

# HAMPSHIRE, PORTSMOUTH, SOUTHAMPTON, NEW FOREST NATIONAL PARK & SOUTH DOWNS NATIONAL PARK

## Local Aggregate Assessment 2017



## Hampshire Minerals and Waste Plan

December 2017





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**Summary – Hampshire County Council 2017 (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
<b>Soft Sand</b>	0.2	0.15	0.14	+	+	0.28	0.7	2.5	0.25	Sales are currently improving, however there are landbank issues (below NPPF requirement).
<b>Sharp Sand &amp; Gravel</b>	0.75	0.83	0.75	-	-	1.28	6.8	5.3	0.88	Sales are currently improving, however there are landbank issues (below NPPF requirement).
<b>All Sand &amp; Gravel</b>	0.95	0.99	0.89	-	+	1.56	8.9	5.7	1.1	
<b>Crushed Rock</b>										Hampshire does not have supplies of crushed rock
<b>Recycled / Secondary Aggregates</b>	0.83	0.82	0.98	+	-	0.8			1.8	Sales and capacity have reduced.
<b>Marine Sand &amp; Gravel</b>	1.55	1.35	1.49	+	+	1.4			1.0	Worth noting, only 2/7 sites responded to the capacity question.
<b>Rock Imports by Sea</b>	0.02		<0.01		+					Sales of crushed rock by sea are often very small. (below 100,000 tonnes)
<b>Rail Depot Sales (Sand &amp; Gravel)</b>										Rail depots are mainly used to import sand and gravel to Hampshire.
<b>Rail Depot Sales (Crushed Rock)</b>	0.4	0.42	0.45	-	-	0.5			1.0	Capacity has decreased.
<b>Comments</b>	Sales of sand and gravel have increased placing pressure on the current permitted capacity; but permission has been granted for a site which is not yet operational and there are other anticipated application sites, which will increase the landbank figure for Hampshire. A significant increase in planned infrastructure has been identified in the medium term. Trends are determined by same year sales comparisons.									

## **Executive Summary**

### **Introduction**

This is the Local Aggregate Assessment (LAA) for Hampshire and covers the administrative areas of Hampshire County Council, the New Forest National Park Authority, the South Downs National Park Authority, and the Unitary Authorities of Southampton City Council and Portsmouth City Council.

The purpose of the LAA is to detail the current and predicted situation in Hampshire with respect to all aspects of aggregate supply.

### **Land-won Aggregate**

Hampshire's geology gives rise to sharp sand and gravel, soft sand, and silica sand. Aggregates are sourced from land-won resources, recycled aggregate and imports by rail.

There were nine active permitted quarries in 2016, with one currently inactive sharp sand and gravel site.

Soft sand resources are scarce and concentrated in a small number of areas, in comparison sharp sand and gravel resources are much more prolific and spread out within Hampshire. In 2016, there was an insufficient landbank for both aggregate. However, there are planning applications in the pipeline which would rectify this shortfall.

Sales of sand and gravel rose in 2016. However, the overall trajectory of the past 10 years shows a decrease in sales. This is likely to be a result of the 2008 economic downturn and over the past 3 years there has been an increase in sales.

### **Recycled & Secondary Aggregate**

There was a reduction in sales in 2016 of 24.3% to 0.75Mt. Over the past ten years sales increased to a peak in 2014 of 1.1Mt at which point sales began to fall.

The total capacity for recycled or secondary aggregate processing in Hampshire is estimated to be greater than 1.8Mt.

### **Marine Sand and Gravel**

Marine-won sand and gravel sales remained at the same level as 2015. However, this is still higher than the 10 year and 3 year average. Marine imports are received at 6 wharves within Hampshire. Evidence suggests that there is capability to serve an increase in demand.

## Crushed Rock

Hampshire has no crushed rock resources of its own and therefore relies on imports via rail and sea predominantly from Somerset who have confirmed that they currently can foresee no issues with ongoing supply.

Supply is imported to rail depots running along the east of Southampton as well as small percentage being imported into Hampshire's Wharves.

## Future Aggregate Supply

There are a number of housing and transport projects planned between 2016 and 2020. This indicates growth which is expected to manufacture increased aggregate demand within Hampshire.

Current permitted reserves at 31<sup>st</sup> December 2016 not including anticipated planning applications total 8.9Mt with a landbank of 5.7 years.

To be able to meet this further demand Hampshire will greatly need to increase its land-won aggregate landbank. Should the applications in the pipeline be permitted, the landbank for Hampshire would increase to 9.7 years based upon the local requirements.

## Conclusions

Hampshire's local aggregate provision will not impact the wider South East region as a whole and is in fact a net exporter of land-won sand and gravel to other mineral planning authorities. However, Hampshire is reliant on other mineral planning authorities for supplies of crushed rock and as such will need to ensure consideration is given to this in other mineral local plans (e.g. Somerset) through the duty to cooperate.

