

# ISLE OF WIGHT COUNCIL



## Isle of Wight Local Aggregate Assessment 2015



*May 2016*

## Executive Summary

The requirement to produce an annual Local Aggregate Assessment (LAA) was introduced through the publication of the National Planning Policy Framework (NPPF) in March 2012. Following publication of the NPPF, the Government issued further guidance on planning for minerals in the National Planning Policy Guidance (NPPG), incorporating previous guidance on the Managed Aggregate Supply System (MASS). This report is the third LAA that aims to meet the requirements set out in both of these documents.

Sales for land-won sand and gravel in 2014 report the first increase in four years and when considering the most recent three years<sup>1</sup> (2012, 2013 & 2014) the picture locally appears to be one of stabilization and even a slight increase in sales. The next two to three year monitoring period will be important in determining if the overall trend in decreasing sales over the last decade has now stabilised, with the prospect of growth.

The council has allocated six sand and gravel mineral sites through the adopted core strategy. This has provided sufficient potential reserves through the plan period through to the year 2027. While one allocated site has been permitted and is understood to currently be being worked, due to the lengthening permitted reserves and the proportion of reserves (2% of potential yield from allocated sites and 5% of permitted reserves) this permission made up, it is possible to conclude that this is not significant. Furthermore, the council would expect the allocated mineral sites to gain consent over the lifetime (to the year 2027) of the adopted (March 2012) local plan (Island Plan Isle of Wight Core Strategy (including Waste and Minerals) and Development Management Development Plan Document).

Perhaps most significantly for the Island is the continued trend in the reliance on imported sand and gravel. This accounts for 60% of all sand and gravel sales. This highlights the ongoing reliance on the Island's three aggregate wharves and their continued importance to both the mineral industry and the wider development and regeneration of the Isle of Wight. The ongoing use of the aggregate wharves also provides wider benefits to the Island, both in terms of environmental (i.e. a lower carbon footprint) and securing ongoing infrastructure of strategic importance to the Island.

### Summary of main conclusions of this LAA

|  | Performance in 2014 | In comparison to previous year  |
|--|---------------------|---|
| Land won sand and gravel sales (tonnes)      | 68,760              |  6,353   |
| Permitted reserves of sand & gravel (tonnes) | 1,354,432           |  355,477 |
| Landbank (years)                             | 12.5                |  8.8     |
| Marine imported sand & gravel (tonnes)       | 103,000             |  21,000  |
| Marine imported crushed rock (tonnes)        | 0                   |  305     |
| Marine reserves (million tonnes)             | 84.33*              |  .02*    |
| Allocated sites/potential yield (tonnes)     | 5/1,730,000         | 5/1,730,000   |

\*Total current primary reserves (South Coast), Marine Aggregates Capability & Portfolio 2015, The Crown Estate

<sup>1</sup> A 10 and 3 year period of review has been used in this report in line with the approaches detailed in both the NPPF and the MASS guidance. For further detail on this please see 'Isle of Wight Sales' under the 'Land-won Sand and Gravel' section.

# Contents

|   |    |
|---|----|
| <b>1. Introduction</b>  | 1  |
| Background to the Island’s Local Aggregate Assessment   | 1  |
| The requirement to produce an annual LAA  | 1  |
| How the LAA has been developed  | 3  |
| Consultation  | 4  |
| Data limitations  | 5  |
| <b>2. Aggregate Supply and Demand</b>   | 6  |
| Geology   | 6  |
| Mineral Resources on the Island   | 6  |
| Land-won Sand and Gravel  | 9  |
| Hard Rock   | 13 |
| Marine-won Sand and Gravel  | 15 |
| Recycled and Secondary Aggregate  | 18 |
| <b>3. Total Aggregate Supply</b>  | 19 |
| <b>4. Future Aggregate Supply and Demand</b>  | 21 |
| <b>5. Implications of Local Approach</b>  | 26 |
| <b>6. Conclusions and future actions</b>  | 27 |
| <b>Appendix 1: Checklist for consideration by Mineral Planning Authorities and Aggregate Working Parties in assessing the adequacy of Local Aggregate Assessments, POS-MPA LAA Guidance April 2015.</b> | 28 |
| <b>Appendix 2: Isle of Wight Local Aggregate Assessment, Consultation Draft December 2015 – Summary of Consultation Responses</b>   | 33 |
| <b>Appendix 3: Comments following consultation on final draft LAA 2015 with the South East England Aggregate Working Party</b>  | 34 |

## List of Figures

|           |   |    |
|-----------|---|----|
| Figure 1: | BGS Mineral Resource Areas  | 7  |
| Figure 2: | Comparison of land-won sand and gravel sales and the apportionment on the Isle of Wight | 10 |
| Figure 3: | Active (permitted) sand and gravel sites and aggregate wharves on the Isle of Wight     | 11 |
| Figure 4: | Crushed rock sales on the Isle of Wight   | 14 |
| Figure 5: | Marine-won sand & gravel sales on the Isle of Wight                                     | 16 |
| Figure 6: | Proportion of Total Aggregate Supply  | 19 |
| Figure 7: | A comparison of housing completions and sand & gravel sales                             | 22 |

## List of Tables

|           |  |    |
|-----------|--|----|
| Table 1:  | Superficial Deposits across the Island   | 6  |
| Table 2:  | Summary of minerals existing on the Island   | 7  |
| Table 3:  | Land-won sand and gravel sales in the Isle of Wight, 2005 – 2014 (tonnes)              | 9  |
| Table 4:  | Permitted sand and gravel quarries on the Isle of Wight                                | 11 |
| Table 5:  | Isle of Wight Reserves at 31 December 2014 (tonnes)                                    | 11 |
| Table 6:  | Isle of Wight landbanks (years)  | 12 |
| Table 7:  | Import details of crushed rock and associated aggregates                               | 13 |
| Table 8:  | Marine imported crushed rock (tonnes)  | 13 |
| Table 9:  | Current reserves and permitted offtake for the South Coast region                      | 15 |
| Table 10: | Marine-won sand & gravel sales on the Isle of Wight (thousand tonnes)                  | 16 |
| Table 11: | Recycled & secondary aggregate production on the Isle of Wight 2005 – 2014 (tonnes)    | 18 |
| Table 12: | Total Aggregate Sales on the Isle of Wight, 2005 – 2014                                | 19 |
| Table 13: | Comparison of average aggregate sales against identified capacity on the Isle of Wight | 20 |
| Table 14: | Land-won provision on the Isle of Wight to 2027  | 23 |
| Table 15: | Indigenous land-won vs marine-won sand and gravel sales                                | 24 |

# 1. Introduction

## Background to the Island's Local Aggregate Assessment

Development on the Island is dependent on a supply of minerals, such as sand and gravel. Whilst the Island is fortunate to have deposits that could be extracted, there are other considerations that will limit the available supply, for example existing or planned development, nature conservation or landscape concerns.

Thus, some of the Island's mineral requirement does come from imports, including over half the sand and gravel used on the Island, which is marine won. This, in turn, places an increasing importance on the Island's aggregate wharves, the use of recycled materials and efficient use of materials reliant on minerals.

Ensuring a managed system of supply for aggregates is of strategic importance to the long-term economy of the Island. Government has recognised the vital role a sustainable supply of aggregates plays through specific policy in the National Planning Policy Framework and accompanying guidance (National Planning Practice Guidance).

The social and economic importance of marine won aggregates is highlighted in the national Marine Policy Statement. This is significant as the Island is becoming increasingly dependent upon both the use of its aggregate wharves and marine-won aggregates. All public authorities taking authorisation or enforcement decisions that affect or might affect the UK marine area must do so in accordance with the UK Marine Policy Statement unless relevant considerations indicate otherwise. The Marine Policy Statement will also guide the development of Marine Plans across the UK. The next Marine Plans to be developed (the Southern Marine Plans) will entirely cover the marine environment around the Isle of Wight, as well as the 'local' areas licenced for aggregate dredging. Draft versions of these plans are expected to be submitted to Defra early 2016.

This third Local Aggregate Assessment for the Isle of Wight Council as a Mineral Planning Authority has been prepared to meet the requirements of both these documents and provides a long term strategic overview of the supply and demand for aggregates on the Isle of Wight.

## The requirement to produce an annual LAA

In order to further support the Isle of Wight Council's approach to aggregate supply, as detailed in Policies SP9 and DM20 of the adopted (March 2012) Isle of Wight Core Strategy (including Waste and Minerals) and Development Management Development Plan Document (subsequently referred to in this document as the core strategy), a Local Aggregate Assessment (LAA) has been prepared.

The requirement to produce an annual LAA was introduced through the publication of the National Planning Policy Framework (NPPF) in March 2012. This stated that "Minerals planning authorities should plan for a steady and adequate supply of aggregates by preparing an annual Local Aggregate Assessment, either individually or jointly by agreement with another or other mineral planning authorities, based on a rolling average of 10 years sales data".

Following publication of the NPPF, the Government issued further guidance on planning for minerals in the NPPG, incorporating previous guidance on the Managed Aggregate Supply System (MASS). This sets out that the LAA should cover an assessment of:

1. A forecast of the demand for aggregates based on the average of 10-years sales data and other relevant local information.
2. 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 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;
3. 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.

Since publication of the last LAA the Planning Officers Society and the Mineral Products Association have published [practice guidance on the production and use of LAAs](#) (published April 2015 as a 'Living Document'). Appendix 1 of this practice guidance<sup>2</sup> sets out a checklist that forms part of Appendix 1 of this assessment, to help demonstrate where the requirements have been met.

As the format for preparing a LAA becomes established some practices are being requested by members of the SEEAWP to aid consultation. Therefore the council has included in this final version of the 2015 LAA an Executive Summary detailing the key findings of the assessment. For the consultation draft where changes had been made from the previous (2014) LAA these were indicated as ~~strike through text~~ as text to be removed and **highlighted text** as proposed additional content. Following consultation these amendments have now been made and included in this final version document.

The LAA analyses relevant data on aggregates and concludes what this shows about the picture of supply and demand on the Isle of Wight. It is important to note that this data predominantly comes from the annual monitoring of aggregate sales on the Island, on behalf of the South East England Aggregate Working Party (SEEAWP). The Aggregates Monitoring (AM) survey collects annual sales data from active mineral sites, mineral wharves and recycled aggregate processing sites. The most recent survey of this nature is the AM2013 survey, the results of which have been used in the preparation of this LAA.

Every four years the AM survey is expanded into a more comprehensive national survey referred to as the Aggregate Minerals Survey (AMS) that also collects data on the movement of minerals, including mineral imports and exports between authorities. The information collected allows for an estimate to be made for the 'consumption' of aggregates by areas. This survey, undertaken jointly between the Department for Communities and Local Government (DCLG) and the British Geological Survey (BGS), provides broad land-won sand and gravel import and export figures for both regional areas and MPAs. The latest survey was undertaken this year (2015), to collect information on the reserves, sales and movements of aggregates for 2014. The report associated with this information is not expected to be published until later in 2016; however this LAA does draw on the survey returns to complete reporting and forecasting using the most up-to-date information available.

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<sup>2</sup> Appendix 1: Checklist for consideration by Mineral Planning Authorities and Aggregate Working Parties in assessing the adequacy of Local Aggregate Assessments, POS-MPA LAA Guidance April 2015.

