Milton Keynes City Council

# Milton Keynes Local Aggregates Assessment 2023

## Reporting on 2022 Data

Final version

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| **Soft Sand** | | | | | | | | | |
| **Sharp Sand & Gravel** | | | | | | | | | |
| **All Sand & Gravel[4]** | C ⇩ | 0.154 ⇧ | 0.193 ⇧ | 0.17 | C | 1 | 8 | 0.62 | Only two active quarries during monitoring period, therefore sales and reserve data is confidential. |

**General Comments**

Supply contribution of sand and gravel sites is limited with insufficient permitted reserves to maintain a 7 year landbank. To address shortfall there are three remaining sites allocated in the Minerals Local Plan, potentially adding up to 1.83 Mt to the supply. One of these sites was permitted in 2018 and is now active.

| Aggregate Infrastructure Sales | 2022 Sales (Mt) & Comparison to previous year | Average (10-yr) Sales & Trend | Average (3-yr) Sales & Trend | Aggregate Provision Rate (Mt) | Reserve (Mt) | Landbank (years) | Allocations (years) | Capacity (Mtpa) | Comments |
|---|---|---|---|---|---|---|---|---|---|
| **Recycled / Secondary Aggregates** | C ⇧ | 0.051 ⇧ | 0.081 ⇧ | 0.07 | | | | 0.15 | Two facilities are permitted for production of recycled aggregate however one is not yet operational. Zero capacity for producing secondary aggregates. No AM 2022 returns were received from recycled aggregate sites; as such 2022 figures are estimated based on 50% of total CDE waste received at MK waste facilities, as reported in the 2022 Waste Data Interrogator. However, this data is not considered an adequate basis on which to revise the APR from the annual capacity of the only site in operation (at Lathbury) of 0.07 Mtpa. |
| **Rail Depot Sales (Sand & Gravel** | C ⇩ | 0.04 = | 0.06 = | 0.04 | | | | 0.4 | Only one rail depot therefore sales figures are confidential. Likely for crushed rock to have originated from Derbyshire as this has been the origin for the last 9 years. Over the same period, sand and gravel has originated from either Hertfordshire, Cambridgeshire, or Lincolnshire. |
| **Rail Depot Sales (Crushed Rock)** | C ⇩ | 0.20 = | 0.33 ⇧ | 0.20 | | | | | |

The National Planning Policy Framework (NPPF) requires Mineral Planning Authorities (MPAs) to plan for a steady and adequate supply of aggregates by preparing an annual Local Aggregates Assessment (LAA). The LAA is required to:

- forecast the demand for aggregates based on a rolling average of ten years' sales data and other relevant local information,
- analyse all aggregate supply options, and
- assess the balance between demand and supply.

This LAA is the 2023 edition and includes the most recent (2022) aggregate sales and reserves data for Milton Keynes. The ten-year period covered by this LAA is 2013 up to 2022. The main facts and figures from the report (by aggregate type) are set out below.

## Sand and gravel

- Milton Keynes has one permitted sand and gravel site. Estimated reserves as of 31 December 2022 cannot be published for confidentiality reasons but are known to be limited.
- Sales have fluctuated greatly over the last ten years. Most recently, sales between 2020 and 2021 increased by 300%. This is likely due to sales been artificially low in 2020 due to the Covid-19 pandemic. However, sales decreased slightly between 2021 and 2022, by 16%. Actual sales figures cannot be identified for confidentiality reasons.
- In 2019 1.1 Mt of sand and gravel was sold in the Milton Keynes - Buckinghamshire sub-region, of which 0.365 Mt was exported. 0.582 Mt of sand and gravel was imported, leaving an export/import balance of 0.217 Mt; making the sub-region a minor net importer.
- The Milton Keynes Minerals Local Plan (MLP) sand and gravel provision rate is 0.17 million tonnes per annum (Mtpa). It is based on 3-year average sales (2010 – 2012) and local factors affecting the supply and demand for sand and gravel. Average aggregate sales for the most recent ten-year period (2013 - 2022) and 3-year period (2020 - 2022) are 0.154 Mtpa and 0.193 Mtpa respectively.
- The Aggregate Provision Rate is to be 0.17 Mtpa, the same as in the adopted MLP.
- Currently the supply contribution of sand and gravel sites in the borough is limited. Based on the MLP provision rate (and also the Aggregate Provision Rate) there are insufficient permitted reserves (as of 31/12/2022) to maintain a 7-year landbank, as required by national policy. To address this, three outstanding site allocations exist for sand and gravel extraction in the MLP which, subject to planning permission, have the potential to increase the landbank further.

## Crushed rock (limestone)

- Milton Keynes does not have any significant crushed rock resources. There have been no sales of limestone for aggregate purposes for at least the last fifteen years and there are currently no permitted sites.
- No annual apportionment/provsion rate has previously been identified for limestone and is still not considered appropriate.
- In 2019 imports of crushed rock into the Milton Keynes - Buckinghamshire sub-region totalled 0.704Mt. As Milton Keynes does not produce crushed rock, it is a net importer.

## Secondary and recycled aggregate

- Milton Keynes currently has two aggregate recycling facilities, one of which is not operational. There is a lack of consistent sales data available for aggregate recycling facilities it is therefore not considered necessary (or is it possible) to determine an annual Aggregate Provision Rate.

## 1. Introduction

1.1. The National Planning Policy Framework (NPPF) sets out the requirement for Mineral Planning Authorities (MPAs) to prepare an annual Local Aggregates Assessment (LAA) to plan for a steady and adequate supply of aggregates. The LAA is required to assess the demand for, and supply of, aggregates in the MPA's area covering:

- A forecast of the demand for aggregates based on the rolling average of ten years sales data and other relevant local information;
- An analysis of all aggregate supply options, as indicated by landbanks, mineral plan allocations and capacity data. This analysis should be informed by planning information, the aggregate industry and other bodies such as local enterprise partnerships; and
- An assessment of the balance between demand and supply and the economic and environmental opportunities and constraints that might influence the situation. It should conclude if there is a shortage or a surplus of supply and, if the former, how this is being addressed.

1.2. This LAA details the current and future situation in the MPA area of Milton Keynes in terms of aggregate supply and demand including sales data, imports and exports and aggregate provision rates to 2033. It considers how local circumstances may impact on future aggregate supply and demand.

1.3. The LAA is updated on an annual basis and will enable the Council to monitor trends in aggregate production and assess the effectiveness of MLP policies including Policy 1: Providing for sand and gravel. This LAA is the 2023 edition and includes the most recent (2022) aggregate sales and reserves data for Milton Keynes.