## 1. Introduction

- 1.1 The purpose of this Local Aggregate Assessment (LAA) report is to detail the current and predicted situation in Hampshire with respect to all aspects of aggregate supply.
- 1.2 The National Planning Policy Framework (NPPF)<sup>1</sup> 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 Hampshire County Council (HCC), Portsmouth City Council (PCC), Southampton City Council (SCC), the New Forest National Park Authority (NFNPA) and the South Downs National Park Authority (SDNPA) adopted the Hampshire Minerals & Waste Plan (HMWP) in October 2013 which was produced in partnership. The HMWP provides minerals (and waste) planning policy in Hampshire until 2030.
- 1.4 Since the adoption of the HMWP, this plan making partnership has come to an end and a new partnership has formed between HCC, PCC, SCC, and NFNPA, hereafter referred to as the Hampshire Authorities, to monitor and implement the Plan. A separate Service-Level Agreement (SLA) has been established between HCC and SDNPA for HCC to undertake the HMWP monitoring duties on behalf of the SDNPA.
- 1.5 This is the Local Aggregate Assessment (LAA) for Hampshire and covers the administrative areas of Hampshire County Council, Portsmouth City Council, Southampton City Council and the part of the South Downs National Park that is in Hampshire. The purpose of the LAA is to detail the current and predicted situation in Hampshire with respect to all aspects of aggregate supply, in particular with regard to the county's land-won aggregate provision up to 2030.
- 1.6 It is important to note that the data used in the preparation of this report predominantly comes from the annual monitoring of aggregates sales by the Hampshire Authorities including the SDNPA on behalf of the South East England Aggregate Working Party (SEEAWP). The Aggregate Monitoring (AM) survey collects annual sales data from active mineral extraction sites, minerals wharves, minerals rail depots and recycled aggregate processing sites.

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<sup>1</sup> National Planning Policy Framework, paragraph 145 (DCLG, 2012):  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6077/2116950.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf)

## 2. Land Won Aggregate

### Geology of Hampshire

2.1 The geology of Hampshire is currently characterised by four main geological regions:

- Chalk Downlands – comprising Upper Chalk
- Hampshire Basin
- London Basin
- Wealden Edge

2.2 In terms of aggregates, Hampshire's geology provides the following:

- Sharp sand and gravel;
- Soft sand; and
- Silica Sand.

2.3 Hampshire has the capability of supplying aggregates from a number of sources including:

- Land-won extraction;
- recycled and secondary aggregate;
- dredging sand and gravel from the sea bed (marine-won); and
- importing aggregate (via rail depots)<sup>2</sup>.

2.4 Further information regarding the detailed geology within Hampshire can be found in the:

- Minerals in Hampshire: Background Study<sup>3</sup> report which was produced in support of the Hampshire Minerals and Waste Plan
- Soft Sand Topic Paper<sup>4</sup>.

### Permitted Sites Producing Sand and Gravel in Hampshire

2.5 Historically much of Hampshire's land-won aggregate production has come from south-west Hampshire. Figure 1 shows the location of the active quarries in Hampshire in 2016. An increasing number of smaller production areas have been located in north east Hampshire and south Hampshire.

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<sup>2</sup> Estimate of imports by road can be found in the AM 2014 National Collation.

<sup>3</sup> Minerals in Hampshire: Background Study (V7), 2013:

<http://documents.hants.gov.uk/mineralsandwaste/HMWP100bMineralsinHampshirev7-SubmissionRevisedFeb2013.pdf>

<sup>4</sup> HMWP – Soft Sand Topic Paper:

<http://documents.hants.gov.uk/mineralsandwaste/HMWP123SoftSandTopicPaper-Final-SubmissionFeb2012.pdf>

Figure 1: Location of active quarries in 2016



- 2.6 Production in south Hampshire has fallen significantly in recent years, reflecting the depletion of available resources following the closures of extraction sites at Netley and Warsash. Increased availability of alternative sources of aggregate, such as rail and marine dredged imports and recycled aggregates has helped to address this fall of land-won production.
- 2.7 Production in south-west Hampshire has increased, which has traditionally supplied sand and gravel to west Hampshire, Bournemouth and Poole market areas.
- 2.8 Reserves of soft sand in Hampshire are very scarce and are concentrated in a small number of areas. This is highlighted in Table 1 by the clusters of quarries of soft sand. In contrast, sharp sand and gravel is more widely distributed throughout Hampshire. Table 1 provides details of the aggregate extracted at each permitted extraction site.

**Table 1: Permitted quarries in Hampshire, 2016**

Site	Operator	Aggregate		Status
		Sharp Sand & Gravel	Soft Sand	
Badminton Farm, Fawley	Mid Hants Ltd	✓		Active
Blashford Quarry, Ringwood	Tarmac Ltd	✓	✓	Active
Bleak Hill Quarry, Ringwood Forest	CEMEX	✓	✓	Active
Bramshill Quarry (Warren Heath)	CEMEX	✓		Active
<i>Chandlers Farm, Eversley</i>	<i>CEMEX</i>	✓		<i>Inactive</i>
Downton Manor Farm, Milford on Sea	New Milton Sand and Ballast Sharp	✓		Active
Frith End Quarry	Grundon		✓	Active
Kingsley Quarry	Tarmac Ltd		✓	Active
Marchwood Quarry	Marchwood Aggregates	✓		Active
Roke Manor Quarry	Raymond Brown Aggregates	✓		Active

