

Central & Eastern Berkshire Authorities

Joint Minerals & Waste Plan

Local Aggregate Assessment

November 2017



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Prepared by Hampshire Services

Hampshire County Council

www.hants.gov.uk/sharedexpertise



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Summary – Central and Eastern Berkshire (for the calendar year 2016)										
	2016 Sales (Mt)	Average (10 yr) Sales (Mt)	Average (3yr) Sales (Mt)	Trend (10 yr sales)	Trend (3 yr sales)	LAA Rate (Mt)	Reserve (Mt)	Landbank (years)	Capacity (Mtpa)	Comments
Soft Sand	-	-	-	-	-	-	-	-	-	There are no soft sand sites within the plan area, however, there has been some incidental extraction at sharp and gravel sites. The figures are too small to report separately.
Sharp Sand & Gravel	-	-	-			-	-	-	-	Figures are combined with soft sand to provide 'All Sand & Gravel' figures.
All Sand & Gravel	0.47	0.56	0.71			0.71	6.9	9.7	0.9	There is currently a healthy landbank. However it should be noted that accuracy of the landbank figure is influenced by the fact that Riding Court Farm has a large reserve, but is not yet operational and two other quarries are due to close by the end of 2017.
Crushed Rock	-	-	-	-	-	-	-	-	-	Central & Eastern Berkshire do not have any natural hard rock resources and therefore relies on imports of this material
Recycled / Secondary Aggregates	0.5	0.4	0.56	n/a		-	-	-	0.38	Figures for Central & Eastern Berkshire are only available for the last 3 years as previously, these have been reported on a Berkshire-wide scale.
Marine Sand & Gravel	-	-	-	-	-	-	-	-	-	There are no wharves in Central and Eastern Berkshire. Supplies of marine sand and gravel are imported predominately from Hampshire and London.
Rock Imports by Sea	-	-	-	-	-	-	-	-	-	Not relevant to the plan area.
Rail Depot Sales (Sand & Gravel)	-	-	-	-	-	-	-	-	-	No rail depots in Central and Eastern Berkshire, although likely to be served by rail depots in neighbouring mineral planning areas.

Rail Depot Sales (Crushed Rock)	-	-	-	-	-	-	-	-	-	No rail depots in Central and Eastern Berkshire, although likely to be served by rail depots in West Berkshire.
Comments	There is likely to be an increase in aggregate demand in Central and Eastern Berkshire, given the increase in planned future infrastructure delivery. Therefore, the Central & Eastern Berkshire Authorities have an important role in the supply system as an exporter of land-won aggregate and in the 'securing' of imports. As such, an LAA rate of 0.71 (3 yr average) is felt to better reflect the level of demand. This situation highlights the importance of a new Minerals Local Plan.									

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

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

There were seven permitted quarries in 2016. There have been no operational quarries within Slough Borough Council for 10 years.

Soft sand resources in the area are generally poor quality. This places a reliance on imports to address the lack of local supply.

Sales of sand and gravel fell in 2016. However, the overall trajectory of 10 year sales is increasing. 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. Whilst there is no evidence to increase capacity at the rail depots, the Hampshire 2017 LAA¹ suggests that there is headroom at their wharves to serve an increase in demand.

¹ Hampshire 2017 LAA: <http://www3.hants.gov.uk/mineralsandwaste/pd-facts-and-figures.htm>

Recycled & Secondary Aggregate

Sales in Central and Eastern Berkshire increased in 2016 above the three and 10 year average. Capacity survey information indicates recycled and secondary aggregate sites are currently operating over capacity although not all facilities responded.

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 31st December 2016 were 6,723,000 tonnes (discounting Star Works as this is inactive).

The total landbank for all land-won aggregate based on 10 year average is 12.1 years and on a three year average sales the landbank is 9.4 years although the landbank is not necessarily an accurate reflection of supply.

Taking into account current permitted reserves (discounting Star Works) there is an additional requirement for between 4,380,260 (10 years) and 7,520,380 (three year) tonnes of sand and gravel.

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.

It is estimated that the demand for soft sand over the Plan period will be in the region of 1.5 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 sites and infrastructure are not identified 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’*.
- 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.