1.4. The LAA is submitted to the South East England Aggregates Working Party (SEEAWP), an advisory body made up of MPAs and industry representatives across the region, for consideration and scrutiny. The AWP has a role to monitor the operation of the Managed Aggregate Supply System (MASS) through providing technical advice, particularly on supply provision.

### Data limitations

1.5. Milton Keynes is a relatively small MPA with a limited number of quarries. This year because there is only one active quarry in the city, it is not possible to publish annual sales or reserve figures for reasons of commercial confidentiality.

## 2. Aggregate supply and demand

### Geology

2.1. The bedrock geology of Milton Keynes is mostly Jurassic mudstone and limestone with Cretaceous sand and sandstone outcrops in the south-east of the borough (Figure 1). Areas of superficial deposits are extensive in the borough and largely obscure this underlying geology (Figure 2, Table 1).

2.2. Sand and gravel is the main aggregate mineral resource in Milton Keynes largely found in river terrace deposits of the Great Ouse River and its tributaries. The majority of deposits are concentrated in the valley of the River Ouse to the north of the M1 motorway. Small patches of sand and gravel are also found in glaciofluvial deposits; however it is likely to be too clayey and chalky to be of economic interest. The majority of glaciofluvial deposits have been fully worked or sterilised by urban development. Sand and gravel is also found in deposits referred to as Sand and Gravel of Unknown Age and Origin but has now been either worked or sterilised by urban development. At the end of 2022 sand and gravel extraction took place at only one quarry in Milton Keynes.

2.3. Milton Keynes does not have any significant crushed rock resources. Over at least the last fifteen years there has been no extraction of crushed rock. Currently there is a small operational quarry at Western Underwood (Olney) that extracts limestone for non-aggregate building stone purposes. Apart from this one quarry, there has been no other working of building stone in Milton Keynes for many years. Further resources are known to be in the locality although the total yield is likely to be small.

**Table 1: Superficial mineral deposits in Milton Keynes**

| Deposit | | Description |
|---|---|---|
| River deposits | Alluvium | Comprised of clay and silt, alluvium underlies the present day floodplains, generally occupying a wide but shallow channel cut into the underlying river terrace deposits.<br>Concealed river terrace sand and gravel deposits underlay the alluvium and are referred to as 'sub-alluvial gravels'. |
| | River terrace | River terrace deposits, largely comprised of sand and gravel, are predominantly found in the river valleys associated with the Great Ouse river and its tributaries. |
| Sand and Gravel of Uncertain Age and Origin | | Clayey, sandy gravel designated Sand and Gravel of Uncertain Age and Origin, occurs only in the valley of the River Ouzel. |
| Glacial deposits | Till | Glacial till (boulder clay), is found on the higher, plateau-like, ground in the borough. |
| | Glaciofluvial | Glaciofluvial deposits are comprised of clayey sand and gravel, found beneath, within and upon the till. |
| | Glaciolacustrine | Glaciolacustrine deposits comprise silt, clay with sparse sandy layers and are associated with the till. |
| Mass movement deposits | Head | Head occurs on the lower valley sides and valley bottoms where it merges with the river terrace deposits. It is typically gravelly, sandy clay. |