### **Sand and Gravel Production and Sales**

- 2.9 The sales of land-won sand and gravel in Hampshire are shown in Table 2. The overall trend is of year on year decline, with sales 36% lower in 2016 than in 2007. The difference in annual sales is more marked for sharp sand and gravel.
- 2.10 The sales of soft sand rose in 2016 from 0.12 to 0.2Mt. This is a 66.7% increase in sales and a sharp rise in sales above the level of the past 8 years. Sales of soft sand rose in 2010 and 2012, but subsequent years experienced lower sales. There has been a slow increase in sales of soft sand from 2014, so this could mark the start of a continued trend. The sales in 2016 have had the effect of raising the 3 year average to 0.14Mt, which reflects this trend.
- 2.11 Sales of sharp sand and gravel increased by 5.6% from 0.71Mt in 2015 to 0.75Mt in 2016. Whilst this level is significantly lower than that of 2007, a higher level of sales appears to have been maintained since 2013, including a slow and steady increase in sales with the exception of 2015.

**Table 2: Land-won soft sand and sharp sand and gravel sales in Hampshire, 2007-2016 (Million tonnes, Mt)**

Year (yr)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Last 3 yr average	Last 10 yr average
<b>Soft Sand Sales*</b>	0.18	0.29	0.1	0.14	0.12	0.16	0.12	0.11	0.12	0.2	0.14	0.15
<b>Sharp Sand and Gravel Sales</b>	1.3	0.98	0.95	0.84	0.71	0.58	0.73	0.78	0.71	0.75	0.75	0.83
<b>Total Sales</b>	1.49	1.27	1.05	0.98	0.83	0.75	0.85	0.88	0.83	0.95	0.89	0.99

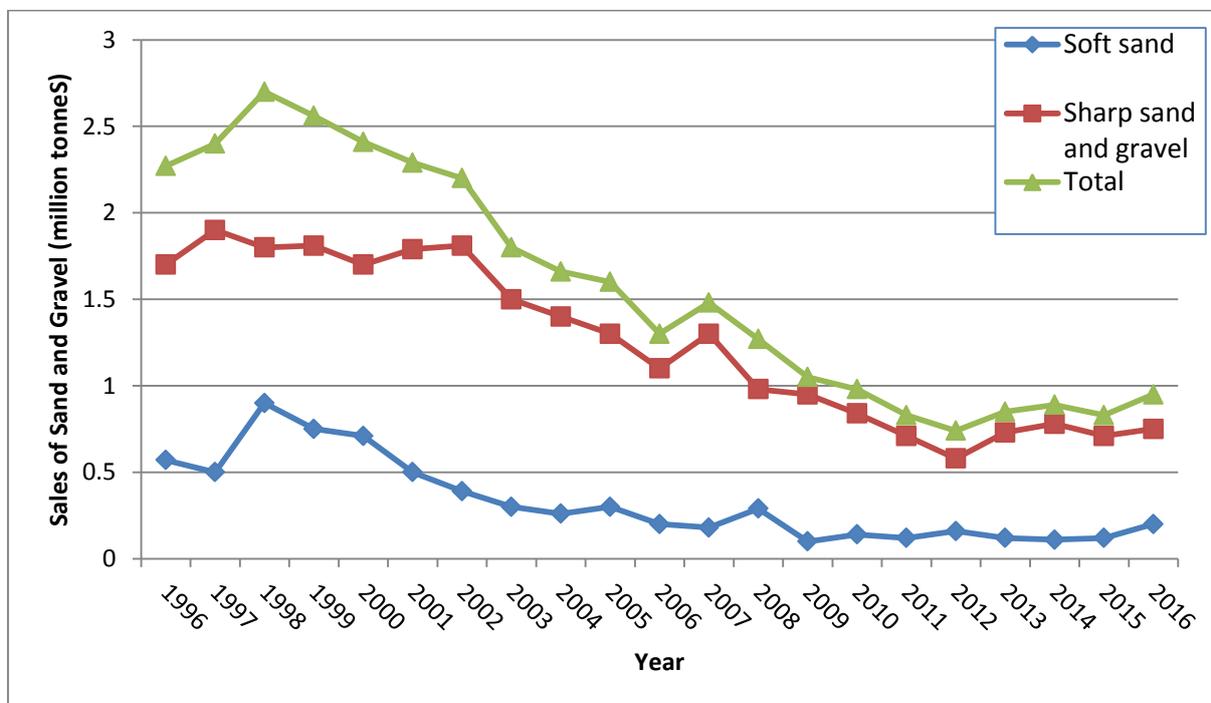
**Footnotes**

Source: Aggregate Monitoring Surveys, 2007-2016

\*Please note soft sand figures before 2013 may include a small amount of silica sand (non-aggregate). Please see Appendix A for further information on Silica Sand.

2.12 Figure 2 shows the sales of land-won sand and gravel in Hampshire since 1996 to date. The overall trend of a steady decline in sales from 1996 is shown on the graph, until 2012 where sales have gradually risen year on year.

