

# Medway Authority Monitoring Report 2014

## Volume 3 - Local Aggregates Assessment 2013

December 2014

# **Medway Local Aggregate Assessment**

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## **1. Executive Summary**

### **Context**

- 1.1 This is the second Local Aggregate Assessment produced for Medway, in line with the requirements set out in the National Planning Policy Framework and in the National Planning Practice Guidance (NPPG). This is a draft report that is circulated to minerals planning authorities throughout the South East and neighbouring areas, industry representatives, and other key stakeholders. It is to be formally considered by the South East England Aggregates Working Party for its technical advice and views on how Medway is contributing to wider regional needs. Following consultation, the council intends to publish the final version of the LAA with its Annual Monitoring Report at the end of 2014.
- 1.2 The council has had regard to a range of data sources in compiling information on the demand for aggregates and supply options available. The annual aggregate monitoring produced by the Aggregates Working Party based on a survey of local operators has been a key source of data. Due to the size of Medway, and the limited number of minerals sites and wharves, there are a number of areas where it is not possible to publish information at the level of this individual minerals planning authority. This follows the agreements made with industry to respect commercial confidentiality. In some cases, it has been necessary to refer to information on a Kent and Medway basis, or the wider region, to provide an indication of trends in demand and supply.
- 1.3 Due to the size and nature of the geology in Medway the only land won aggregates extracted in the district are sand and gravel. Other aggregates are either imported, marine dredged or from secondary or recycled sources.

### **Supply**

- 1.4 Aggregate supply in Medway is from four main sources: land won resources; marine dredged aggregates, imported resources and secondary and recycled aggregates.
- 1.5 Sand and gravel are the only land won resources in Medway due to the geology of the district. Aggregate supply is also restricted by Medway's environment. A total of 33% of Medway's area falls within environmental designations, including sites of importance at European level.
- 1.6 There are two sites presently in Medway with the potential to provide land won sand and gravel, with a total permitted reserve of 1,315,000 tonnes of sand and gravel. This reserve has been used to calculate the landbank, which currently stands at 72.2 years, based on a 10-year

sales average. This is significantly above the 7-year landbank required for sand and gravel in the NPPF.

- 1.7 Provision for mineral extraction will be set out in the new Medway Local Plan, which is currently in the early stages of preparation, but there is no revised policy figure at present. The former policy allocation being advanced through the draft Medway Core Strategy for 0.18 million tonnes per annum in line with the sub-regional apportionment figures, is now used as a reference point until a new policy allocation is produced through the development of the new Local Plan for Medway.
- 1.8 Medway has 3 active wharves that supply marine dredged aggregates (sand and gravel) and the importation of crushed rock. Both of these resources make up a significant proportion of the aggregates supplied in the district and the southeast region. Kent and Medway combined import 90% of the crushed rock and 50% of the marine dredged aggregates to the region. The Medway wharves reported an increase in 2013 from 2012 levels in both the importation of crushed rock and marine dredged materials – this is a trend seen across the south east region.
- 1.9 Medway also has several sites that have the potential to supply secondary and recycled aggregates to the market. However reliable data for this sector is hard to attain and as the robustness of it is questionable therefore no firm figures can be released for Medway.

### **Demand**

- 1.10 Government guidance on the Local Aggregate Assessment in the NPPG advises local authorities to use an average of 10 years' and 3 years' land won sales data to calculate demand over the long and short term.
- 1.11 Based on the guidance outlined in the NPPG for land won sand and gravel a 10-year sales average has been calculated. The 10-year average sales data shows present demand at 18,200 tpa for sand and gravel. This output is very low and is reinforced by the 3-year sales average of 0. Therefore overall the demand appears to be very low for land won resources in Medway, with alternative sources of supply being of continued importance.
- 1.12 Medway's contribution to aggregates planning and supply is particularly significant in the importation of marine dredged aggregates and crushed rock, as outlined above in paragraph 1.8.
- 1.13 The Council has also analysed several external sources to project any trends that may be emerging that would influence demand. The population of Medway is predicted to increase by 22% to 2037 and house builders are reporting increased workloads and planning permissions granted nationally indicating a potential increase in

demand over the coming years, but this appears not yet to have significantly affected the market.

## 2. Introduction

### *Policy context*

- 2.1 This is the second Local Aggregate Assessment produced for Medway. It has been prepared in line with requirements set out in the National Planning Policy Framework (Para. 145) and the NPPG. Paragraph 145 of the Framework states minerals planning authorities should prepare: *‘an annual Local Aggregate Assessment, either individually or jointly by agreement with another or other minerals planning authorities, based on rolling average of 10 years sales data and other relevant local information, and an assessment of all supply options (including marine dredged, secondary and recycled sources)’<sup>1</sup>*. This then needs to be submitted to the regional Aggregate Working Party, and through this to the National Aggregate Coordinating Group. The national group will then consider whether the totals provided by the area Aggregate Working Parties make appropriate provision to maintain a steady and adequate supply of aggregate. This process seeks to ensure the coordination of minerals planning at a strategic level.
- 2.2 This Local Aggregate Assessment has an important role in the coordination of planning for the steady and adequate supply of minerals to meet the country’s needs. Aggregate minerals – sand and gravel, and crushed rock – are used as construction materials, and therefore are intrinsic to the nation’s development, maintaining infrastructure and supporting economic growth.
- 2.3 Minerals are recognised as a national strategic resource, and are therefore subject to planning considerations. However, following changes introduced in the Localism Act and the National Planning Policy Framework, Government has decentralised more power to mineral planning authorities to determine the appropriate level of aggregate extraction.

### *Development of LAA – collaboration and co-ordination*

- 2.4 Medway Council is a member of the South East England Aggregates Working Party. SEEAWP represents each minerals planning authority in the former South East region, the Marine Management Organisation, the Crown Estate and the aggregates industry. The Aggregates Working Party is central to ensuring the coordination of minerals planning at a strategic level across the south east, and providing a link to the national level through the National Aggregate Co-ordinating Group. The Aggregates Working Party has specific responsibility to:
- Provide technical advice to Mineral Planning Authorities on the adequacy of each local aggregate assessment;

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<sup>1</sup> Available at: <http://planningguidance.planningportal.gov.uk/blog/guidance/>

- Provide an assessment of the position of overall demand and supply for the AWP area, including, whether, in its view, the area is making a full contribution towards meeting both national and local needs. This should include an indication of emerging trends of demand in the AWP area;
  - Obtain, collect and report on data on minerals activity in the area. This includes annual data on sales, permissions and mineral reserves in their area, recycled and secondary sources and use this information to produce an annual report on these issues.
- 2.5 In drafting this LAA, Medway Council has used a wide range of available information to assess the current position for aggregates planning in Medway. This has included reference to the SEEAWP Aggregates Monitoring report 2013 for information on regional context and trends, plus returns from the minerals industry and national statistics.
- 2.6 Medway as a unitary authority recognises the particular importance in coordinating its minerals planning work, including the production of the LAA, with its neighbouring minerals planning authority (MPA), Kent County Council. The two councils have liaised in the development of their respective LAAs, and have worked together for a number of years in the collation of evidence to support minerals planning. Due to the size of Medway, and the limited number of minerals sites and wharves, some sources of data are restricted, and cannot be disaggregated to a Medway level, for reasons of commercial confidentiality and agreements made with industry. This is reflected in how and what data is presented in this report. This results in some data gaps and in some cases data is referred to at a Kent and Medway level to provide an indication of the local circumstances.

### *Consultation*

- 2.7 The Localism Act 2011 also introduced the duty to cooperate into the planning system. This is a legal duty that planning authorities have to abide by in the plan making process and make sure that consultation is undertaken that is active and constructive and throughout the plan making process on strategic and cross boundary matters. The apportionment and supply of minerals is one of the issues covered by this process.
- 2.8 In accordance with the duty to cooperate this report has been drawn up in liaison with Kent County Council's minerals planning service and industry operators. To ensure that the LAA makes appropriate reference to the wider regional context, the council is seeking comments on this draft from mineral planning authorities across the region and industry representatives through the SEEAWP. Due to Medway's location in the Thames Gateway, the MPAs in Essex and Thurrock to the north will also be contacted. The council is consulting

with the operators of local wharves, quarry sites and recycling facilities in Medway. Broader consultation will be held with:

- London Aggregates Working Party
- East of England Aggregates Working Party
- Neighbouring district council planning authorities
- South East Local Enterprise Partnership
- North Kent Environmental Planning Group
- Thames Gateway Kent Partnership
- The Crown Estate

2.9 Following comments received to last year's consultation on the 2013 LAA for Medway a new section on the environmental constraints and their impact within the authority on minerals supply has been added to the LAA this year.