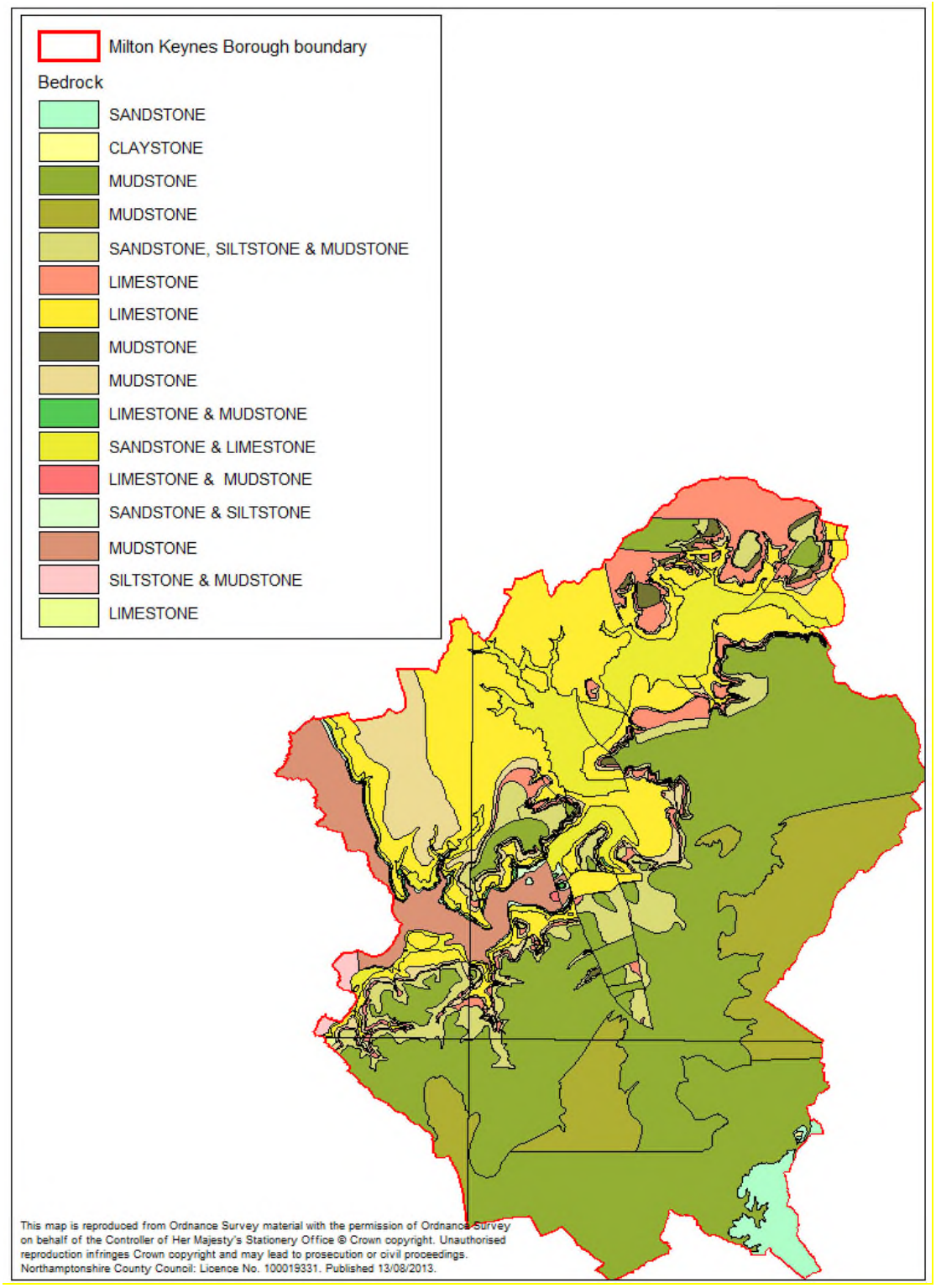


**Figure 1: Geological bedrock map of Milton Keynes**

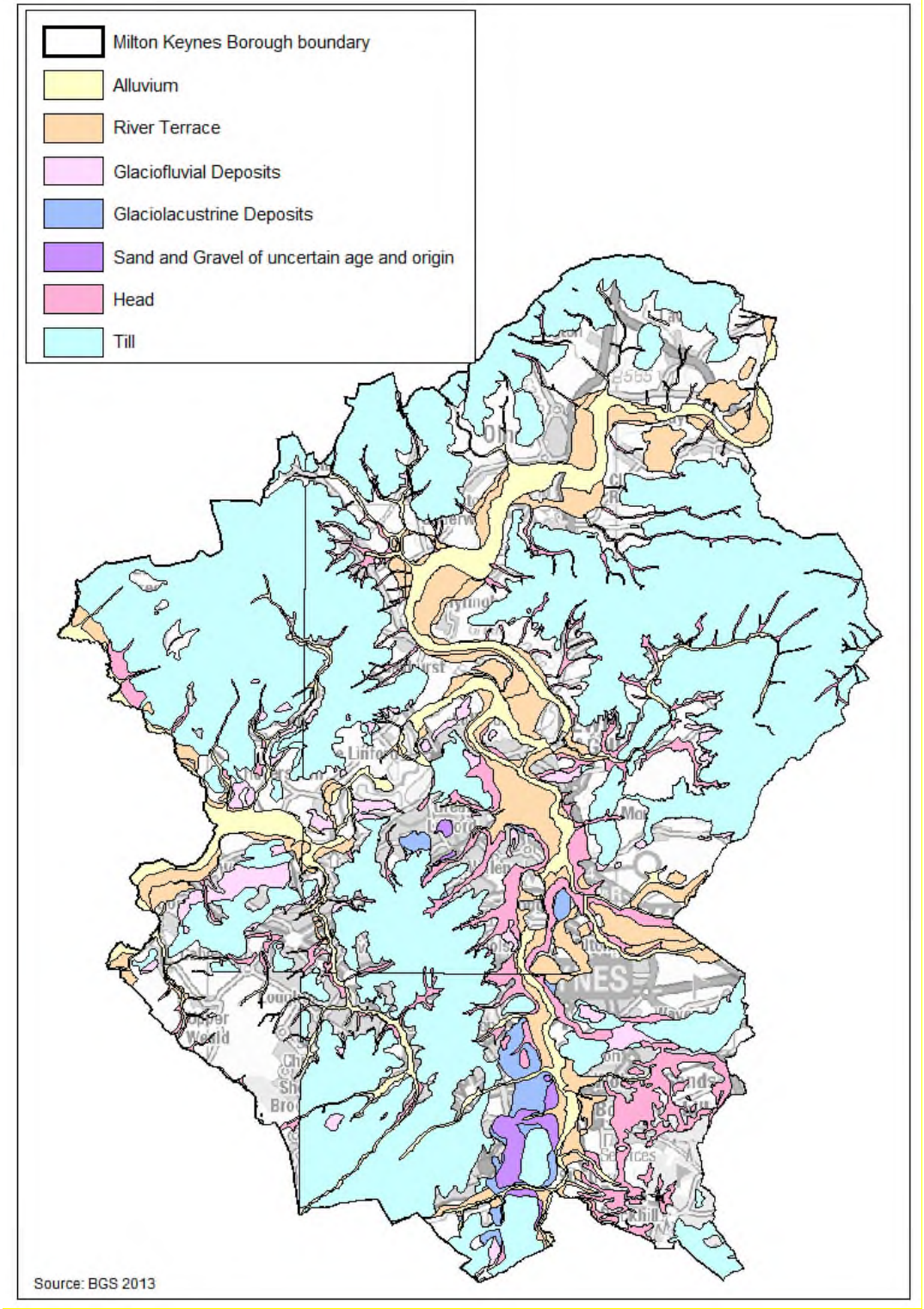


**Figure 2: Geological map of the superficial mineral resources of Milton Keynes**

## Sand and gravel

*Current supply*

2.4 In Milton Keynes, there were two sand and gravel sites with planning permission which were active in 2022: Land at Passenham (eastern extension) and Land to north and east of Lathbury. It should be noted however that the site on Lan at Passenham (eastern extension) ceased worked in June 2022 and has been restored. The details of these sites are presented in Table 2. The location of these sites and associated geology are shown in Figure 3.

**Table 2: Permitted sand and gravel sites in Milton Keynes (as of 31/12/2022)**

| Site | Operator | Status | Permission end date |
|---|---|---|---|
| Land at Passenham eastern extension (MLP allocation A1 Calverton/ Passenham Extension) | GRS Roadstone | Permission granted in 2018 for a 0.15 million tonnes (Mt) extension to Passenham Quarry. Active quarry until June 2022, and now restored. | 2025 |
| Land to north and east of Lathbury (MLP allocation A3 Northampton Road, Lathbury) | Smith Aggregates Ltd | Active quarry. Permission granted in 2018 for extraction of 0.61 Mt of sand and gravel. | 2030 |