Other information on the use and need for aggregates was prepared in the evidence base documents produced as part of the Island Plan Core Strategy preparation. These evidence base documents provide more detailed aggregate information and analysis and are referenced within this LAA. This includes the following documents;

[Assessment of the Potential for Mineral Sites on the Island, Site Options Report](#) (October 2010); Entec for the Isle of Wight Council

[Assessment of the Potential for Mineral Sites on the Island, Site Options Report – Appendices C-E](#) (October 2010); Entec for the Isle of Wight Council

This LAA 2015 supercedes the previous LAA 2014 (published October 2014). It should be noted that there is inevitably a delay between the date of the information the assessment is based upon and publication (currently this appears to be around a year). While the LAA is published separately to the council's Monitoring Report, there are clear links between the two, as demonstrated in the mineral section of the council's [Monitoring Report](#) and the use of various development information to inform the demand analysis of this LAA. It is anticipated that the Monitoring Report and the finalised LAA will be published at the end of each calendar year hereafter.

### **How the LAA has been developed**

Given the strategic nature of minerals, both in terms of their importance to supporting virtually all forms of development and their geographical distribution leading to the movement of materials from source to point of demand, it is important that the LAA is developed collaboratively.

The council has sought to work collaboratively with other bodies in the preparation of this LAA, in order to satisfy Section 110 of the Localism Act. This has involved a two stage process of firstly consulting on a draft version of this LAA, before then issuing a final version for approval and adoption by the council.

It should be noted that this LAA looks to build on the previous assessments and as such it was felt there was little need to repeat all of the detailed data collection, surveying and consultation that had already been carried out as part of the previous LAA, as with such a short space of time it is unlikely that there would be any significant change. However where such change has been identified either by the authority itself (for example clarification on significant sand and gravel permitted reserves) or through consultation, then appropriate amendments has been made to the established baseline.

Evidence the council has supports the minerals targets set out in this assessment, informed by the adopted mineral policies of the Island Plan core strategy, to be appropriate for the Island. This is further supported by the aspirations the council has for the Island, through the core strategy, including an annual housing target of 520 units per annum.

More informal collaboration has occurred between the council and Hampshire County Council (HCC) due to HCC being the nearest 'neighbouring' Mineral Planning Authority (MPA) and the one most likely to be affected by strategic mineral supply decisions taken on the Island. Furthermore, it also provides links to the mainland both in terms of aggregate wharves, but also as the MPA whose area contains all the vehicular ferry ports to the Island. The geographic proximity also results in a similar geology and consistency in approach between the MPAs on evolving issues is more likely to provide certainty to the mineral industry. The council would also like to acknowledge the co-operation HCC has provided in the sharing of the format of this LAA, having developed it and tested it's

acceptability with the South East England Aggregate Working Party (SEEAWP) that both MPAs are members of.

## Consultation

### Baseline Consultation

The council previously carried out targeted consultation on the information requirements of the LAA for the 2012 assessment. This was deliberate and not due to any restrictions, but specifically focused on certain identified groups or individuals deemed critical to establishing a sound evidence base. As the council has been in contact with all of the Island's mineral operators as part of the survey requirements for AM2014 and no significant issues or changes have been raised, the council has determined that this is adequate for the subsequent LAA (2015) which aims to provide an update on the previous LAA (whereas the LAA 2012 required a new report and therefore specific consultation was deemed justified in relation to establishing a sound evidence base).

### Consultation on the draft LAA – December 2015/January 2016

The following bodies were consulted over December 2015 and January 2016 on the draft LAA 2015:

- All Island mineral operators (including quarries and aggregate wharves)
- South East England Aggregate Working Party (Technical Secretary)
- Hampshire County Council
- Marine Management Organisation
- Environment Agency
- British Geological Survey
- Solent Local Economic Partnership
- Isle of Wight Council (Waste & Highways PFI Teams)

Following consultation the LAA has been amended, as set out in Appendix 2, with the key points identified by the council from the consultation responses being summarised below.

#### Consultation Responses to Draft Assessment - Summary Key Points;

- Correct referencing of Crown Estate data;
- Certain developers are using premix sand and cement imported to the Island by road. Some builders' merchants bring all the bagged aggregates they sell from the mainland by road transport;
- Reference the Marine Policy Statement, the National Planning Policy Framework, the Managed Aggregate Supply System and the national and regional guidelines for aggregates provision in England 2005 – 2020;

Following this consultation correspondence (dated 23<sup>rd</sup> May 2016) was received from the Aggregate Working Party confirming that, "... SEEAWP approve the IoW LAA." Amendments made as a result of this consultation can be seen in Appendix 3.

## Data limitations

The Isle of Wight suffers in mineral reporting from its relatively small size, both in comparison to some of its neighbouring MPAs and with regards to the low numbers of quarries, wharves and operators.

This has had consequences in terms of how mineral information on the Isle of Wight is reported. The first is that due to the limited number of quarries, wharves and operators, often figures reported through annual monitoring have not been able to be published due to commercial confidentiality. The second is that where mineral reporting has occurred at a higher than MPA level, figures for the Island have often been aggregated into that of Hampshire (or wider) making analysis of such information with regards to the implications for the Island impossible with any degree of certainty.

Both of these data limitations have been recognised independently, through consultation on previous LAAs, by the (previous) technical secretary to the AWP of which the Island is a member, and the BGS.

## 2. Aggregate Supply and Demand

### Geology

The geology of the Isle of Wight gives rise to the following mineral deposits (as shown on Figure 1):

- Sand and Gravel;
- Limestone;
- Chalk; and
- Brick Clay

In simplest terms, the geological deposits that occur on the Island can be divided between superficial and solid deposits, as detailed below. The superficial deposits (including sand and gravel) occur across the Island and are categorised in Table 1.

**Table 1: Superficial Deposits across the Island**

| Deposit  | Description  |
|--|--|
| <b>River Terrace Deposits</b>                  | Occur at several levels in most of the major valleys on the Island. These broadly comprise older, raised river terrace sequences (sometimes called 'Plateau Gravels') and younger, flood plain terraces associated with, and underlying, present day alluvium                        |
| <b>Angular flint gravel (clay with flints)</b> | Occur on the summits and upper slopes of the Chalk Downs in the central and southern parts of the Island.  |
| <b>Sub-alluvial gravel</b>                     | Occur beneath the alluvium of the main valleys on the Island and are compositionally similar to river terrace deposits.  |
| <b>Storm beach gravel</b>                      | Occur from Sconce Point to Bouldnor in the west of the Island. The form of these deposits is dictated by the east-west longshore drift which prevails along this coast and are generally made up of fine to coarse flint gravels, grading seawards into finer sands and silty clays. |
| <b>Blown sand</b>                              | The largest area of blown sand is in the south of the Island, on top of a vertical cliff between Atherfield and Chale, at a height of approximately 50m above sea level and consists of disintegrated Lower Greensand Group up to 7m in thickness.                                   |

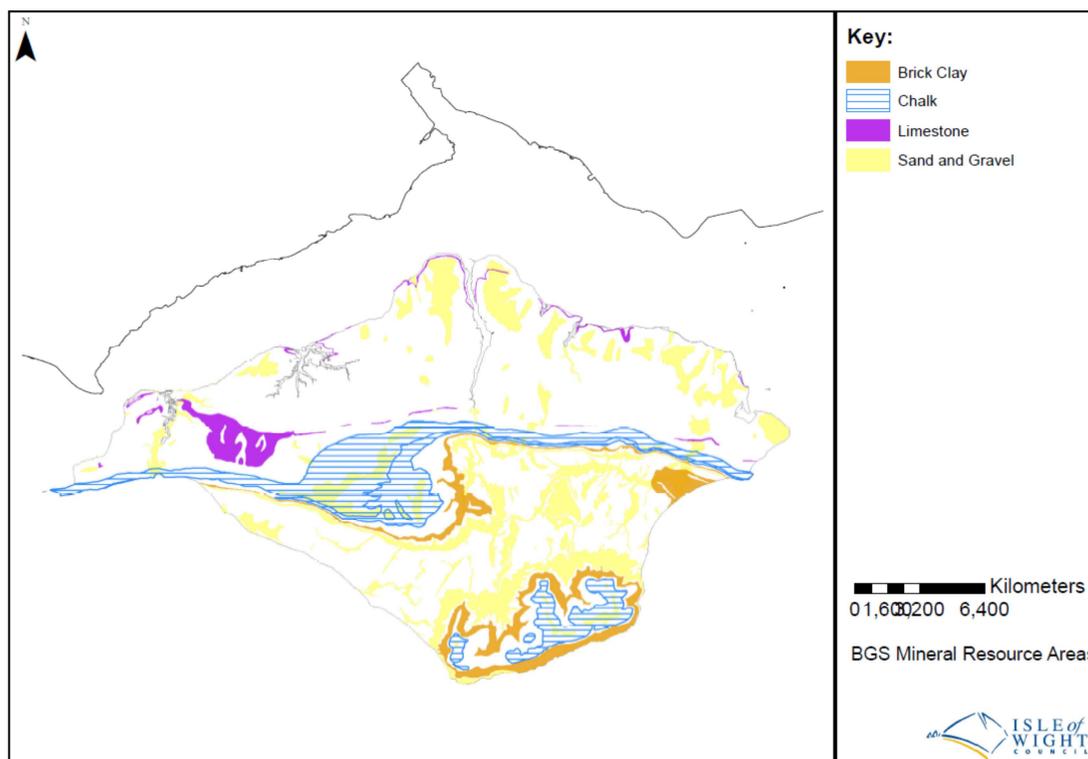
The solid geology (including chalk, and the Sandrock Formation within the Cretaceous Lower Greensand Group) of the Island generally run from east to west along the length of the Island perhaps best demonstrated by the chalk forming Culver Cliff in the east, central Downs in the middle and the Needles to the west of the Island.

### Mineral Resources on the Island

In conjunction with the Department for Communities and Local Government (CLG)<sup>3</sup>, the British Geological Survey (BGS) published a technical report CR/02/130N2 in 2002 and has prepared mineral resource mapping to provide information regarding mineral resources on the Isle of Wight for planning purposes (see Figure 1).

<sup>3</sup> Known as the Office for the Deputy Prime Minister at the time.

**Figure 1: BGS Mineral Resource Areas**



The “Assessment of the Potential for Mineral Sites on the Island, Site Options Report (October 2010)” identified the minerals that exist on the Island, as summarised in Table 2 below and discussed their previous and current extraction.

**Table 2: Summary of minerals existing on the Island**

| Mineral   | Information regarding extraction and need   |
|---|---|
| <b>Sand and gravel (including superficial deposits such as river terrace deposits, sub-alluvial gravel, storm beach gravel and bedrock sands such as the Cretaceous Lower Greensand Group).</b> | Deposits of sand and gravel can be found across the Island. Resources of gravel can be mainly found in the river valleys, whereas construction sand is provided in the bedrock sands which occur east west across the south of the Island. Currently extraction takes place across the Island.      |
| <b>Brick clay – the Weald Clay Formation</b>  | This was previously extracted at Sandown; however no brick clay is now produced on the Island.  |
| <b>Chalk – Grey and White Chalk sub groups</b>  | The chalk resource runs across the length of the Island with the majority of extraction in the White Chalk sub group. It is understood there are three active sites extracting chalk for constructional fill and agricultural lime.   |
| <b>Limestone – Bembridge Limestone Formation</b>  | This resource is located in the west, north and east of the Island. There are substantial permitted reserves of this mineral at Prospect Quarry, Shalcombe. Although permitted only nominal amounts are extracted per annum, due to the relatively poor quality of the limestone.                   |
| <b>Hydrocarbons – oils, gas and coal</b>  | Much of the Island was explored for oil and gas in the 1970s and while there is limited oil and conventional gas prospectivity, two PEDLs <sup>4</sup> exist covering three areas on the Island. There remains the possibility of further interest as new technologies such as hydraulic fracturing |

<sup>4</sup> PEDL – Petroleum Exploration and Development License

|                       |  |
|-----------------------|--|
|                       | become established.  |
| <b>Building stone</b> | Although local stones have been previously used, the Isle of Wight has no commercially significant building stone resources. |

In addition to the BGS report, this assessment drew information regarding existing extraction from the following sources:

- AM2014 survey returns from mineral operators;
- The CLG Aggregate Minerals Survey 2009;
- Consultation carried out for the previous LAA (2014) with the mineral industry on the need for extraction; and
- Landowners and other interested parties were invited by the council to submit sites for potential extraction (March 2009).