**Figure 2: Sales of land-won sand and gravel in Hampshire, 1996-2015 (Million tonnes, Mt)**



- 2.13 An important point to note is that 60% of the current sand and gravel reserve in Hampshire is contained in one site, Blashford Quarry (Plumley Wood). This could have implications for the future supply if any issues with extraction are encountered.
- 2.14 The land-won aggregate supply plan in Hampshire is based on sub-regional apportionment figures which have been retained as part of the Hampshire Minerals and Waste Plan. The apportionment figures represent the 'Local Requirement' and have been used to calculate the landbank for sand and gravel by dividing the permitted reserve of local land-won aggregate with the current apportionment figure.
- 2.15 Table 3 shows the total landbank for all land-won aggregate based on local requirement for Hampshire is 5.71 years. Hampshire currently has the lowest landbank in the South East England Region (Source: AM2016 survey).
- 2.16 The landbank for soft sand is calculated at 2.5 years based on local requirements. The landbank increases marginally when looking at sales figures, ranging between 3.5 and 5 years, dependent on whether sales in 2016, 3 year average sales or 10 year average sales are used. The sharp sand and gravel landbank is calculated at 5.31 years based on local requirements, which is below the 7 year NPPF requirement. Whereas the landbank when based upon 10 year average sales, 3 year average sales and 2016 sales ranges from 8.19-9.07 years.
- 2.17 However, the landbank figures are expected to increase as future planning applications come forward, and planned application sites commence work. Please see section 6 for further information on the future of land-won aggregate and landbanks.

**Table 3: Hampshire reserves and landbank**

	<b>Permitted Reserve (mt)</b>	<b>Landbank based upon Local Requirement (years)*</b>	<b>Landbank based upon 10yr average sales between 2007-2016 (years)</b>	<b>Landbank based upon 3yr average sale between 2014-2016 (years)</b>	<b>Landbank based upon 2016 sales (years)</b>
<b>Soft Sand</b>	0.7	2.5	4.67	5.00	3.5
<b>Sharp Sand &amp; Gravel</b>	6.8	5.31	8.19	9.07	9.07
<b>Total**</b>	8.9	5.71	8.99	10	9.37

Source: Aggregate Monitoring Surveys, 2007-2016

Please note: the silica sand landbank is incorporated into the soft sand landbank as the resources can be classed as either soft sand or silica

\*Local Requirement for SS&G – 1.28, Soft Sand – 0.28, Total – 1.56 (mtpa)

\*\*In some cases operators were unable to quantify the individual sharp sand & gravel and soft sand reserves and only provide a total reserve. This results in the total reserve figure being higher than the combined soft sand and sharp sand & gravel figures.

### 3. Recycled/Secondary Aggregates

- 3.1 Data pertaining to sales of recycled or secondary aggregates is collected yearly as part of the surveys carried out by mineral planning authorities. Figure 3 shows the location of all active recycled sites in operation in Hampshire during 2016 that were surveyed. It should be noted that whilst all sites were surveyed, not all responded. As such, the results should be used with caution to indicate a general trend of what is happening.
- 3.2 There are 29 sites which hold valid planning permission for the production of recycled and secondary aggregates in Hampshire. Of these sites, there was a response rate of 87% to the AM survey 2016, indicating a collective of capacity of 1.8Mt. The total capacity for recycled or secondary aggregate processing in Hampshire is likely to be higher than 1.8Mt when accounting for those sites which did not respond to the survey, temporary sites permitted, as well as the potential for unauthorised operations.
- 3.3 The sales figures of the recycled and secondary aggregate in Hampshire for the most recent 10 year period, 2006-2016 are shown in Table 4. Sales had been increasing up to a peak in 2014, where sales started to decline. Initially the decrease in 2015 was by 10.8%, however there was a more marked decrease last year with sales falling by 24.2% to 0.75Mt.
- 3.4 There were 742,639 tonnes of recycled aggregate sales in 2016 in comparison to 88,811 tonnes of secondary aggregate sales. This translates into split of 90% to 10% respectively for recycled and secondary aggregates sales.

**Table 4: Recycled and Secondary aggregate sales in Hampshire, 2007-2016 (Million tonnes, Mt)**

Year (yr)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Last 10 yr average	Last 3 yr average
<b>Sales</b>	0.55	0.64	0.6	0.79	0.93	0.81	0.93	1.11	0.99	0.83	0.82	0.98

**Footnotes**

Source: Aggregate Monitoring Surveys, 2007-2016

**Figure 3: Location map of active recycled and secondary aggregate sites in Hampshire, 2016**



#### 4. Wharves (Marine-won Sand and Gravel)

- 4.1 Hampshire has six existing wharves located on the south coast of Hampshire, the locations of which are shown in figure 4. The mineral rights for marine sand and gravel are owned by the Crown Estate, up to the edge of the continental shelf. There are two dredging regions in proximity to Hampshire: South Coast (including Owers) and the East English Channel. It is understood that there is 89.47 Mt of good quality permitted reserves suitable for primary (construction) aggregate uses in the 'South Coast' region, and 75.99 Mt of good quality permitted reserves suitable in the 'East English Channel' region.
- 4.2 In 2016, Hampshire received 1,597,123 tonnes of its marine-won aggregates from the 'South Coast' region and this was 99.1% of the total dredged marine-won aggregate landed in this year for the county.
- 4.3 The Crown Estate has indicated that based upon the 10 year average annual extraction rate of 3.57 mt and the licences within the South Coast region, the life expectancy of the good quality primary aggregate reserves, can be

assessed as being over 25 years. In 2016, there was 3.10 mt extracted from the South Coast region indicating reserves would last 28.8 years at that rate of extraction.

