

# East Sussex, South Downs and Brighton & Hove Draft Local Aggregate Assessment

December 2014



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# Executive Summary

## Executive Summary

### Executive Summary

The first East Sussex, South Downs and Brighton & Hove Local Aggregate Assessment (LAA) was published in December 2013. This document has been updated and represents the second LAA for the mineral planning authorities of East Sussex County Council, Brighton & Hove City Council and South Downs National Park Authority. This LAA is based on the Plan Area for the East Sussex, South Downs and Brighton & Hove Waste & Minerals Plan which was adopted in February 2013. This year's LAA examines updates to the position on aggregates supply and demand since the time of last reporting in 2013.

The 2013 LAA concluded that a significant proportion of local consumption was derived from either marine dredged material, crushed rock or land won aggregates extracted from outside the Plan Area. The Plan Area, especially the western end, was found to be very dependent on marine landings. With regard to imports, the LAA reported that the land-won contribution previously received from Kent had ceased, and that East Sussex is now supplying Kent. The small contribution from West Sussex Railheads, and marine landings, including crushed rock, as well as recycled and secondary aggregates, were also supplying East Sussex and Brighton & Hove and this was expected to continue.

With regards to land-won aggregates the 2013 LAA concluded that the past 10 years sales data could not be used as it is too volatile; there is a very small number of production sites and therefore there has been major variations in sales figures from nothing to more substantial output. Given these circumstances, the Authorities are continuing to use the provision figure in the Adopted WMP - in actual terms the 10 years sales equates mostly to this figure, but this utilises confidential information.

In preparing the 2014 LAA, the overall trends in the components of aggregate supply and consumption have not been found to have altered. The lack of a comprehensive land won resource in the County means that there is an expectation that marine imports will continue to be a major source for construction use in the Plan Area.

Whilst a decrease of imports was experienced at Newhaven and Shoreham Ports over 2013, new rail imports of crushed rock were established during 2014 at Newhaven. The development of a Statement of Common Ground on safeguarding minerals wharfage at Shoreham Port strengthens aims to protect wharf capacity from redevelopment and to support and increase marine imports.

With regards to land-won supply there has been some increased production over the last year at Lydd Quarry. The Authorities will continue to monitor closely the situation on aggregate supply.

# Introduction 1

## 1 Introduction

1.1 The first East Sussex, South Downs and Brighton & Hove Local Aggregate Assessment (LAA) was published in December 2013. This document has been updated and represents a draft of the second LAA for the mineral planning authorities of East Sussex County Council, Brighton & Hove City Council and South Downs National Park Authority. This LAA is based on the Plan Area for the East Sussex, South Downs and Brighton & Hove Waste & Minerals Plan which was adopted in February 2013, and covers the administrative area of East Sussex and Brighton & Hove including those parts that lie within the South Downs National Park.

1.2 The National Planning Policy Framework states that mineral planning authorities should plan for a steady and adequate supply of aggregates by preparing an annual LAA based on a rolling average of 10 years sales data and other relevant local information. The LAA should include an assessment of all supply options including land won, marine dredged, secondary and recycled sources.

1.3 The National Planning Practice Guidance (NPPG) indicates that a LAA should contain three elements:

- a forecast of the demand for aggregates based on the rolling average of 10-years sales data and other relevant local information;
- an analysis of all aggregate supply options, as indicated by landbanks, mineral plan allocations and capacity data e.g. marine licences for marine aggregate extraction, recycled aggregates and the potential throughputs from wharves. This analysis should be informed by planning information, the aggregate industry and other bodies such as local enterprise partnerships; and
- an assessment of the balance between demand and supply, and the economic and environmental opportunities and constraints that might influence the situation. It should conclude if there is a shortage or a surplus of supply and, if the former, how this is being addressed

1.4 The NPPG also gives further details on the aggregate supply options including:

- recycled aggregates, including from construction, demolition and excavation waste;
- secondary aggregates, whose sources come from industrial wastes such as glass, incinerator bottom ash, railway ballast, and scrap tyres; and industrial and minerals by-products;
- marine aggregates from The Crown Estate. Information will cover the areas licensed by the Marine Management Organisation for marine sand and gravel dredging and, as they are prepared over time, Marine Plans. The Marine Policy Statement (MPS) is used as the overarching UK policy framework for the production of marine plans and in the absence of an adopted marine plan the MPS will inform decisions in the UK marine area.;

# 1 Introduction

- imports into and exports out of the minerals planning authority area. The minerals planning authority must capture the amount of aggregate that it is importing and exporting as part of its Assessment; and
- land-won resources, including landbanks and site specific allocations.

1.5 It should be noted that there are particular circumstances in this Plan Area that mean that it is difficult to prepare the LAA totally along the lines indicated in the NPPG. The 2013 LAA concluded that the assessment could not use past 10 years sales data as this was too volatile because there is a very small number of production sites and therefore there has been major variation in sales figures from nothing to more substantial output. The LAA instead used the Apportionment figure in the Adopted WMP as a surrogate figure for sales. The 2014 LAA examines the latest information available and sets out revisions to last year's data.

## Geology and mineral uses 2

# 2 Geology and mineral uses

2.1 Geologically, sand and gravel aggregate resources within the Plan Area are limited to relatively small outcrops of the sand in the Folkestone Beds, river gravels and foreshore deposits of sand and gravel. Sharp sand and gravel, and soft sand can have different uses. Sharp sand and gravel are primarily used for concreting purposes and this is an essential raw material for the construction industry. Building sand is largely used as fine aggregate in the production of concrete, mortars and asphalt. Both types of material can be used as fill. There are no sand and gravel reserves within the boundary of Brighton & Hove.

2.2 The Folkestone Beds comprise the uppermost division of the Lower Greensand and consist of loosely consolidated fine grained quartzose sands. The outcrop of the deposit is very limited consisting of a narrow strip in the western part of the Plan Area, running eastwards from Ditchling for a relatively short distance. The fine grained nature of the sand means it readily meets British Standards for mortar sand.

2.3 The foreshore resource comprises extensive storm beach deposits along the coast. The wedge shaped accumulations consist almost entirely of flint with only a small proportion of sand. The main areas are between Winchelsea Beach and Rye Harbour, and, the western part of Dungeness around Camber. The resource is mostly used in concreting.

2.4 Substantial marine aggregate resources lie along the South East coast and in the English Channel which are widely extracted under licence by several aggregate companies with landings made at numerous wharves in the region. There are some landings at Shoreham Harbour within Brighton & Hove on the border with West Sussex, and until recently, at Newhaven Port. Crushed rock from various sources is also landed at Shoreham, Newhaven and also Rye Port. Other wharves used for marine dredged material are within the Thames Estuary and Hampshire.

2.5 Marine aggregates can yield both sand and gravel. Marine dredged aggregates are mostly utilised for concreting purposes, whilst crushed rock of various types is used locally in an unprocessed form for road construction or subsequently processed for the manufacture of coated roadstone products.

2.6 There are no hard rock aggregate reserves in the Area. Chalk has been the subject of significant levels of quarrying in the past, notably for the cement industry and to produce lime mortar and agricultural lime. Chalk also has the potential to yield crushed rock aggregate fill. However, all chalk extraction operations have now ceased and chalk is unlikely to make anything other than a minor contribution to aggregate production in the area in the foreseeable future.

2.7 A geological plan (Map 1) is included at the end of this document.

## 3 Demand

# 3 Demand

### Past Demand

#### National & Regional Guidelines for Aggregates Provision in England 2005 to 2020

3.1 For the Plan Area "demand" is a difficult part of the LAA to determine. This is partly because the consumption picture cannot be ascertained with any certainty (see paragraphs below). The NPPG states that the Government's national and sub-national guidelines serve a purpose of providing individual minerals planning authorities, where they are having difficulty in obtaining data, with some understanding or context of the overall demand and possible sources that might be available.

3.2 The most recent guidelines - National and Regional Guidelines for Aggregates Provision in England 2005 - 2020 - reflect the overall fall in national demand for aggregates and an increase in use of alternatives to primary aggregates, especially recycled construction and demolition waste. The guidelines are based on outputs from an econometric model of the relationship between construction and aggregate consumption to predict future aggregate need. The main driver of aggregates demand is construction activity, although the Government has recognised that the relationship between the two appeared to weaken in the 1990s. Also there may be changes in aggregate intensity of use for each type of construction. Additionally, the problem of insufficient recycled /alternative aggregate data remains.

#### National Infrastructure Plan

3.3 The Government published the National Infrastructure Plan in October 2010, outlining its vision for the future of UK economic infrastructure. The Plan contains major commitments for investment in important infrastructure projects, such as road and rail improvements. An infrastructure delivery update issued in March 2014 shows progress made on the top 40 priority investment areas. None of the identified projects are located in the East Sussex and Brighton & Hove area, but others in the region may well have had an effect on the demand for aggregates in the locality.