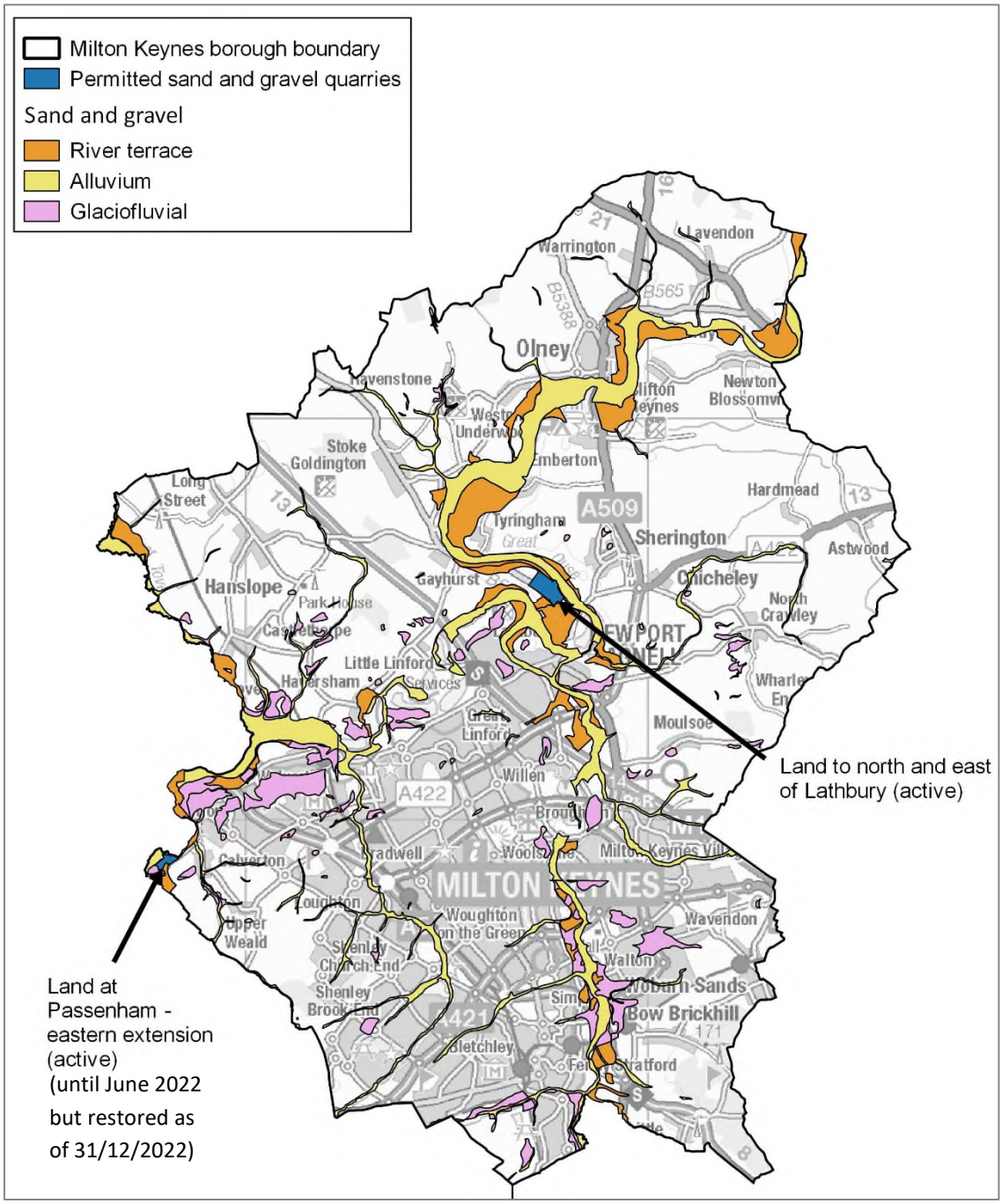


**Figure 3: Geology of Milton Keynes with permitted sand and gravel sites**

2.5 Estimated total sand and gravel permitted reserves for Milton Keynes as of 31 December 2022 cannot be published for confidentiality reasons but are known to be relatively limited.

*Milton Keynes sales*

2.6 To protect commercial confidentiality sales figures for 2022 cannot be identified. Sales of sand and gravel have fluctuated over the last ten years. Between 2012 and 2014 sales decreased year on year. Sales increased significantly in 2015, fell in 2016 and increased again in 2017. Between 2017 and 2019 sales fell by 86%, and despite the Covid 19 pandemic, sales between 2019 and 2020 increased again (by 65%). Due to the increase in production at one site in particular, sales in 2021 increased by 300% and reached the highest level seen since 2010. It is

likely that the periods of time when sales declined are directly attributable to a deficit between rates of extraction and rates of replenishment through new permissions. Between 2011 and 2014 two active quarries of medium scale (Land at Caldecote Farm and Manor Farm) came to their end of life. Between 2011 and 2012 the only other permitted site was Land at Calverton, which was inactive for this period. The growth in sales in 2015 can be attributed to increased production levels at the Land at Calverton site and commencement of extraction at the Land east of Haversham Road quarry, which was granted permission in 2014. There were no sales from the Land at Calverton site in 2016, resulting in an overall decline in sales for this year. The growth in sales in 2017 can be attributed to sales resuming at Calverton and to higher production levels at the other two active sites.

2.7 Sales fell in 2018 as the active quarry Land at Calverton came to its end of life and production levels reduced at Land south of Caldecote Farm. Two new permissions were granted in 2018; Land at Passenham (eastern extension) and Land to north and east of Lathbury however their permissions remained unimplemented thus leading to the overall reduction in sales. Sales fell significantly in 2019 as the two new permissions remained unimplemented, production remained low at Land south of Caldecote Farm as it came to its end of life, and Land east of Haversham Road quarry was exhausted.

2.8 In 2020 Land at Passenham (eastern extension) and Land to north and east of Lathbury commenced extraction, leading to an overall growth in sales, although Land south of Caldecote Farm quarry was exhausted and no longer contributed to sales. However, overall sand and gravel sales decreased in 2022, relative to 2021 (by 16%), as the Passenham eastern extension site came to its end of life in June 2022, leaving Michael's Quarry to the north and east of Lathbury as the sole working sand and gravel site in the city.

*Imports and exports*

2.9 A national Aggregate Minerals (AM) survey is conducted by the Department for Levelling up Housing and Communities (DLUHC) and British Geological Society (BGS) generally every four years. The survey includes analysis of movements (imports and exports) of aggregates for each MPA in England and Wales. Import data for Milton Keynes is combined with Buckinghamshire as one sub-region however sales data is presented separately.

2.10 Results of the latest survey in 2019 indicate that movements of sand and gravel into and out of the sub-region are almost self-balancing; with only 0.217 Mt more sand and gravel imported than is exported (Table 3).

**Table 3: Buckinghamshire and Milton Keynes sand and gravel imports and exports 2019 (million tonnes)**

| Total sales | Imports Buckinghamshire and Milton Keynes sub-region | Exports Buckinghamshire and Milton Keynes sub-region | Balance |
|---|---|---|---|
| 1.1 Mt Buckinghamshire and Milton Keynes sub-region (0.04 Milton Keynes) | 0.582 | 0.365 | 0.217 |

Note: As Buckinghamshire and Milton Keynes are reported on a sub-regional basis the above figures do not include imports / exports within the sub-region (i.e. between Buckinghamshire and Milton Keynes). Source: AM survey 2019 (Table 9b: Sales of primary aggregates by MPA and principal destination sub-region, and Table 10: Imports of primary aggregates by sub-region).

