p> | Cemex UK Ltd | Active. Extraction and inert fill | Inert restoration | <p>Symondshyde Farm to be completed by 31-12-2023⁵⁶</p> <p>Furze Field to be completed by summer 2023</p> |
| <p>Tytenhanger Quarry</p> <p>(planning reference number: 0/1353-06)⁵⁷</p> | Tarmac Ltd | Active. Extraction and inert fill. | Inert restoration | Extraction and site permission 31-12-2032 |
| <p>Thorley Hall Farm</p> <p>(planning reference number: PL\0549\13)</p> | Ingrebourne Valley Ltd | Active. Extraction taking place. | Agricultural reservoir | Reservoir construction & restoration works are to be completed by 30-10-2024 ⁵⁸ |

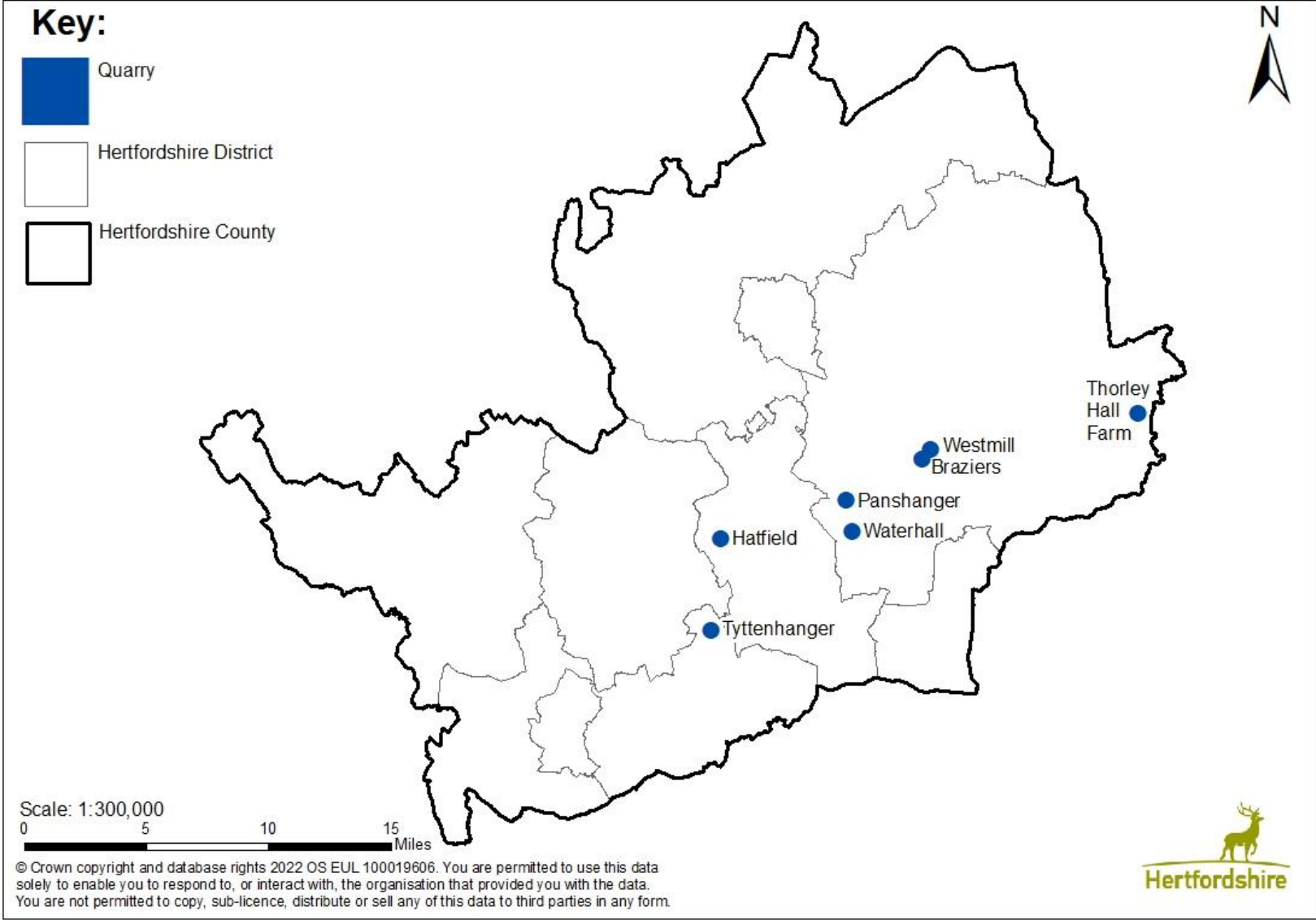
⁵⁶ Cessation date recently extended. Search using planning reference PL/0165/20

