Central & Eastern Berkshire Authorities

Joint Minerals & Waste Plan

Local Aggregate Assessment

December 2019
(Updated April 2020)
<table>
<thead>
<tr>
<th></th>
<th>2018 Sales (Mt)</th>
<th>Average (10 yr) Sales (Mt)</th>
<th>Average (3yr) Sales (Mt)</th>
<th>Trend (10 yr sales)</th>
<th>Trend (3 yr sales)</th>
<th>LAA Rate (Mt)</th>
<th>Reserve (Mt)</th>
<th>Landbank (years)</th>
<th>Capacity (Mtpa)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soft Sand</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>There are no soft sand sites within the Plan area (although some incidental extraction has taken place).</td>
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<tr>
<td>Sharp Sand &amp; Gravel</td>
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<td></td>
<td></td>
<td></td>
<td>Figures are combined with soft sand to provide ‘All Sand &amp; Gravel’ figures.</td>
</tr>
<tr>
<td>All Sand &amp; Gravel</td>
<td>0.511</td>
<td>0.628</td>
<td>0.49</td>
<td></td>
<td>0.628</td>
<td>5.857</td>
<td>9.3</td>
<td>1.11</td>
<td></td>
<td>The landbank is above the minimum 7-year requirement.</td>
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<tr>
<td>Crushed Rock</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Central and Eastern Berkshire does not have any natural hard rock resources and therefore relies on imports of this material.</td>
</tr>
<tr>
<td>Recycled / Secondary Aggregates</td>
<td>0.138</td>
<td>0.132</td>
<td></td>
<td></td>
<td>0.21</td>
<td></td>
<td></td>
<td></td>
<td>0.438</td>
<td>Figures for Central and Eastern Berkshire are only available for the last 5 years as previously, these have been reported on a Berkshire-wide scale. Note that the capacity recorded is estimated to be much greater than actual capacity.</td>
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<tr>
<td>Marine Sand &amp; Gravel</td>
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<td></td>
<td></td>
<td></td>
<td>There are no wharves in Central and Eastern Berkshire.</td>
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<tr>
<td>Rock Imports by Sea</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Not relevant to the Plan area.</td>
</tr>
<tr>
<td>Rail Depot Sales (Sand &amp; Gravel)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>There are no rail depots in Central and Eastern Berkshire, although the area is likely to be served by rail depots in neighbouring mineral planning areas.</td>
</tr>
<tr>
<td>Rail Depot Sales (Crushed Rock)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Comments</td>
<td>It is likely that there will be an increase in future aggregate demand to account for the increased level of planned future infrastructure delivery, but this is set in the context of current economic uncertainty. The 2018 LAA Rate of 0.628Mt is considered a realistic estimation of demand and will be revisited yearly to establish whether the Central and Eastern Berkshire Authorities are making a full contribution to the Managed Aggregate Supply System. The current sales figures show a trend of the plan area rising to meet this growing demand.</td>
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</table>
Executive Summary

Introduction

This is the Local Aggregate Assessment (LAA) for Central and Eastern Berkshire and covers the administrative areas of the plan-making partners (Bracknell Forest Council, Reading Borough Council, the Royal Borough of Windsor & Maidenhead and Wokingham Borough Council). In addition, information has been provided for Slough, where available. The purpose of the LAA is to detail the current and predicted situation in Central and Eastern Berkshire with respect to all aspects of aggregate supply.

Land-won Aggregate

Sand and Gravel

In terms of aggregates, Central and Eastern Berkshire’s geology provides both sharp sand and gravel and soft sand. Aggregates used within Central and Eastern Berkshire are sourced from land-won resources, recycled aggregate and imports.

Within Central and Eastern Berkshire, there were three active quarries in 2018. There have been no operational quarries within Slough Borough Council for 11 years.

Soft sand resources in the area are generally poor quality and are no longer principally extracted within Central and Eastern Berkshire. This places a reliance on imports to address the lack of local supply.

Sales of sand and gravel increased slightly in 2018 by 20,000 Tonnes. The overall trajectory of 10-year sales is increasing and the pattern of sales is broadly similar to the South East.

Crushed Rock

Central and Eastern Berkshire is dependent on imports of crushed rock predominately from Somerset who have confirmed no issues with ongoing supply.

Supply is imported via rail depots in West Berkshire. There is currently no evidence that suggests a need to increase capacity at rail depots for imports.
Marine Sand & Gravel

Marine-won sand and gravel is a small but growing proportion of the total aggregate consumed in Berkshire. Marine imports are predominately from London Wharves and Hampshire. At current there is no evidence to increase capacity at the rail depots and the Hampshire 2018 LAA\(^1\) suggests that there is unlikely to be headroom at their wharves to serve an increase in demand.

Recycled & Secondary Aggregate

Sales of recycled aggregate in Central and Eastern Berkshire increased in 2018. Capacity survey information was limited but indicates recycled aggregate sites are currently operating under capacity.