#### Past Sales as indicator

3.4 Using past sales data to assess demand is also problematic in the Plan Area. Data for previous extraction has mainly been confidential and therefore unable to have been published. In addition, with so few sites local sales figures are subject to large production swings and therefore trends cannot be used as a general indicator of demand. For example, at Lydd Quarry up until 2011, production took place in Kent with no returns for East Sussex. Now extraction is all in East Sussex and the operator considers that about half of the aggregate raised is consumed in Kent. Similarly after some years of no soft sand returns, Novington sandpit started extraction in 2007.

## Demand 3

### Substitute local demand indicators

**3.5** It must be assumed that as development has taken place in East Sussex and Brighton & Hove, net demand for constructional materials must have been met by a combination of land won aggregates, marine landings, imports and recycled and secondary aggregates.

**3.6** Consumption data from the British Geological Survey (BGS) indicates how much aggregate is used in the area and this can also assist in building up a picture of "local" demand (see Appendix B and Map 2 for more detail). The latest available figures for 2009 show that the Plan Area consumed 80 000 tonnes of land -won sand and gravel, 618 000 tonnes marine sand and gravel, and 199 000 tonnes crushed rock giving a total of about 897 000 tonnes total primary aggregates. Production of recycled and secondary aggregates in 2009 could have been about 250,000 tonnes (see paragraph 4.21).

**3.7** The land won sand and gravel in 2009 referred to above came almost entirely from outside the Plan Area. There is also limited destination data on past movements of marine and crushed rock imports. Given the likely economic limits on transporting aggregates by road (approximately 45 km or 30 miles - although there have been examples where this distance has been exceeded it is likely that the East of Plan Area is provided by sharp sand and gravel from Lydd quarry, marine landings and imports; and that the Western Area is served by marine and imports. It is assumed that for soft sand the Eastern end of the Plan area is served by imports; and that the Western area is served by Novington and imports.

**3.8** The Government is currently processing a request for the next national four yearly Aggregate Minerals (AM) Survey. It is anticipated that this survey will be carried out in 2015 and will be based on 2014 data. In a wider context, the SEEAWP Aggregates monitoring report (AM2013), indicates a similar consumption pattern to that shown in 2009; namely that the South East consumed between 16Mt and 17Mt of primary aggregates, and was a small net exporter of both land-won sand and gravel and marine aggregate, but a major importer of hard rock (principally from the South West).

**3.9** It may be appropriate to consider locally derived figures such as construction rates of housing and major infrastructure projects over the last decade. Between 2003 and 2013 there were some 21 326 housing completions in East Sussex and Brighton & Hove. Major infrastructure projects which have been completed in the last 10 years include; Peacehaven Waste Water Treatment Works, Maresfield Woodlands in vessel composting site, Newhaven Energy Recovery Facility, The Keep, B&HA Stadium, Brighton Station developments, Amex House, Jubilee Library and surrounding area, City Park office development, Hollingdean waste facilities and the Royal Alex children's hospital. Construction of the Bexhill Hastings Link Road (BHLR) has also taken place during this period. Further details of previous housing and major developments in East Sussex and Brighton & Hove are set out in the Appendix A.

## 3 Demand

**3.10** Another measure of demand could be the sources of aggregate used in the plan area. The MASS guidance states that MPAs "should have regard to the intended use of each source of aggregate. There are some uses e.g. Construction fill for which the source may not be important. However, for some uses, it will be necessary to ensure that the quality of the aggregate is appropriate and MPAs should plan accordingly". Some of this information is set out in the previous chapter "Geology and Minerals Uses". In order to obtain detailed data on the types and sources of aggregates used in East Sussex and Brighton & Hove, a survey of aggregate users (such as building contractors, tarmacadam producers) could be carried out. Consideration will be given to undertaking this in the future as a means of refining data for the LAA. Some study of data on aggregate sources for the BHLR has been carried out this year - more details are given in Appendix A.

### Future Demand

#### National & Regional Guidelines for Aggregates Provision in England 2005 to 2020

**3.11** The forecasting model used to calculate the national and regional guidelines utilises predicted growth in gross value added in the construction sector to extend the input data up to 2020. Between 2000 and 2011, annual consumption was expected to increase by about 5%. Resulting rates of construction demand were then extrapolated. The results indicated a reduced demand for primary aggregates even though a growth in construction activity was envisaged.

**3.12** These predictions now have to be treated with caution as there has been an ongoing economic downturn with the national economy almost flat. However, the Government is predicting a return to growth in the coming years.

**3.13** The Minerals Product Association (MPA) reports <sup>(1)</sup> "Aggregates sales have been depressed since the onset of the recession in 2008, reflecting the significant decline in construction markets, but are now showing the early indications of recovery". In August 2014 the MPA reported that "Following the significant improvement in sales volumes of mineral products from mid 2013, the latest MPA sales volumes indicate further improvement in the first half of 2014".

### Forecast of Demand

**3.14** As indicated above, a LAA for the Plan Area based on a rolling average of 10 years sales data is not considered appropriate. Over half of the 10 years period would be zero returns and the rest is a confidential figure due to individual sites being involved. The figure is too volatile and is not a good indicator of demand.

### Other Relevant Local Information

**3.15** The NPPG indicates that a LAA could utilise other relevant local information. Details on the local economy are set out in [Waste & Minerals Plan Information Paper 6 \(Spatial Portrait of East Sussex, Brighton & Hove and the South Downs\)](#).

<sup>1</sup> The mineral products industry at a glance - key facts 2014 MPA

## Demand 3

**3.16** The level of planned infrastructure in the area can assist in assessing local demand for aggregates. Allocations in Local Plans and Infrastructure Development Plans (IDPs) can indicate future levels of local demand. Six major areas of development requiring new or revised infrastructure provision in the next few years are identified in the Brighton & Hove IDP. In addition, there are eight strategic Development Areas set out in the submission City Plan where large scale redevelopment is expected over the Plan Period (up to 2030). These developments and infrastructure (which include residential units) will require a supply of aggregates in their construction. A proposed Main Modification to the City Plan Part One proposes an additional allowance of 1,060 dwellings in the urban fringe. This was agreed by Members at the City Council's Policy & Resources Committee on 16th October and will now be subject to a six week period of public consultation. Further details of possible allocations in Brighton & Hove are set out in the Appendix A.

**3.17** An assessment of IDPs covering East Sussex specify a large range of services (including school and hospital provision, and leisure facilities) which may need constructional materials. There are also a number of employment allocations identified in East Sussex Local Plans. Further details are set out in the Appendix A.

**3.18** Assessment of the level of housing development needed for the next 10 years or more can also help to indicate the level of demand locally for construction aggregates. At least 29 000 housing units are proposed in East Sussex from now and up to 2030. Details of possible housing allocations in Brighton & Hove are referred to above and set out in the Appendix A. It could be that given the current pressure for housing sites regionally there may be even more development forthcoming than identified in submitted/adopted plans. This could lead to a greater need for aggregates.

### **Previous Apportionment Figures for Land Won Aggregates**

**3.19** Land won aggregates extraction in the Plan Area has been patchy for many years. In terms of the more distant past, some beach deposits were extracted in the 1980s but ceased in 1991. There was some further activity followed by a period of no operational sharp sand and gravel sites before extraction commenced for a few years at Lydd Quarry near Camber. The position with soft sand was similar with small extraction followed by years of inactivity.

**3.20** Consequently by the time of the South East Plan, the sub regional apportionment for the Plan Area based on average sales over the previous seven years period discounting years with highest and lowest sales was 10,000 tonnes per annum.

**3.21** The Partial Review of Regional Spatial Strategy for the South East Policy M3 Primary land-won aggregates and sub regional apportionment proposed alternative apportionments. The Submitted Review in March 2009 identified special cases where the methodology should be modified and it was proposed that East

## 3 Demand

Sussex's apportionment should be limited to 0.1m tonnes per annum to reflect actual availability of resources and deliverability. The Examination in Public Panel noted that the previous RPG9 Panel had identified that East Sussex had very little remaining resource and had recommended a small apportionment. The Panel felt that there was no evidence to take a different view and the Panel agreed the apportionment should be capped at 0.1m tonnes per annum. The Secretary of State's Proposed Changes to Policy M3 endorsed this finding, noting that 0.1m tonnes per annum reflected actual availability of resources.

**3.22** Whilst the South East Plan has now been abolished, Mineral Planning Authorities have been previously recommended to use the figures from the consultation by the Secretary of State on Review of South East Plan Policy M3, published in 2010 as a starting point for provision, unless the planning authorities have new or different information and a robust evidence base.

**3.23** It should be noted that the NPPG refers to apportionments by the Aggregates Working Party but this has not yet been undertaken by the South East England Aggregates Working Party.

### Conclusion on Demand

**3.24** Consumption of primary aggregates was about 897,000 tonnes in 2009 plus a possible consumption of 250,000 tonnes of recycled and secondary aggregates. Future demand rates will very much depend on the regional economy's response to the recent downturn in economic activity and how intensively primary aggregates are used. Over the time period to 2026, the reduced economic activity anticipated in the immediate years is likely to be counterbalanced by increased activity in the latter period. It could therefore be a working assumption that on average, demand will most likely reflect the previous 10 years' requirements.