Historically, much of the Island’s land-won aggregate production has come from the central and eastern areas of the Island. Certainly this is where the majority of sand and gravel has been won. While there is one small quarry producing high quality sand in the west of the Island (using the River Medina as a natural north-south central divide), for the most part, to date chalk has been the main material won in this area.

As existing sand and gravel deposits have been worked out, new permissions have been sought and granted, again in the central and eastern areas of the Island. No new chalk permissions have been granted for at least the last five years (probably beyond ten years) reflecting an overall decline in demand and sufficient existing reserves.

Other crushed rock reserves (some grades of chalk are used locally as construction fill where this is acceptable, such as agricultural tracks etc.) extracted on the Island includes limestone. There are permitted reserves of limestone at one site on the Island; however production is at a very low level (no sales have been recorded for 2012, 2013 or 2014 through the AM survey) and currently no interest has been expressed for future expansion.

The demand for other minerals such as those used in building has been considered (as part of the Assessment of the Potential for Mineral Sites on the Island, Site Options Report, October 2010) by the council’s Conservation and Design section. They have concluded that although resources such as flint and brick earth have an important role to play in restoration and maintenance of the Island’s structures and that quarrying these would reduce the pressure upon reclaimed materials from other buildings, it is considered that these are not of strategic importance in terms of demand with quarries of these indigenous resources being redundant and replicas being available.

## Land-won Sand and Gravel

### Isle of Wight Sales

The sales figures of sand and gravel on the Island for the most recent 10 year period are detailed in Table 3 below. A 10 year period has been adopted in line with the approach detailed in the NPPF<sup>5</sup>. It is argued that this period is sufficiently long enough to incorporate years of both high and low economic activity and therefore provides a realistic average period.

As can be seen from Table 3, for the year 2005 there are no reported figures, due to commercial confidentiality<sup>6</sup>, which in turn reflects the returns to the annual monitoring survey being received from such a small number of operators that it would be possible to identify output to individual quarry/operator. In addition such limited returns would be likely to skew any averaging of figures. Furthermore, while Government guidance on the Managed Aggregate Supply System<sup>7</sup> states that a MPA's LAA should cover "a forecast of demand for aggregates based on the average of 10-years sales data..." this is footnoted with the additional guidance, "Mineral Planning Authorities should also look at the average 3 year sales in particular to identify the general trend of demand..." and this can be fulfilled with the figures provided.

The council, as a MPA, now has in place a robust mechanism for the collection of annual mineral returns from all operators (including wharves), as is evidenced by the figures from 2006 onwards and the response rates of operators, being at or near 100% in recent years.

**Table 3: Land-won sand and gravel sales in the Isle of Wight, 2005 – 2014 (tonnes)**

| Year  | 2005 | 2006    | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | Ave.   |
|-------|------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sales | c    | 117,486 | 87,997 | 88,486 | 62,713 | 90,163 | 67,303 | 66,600 | 62,407 | 68,760 | 85,632 |
|       |      |         |        |        |        |        |        | 66,600 | 62,407 | 68,760 | 65,922 |

Figure 2 provides a comparison of the Island's land-won sales figures over the period 2006 – 2014 against the council's apportionments during this period. It can be seen that throughout this period, total sand and gravel sales move from exceeding the apportionment figure to not meeting the level of apportionment given to the Island from 2007 through to the most recent reporting year (2014). It should be noted that this period of time (from 2007 through to 2014/present) is significant in terms of the apportionment target figure for land-won sales of sand and gravel from the Island, as this changed from 50,000 tonnes per annum (tpa) as set out in the Regional Spatial Strategy (May 2009) to the revised regional policy M3 figure of 100,000tpa<sup>8</sup>. While this change in apportionment figure can be considered insignificant when compared to the Island's partner MPAs that make up the SEEAWP, clearly a doubling of the target figure is significant to Island land-won sand and gravel.

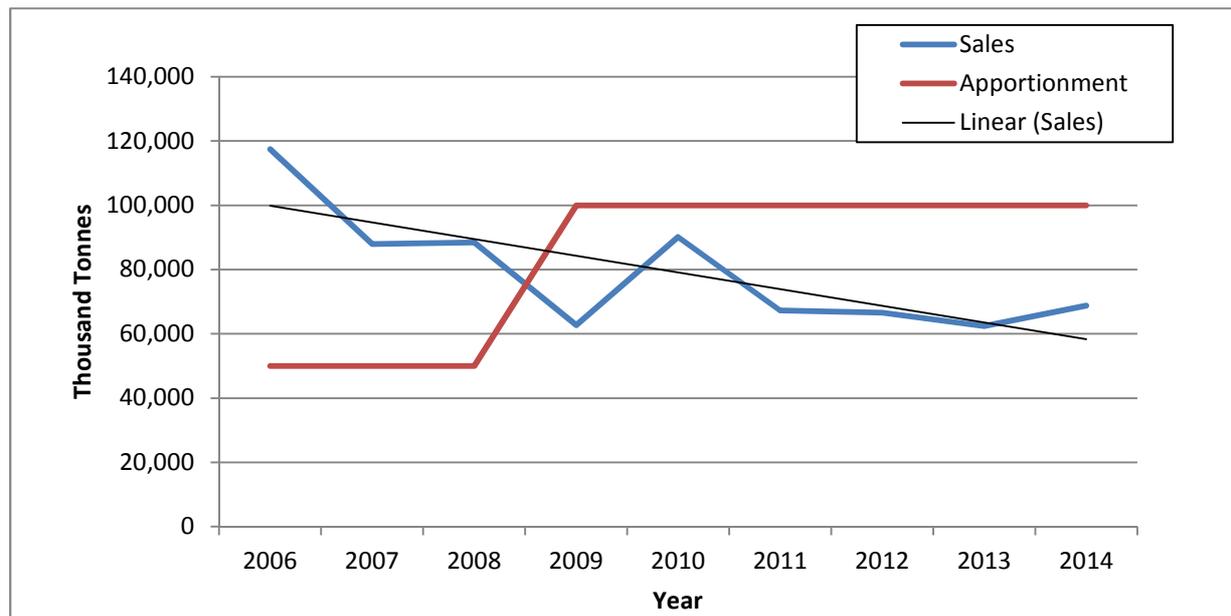
<sup>5</sup> Paragraph 145, National Planning Policy Framework; "Minerals planning authorities should plan for a steady and adequate supply of aggregates by: - preparing an annual Local Aggregate Assessment... ..based on a rolling average of 10 years sales data and other relevant local information, and an assessment of all supply options (including marine dredged, secondary and recycled sources);"

<sup>6</sup> Note to AWP and RAWP Secretaries, Aggregate Survey Returns, Mineral Products Association, March 2014

<sup>7</sup> Department for Communities and Local Government, October 2012, Guidance on the Managed Aggregate Supply System

<sup>8</sup> Partial Review of the Regional Spatial Strategy for the South East, Review of Policy M3 Primary Land-won aggregates and sub-regional apportionment, Examination in Public October 2009, Report of the Panel November 2009

**Figure 2: Comparison of land-won sand and gravel sales and the apportionment on the Isle of Wight**



The pattern of declining land-won aggregate sales on the Isle of Wight mirrors that of both its nearest neighbouring MPA, HCC, and the South East region as a whole, which have experienced similar declines of 67% and 61% respectively, between 1995 and 2013. Sales on the Island for the period 2006 to 2013 fell from 117,486 tonnes to 62,407 tonnes representing a 53% decline (albeit over a significantly shorter reporting period).

While the NPPF states that planning for a steady supply should be based on a rolling average of 10 years sales data, national guidance also requires consideration of average sales over the last three years. This is particularly significant as sales for land-won sand and gravel in 2014 report the first increase in four years and when considering the most recent three years (2012, 2013 & 2014, see Table 3 above) the picture locally appears to be one of stabilization and even a slight increase in sales. The next two to three year monitoring period will be important in determining if the overall trend in decreasing sales over the last decade has now stabilised, with the prospect of growth.

The significance of the potential issue raised in previous LAAs concerning the appropriateness of the apportionment figure will lessen, should sales continue to increase and this will be kept under review. The growth policies for the Island remain, the principle one being the target 520 housing units per annum and therefore Section 4 of this assessment looks at how the Island Plan Core Strategy is performing in relation to delivering development and how this correlates to land-won sand and gravel sales.

**Current supply**

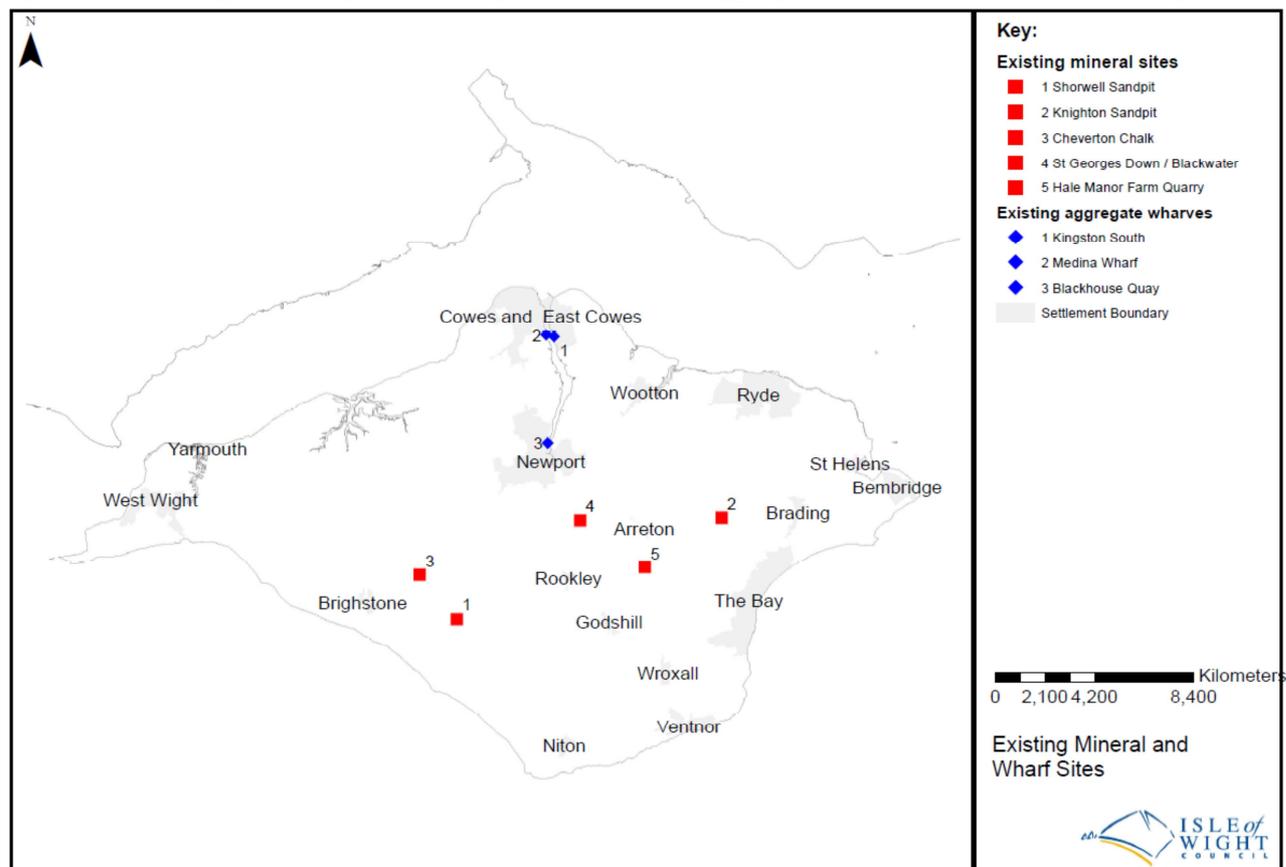
The current supply of land-won aggregate on the Isle of Wight is provided from five permitted sand and gravel extraction sites, the details of which are presented in Table 4 and Figure 3.