² National Planning Policy Framework, paragraph 145 (DCLG, 2012):
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

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 provides the following:
- Sharp sand and gravel; and
 - Soft sand.
- 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.
- 2.4 Further information regarding the detailed geology can be found in the *Minerals: Background Study (2017)*⁴ which was produced in support of the emerging Joint Minerals and Waste Plan.

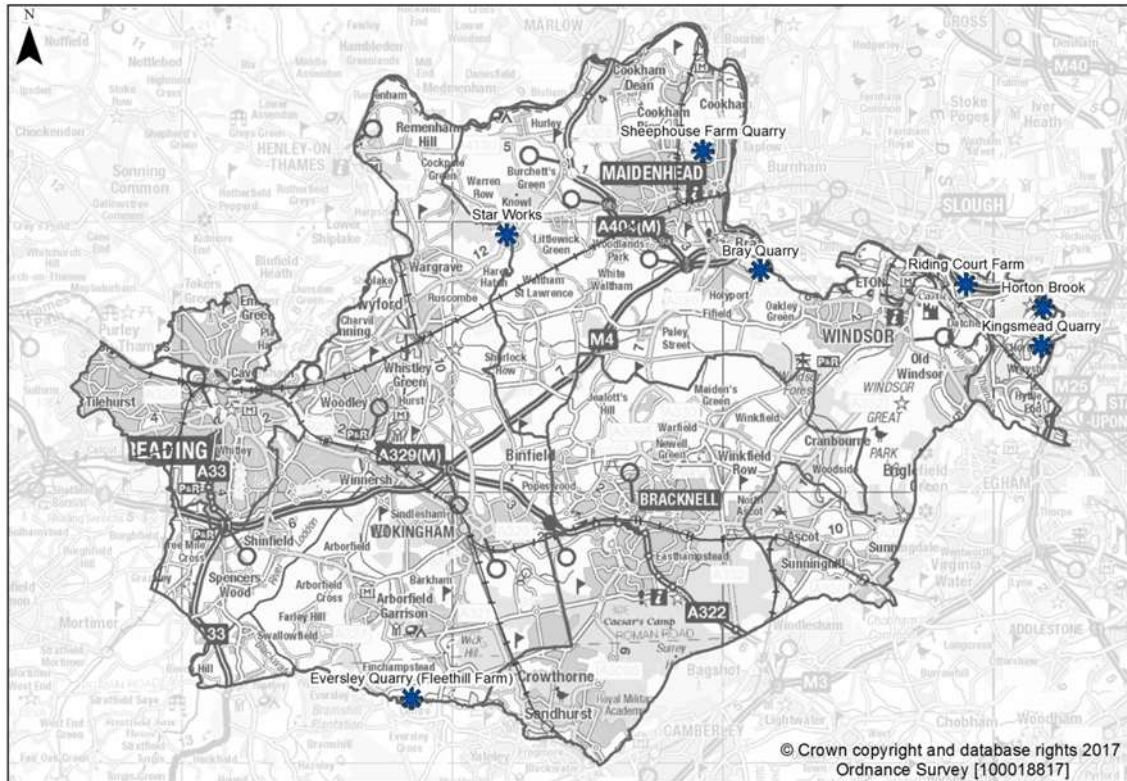
Permitted Sites Producing Sand and Gravel in Central and Eastern Berkshire

- 2.5 Figure 1 shows the location of the active quarries in Central and Eastern Berkshire in 2016. Sites are predominately located in the north and east within the Royal Borough of Windsor and Maidenhead. The remaining quarry in the south of the area is due to close during 2017, meaning that the supply of sand and gravel will be produced entirely in the north west of the area.

³ Estimate of imports by road can be found in the AM 2014 National Collation.