Future Aggregate Supply

There are a number of major infrastructure projects as well as local housing and transport projects which indicate growth and therefore, an increase in aggregate demand.

Reserves of sand and gravel in Central & Eastern Berkshire with planning permission for extraction (permitted reserves) at 31\(^{st}\) December 2018 were 5,857,000 tonnes (discounting Star Works as this is inactive).

The total landbank for all land-won aggregate based on 10-year average is 9.3 yrs. Based on three-year average sales, the landbank is 12 years, although the landbank is not necessarily an accurate reflection of supply. The 2018 LAA Rate is 0.628Mt which aligns with the 10-year (and five-year) average.

The Central & Eastern Berkshire Authorities are working together to produce a Joint Minerals & Waste Plan up to 2036. The Plan will need to allocate sufficient sites or areas of search to address the demand requirements.

A Draft Plan was subject to consultation during 2018. The Draft Plan included proposed allocations for sharp sand and gravel, an aggregate wharf and recycled aggregate sites. However, the proposals do not meet the required demands for Central and Eastern Berkshire and therefore, the sites were supported by criteria-based policies. A ‘Proposed Submission’ version is due to be subject to consultation during 2020.

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It is estimated that the demand for soft sand over the Plan period will be in the region of 1.4 million tonnes (79,000 tonnes per year). Sources will need to be secured from elsewhere.

Conclusions

Central and Eastern Berkshire’s current local aggregate provision will impact on the wider South East region as a whole if new development is not enabled to meet the forecasted demand up to 2036. Central and Eastern Berkshire is reliant on supplies from other mineral planning authority areas and as such will need to ensure consideration is given to this in other Mineral Local Plans though the duty to cooperate.
1. **Introduction**

1.1 The purpose of this Local Aggregate Assessment (LAA) is to detail the current and predicted situation in Central and Eastern Berkshire with respect to all aspects of aggregate supply.

1.2 The National Planning Policy Framework (NPPF)\(^2\) set out the requirement for local authorities to produce an annual LAA, stating 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 by agreement with other mineral planning authorities based on a rolling average of 10 years sales data and other relevant local information, and an assessment of all supply options (including marine dredged, secondary and recycled sources)’.

1.3 Bracknell Forest Council, Reading Borough Council, the Royal Borough of Windsor and Maidenhead and Wokingham Borough Council (collectively referred to as the ‘Central & Eastern Berkshire Authorities’) are working in partnership to produce the Central and Eastern Berkshire - Joint Minerals & Waste Plan. The Plan will indicate what provision of minerals is required, where these may be located; when they are to be provided and how they will be delivered during the Plan period to 2036.

1.4 This is the Local Aggregate Assessment (LAA) for Central and Eastern Berkshire and covers the administrative areas of the plan making partners. In addition, information has been provided for Slough, where available. The purpose of the LAA is to detail the current and predicted situation in Central and Eastern Berkshire with respect to all aspects of aggregate supply, in particular with regard to land-won aggregate provision up to 2036.

1.5 It is important to note that the data used in the preparation of this LAA predominantly comes from the annual monitoring of aggregates sales by the Central & Eastern Berkshire Authorities on behalf of the South East England Aggregate Working Party (SEEAWP). The Aggregate Monitoring (AM) survey is used to collect annual sales data from active mineral extraction sites, aggregate wharves, aggregate rail depots and recycled aggregate processing sites.

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2. Land Won Aggregate

Geology of Central and Eastern Berkshire

2.1 The geology of Central and Eastern Berkshire is underlain by three main types of minerals: sand and gravel, chalk and clay. There are no deposits of crushed rock.

2.2 In terms of aggregates, Central and Eastern Berkshire’s geology (see Figure 1) provides the following:

- Sharp sand and gravel; and
- Soft sand.

Figure 1: Sand and gravel resources in Central and Eastern Berkshire.

2.3 Central and Eastern Berkshire has the capability of supplying aggregates from a number of sources including:

- Land-won extraction;
- recycled and secondary aggregate; and
- imported aggregate (via rail depots)\(^3\).

\(^3\) Estimate of imports by road can be found in the AM 2014 National Collation.
2.4 Further information regarding the detailed geology can be found in the *Minerals: Background Study (2018)*⁴ which was produced in support of the emerging Joint Minerals and Waste Plan.

**Permitted Sites Producing Sand and Gravel in Central and Eastern Berkshire**

2.5 Figure 2 shows the location of the active quarries in Central and Eastern Berkshire in 2018 which were predominately located in the north and east within the Royal Borough of Windsor and Maidenhead. The last quarry in the south of the area closed in 2017, meaning that the supply of sand and gravel is currently produced entirely in the north east of the area.

**Figure 2: Location of active quarries in Central and Eastern Berkshire, 2018**

2.6 The number of extraction sites has decreased in recent years, with 2017 seeing the closure of two sites; Eversley Quarry and Kingsmead Quarry. In addition, Star Works has permitted reserves but is an inactive site.