**3.25** The sources of aggregate are unlikely to change much in the short term and the current supply chains to consumption could be expected to fulfil demand for some years.

**3.26** For the reasons stated in the Demand Section above, the forecast of primary land won aggregate demand for the Plan Area will not be based on 10 years sales data. As a substitute it is proposed to use the apportionment figure of 0.1m tonnes per annum proposed in the Secretary of State's Changes to Policy M3 of the South East Plan and utilised in the adopted Waste and Minerals Plan as the principal local indicator of demand.

**3.27** As discussed in the past demand section, in order to assess the types of aggregates required in the future a survey of users may be carried out as a future refinement to the Local Aggregates Assessment. In particular, it could be useful to determine whether there is likely to be enough of the right type and quality of aggregate in the future for particular uses. The Authorities will endeavour to carry out such a survey in advance of next year's LAA and AMR.

## Demand 3

**3.28** Trends in demand related to economic activity will also be monitored.

## 4 Supply

# 4 Supply

### Previous Supply Sales

#### Land-won sales/production

4.1 A new permission for extraction of building sand at **Novington sandpit** (Stanton's Farm) was granted in October 2003 and extraction started in September 2007 of a total reserve of approximately 380,000 tonnes of sand & gravel. The site is located in the South Downs National Park. Annual extraction figures over the last few years are unavailable due to confidentiality constraints. There is no extraction of soft sand currently taking place at the site.

4.2 There are also large scale permitted reserves in the far east of the County, around **Scotney Court and Wall Farm**. These two permissions, totalling approximately 4.1 million tonnes of sand & gravel, are part of a larger permission for **Lydd Quarry** which straddles Kent and East Sussex. Production started within East Sussex in 2011. These have been considered as long term allocations for East Sussex and Brighton & Hove.

4.3 Whilst production figures at **Lydd Quarry** have previously been subject to confidentiality the operator Brett has made information available to assist in the preparation of the Local Aggregate Assessment. The operator also considers that Lydd Quarry sales are split between East Sussex and Kent on an approximate 50/50 basis. However, the consumption data supplied by BGS for 2009 when Lydd Quarry operations were totally in Kent infers for that year, only 19% of sales were consumed in the Plan Area.

Year	Sales Volume (Tonnes)
2004	345,298
2005	290,565
2006	300,860
2007	311,797
2008	312,118
2009	359,745
2010	359,250
2011	199,032
2012	353,371
2013	414, 348

Table 1

## Supply 4

4.4 There are two sand and gravel sites to the east of the County at Nook Beach and Castle Water which are affected by significant environmental constraints. The Castle Water site is classified as a "dormant" permission, and is now managed as a nature reserve. The planning permission which previously covered Nook Beach has recently ceased to have effect as no application for the review of conditions (known as a ROMP application) was received by the relevant review date earlier this year. No further extraction at Nook Beach is therefore permitted under the previous planning permission.

### Marine imports-throughput and sources

4.5 There are three Ports within the Plan Area. The Ports of Shoreham (partial), Newhaven and Rye accommodate various minerals wharves as shown in Table 2:

Port	No. of Wharves	Active in monitoring period
Shoreham	3	1
Newhaven	5	1
Rye	2	Not known

Table 2 Active Wharves in the Plan Area 2013

4.6 Table 3 below details figures from South East Regional reporting (and other sources) for landings of marine dredged sand and gravel for Rye and Newhaven ports over the last 13 years.

# 4 Supply

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 <sup>(1)</sup>	2011 <sup>(2)</sup>	2012	2013
Sand and Gravel	346	430	350	323	302	229	202	217	205	106 <sup>(3)</sup>	155	c	78 <sup>(4)</sup>	27
Crushed Rock	164	37	176	176	176	93	117 <sup>(5)</sup>	181	145	145	129	c	n <sup>(6)</sup>	c
<b>Total</b>	<b>510</b>	<b>467</b>	<b>526</b>	<b>499</b>	<b>478</b>	<b>322</b>	<b>319</b>	<b>398</b>	<b>350</b>	<b>249</b>	<b>284</b>	<b>c</b>	<b>N/a</b>	<b>c</b>

**Table 3 Aggregate Imports and Marine Dredged Material Landed at East Sussex Ports 2000-2011 / 000 tonnes**

1. estimated from regional data
2. C =confidential/no return submitted
3. based on new data from NPMP
4. Crown Estate 2012
5. based on new data from NPMP
6. n=no data available

# Supply 4

4.7 The following graph shows the figures set out in the previous table.

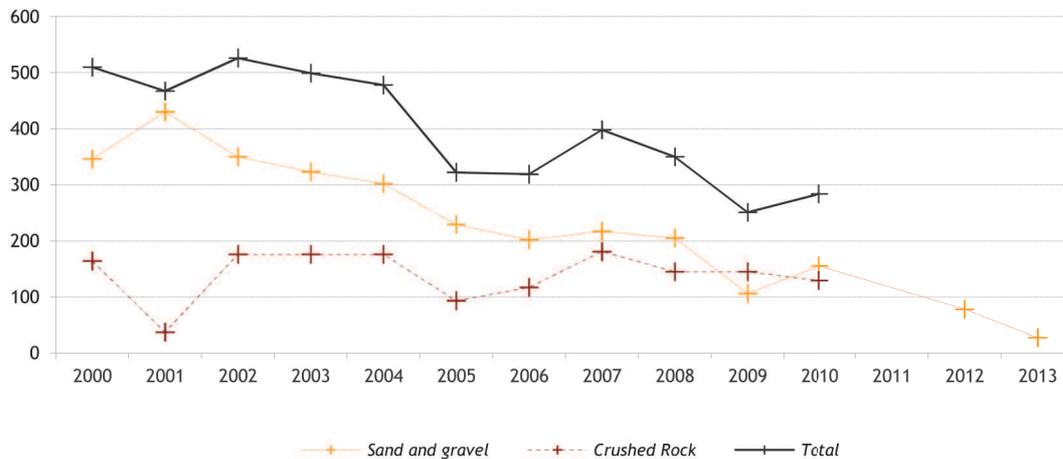


Figure 1 Aggregate Imports and Marine-Dredged Material (showing only data available in the public domain)

4.8 No returns were submitted for the AM2013 operators' survey for Rye Port and therefore no data is available for 2013 from this source. Crushed rock imports were received at Newhaven Port during 2013 but figures are confidential. Recent data from the Crown Estate for 2013 indicates that 27 211 tonnes of marine dredged material was imported at Newhaven. There appear to be no marine dredged imports at Rye in 2013.

4.9 Using information from other sources than surveys can give a useful picture of overall trends. For example, data from the Crown Estate indicates that marine dredged imports went up between 2009 and 2010, but were down in 2011 at both Newhaven and Rye Ports. According to the Newhaven Port Masterplan (2012) crushed rock imports decreased between 2008 and 2010 at Newhaven Port.

4.10 The County Council has been advised of the closure of plant at Newhaven Port and that marine dredged aggregate imports ceased from May 2013.

4.11 There are three wharves located at Shoreham Harbour that fall within the Brighton & Hove boundary. Historically, Shoreham Harbour data has been collected by West Sussex County Council, as the majority of the Port lies within West Sussex. The LAA is unable to publish landings figures just for the Brighton & Hove wharves due to the commercial sensitivity of releasing figures for one active wharf. However, regional information published by the Crown Estate indicate that the amount of marine dredged material imported into Shoreham Port as a whole increased between 2009 and 2011. For 2012, the total of marine dredged primary aggregates imported at Shoreham was 1 052 976 tonnes, representing a small decrease on the previous year. In 2013 imports of aggregates to the Port were down 6% on the 2012 figures (at 1 029 108 tonnes).

## 4 Supply

**4.12** Substantial deposits of **sand and gravel** exist on the seabed of the East England Channel (EEC) region and to a lesser extent the the South Coast region. The EEC has 6 production licences and dredging activity in these areas began in Autumn 2006. Material from the EEC is often destined for wharves on the River Thames, but some material is landed on the South Coast including at Newhaven. Material from South coast licences is often landed at Shoreham Harbour<sup>(2)</sup>.

**4.13** Detailed statistics on delivery of marine dredged aggregates are set out in "The area involved - 15<sup>th</sup> annual report "by the Crown Estate and The British Marine Aggregate Producers Association (no update for 2013 is available). During 2012, 1.03% of the tonnage dredged from the EEC region (0.04mt) was delivered to the ports within the EEC region (which includes Newhaven), and 0.14% (0.005mt) was delivered to the South Coast (which includes Shoreham). During the same period, 62.44% of the tonnage dredged from the South Coast licences (2.27mt) was delivered to the South Coast, and 3.8% (0.14mt) was delivered to the EEC. In addition, the South Coast region also received amounts of marine dredged material from the Humber, East Coast, and Thames regions. The EEC also received a small amount of marine aggregate from the East Coast region licences.