**Figure 4: Location map of active wharves in Hampshire, 2016**



4.4 The level of marine-won sand and gravel sales at wharves in Hampshire is shown in Table 5. In 2016 the level of sales recorded was 1.55Mt, this is above both the 10 year (+14.8%) and 3 year (+4%) average sales. However this level has not increased on the level of sales recorded in 2015. Please see section 6 for more information on future capacity and sales at wharves.

**Table 5: Marine-won sand and gravel sales in Hampshire, 2007-2016 (Million tonnes, Mt)**

Year (yr)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Last 10 yr average	Last 3 yr average
Sales	1.69	1.44	1.08	1.12	1.17	1.1	1.43	1.36	1.55	1.55	1.35	1.49

**Footnotes**

Source: Aggregate monitoring surveys, 2007-2016

## 5. Crushed Rock

- 5.1 Hampshire 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.
- 5.2 Limestone is largely imported into Hampshire from quarries in Somerset by rail directly into three aggregate rail depots in the south of the county at Botley, Eastleigh and Fareham. In 2016, 396,665 tonnes of crushed rock imported from Somerset was sold at the rail depots. The location of the rail depots processing crushed rock imports is shown on the location map contained in Figure 5. In addition a similar amount of crushed rock is imported into Hampshire by road.

**Figure 5: Location map of active rail depots in Hampshire, 2016**



- 5.3 The crushed rock sales (from rail and sea imports) in Hampshire recorded over the last 10 years are detailed in Table 6. It is important to note that whilst a proportion of crushed rock sales are imported into Hampshire by road, data is only available for the years 2009 and 2014, so for the purposes of this report, imports by road are not included.
- 5.4 The crushed rock sales in 2016 were recorded at 0.42 Mt, this is in line with the 10 year average in sales but is 8.6% lower than sales in 2015 and 2014.

**Table 6: Crushed rock sales from rail depots and wharves in Hampshire, 2007-2016 (Million tonnes, Mt)**

Year (yr)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*	Last 10 yr average	Last 3 yr average
<b>Sales</b>	0.54	0.59	0.35	0.36	0.33	0.28	0.39	0.46	0.46	0.42	0.42	0.45

**Footnotes**

Source: Aggregate Monitoring Surveys, 2007-2016

\*24,344 tonnes were recorded at Hampshire wharves

5.5 In terms of exports of crushed rock, these are technically zero as Hampshire does not have its own source of crushed rock to export. However it is understood that a small amount of rail imported crushed rock arrives at Hampshire rail depots, to then be sold on outside of Hampshire via road exports.

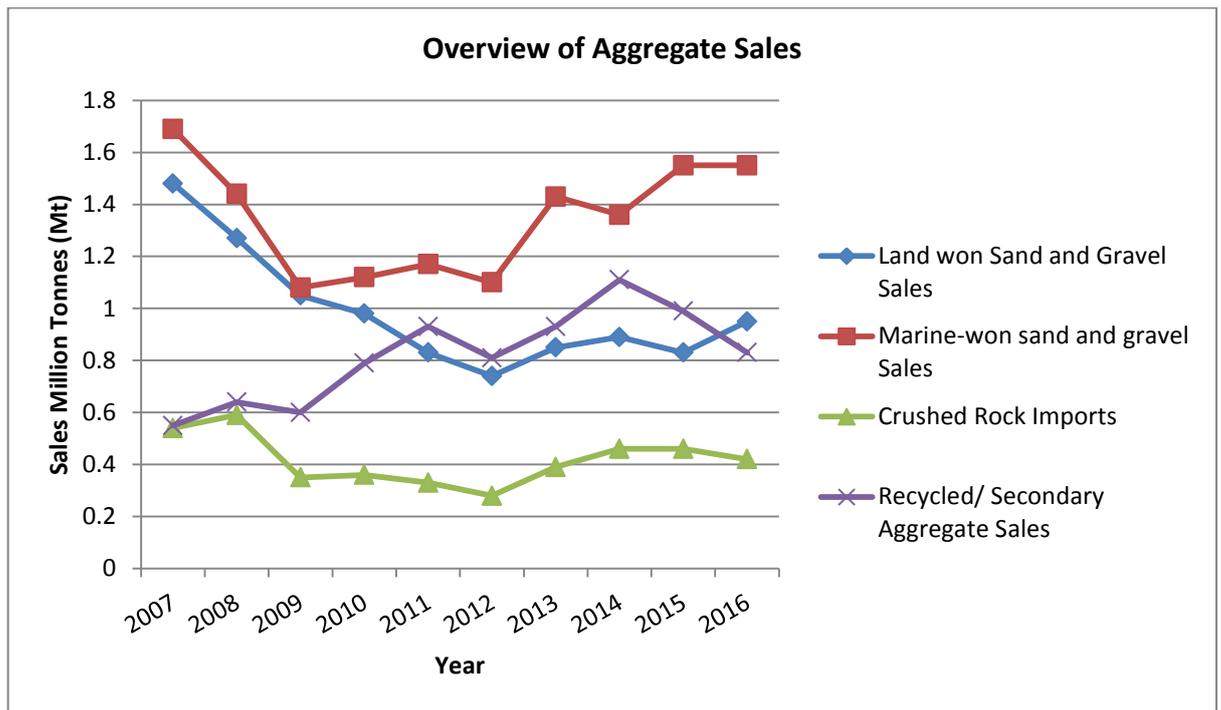
5.6 Somerset County Council confirmed that they have sufficient reserves to meet current needs and do not foresee any likely issues that would affect the future supply of crushed rock to the South East Region, which includes Hampshire. Should future demand increase, the issue lies with the capacity of the rail depots to manage a higher level of imports, rather than with future supply. Please see section 6 for further information on capacity at rail depots.