2.11 Sand and gravel produced within the Buckinghamshire and Milton Keynes sub-region in 2019 totalled 1.1 Mt, of which a large majority (0.793 Mt) remained within the sub-region. Exports from the sub-region totalled 0.365 Mt with 0.317 Mt staying within the South East region and the remainder exported to other areas outside of the region.

2.12 Specific to Milton Keynes, in 2019 the destination of sales is unknown however in the 2014 survey the majority (97%) of sand and gravel produced stayed within the sub-region (Table 4). There were no exports to the South East region (beyond the Buckingham-Milton Keynes sub-region) presumably because Milton Keynes is on the edge of the region, with a large proportion of the borough surrounded by counties in the East of England and East Midlands regions.

**Table 4: Destination of sand and gravel produced in Milton Keynes in 2014**

| Destination region | Destination sub-region | Percentage |
|---|---|---|
| South East | Buckingham and Milton Keynes | 97% |
| East Midlands | Northamptonshire | 2% |
| East of England | Bedfordshire (Central Bedfordshire, Bedford, Luton) | 1% |
| | Suffolk | |

AM survey 2019 does not provide destination of sales from Milton Keynes. Source AM survey 2014

2.13 Sand and gravel produced within the Buckinghamshire and Milton Keynes sub-region in 2014 totalled 0.76 Mt, of which just under half (0.35 Mt) remained within the sub-region. Exports and sub-region totalled 0.41 Mt with 0.34 Mt staying within the South East region and the remainder exported to other areas outside of the region. Results from and earlier AM survey, undertaken in 2009, showed that the Milton Keynes and Buckinghamshire sub-region was a net exporter of sand and gravel with 0.40 Mt (44%) of the total produced being exported whilst 0.24 Mt was imported, leaving a balance of minus 0.16 Mt. The move out of the economic recession since 2010 may explain the growth in imports in the later survey as sand and gravel production increased nationally.

2.14 In the South East, as nationally, most sand and gravel and crushed rock aggregate is transported by road, with significantly less transported by rail and water. Some of the sand and gravel and crushed rock imported into Milton Keynes is by rail and uses the medium sized rail depot at Bletchley. Between 2020 and 2021 sales from the depot of both sand and gravel and crushed rock increased. In 2022, total sand and gravel and crushed rock sales from the depot decreased by 8.6%. In 2022 it is likely all the crushed rock imported into Milton Keynes via rail originated from Derbyshire and sand and gravel from Hertfordshire.

2.15 In 2023, another national Aggregate Monitoring Survey will take place, which will provide a more up to date picture of aggregates supply and demand in Milton Keynes. We will continue to take the results of the national AM survey into account in future LAAs, as required by the NPPF, and as advised by the Secretary of SEEAWP in their response to the draft version of this document[1].

[1] At the 7 December 2023 SEEAWP meeting, representatives of MKCC highlighted to DLUHC the challenges that the grouping of Buckinghamshire and Milton Keynes into one sub-region creates for aggregates planning at a MPA level. It was requested that the design of the 2023 national AM survey more accurately captures aggregate flows between individual MPA areas on this basis.

## Limestone

*Current supply*

2.16 At present, there are no permitted sites for the extraction of limestone for aggregate purposes in Milton Keynes. One site at Weston Underwood Quarry currently extracts limestone for non-aggregate building stone purposes, however it is a small site with limited output.

*Milton Keynes sales*

2.17 There have been no sales of crushed rock in Milton Keynes in the ten-year period between 2013 and 2022. With regards to the production of limestone for non-aggregate building stone purposes, there were no sales between 2007 and 2009 but in more recent years between 2012 and 2021 there were a very small number of sales (although figures cannot be identified for confidentiality reasons).

*Imports and exports*

2.18 The 2019 AM survey shows that in 2019 imports of crushed rock into the Milton Keynes – Buckinghamshire sub-region totalled 0.704 Mt. Milton Keynes does not produce any crushed rock and as such is a net importer. The previous 2014 AM survey showed that imports into the sub-region were 30% lower (0.49 Mt).

## Recycled and secondary aggregates

2.19 Recycled aggregates, which include concrete, stone and brick are sourced from reprocessed materials that have previously been used in construction, demolition and excavation (CD&E) work. Secondary aggregates are usually by-products of other industrial processes that have not been used in construction. They include both natural and manufactured materials such as china clay, slate, flue ash and slag.

2.20 There is an increased importance of, and reliance on, alternative aggregate sources. Production of recycled and secondary aggregates is increasing in England and Wales especially following the introduction of the Landfill Tax, which discourages the disposal of waste to landfill, and the Aggregates Levy which taxes the extraction of primary aggregates. It is estimated that around 30% of total aggregate production and consumption in England is comprised of secondary and recycled aggregates. As the alternative aggregate sector grows, and provided the aggregate produced is of good quality, the reliance on primary aggregates will reduce.

2.21 Facilities that produce recycled aggregates within Milton Keynes include: Cotton Valley Waste Transfer Station (permitted April 2016 – not yet operational) for recycling inert CD&E waste with a capacity of 0.08 Mtpa; an aggregates recycling facility at Lathbury with a capacity of 0.07 Mtpa and there is also a waste transfer and recycling facility located at Chesney Wold, Bleak Hall that segregates hardcore aggregate waste and sends to the aggregate recycling facility at Whitsundoles Compound in Bedfordshire for reprocessing. Milton Keynes does not produce any secondary aggregate.

2.22 The data available on secondary and recycled aggregate is variable and not considered completely reliable, particularly at the sub-regional level. National surveys undertaken for CD&E waste provide comparable datasets from 1998, 2003 and 2005. The 2005 dataset shows total arisings of CD&E waste for the Southeast of 14.2Mt, of which 4.2Mt is attributed to

Berkshire, Buckinghamshire (including Milton Keynes) and Oxfordshire. More recently the Waste and Resources Action Programme (WRAP) undertook a study to estimate CD&E waste at a national level indicating arisings of 94.5, 76.9 and 77.4Mt for 2008, 2009 and 2010 respectively. The study estimated that 55% was recycled and 11% re-used or recovered on exempt sites (e.g. as clean fill for engineering purposes usually land reclamation, agricultural improvement or infrastructure projects).

## 3. Future aggregate supply

### Aggregate provision

3.1. An annual aggregates provision figure for Milton Keynes is required to ensure an adequate and steady supply of aggregates is maintained to meet anticipated needs of the construction industry and reflect housing provision and growth.

### Sand and gravel

3.2. The NPPF requires each MPA to calculate their own provision rate based on average aggregate sales over a ten-year rolling period and other relevant local information.