### Imports

**4.14** Of the total 698 000 tonnes sand and gravel (**land-won and marine**) **consumed** in East Sussex and Brighton & Hove<sup>(3)</sup>: 16% was supplied from East Sussex wharves (all marine dredged), around 70% was supplied from West Sussex (the majority being marine dredged) and around 10% was supplied from Kent. (Further details are set out in the Appendix B) However, it should be noted that as working at Lydd Quarry has progressed, the contribution from Kent has now ceased, and East Sussex is now supplying some land won aggregate to Kent.

**4.15** Evidence gathered during the preparation of the Waste and Minerals Plan indicates that almost all aggregates previously imported into Newhaven Port are used within the Plan Area. Over half of the material imported at Rye is used for the East Sussex market. In 2011 over 60% of sand and gravel received on the Brighton & Hove side of Shoreham Port was used within the Plan Area. Mineral wharves located within West Sussex at Shoreham Port also serve markets in the Plan area.

**4.16** BGS data for 2009 indicates that a small proportion of land won sand and gravel has been sourced from West Sussex. Some 18,000 tonnes was imported but confidentiality constraints mean that it is difficult to identify the type and origin of this material.

**4.17** There are some sand and gravel workings in Kent on the southern boundary of Tonbridge and Malling based on the Medway Valley sandstone gravel deposits, for example at Stonecastle Farm. There is likely to be some cross boundary

2 The Crown Estates Licences Summary of Statistics 2013

3 BGS from breakdown of figures in the "Collation of the results of the 2009 aggregate minerals survey for England and Wales"

## Supply 4

movement of these minerals. However, the majority of sand and gravel quarries in this area have been inactive during the recession, so the amounts of sand and gravel from Kent land-won sources destined for East Sussex is likely to be very small in current economic conditions<sup>(4)</sup>.

4.18 Of the total 199 000 tonnes **crushed rock** consumed in East Sussex and Brighton & Hove<sup>(5)</sup>: Somerset supplied between 60-65%, Conwy supplied between 20-25% of crushed rock imported through wharves. Some 8 % imports of crushed rock were sourced from outside England and Wales. Crushed rock is transported by a mixture of sea, rail, and road. Details of wharves are provided in paragraph 4.6 above. There are currently no aggregate railheads in the Plan Area but close by are railheads at Crawley and Ardingly in West Sussex.

4.19 Rail imports of crushed rock into Newhaven commenced earlier in 2014 initially to serve the Bexhill - Hastings Link Road construction project. The Authorities will endeavour to monitor the source and scale of the imports received in advance of next year's LAA and AMR.

### Secondary/Recycled Aggregates

4.20 The national survey (of the arisings and use of construction, demolition and excavation waste as aggregate in England 2007) provides figures for the whole region; however the response to the survey was too low to provide a county level figure. Evidence produced for the Waste and Minerals Plan confirmed the estimated levels of production set out in previous Annual Monitoring Report. (A list of sites identified in this process can be found in Appendix E of the Waste and Minerals Monitoring Report 2012/13).

4.21 The current best estimate of recycled aggregates production in the Plan Area is **240,000 tonnes**. This is based on an assessment of recycled aggregates produced at recycled aggregate CDEW facilities in East Sussex and Brighton & Hove. Additional recycled aggregate may also be produced from non CDEW facilities in the Plan area (including sites processing waste glass and tyres). However the use of the materials as replacement aggregate has not been verified.

4.22 In addition, it is estimated that **68,000 tonnes** of secondary aggregate are produced from two main sources : Ashdown Brickworks is thought to produce about 10 000 tpa of reject bricks and Newhaven Energy Recovery Facility creates about 58 000 tpa of incinerator bottom ash. The latter material is exported by rail (currently to Brentford) where it is processed into recycled aggregate for uses including as a road construction material.

4.23 Overall, the the Plan Area is considered to have a capacity in the region of **630,000 tonnes** for recycling Construction, Demolition and Excavation Waste.

4 Kent County Council

5 BGS from breakdown of figures in the "Collation of the results of the 2009 aggregate minerals survey for England and Wales"

# 4 Supply

## Future Supply Options

### Land-won

4.24 Remaining reserves at **Novington** sandpit are not known but there is no reason why future extraction could not continue to contribute to the demand for land-won aggregate in East Sussex and Brighton & Hove.

4.25 As indicated earlier, there are large scale permitted reserves in the far east of the County related to **Lydd Quarry**. There are two major extant planning permissions covering Scotney Court (Area 10) and Scotney Court Extension / Wall Farm (Area 11/12). These permissions amount to 3,980,000 tonnes of sand and gravel.

4.26 Planning permission for Scotney Court (Area 10) was granted in 1990 (ref RR/89/2294(CM)). It was anticipated that this planning permission would yield approximately 750,000 tonnes of sand and gravel. Subsequently in 2000, a further 44.5 hectares extension to the west known as Scotney Court Extension / Wall Farm (Area 11/12) was granted planning permission (RR/291/CM). This permission was amended in 2002 to clarify the date by which working would commence (RR/362/CM). The permissions were for the extraction of 3.23m tonnes of sand and gravel.

4.27 Extraction commenced in Area 10 in 2011. The operator has mostly completed extraction in this area. Extraction started in Area 11 in January 2013. The operator has indicated that extraction rates are currently higher than expected. It is understood that there are market and business reasons behind their decision. (See paragraphs 6.8 - 6.10).

4.28 The Waste and Minerals Plan, adopted in February 2013, estimated that the extraction at Scotney Court Extension / Wall Farm could last until 2026. Natural England is proposing to extend the Special Protection Area and Ramsar designation covering Dungeness to Pett Level. These are currently candidate sites. This designation covers or is adjacent to all the sand and gravel resource in this part of the County (see paragraph 5.9). Natural England has concerns related to mineral extraction and the Waste and Minerals Plan has a note added, related to Areas 11 & 12 extraction rate, that the estimate is subject to a further Habitat Regulations Assessment. The next process with the opportunity for a hydrological assessment is the Review of Consents under Regulation 63 of the Conservation of Habitats and Species Regulations 2010. It is currently difficult to determine when this will be as DEFRA cannot confirm the timescale for formal designation of the Special Protection Area / Ramsar extension. The estimate for this permission providing supplies until 2026 was also based on the assumption of an average annual extraction rate of 270,000 tonnes.

4.29 Due to its dormant status and the significant development constraints affecting the site, it is considered inappropriate to include the remaining reserves at Castle Water within the landbank.

## Supply 4

**4.30** The Waste and Minerals Plan does not establish the need to identify any new aggregates sites in the Sites Plan. This is on the basis that the landbank requirements based on the Secretary of State's Proposed Changes to Policy M3 apportionment (see paragraph 3.21) can be achieved through current planning permissions.

### Marine

**4.31** Although some of the older inshore beds are no longer worked, substantial marine aggregates remain along the South Coast and within the Eastern English Channel regions for the long term. Only a small fraction of the area licensed for extraction by the Department for Communities and Local Government<sup>(6)</sup> has been worked so far.

**4.32** The Marine Management Organisation (MMO) predicts<sup>(7)</sup> a strong demand for marine aggregates into the foreseeable future as infrastructure in the South of England develops and land-based resources become increasingly constrained. The MMO has set out future scenarios for marine aggregates covering the next six years, and then for six to 20 years. These periods reflect the time frames required for marine dredging licensing renewal. In summary for the next six years:

- Active marine aggregate extraction within Licensed areas is likely to remain fairly constant with some possible increase
- Licensed Areas may increase slightly
- Output is likely to increase slightly overall
- Production likely to be higher in the EEC than in the South Coast region
- Additional demand likely to arise due to climate change and sea level rise and hence beach replenishment

**4.33** For the next 20 years the scenario is therefore similar but the increase in Licensed Areas could be partially offset by the surrender of some existing areas. As with the six year projection output is likely to be slightly higher than current levels but will be dependant on large-scale infrastructure projects and coastal defence works. The MMO considers that most marine aggregate regions could be a potential supply source for the Plan Area.

**4.34** The Waste and Minerals Plan Policy WMP15 safeguards capacity for landing, processing and handling minerals at Shoreham, Newhaven and Rye Ports. Alternative use proposals would need to demonstrate no net loss of capacity and the mineral planning authorities expect to be consulted on any proposals for non minerals development.

**4.35** There are currently several strategies being put forward by other organisations which concern the port areas at Shoreham, Rye and Newhaven. The Authorities will seek to ensure safeguarding of wharf capacity as part of any development at the ports.

6 Licences are now issued by the Marine Management Organisation on the behalf of the Secretary of State  
7 South Plan Analytical Report (SPAR) South marine plan area evidence base, 2013

## 4 Supply

**4.36** Proposals for other uses at ports would need to demonstrate that sufficient alternative mineral wharf capacity (tonnage) is deliverable and available to meet needs in the Plan Area for the plan period before the Authorities would accede to alternative development of the site. Proposals for new residential, business or amenity development in proximity to aggregate wharves should be assessed to ensure the impact of existing operations is fully addressed. The safeguarding arrangements would apply to all existing permitted, planned and potential sites regardless of whether they are currently in use.