⁴ Minerals Background Study (2017): <http://documents.hants.gov.uk/planning-strategic/JCEBMineralsBackgroundStudyFinalVersionJune2017.pdf>

Figure 1: Location of active quarries in Central and Eastern Berkshire, 2016



- 2.6 The number of extraction sites has decreased in recent years, with 2016 seeing the closure of two sites; Eversley Quarry and Kingsmead Quarry. In addition a number of sites are inactive at this time, such as Star Works and Riding Court Farm although they both contain permitted reserves. In addition, Poyle Quarry, located in the Royal Borough of Windsor & Maidenhead, has not been worked for approximately 10 years and therefore, has not been included. The planning permission at this quarry expired in December 2015.
- 2.7 Extraction sites have not been operational within the administrative area of Slough Borough Council for 10 years. Although a number of sites operate on the boundary of the area.
- 2.8 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 approved reserves and Kingsmead Quarry 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. Anecdotal evidence suggests that building sand is being imported principally from Surrey and Central Bedfordshire.

2.9 In contrast, sharp sand and gravel is more widely distributed throughout Central and Eastern Berkshire. Bray, Sheephouse Farm, Horton Brook and Star Works are located in the Green Belt.

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

Table 1: Permitted quarries in Central and Eastern Berkshire, 2016

Site	Operator	Aggregate		Status in 2016
		Sharp Sand & Gravel	Soft Sand	
Bray Quarry	Summerleaze Ltd	X		Active
Eversley Quarry	Harleyford Aggregates	X		Active
Horton Brook Quarry	Aggregate Industries/Jayflex Aggregates Ltd	X		Active
Kingsmead Quarry	CEMEX	X	X	Active
Riding Court Farm	CEMEX	X		Inactive
Sheephouse Farm	Summerleaze Ltd	X		Active
Star Works	Grundons		X	Inactive

2.11 It should be noted that whilst these quarries are listed as ‘active’ in 2016, the status of some quarries has changed between 2016 and 2017. Changes include:

- Bray Quarry is not extracting, the focus is on the processing of aggregate;
- Eversley Quarry is due to close in 2017; and
- Kingsmead Quarry has shut.

2.12 Whilst Riding Court Farm is listed as ‘inactive’, planning permission was granted in 2015, but has not yet commenced working.

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 ten year period, with sales peaking in 2011 and 2014.

- 2.14 However, more recently, sales of sand and gravel have been declining since 2014; with sales falling 282 T tonnes between 2015 and 2016. The sales for 2016 are 34% lower than the average for the last 3 years and 16% lower than the 10 year average, highlighting the decline.

Table 2: Land-won sand and gravel sales in Central and Eastern Berkshire, 2007-2016 (Thousand tonnes, Tt)

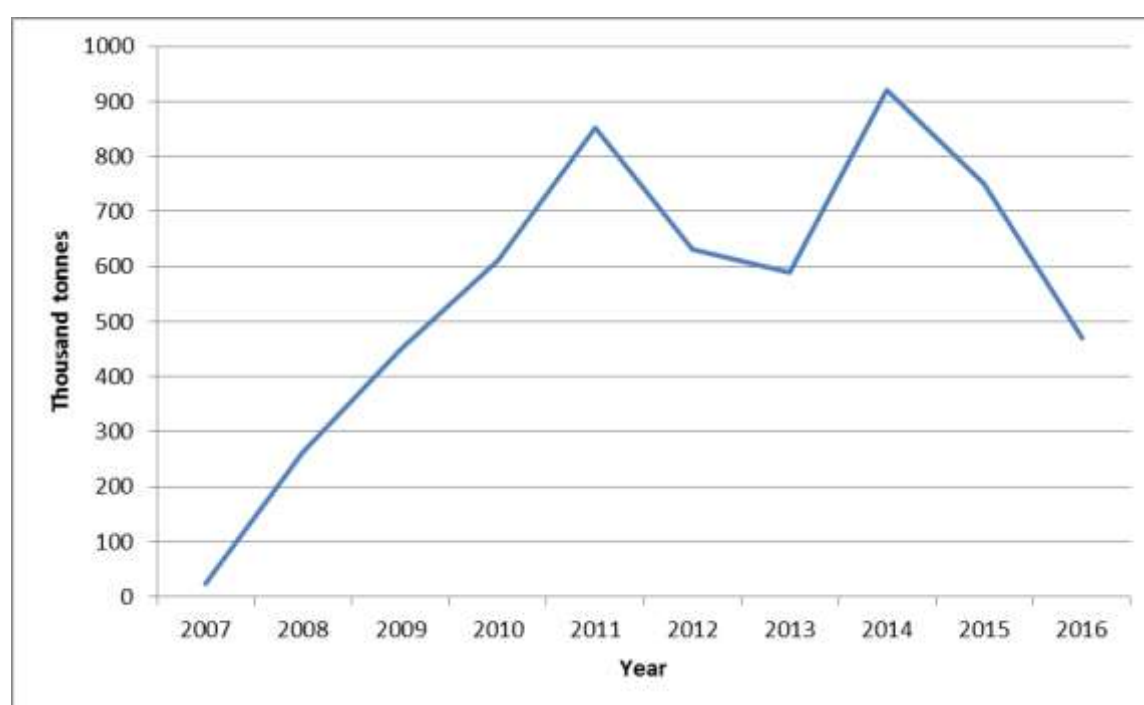
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Last 3 yr average	Last 10 yr average
Total Sales	23	263	450	611	852	631	590	920	751	469	713	556