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2.7 An application was granted for an extension at Horton Brook Quarry\(^5\) in 2018 due to greater reserves being identified. Poyle Quarry was granted permission in January 2019\(^6\) and as such has not been included in Figure 1.

2.8 Extraction sites have not been operational within the administrative area of Slough Borough Council for over 10 years. However, a number of sites operate on the boundary of the area.

2.9 Soft sand resources in the area are generally poor quality with pockets of material of economic interest in a small number of areas. This is highlighted in Table 1 by the identification of only two quarries that have been producers of soft sand; Star works in the North which retains permitted reserves and Kingsmead Quarry which had some incidental extraction in the West. However, with the closure of Kingsmead Quarry and Star Works being inactive, there are no sites currently producing soft sand. This places a reliance on imports to address the lack of local supply. A Soft Sand Study produced to support the emerging Joint Plan highlights that soft sand is supplied by various mineral planning authority areas in the wider Thames Valley area.

2.10 In contrast, sharp sand and gravel is more widely distributed throughout Central and Eastern Berkshire.

2.11 Table 1 provides details of the aggregate extracted at each permitted site.

Table 1: Permitted active quarries in Central and Eastern Berkshire, 2018

<table>
<thead>
<tr>
<th>Site</th>
<th>Operator</th>
<th>Aggregate</th>
<th>Status in 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horton Brook Quarry</td>
<td>Aggregate Industries/Jayflex Aggregates Ltd</td>
<td>X</td>
<td>Active</td>
</tr>
<tr>
<td>Riding Court Farm</td>
<td>CEMEX</td>
<td>X</td>
<td>Active</td>
</tr>
<tr>
<td>Sheephouse Farm</td>
<td>Summerleaze Ltd</td>
<td>X</td>
<td>Active</td>
</tr>
<tr>
<td>Poyle Quarry</td>
<td>Summerleaze Ltd</td>
<td>X</td>
<td>Inactive (permitted 2018)</td>
</tr>
</tbody>
</table>

\(^5\) Horton Brook Quarry Application: [http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?keyVal=P0UNO2NIKKC00&activeTab=summary](http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?keyVal=P0UNO2NIKKC00&activeTab=summary)

\(^6\) Poyle Quarry Application: [http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?keyVal=OYZQ75Nl0QY00&activeTab=summary](http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?keyVal=OYZQ75Nl0QY00&activeTab=summary)
2.12 Sheephose Farm, Horton Brook and Star Works (inactive) are located within the Green Belt.

**Sand and Gravel Production and Sales**

2.13 The sales of land-won sand and gravel in Central and Eastern Berkshire are shown in Table 2. Whilst the overall trajectory of sales of the last ten years has been increasing, sales have fluctuated over the 10-year period, with sales peaking in 2011 and 2014.

2.14 More recently, sales of sand and gravel have shown a small but steady increase since 2016. The sales for 2017 are 22 thousand tonnes higher than 2016 and the sales for 2018 are 20 thousand tonnes higher than 2017.

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</thead>
<tbody>
<tr>
<td>Total Sales</td>
<td>450</td>
<td>611</td>
<td>852</td>
<td>631</td>
<td>590</td>
<td>920</td>
<td>751</td>
<td>469</td>
<td>491</td>
<td>511</td>
<td>490</td>
<td>628</td>
</tr>
</tbody>
</table>

**Footnotes**

Soft sand (SS) sales are contained with the total soft sand/sharp sand and gravel figure. SS sales are so small they cannot be individually revealed

Source: Aggregate Monitoring Surveys, 2009-2018

**Figure 3: Sales of land-won Sand and Gravel in Central and Eastern Berkshire**

Source: Aggregate Monitoring Surveys, 2009-2018
2.15 Figure 3 shows the sales of land-won sand and gravel in Central and Eastern Berkshire since 2008. Following a period of decline, a modest increase was observed between 2016 and 2018.

2.16 When compared to the sales for South-East England (see Figure 4), the trends in Central and Eastern Berkshire appear to be broadly similar and follow the pattern.

![Figure 4: Sales of land-won sand and gravel in South-East England and Central and Eastern Berkshire](source)

2.17 There was a 4% increase in sales in Central and Eastern Berkshire between 2017 and 2018, compared with a 3.5% increase in the wider South East region.

2.18 Mineral planning authority boundaries do not influence the flow of minerals. The market dictates that sand and gravel will be obtained from the cheapest location for that material. Where the demand in Central and Eastern Berkshire can be satisfied most efficiently and cost effectively from locations in other areas, such as West Berkshire, Hampshire, Oxfordshire or Buckinghamshire, then it will.