⁵⁷ Tytenhanger 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

⁵⁸ Cessation dates extended. Search using planning reference PL/0188/20

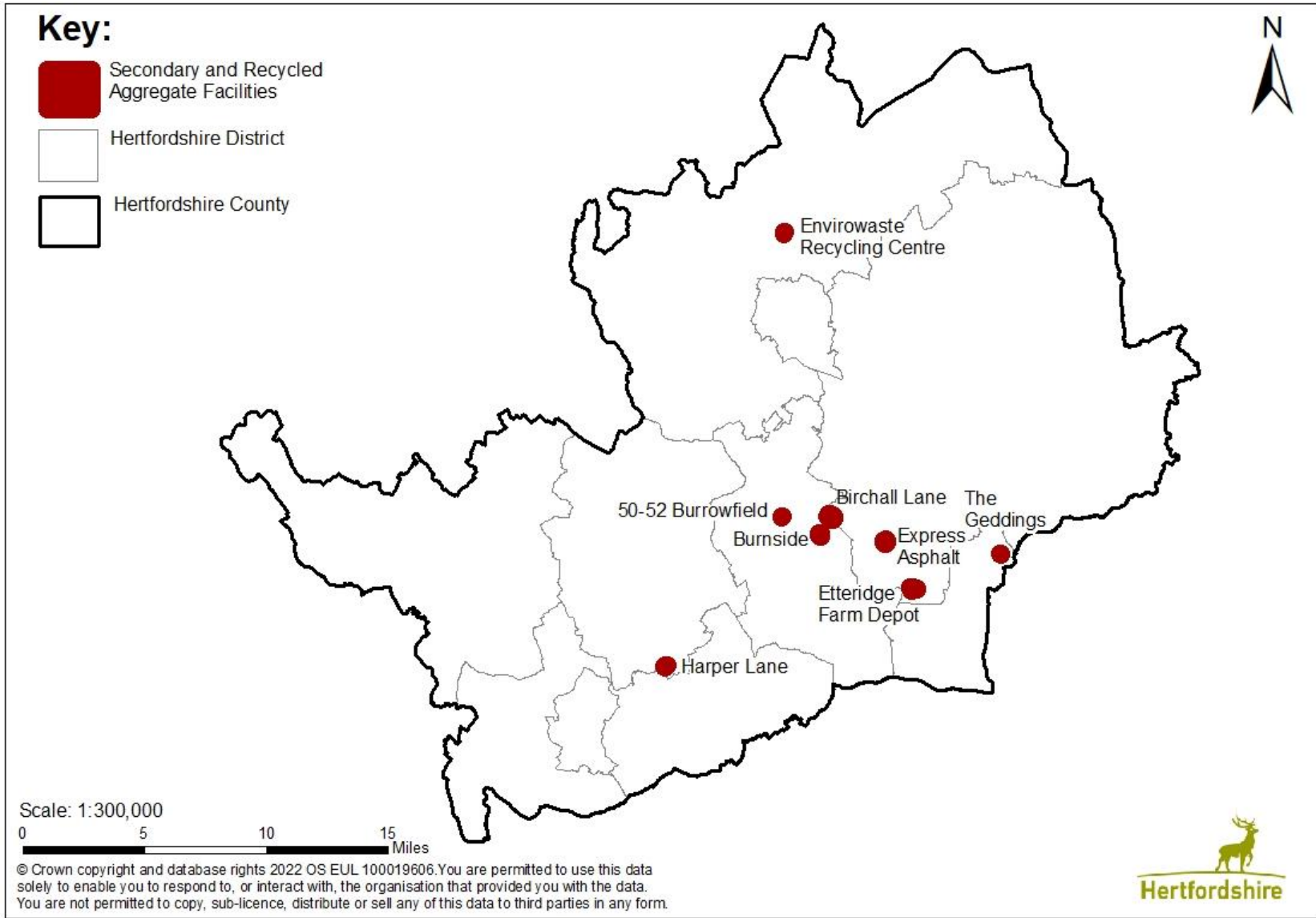
| | | | | |
|---|---|---|----------------------------------|--|
| <p>Westmill Landfill</p> <p>(planning reference number: PL\0750\15)</p> | <p>Biffa Waste Services Ltd</p> | <p>Active.</p> <p>Excavation is complete. Site active as a landfill only. The site receives restoration soils and inert materials.</p> | <p>Non-hazardous restoration</p> | <p>Final restoration to be completed by 31-12-2027.</p> |
| <p>Panshanger Landfill</p> <p>(planning reference number: PL\0684\15)</p> | <p>Tarmac Ltd BP Mitchell Haulage Limited</p> | <p>Active.</p> <p>Excavation is complete. Inert restoration taking place.</p> | <p>Inert restoration</p> | <p>Restoration to be completed within 10 years of commencement of importation of infill (Infill commenced on 28 January 2019).</p> |
| <p>Braziers Landfill</p> <p>(planning reference number: 3/1416-97. Inert restoration taking place on an extant planning permission)</p> | <p>Frank Lyons Services Group</p> | <p>Active</p> <p>Inert restoration taking place on extant permission granted in 1998. The site began taking waste on 05 March 2018.</p> | <p>Inert restoration</p> | <p>Minerals/depositing of waste shall cease on or before 21 February 2042.</p> |
| <p>Waterhall Complex</p> <p>The Water Hall Quarry Complex is divided into four distinct geographical and planning areas: Water Hall, Southfield Wood, Bunkers Hill and Pollards.</p> <p>(planning reference number: PL\0582\13)⁵⁹</p> | <p>Waterhall (England) Ltd/Frank Lyons</p> | <p>Inactive.</p> <p>The site has been worked and restoration has ceased.</p> | <p>Inert restoration</p> | <p>Extraction, infilling, mineral processing and restoration to cease on 31-12-2019</p> |