**Table 4: Permitted sand and gravel quarries on the Isle of Wight**

| Site                          | Operator                      | Aggregate           |
|-------------------------------|-------------------------------|---------------------|
| Shorwell Sandpit              | Haslett Farm/Draper           | Soft sand           |
| Knighton Sandpit              | Knighton Sandpit Ltd          | Sharp & soft sand   |
| Cheverton Chalk & Gravel Pits | Cheverton Aggregates          | Gravel              |
| St Georges Down/Blackwater    | Wight Building Materials Ltd* | Sharp sand & gravel |
| Hale Manor Farm Quarry        | Wight Building Materials Ltd  | Sharp sand & gravel |

\*Formerly Bardon Vectis (Aggregate Industries)

**Figure 3: Active (permitted) sand and gravel sites and aggregate wharves on the Isle of Wight**



Taking into account all reserves for aggregate use (as reported through the latest annual mineral monitoring in 2014), these five sites represent a total sand and gravel reserve of approximately just over 1.35 million tonnes. There was a permission for sand and gravel extraction in 2014, associated with the Hale Manor Farm site. However, as this was in relation to a variation on a condition to provide an extension of time (to allow the completion of sand and gravel extraction and site restoration in accordance with a previously consented scheme), this did not provide any additional new permitted reserves.

**Table 5: Isle of Wight Reserves at 31 December 2014 (tonnes)**

| Mineral       | Soft sand (building sand) | Sharp sand & gravel | Sand & gravel or hoggin for construction fill | Total for aggregate use |
|---------------|---------------------------|---------------------|---|-------------------------|
| Sand & gravel | 254,920                   | 299,612             | 799,900                                       | 1,354,423               |

AM2014

## Isle of Wight Imports

The 'severance' factor of being an island MPA does have a significant and unique influence on the movement of aggregates across the MPA boundary.

The Island currently does not export any aggregates. However, as well as being a producer of sand and gravel the Isle of Wight supplements this production with imports. With regards to sand and gravel these imports are exclusively marine-won, with some being landed directly on the Island from point of extraction, while an amount comes via aggregate wharves in neighbouring Hampshire. There is no other movement of sand and gravel into the Island from any other Mineral Planning Authority Area. Marine-won imports are discussed further under Marine-won sand and gravel and in Section 4.

One quarry operator did confirm in a previous LAA (2013) that they imported minerals to the Island, but this was crushed rock (in this instance Type 1 limestone) and is discussed further under Hard Rock.

### Long-term capacity

As at 31<sup>st</sup> December 2014, the council had permitted sand and gravel reserves of 1,354,432 tonnes as reported through the AM2014 survey returns. Table 6 presents various landbank lengths for the Island for both the most recent reporting period (2014) and the previous year. The three levels of apportionment used are;

- 100,000tpa as agreed through the proposed changes guidelines;
- 85,631tpa based on average sales for the last 10 years; and,
- 68,760tpa based on the sales for the latest reporting period (2014)

**Table 6: Isle of Wight landbanks (years)**

| Permitted Reserve (tonnes) | Date     | Proposed Changes Guidelines (0.1mtpa) | 2005-14 average sales (85,631tpa) | 2014 sales (68,760tpa) |
|----------------------------|----------|---------------------------------------|-----------------------------------|------------------------|
| 1,709,900                  | 31.12.13 | 17.1                                  | 20                                | 24.9                   |
| 1,354,432                  | 31.12.14 | 13.5                                  | 15.8                              | 19.7                   |

Table 6 highlights the arbitrary nature of the tonnage associated with the permitted reserve. Over the last three reporting years this has changed, from 807,000t in 2012, 1.7mt in 2013, and 1.3mt in 2014. While the MPA accepts that there may be some variation where figures are estimated, but as there is seemingly little relationship between indigenous sand and gravel won and remaining reserve, this does raise some concerns.

The MPA will as part of the next LAA investigate these variations in the reserve to see if they can be attributed to any one source and therefore establish the reasons for these changes. However, as the overall provision, even taking the relatively considerable decrease into account, is well above the indicative amount required for a 7 year landbank, the council is satisfied that currently there is no issue with existing and future supply of land-won sand and gravel over the plan period (to the year 2027).

Additional capacity for land-won aggregate is discussed in Section 4.

## Hard Rock

While the range in deposits occurring on the Island does provide an indigenous hard rock resource in the form of limestone, as discussed above, there has been no recorded sales for the last three years, and only a nominal amount on the Island for 2011 (0.3% of total sales of crushed rock<sup>9</sup>) was extracted from the existing single limestone quarry. Crushed rock sales are primarily from imports via the Island's three aggregate wharves (all located on the River Medina). Table 7 taken from the 2012 LAA, details the nature, source and destination of crushed rock imports.

**Table 7: Import details of crushed rock and associated aggregates**

| Body type       | What is the mineral imported?              | Where was it imported from (please include route ie via aggregate wharf or road/ferry?) |
|-----------------|--|---|
| Aggregate Wharf | Ballast, Graded Stone, Washed Grit, Type 1 | Via Marchwood, Southampton  |
| Aggregate Wharf | Type 1 Limestone                           | Direct by ship from Raynes Quarry, North Wales  |
| Aggregate Wharf | Ballast as dredged                         | Imported direct from source, dredged area's Area A 137 and Selsey 395                   |
| Quarry          | Type 1 Limestone                           | Road/ferry  |

Consultation November 2012 as part of the Local Aggregate Assessment 2012

While the variation in sales of crushed rock has been relatively slight in recent previous years (particularly when considering the 3 year period 2011 – 2013) the most recent reporting year has seen no recorded sales of either indigenous or imported crush rock (see Table 8 below). This is unusual given the increase in sand and gravel sales and there are a number of possible explanations, including;

- Reduced demand for this mineral type; or,
- Alternative source, such as;
  - o Alternative materials, including Secondary & Recycled and/or sand and gravels;
  - o Alternative source, including stockpiled and/or imported via road/vehicular ferry direct to point of demand.

**Table 8: Marine imported crushed rock (tonnes)**

| 2005 | 2006 | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014 | Ave.*  |
|------|------|--------|--------|--------|--------|--------|--------|--------|------|--------|
| c    | n/a  | 25,952 | 22,080 | 18,546 | 38,574 | 31,156 | 31,384 | 31,079 | 0    | 24,846 |
|      |      |        |        |        |        |        | 31,384 | 31,079 | 0    | 20,821 |

\*Averages of 10 and 3 year sales

c = confidential, or if identified will release another confidential figure.

n/a = figures not available; 2006 total uses 2005 figures for these imports

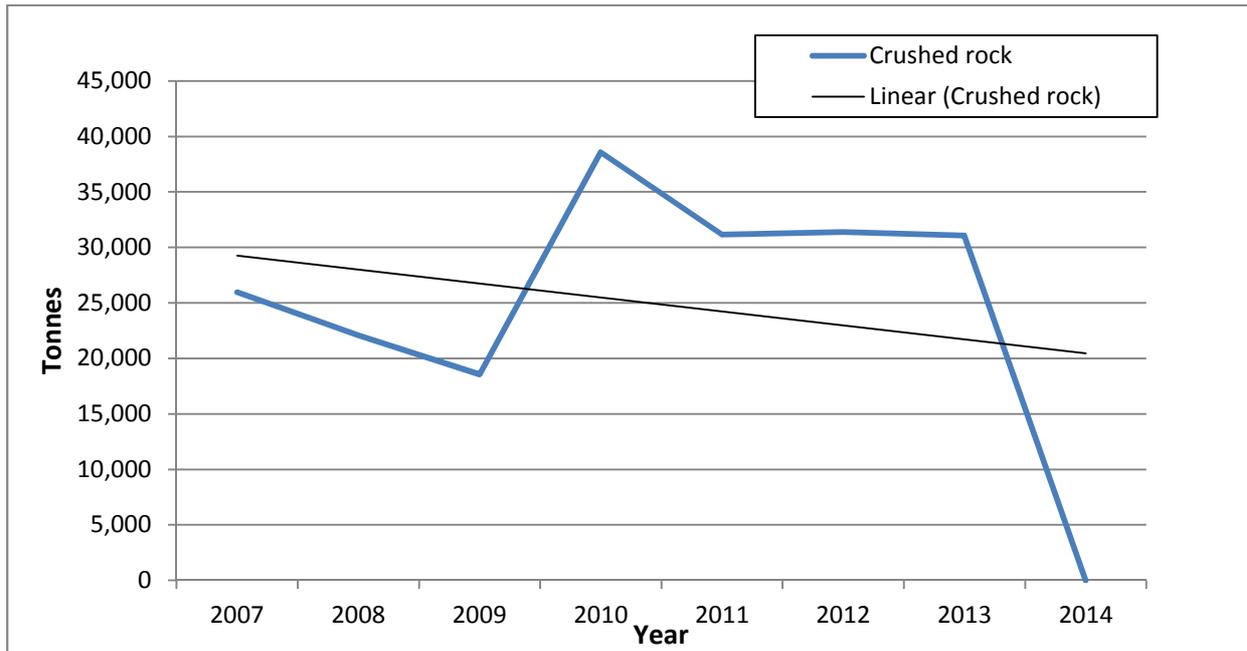
It has been confirmed to the Council by the operators that hard stone imports are primarily from quarries in Cornwall, north Wales and Ireland, with a small amount identified as having come via a Southampton based wharf. In response to consultation (July 2014) on the draft of the previous LAA, the South West Aggregate Working Party stated in relation to supply from Cornwall, that they have *"...no concerns about such supplies from the region being maintained as they are currently only a very small amount and regional and MPA areas that are close to the island/have facilities for export*

<sup>9</sup> This excludes chalk.

by sea.” The MPA will seek to determine the predicted permitted reserves associated with the other source areas in the following (2016) LAA.