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, 2007-2016

Figure 2: Sales of land-won Sand and Gravel in Central and Eastern Berkshire



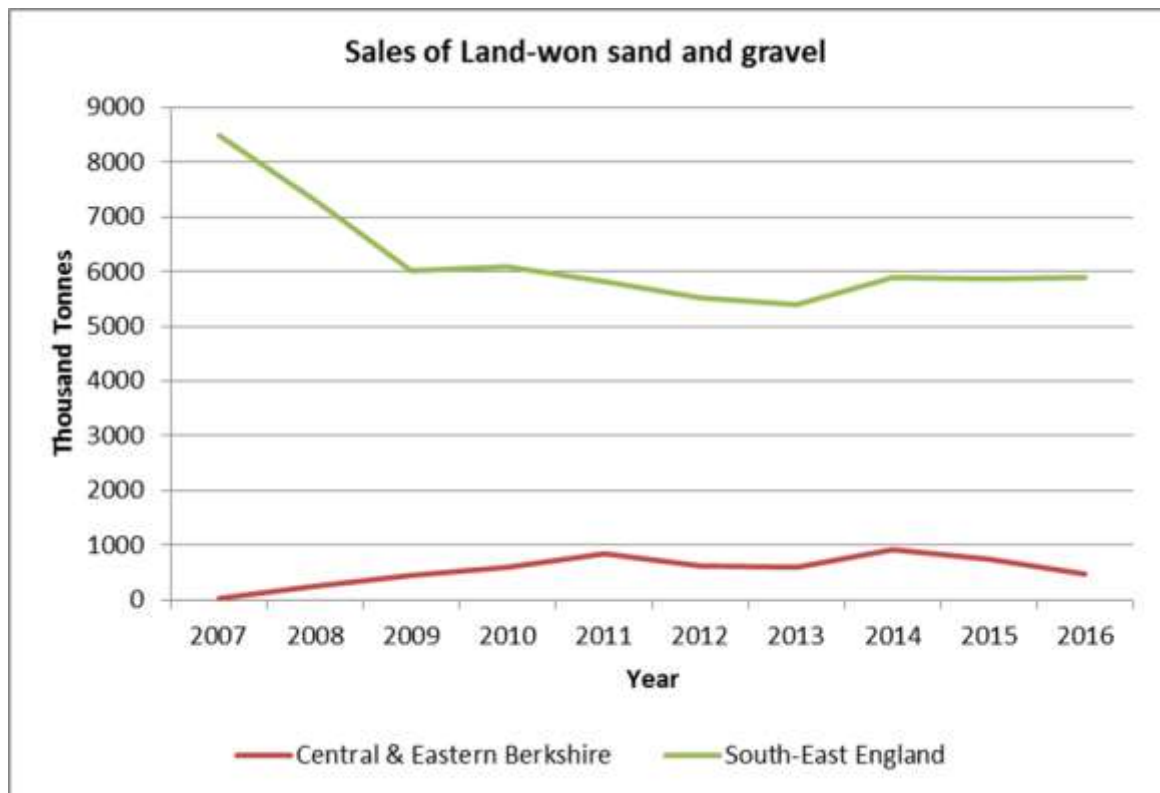
Source: Aggregate Monitoring Surveys, 2007-2016