**4.37** Shoreham Port is partly within West Sussex, so landings at wharves in the West Sussex part may also help meet demand in the western part of the Plan Area. On that basis provision of equivalent capacity (tonnage) of minerals wharfage within either part of Shoreham Port may be acceptable subject to similar safeguarding by West Sussex County Council (WSSCC) as Minerals Planning Authority.

**4.38** Adur District Council, Brighton & Hove City Council, West Sussex County Council (WSSCC) and Shoreham Port Authority are partners in the preparation of the Shoreham Harbour Joint Area Action Plan (JAAP) which sets out a 15 - 20 years plan to guide the regeneration of Shoreham Harbour. The JAAP outlines proposals for housing, employment and economy and environmental improvements. In order to achieve this, some consolidation of operations and redevelopment of mineral wharves (particularly in West Sussex) is proposed. Ferry Wharf (a vacant mineral wharf) on the Brighton & Hove side of the port is proposed for redevelopment. The JAAP was published for public consultation until April 2014. The 'Pre-Submission' version of the JAAP will be published for final comment (likely to be in 2015) before the JAAP is submitted to the Secretary of State.

**4.39** It is recognised that the provision and safeguarding of minerals wharfage is a key issue if the JAAP aims are to be achieved. To this end the JAAP partners, together with South Downs National Park Authority, and ESSC have signed a Statement of Common Ground (SOCG). The purpose of the SOCG is to underpin effective cooperation and collaboration between the partners in addressing strategic cross-boundary issues as they relate to planning for minerals infrastructure and safeguarding in Shoreham Harbour. Policy WMSP 9 in the WSMP will be the mechanism for assessing the impact on wharf capacity at the Brighton & Hove section of the Port from any development proposals in this area.

**4.40** It is hoped that future joint working by authorities will address the safeguarding issues. WSSCC commissioned a Wharves and Railhead Study in 2013 which includes consideration of Shoreham Port. In preparation for publishing their draft Minerals Local Plan WSSCC have recently published Background Papers for consultation which include consideration of future wharf provision at the Port.

**4.41** Newhaven Port Authority published a Port Masterplan in January 2012. This plan expects to see aggregate imports to continue at North Quay over the short to medium term, and will encourage use of the wharves for aggregates.

## Supply 4

However, marine dredged aggregate imports ceased at the Port in May 2013 due to the closure of import facilities at Newhaven. Imports are therefore now restricted to crushed rock from quarries in Cornwall, Wales, Ireland and France<sup>(8)</sup>.

4.42 There is no information to suggest that imports at Rye Port could not continue.

### Imports

4.43 The limited imports of land won sand and gravel from West Sussex and Kent are expected to continue.

4.44 Imports of marine sand and gravel are also likely to continue as there is likely to be sufficient licenced capacity in the English Channel. Providing safeguarding of wharves is maintained at current capacity, supplies should still be able to reach the Plan Area market.

4.45 It is understood that the crushed rock capacity at quarries in Somerset and Conwy have sufficient permitted reserves at the quarries to ensure a steady and continual supply into the Plan Area.

### Recycled / Secondary

4.46 There is no current evidence to suggest that the existing capacity for producing recycled and secondary aggregates will not be maintained. The amount of incinerator bottom ash arising from the Newhaven ERF is considered likely to remain constant, although technically it cannot be counted as a secondary aggregate until it has been processed. It is assumed therefore that facilities in the Plan Area will continue to contribute to aggregates supply in the area.

4.47 The MMO has recently published a report on the "Use of beneficial dredged materials in the South Inshore and South Offshore Marine Plan Areas". This looks at the existing and potential uses of dredged materials arising from capital or maintenance dredging for coastal defence, beach replenishment or habitat creation. Up to 2 million tonnes of dredge material could be produced annually from maintenance dredging. This is likely to comprise silts and clay but also could be some sand and gravel. A further 31 million tonnes could be produced from capital dredging over the next 10 years. Some projects have already taken place using these materials and further use is planned. The report states that there is scope for further beneficial use of materials provided that they are suitably matched and that the re-use logistics can be agreed. This source of alternative aggregates may therefore assist in meeting the need for aggregates in the Plan area in the next decade.

## 5 Environmental constraints

# 5 Environmental constraints

### The Environment of the Plan Area

#### Land-won

5.1 Large parts of the Plan Area are subject to environmental constraints. Two thirds of the area is covered the South Downs National Park and the High Weald Area of Outstanding Natural Beauty together, and other tracts of land are also designated as being of international and national environmental importance.

5.2 A number of areas are designated for wildlife conservation. These include two Special Areas of Conservation (SACs) and five Special Protection Areas (SPAs) and one large Ramsar site at Pevensey Levels, with a further proposed Ramsar site near Rye. There are four National Nature Reserves and 25 Local Nature Reserves. National designations include 64 Sites of Special Scientific Interest (SSSIs)<sup>(9)</sup>. There are two Regionally Important Geological sites and numerous Sites of Nature Conservation Importance (SNCIs). One sixth of the area of Brighton & Hove is covered by nature conservation designations. These areas need to be protected in order to maintain the rich and varied landscape character and biodiversity within the Plan Area.

5.3 The South Downs are formed by a line of hills and vales extending along the coast westwards from Eastbourne. It is a unique, open, rolling landscape dissected by major river valleys cut by the Ouse and Cuckmere. Limited quarrying of chalk for agricultural purposes is long established and has had a noticeable impact on the landscape, especially along the scarp slope and around Lewes. To the north of the chalk are the Greensand beds with the Folkestone Formation extending north west from Lewes in East Sussex, across West Sussex and into Hampshire. The area within East Sussex was previously outside the Sussex Downs AONB but it is now located within the South Downs National Park. The South Downs National Park Authority has undertaken a study to assess the potential resource across the Park and alternative sources outside the Park boundary.

5.4 The High Weald AONB is a landscape of rolling hills, scattered farmsteads, small woodlands, irregular-shaped fields, open heaths and ancient routeways. It also includes the Ashdown Forest. The High Weald covers much of the northern, central and eastern parts of the Plan area. It is a faulted structure comprising clays and sandstones (collectively known as the Hastings Beds). This varied and extensively eroded geology has produced an attractive and sensitive landscape, most of which is within the High Weald Area of Outstanding Natural Beauty.

5.5 The Low Weald is a gently undulating clay vale which separates the High Weald from the Chalk Downs to the south.

9 These are split into 391 separate units.

## Environmental constraints 5

5.6 The Coastal Marshes are located between Eastbourne and Bexhill, and in the Rye Bay/Camber area either side of the Rother estuary. Inundated by the sea in recent geological times, these areas comprise large flat sheets of alluvium, extending inland over the Pevensey Levels and Romney Marsh.

### Environmental Constraints and minerals working

5.7 The Plan Area is therefore heavily affected by environmental constraints. Minerals can only be dug where they naturally occur, and given the exploitation that has already taken place, the very few places in the county where resources occur are constrained by environmental factors. Opportunities for new aggregate production areas will therefore be very challenging.

5.8 Even the current sites for extraction have had further recent environmental constraints emerge. **Stanton's Farm Quarry** which extracts from a limited exposure of the Folkestone Beds north-west of Lewes was not previously in the AONB, and is now located in the South Downs National Park. The current permission expires in 2015<sup>(10)</sup>.

5.9 The working area at **Lydd Quarry** is covered by an SSSI (Dungeness, Romney Marsh and Rye Bay). Natural England is proposing to extend and promote an SPA and Ramsar designation covering Dungeness to Pett Level (see paragraphs 4.28). The forthcoming Review of Consents will have to establish whether any of the Lydd Quarry development already permitted, would have a significant effect on the European site in view of the site's conservation objectives.

5.10 The environmental impact of marine dredging is controlled and monitored by the Licensing system administered by the MMO. Effects of secondary aggregate production would be regulated by planning and permitting legislation and controls.

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10 10 years after development commenced.

## 6 Balance

### 6 Balance

#### Balance between Supply and Demand

6.1 The adopted Waste and Minerals Plan's approach to minerals is to make provision for a steady supply in accordance with National Policy, and to allow primary production where it is demonstrated the need cannot be met by sources of alternative materials and that there is evidence of viable resource.

6.2 The evidence base for the Waste and Minerals Plan examined the particular circumstances related to aggregates. The Plan Area needs a mixture of land won production, marine landings, imports and recycled & secondary aggregates. The Plan Area already has a significant reliance on the contribution from marine sources. This section looks at the balance between supply and demand across all sources and considers whether there will be any shift in dependency.