### 3. Context

- 3.1 This section provides an overview of the planning policy background against which the LAA has been prepared, an outline of the area's geological resources, environmental constraints and specific features of minerals planning in Medway, resulting from the strategic importation role of the major wharves in the area.

#### *Policy context*

- 3.2 In 2009 the Department of Communities and Local Government issued national and regional guidelines for aggregates provision in England from 2005 to 2020<sup>2</sup> as part of the Managed Aggregates Supply System. This sets out anticipated demand for aggregates that mineral planning authorities are expected to plan for. This guidance updated earlier guidelines from 2003, and recommended lower levels of provision to take account of materials being supplied from other sources, particularly marine dredged sand and gravel. This guidance is a material planning consideration and is still extant. With the revocation of the South East Plan, there is now no apportionment of the land won elements to mineral planning authorities.
- 3.3 Government set the following guidelines for southeast England:

**Table 1: National and regional guidelines for aggregates provision in England and the South East, 2005-2020 (million tonnes)**

Region	Guidelines for land won production		Assumptions		
	Land-won Sand & Gravel	Land-won Crushed rock	Marine Sand & Gravel	Alternative Materials	Net Imports to England
South East England	195	25	121	130	31
England	1028	1492	259	993	136

- 3.4 This demonstrates the importance of the South East Region to the provision of marine sand and gravel. The region is also the second largest importer of aggregates into England for this period. It should be noted that there is a lower level of certainty with the assumptions on materials to be sourced from outside of England.
- 3.5 In the past a system of apportionments were set nationally based on the geology of areas and levels of supply. This system meant that every local planning authority was allocated an apportionment, however now the system is based on the supply and demand of the economy that will allow Local Planning Authorities to allocate their own figures in their local plan. As a result the apportionment of 0.18mtpa

<sup>2</sup> Available at:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7763/aggregatesprovision2020.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7763/aggregatesprovision2020.pdf)

that was used in the Submission Draft Medway Core Strategy now has no policy status and is used as a reference point in the LAA. Medway Council has commenced work on the preparation of a new Local Plan. A timetable for the plan production has been set out in the Medway Local Development Scheme, June 2014, with the aim to adopt a new local plan in 2017. This plan will include minerals policies and site allocations.

3.6 The NPPF states: '*Minerals planning authorities should work with other relevant organisations to use the best available information to:*

- *develop and maintain an understanding of the extent and location of mineral resource in their areas; and*
- *assess the projected demand for their use, taking full account of opportunities to use materials from secondary and other sources which could provide suitable alternatives to primary materials.*<sup>3</sup>

3.7 A new minerals target will be adopted in a new plan following an assessment based on the techniques outlined above.

## **Geology**

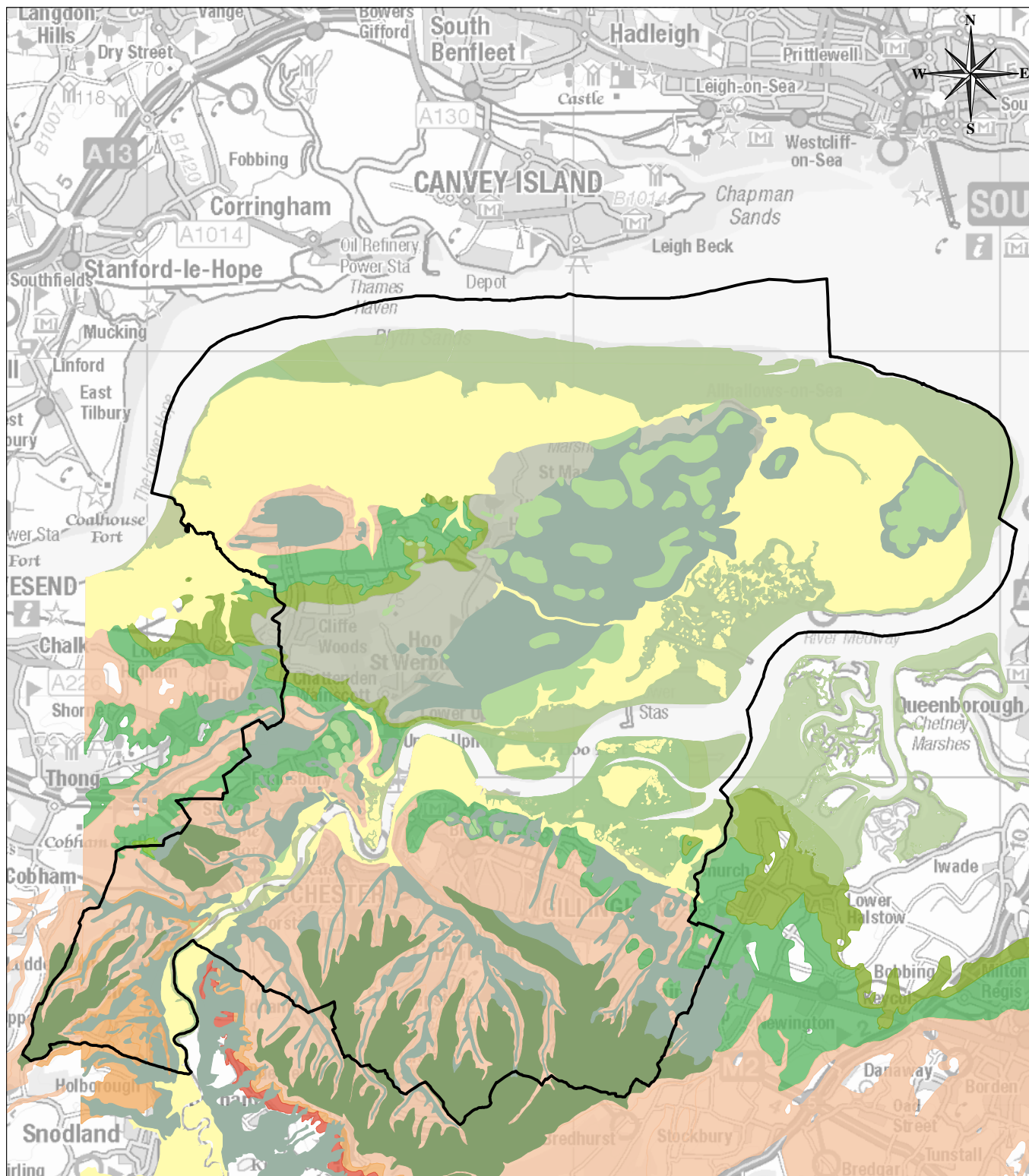
3.8 There are sand and gravel deposits in the Medway area, concentrated on the Hoo Peninsula. These are the results of post-glacial melt water outwash deposition found in a series of 'river terraces', trending roughly from north west to south east across the peninsula's ridge, and on the Isle of Grain. There are also more recent water-lain deposits covering areas of land on the eastern and northwestern marshes of the peninsula that include some sand and gravel seams.

3.9 The deposits have not been significantly reworked by natural processes since their deposition, and have a sand to gravel ratio and particle characteristics that makes them generally attractive for high specification value added concrete production.

3.10 Information arising from research to support minerals planning in Kent and Medway, together with borehole survey data provided by minerals companies, have been used to determine 'Areas of Search' for minerals allocations in development plans. Total proven aggregate mineral resources, including the defined 'Areas of Search' over the Medway area is calculated to be 1,640,000 tonnes. The total potential (proven and unproven) river terrace sand and gravel reserves in the unconstrained areas of the Hoo Peninsula are assessed as being in a range from 3,345,326 tonnes to 4,547,940 tonnes. This is considered to provide sufficient potential to meet the area's needs.