⁵⁹ Waterhall Complex has a long and complicated planning history. This is the most relevant planning reference number, which relates to the most recently approved permission on the complex (relating to time limits for completion of restoration)

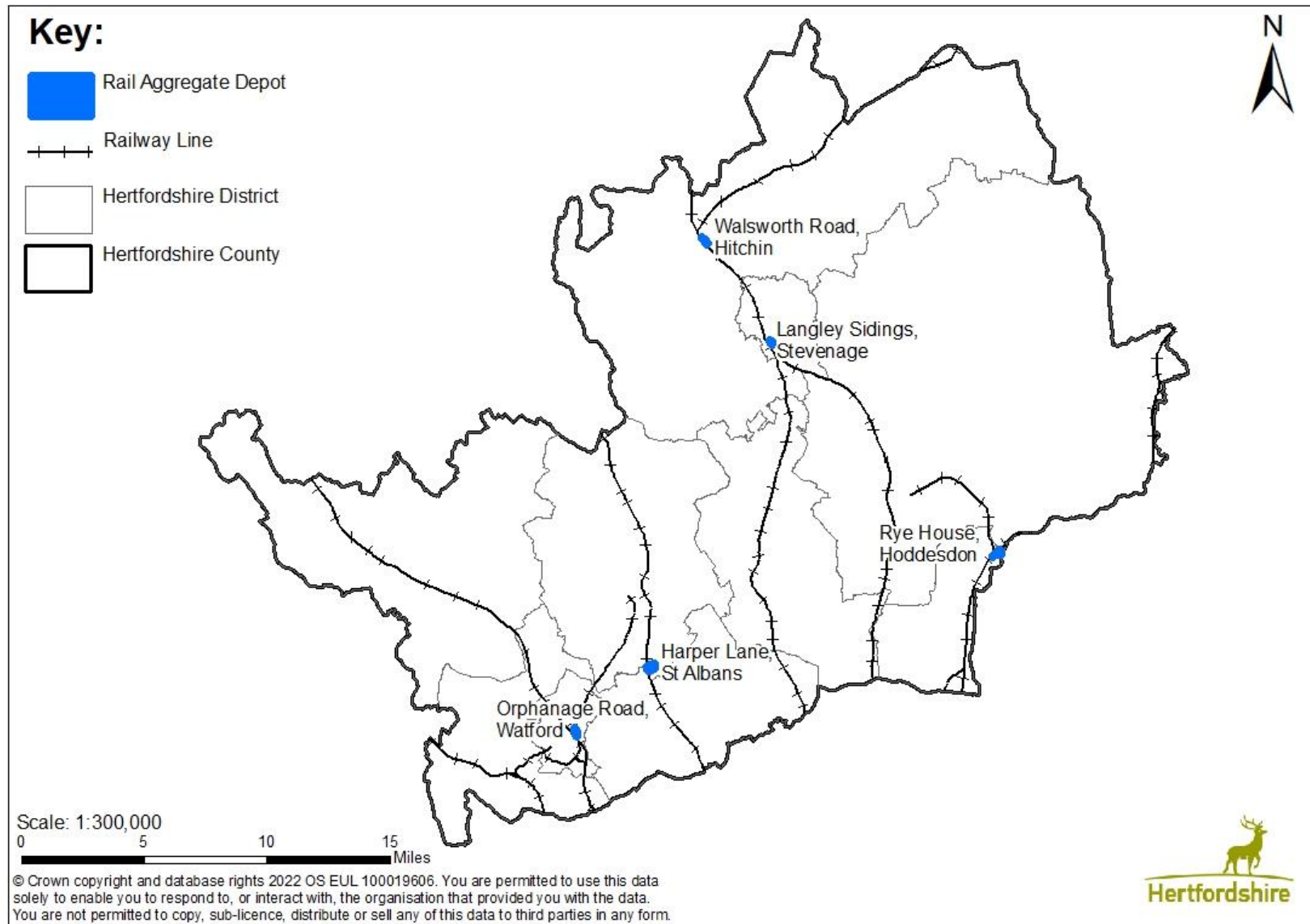


Appendix 2: Aggregate Recycling Facilities

| Site | Company | Status |
|---|---|---------------------------|
| Burnside, Hatfield | Peter Brothers Ltd & BP Mitchell | Permanent |
| Harper Lane (Rail Loop) | Tarmac Ltd | Permanent |
| 50-52 Burrowfield | Ground Waste Recycling Ltd | Permanent |
| Land off Birchall Lane, Cole Green, Welwyn Garden City | BP Mitchell Ltd | Permanent |
| Envirowaste Recycling Centre | Stevenage Skip Hire Ltd | Permanent |
| Express Asphalt, Hertford | Aggregate Industries UK Ltd T/A Express Asphalt | Certificate of Lawful Use |
| Etteridge Farm Depot | A H Nicholls & Sons Limited | Certificate of Lawful Use |
| The Geddings | Advanced Demolition Limited | Permanent |



Appendix 3: Rail Aggregate Depots



Appendix 4: Housebuilding

| District/Borough | 2001/02 | 2002/03 | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Broxbourne | 175 | 155 | 267 | 916 | 508 | 287 | 298 | 202 | 333 | 278 | 180 |
| Dacorum | 375 | 705 | 446 | 333 | 250 | 480 | 472 | 459 | 259 | 636 | 477 |
| East Herts | 636 | 397 | 297 | 381 | 644 | 812 | 599 | 597 | 494 | 304 | 445 |
| Hertsmere | 327 | 111 | 215 | 251 | 341 | 285 | 409 | 328 | 331 | 225 | 217 |
| North Herts | 760 | 685 | 482 | 437 | 569 | 662 | 769 | 488 | 390 | 455 | 422 |