- 2.15 Figure 2 shows the sales of land-won sand and gravel in Central and Eastern Berkshire since 2007. The trend in sales is one of rapid increase between 2007 and 2011, where there was a pronounced dip in sales. Whilst sales

recovered in 2014, reaching a 10 year peak, the most recent trend has been one of declining sales, reaching a point around half the level of the 10 year peak

- 2.16 When compared to the sales for South-East England, the trends in Central and Eastern Berkshire appear to be broadly similar and follow the pattern. The exception to this is the trend over the most recent years. A comparison of the sales figures are shown in Figure 3.

Figure 3: Sales of land-won sand and gravel in South-East England and Central and Eastern Berkshire



Source: South-East England Aggregates Monitoring Report 2016

- 2.17 Whilst sales in Central and Eastern Berkshire have been declining since 2014, the sales figures for the South-East region appear to show a slight increase marking a shift from the previous pattern of reflecting the trend.
- 2.18 The market dictates that sand and gravel will be obtained from the cheapest location for that particular material, and mineral planning authority boundaries do not influence the flow of minerals. 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. This may be due to the specific type or quality that is required only being available in a neighbouring mineral planning

authority area, or simply due to the fact that the point of demand is closer to the point of supply somewhere other than in Central and Eastern Berkshire.

2.19 Aggregate consumption figures can be calculated from data published by the Department for Communities and Local Government every four years as part of the Aggregate Monitoring (AM) survey undertaken by the British Geological Survey (BGS). Recycled and secondary aggregate figures are not available from the AM survey. Table 3 shows the consumption of imported aggregate including land-won sand and gravel in Berkshire.

Table 3: Total sales, exports and imports and consumption of Primary Aggregate in Berkshire, 2009 and 2014

Aggregate	2009					2014				
	Sales (A)		Consumption (B)		A as % B	Sales (A)		Consumption (B)		A as % B
	'000 tonnes	%	'000 tonnes	%		'000 tonnes	%	'000 tonnes	%	
Land-won sand and gravel	840	100%	807	45%	104%	1,051	100%	601	31%	174%
Marine-won sand and gravel	-	-	98	6%	n/a	-	-	152	8%	n/a
Crushed rock	-	-	875	49%	n/a	-	-	1,161	61%	n/a
Total	840	100%	1,780	100%	47%	1,051	100%	1,913	100%	56%

Source: Collation of the results of the 2009 and 2014 Aggregate Minerals survey for England & Wales.

2.20 The comparison of data in Table 3 shows a trend for a reduction in consumption of land-won sand and gravel but an increase in sales. Consumption of marine-won sand and gravel and crushed rock have increased – both of which are imported aggregates. This shows an overall increase in supply of aggregate in Berkshire. It is assumed that this reflects the situation in Central and Eastern Berkshire.

2.21 The sources of sand and gravel consumed in Berkshire in 2009 and 2014 were predominately sources from within Berkshire, Hampshire and, more recently in 2014, Wiltshire and Oxfordshire.

2.22 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 forecasting future demand.

2.23 As with imports, export data is only available on a Berkshire level for 2009 and 2014. Of the aggregates sold in Berkshire in 2009, 61% was consumed in Berkshire with the remainder being exported, principally to destinations in the South East and it is assumed by road. The principle destinations within the South East for Berkshire's sand and gravel were Surrey and Buckinghamshire (including Milton Keynes).

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 400 million tonnes of approved reserves of crushed rock (equivalent to 29.9 years landbank at the most recent sub regional apportionment rate)⁵. 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 of 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 transport by road within the plan area.

3.5 The West Berkshire Local Aggregate Assessment (LAA) (December 2016)⁶ 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.

⁵ www.somerset.gov.uk/EasySiteWeb/GatewayLink.aspx?allId=112822

⁶ West Berkshire Local Aggregate Assessment (December 2016) - info.westberks.gov.uk/CHttpHandler.ashx?id=43576&p=0

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.