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<sup>3</sup> Available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/60777/2116950.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/60777/2116950.pdf)



#### Bedrock Geology

- Thamet Sand Formation
- Thamet Sand - Bullhead Bed
- Harwich formation
- London Clay formation
- Lewes Nodular Chalk formation
- London Clay - Claygate Member
- Gault formation
- Chalk
- Melbourne Rock
- Lenham formation

- Bagshot formation
- Lambeth Group
- Folkestone formation
- Lewes Nodular Chalk formation
- West Melbury Marly Chalk Formation
- Zig Zag Chalk Formation

#### Superficial Geology

- Well Hill gravel
- Chelsfield gravel
- Kempton Park gravel formation
- Boyn Hill gravel formation
- Alluvium
- Taplow gravel formation
- Black Park gravel formation
- Head (undifferentiated)
- River Terrace Deposits (undifferentiated)
- Peat

- Clay with flints
- Dartford/Silt/Ifford Silt formation
- Lynch Hill gravel formation
- Beach and Tidal Flat Deposits (undifferentiated)

## Medway Geology

**Medway**  
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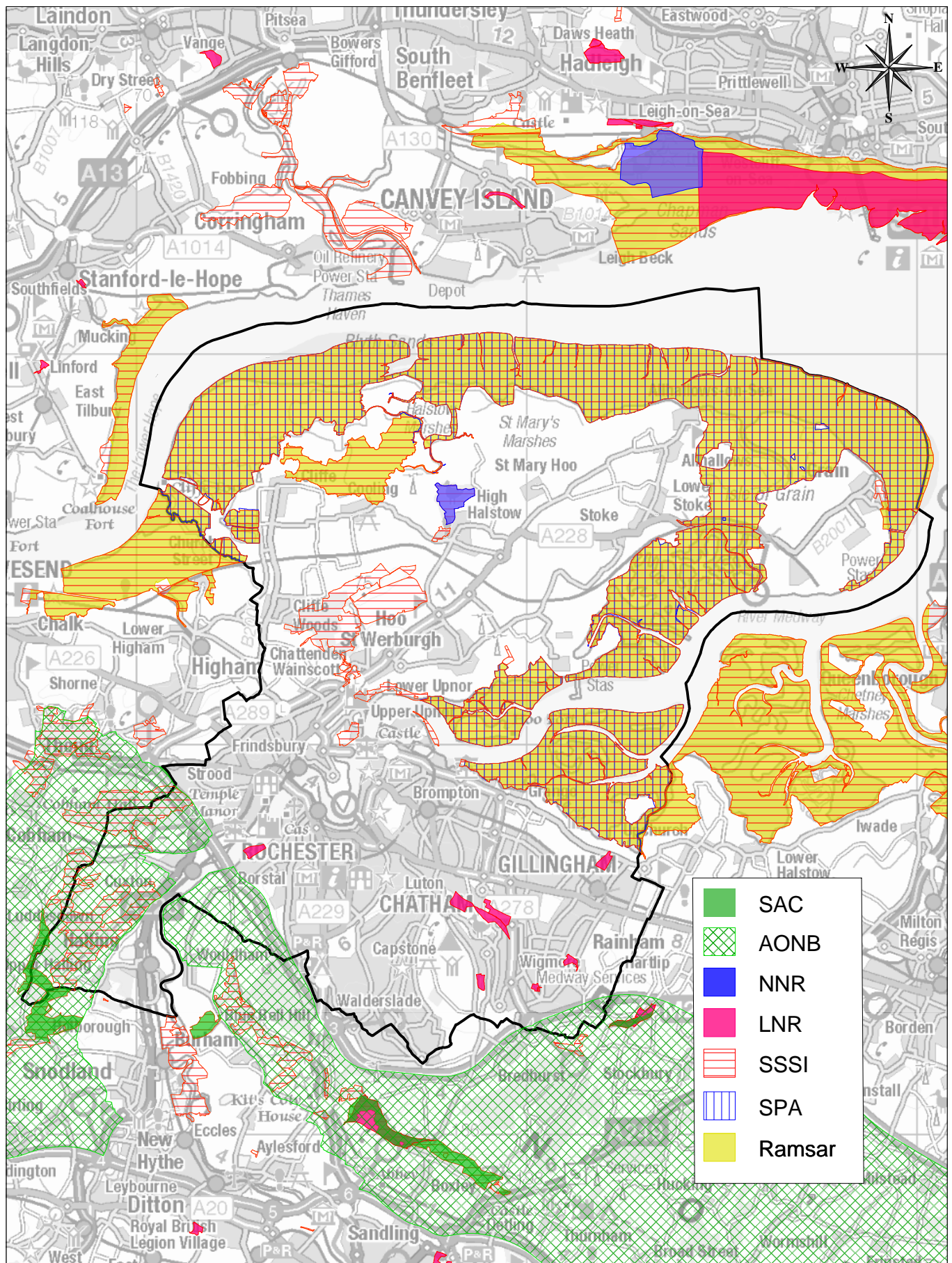
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## **Environmental Constraints**

- 3.11 Medway covers an area of 26,885ha (including rivers and coastal areas) but within this area are numerous environmental designations that could constrain where minerals extraction could take place. These designations include: Areas of Outstanding Natural Beauty (AONB) Ramsar sites, Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNR) & Local Nature Reserves (LNR), Special Protection Areas (SPA) and Special Areas of Conservation (SAC) and cover a total area of 8,953ha or 33% of the district's total area.
- 3.12 The majority of the sand and gravel deposits in Medway lie outside of the areas of environmental designation on the Hoo Peninsula, and so can be accessed. There is the potential in the future as a result to expand the existing sand and gravel workings should demand dictate. In addition all 3 of Medway's wharves lie outside of the environmentally designated areas potentially allowing for expansion. However the wharf at Cliffe is constrained between two areas of environmental designation.