## **6. Overview of Aggregate Sales**

6.1 The sales of land-won sand and gravel, marine-won sand and gravel, crushed rock imports and recycled/secondary aggregates have been amalgamated and can be seen in Figure 6.

6.2 The sales of aggregates appear to follow the same overall trend, with the exception of recycled/secondary aggregates. All other sales decreased between 2007 and 2012, where upon the overall trend has been generally upward. Sales of Recycled and secondary aggregates however were increasing between 2007 and 2014, where upon sales have decreased year on year.

Figure 6: Overview of aggregate sales, 2007-2016 (Million tonnes, Mt)



## 7. Future Aggregate Supply

- 7.1 Infrastructure projects that are likely to place an additional demand of future aggregate demand in Hampshire relate to both housing and transport projects. There are in the region of 90,000 new homes planned within the Hampshire area. The single greatest development planned is within the Basingstoke and Deane area. In addition there are 10,000 new homes planned within the Fareham area, 6000 of which are part of the Welborne development and another development site Whitehill Bordon in East Hampshire.
- 7.2 There are a number of bypass projects planned as necessary transport infrastructure to accommodate the additional demand. In Fareham alone there is a £20 million Stubbington Bypass scheme being planned along with access improvements to the Welborne development which include improvements to the A32 corridor and M27 junction improvements, estimated to be in the region of £30 million. In Eastleigh, Botley bypass is being planned estimated at £20 million.
- 7.3 All of these projects are of significant scale to require the future demand to be accounted for in future aggregate supplies, over and above the annual infrastructure delivery programme. The Hampshire Strategic Infrastructure Statement (2017)<sup>5</sup> contains more information on the level of future development

<sup>5</sup> Hampshire Strategic Infrastructure Statement (2017) : <http://documents.hants.gov.uk/planning-strategic/HampshireStrategicInfrastructureStatement2017.pdf>

planned for the area, which cumulatively will place additional pressure on aggregate supplies.

- 7.4 In order to meet future aggregate demand, including the infrastructure projects discussed above, Hampshire needs to have a sufficient aggregate landbank and capacity available to import aggregate at rail depots and wharves. Greater emphasis should be placed on recycled and secondary aggregate sites to supply future demand.
- 7.5 In order to establish what impact future planned development is likely to have on aggregate demand and supply in Hampshire, figures for planned infrastructure have been reviewed. Table 7 shows the infrastructure delivered between 2010-2015 compared with the quantum of development planned between 2016-2020. There appears to be a significant uplift in the level of development and therefore it should be anticipated that there will be an increase in the level of demand for aggregate.
- 7.6 Whilst there is some information available for the time period beyond 2020, this is not available for all infrastructure categories and over matching time periods. For this reason it was considered appropriate to standardise the timeframe being reviewed for all infrastructure and provide a snapshot.
- 7.7 It should be noted that the figures contained within the years 2016 to 2020 are an estimate of future delivery and will be subject to potential changes in timescales as a result of external factors such as ‘Brexit’. The effect of Brexit on industry and development is yet to be realised, but the potential to influence the rate of infrastructure delivery is acknowledged in terms of labour. The Mineral Products Association recognises the uncertainty surrounding ‘Brexit’ needs resolution to prevent the current skills shortages from being exacerbated.<sup>6</sup> The impact of skills shortages through a reduced labour force would likely reduce aggregate demand due to reduced infrastructure delivery.

**Table 7: Levels of delivered and planned infrastructure**

	<b>2010-2015</b>		<b>2016-2020</b>		<b>Trend</b>
Dwellings	22,864		206,828		+
Schools	4 Primary	0 Secondary	13 Primary	4 Secondary	+
Roads	£373,070,000		£490,786,000		+

Source: Dwellings – District Local Plans in Hampshire / Schools – Hampshire School Places Plan 2017-2021<sup>7</sup> / Roads - ETE Capital Programme Monitoring (2017)<sup>8</sup>

<sup>6</sup> Mineral Products Association (2017) – Press release March 2017: <http://www.mineralproducts.org/17-release09.htm>

<sup>7</sup> Hampshire School Places Plan 2017-2021: <http://documents.hants.gov.uk/childrens-services/HampshireSchoolPlacePlan2017-2021.pdf>

7.8 The planned level of infrastructure construction appears to be significant uplift from the current build out rates and will require an increase in aggregate supply.

### Landbank

7.9 As reported in section 2, Hampshire does not meet the required NPPF seven year landbank. However it should be noted that there are a number of forthcoming applications which would substantially change the projected landbank figures. These are as follows:

- Kingsley Quarry – an application is expected to come forward for the extraction of 1 million tonnes of soft sand.
- Roeshot – current application expected to be determined in 2017 for the extraction of 3 million tonnes of sharp sand & gravel. It is worth noting that this is an allocated site.
- Forest Lodge – application approved in early 2017 for the extraction of 468,000 soft sand and sharp sand & gravel.