#### Land-won

6.3 The joint East Sussex, South Downs and Brighton & Hove Waste and Minerals Plan (WMP) was adopted in February 2013. The aggregate policy (WMP11) in this Plan seeks to maintain provision for the production of land-won aggregates at a rate of 0.10 mtpa throughout the plan period and to maintain a landbank of at least 7 years of planning permissions. The Authorities considered at the time existing planning permissions provided this requirement up to 2026.

6.4 With regard to the landbank, the WMP considered this to be more than met by current permissions. The current landbank calculated in accordance with NPPG is 31 years although this may decline more rapidly than previously thought.

6.5 In terms of future demand, as indicated in Section 3 above, the forecast of primary land won aggregate demand for all the Plan Area will not be based on sales data. As a substitute, it is intended to use as the principal indicator of demand the figure of 0.1m tonnes p.a. as utilised in the Adopted Waste and Minerals Plan. In actual terms, the 10 years sales figures includes confidential information but in total is just over 1 million tonnes.

6.6 The Adopted Waste and Minerals Plan includes a statement that if it appears the provision for the production of land won aggregates is not being maintained, a specific review of Policy WMP11 will be carried out. The Waste and Minerals Plan further indicates that the review would cover the possibility of identifying further feasible reserves. The Plan states that if this is not possible, the Authorities will consider other options with adjoining Minerals Planning Authorities and the Marine Management Organisation.

## Balance 6

**6.7** It is recognised that it is essential that the position regarding provision of aggregates is monitored over time. If it turns out that the mineral reserves at Lydd Quarry are below estimates or that the rate of extraction is consistently increased, then this scenario could alter the position.

**6.8** It is acknowledged that production of aggregates from Lydd Quarry in 2012 and 2013 are significantly higher than the anticipated rate, although rates were much lower in 2011. The operators have estimated that if such a high production rate continues the reserves at the quarry will be exhausted much more quickly than originally planned, resulting in a significantly reduced landbank. Current sales though may be enhanced by a one-off demand for construction aggregates related to a major road scheme between Bexhill and Hastings which is due to be completed in 2015.

**6.9** The NPPG indicates that aggregate landbanks are an important means of assessing when a minerals planning authority should review the current provision of aggregates, and, consider whether to conduct a review of allocation of sites in its local minerals plan. An aggregate landbank of 31 years shows sufficient supply but it will be important to monitor the situation if this landbank was to decrease significantly. In addition, the NPPG states that mineral planning authorities should also look at average sales over the last three years in particular to identify the general trend of demand as part of the consideration of whether it might be appropriate to increase supply. The average sales for the last three years at Lydd Quarry is about 322 000 tonnes pa which is not that much greater than the rate assumed in the WMP of 270 000 tonnes. It should be noted that the operator considers that about half of the sales are "exported" to Kent.-

**6.10** Overall, the Authorities will continue to monitor the situation closely at Lydd Quarry in relation to any future decision to review the minerals policy in the WMP. In particular, the forthcoming AM survey will provide more up-to-date information. Any decision to review the minerals policy by the Authorities will also take into account the available staff and financial resources and appropriate programme to carry out a revision of the Adopted Plan. Work is currently being undertaken by the Authorities on a Waste and Minerals Sites Plan which is programmed for adoption in Summer 2016.

### **Marine Sources**

**6.11** As can be seen from paragraphs 4.31 - 4.33 above, substantial marine aggregates reserves exists along the South Coast. The picture here is that there is more than adequate supply and that there is a potential resource that could meet additional demand if land won sources were to be further depleted in the South East.

**6.12** The principal constraint on the level of marine landings during the Plan period is therefore not considered to be the level of marine reserves, but the security of port access (loss of wharves to other uses), channel and berth restrictions, vessel availability and investment in modern wharf infrastructure. The

## 6 Balance

British Marine Aggregate Producers Association (BMAPA) maintain that there is a long term future for smaller vessels to import to smaller wharves and local operators have indicated that this is the case in East Sussex.

**6.13** The importation of crushed rock from the UK or further afield is limited by wharf capacity and market forces. As there is no availability of this material from within the Plan Area, landings directly reflect demand. Crushed rock can be landed to non-specialist wharves, improving flexibility within port areas<sup>(11)</sup>.

**6.14** According to the Port Authorities at Shoreham, Newhaven and Rye, sufficient wharf capacity apparently remains in the Plan Area to allow significant landings to continue for the foreseeable future. As spare capacity exists at the present time for marine and crushed rock landings (due to the inactive wharves at all Ports in the Plan area (see Table 1)), these established operations provide flexibility to deliver additional supplies should they be required to meet demand in peak years.

**6.15** However, in order to maintain potential wharf capacity for the future it is essential that adequate safeguarding measures are in place to enable the authorities to respond to threats of redevelopment of wharves from alternative uses. Comprehensive safeguarding policy will be an important tool in achieving strategic provision of wharf capacity within the various emerging plans for ports in the plan area (see Supply chapter).

### Imports

**6.16** Again, with regards to marine imports, safeguarding wharves is key to the future security of landings. It is also crucial that rail import facilities are protected from redevelopment, even though these are currently located out of the Plan area. WMP Policy WMP15 seeks to safeguard existing, planned and potential railheads and minerals wharves, and to monitor the need for these facilities. Policies to safeguard wharves and railheads, concrete batching, coated materials manufacture and other concrete products facilities are set out in the East Sussex, South Downs and Brighton & Hove Sites Plan Consultation draft 2014. Regional discussion will be required to secure rail and wharf facilities which contribute provision to the Plan Area. Positive dialogue with adjoining and more distant mineral planning authorities will also be needed to check and maintain security of supply of aggregates, particularly crushed rock. This should be enabled through good practice, aggregate working party arrangements and Duty to Cooperate requirements.

<sup>11</sup> As the method of landing crushed rock is simpler than landing marine aggregates there is less attraction to move to larger vessels to reduce costs and crushed rock does not require specialist handling equipment.

## Balance 6

### Recycled / Secondary

**6.17** Secondary aggregates provide an alternative to primary aggregates, and subject to technological advancement, there is potential scope to substitute more recycled aggregates. Economic instruments such as the Landfill Tax have had a considerable impact on the level of material available, forcing previously landfilled CD&E waste to be processed into secondary aggregate.

**6.18** There are moves to increase utilisation of alternative sources with a consequential increased contribution to total demand. However, the availability and utilisation rate remains unpredictable and substitution is not always possible. Primary resources will be required to a significant extent for the foreseeable future.

**6.19** A diagrammatic plan summarising the origin of locally won and produced aggregates, as well as the nature of imports into the Plan area, is included as Map 2.

## 7 Conclusions

# 7 Conclusions

7.1 In 2013 the LAA concluded that a significant proportion of local consumption is derived from either marine dredged material, crushed rock or land won aggregates extracted from outside the Plan Area. The lack of a comprehensive land won resource in the County means that there is an expectation that marine imports will continue to be a major source for construction use in East Sussex.

7.2 With regards to land-won aggregates the 2013 LAA deduced that:

- the past 10 years sales data could not be used as it is too volatile; there is a very small number of production sites and therefore there has been major variations in sales figures from nothing to more substantial output
- the Apportionment figure in the Adopted WMP is proposed as a surrogate figure for sales.
- Using the Adopted WMP figure, there is an adequate landbank
- the rate that the landbank declines will be monitored over time. This will be a consideration in a decision to review Policy WMP11 of the Waste and Minerals Plan.

7.3 On Marine landings the Plan Area, especially the western end, was found to be very dependent (80/85% in 2009) on marine landings. A need to protect wharf capacity was identified and it was thought reasonable to plan on basis that marine licences will be maintained in future.

7.4 Regarding imports, the contribution from Kent up to 2009 has now ceased and East Sussex is now supplying Kent. The small contribution from West Sussex Railheads, and marine landings, including crushed rock, was thought likely to continue. Recycled and secondary aggregates were considered to make a continuing contribution.

7.5 In summary, the 2013 LAA concluded that it was not appropriate to use sales data to calculate LAA forecasts, the short to medium term prospects were secure and the situation would be monitored to appraise the long term situation.

### Changes since 2013 LAA

7.6 There have been several updates and minor changes to the position on aggregates supply and demand since the time of last reporting in 2013. These are set out in the previous chapters of this report and summarised for ease below. It is not considered that any of the main components in supply and demand have altered over the last year.

7.7 The Waste and Minerals Sites Plan was published in July 2014 and does not allocate any new aggregate sites reaffirming the WMP position on land - won aggregate provision.

## Conclusions 7

**7.8** With regards to land-won supply there has been some increased production over the last year at Lydd Quarry.

**7.9** The permission at Nook Beach has now ceased to have effect. The reserves at the site did not previously form part of the land bank and so there is no impact on future supply from the site's change in status.

**7.10** Whilst a decrease of imports over 2013 was experienced at Newhaven Port and, to a lesser extent at Shoreham Port, new rail imports of crushed rock were established during 2014 at Newhaven. These changes may go some way towards offsetting the balance of supply and demand.