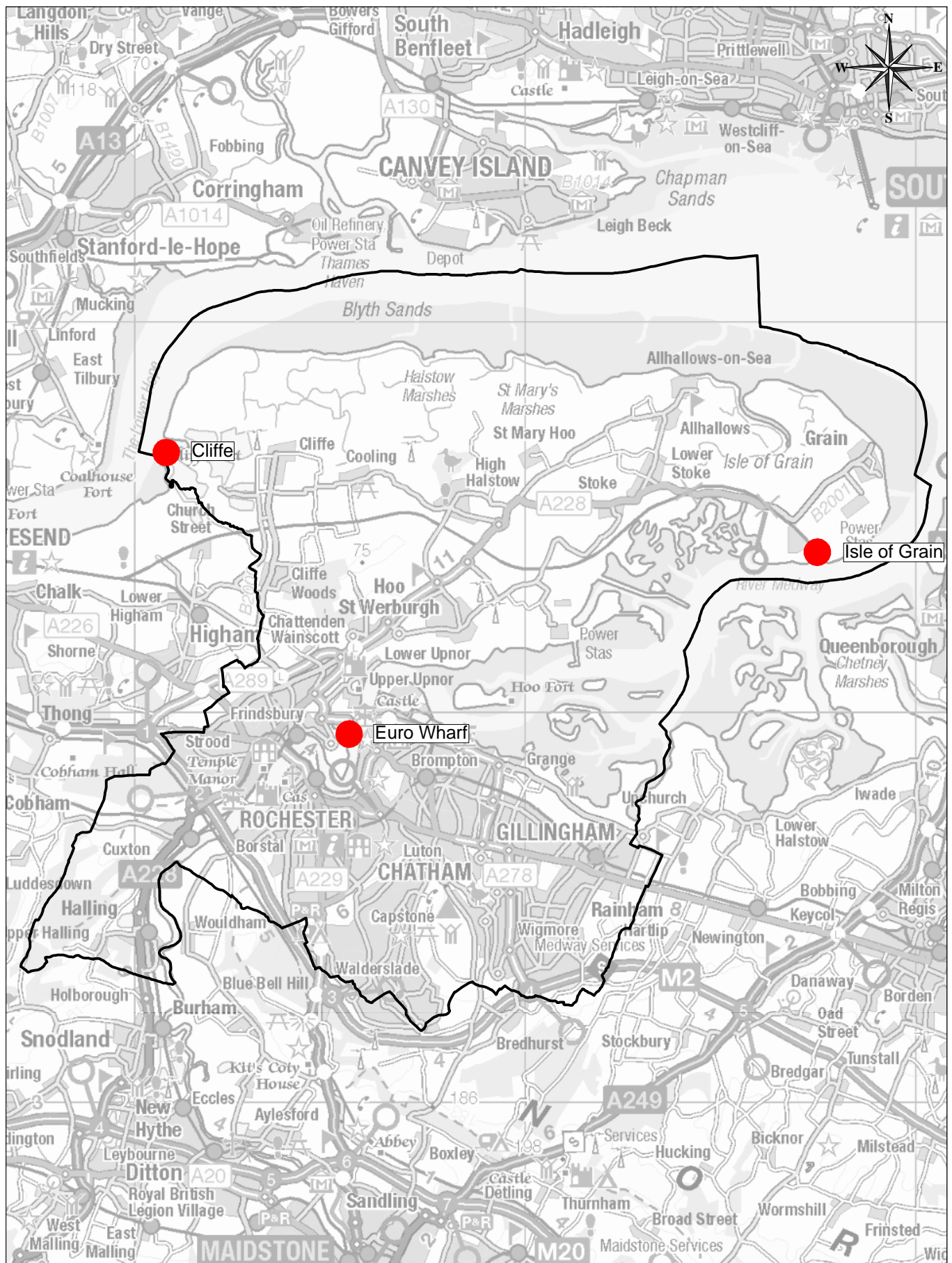


## Environmental Constraints Map

## **Wharves**

- 3.11 Medway makes a critical contribution to the south east's infrastructure for the importation of aggregates, particularly marine dredged sand and gravel. The scale of the importation makes Medway's wharves of regional and national significance. There are three currently in operation:
- Grain Terminal, Isle of Grain – operated by Foster Yeoman Ltd
  - North Sea Terminal, Cliffe, Rochester - operated by Brett Aggregates of the Brett Group UK
  - Euro Wharf, Frindsbury, Rochester – operated by Hanson Aggregates of the Heidelberg Cement Group.
- 3.13 Together these three sites make a significant contribution to the importation of minerals into the region. Medway's wharves are amongst the largest in Kent and Medway, and have the greatest capacity. The wharves are operating below their capacity levels, which offers the ability to increase production in response to market demand.





## Aggregate Wharves

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#### **4. Consideration of aggregates options**

4.1 In line with the requirements for LAAs, this assessment considers a comprehensive range of options for the supply of aggregates:

- Marine sources – from areas licensed for marine sand and gravel dredging;
- Imports into and exports out of Medway;
- Land won resources – including land banks and allocations.
- Recycled aggregates – including from construction, demolition and construction waste;
- Secondary aggregates – whose sources come from industrial wastes such as glass, ash, railway ballast, fine ceramic waste and scrap tyres; and industrial and minerals by-products, such as waste from china clay, coal and slate extraction and spent foundry sand;

4.2 Each supply option is considered separately in this section.

##### **Marine dredged aggregates**

4.3 This supply stream is of particular importance for Medway, due to the quantities of materials landed at the area's wharves. The location of the large wharves on the rivers Medway and Thames provides good access to the licensed dredging grounds in the Thames Estuary, North Sea and English Channel. These wharves are also well placed for onward transport of materials to markets locally, in London and the wider southeast and East Anglia.

4.4 Landings of marine dredged aggregates into Kent and Medway wharves in 2013 accounted for over 50% of all MDA landed in the south east, excluding London.<sup>4</sup>

4.5 There is wide recognition of the role of marine aggregates as an important supply stream. This is evidenced through the updated national and regional apportionment guidelines issued in 2009, (set out in Table 1 above) and the information provided on annual sales of minerals through the aggregates monitoring surveys showing an increased proportion of sales from marine sources in comparison with the assumptions made in 2009. A summary of the sales on regional and sub-regional levels is set out in Table 2 below.

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<sup>4</sup> Source: South East Aggregates Working Party – South East Aggregates Monitoring Report 2013 (SEEWPA, 2014)



**Table 2: Sales of Marine Dredged Sand and Gravel from Wharves, 2004-2013**

(MPA & SE region, thousand tonnes)

County	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Hampshire & Isle of Wight	1853	1687	1992	1908	1669	1157	1213	1279	1190	1511
Kent & Medway	3498	3291	4319	3425	2850	3127	2680	3012	3229	3215
East Sussex & West Sussex	1133	977	1390	799	1062	701	686	1475	1734	1694
<b>Totals</b>	<b>6484</b>	<b>5955</b>	<b>7701</b>	<b>6132</b>	<b>5581</b>	<b>4985</b>	<b>4579</b>	<b>5766</b>	<b>6153</b>	<b>6420</b>

Source: AM surveys 2004-2013

Footnotes to Table: 2

Note: The Crown Estates landings in 2013 were only 4.6Mt, partly reflecting dredgings landed from outside licensed areas in connection with the Thames Gateway port project

Guideline assumption for marine dredged sand and gravel landings in SE 2005-2020 = 7.6mtpa

**Table 3: The Crown Estate licensed dredging to Thames Estuary, 2012**

Licensed Region	Production Licences	% delivered to Thames Estuary
East Coast	13	54%
Thames Estuary	4	97%
East English Channel	6	52%
South Coast	14	16%

Source: Information from Marine Aggregates Capability & Portfolio 2013–The Crown Estate

4.6 The information published by the AM2013 indicates a minor decline in the sales of marine dredged aggregates in Kent and Medway, but still significantly higher than 2010 and 2011. Within the authority an increase was recorded in the returns received, suggesting that the reduction was seen in other wharves in Kent.

4.7 Information provided from the Annual Minerals Raised Inquiry<sup>5</sup> carried out by ONS confirms the importance of MDA as a construction material nationally and for Kent and Medway. MDA provided over 68.7% of the total sand and gravel supplied in Kent and Medway for construction purposes. The supply from Kent and Medway represented 22.9% of the English total, and 21.5% of the GB total. This underlines the strategic importance of the Kent and Medway wharves in relation to the supply of MDA, and their role in contributing to this supply stream.

<sup>5</sup> Available at:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/285128/Mineral\\_extraction\\_in\\_Great\\_Britain\\_2012\\_-\\_Business\\_Monitor\\_PA1007.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/285128/Mineral_extraction_in_Great_Britain_2012_-_Business_Monitor_PA1007.pdf)

**Table 4: Sand and Gravel for construction**

(Extractors' sales by end-use and area of origin, 2012 in thousand tonnes)

Area of Origin	Sand		Gravel	Other Sand and Gravel for fill	Total	Of which marine dredged material
	Building Sand for use in mortar	Concreting Sand	Concrete Aggregate			
Kent & Medway	317	954	1423	338	3229	2219
England	4527	16860	11421	4480	424909	9680
GB	5474	19697	12592	5480	50044	10291

Source: CLG – Mineral Extraction in Great Britain, 2012 – February 2014<sup>6</sup>**Table 5: Market contribution of MDA to GB sand and gravel market (million tonnes)**

	2012			2011	2010	2009	2008
	Market Share %		% Change				
Total GB market	-	51	-7.3%	58	55	55	72
Total England & Wales market	87.25%	44.5	-8.4%	50	47	49	64
Marine landings to England & Wales	19.8%	10.1	-12.2%	11.52	9.94	10.03	13.12
Marine landings to SE England	15.92%	8.12	-15%	9.56	7.81	7.97	9.61
Marine landings to London & Thames corridor	10.9%	5.6	-18.8%	6.9	5.38	5.85	7.18

Source: British Marine Aggregate Producers Association – Strength from the depths: Seventh sustainable development report for the British marine aggregate industry, February 2014<sup>7</sup>.

4.8 The total aggregate market decreased over 2011-12, reflected in table 5. The marine aggregate landings also fell above the general market decline. This decline was matched by the Crown Estate landing statistics for the Thames Estuary, an area within the south east region, for 2011-12 that saw a 18.3% decrease<sup>8</sup>.