2.19 Table 3 shows the consumption of aggregate both imported from external areas and supplied from sources within Berkshire.
Table 3: Total consumption of Primary Aggregate in Berkshire, 2009 and 2014

<table>
<thead>
<tr>
<th>Berkshire</th>
<th>Land Won Sand and Gravel</th>
<th>Marine Sand and Gravel</th>
<th>Total sand and gravel</th>
<th>Crushed Rock</th>
<th>Total Primary Aggregates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports (Tt)</td>
<td>298</td>
<td>353</td>
<td>98</td>
<td>152</td>
<td>396</td>
</tr>
<tr>
<td>Consumption* (Tt)</td>
<td>807</td>
<td>601</td>
<td>98</td>
<td>152</td>
<td>905</td>
</tr>
<tr>
<td>Consumption %</td>
<td>45.3%</td>
<td>31%</td>
<td>5.5%</td>
<td>8%</td>
<td>50.8%</td>
</tr>
<tr>
<td>Imports/Consumption %</td>
<td>36.93%</td>
<td>58.7%</td>
<td>100%</td>
<td>100%</td>
<td>43.76%</td>
</tr>
</tbody>
</table>

Source: Collation of the results of the 2009 and 2014 Aggregate Minerals survey for England & Wales (Department for Communities and Local Government).
*Consumption is determined by total sold internally plus total imported.

2.20 In 2014, Berkshire was producing 1051 Thousand tonnes (Tt) with sales split by 248 Tt sold internally within Berkshire. A further 548 Tt was sold in the South East region, the principal destinations being Surrey and Buckinghamshire (including Milton Keynes) and 255 Tt sold to locations elsewhere (predominantly West London).

2.21 There is no marine-won sand and gravel produced within Berkshire as it is land locked nor is there any crushed rock due to geological constraints. In 2014, Berkshire was also importing 353 Tt of land-won sand and gravel.

2.22 Although it is not possible to determine exactly what level of these imports reach Central and Eastern Berkshire, the movements need to be taken into consideration as a when forecasting future demand.

2.23 Table 3 shows an overall increase in supply of primary aggregates from sources within Berkshire during this period but also an increasing reliance on Primary Aggregate imports.

3. Crushed Rock

3.1 Central and Eastern Berkshire does not have any natural hard rock resources and therefore relies on imports of crushed rock such as limestone and granite to meet demand for this type of aggregate.

3.2 Information from the BGS shows that Somerset is the dominant source of crushed rock for Berkshire. Somerset has some 380 million tonnes of approved reserves of crushed rock (equivalent to 28.4 years landbank at the most recent
sub regional apportionment rate)\(^7\). While not all the quarries in Somerset whose reserves are included in the landbank have rail connections, those that do form a significant proportion of the total. Provided Somerset maintains its productive capacity it is estimated that there are sufficient reserves available to supply ongoing market demand.

3.3 The importation and consumption of crushed rock within Berkshire is captured within the aggregate monitoring data. Data is only available for the wider Berkshire area which shows that all the crushed rock that is imported into Berkshire is then consumed within Berkshire (see Table 3). Therefore, there is no reported evidence of further flows of crushed rock from Berkshire to other areas.

3.4 There are currently no operational rail depots to receive crushed rock imports within Central and Eastern Berkshire. As such, it is assumed that the area is served predominately by the rail depots in the wider Berkshire area, most notably at Theale, West Berkshire. All crushed rock is then transported by road within the plan area.

3.5 The West Berkshire Local Aggregate Assessment (LAA) (December 2016)\(^8\) identifies that a large proportion of the aggregate sold from the two rail depots at Theale is then exported out of West Berkshire by road. The LAA also states that there is sufficient capacity at the rail depots for an increase in demand should this occur in the future.

3.6 Whilst capacity does exist at these rail depots, Central and Eastern Berkshire is fully reliant on the continued operation of these depots and any threat to this provision would have a significant impact.

3.7 The crushed rock sales (from rail imports) in Berkshire and Hampshire recorded over the last 10 years are detailed in Table 4.

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\(^7\) Somerset Local Aggregate Assessment (Fourth Edition): www.somerset.gov.uk/EasySiteWeb/GatewayLink.aspx?alId=124408

\(^8\) West Berkshire Local Aggregate Assessment (December 2016) - https://info.westberks.gov.uk/CHttpHandler.ashx?id=43576&p=0
Table 4: Crushed rock sales from rail depots and wharves in Berkshire (Berks) and Hampshire (Hants), 2009-2018 (Thousand tonnes, Tt)

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</tr>
</thead>
<tbody>
<tr>
<td>Berks &amp; Hants</td>
<td>1094</td>
<td>1054</td>
<td>1215</td>
<td>1222</td>
<td>1090</td>
<td>1208</td>
<td>1565</td>
<td>1517</td>
<td>1733</td>
<td>2042</td>
<td>1374</td>
<td>1764</td>
</tr>
</tbody>
</table>

Footnotes
Source: AM2018 Survey
In 2018, 91% of the aggregates sold from wharves and rail depots were crushed rock, 6% were marine aggregate and 3% were Land won Sand and Gravel.