**7.11** The development of a Statement of Common Ground on safeguarding minerals wharfage at Shoreham Port should set the framework for positive co-operation between the relevant authorities. This should strengthen aims to protect wharf capacity from redevelopment and to support and increase marine imports.

**7.12** The Authorities will continue to closely monitor the situation over aggregate supplies in relation to any decision to review the minerals policy in the Adopted WMP.

# A Past and Future Development

## Appendix A: Past and Future Development

### Past Development

#### *East Sussex*

Between 2002/3 and 2012/3 there were some 16060 housing completions in East Sussex.

Over the last decade the following major infrastructure projects have been completed within the county: Peacehaven Waste Water Treatment Works, Maresfield Woodlands in vessel composting site, Newhaven Energy Recovery Facility,

Construction of the the Bexhill Hastings Link Road (BHLR) started in 2013 and is due to open in May 2015. The BHLR has used both recycled aggregate and primary aggregate in its construction. Figures are available for the period September 2013 - June 2014 which indicate the sources of aggregate material used in the road construction.

The early stages of road construction involved formation of piling platforms, haul roads and compounds. For this **recycled aggregates** were used, principally sourced from two quarries:

- Lydd Quarry in East Sussex (36 km from road site)
- Blaise Farm Quarry, Kent (58km from road site)

Other sources of recycled aggregate used include: R French & Son Ltd, Whitworth Road, Premier Material Supplies at Sidley Goods Yard, and Barden, London (95.6 km away)

In the later stages of construction during 2014, **primary aggregate** was again sourced from Lydd Quarry and Blaise Farm Quarry, as well as

- Denge Quarry in Kent (49 km away)
- Day Aggregates, London (128 km away)

The material received from Day aggregates was limestone and is assumed to have been imported by rail (via Newhaven). Primary materials were also received from Robert Body (soils - 50km away), Robins of Herstmonceaux (chalk - 18km away), and Burden (limestone - 91km away).

#### *Brighton & Hove*

Between 2003 and 2013 there were some 5256 housing completions in Brighton & Hove.

# Past and Future Development A

Major infrastructure projects that have taken place in Brighton & Hove over the last decade include The Keep, B&HA Stadium, Brighton Station developments, Amex House, Jubilee Library and surrounding area, City Park office development, Hollingdean waste facilities and the Royal Alex children's hospital.

## Future development

### *East Sussex*

Based on an assessment of Local Plans (at various stages up to adoption), there are a number of allocations for housing and employment in the East Sussex area which could involve construction aggregates in their development. The various allocations cover a period longer than 10 years (up to 2031). Overall, at least 29 000 dwellings and 428 000 square metres of employment floorspace are proposed.

A review of Infrastructure Development Plans in the county highlights a number of projects in the short (the next 5 years) and medium (5-10 years) term. These include increased educational, library, health treatment and sports and leisure provision. Also identified are coast and flood protection, waste water treatment and sewerage improvements. The Rampion Windfarm construction as well as new operation and maintenance infrastructure at East Quay, Newhaven Port are also proposed. Whilst the precise aggregate requirements for these developments are currently unknown, some sand and gravel material is likely to be needed during constructional phases.

Some strategic road improvements in the county are also planned. Strategic Economic Plans produced for the Local Economic Partnerships covering the county also identify a number of transport related schemes, including Phase 2 of the Newhaven Port Access Road planned to commence in 2016/17.

### *Brighton & Hove*

Six major areas of development requiring new or revised infrastructure provision in the next few years are identified in the Brighton & Hove Infrastructure Development Plan. These developments and infrastructure will require a significant supply of aggregates in their construction. These are:

- Shoreham Harbour Development Area -Upgraded flood defence and essential on-site highways - if land uses change from current port water compatible uses
- Brighton Marina - flood defence measures
- City College - erection of an 8 storey College building of 12,056 sqm and ancillary accommodation (use class D1), erection of a 10 storey building of 12,647 sqm to provide 442 student residential units and ancillary accommodation with associated access, infrastructure; erection of up to 125 residential units (use class C3) (access, layout and scale).
- University of Sussex - Redevelopment of various buildings to provide new teaching and residential accommodation. Phased delivery from now until 2020.

## A Past and Future Development

- University of Brighton - new student accommodation
- Royal Sussex County Hospital - Expansion of health facilities at main hospital site Eastern Road with 74,000sqm net floorspace.

In addition there are eight strategic Development Areas set out in the submission City Plan where large scale redevelopment is expected over the Plan Period (up to 2030). A summary of proposals for each is as follows:

- DA1 Brighton Centre and Churchill Square area: Extension of Churchill Square to provide 20,000m<sup>2</sup> retail floorspace. New Brighton Centre (25,000m<sup>2</sup> conference centre)
- DA2 Brighton Marina, Gas works and Black rock: 1,940 residential units, 5000m<sup>2</sup> retail, 2000m<sup>2</sup> B1 floorspace, 10500m<sup>2</sup> leisure and recreation floorspace, health facility, primary school
- DA3 Lewes Road: 810 residential units, 15600m<sup>2</sup> employment floorspace, 16000m<sup>2</sup> business school, 1300 student rooms, 5,000m<sup>2</sup> B1 floorspace
- DA4 New England Quarter/London Road: 20,000m<sup>2</sup> office floorspace, , 1185 residential units, 300 bed space student housing
- DA5 Eastern Road and Edward Street area: 470 residential units, Hospital rebuild (see above), 400 bed student accommodation, 3,800m<sup>2</sup> education floorspace, GP surgery, community building
- DA6 Hove Station area: 630 residential units, retention or replacement of 13,000m<sup>2</sup> employment floorspace
- DA7 Toads Hole Valley: 700 residential units, 25,000m<sup>2</sup> employment floorspace, new secondary school
- DA8 Shoreham Harbour: 400 residential units; 7500 m<sup>2</sup> employment floorspace (within B&H part of the Harbour)

## Imports into plan area B

### Appendix B: Imports into plan area

Of the total 698 000 tonnes sand and gravel (land-won and marine) consumed in East Sussex and Brighton & Hove:<sup>(12)</sup>

- 16% was supplied from within East Sussex (100% of sand and gravel from East Sussex was marine-dredged and comprised 18% of total marine sand and gravel consumption).
- 70% was supplied from West Sussex (96% of sand and gravel from West Sussex was marine-dredged and comprised 77% of total marine sand and gravel consumption). 474 793 tonnes of marine sand and gravel landed in West Sussex was exported to East Sussex and Brighton and Hove. 18,074 tonnes of land won sand and gravel was imported from West Sussex<sup>(13)</sup>.
- About 10% was supplied from Kent (10% of sand and gravel from Kent was marine-dredged comprising 1% of marine sand and gravel consumption). In 2010 4% of all minerals imported into Kent and Medway by Dredger, Ship and Rail were exported to East Sussex<sup>(14)</sup>.
- In descending order, Medway and Surrey each supplied between 1-5%. (All of that from Medway was marine dredged comprising 5% of total marine sand and gravel consumption). 3,011 tonnes of land-won sharp sand and gravel, and 102 tonnes of soft sand were exported by road from Surrey to East Sussex and Brighton & Hove in 2009<sup>(15)</sup>.
- In descending order, Hampshire, Greater London, Cambridgeshire and Oxfordshire each supplied less than 1%. (40% of that from Hampshire was marine-dredged and 100% of that from Greater London was marine dredged. Together these contributed the final 1% of marine-dredged aggregate).
- Note: Berkshire and Gloucestershire also supplied less than 1% each but tonnages from both sources are small as to represent only a (few) lorry load(s).

Of the total 199 000 tonnes **crushed rock** consumed in East Sussex and Brighton & Hove<sup>(16)</sup>:

- Somerset supplied between 60-65% , and 60% of this is received by rail (the remainder being by road).
- Conwy supplied between 20-25% (delivered by water and therefore will have been landed at a wharf)
- In descending order, Imports from 'outside England and Wales' and imports from Powys each supplied between 5-10%.