| St Albans | 422 | 357 | 285 | 668 | 379 | 439 | 337 | 466 | 329 | 495 | 466 |
| Stevenage | 175 | 101 | 58 | 171 | 130 | 414 | 471 | 400 | 255 | 312 | 196 |
| Three Rivers | 381 | 255 | 186 | 94 | 229 | 369 | 286 | 351 | 69 | 160 | 261 |
| Watford | 79 | 192 | 277 | 379 | 638 | 292 | 336 | 369 | 540 | 665 | 479 |
| Welwyn Hatfield | 95 | 504 | 825 | 682 | 737 | 708 | 768 | 348 | 83 | 216 | 309 |
| Total | 3425 | 3462 | 3338 | 4312 | 4425 | 4748 | 4745 | 4008 | 3083 | 3746 | 3452 |

| District/Borough | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | Total |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Broxbourne | 192 | 119 | 184 | 183 | 276 | 260 | 483 | 165 | 211 | 337 | 6009 |
| Dacorum | 364 | 254 | 402 | 701 | 764 | 628 | 532 | 522 | 760 | 845 | 10664 |
| East Herts | 729 | 394 | 535 | 739 | 668 | 613 | 943 | 989 | 853 | 904 | 12973 |
| Hertsmere | 334 | 473 | 225 | 406 | 340 | 562 | 677 | 623 | 521 | 352 | 7553 |
| North Herts | 314 | 274 | 251 | 360 | 556 | 346 | 249 | 338 | 601 | 348 | 9756 |
| St Albans | 400 | 504 | 398 | 457 | 404 | 493 | 731 | 474 | 604 | 378 | 9486 |
| Stevenage | 90 | 179 | 154 | 155 | 704 | 77 | 295 | 328 | 154 | 126 | 4945 |
| Three Rivers | 208 | 172 | 308 | 243 | 164 | 286 | 174 | 510 | 277 | 203 | 5186 |
| Watford | 568 | 431 | 271 | 308 | 384 | 357 | 292 | 278 | 454 | 812 | 8401 |
| Welwyn Hatfield | 170 | 254 | 356 | 338 | 370 | 314 | 505 | 695 | 421 | 292 | 8990 |
| Total | 3369 | 3054 | 3084 | 3890 | 4630 | 3936 | 4881 | 4922 | 4856 | 4597 | 83963 |

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