<sup>6</sup> Available at:[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/285128/Mineral\\_extraction\\_in\\_Great\\_Britain\\_2012\\_-\\_Business\\_Monitor\\_PA1007.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/285128/Mineral_extraction_in_Great_Britain_2012_-_Business_Monitor_PA1007.pdf)<sup>7</sup> Available at: [http://www.bmapa.org/documents/BMAPA\\_SD\\_Report2014.pdf](http://www.bmapa.org/documents/BMAPA_SD_Report2014.pdf)<sup>8</sup> Available at: <http://www.thecrownestate.co.uk/energy-and-infrastructure/downloads/marine-aggregate-downloads/>

- 4.9 Nevertheless landings figures published by the Crown Estate for the Thames Estuary in 2013, of which Medway is a part, indicate a 7.5% increase.<sup>9</sup>

### Imports

- 4.10 Information on imports and exports of aggregates has been set out in the South East Aggregates Monitoring Report 2013. This illustrated that 6.4mt of marine sand and gravel and 4.5mt of crushed rock was imported into the southeast region and 1Mt of marine sand and gravel and 0.4Mt of crushed rock were exported.

### Crushed rock Importation

- 4.11 Again consideration of this supply stream shows the importance of Medway's wharves in the importation of land won aggregates and their supply into markets in Kent, London and the greater south east. Materials are transported on to wider markets by road, rail and shipping. There are no railhead importation facilities in Medway that are independent of the wharves. The combined wharf and rail facilities at Cliffe and Grain provide valuable infrastructure. Both land won sand and gravel and crushed rock have been imported. Grain imports from the superquarry at Glendsanda in Scotland. This site has planning permission for the extraction of minerals until 2043, which provides a good degree of certainty for this supply stream.
- 4.12 The total landings of crushed rock at Kent and Medway wharves were 90% of the region's total in 2013. It is not possible to provide a figure for Medway alone, due to confidentiality considerations, but it is acknowledged that the local wharves make an important contribution to this high proportion of the regional supply. The deep-water wharves of north Kent and Medway provide suitable offloading facilities close to the demand for aggregates. It is noted that as vessels have increased in size, use of smaller wharves on the South Coast has been displaced to the larger facilities in north Kent and Medway.

**Table 6: Imports of Crushed Rock by Sea, 2004-2013**

(MPA and SE Region, thousand tonnes)

County	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
East Sussex & West Sussex	219	140	120*	200*	206	108	235	166	249	95
Hampshire & Isle of Wight	385	385	313	50*	32	25*	44	34	33	31
Kent &	2561	1980	2098	2780	2067	1344	1602	1724	1194	1402

<sup>9</sup> Source: Marine Aggregates, The Crown Estate Licenses Summary of Statistics 2013 (The Crown Estates, 2014)

Medway										
<b>Totals</b>	<b>3165</b>	<b>2505</b>	<b>2530*</b>	<b>3030*</b>	<b>2305</b>	<b>1480*</b>	<b>1881</b>	<b>1944</b>	<b>1476</b>	<b>1528</b>

Source: AM2013 survey

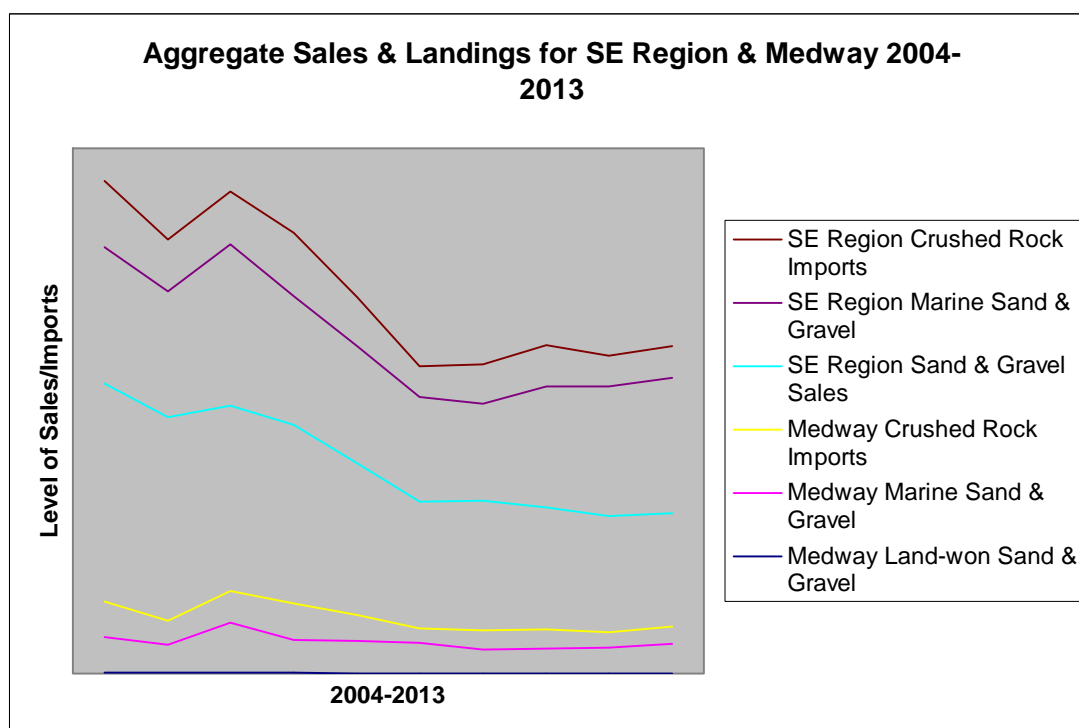
Medway included with Kent, as all figures would otherwise be confidential

\* = figure rounded to avoid revealing a confidential figure

Guideline assumption for net imports of aggregate to SE from outside England 2005-2020 = 1.9 mtpa

4.13 The Aggregates Monitoring report 2013 produced by SEEAWP provides an overview of the regional position on the importation of crushed rock. Landings of sea borne crushed rock in 2013 at some 1.5 Mt maintained the level of landings in 2012. Nearly 90% of the crushed rock was landed at wharves in Medway and Kent and 90% of the crushed rock was sold for roadstone, railway ballast, concrete aggregate and other screened and graded aggregate, the rest for construction fill<sup>10</sup>. This was the same as the 2012 report.

4.14 When the regional trends and the local trends are compared the production/landing of minerals is comparable (see graph below). Medway therefore is inline with the regional trends outlined in the SEEWAP figures.



**Figure 1: Comparison of Aggregate Sales & Landings for SE Region & Medway 2004-2013**

<sup>10</sup> Source: South East Aggregates Working Party – South East Aggregates Monitoring Report 2013 (SEEWPA, 2014)

## **Land Won resources**

### *Reserves*

- 4.15 Medway has deposits of sand and gravel, and quarrying has historically taken place across the Hoo Peninsula, but there have been limited operations in recent years.
- 4.16 The present permitted reserve of sand and gravel is 1.315 million tonnes. This is derived from Kingsnorth Quarry to the south east of the village of Hoo St Werburgh, and a small remaining reserve at Perry's Farm, Grain.
- 4.17 Kingsnorth Quarry has planning consent for the extraction of 1,195,000 tonnes of sand and gravel. The plan is to extract minerals in phases at a rate of approximately 120,000 tonnes a year, over 10 years.
- 4.18 Planning consent (reference MC/2005/0589) was issued on 1 May 2007 for the extraction and processing of sand and gravel, establishment of a ready-mix concrete plant, and restoration to agriculture and water based conservation. Lafarge has not started its operations on the site, and in December 2011, (reference MC/12/0020) made a further application to defer the commencement date of the operations. Planning permission was granted on 21 June 2012 and this extended the period for the commencement of the development until 1 May 2017. As yet, no works have started.
- 4.19 Research carried out to support mineral planning work in Kent and Medway has provided an indication of further available reserves in the area. As set out earlier in this report, information on potential reserves indicates that there is sufficient potential resource for further allocations to meet needs over the emerging local plan period.

### *Requirements – Policy and Sales average*

- 4.20 Due to the limited number of quarrying sites in Medway, it is not possible to publish annual levels of sales of locally won sand and gravel. This adheres to the confidentiality agreements set between the aggregates industry and mineral planning authorities. However the council has been able to use data provided to the annual Aggregates Monitoring survey have been used to produce a 10 year and 3 year average figure.
- 4.21 The 10-year average of sales from quarries in Medway is 18,200 tonnes pa. The 3-year average of sales is zero.