3.3. Table 5 presents the total sand and gravel sales in Milton Keynes during the ten-year period (2013 - 2022) and shows the 10-year average sales for the period 2013 - 2022 and 3-year average sales for the period 2020 - 2022. The most recent ten-year period of sales would give a sand and gravel figure of 0.143 Mtpa.

**Table 5: Total sand and gravel sales in Milton Keynes 2012 – 2021**

| Year | Sand and gravel (Mt) |
|---|---|
| 2013 | C |
| 2014 | C |
| 2015 | C |
| 2016 | C |
| 2017 | 0.24 |
| 2018 | C |
| 2019 | C |
| 2020 | C |
| 2021 | C |
| 2022 | C |
| Total sales 2013 – 2022 | 1.54 |
| 10-year average 2013 – 2022 | 0.154 |
| 3-year average 2020 – 2022 | 0.193 |

'C' confidential

3.4. Government Planning Practice Guidance for Minerals (DCLG, 2014 - paragraph 64) states that MPAs should also look at the average 3-year sales to identify the general trend of demand and whether it may be appropriate to increase supply. The figure based on average 3-year sales for the period 2019 - 2021, as reported in the previous LAA, was 0.127 Mtpa; which is 41% lower than the figure based on the most recent 3-year period (2020 - 2022). The provision rate for sand and gravel in the adopted MLP[2] is 0.17 Mtpa (based on the 3-year average sales 2010 – 2012) which is just under 10% higher than the 0.154 Mtpa figure based on the most recent 10-year average sales and just under 13% lower than the 0.193 Mtpa figure based on the most recent 3-year average sales.

[2] The MLP was adopted on 1 July 2017.

3.5. Table 6 compares the provision of sand and gravel based on different provision rates (including the MLP provision rate) for the remaining 10 years (1 January 2023 – 31 December 2032) of the 20-year plan period (1 January 2013 – 31 December 2032).

**Table 6: Provision of sand and gravel in Milton Keynes to 2032 based on alternative provision rates.**

| | Adopted MLP provision rate | 10-year average sales figure (2013 – 2022) | 3-year average sales figure (2020 – 2022) |
|---|---|---|---|
| Annual provision rate (Mtpa) | 0.17 | 0.154 | 0.193 |
| Total plan requirement (Mt): Annual provision x 10 year remaining plan period (2022 to 2032) | 1.7 | 1.54 | 1.93 |
| Permitted reserves (as at 31/12/22) (Mt) | C | C | C |
| Undersupply (-) over supply (+) (rounded to the nearest Mt) | -1 | -1 | +1 |

'C' = confidential

3.6. Comparison of total plan requirements under each provision rate with permitted reserves as of 31 December 2022, indicates that there are not enough remaining reserves in Milton Keynes to meet a 11-year remaining plan requirement. In looking to address the apparent shortfall in supply, the MLP identifies four sand and gravel allocations. One of these allocated sites: A1 Calverton/Passenham Extension (known as Land at Passenham (eastern extension)) was permitted in 2018 and exhausted (and was restored) in 2022. Allocated site A3 at Northampton Road, Lathbury (known as Land to north and east of Lathbury) was permitted in 2018. Originally, the three remaining allocated sites (A2, A3 and A4) had the potential to add a further 1.83 Mt to the supply. However, considering the 2018 permission for Site A3, this total has reduced by 0.03 Mt to 1.8 Mt (Table 7). The reduction in reserve at Site A3 was due to part of the allocation not coming forward within the application. However, at the time of writing (November 2023) the site operator has submitted an application to extend the site, for the additional extraction of approximately 0.315 Mt of sand and gravel. The application is not yet decided.

**Table 7: Allocated sites for sand and gravel extraction in the adopted MLP**

| Allocations | Approximate reserve (Mt) |
|---|---|
| A2 Quarry Hall Farm | 0.72 |
| A3 Northampton Road, Lathbury | Up to 0.62* |
| A4 Manor Farm and Lavendon Mill | 0.46 |
| Total reserves | 1.8 |

*In light of approved application, reserve reduced from 0.65 Mt to 0.62 Mt. Precise reserve confidential.

3.7. In addition to allocated sites, it is possible that unallocated, or 'windfall' sites in Milton Keynes may come forward during the plan period and add to the supply. The recent application to extend Site A3 includes an extraction area outside the original allocation.

## Limestone

3.8. It is not possible (nor is it considered appropriate) to identify a provision rate for crushed rock as there have been no sales of crushed rock for at least the last fifteen years.

## Secondary and recycled aggregate

3.9. It is also not possible to determine a provision rate for secondary and recycled aggregates based on average sales over a ten-year period. Sales information is difficult to obtain due a low response rate to AM surveys in Milton Keynes and unfortunately where data has been provided in the past, it is not consistent.

## Landbanks

3.10. A landbank is a stock of planning permissions for mineral extraction which are calculated by dividing permitted reserves by the provision figure. National planning policy requires landbanks of at least 7 years for sand and gravel to be maintained. Approximate landbanks for sand and gravel for Milton Keynes as of 31 December 2022 are shown in Table 8.

**Table 8: Landbanks for sand and gravel in Milton Keynes in 2021**

| | MLP provision rate | 10-year average sales figure (2013 – 2022) | 3-year average sales figure (2020 – 2022) |
|---|---|---|---|
| Annual provision rate (Mtpa) | 0.17 | 0.154 | 0.193 |
| Permitted reserves (as at 31/12/21) (Mt) | C | C | C |
| Landbanks (rounded to full years) | 1 | 1 | 1 |

'C' confidential

3.11. The Milton Keynes area has a history of not meeting landbank figures due to a limited number of extraction sites coming forward which often creates a deficit between rates of extraction and rates of replenishment through new permissions. Under the MLP provision rate, as well as the 10- and 3-year averages there are not enough reserves remaining to meet the minimum 7-year landbank requirement. Should the remaining two sand and gravel allocations in the MLP, and the proposed extension to Site A3, be brought forward and permitted they have the potential to increase the landbank further.

3.12. No landbanks have previously been required to be maintained for crushed rock as no apportionment/provision figure was adopted and this continues to be the case.

## 4. Consideration of local circumstance

4.1. The NPPF requires MPAs to base their future mineral requirements on average sales over a 10-year rolling period, factoring in relevant local information to provision determination where applicable.

4.2. Local factors affecting the supply and demand of sand and gravel in Milton Keynes are discussed below. No apportionment has previously been identified for crushed rock in Milton Keynes due to low output; therefore, consideration of local information affecting its supply and demand is not included.