3.8 Sales of crushed rock fell between 2008 and 2013, decreasing by 21%. However, since 2013, sales have increased with a significant increase in 2017 which is likely to reflect that one of the rail depots at Theale in West Berkshire which previously imported cement has started to import aggregate, this high level of increase has continued into 2018. This pattern is reflected in the higher 3-year average figure of 1764 Tt, which indicates an increase in sales in recent years in comparison to the 10-year average.

3.9 Somerset County Council have sufficient reserves to meet current needs and do not foresee any likely issues that would affect the future supply of crushed rock to the South East Region which includes Berkshire. Should future demand increase, the issue lies with the capacity of the rail depots to manage a higher level of imports, rather than with future supply.

3.10 The safeguarding of the rail depots at Theale, West Berkshire will be important for Central and Eastern Berkshire to ensure a supply of crushed rock, unless a suitable rail depot is located within the Plan area.

4. Marine-won sand and gravel

4.1 Central and Eastern Berkshire has no wharves for the landing of marine-won sand and gravel. However, the Aggregate Monitoring (AM) 2014 National Collation data (see Table 4) highlighted that Berkshire’s level of imported marine-won sand and gravel represented 5.5% of the total primary aggregate consumed in 2009 and this rose to approximately 8% in 2014.

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4.2 Imports into Berkshire in 2009 were 98 Tt which equated to nearly 8% of the total primary aggregates. This rose to 9% in 2014 with 152 Tt of imported marine aggregate. As such, marine-won sand and gravel forms a small but growing proportion of the overall supply of aggregate to Berkshire. Although, it is not possible to determine exactly what level of this supply reaches Central and Eastern Berkshire, it needs to be taken into consideration when considering future demand.

4.3 The AM2014 National collation data provides details on the sources of the imported marine sand and gravel and highlights that the main source is from Greater London which suggests that this is marine dredged material that has been landed at London wharves, probably by rail. The second greatest source is Hampshire. This is material that will have been landed at Hampshire’s wharves. It is likely that this material will have travelled into Berkshire by road, but it is also possible that the mineral was transported via the rail depots in Hampshire to the depots at Hillingdon.

4.4 Any additional provision would preferably be by rail. As with the importation of crushed rock, there is no current evidence to suggest a need for increased capacity at the rail depots surrounding and servicing Central and Eastern Berkshire, although existing capacity should be safeguarded.

5. **Recycled/Secondary Aggregates**

5.1 Data pertaining to sales of recycled or secondary aggregates is collected annually as part of the AM surveys carried out by mineral planning authorities. Figure 5 shows the location of all active recycled aggregate sites in operation in Central and Eastern Berkshire during 2018 that were surveyed. It should be noted that whilst all sites were surveyed, not all responded. As such, the results should be treated with caution and used to only indicate a general trend of what is happening.

5.2 There are 5 sites which have been surveyed as producers of recycled and secondary aggregates in Central and Eastern Berkshire. Of these sites, two responded. Where capacity information has not been made available Environment Permit information has been used (see Table 5).
Table 5: Recycled aggregate capacity, 2018

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Unitary Authority</th>
<th>Recorded(^{(1)}) Capacity (tonnes) 2018</th>
<th>Estimated(^{(2)}) Actual Capacity (tonnes) 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindhay Quarry</td>
<td>Windsor &amp; Maidenhead</td>
<td>50,000</td>
<td>50,000</td>
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<tr>
<td>Bray Quarry</td>
<td>Windsor &amp; Maidenhead</td>
<td>25,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Horwoods, Kimber Lane</td>
<td>Windsor &amp; Maidenhead</td>
<td>4,800*</td>
<td>4,800*</td>
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<tr>
<td>Fowles Crushed Concrete Ltd</td>
<td>Windsor &amp; Maidenhead</td>
<td>125,000*</td>
<td>5,000</td>
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<tr>
<td>Fleetwood Grab Services</td>
<td>Reading</td>
<td>75,000*</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>279,800</strong></td>
<td><strong>45,000</strong></td>
</tr>
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</table>

Source: (1) AM2017 returns or EA Permit (*) where no return information available.  
(2) Permanent capacity only and likely operational capacity.

5.3 The permission at Hindhay is temporary. The operational capacity at Fleetwood and Fowles is likely to be similar to Horwoods as the capacities provided in EA Permits are given as ranges or are for all activities on a site. Should this be the case the reality of permanent aggregate recycling capacity is likely to be approximately 45,000 tonnes.

5.4 In 2018, permission (subject to legal agreements) was granted for aggregate recycling at Riding Court Farm/Datchet Quarry\(^{11}\) which is time limited to the life of the Quarry.

5.5 Figure 5 shows the location of active recycled sites in Central and Eastern Berkshire. There are no secondary aggregate sites in Central and Eastern Berkshire.

\(^{11}\) Riding Court Farm/Datchet Quarry Application: [http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?keyVal=P5ZARJN7W700\&activeTab=summary](http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?keyVal=P5ZARJN7W700\&activeTab=summary)
5.6 The sales figures of the recycled and secondary aggregate in Berkshire for the most recent 10-year period, 2009-2018 are shown in Table 6.