Table 4: Crushed rock sales from rail depots and wharves in Berkshire (Berks) and Hampshire (Hants), 2007-2016 (Thousand tonnes, Tt)

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	10 yr average	3 yr average
Berks & Hants	1935	1369	1094	1054	1215	1222	1090	1208	1565	1517	1327	1430

Footnotes

Source: AM2016 Survey

In 2016, 89% of the aggregates sold were crushed rock, 9% were land-won sand and gravel and 2% were marine aggregate.

3.8 Sales of crushed rock fell between 2007 and 2013, decreasing by 44%. However since 2013, sales have increased and been maintained in 2016. This pattern is reflected in the higher 3 year average figure of 1430 Tt, which indicates an increase in sales in recent years in comparison to the 10 year average.

3.9 Somerset County Council confirmed that they 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 and Hampshire. 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 2014⁷.

- 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

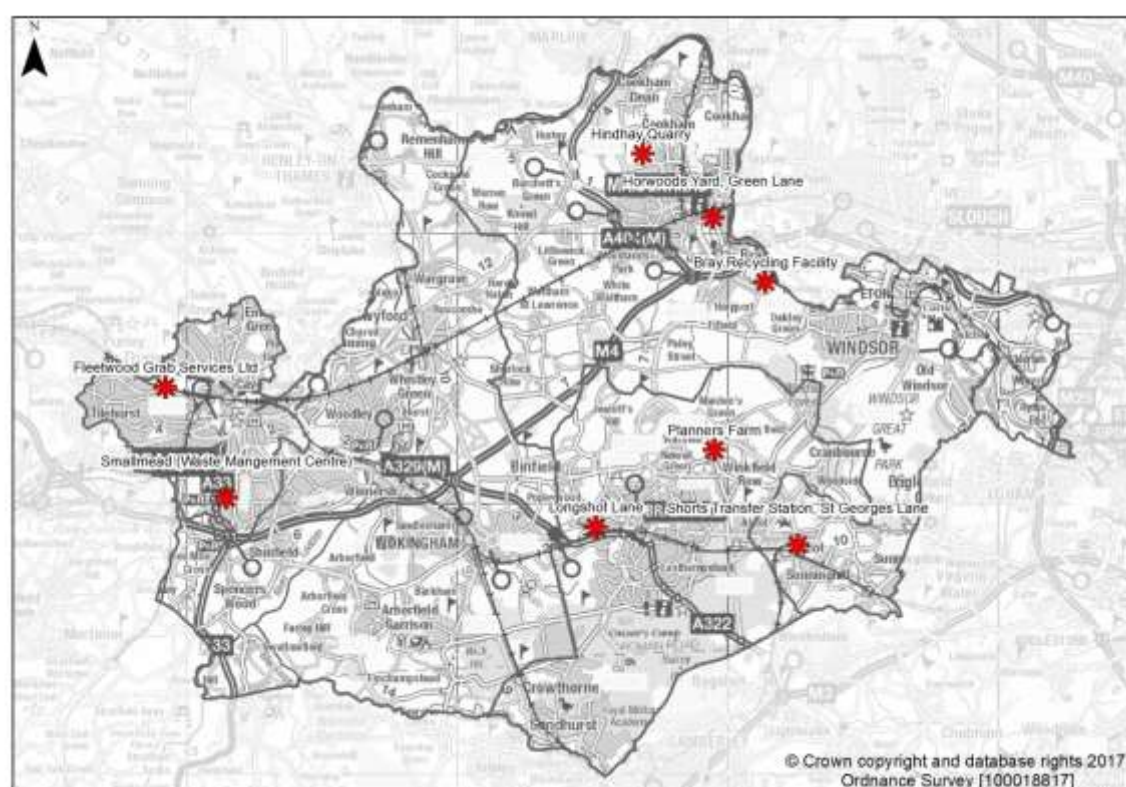
- 5.1 Data pertaining to sales of recycled or secondary aggregates is collected annually as part of the AM surveys carried out by mineral planning authorities. Figure 4 shows the location of all active recycled aggregate sites in operation in Central and Eastern Berkshire during 2016 that were surveyed. 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 13 sites which hold valid planning permission for the production of recycled and secondary aggregates in Central and Eastern Berkshire. Of these sites, there was a response rate of 38% to the AM survey 2016, indicating a collective capacity of 375,000 tonnes. The total capacity for recycled or secondary aggregate processing in Central and Eastern Berkshire is likely to be

⁷ Collation of the results of the 2014 Aggregate Minerals Survey for England and Wales - www.gov.uk/government/uploads/system/uploads/attachment_data/file/563423/Aggregate_Minerals_Survey_England_Wales_2014.pdf

higher than 375,000 tonnes when accounting for those sites which did not respond to the survey, temporary sites permitted, as well as the potential for unauthorised operations.