Previous monitoring and LAAs have established that virtually all crushed rock sold on the Island is imported via the Island’s aggregate wharves (in 2012 one quarry operator confirmed that they imported crushed rock via road/vehicular ferry which accounted for <0.5% of total crushed rock imported to the Island). While the MPA will explore with operators the reasons for nil returns of sales for crushed rock, it is expected that future sales will continue to be primarily via the aggregate wharves.

**Figure 4: Crushed rock sales on the Isle of Wight**



Previous LAAs estimated permitted reserves of land-won crushed rock on the Island at providing a landbank equivalent in excess of 90 years based on the average of the last 10 years sales figures and estimated reserve. As there have been no recorded sales of this resource for 2014, and the reported permitted reserve is the same as it was for LAA 2012, it is possible to conclude that there is no significant change. It should be noted that this particular crushed rock resource has been identified as having limited use, borne out by the dominance of crushed rock imports over land-won sales, in previous years.

## Marine-won Sand and Gravel

Marine-won sand and gravel is a major source of primary aggregate on the Island, and is also the principal alternative source to land-won sand and gravel. The marine-won sand and gravel that is landed on the Isle of Wight is dredged primarily from the English Channel and landed at wharves located on the Medina Estuary (see Figure 3).

The mineral rights for marine sand and gravel are owned by the Crown Estate, up to the edge of the continental shelf. It is understood that the Island receives the vast majority of its marine aggregates from the 'South Coast' region.

The Crown Estate report, 'Marine aggregates Capability & Portfolio 2015' states with regards to supply;

*"Onshore resources are becoming increasingly constrained, particularly in the South East of England and London. The marine aggregate industry now provides around 20% of the sand and gravel demand for England and Wales".*

The Crown Estate report provides an analysis by region and the following key points summarise the report's commentary on the South Coast region;

- 7.8 million tonnes can be extracted from 14 licences;
- Current estimates suggest there are 21 years of primary marine aggregate production permitted;
- 4 applications for licences could, if approved, increase the permitted tonnage by 1.9 million tonnes
- During 2014 86% of material extracted from the region was delivered to the South Coast.

**Table 9: Current reserves and permitted offtake for the South Coast region (million tonnes)**

| Region      | Total current primary reserves* | 10 year average annual offtake   | 3 year average annual offtake | Peak average offtake during 10 year period | Annual permitted offtake | Regional reserve life in years @ 10 year average annual offtake |
|-------------|---------------------------------|----------------------------------|-------------------------------|--|--------------------------|---|
|             |                                 | Primary (construction aggregate) |                               |  |                          |   |
| South Coast | 84.33                           | 3.96                             | 3.33                          | 5.13                                       | 9.5                      | 21.32   |

Extract from Marine Aggregates Capability & Portfolio 2015, The Crown Estate

The Crown Estate stated in response to consultation on the first LAA (2012) that *"existing licences within viable steaming time to Cowes will be able to provide as much sand and gravel as the current wharves can process and more than meet the whole demand for construction aggregate in the Isle of Wight."* Based upon the above figures it can be assumed that this remains the case.

The sales figures of marine-won sand and gravel sales on the Isle of Wight for the most recent 10-year period, 2005 – 2014 are detailed in Table 10, below.

**Table 10: Marine-won sand & gravel sales on the Isle of Wight (thousand tonnes)**

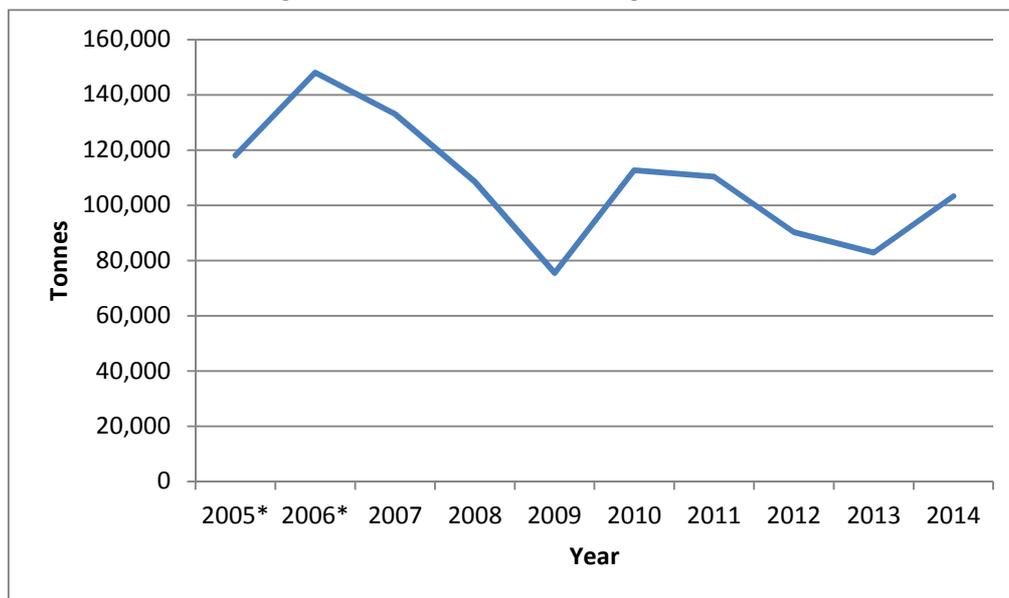
| Year  | 2005* | 2006* | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Ave. |
|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| Sales | 118   | 148   | 133  | 108  | 75   | 112  | 110  | 90   | 82   | 103  | 108  |
|       |       |       |      |      |      |      |      | 90   | 82   | 103  | 92   |

\*Source: The Crown Estate, port statistics for marine dredged aggregates

It is difficult to identify any clear trend (in contrast to land-won sand and gravel sales), although there does seem to be a pattern of rise and fall over a number of years.

The last 3 years appear to continue a year on year change in sales performance (as opposed to a constant). As predicted in the last LAA, when taking the last ten year sales as an indicator, there has been a recovery in sales this year, which should continue to progress towards another sales peak, although this is almost entirely dependent upon regional and local economic performance. Figure 5 below illustrates this oscillating pattern of sales.

**Figure 5: Marine-won sand & gravel sales on the Isle of Wight (thousand tonnes)**



\*Source: The Crown Estate, port statistics for marine dredged aggregates

All of the Island's aggregate wharves are located on the Medina Estuary. This results in the landings not only occurring within the main area of the Island in terms of employment and business development (and associated demand for raw materials), but also being centrally located for onward distribution throughout the Island. The Island's aggregate wharves are (from north to south running up the Estuary):

1. Medina Wharf
2. Kingston South
3. Blackhouse Quay

### **Island Aggregate wharf capacity**

From the 2012 LAA consultation with operators, it was possible to conclude that there is an estimated existing capacity of some 350,000 tonnes per annum.

Based on total aggregate wharf imports for 2014 (103,276 tonnes) this provides a spare capacity of over 70%, while the most recently recorded peak year for imports (i.e. 2003 at 208,000 tonnes, as reported by the Crown Estate, port statistics for marine dredged aggregates) provides a 40% headroom capacity. However, it should be noted that this is absolute total capacity in terms of handling all minerals and not specific to a mineral type. This may become significant in future years, should the balance between marine-won and land-won sand and gravel move increasingly to the former, requiring additional wharf capacity.

Due to the limited number of wharves and the confidentiality issues this raises, it is not possible to discuss any further detail on capacity and limitations, and the generalisations made here about Island aggregate wharves should not be applied at the individual site level. See Section 1 for further information on the data limitations of the LAA.

## Recycled and Secondary Aggregate

Recycled aggregates are those derived from construction, demolition and excavation work, which have been reprocessed to provide materials or a product suitable for use within the construction industry. It includes source materials such as stone, concrete, brick or asphalt for re-use (rather than disposing of it). They can also comprise other secondary aggregate which are slightly different to the sources noted above and are usually by-products of other construction or industrial processes. For example, the production of Bottom Ash from the Island's Gasification plant, a by-product of the incineration process, could be used as a secondary aggregate for road construction (and is currently used as daily top-cover for the Island's primary landfill site). Additional secondary aggregate includes spent railway ballast, and recycled glass.

Secondary and recycled aggregate is processed from a number of sources, including the use of mobile equipment, allowing the processing of materials on development and construction sites. Conversely, an amount of waste is processed at free standing sites or sites located within existing minerals and waste activities such as quarries, waste transfer, materials recovery and landfills. There are long-standing issues with the collection of accurate data on the production of secondary and recycled aggregate due both to how materials are processed and used, and how this information is recorded. The council will work with relevant operators and the Environment Agency in order to gain a better understanding of both the current production and the future capacities.

Consultation with operators on the 2012 LAA confirmed that there were 2 quarries and 2 wharves importing waste materials to process for recycled and/or secondary aggregates. Materials imported for recycling has included recycled Type 1 (sourced from the continent), road planings, secondary aggregate (granite) and china clay waste.

Through the AWP annual monitoring reporting process, two quarries provided returns on the production of recycled and secondary aggregates for 2014. This totalled just over 26,000 tonnes, with a combined potential capacity at these two facilities of 175,000 tonnes. So while production remains well below the (Core Strategy) adopted target for the annual production of secondary and recycled aggregate, at 100,000 tonnes, the capacity exists to achieve this.

Since the last LAA there have been no new permissions for activities associated with the production of recycled and secondary aggregates.

The sales figures of recycled and secondary aggregates on the Isle of Wight for the most recent 10-year period, 2004-2014, are detailed in the following table.

**Table 11: Recycled & secondary aggregate production on the Isle of Wight 2005 – 2014 (tonnes)**

| Year  | 2005 | 2006 | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | Ave.   |
|-------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sales | c    | c    | 22,776 | 29,811 | 13,287 | 26,082 | 17,179 | 28,051 | 20,703 | 26,021 | 22,989 |
|       |      |      |        |        |        |        |        | 28,051 | 20,703 | 26,021 | 24,925 |

### 3. Total Aggregate Supply

As discussed in Section 2, the supply of aggregates on the Isle of Wight is based on a balanced supply arising from different sources; land and marine-won sand and gravel, recycled and secondary aggregate, and in previous year's imported crushed rock. This supply ensures that reliance is not placed on any one source. Table 12 presents the ten-year average sales of each aggregate source to the Island and Figure 6 shows the proportion of the total supply that each of those sources represents.