12 Data provided by BGS from breakdown of figures in the "Collation of the results of the 2009 aggregate minerals survey for England and Wales"

13 West Sussex County Council

14 Kent County Council

15 Surrey County Council

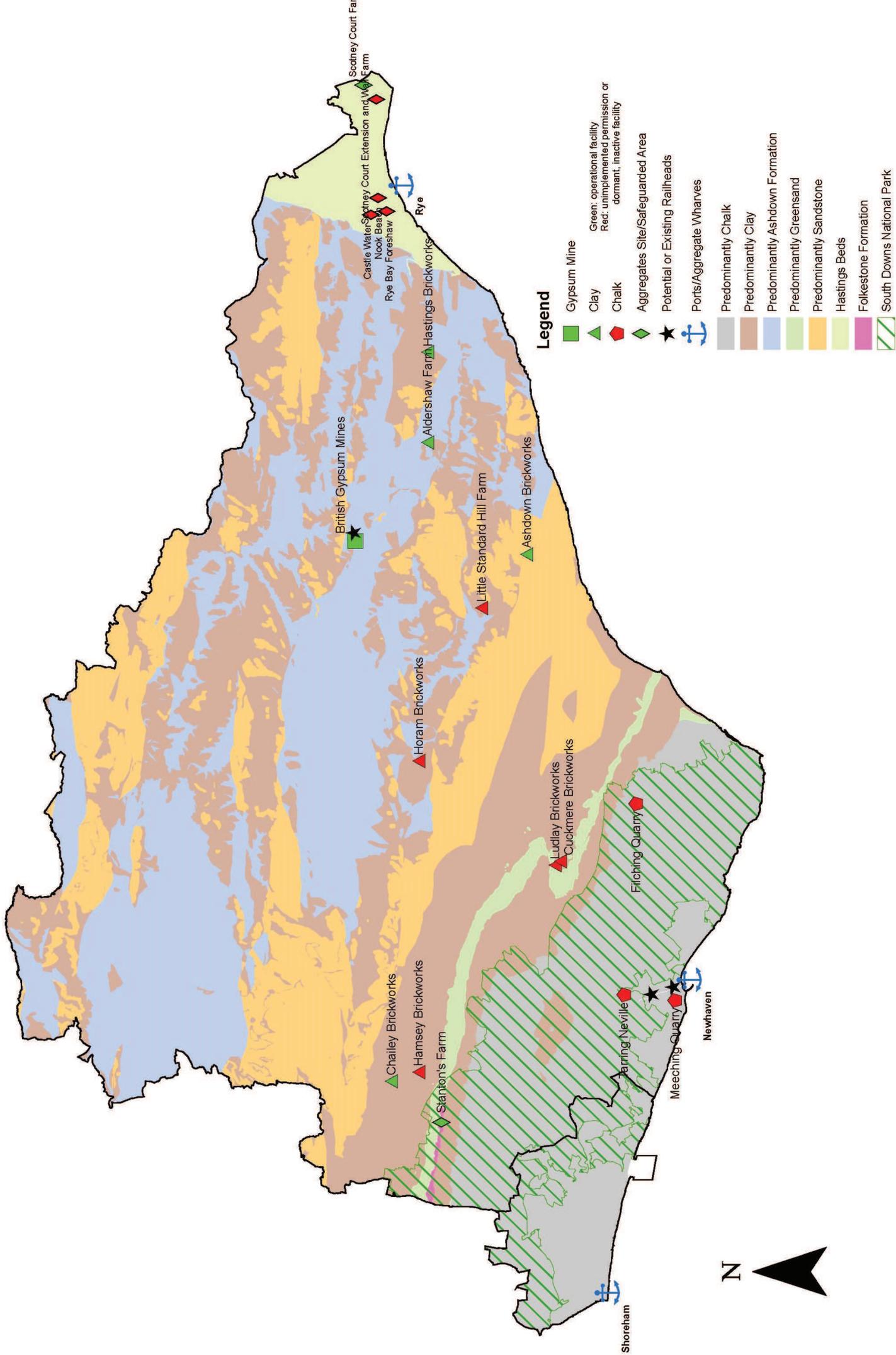
16 Data provided by BGS from breakdown of figures in the "Collation of the results of the 2009 aggregate minerals survey for England and Wales"

## B Imports into plan area

- In descending order, West Sussex and Cumbria each supplied less than 1%.
- Note: In descending order, South Gloucestershire, Northumberland (inc Northumberland National Park) and Gloucestershire also supplied less than 1% each but the tonnages are small as to represent only a (few) lorry load(s).

## Map 1: Geological Plan

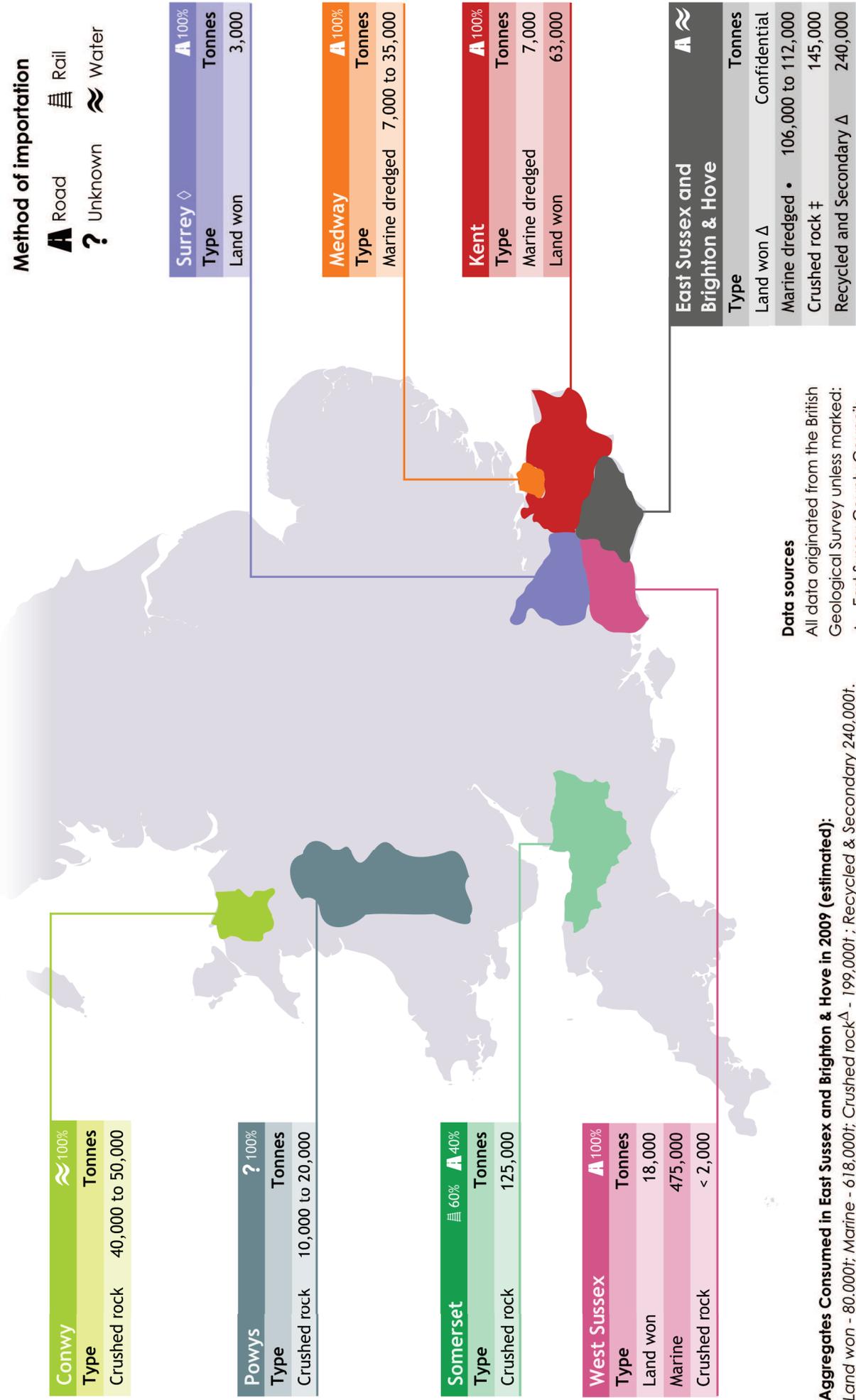
# Map 1: Geological Plan



Map 2: Origin of aggregate imported to and produced in East Sussex and Brighton & Hove in 2009

**Map 2: Origin of aggregate imported to and produced in East Sussex and Brighton & Hove in 2009**

# Origin of Aggregates Imported to and Produced in East Sussex and Brighton & Hove in 2009



## Data sources

- All data originated from the British Geological Survey unless marked:
- △ East Sussex County Council;
- ◇ Surrey County Council;
- ‡ Ports Authority;
- Ports Authority and Crown Estate.

## Aggregates Consumed in East Sussex and Brighton & Hove in 2009 (estimated):

Land won - 80,000t; Marine - 618,000t; Crushed rock<sup>△</sup> - 199,000t; Recycled & Secondary 240,000t.

Minimal amounts of aggregates were also imported from Hampshire, Greater London, Cambridgeshire, Oxfordshire, Cumbria, Gloucestershire, Northumberland, South Gloucestershire. Approximately 10,000 to 20,000 tonnes were imported from outside England and Wales.



**East Sussex County Council**

County Hall

St Anne's Crescent

Lewes BN7 1UE

Phone: 0345 60 80 190

Website: [eastsussex.gov.uk](http://eastsussex.gov.uk)

**South Downs National Park Authority**

South Downs Centre

North Street

Midhurst GU29 9DH

Phone: 0300 30 31 053

Website: [southdowns.gov.uk](http://southdowns.gov.uk)

**Brighton & Hove City Council**

Hove Town Hall

Norton Road

Hove BN3 3BQ

Phone: 0127 32 92 505

Website: [brighton-hove.gov.uk](http://brighton-hove.gov.uk)

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