### *Landbank*

- 4.22 Medway is required to maintain a 7-year land bank for sand and gravel. Permitted reserves are considered to be 1,315,000 tonnes. The current position is set out below using the 10-year sales average, in line with the NPPG. The former draft policy allocation of 0.18 Mtpa is shown as a reference point.

**Table 7: Calculation of landbank for sand and gravel**

	<b>10 year average of 0.0182 Tpa</b>	<b>Sub-Regional Apportionment 0.18 Tpa</b>
Length of land bank	72.2 years	7.3 years

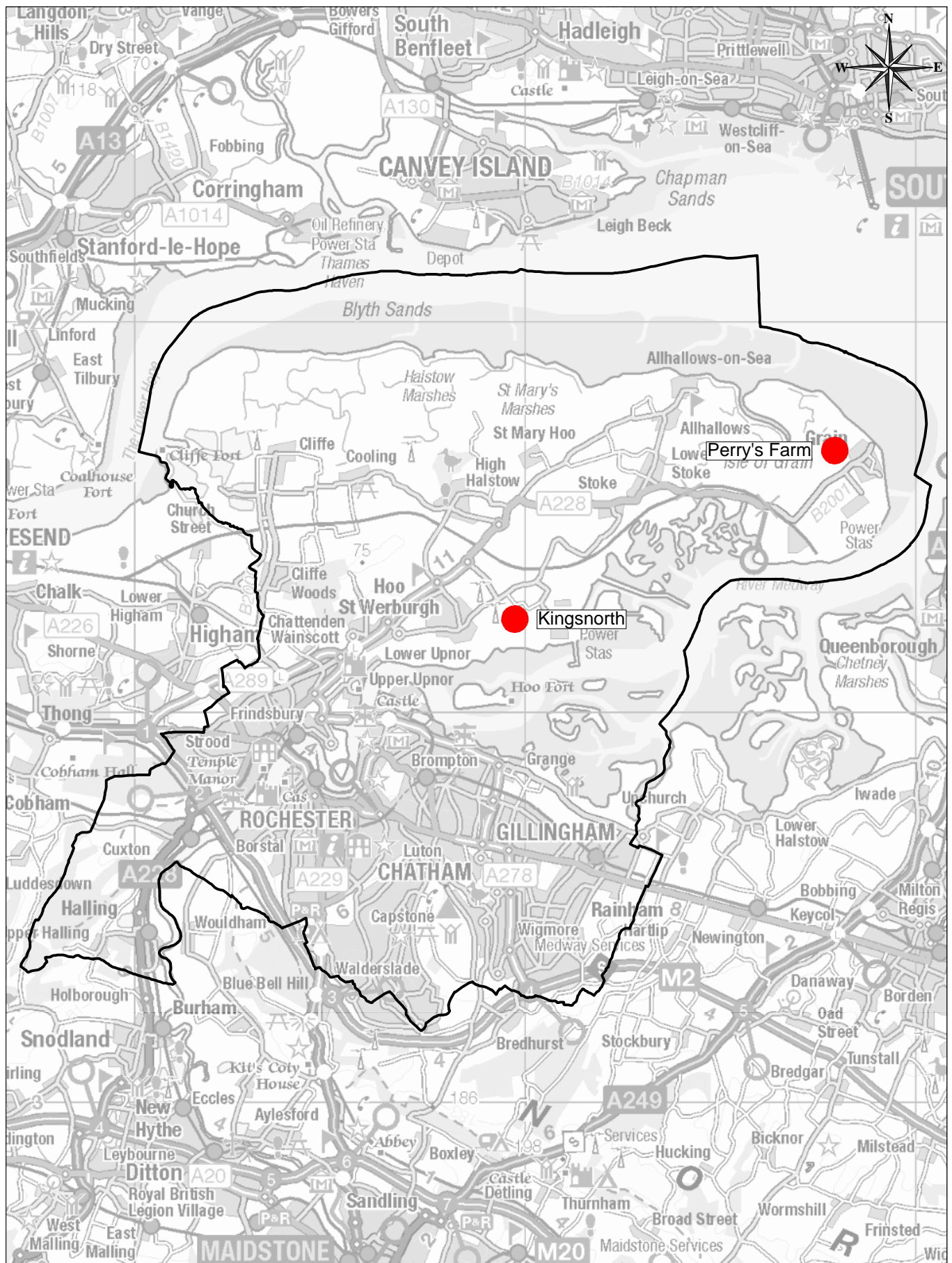
- 4.23 Due to Medway's geology, it is not appropriate to maintain a landbank for land won crushed rock, or a separate landbank between soft sand and sharp sand and gravel.

*Consideration of wider context*

- 4.24 The regional context is provided through the South East Aggregates Monitoring report 2013. This showed a decline in sales of land won sand and gravel to 5.4 mt in 2013, a fall of 0.1 mt from 2012<sup>11</sup>. Over nine of the last ten years sales have fallen – from 11.5 Mt in 2002 to the current level. This is substantially below the regional apportionment 'proposed changes' level set for the South East region of 11.12 mtpa – 47% lower.
- 4.25 The regional landbank as measured in 2013 was at 8.45 years for sand and gravel and 48 years for crushed rock.
- 4.26 Sales of local crushed rock across the southeast were 1.2 mt in 2013, 400,000 tonnes more than in 2012, and the highest figure since 2009. With 60 mt of reserves, there are over 48 years for working at the 'Proposed Changes' apportionment level.

<sup>11</sup> Source: South East Aggregates Working Party – South East Aggregates Monitoring Report 2013 (SEEWPA, 2014)





## Quarries in Medway

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## **Recycled and secondary aggregates**

- 4.27 Materials defined as recycled or secondary aggregates are derived from demolition and construction waste, and industrial by-products such as power station ash, colliery spoil, blast furnace slag and slate. Materials can be used as substitutes for aggregates, such as in concrete production, and as fill. The use of recycled and secondary aggregates is critical to the sustainable management of primary mineral resources.
- 4.28 In line with government policy to secure the valuable finite resources of materials required for development, the council promotes the use of alternatives to primary aggregates.
- 4.29 Medway's contribution towards this supply stream has come from a wide range of sources, including both recycled and secondary materials. There has been overall a slight increase in the total amount of secondary and recycled products recorded in operator returns over the past year 2012-13, but there has been a notable increase over the past year of aggregate for construction fill and industrial by products resulting from the closure of Kingsnorth Power Station and emergence of new recycling centres.
- 4.30 Research carried out in 1999 into waste in Medway, and in 2007 to inform the South East Plan regional policy provision on waste generated consistent estimates of the arisings of construction, demolition and excavation (CDE) waste in Medway, at around 330,000 tonnes per annum.
- 4.31 Facilities exist within Medway for the recycling of CDE waste at fixed sites. However there is additional capacity, as it is understood that significant amounts of material are dealt with onsite by mobile plant in the demolition and construction process.
- 4.32 Capacity and arisings in this sector are difficult to compile, as there is poor operator participation in the annual aggregates monitoring surveys. Due to the difficulties in collating comprehensive survey information in this market area, and the small number of returns from operators in Medway, it is not possible to provide information at a Medway level for the production of secondary and recycled aggregates at this time.

### *Context*



- 4.33 Recycled and secondary materials in the GB aggregates market were 54mtpa in 2012, representing around 29% of the total market<sup>12</sup>.
- 4.34 On a regional level, the Aggregates Monitoring 2013 survey recorded that over 3.3 Mt of Construction, Demolition & Excavation waste was being recycled at fixed sites and used for aggregates, and 0.4 Mt from other secondary sources<sup>13</sup>. This is a noted area for incomplete survey returns, as there are often poor levels of participation in the survey and it can be difficult to engage smaller and mobile operators. The data therefore needs to be treated with appropriate caution on its robustness.
- 4.35 More comprehensive surveys in this area were carried out in 2005 and 2008<sup>14</sup>. These suggested that 6Mt was a 'reasonable indication' of the tonnage recycled as aggregate in the South East. The state of the economy and the downturn in the construction sector at the time of the survey suggests that current recycling output is likely to be lesser than the 6Mt therefore accounting for the difference in the latest figures from general expected trends.