**Table 12: Total Aggregate Sales on the Isle of Wight, 2005 – 2014 (Thousand tonnes)**

| Aggregate                | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Average 2005-14 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|-----------------|
| Land-won sand & gravel   | c    | 117  | 87   | 88   | 62   | 90   | 67   | 67   | 62   | 69   | 79              |
| Marine-won sand & gravel | 118  | 148  | 133  | 108  | 75   | 112  | 110  | 90   | 83   | 103  | 108             |
| Imports crushed rock     | c    | n/a  | 25   | 22   | 18   | 38   | 31   | 31   | 31   | 0    | 25              |
| Recycled & Secondary     | c    | c    | 22   | 29   | 13   | 26   | 17   | 28   | 21   | 26   | 23              |
| Total                    |      |      | 269  | 248  | 169  | 266  | 225  | 216  | 197  | 198  | 227,639         |

**Figure 6: Proportion of Total Aggregate Supply**

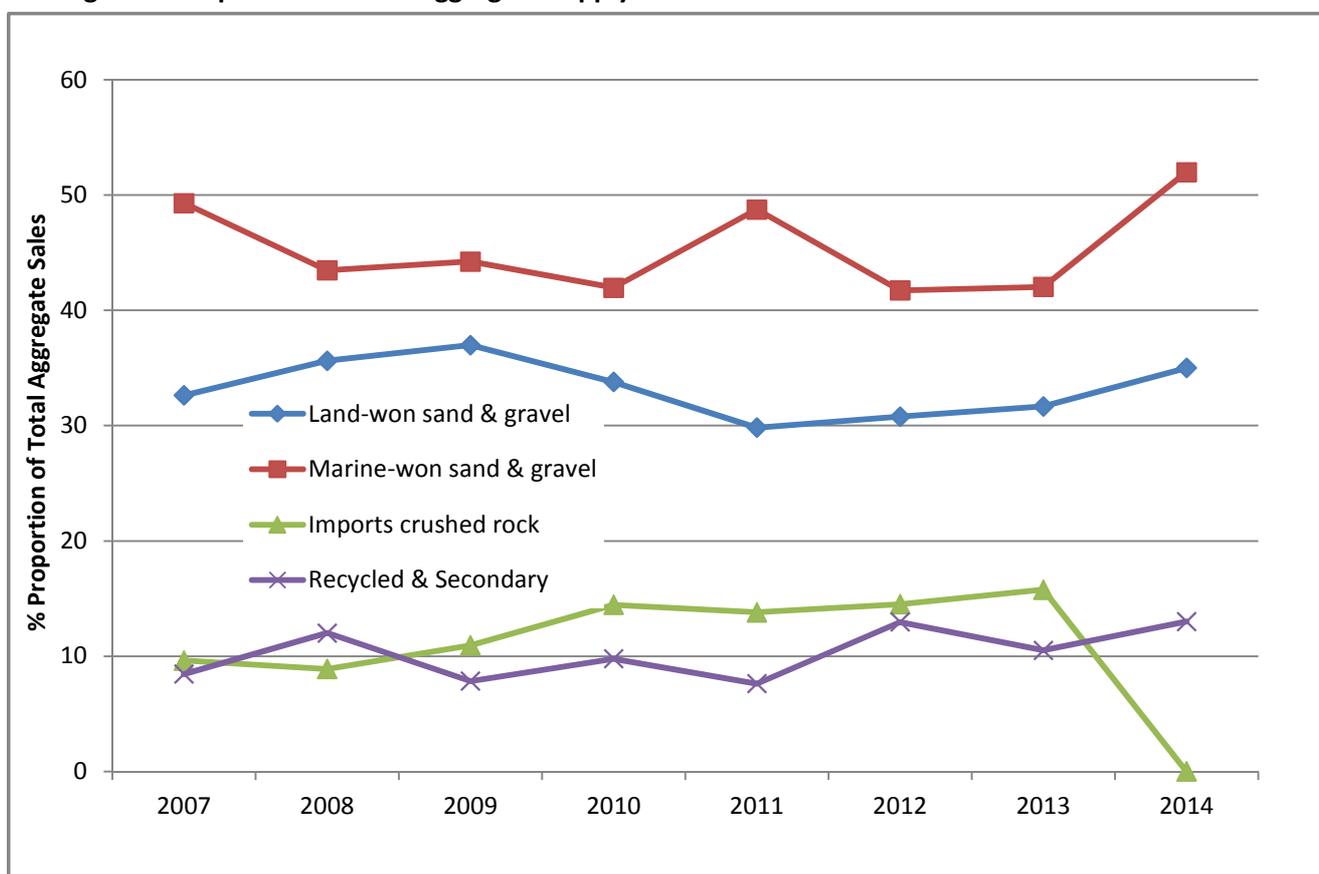


Table 13 provides a comparison of the average sales total for each aggregate source against the identified capacity for that source to identify where additional provision may be required, or contrastingly where contingency capacity is available.

**Table 13: Comparison of average aggregate sales against identified capacity on the Isle of Wight**

| Type/source of aggregate     | Average annual sales (2005-14) | Identified annual capacity | Balance |
|------------------------------|--------------------------------|----------------------------|---------|
| Land-won sand and gravel     | 85,632                         | 100,000                    | 14,368  |
| Marine-won sand and gravel   | 108,041                        | 350,000                    | 217,112 |
| Imported crushed rock        | 24,847                         |                            |         |
| Recycled/secondary aggregate | 22,989                         | 175,000                    | 152,011 |
| Total                        | 241,509                        | 625,000                    | 383,491 |

All figures in tonnes

The identified annual capacity for marine-won sand and gravel and imported crushed rock has been merged, reflecting use of the same wharf resources to land the mineral, regardless of its type or source.

In respect to land-won sand and gravel, while the identified capacity is currently more than sufficient to meet the average sales, it does not exceed the figure confirmed at a local level through the testing and adoption of Core Strategy mineral policy SP9. Should future sales exceed 100,000 tonnes then consideration will need to be given to the implications, although it will be important to ensure this continues to include both the ten and three year sales trend. This 'capacity' has decreased by a small amount (just over 5,000 tonnes) since the previous LAA, reflecting the increase in sales of land-won sand and gravel from 2013 to 2014.

As Table 13 demonstrates, there is a significant amount of available alternative infrastructure capacity for aggregate on the Isle of Wight, considered to be more than sufficient to meet the Island's needs to 2027. This is discussed in section 4.

## 4. Future Aggregate Supply and Demand

The supply of land-won aggregate in England is based on the Managed Aggregate Supply System (MASS) which assists MPAs in planning for a steady and balanced supply of aggregates. Hitherto MASS is based on aggregate 'guidelines' published from time to time, from which Aggregate Working Parties – comprising industry, MPAs and Government representatives provide advice to MPAs. Current advice on the amount of land-won aggregate supply, or 'apportionment' for the Isle of Wight is 0.1 mtpa (or 100,000 tpa) subject to testing in the preparation of local mineral plans.

The MASS system has been subject to a recent review following the publication of the NPPF. This has resulted in the publication of guidance on the Managed Aggregate Supply System which recognises the principles of the MASS but alongside the need to determine aggregate apportionments locally. The guidance sets out the LAA should cover an assessment of total aggregate supply (recycled and secondary aggregate, marine-won aggregate, imported aggregate and land-won aggregate) as well as the following issues which have all been covered in this LAA:

- a forecast of the demand for aggregates based on the 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 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.

Policy SP9 (Minerals) of the core strategy sets a figure of 0.1 million tonnes per annum of land-won sand and gravel. Monitoring returns for the period 2004 – 2009 show on average the Island had been producing 100,022.05 tonnes of sand and gravel per year (although the trend over the years has been of yearly reductions in production). So the target of 0.1 million tonnes per annum over the plan period reflects almost exactly the historical average delivery rates (since 2004).

There has been considerable work undertaken to establish what an appropriate level of primary aggregate extraction for the Island is. This has been informed by the apportionment figure set out in the revoked South East Plan, estimated reserves, past sales and consultation with the mineral industry and key stakeholders.

While past sales show an overall decline when considering the last 10 years (see Figure 2), sales over the last 3 years appear to be stabilising, with an increase in 2014. Both the level of development planned and the mineral industry, indicate that as a minimum the Island should set an apportionment figure of 0.1mtpa for indigenous land-won sand and gravel.

While the average of ten years sales data has been discussed in Section 2, other relevant local information included in the consideration of future demand for aggregates are the investment in the

maintenance of the Island’s highway network through the Highways PFI contract and the provision of new housing on the Island, considered below.

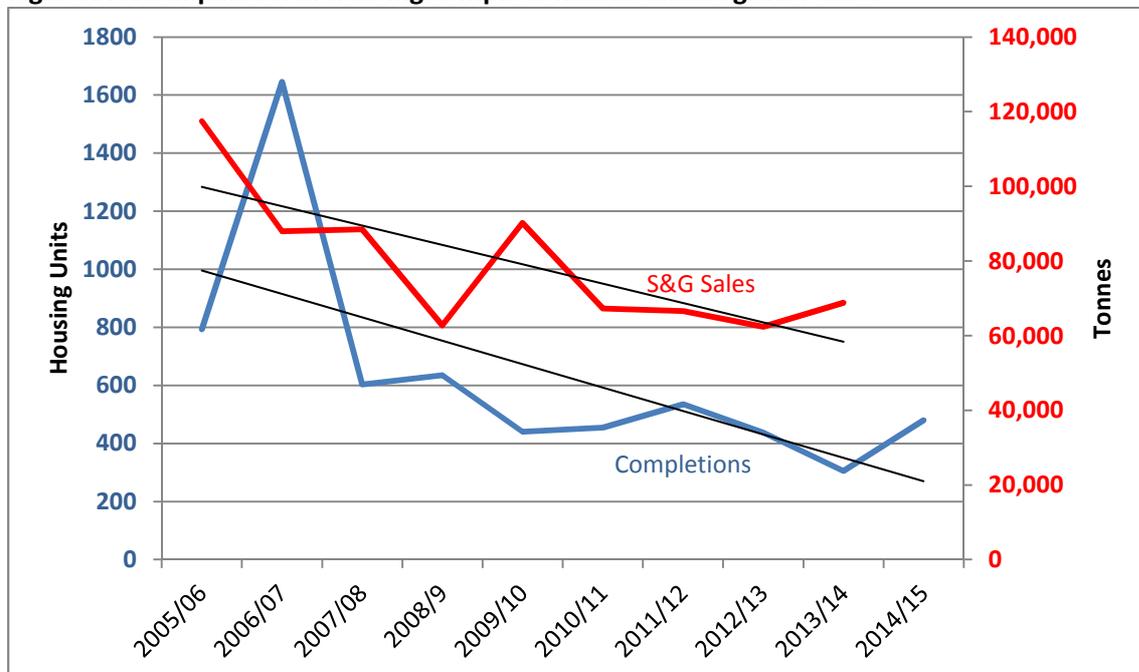
Sand and gravel is used in the construction industry for purposes such as the making of concrete and mortar or for roadstone or drainage material. The level of construction, including house building and infrastructure, therefore largely drives the demand for sand and gravel and are key local factors to consider when determining a provision figure for the Isle of Wight.

Ongoing discussions with the construction sector have identified that changes to the delivery models of developers and construction companies, brought about by toughening economic conditions, have resulted in a reduction in the number of construction companies on the Island. This is significant as delivery of housing on the Isle of Wight was historically based on a relatively large number of small and medium-scale local builders, delivering small and medium-scale sites.

As can be seen from Figure 7, housing completions on the Island for the period 2005/06 to 2014/15 have overall been in decline (it should be noted that the housing completion figures for 2006/07 are an anomaly due to the inclusion of accumulated missed data from previous years and therefore do not truly reflect the actual completions for that reporting year).

Previous LAA work suggests that the level of housing completions is relatively closely mirrored by the demand for sand and gravel. Unfortunately the time period covered by both sets of data is too short to be able to determine any more intimate relationship between these two potential indicators, including any potential time-lag element enabling the reporting of one (e.g. sand and gravel sales) to provide some insight into the other (housing completions). The council will continue to consider the usefulness or otherwise of such comparison. However, in light of the increase in completions and permissions identified above, there is likely to be a greater demand on construction materials, particularly sand and gravel.

**Figure 7: A comparison of housing completions and sand & gravel sales**



## Contingency planning

Section 9.6 of the core strategy sets out that the plan has a built-in contingency, should housing delivery and supply fall below the cumulative and annual (520 dwellings) target by more than 20 per cent over a three year period. If this were to occur, the council will identify and allocate (through a review of the appropriate DPDs) contingency areas for growth.