Table 6: Recycled and Secondary aggregate sales in Central and Eastern Berkshire, 2009-2018 (Thousand tonnes, Tt)

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<tbody>
<tr>
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<td>234</td>
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<td>320</td>
<td>404</td>
<td>587</td>
<td>602</td>
<td>498</td>
<td>450</td>
<td>459</td>
<td>417</td>
<td>469</td>
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<tr>
<td>Central &amp; Eastern Berkshire</td>
<td>85</td>
<td>103</td>
<td>128</td>
<td>131</td>
<td>138</td>
<td>132</td>
<td></td>
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</tr>
</tbody>
</table>

Footnotes
Source: Aggregate Monitoring Surveys, 2009-2018

5.7 Sales for Berkshire increased by 2% in 2018 potentially showing the start of an increase in recycled aggregate sales.

5.8 Sales data for the Central and Eastern Berkshire area is only available for a five-year period and which indicates a trend of 117 Tt per year. The Central and Eastern Berkshire sales represent an average of 30% of the Berkshire
Total. If this average was applied to the Berkshire 10-year sales, this would suggest a 10-year trend of 125 Tt per year for Central and Eastern Berkshire.

6. Future Aggregate Supply

6.1 The Central & Eastern Berkshire Authorities are working together to produce a Joint Minerals & Waste Plan to supersede the Replacement Minerals Local Plan for Berkshire adopted in 1995 and subsequently adopted alterations in 1997 and 2001\textsuperscript{12}. The current adopted Minerals Local Plan covers the administrative areas covered by the Central & Eastern Berkshire Authorities, as well as Slough Borough Council and West Berkshire Council. While this plan covers the period until 2006, the Secretary of State has directed that several policies in them should be saved\textsuperscript{13} indefinitely until replaced by national, regional or local minerals and waste policies. For Central and Eastern Berkshire, these saved policies will be replaced by the Joint Minerals & Waste Plan, when it is adopted.

Construction projects demands

6.2 Infrastructure projects that are likely to place an additional demand of future aggregate demand in Central and Eastern Berkshire relate to both housing and transport projects. There are in the region of 55,000 remaining new homes projected within the area over the plan period, up to 2036\textsuperscript{14}. Using the updated ‘Standard Method for Housing Need’\textsuperscript{15} published in February 2019, the requirement for Central and Eastern Berkshire over the plan period is in the region of 46,000 new homes.

6.3 The Heathrow Expansion is a major future infrastructure scheme in the area. The latest Construction Proposals\textsuperscript{16} suggest that the proposed borrow pits will not includes sites within Central and Eastern Berkshire. The Proposals also suggest that a surplus of sharp sand and gravel may be available to feed into the local supply chain. However, the proposals are still at consultation stage and therefore, the impact on the Plan area remains unclear.

\begin{itemize}
\item \textsuperscript{12} Replacement Minerals Local Plan for Berkshire (2001) - \url{www.bracknell-forest.gov.uk/replacement-minerals-local-plan-for-berkshire-2001.pdf}
\item \textsuperscript{13} Mineral Local Plan Saved Policies - \url{www.bracknell-forest.gov.uk/mineral-local-plan-saved-policies-schedule.pdf}
\item \textsuperscript{14} SHMA (2016) – Berkshire (including South Bucks) Strategic Housing Market Assessment
\item \textsuperscript{15} Housing and Economic Needs Assessment (2019) – National Planning Practice Guidance \url{https://www.gov.uk/guidance/housing-and-economic-development-needs-assessments}
\end{itemize}
6.4 Other National Infrastructure projects within 30-50 miles of Central and Eastern Berkshire include Crossrail, improvements to the M25, M3 and M4, as well as the Datchet to Teddington flood defences. A distance of 30-50 miles is the estimated distance over which the majority of sand and gravel produced is transported. Whilst details on the level of demand is still to be realised, current estimates for Crossrail by the Mineral Product Association\(^\text{17}\) are in the region of 250,000 concrete segments.

6.5 All these projects are of significant scale and require the future demand to be accounted for in future aggregate supplies, over and above the annual infrastructure delivery programme. The emerging Infrastructure Delivery Statements contain more information on the level of future development planned for the area, which cumulatively will place additional pressure on aggregate supplies.

6.6 The indication is of an increase in future infrastructure delivery in the Central and Eastern Berkshire area, leading to an increase in future aggregate demand.

6.7 To meet future aggregate demand, including the infrastructure projects discussed above, Central and Eastern Berkshire needs to maintain a sufficient aggregate landbank and a greater emphasis should be placed on encouraging recycled and secondary aggregate sites to supply future demand.

6.8 Central and Eastern Berkshire is reliant on imports of aggregates, therefore looking at sales of aggregate in isolation does not represent current demand.