#### **National and Regional overview – supply streams**

- 4.36 The national picture for aggregates sales shows a reduction in the market over the past year that is still significantly below pre-recession levels of 2007. It is noted that the fall in the proportion of aggregates being sourced is across all areas, except beach replenishment and contract fill, which saw a significant uplift of 44% in 2012.

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<sup>12</sup> Source: British Marine Aggregate Producers Association – Strength from the depths: seventh sustainable development report for the British marine aggregate industry, February 2014. ). Available at: [http://www.bmapa.org/documents/BMAPA\\_SD\\_Report2014.pdf](http://www.bmapa.org/documents/BMAPA_SD_Report2014.pdf)

<sup>13</sup> Source: South East Aggregates Working Party – South East Aggregates Monitoring Report 2013 (SEEWPA, 2014)

<sup>14</sup> Sources: Survey of Arisings and Use of Alternatives to Primary Aggregates in England, 2005: Construction, Demolition and Excavation Waste, Capita Symonds for DCLG, November 2006; and Survey of Arisings and Use of Alternatives to Primary Aggregates in England, 2005, Capita Symonds for DCLG, December 2006; and Survey on Construction, Demolition and Excavation Waste (CDEW) Arisings, Use and Disposal in England 2008, WRAP for DCLG, April 2010

**Table 8: Market Summary (in million tonnes)**

	2012			2011	2010	2009	2008	2007
	Market Share %	Tonnage	% Change					
Total GB aggregates market	-	189	-8.7%	208	206	203	256	280
Land based aggregates	66.1%	125	-8.4%	136.5	148	147	187	195
Recycled and secondary aggregates	28.5%	54	-10%	60	58	57	69	70
Total marine aggregates production	8.8%	16.79	-12%	19.12	15.95	20.10	21.24	23.20
Marine landings to GB aggregates market	5.3%	10.1	-12.2%	11.5	9.94	10.03	13.12	14.45
Marine landings to European aggregates market	2.3%	4.5	-26%	6.1	5.19	5.66	6.21	6.65
Beach replenishment contract fill	1.13%	2.15	+44%	1.49	0.86	4.5	2.21	2.10

Source: British Marine Aggregate Producers Association – Strength from the depths: Seventh sustainable development report for the British marine aggregate industry, February 2014.

- 4.37 On a regional basis, data collected in the 2013 Aggregates Monitoring survey from quarry, wharf and rail depot operators showed a strong position of supply over demand. AM2013 confirmed a small net export of land-won sand and gravel and marine aggregate, principally to London, and the region being a major importer of hard rock, principally from the South West.
- 4.38 In September 2014 the House Builders Federation published a report indicating that confidence was returning to the construction industry. The ‘New Housing Pipeline Report’ indicated a significant rise in the number of planning permissions being granted with a 71% increase nationally and 38% increase regionally on the last year<sup>15</sup>.
- 4.39 The Federation of Master Builders: ‘State of Trade Report’ for the second quarter of 2014 also supported the belief that there was an increase in confidence in the construction industry<sup>16</sup>. The report found the workload level to now be the highest since the third quarter of 2004 and there was an increase in the number of builders by 12%.

<sup>15</sup> Source: Housing Pipeline Report (House Builders Federation, June 2014)

<sup>16</sup> Source: State of Trade Report 2014 (Federation of Master Builders, 2014)

- 4.40 Both reports are signs of increased demand in the construction industry that will increase the potential need for aggregates in the future.

**Table 9 Sand and Gravels – Sales, Permissions and Reserves 2013 (MPA and SE region, thousand tonnes)**

County	Soft Sand (Building Sand)				Sharp Sands and Gravels				Total: All Sands and Gravels			
	Reserves at start of year	Sales during year	Permissions during year	Reserves at end of year	Reserves at start of year	Sales during year	Permissions during year	Reserves at end of year	Reserves at start of year	Sales during year	Permissions during year	Reserves at end of year
Berkshire unitaries	c	c	0	c	c	c	2400	c	8117	792	2400	10272
Bucks	1415	62	0	1303	8634	711	0	7840	10040	773	0	9143
East Sussex	c	c	0	c	c	c	0	c	c	c	0	c
Hampshire	2427	119	0	1914	12083	728	0	11171	14610	847	0	13085
Isle of Wight	310	c	0	180	1358	c	0	1530	1668	62	0	1710
Kent	14717	483	0	14565	3810	273	0	4118	18527	756	0	18583
Medway	c	0	0	c	c	c	0	c	c	c	0	c
Milton Keynes	c	0	0	c	c	c	450	c	c	c	450	c
Oxfordshire	2415	165	0	2164	5836	401	873	6619	8251	566	873	8783
Surrey	7281	430	0	4366	2093	366	0	1759	9374	796	0	6125
West Sussex	3876	277	0	3534	925	0	0	925	4801	277	0	4459
<b>Totals</b>	<b>32666</b>				<b>48822</b>				<b>75297</b>			

Source: AM2013

Footnotes to table

c= confidential figure or figure that can not be recorded without revealing a confidential figure

0= nil sales or less than 500 tonnes

Information provided for the Berkshire unitaries relates to AM2011 returns.

The reserves for Hants, Kent and Surrey do not include over 6.4 Mt allocated for non aggregate use.

The reserves do not include 1Mt in dormant sites in Berks and Bucks.

Reserves of an unspecified type in the Isle of Wight have been allocated to soft sand, sand and gravel in the same % as for known reserves.

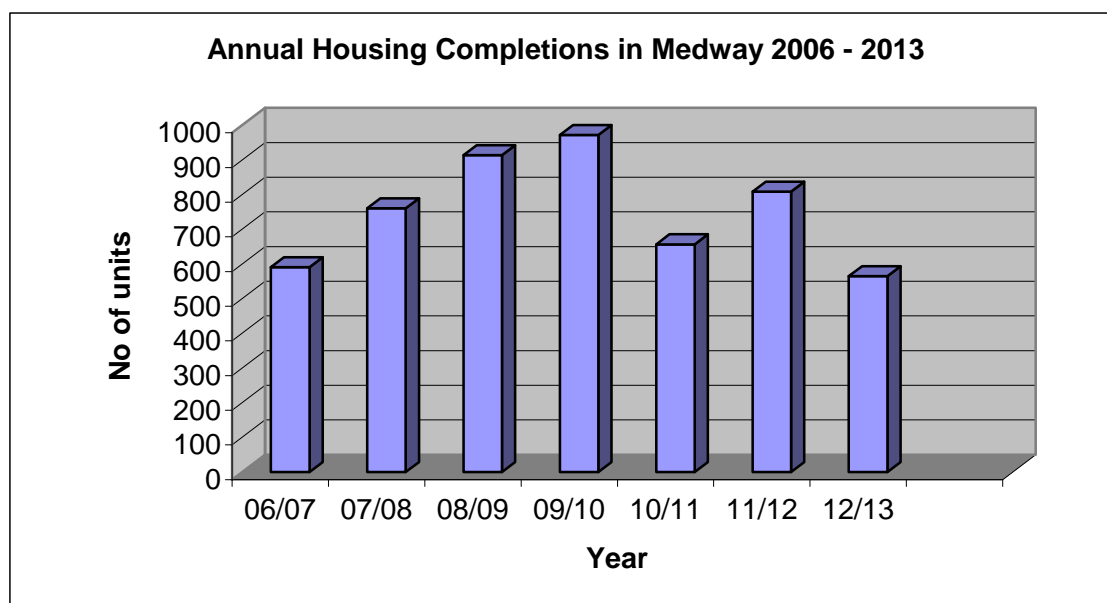
The figures for sharp sales and gravels include 4% sold for construction fill and 9% of the reserves are recorded as only suitable for fill

## 5. Consideration of Local Circumstances

- 5.1 Medway's draft Core Strategy was withdrawn in Winter 2013 and the process of developing a new local plan has started with a target date of adoption in 2017.