To contribute to the delivery of the mineral target (i.e. 100,000tpa sales of sand and gravel) and following technical work and assessments of sites promoted to the council, the council has allocated six sites. The assessment of the potential for mineral sites on the Island was undertaken between February 2009 and October 2010 and full details of this assessment work can be viewed in the '[Assessment of the Potential for Mineral Sites on the Island – Site Options Report](#)' (Entec UK Ltd, October 2010). The assessment has been used to inform the selection of sites for allocation, as listed in Table 14.

**Table 14: Land-won provision on the Isle of Wight to 2027**

|   | <b>Total sand &amp; gravel (tonnes)</b> |
|---|---|
| <b>Annual Apportionment</b>   | <b>100,000</b>                          |
| <b>Total Plan Requirement:<br/>Annual apportionment x plan period (16yrs)</b> | <b>1,600,000</b>                        |
| <b>Permitted Reserves</b>   |   |
| <b>Sub-total</b>  | <b>773,607</b>                          |
| <b>Allocated sites</b>  |   |
| <b>MA1: Crockers Farm</b>   |   |
| <b>MA2: Lavender Farm</b>   |   |
| <b>MA3: Cheverton Farm</b>  |   |
| <b>MA4: Blackwater Quarry (western extension)</b>                             |   |
| <b>MA5: Cheverton Gravel Pit</b>  |   |
| <b>MA6: Blackwater Quarry</b>   |   |
| <b>Sub-Total</b>  | <b>1,770,000*</b>                       |
| <b>Total</b>  |   |
| <b>Permitted reserves + Plan sites</b>  | <b>2,543,607</b>                        |
| <b>Contingency</b>  |   |
| <b>Total</b>  | <b>943,607</b>                          |
| <b>Annual</b>   | <b>58,975</b>                           |

\*Estimated tonnage of aggregate in areas allocated in policy SP9 of the Adopted Core Strategy, but not yet subject of a planning application at 31<sup>st</sup> December 2011

Since allocation through the adoption of the core strategy, site MA4: Blackwater Quarry (western extension) has been granted permission<sup>10</sup>, with an estimated yield of 40,000 tonnes, to be extracted over a period expiring in 2021. This in effect has little change to overall tonnes as detailed in Table 16, other than the technicality of 40,000 tonnes moving from Allocated sites to Permitted Reserves.

<sup>10</sup> [TCP/08757/Y, P/01144/12](#) St Georges Down Blackwater, Newport, Continued use of land for the extraction of sand and gravel.

Based on permitted reserves and allocated sites, the council has a sufficient provision of land-won sand and gravel to meet the apportionment figure adopted by the (core strategy) plan, over its lifetime. There is a significant over provision, primarily as a result of lower than anticipated (i.e. below the annual apportionment figure) sales in recent years.

This over-provision provides the council with a significant contingency from which to deal with any likely demand.

There is existing capacity at some of the Island’s aggregate wharves. While the significance of this capacity with regards to the importation of crushed rock is already recognised, there has in recent years been a shift in supply of sand and gravel, from a majority of indigenously sourced land-won, to marine-won (see Table 15 below). As existing and allocated sand and gravel sites are worked out and deposits become increasingly constrained, the shift to marine-won may well increase, in which case the total capacity of the Island wharves will be critical. This is likely to be beyond the existing planned timeline (i.e. post 2027) but underlines the strategic importance of the three aggregate wharves to the Island and highlights a potential vulnerability should any one of these assets be lost.

**Table 15: Indigenous land-won vs marine-won sand and gravel sales**

| Year | Land-won | Marine-won | % split of total provision (land/marine) |
|------|----------|------------|--|
| 2004 | 144,400  | 91,000     | 61/39                                    |
| 2005 | C        | 118,000    | n/a                                      |
| 2006 | 117,000  | 148,000    | 44/56                                    |
| 2007 | 87,997   | 136,000    | 39/61                                    |
| 2008 | 88,000   | 100,308    | 47/53                                    |
| 2009 | 62,713   | 75,516     | 45/55                                    |
| 2010 | 90,163   | 112,000    | 45/55                                    |
| 2011 | 67,303   | 110,000    | 38/62                                    |
| 2012 | 66,600   | 90,303     | 42/58                                    |
| 2013 | 62,407   | 82,838     | 43/57                                    |
| 2014 | 68,760   | 103,276    | 40/60                                    |

A potential wharf capacity issue was raised in the previous LAA, in relation to bigger (deeper draft) dredges may be required in the long term as the search for resources goes further off-shore. This may mean that IoW wharf infrastructure may need to redevelop in order to allow these larger dredgers to berth. Having subsequently consulted further with the Island’s wharf operators it does appear that this may be a future issue, as maximum draft in the operating environment of all the aggregate wharves is limited by both the tidal regime of the estuary and perhaps more significantly (in terms of restraint) the chain ferry at the mouth of the Medina Estuary. The current mix of sources, i.e. direct from dredge or via a mainland wharf may move to predominately mainland wharf. What would be of greater concern to the MPA would be any modal shift in the transport of minerals across the Solent from marine bulk transfer to road/vehicular ferry.

In response to consultation on the draft of this assessment (see Appendix 2 for a summary of consultation responses), one Island mineral operator has suggested that certain developers are using premix sand and cement imported to the Island by road and some builders’ merchants bring all the bagged aggregates they sell from the mainland by road transport. While the MPA cannot influence the commercial decisions relating to mineral demand and use, it does need to understand what these are in order to ensure plan-led decisions are relevant. Therefore the council will look to work with developers to better understand how they meet the various mineral demands from major development projects.

It should be noted however, that core strategy policy DM20 Minerals, sets out that mineral related development proposals, including associated processing plants, will be expected to demonstrate how they will *“Minimise the adverse impacts of the transport of minerals and associated construction materials, including traffic and access”*. How *‘associated processing plants’* is interpreted will be key in determining the extent of influence of this policy over larger development sites, and where aggregates are sourced from.

The NPPF allows for MPAs to consider the contribution that secondary and recycled aggregate can make as substitutes for primary materials. An assessment of capacity for recycled and secondary aggregate has already been provided in this LAA and has shown there to be significant available capacity. It is likely that over the initial investment/construction phase of the Highway PFI upgrading programme (the first seven years of a 25 year period that commenced in April 2013) the use of secondary and or recycled aggregates will play a relatively<sup>11</sup> significant role.

In terms of future capacity provision for hard rock imports to the Island, future opportunities do exist, as identified in the current aggregate wharf capacity. As discussed previously, this capacity is shared, primarily with marine-won sand and gravel, so the sum requirements of all resources using the wharves will need to be considered in order to have an understanding of any impacts provision of one material type might have on the supply of another. Certainly more work can be done to better understand the balance of imports and to see if the identified capacity can be attributed in any way to mineral type. Further investigative work also needs to be carried out to understand the reasons for the zero sales return for crush rock in the latest reporting year. This will help to explain whether this was just an anomaly, with sales returning to expected levels next year, or if this is more permanent what the implications are for the supply and demand of all aggregate types on the Island. This will be reported on in the next LAA.

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<sup>11</sup> The term ‘relatively significant’ here is intended to reflect the differing scales of significance when considering a mineral resource within the MPA area, and then within the wider context of the AWP, where, relatively speaking, all amounts of aggregate handled on the Isle of Wight are minor.

## 5. Implications of Local Approach

Previous LAAs identified the determined appropriate apportionment target for the Isle of Wight. A decision to carry forward the 'local' (MPA) sub-regional apportionment figure is considered the most appropriate approach for the Isle of Wight to take, due to:

- A recently adopted (March 2012) core strategy that contains policies for growth that are aligned with the apportionment. This gives weight to deliver the necessary identified resources to aid such growth, including the provision of minerals;
- The local testing of the apportionment through the adoption of the strategic mineral policies of the Core Strategy that plan for the apportionment over the plan period (for example through mineral site allocations);
- Despite recent years of depressed sales, there is a high level of certainty that an as yet unplanned for significant aggregate demand (through both the Highways PFI Project and as a result of the development allocations to be made in the Development Plan Documents of the local plan and the change in the national economy to positive growth) will start to draw on Island mineral resources;
- Recent returns indicate a levelling out of sales (from a downward trajectory), with last year's returns showing an increase in sales for all aggregate sources (apart from crushed rock) and at the time of adoption, indigenous sales closely matched the apportionment figure.

The Island apportionment has been tested and verified at the local level by key stakeholders, including significantly the Island's mineral operators. The Isle of Wight is unique in being an MPA with no adjoining MPA area. As such it operates in relative isolation and independence, with comparatively little inter or intra-regional flows of aggregate. This effectively takes away the need to more accurately reflect market areas. The levels of provision and demand set out in this LAA also demonstrate that the Island's local aggregate provision will have very little effect when considering these elements in the context of a regional market basis.

Hampshire have identified in their LAA reasons as to why the decline in land-won sand and gravel sales is long-term, being:

- The development of more efficient construction techniques requiring less aggregate;
- The decline in the construction of big infrastructure programs;
- The increased importance and reliance on alternative sources.

The Council notes that while these are likely to be related to new development, both the relatively small scale (in comparison to other MPA members of SEEAWP) development that does occur on the Island and the positive approach taken in the adopted Core Strategy to deliver the housing targets, may help to insulate the Island to some degree from these factors.

When considering the most recent years of sales, there does appear to be some stabilisation of the longer term (10 year) decline. This most recent year records an overall increase in aggregate sales and so the next few monitoring years will be critical in determining whether the decline in sales continues, the recent stabilization is maintained, or the most recent year's growth increases.

## 6. Conclusions and future actions

### Main Conclusions

Based on permitted reserves and allocated sites, the council has a sufficient provision of land-won sand and gravel to meet the apportionment figure adopted by the (core strategy) plan, over its lifetime. There is a significant over provision, primarily as a result of lower than anticipated (i.e. below the annual apportionment figure) sales in recent years.

With an overall increase in sales from the previous year, one of the possible scenarios to explain the zero sales returns for crushed rock this year is that one of the other sources of aggregate, or a combination of these, have acted as a substitute for crushed rock sales last year.

### Summary of findings

The following points summarise the main findings of the 2015 LAA;

- No recorded sales of crushed rock;
- Increase in sales for all other sources (i.e. land-won sand & gravel, marine-won sand & gravel, recycled & secondary);
- Sales for the year, in terms of total tonnage, has increased slightly;
- There is a significant amount of available alternative infrastructure capacity for aggregate on the Isle of Wight, considered to be more than sufficient to meet the Island's needs to 2027;
- There has in recent years been a shift in supply of sand and gravel, from a majority of indigenously sourced land-won, to marine-won;
- A potential wharf capacity issue, in relation to bigger (deeper draft) dredges may be required in the long term as the search for resources goes further off-shore.

### Future actions

As a result of this assessment the following actions have been identified, ideally to be carried out over the next monitoring year, in order that the outcomes may inform the next (2016) LAA;

- Review apportionment figure against land-won sand and gravel sales;
- Investigate variations reported in the permitted reserve for sand and gravel;
- Determine the predicted permitted reserves associated with the other source areas;
- Explore with operators the reasons for nil returns of sales for crushed rock;
- Review by-products from the new waste management contract in respect of potential source materials for secondary and recycled aggregates;
- Liaise with the Environment Agency for an update on permits and recycling activity;
- Check areas allocated under SP9 for mineral extraction have not been permitted and/or developed;
- Work to better understand the balance of imports and to see if the identified capacity can be attributed in any way to mineral type;
- Liaise with developers of major schemes to understand where aggregate is being sourced from.