- 5.3 Figure 4 shows the location of active recycled and secondary aggregate sites in Central and Eastern Berkshire. All sites are for recycled aggregate, there are no secondary aggregate sites in Central and Eastern Berkshire.

Figure 4: Location map of active recycled and secondary aggregate sites in Central and Eastern Berkshire, 2016



- 5.4 The sales figures of the recycled and secondary aggregate in Berkshire for the most recent 10 year period, 2006-2016 are shown in Table 5.

Table 5: Recycled and Secondary aggregate sales in Central and Eastern Berkshire, 2007-2016 (Thousand tonnes, Tt)

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Last 10 yr average	Last 3 yr average
Berkshire	425	265	234	n/a	200	320	404	408*	400*	498	315	435
Central & Eastern Berkshire								85	103	128		105

Footnotes

Source: Aggregate Monitoring Surveys, 2007-2016

*Figures quoted are from the South East Aggregate Monitoring Report (2014 & 2015).

- 5.5 Sales in Berkshire had been in decline between 2007 and 2015. However sales in 2016 increased by 79% and were recorded at 498 Tt. This figure is above the 10 and 3 year average.
- 5.6 Sales data for the Central and Eastern Berkshire area is only available for a three year period and which indicates a trend of 105 Tt per year. The Central and Eastern Berkshire sales represent an average of 24% of the Berkshire Total. If this average was applied to the Berkshire 10 year sales, this would suggest a 10 year trend of 76 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 2001⁸. 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 a number of policies in them should be saved⁹ 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 27,000 new homes planned within the area.
- 6.3 The new runway proposal at Heathrow is a major future infrastructure scheme and will place significant demands on aggregate supply within the Central and Eastern Berkshire area. Proposals could include either tunnelling or significant landraising which would either increase the demand for processing and disposal or could increase demand for inert material which could impact on the

⁸ Replacement Minerals Local Plan for Berkshire (2001) - www.bracknell-forest.gov.uk/replacement-minerals-local-plan-for-berkshire-2001.pdf

⁹ Mineral Local Plan Saved Policies - www.bracknell-forest.gov.uk/mineral-local-plan-saved-policies-schedule.pdf

restoration of extraction sites. There is not yet enough certainty or details available on this proposal but its potential should be taken into account when reviewing capacity at depots and aggregate recycling facilities.

- 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 Association¹⁰ are in the region of 250,000 concrete segments.
- 6.5 All of 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 In order 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 & Eastern Berkshire are reliant on imports of aggregates, therefore looking at sales of aggregate in isolation does not represent current demand.

Landbank

- 6.9 The NPPF¹¹ requires Mineral Planning Authorities to make provision for the maintenance of a landbank of at least seven years for sand and gravel.
- 6.10 Reserves of sand and gravel in Central & Eastern Berkshire with planning permission for extraction (permitted reserves) at 31st December 2016 were 6,723,000 tonnes (discounting Star Works as this is inactive).

¹⁰ http://www.mineralproducts.org/documents/Mineral_Products_Industry_At_A_Glance_2016.pdf

¹¹ [National Planning Policy Framework - www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf) (Para. 145)

- 6.11 Table 6 shows landbank based on 2016 sales figures is 14.3 years, however as the sales were significantly lower than previous years resulting in a higher landbank figure.
- 6.12 The total landbank for all land-won aggregate based on 10 year average is 12.1 year which is comfortably above the 7 years required by the NPPF. However, based on 3 year average sales the landbank is 9.4 years which is not far from required 7 years.
- 6.13 This is a particular issue as the calculation of the landbank is not necessarily an accurate reflection of the ability of quarries to collectively supply the construction industry, given that Riding Court Farm has a large reserve, but was not operating in 2016 and some quarries have less than two years' operating life remaining.