### Development Proposals

- 5.2 In June 2014 a Housing Position Statement was adopted by the Council, which agreed a revised housing target of 1,000 homes per annum based on an assessment of household projections. This replaced the annual target of 815 dwellings in the draft Core Strategy and South East Plan. The council is commissioning a comprehensive assessment of housing and economic development needs to inform the preparation of the new local plan, and the housing policy requirement.<sup>17</sup>
- 5.3 In line with national and regional trends, there was a downturn in house building in Medway in recent years, albeit the area has performed more strongly than others in delivery rates. However population projections confirm anticipated levels of growth in the area over the plan period up to 2035.



- 5.4 ONS has published Interim 2012 based population projections to 2037. These are based on the latest 2012 mid year estimate and take account of the 2011 Census. The population of Medway is forecast to increase from 268,000, in 2012 to 327,000 in 2037; this represents an increase of 22% (+59,000).<sup>18</sup>

<sup>17</sup> Available at: <http://www.medway.gov.uk/pdf/Housing%20Position%20Statement.pdf>

<sup>18</sup> Available at: <http://ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2012-based-projections/stb-2012-based-snpp.html>

## Infrastructure Proposals

- 5.5 The wharves infrastructure in Medway is critical to maintaining capacity for the importation of aggregates, particularly marine sand and gravels, which are increasingly important as a supply stream, with 50% of marine dredged aggregates in the south east coming through wharves in Kent and Medway. As the South East is a net importer of crushed rock, the contribution made for the importation through Medway wharves is also valued, with 90% of crushed rock imports coming through Kent and Medway wharves in the south east region<sup>19</sup>. Planning policy protects this important infrastructure.
- 5.6 Over the past years several economic development plans have emerged to facilitate growth in the district. These cover a range of areas including employment, housing and infrastructure.
- 5.7 The Thames Gateway Kent Partnership was established to facilitate sustainable economic growth within the southern Thames Gateway area, including Dartford, Gravesham, Medway and Swale. As a part of this brief it developed a 'Plan for Growth 2014-20' for the area. In relation to Medway the plan references the following local proposals<sup>20</sup>:
- Key sites on the Hoo Peninsula, Isle of Grain that comprise part of the South East Centre for Offshore Renewable Engineering, located within the Medway Swale Arc Assisted Area;
  - The transformation of Rochester Airport into an innovation and commercial hub (creating 1,750 jobs and 37,000m2 of floorspace);
  - Strood Riverside (2,000 new homes and 65,000m2 of mixed retail and employment space);
  - Rochester Riverside (1,500 new homes and 29,400m2 of commercial space);
  - Gillingham Waterfront (775 new homes and 2,200m2 of commercial space);
  - Chatham Waters (950 homes and 3,500 and Medway University Technical College);
  - Chatham Maritime (1,400 homes and 10,000m2 of commercial space);
  - Chatham Waterfront & Centre (2,250 new homes & 2,000 jobs); and;
  - Lodge Hill, Chattenden (5,000 homes and 44,100m2 of mixed floorspace).
- 5.8 This restates commitment to many long-standing regeneration ambitions for Medway. The plan also promoted several major infrastructure improvements in order to facilitate this growth over the next few years:
- A289 Four Elms to Medway Tunnel improvements (2015-18);

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<sup>19</sup> Source; SE Aggregates Monitoring Report 2013 (SEEAWP, August 2014)

<sup>20</sup> Source: Plan for Growth 2014-20 (The Thames Gateway Kent Partnership, 2014)

- Re-location of Rochester Station (2013-16);
- A2 journey time improvements (2015-17); and;
- Medway Cycling Action Plan (2015-21).

5.9 In 2014 Local Enterprise Partnerships (LEPs) provided funding for new infrastructure development across their regions through the Growth Deals negotiated with central Government<sup>21</sup>. In the south east region, including: East Sussex, Essex, Kent, Medway, Southend and Thurrock, the LEP allocated £442.2 million in funding to 2021. The aim of the funding is to create 35,000 jobs and 18,000 homes across the region. Within the Medway area this will fund the following:

- Kent and Medway Growth Hub;
- Chatham Town Centre Place-making and Public Realm Package
- A289 Four Elms Roundabout to Medway Tunnel Journey Time & Network Improvements;
- Medway City Estate Connectivity Improvement Measures;
- Strood Town Centre Journey Time & Accessibility Enhancements; and;
- Medway Cycling Action Plan.

5.10 All the projects outlined above will incur some need for development, which will result in an increased demand for materials in line with the development strategy to be set out in the new Local Plan. .

5.11 These projections and growth strategies will be taken forward and assessed in the development needs assessment to be undertaken for Medway that will provide a basis for the new Local Plan.

5.12 In conjunction with the plans outlined above there are several other potential major projects in the wider North Kent sub-region that may influence aggregate supply to and demand from Medway. These include the development of: Paramount Park, Ebbsfleet Garden City, a Lower Thames Crossing and improvements to the A2 at Bean at Ebbsfleet. All would cause an increased demand for construction materials in the sub-region. While the Lower Thames Crossing could also create arisings from tunnelling to create an increase in supply.

5.13 The time scales for these projects however are varied. Paramount Park is intended to start in 2016 and so may have an impact on aggregate demand in the short-term, whereas the other projects have longer-term timescales. Therefore it is difficult at present to assess accurately the impact of these developments on the supply and demand for aggregates in Medway. The council will continue to liaise with neighbouring authorities and monitor emerging development proposals.

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<sup>21</sup> Available at: <http://www.southeastlep.com/about-us/activities/our-growth-deal-and-strategic-economic-plan>

- 5.14 As set out in section 3 above, Medway has a significant area of important sensitive natural environments. These are a critical consideration to the effective planning for the supply of minerals.
- 5.15 The council will continue to monitor the supply and demand for aggregates, together with national and regional trends to inform policy development in the new Local Plan.



## **6. Conclusions**

- 6.1 Medway Council is currently working on developing a new local plan following the withdrawal of the draft Core Strategy from Examination in late 2013. The new plan will make policy provision for minerals over the plan period, but as of yet no draft policies for this have been established.
- 6.2 The assessment of current demand based on the 10 year sales average shows that sales are significantly below the level set in the sub-regional apportionment. This is in line with a wider trend for the reduced use of materials resulting from the economic downturn and slowdown in the construction sector in recent years.
- 6.3 Calculations on the current levels of supply are based on the 10-year sales average using the NPPF and NPPG guidance. This provides a landbank extending to over 72.2 years. Using the previous sub-regional apportionment figures as a reference for comparison, permitted reserves of land won sand and gravel resources in Medway are close to the 7-year landbank requirement.
- 6.5 Planning permission for the aggregates extraction site that makes up Medway's reserves has been extended to 2017. The council intends to consider the need for further allocations for minerals extraction to meet local needs and to contribute towards a steady and adequate supply at a strategic level through the work of the new Local Plan.
- 6.6 Medway has a strategic role in the importation of aggregates through its large wharves on the rivers Medway and Thames. Their ability to handle large vessels and the proximity to markets in the south east and London gives these wharves significance of a regional and even national scale. This is borne out in the data relating to the quantities of marine dredged aggregates and imported crushed rock landed at wharves in Medway. The facilities have surplus capacity and therefore are able to respond to an upturn in the economy. Assessment of the licensing regime for marine dredging confirms the ability to provide a sustainable and adequate supply from this source at present and in coming years. The Medway wharves are linked to the producers of imported crushed rock, and with the Glensanda quarry benefitting from planning permission until 2043, this again provides a degree of certainty on this supply stream.
- 6.7 Medway will see large local economic changes over the coming years with the development of several major infrastructure and housing projects planned to manage the population increases projected. The demand for minerals is therefore likely to increase to meet the demands of the projected growth.
- 6.8 It is considered that Medway is making adequate provision to ensure the steady supply of aggregates from a range of sources, and that it can continue to make an effective contribution to meeting local and wider needs for aggregates. The council will actively participate in the work of the SEE

Aggregates Working Party and maintain cooperative working with neighbouring mineral planning authorities and industry representatives in progressing work on a new Local Plan.

## **List of Abbreviations**

SEEAWP	South East England Aggregates Working Party
MDA	Marine Dredged Aggregates
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
LAA	Local Aggregates Assessment
Mtpa	Million tonnes per annum
Mt	million tonnes
MPA	Mineral Planning Authority
BMAPA	British Marine Aggregate Producers Association
ONS	Office for National Statistics