7.10 If the extraction figures listed in 6.5 are included within the permitted reserve figures for Hampshire, the reserves would stand at 15.2 Mt. The implications of these applications would substantially increase the projected landbank figures for Hampshire to 9.7 years, based on local requirements. Therefore, whilst the reported landbank figures appear to be low, there are no foreseen issues with aggregate supply to delivering future infrastructure in the short term.

7.11 Policy 20 of the Hampshire Minerals and Waste Plan identified sites for local land-won aggregates. Table 8 lists the allocated sites which have not had applications yet, but which if implemented could contribute to the land-won aggregate supply in Hampshire, demonstrating a future available supply.

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<sup>8</sup> ETE Capital Programme Monitoring, Executive Member for Transport and Environment Report 19 January 2017

**Table 8: Allocated sites for land-won aggregates**

Site	Amount (mt)	Aggregate
Bleak Hill Quarry Extension	0.5	SS+G
Bramshill Quarry Extension	1.0	SS+G
Cutty Brown	1.0	SS+G
Hamble Airfield	1.5	SS+G
Purple Haze	4.0	SS and SS+G
<b>Total</b>	<b>8.0</b>	

**Footnotes**

Source: Hampshire Minerals and Waste Plan 2013

Note: Roeshot is excluded from the allocated sites list as it is a current application

7.12 If the anticipated applications for sand and gravel sites as listed in 7.9 were included in the available supply figure, the landbank for Hampshire would increase from 5.71 years to 7.67 years based on the local requirement. If the allocated sites listed in table 8 were included the reserve figure, the landbank would increase to 12.80 years based on the local requirement. Based on the 10 year sales average, the landbank figure increases to 22.4 years demonstrating that there is a future supply planned for Hampshire.

**Table 9: Adjusted Landbank figures with future applications and allocated sites**

	Permitted Reserve (mt)	Landbank based upon Local Requirement (years)*	Landbank based upon 10yr average sales (years)	Landbank based upon 3yr average sale (years)	Landbank based upon 2016 sales (years)
<b>Current SS+G Reserves</b>	8.9	5.71	8.99	10.00	9.37
<b>Current/ Anticipated SS+G Applications</b>	4.47	2.87	4.52	5.02	4.71
<b>SS+G Allocated sites</b>	8.00	5.13	8.08	8.99	8.42
<b>Total</b>	19.97	12.80	20.17	22.44	21.02

Current/Anticipated Applications include Kingsley Quarry 1Mt, Roeshot 3Mt and Forest Lodge 0.468Mt

7.13 In addition, to support a steady future supply of aggregate in Hampshire, Policy 18 of the Hampshire Minerals and Waste Plan states that the production of recycled and secondary aggregate production will be supported by encouraging investment and further infrastructure to maximise the availability of alternatives to marine-won and local land-won sand and gravel extraction. This will help to address the current landbank figures. However, whilst the market share of recycled and secondary aggregates has increased, the Mineral Products

Association view<sup>9</sup> is that the use of these aggregates may be nearing their full potential in Britain and that there will still be a reliance on land-won and marine-won aggregates. There will therefore, be a need to plan for both infrastructure to sustain the demand for recycled and secondary aggregates, as well as land-won and marine-won aggregates.

## Capacity

- 7.14 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 10. 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.
- 7.15 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 in Hampshire currently. Table 10 indicates that for land-won aggregate, there is the potential for sales to be on average 20% higher than currently recorded, with sites currently producing at an average rate of 80% capacity. However land-won sales are dictated by the needs of industry.
- 7.16 It can be seen that currently there is future capacity to accommodate an increase in demand, particularly on recycled and secondary aggregates which has the potential to provide almost an additional 1mt over the current demand of 0.75 Mt. In 2016, it is shown that there was a spare capacity of 66% for managing recycled and secondary aggregate.
- 7.17 It is worth noting that not all operators returned information on capacity, and therefore the capacity data provided is not 100% accurate. This is stressed with wharf capacity, as with only 2/6 sites returning capacity information it appears that the wharves are already working at 100% capacity. However, due to the inaccuracies in the survey, this can be assumed not correct.

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<sup>9</sup> Mineral Products Association (2017) – Recycled Aggregates:  
[http://www.mineralproducts.org/prod\\_agg\\_recy01.htm](http://www.mineralproducts.org/prod_agg_recy01.htm)

**Table 10: Total sales and estimated production capacity, 2016 (Million tonnes, Mt)**

	<b>Sales (mt)</b>	<b>Capacity (mt)</b>	<b>% Sales/ Production</b>
<b>Land-won Aggregate</b>	0.95	1.13	84%
SS	0.2	0.25	80%
SS+G	0.75	0.88	85%
<b>R/S sites</b>	0.83	1.8	46%
<b>Wharves</b>	1.55	1.57*	99%*
<b>Rail Depots</b>	0.4	1	40%

**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

7.18 Capacity information will become increasingly important in future years, particularly pertaining to wharves and rail depots. A recent study<sup>10</sup> by the Mineral Products Association suggested that a nationally, there could be a decrease in the demand for land-won aggregates over time, substituted instead by marine-won aggregate. Hampshire is considered to fit this scenario based on recent sales data, so it will be vital to ensure that the capacity of wharves and rail depots in Hampshire is able to keep pace with sales. Currently the rail depots would appear to have sufficient capacity to cope with an increase; however the data shows that wharves do not appear to have the same tolerance, due to the partial completion of survey responses.