**Economic Forecasts**

6.9 A range of growth forecasting approached have been utilised to make an assessment of future demand.

6.10 When the MPA growth factor of 1.1% was applied to the 2018 sales figure, 3-year average and 10-year average, the forecasted figures over the plan period ranged between 0.59mt and 0.76mt in 2036. Similar to this, when the construction growth rate of 1.4% was applied to the same set of figures, the forecast range in 2036 was between 0.61mt and 0.79mt.

\(^{17}\) The Mineral Products Industry at a Glance (2016)
https://mineralproducts.org/documents/Mineral_Products_Industry_At_A_Glance_2016.pdf
6.11 A Population growth factor of 5.725% was applied based on ONS figures for the Berkshire area. This growth factor forecast a significantly higher rate in 2036 ranging between 1.4Mt to 2.2Mt in 2036.

6.12 Finally, GDP was looked at with a 2% compound growth rate applied. This forecast a range between 0.69Mt and 0.90 Mt in 2036.

6.13 Having modelled a range of growth forecasting approaches, it was concluded that the 10-year average sales gave the most representative LAA rate. The 10-year average allows for a variable level of supply of the time period which reflects the pattern historically with peaks and troughs. Whilst the planned level of infrastructure suggests an increase in demand, this needs to be considered in the current context of economic uncertainty. Therefore, the 2018 LAA Rate for sand and gravel is 0.628Mt. This is a reduction from 0.71Mt set in 2017.

6.14 The five-year averages were calculated in the cycles between 2009 and 2018; these were 0.63Mt for both five-year periods. This is consistent with the 10-year average and supports the use of the 2018 LAA Rate.

6.15 The recycled and secondary aggregate 2018 LAA rate remains at 0.21Mt. This figure is unchanged and is consistent with the 3-year average sales. At this time, we only have data from 2014 to the present time and so in the absence of other data it is felt that this figure is most representative. This will be reviewed as more data is obtained from future surveys.

**Landbank**

6.16 The NPPF\(^\text{18}\) requires Mineral Planning Authorities to make provision for the maintenance of a landbank of at least seven years for sand and gravel. The seven-year landbank stipulated is the absolute minimum level of provision required and Mineral Planning Authorities should seek to maintain a landbank above this level.

6.17 Reserves of sand and gravel in Central & Eastern Berkshire with planning permission for extraction (permitted reserves) at 31 December 2018 were 5,857,000 tonnes (discounting Star Works as this is inactive).

6.18 Table 7 shows that a landbank based on 2018 sales figures is 11.5 years. Sales have been significantly lower in 2016 and 2017 than previous years resulting in a higher landbank figure.

\(^\text{18}\)National Planning Policy Framework (Feb 2019)
6.19 The total landbank for all land-won aggregate based on 10-year average is 9.3 years which is comfortably above the 7 years required by the NPPF. Based on 3-year average sales the landbank is 12.0 years which has increased due to the lower sales in 2016, 2017 and 2018.

6.20 Application of the 2018 LAA Rate results in a landbank of 9.3 years.

<table>
<thead>
<tr>
<th></th>
<th>Permitted Reserve (Tt)</th>
<th>Landbank based upon 10yr average sales between 2009-2018 (years)</th>
<th>Landbank based upon 3yr average sale between 2016-2018 (years)</th>
<th>Landbank based upon 2018 sales (years)</th>
<th>Landbank based on 2018 LAA Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sand &amp; Gravel</td>
<td>5,857</td>
<td>9.3</td>
<td>12.0</td>
<td>11.5</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Table 7: Central and Eastern Berkshire sand and gravel reserves and landbank 2018

Source: Aggregate Monitoring survey data.

Future provision of sand and gravel

6.21 The emerging Joint Plan period is up to 2036. Applying the 2018 LAA Rate means an additional requirement of 5,447,000 tonnes of sand and gravel during the life of the Plan.

6.22 Poyle Quarry (the last remaining allocation from the adopted Plan in the area) was granted planning permission in January 2019. An application for Water Oakley, Holyport is yet to be determined. Permission was recently refused for the extraction of 3.6mt at land known as Bridge Farm, Arborfield.

6.23 A Draft Plan was produced, and a Regulation 18 consultation undertaken between August and October 2018. The Draft Plan contains Development Management policies and proposed allocations. The allocations included sharp sand and gravel sites, an aggregate wharf and two aggregate recycling sites. No soft sand sites were identified for inclusion in the Draft Plan. The proposed allocations are not sufficient to meet the identified needs of Central and Eastern Berkshire.

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19 Poyle Quarry Application: [http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?keyVal=OYZQ75NI0QY00&activeTab=summary](http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?keyVal=OYZQ75NI0QY00&activeTab=summary)
20 Water Oakley Application: [http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?keyVal=PHF8GVNI0CV00&activeTab=summary](http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?keyVal=PHF8GVNI0CV00&activeTab=summary)
Berkshire and therefore, the proposed allocations are supported by criteria-based policies to enable further development proposals to come forward. The ‘Proposed Submission’ Draft Plan was due to be subject to consultation (Regulation 19) in 2019 but has been delayed until 2020.