### Demand for sand and gravel

*Construction levels and population growth*

4.3. Sand and gravel are used in the construction industry for purposes such as the making of concrete and mortar or for roadstone or drainage material. The level of construction, including house building and infrastructure, therefore contributes to the demand for sand and gravel and are key local factors to consider when determining a provision figure for Milton Keynes.

4.4. Milton Keynes has historically been, and continues to be, one of the fastest growing areas in the country. Since it was designated a New Town in 1967, the population has grown from 60,000 to around 287,100 (ONS 2021). Based on preliminary figures from the Housing and Economic Development Needs Assessment (HEDNA) (2023) prepared to support preparation of our next Local Plan, the Objectively Assessed Housing Need projection estimates a population increase between 2021 and 2032 of just under 30,000 people. To support this growing population, Milton Keynes would need to achieve approximately 19,000 net housing completions over the course of the remaining MLP plan period (based on 1,902 completions per annum). However, the plan is still at an early stage of preparation and the HEDNA also includes a more ambitious population projection based on the Strategy for 2050, which would require housing completions of 2,265 dwellings per annum. A decision on which target would be included in the draft Local Plan has not been made and is subject to change. For this reason, it is considered that for the purposes of this LAA, the annual housing delivery rate set out in the current Local Plan, Plan:MK, is used in assessing demand for sand and gravel (see Paragraph 4.6).

4.5. The rate of house building in Milton Keynes has fluctuated over the last 20 years. Figure 4 shows the number of housing completions over the last ten years between 2012/13 and 2021/22. Net housing completions were at their lowest in 2013/14 (1,000 net completions) and in 2019/20 reached their highest levels in the last ten years (2,076 net completions) before falling back slightly to 2003 net completions in 2021/22.

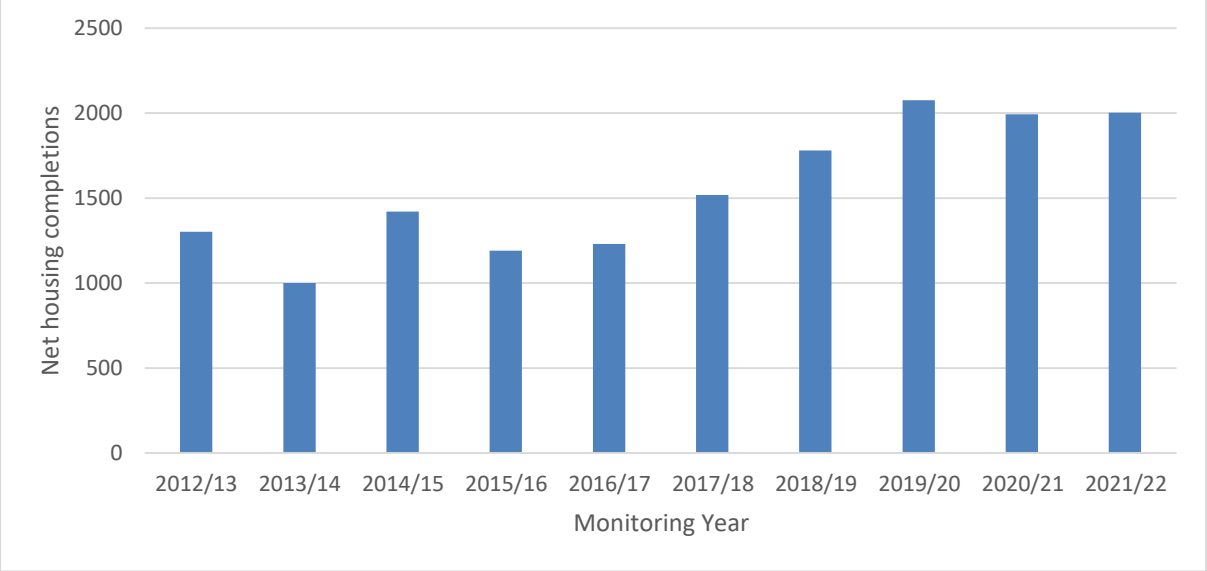


**Figure 4: Net housing completions in Milton Keynes 2012/13 – 2021/22**

4.6. The Milton Keynes Local Plan (Plan: MK), adopted in March 2019, sets out a requirement for approximately 26,500 dwellings to be built within the plan period 2016 - 2031, equating to around 1,766 dwellings per annum. In 2021/22, total net completions were 2003; 237 dwellings above target. See the council's Authority Monitoring Report for further information on housing delivery in the City[3].

4.7. Nevertheless, a degree of caution should be exercised when considering the correlation between demand for aggregate and level of house building. Between 2008 and 2010 for example sales of sand and gravel increased by 14% but during this same period the total number of house building completions in the borough decreased by 30% and between 2017 and 2019 sales of sand and gravel decreased by 86% but during this same period the total number of housing completions increased by 43%. Conversely, sales of sand and gravel began to fall between 2011 and 2014 when rates of housing building were also relatively low.

4.8. One national infrastructure project is planned for Milton Keynes; the development of an East West Rail link between Cambridge, Milton Keynes, and Oxford. Phase 1 of the scheme from Bicester to Oxford is complete and Phase 2, linking Oxford to Bletchley, is being constructed, with the main construction elements continuing through 2022 to 2023. This project, along with the development of an Oxford to Cambridge Expressway (via Milton Keynes), is identified in the National Infrastructure Delivery Plan (NIP) 2016 - 2021. However, the Expressway project has now been cancelled. The Government commissioned Highways England (now National Highways) to examine the costs and benefits of a new high-quality road link between Oxford and Milton Keynes, taking account of the views of local authorities and residents, and it was determined the project was not a cost-effective option. Based on Highways England findings, the Government decided that further work cannot be justified on the expressway proposal and has therefore cancelled the project.

4.9. The Milton Keynes Local Investment Plan (2022) identifies minimum infrastructure requirements, including transport developments, to enable sustainable growth in Milton Keynes for the Plan:MK plan period 2016-2031. This plan, together with the adopted Plan:MK,

[3] Authority monitoring report | Milton Keynes City Council (milton-keynes.gov.uk)

outlines several indicative transport, energy, health, education and other projects for Milton Keynes.

4.10. Construction on Phase 1 of the High Speed Two (HS2) rail network in the UK, which would connect London and the West Midlands, has commenced. However, no part of the new railway line will pass through Milton Keynes with the nearest point being 15 miles to the west. It will place demands on aggregates nationally, but it is difficult to identify at this stage the detail of the amount of mineral required. Government has recently cancelled the northern leg of HS2, which would have provided connections to Manchester and Leeds, citing spiralling costs for the project. In place of this additional leg of HS2, Government has indicated an intention to invest in a range of smaller scale transport infrastructure projects in the North and the Midlands. However, significant uncertainty exists regarding which projects will be delivered and consequent demand for aggregates nationally.