7.19 The initial study work undertaken as part of the plan making process indicated that there was sufficient capacity at wharves to accommodate a substantial increase in sales, as at the time of the study work sales at wharves had dropped considerably lower than those of previous years. However this survey indicates that there is not sufficient headroom to allow for an increase in sales as was initially thought in the Minerals Plan. This places greater emphasis on the need to monitor the sales and capacity to ensure that the Hampshire Minerals and Waste Plan can respond positively to any changes in supply or demand. In doing so, there may be a potential need to identify new wharf infrastructure, as outlined in Policy 34 of the Hampshire Minerals and Waste Plan to ensure a steady supply of aggregate.

<sup>10</sup> Long-term aggregates demand & supply scenarios 2016-30, Mineral Products Association (2017)

## **8. Conclusions and review of the Local Aggregate Assessment**

- 8.1 This LAA has shown that Hampshire's local aggregate provision will not impact on the wider South East region as a whole. This is a key issue as Hampshire is a net exporter of land-won sand and gravel but also imports and exports occur with neighbouring and non-neighbouring mineral planning authorities.
- 8.2 This document highlights that although there is generally a surplus in aggregate handling capacity there may be a need for additional infrastructure, particularly with regard to meeting Hampshire's needs for land-won mineral extraction and wharf capacity up to 2030 and beyond. The need for any additional infrastructure, such as the further requirement for land-won extraction, will be identified through the LAA and the HMWP monitoring indicators which will highlight any developing issues.

## Appendices

### Appendix A – Silica Sand

Silica sand (also referred to as ‘industrial sand’) is used in industrial processes, not in the construction industry. For this reason silica sand sales have been excluded from the assessment of land-won aggregates.

Table A lists the permitted sand and gravel quarries in Hampshire, with only two quarries providing Silica sand; Frith End Quarry and Kingsley Quarry. It is acknowledged that resources at Kingsley and Frith End quarries have properties with silica sand uses. Historical data identified the quarries as sources of soft sand only. This means that the sites are included in the data of previous years’ LAA reports for soft sand.

**Table A - Permitted silica sand quarries in Hampshire**

Site	Operator	Aggregate			Status
		SS & G**	Soft Sand	Silica Sand	
Frith End Quarry, Sleaford	Grundon		✓	✓*	Active
Kingsley Quarry, Kingsley	Lafarge Tarmac		✓	✓*	Active

\* Resources have been traditionally identified as soft sand. These resources can now be classified as silica sand as well as soft sand.

**Source:** Aggregates Monitoring Survey 2016

Paragraph 146 of the National Planning Policy Framework (NPPF) states that *‘Minerals planning authorities should plan for a steady and adequate supply of industrial minerals by providing a stock of permitted reserves to support the level of actual and proposed investment required for new or existing plant and the maintenance and improvement of existing plant and equipment’*. In terms of individual silica sand sites, the NPPF states that this should be for *‘at least 10 years’*.

In addition, the Minerals National Planning Practice Guidance (2014) states that *‘The required stock of permitted reserves for each silica sand site should be based on the average of the previous 10 years sales. The calculations should have regard to the quality of sand and the use to which the material is put.’*<sup>11</sup>

On the basis of current national planning guidance outlined above, silica sand reserves for Hampshire have been calculated and are shown in Table B.

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<sup>11</sup> NPPG Minerals (2014) - <https://www.gov.uk/guidance/minerals>

As only two sites provide sales data for silica sand, for reasons of commercial confidentiality, sales data can only be published as a three year average. For the period 2014-2016, the 3-year sales average for silica sand in Hampshire was 71,445 tonnes. This is a small decrease from the previous 3-year average (2013-2015) of 73,285 tonnes. An increase in non-aggregate sales at Frith End and Kingsley is likely to lead to a more rapid depletion of soft sand reserves as resources at these locations can be classed as both soft sand and silica sand. More information on soft sand and silica sand supply options is set out in the 'Minerals in Hampshire' Report.<sup>12</sup>

**Table B - Hampshire Permitted Reserve (years)**

	<b>Permitted Reserve (million tonnes)</b>	<b>Date (when permitted reserve recorded)</b>	<b>Reserve based upon Local Requirement (years)*</b>	<b>Reserve based upon 10yr Average sales between 2005-2016 (years)</b>	<b>Reserve based upon 3yr Average sales between 2014-2016 (years)</b>	<b>Reserve based upon 2016 Sales (years)</b>
<i>Silica Sand*</i>	c	31.12.2016	c	c	2.9	2.7
	*Please note that the Silica Sand permitted reserve is incorporated into the Soft Sand landbank as the resources can be classed as either Soft Sand or Silica.					

**Source:** Aggregates Monitoring Surveys and Hampshire Minerals & Waste Plan (2013)

<sup>12</sup> HMWP – Minerals in Hampshire:  
<http://documents.hants.gov.uk/mineralsandwaste/HMWP100bMineralsinHampshirev7-SubmissionRevisedFeb2013.pdf>

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