Table 6: Central and Eastern Berkshire sand and gravel reserves and landbank

	Permitted Reserve (Tt)	Landbank based upon 10yr average sales between 2007-2016 (years)	Landbank based upon 3yr average sale between 2014-2016 (years)	Landbank based upon 2016 sales (years)
Total Sand & Gravel	6,723	12.1	9.4	14.3

Source: Aggregate Monitoring survey data.

Future provision of sand and gravel

- 6.14 The Proposed Plan period is up to 2036. If the 10 year average of 555,163 tonnes is projected forward from 2016 to 2036 on this basis, a total of 11,103,260 tonnes would be required over the course of the Plan. However, on the basis of the three year average, this increases to 14,243,380 tonnes.
- 6.15 The current permitted reserves for Central & Eastern Berkshire are 6,723,000 tonnes (not including Star Works Quarry). This means an additional requirement for between 4,380,260 (10 years) and 7,520,380 (three year) tonnes of sand and gravel.
- 6.16 The only remaining Preferred Area from the *Replacement Minerals Local Plan for Berkshire*¹² that is actively being promoted is Area 12: North of Horton (Part - Poyle Quarry), which has an estimate of 800,000 tonnes. This would not fully

¹² Replacement Minerals Local Plan for Berkshire. 2001 - www.bracknell-forest.gov.uk/replacement-minerals-local-plan-for-berkshire-2001.pdf

meet the future demand for Central & Eastern Berkshire based on the 10-year average or the three year average.

6.17 Therefore, the Joint Minerals & Waste Plan will need to allocate sufficient sites or areas of search to address the demand requirements.

6.18 There is no available soft sand sales data to determine what the future demand of soft sand during the Plan period will be. As such, the Central & Eastern Berkshire Authorities have used methodologies to estimate the likely demand. The initial findings suggest that the demand over the plan period will be in the region of 1.5 million tonnes (79,000 tonnes per year). As the Plan area is reliant in imports, sources of this supply will need to be secured from elsewhere.

Capacity

6.19 For the first year, a site capacity question was included as part of the Aggregate Monitoring 2016 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 7. This is the first year this type of information was collected so it is not possible to comment on any trends, this is something that will be reported on in the next LAA.

Table 7: Total sales and estimated production capacity, 2016 (Million tonnes, Mt)

	Sales (mt)	Capacity* (mt)	% Sales / Production
Land-won Aggregate	0.47	1.11	42%
Recycled Aggregate	0.5	0.37	135%

Footnotes

Source: Aggregate Monitoring Survey, 2016. Please note this was the first year that capacity data was collected from site operators, and as such, results should be treated with caution.

*Capacity is based upon sales

6.20 Whilst it is not possible to determine trends in capacity this year, it is possible to compare sales with capacity to understand void production capacity. Table 7 indicates that 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 40% 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.

- 6.21 It can be seen that that recycled and secondary aggregate sites are currently operating over capacity. In 2016, it is shown that there was an additional 35% recycled and secondary aggregate processed above the recorded capacity. This is likely to be a result of a difference in reported sales and site return data. However, taking the general pattern shown suggests that there is a need to monitor this situation as there is little scope to accommodate an increase in demand at present.
- 6.22 It is worth noting that not all operators returned information on capacity, and therefore the capacity data provided is not 100% accurate.

7. Conclusions and review of the LAA

- 7.1 This LAA has also shown that Central and Eastern Berkshire's current local aggregate provision will impact on the wider South East region as a whole if new sites are not identified to meet the forecasted demand up to 2036. This is a key issue as Central and Eastern Berkshire is a net exporter of land-won sand and gravel but also imports and exports occur with neighbouring and non-neighbouring mineral planning authorities. 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.
- 7.2 This document highlights that there is a need for additional infrastructure, particularly with regard to meeting Central and Eastern Berkshire's needs for land-won mineral extraction and aggregate recycling up to 2036 and beyond. 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.

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