4.11. Housing and other infrastructure proposals, even if they come to fruition as planned, will not result in a significant change from previous years as in and around Milton Keynes there has always been a growth focus. There is no indication therefore that the level of demand for sand and gravel will increase beyond that experienced previously and as such, it is not necessary to factor in any additional growth to a provision rate.

## Supply of sand and gravel

*Mineral commitments/allocations*

4.12. The supply contribution from permitted sand and gravel sites in Milton Keynes is limited.

4.13. Three remaining sand and gravel sites are allocated in the MLP. If all sites are developed (subject to planning permission in accordance with relevant local plan policies) they will potentially add up to 1.8 Mt to the existing supply. In 2018, allocations A3 Northampton Road, Lathbury received planning permission for the extraction of 0.62 Mt of sand and gravel respectively. A planning application to extend Site A3 has recently been submitted but undecided, for proposed extraction of 0.3 Mt of sand and gravel.

*Commitments for producing secondary and recycled aggregates*

4.14. The majority of development in Milton Keynes is on greenfield sites and few buildings and structures are demolished therefore a limited amount of recycled material is generated to be used as aggregate. There is an operational recycled aggregates facility in Lathbury that has capacity of 0.07Mt and once the waste transfer station at Cotton Valley Sewage Works is operational (0.08Mt), Milton Keynes will have capacity for the processing of up to 0.15 Mt of CD&E waste to produce recycled aggregates. There will however remain a continued reliance on primary aggregate sources to meet demand.

*Rail depot commitments*

4.15. Currently there is one aggregate rail depot in Milton Keynes at Station Yard, Bletchley. For several years, it has been working close to its maximum annual output capacity. The MLP, in particular Policy 13 on Sustainable Transport, recognises that aggregate rail depots are valuable transport infrastructure to help facilitate more sustainable transportation of minerals and encourages this development. Therefore, should greater capacity be required in the future to meet demand, either through an extension to an existing, or new aggregate rail depot, it is supported in principle.

*Investment opportunities*

4.16. The nature of the mineral resources in Milton Keynes is such that large scale sites are not likely to come forward in the long term. This means that in the future, sites are likely to be more of the scale of those allocated in the MLP. Such sites are probably more suited to medium sized operators rather than the larger international companies who operate in the UK. At the time of producing the MLP, it was known that medium sized operators were actively looking for opportunities in the Milton Keynes area. Currently however it appears that operator interest in the Borough is limited, particularly for standalone sites. Only two applications for sand and gravel extraction have been submitted since the MLP was adopted: allocation site A1 Calverton/ Passenham Extension, which is an extension to an existing site and allocation A3 Northampton, Lathbury. Only one of these sites is still active. Nevertheless, the Borough is more than capable of delivering at least two to three sites at any one time into the future which would be in line with the MLP provision figure of 0.17 Mtpa.

*Resources and constraints*

4.17. The MLP identifies three allocations that are considered to meet requirements to 2031 and which are capable of being delivered, however, the Council is exploring options to further bolster supply considering the current landbank. The existing allocations will far from exhaust the opportunities for further extraction post-2031. There will be further opportunities in the Ouse Valley in areas where environmental and amenity considerations are such that extraction would not be ruled out on these grounds. However, there is the possibility that the Tove Valley could be an alternative long-term location subject to the resource being of a scale and quality but balancing the potential higher costs to access these sites, to make extraction worthwhile.

*Supply and demand balance*

4.18. Milton Keynes is a longstanding growth area with significant demand for aggregates, for house building in particular. However, with a relatively limited supply contribution from permitted sand and gravel sites; resulting in a landbank of just 1 year, the MPA considers it is not currently making the contribution it could make to aggregate supply through the industry taking up the sites allocated in the MLP. The MPA has set an appropriate provision figure, not too low to constrain supply or encourage undue reliance on imports from other areas, and there are no environmental constraints to supply in terms of their being any national or international designations in the Borough, save for three small Sites of Special Scientific Interest.

## 5. Summary

5.1. An adequate and steady supply of aggregate is required to meet anticipated needs of the construction industry and support continued economic growth in Milton Keynes.

5.2. Government guidance (NPPF) requires MPAs to calculate annual aggregate provision based on rolling 10-year average sales data and other relevant local information. Local information to consider includes:

- Housing and infrastructure construction levels,
- Population growth,
- Current commitments,
- Investment opportunities, and
- Available resources and constraints.

5.3. The average aggregate sales for sand and gravel for the most recent 10-year rolling period (2013 – 2022) is 0.154 Mtpa, which is 0.016 Mt lower than the annual provision figure in the MLP, adopted in July 2017. The supply contribution of sand and gravel in Milton Keynes is currently limited and based on the MLP provision rate there are insufficient permitted reserves (as of 31/12/2022) to maintain a 7-year landbank. However should the remaining two sand and gravel allocations in the MLP be brought forward (together with any non-allocated sites) there is the potential to increase the landbank further.

5.4. Considering the sales trends and other factors described earlier, the Aggregate Provision Rate for sand and gravel to be used for determining planning applications and calculating the landbank will continue to be 0.17 Mtpa. It is forecasted that there will be no need to revise this rate in the short term if production continues at Site A3 (Lathbury). However, if no new sites are permitted it is likely the ten-year average sales will continue to decline to around 0.14/0.13 Mtpa in 2023.

5.5. During the period covered by this LAA the Covid-19 virus pandemic was still affecting the global economy. According to the Mineral Products Association Sustainable Development Report Data and Developments 2020/21, construction activity bounced back in 2021 and was on track for 14% growth, although this figure is compared to 2020 which was more severely hit by site closures. Minerals sales also bounced back in 2021 and 2022. However, the Mineral Products Association has reported sharp falls in sales of ready-mixed concrete, sand and gravel, and mortar related to a slowdown in housebuilding and delays to key infrastructure projects[4]. The MPA will therefore closely monitor sales and reserves data to determine whether a change to the APR would be appropriate.

5.6. Previously, an annual apportionment for crushed rock (limestone) for Milton Keynes has not been required to be identified and it is still not considered appropriate. Limestone for use as building stone is however supported in plan policy. Likewise, no annual provision target is set for secondary and recycled aggregates, however, policies in the MLP support their continued production as alternatives to primary aggregates.

[4] https://mineralproducts.org/News/2023/release32.aspx

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Our customer service team are available 9.00am to 5.15pm Monday, Tuesday, Thursday and Friday and 10.00am to 5.15pm on Wednesday

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