6.24 There is no available soft sand sales data to determine what the future demand of soft sand during the Plan period will be. A study was undertaken during 2019 to identify where soft sand is supplied from. It concluded that soft sand is supplied to Central & Eastern Berkshire from a range of neighbouring authorities and is not reliant on any one source.

6.25 As the Plan area is reliant in imports, sources of this supply will need to be secured from elsewhere. However, neighbouring authorities such as West Berkshire, Hampshire and Surrey have constrained soft sand resources due to Areas of Outstanding Natural Beauty and the South Downs National Park. Therefore, future supply may need to be considered from alternative sources such as marine or brought into the Plan area from greater distances.

**Capacity**

6.26 Site capacity is included as part of the Aggregate Monitoring 2018 survey. By understanding current capability of sites, through capacity, it is hoped that this information can be used to assist planning for future demand. The results of this are shown in Table 8. This is the third year this type of information was collected so it is possible to determine a trend for the first time.

**Table 8: Total sales and estimated production capacity, 2018**

<table>
<thead>
<tr>
<th></th>
<th>Sales (Mt)</th>
<th>Capacity* (Mt)</th>
<th>% Sales / Production</th>
<th>Capacity 3 yr average (Mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land-won Aggregate</td>
<td>0.51</td>
<td>1.11</td>
<td>46%</td>
<td>1.12</td>
</tr>
<tr>
<td>Recycled Aggregate</td>
<td>0.14</td>
<td>0.39</td>
<td>36%</td>
<td>0.32</td>
</tr>
</tbody>
</table>

**Footnotes**
Source: Aggregate Monitoring Survey, 2018. Please note collecting capacity data from operators in this manner is still in early stages and therefore the results should be treated with caution

*Capacity is based upon sales

6.27 Capacity for both land-won aggregate has remained consistent over the three years with just a small increase of 0.01Mt in comparison to the 2018 capacity. Capacity for recycled aggregate is higher in 2018 than the three years average.
Looking at the data, this change is due to a reported capacity of 0.2Mt in 2017, which resulted in the overall decrease.

6.28 It is possible to compare sales with capacity to understand void production capacity. Table 8 indicates that for land-won aggregate, there is the potential for sales to be on average over 50% higher than currently recorded, with sites currently producing at an average rate of 46% capacity. However, land-won sales are dictated by the needs of industry. But it does suggest that there is sufficient capacity to accommodate uplift in demand as a result of future development.

6.29 The returns data suggests that recycled and secondary aggregate sites are also currently operating under capacity. The findings vary significantly from those in 2016 which suggested an additional 35% recycled aggregate processed above the recorded capacity. This is likely to be a result of a difference in reported sales and site return data. In 2017, the reported capacity was 65% which still significantly higher than the 2018 capacity of 36%. But overall, the indication is that there is still operational capacity.

6.30 It is worth noting that not all operators returned information on capacity, and therefore the capacity data provided is not 100% accurate.

6.31 Data on recycled aggregate is notoriously difficult to determine due to the temporary nature of sites and the potential for unauthorised operations. The proposed recycled aggregate allocation at Riding Court Farm/Datchet Quarry\textsuperscript{22} in the Draft Plan was permitted in 2018 (subject to legal agreements). The permission (30,000 tonnes per year (maximum) is limited to the life of the quarry.

\textsuperscript{22}Riding Court Farm/Datchet Application: [http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=P5ZAR3NJJW700](http://publicaccess.rbwm.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=P5ZAR3NJJW700)
7. Conclusions and review of the LAA

7.1 This LAA has shown that Central and Eastern Berkshire’s current local aggregate provision will impact on the wider South East region as a whole if new development is not enabled to meet the forecasted demand up to 2036.

7.2 There were no site closures in 2018 and only one planning permission granted for Poyle Quarry during this period, although this site remained inactive in 2018.

7.3 Following forecast modelling, the 2018 LAA Rate is set at 0.628 mtpa which is a reduction from 0.71mtpa in 2017. However, the 2018 rate reflects the potential future demand for construction aggregates in a period of economic uncertainty.

7.4 Due to the lack of suitable resources, Central and Eastern Berkshire is reliant on supplies from other mineral planning authority areas and as such will need to ensure consideration is given to this in other Mineral Local Plans though the duty to cooperate taking into account the current sources of whilst recognising the constraints on resources in some neighbouring areas and the potential impact this may have on future supply.

7.5 The need for any additional infrastructure, such as the further requirement for land-won extraction, will be identified through the Joint Minerals and Waste Plan and will be monitored through LAAs. Where it is not possible to identify sufficient sites to meet the identified needs of Central and Eastern Berkshire, the Joint Plan will need to contain enabling policies to allow further opportunities to arise during the life of the Plan.
A summary of this document can be made available in large print, in Braille or audio cassette. Copies in other languages may also be obtained. Please contact Hampshire Services by email berks.consult@hants.gov.uk or by calling 01962 845785.