## Appendix 1: Checklist for consideration by Mineral Planning Authorities and Aggregate Working Parties in assessing the adequacy of Local Aggregate Assessments, POS-MPA LAA Guidance April 2015

| <a href="#">POS MPA LAA Guidance April 2015 (Live)</a>                    | Covered in 2014 LAA                                     | Data source for 2015        | Where the information sits in the LAA           |
|---|---|-----------------------------|---|
| <b>1. Is the draft LAA comprehensive in assessing all supply options:</b> |   |                             |   |
| <b>a) Recycled and secondary aggregates?</b>                              |   |                             |   |
| Annual sales  | Yes   | 2014 MPA Survey             | Recycled and Secondary Aggregate, Table 13 p.22 |
| Average of past sales (if data available)                                 | Yes and 10 year / 3 year avg                            | 2014 MPA Survey, Calculated | Recycled and Secondary Aggregate, Table 13 p.22 |
| Recycling facilities – changes to sites and throughputs                   | Total capacity level, but no detail on changes to sites | 2014 AM Survey              | Recycled and Secondary Aggregate, p.21          |
| <b>b) Marine dredged aggregate?</b>                                       |   |                             |   |

|   |                                       |                            |  |
|---|---------------------------------------|----------------------------|--|
| Annual sales  | Yes and 10 year /<br>3 year avg       | 2014 AM Survey             | Marine-won Sand and<br>Gravel, Table 12 p.19             |
| Wharves – changes to sites and capacity                   | No                                    | MCA sites list update      | Island Aggregate wharf<br>capacity, p.20                 |
| <b>c) Imports and exports by sea, rail and road?</b>      |                                       |                            |  |
| Tonnage and sources                                       | Yes, subdivided by<br>marine and land | 2014 AM Survey             | Future Aggregate<br>Supply and Demand,<br>Table 17, p.29 |
| Exports Tonnage and destination                           | n/a                                   |                            |  |
| (By rail and road, if data available)                     | n/a                                   |                            |  |
| <b>d) Land-won resources of rock and sand and gravel?</b> |                                       |                            |  |
| Annual sales  | Yes                                   | 2014 AM Survey             | Land-won Sand and<br>Gravel, Table 3, p.9                |
| 10 year rolling average of sales                          | Yes                                   | 2014 AM Survey, calculated | Land-won Sand and<br>Gravel, Table 3, p.9                |
| 3 year rolling average of sales                           | Yes                                   | 2014 AM Survey, calculated | Land-won Sand and<br>Gravel, Table 3, p.9                |
| Reserves – tonnage and sites                              | Yes                                   | 2014 AM Survey             | Land-won Sand and<br>Gravel, Table 5, p.12               |

|  |     |  |  |
|--|-----|--|--|
| Landbanks (based on 10 year average and, if relevant, alternative figure in LAA or adopted Plan)   | Yes | 2014 AM Survey   | Land-won Sand and Gravel, Table 6, p.12            |
| Estimated resources in allocated sites (if available – to provide indication of potential future supply)   | Yes | Annual Monitoring Report   | Future Aggregate Supply and Demand, Table 16, p.28 |
| <b>2. Are the assessments realistic and supported by evidence:</b>   |     |  |  |
| a) Has the mpa used sales returns from and capacity at sites with extant permission?   | Yes | 2014 AM Survey   | Current supply, Table 4, p.11 & Figure 3, p.11     |
| b) Has the mpa used AM data and Crown Estate landing figures and data on licensed reserves?  | Yes | 2014 AM Survey, Crown Estate Marine Aggregates Capability & Portfolio 2015 | Marine-won Sand & Gravel, Table 9, p.18            |
| c) Is there reliable evidence on the maintenance of supply, and is there adequate capacity at wharves and rail depots to handle the LAA figure for landings and imports? | Yes | 2014 AM Survey, Crown Estate Marine Aggregates Capability & Portfolio 2015 | Total Aggregate Supply, Table 15, p.24             |
| d) Has the mpa considered a ten year sales average? If it is proposing an alternative figure to this, is there adequate justification?                                   | Yes | 2014 AM Survey   | Aggregate Supply and Demand, p.6 - 22              |
| Has there been a consideration of "other relevant evidence"?   | Yes | Housing completions comparison over the last 10 years.                     | 4. Future Aggregate Supply and Demand, p.25-30     |
| e) Is it necessary to carry out a separate assessment for  | No  |  |  |

|  |     |  |  |
|--|-----|--|--|
| different types of aggregate?  |     |  |  |
| f) Are the assumed and planned contributions from the different sources feasible?  | Yes | Identified annual capacity and reserves.   | 3. Total Aggregate Supply, p.23-24                                     |
| <b>3. Does the draft LAA suitably assess the changes likely to impact on supply and demand over the plan period – has it:</b>  |     |  |  |
| a) Given consideration of the planned levels of development and infrastructure, including relevant major construction projects outside the mpa area and how these compare to previous years? | Yes | Consideration of anticipated major construction projects.  | 4. Future Aggregate Supply and Demand, p.25-30                         |
| b) Considered the constraints on resources, production and capacity to supply?   | Yes | Relevant constraints, eg AONB are discussed and relevant evidence base studies referenced  | 2. Aggregate Supply and Demand, p.6-22                                 |
| c) Taken into account economic and environmental considerations?   | Yes | Consideration of anticipated major construction projects. Environmental considerations have formed part of referenced evidence base. | 4. Future Aggregate Supply and Demand, p.25-30<br>1. Introduction, p.3 |
| d) Assessed the implications of such considerations in other authority areas that supply the mineral planning authority?   | Yes | Consultation with relevant bodies and authorities as part of a detailed evidence base consultation for the first (2012) LAA.         | Consultation, p.4-5  |
| e) Identified a shortage of supply (based on forecast of demand, reserves and capacity)? If so, has this been suitably addressed?  | No  |  |  |

|   |      |   |  |
|---|------|---|--|
| <b>4. In preparing the LAA has the mpa consulted with (to contribute to meeting the Duty to Cooperate, especially if the LAA is being used as evidence to support preparation of an MLP):</b> |      |   |  |
| a) Other relevant mpas including those from/to whom supplies are imported/exported?   | Yes  | Ongoing working relationship with Hampshire | How the LAA has been developed p.3, Consultation p.4 |
| b) The aggregate industry?  | Yes  |   | Consultation p.4                                     |
| c) Environmental bodies?  | Yes  | Environment Agency                          | Consultation p.4                                     |
| d) Other organisations such as Local Enterprise Partnerships?   | No?  | Solent Local Economic Partnership           | Consultation p.4                                     |
| <b>5. What are the implications of the draft LAA figures for the AWP area:</b>  |      |   |  |
| a) On planned provision in the AWP area?  | None | Commentary on MASS and local apportionment  | Future Aggregate Supply and Demand, p.25-30          |
| b) On the overall contribution of the AWP to national & local supply, compared with the current Guidelines (or the London Plan)?  | n/a  |   |  |

## Appendix 2: Isle of Wight Local Aggregate Assessment, Consultation Draft December 2015 – Summary of Consultation Responses

| Consultee                          | Summary of Comment  | Response/Action  |
|------------------------------------|---|--|
| Cheverton Aggregates Ltd           | Satisfied with the information contained within the report and have nothing further to add.   | None   |
| The Crown Estate                   | <p>Satisfied with the approach used, and that the information and data used reflects the most up to date sources available.</p> <ul style="list-style-type: none"> <li>• Page 18, Table 9. After “Annual Permitted offtake” remove “(as at 31/12/2012)”.</li> <li>• Page 19, add the source asterisk to these years, as we did not supply the data for the remaining years.</li> </ul>  | Amendments made as requested.  |
| Knighton Sandpit Ltd               | <p>Satisfied with most of the information and data. However, with regards to sand and gravel imported only to marine wharves; certain developers are using premix sand and cement imported to the Island by road.</p> <p>Some builders’ merchants bring all the bagged aggregates they sell from the mainland by road transport.</p>  | Additional commentary referencing this response and considering this issue has been added to section |
| The Marine Management Organisation | <p><b>Minerals and waste plans and local aggregate assessments</b></p> <p>If consulting on a mineral/waste plan or local aggregate assessment, the MMO recommend reference to marine aggregates is included and reference to be made to the documents below:</p> <ul style="list-style-type: none"> <li>• The Marine Policy Statement (MPS), section 3.5 which highlights the importance of marine aggregates and its supply to England’s (and the UK) construction industry.</li> <li>• The National Planning Policy Framework (NPPF) which sets out policies for national (England) construction minerals supply.</li> <li>• The Managed Aggregate Supply System (MASS) which includes specific references to the role of marine aggregates in the wider portfolio of supply.</li> <li>• The National and regional guidelines for aggregates provision in England 2005-2020 predict likely aggregate demand over this period including marine supply.</li> </ul> <p>MASS guidance requires local mineral planning authorities to prepare LAAs, these assessments have to consider the opportunities and constraints of all mineral supplies into their planning regions, including marine. Counties, may have to consider the role that marine sourced supplies play – particularly where land based resources are becoming increasingly constrained.</p> | All of the documents referred to in the MMO response have been referenced within the assessment.     |

## Appendix 3: Comments following consultation on final draft LAA 2015 with the South East England Aggregate Working Party

| AWP Member | LAA Section                         | LAA Text   | Comment  | Response/Action  |
|------------|-------------------------------------|--|--|--|
| M North*   | Executive Summary                   | The council has allocated six mineral sites through the adopted core strategy. This has provided sufficient potential reserves through the plan period through to the year 2027. While one allocated site has been permitted and is understood to currently be being worked, due to the lengthening permitted reserves and the proportion of reserves (2% of potential yield from allocated sites and 5% of permitted reserves) this permission made up, it is possible to conclude that this is not significant. Furthermore, the council would expect the allocated mineral sites to gain consent over the lifetime (to the year 2027) of the adopted (March 2012) local plan (Island Plan Isle of Wight Core Strategy (including Waste and Minerals) and Development Management Development Plan Document). | I appreciate this is the Executive Summary, but it is a little confusing as reserves are taken as one and not separated. This could mean are hard rock reserves which go beyond 2027, but a shortfall in S&G. One cannot ascertain the details until later in the LAA. | Noted, clarification will be provided by inserting 'sand & gravel', i.e. "The council has allocated six <u>sand and gravel</u> mineral sites ..."  |
| M North    | p.8 Mineral Resources on the Island | No new chalk permissions have been granted for at least the last five years (probably beyond ten years reflecting an overall decline in demand and sufficient existing reserves  | This is very vague . Surely the Mineral Planning Authority as keeper of records can be more explicit.  | Noted, however given the resource type and this section of the report is providing detail on the occurrence on minerals the MPA does not feel that the resource used to provide a more definitive description is worthwhile. |
| M North    | p.12 Long-term capacity             | ... the indicative amount required for a 7 year landbank ...   | Text need changing to reflect NPPF .It is not indicative it is a requirement under NPPF  | Noted, the MPA doesn't dispute the requirement for making provision for the maintenance of at least 7 years landbank for sand and  |

|         |                           |                                  |  |   |
|---------|---------------------------|----------------------------------|--|---|
|         |                           |                                  | to have at least 7 year land bank  | gravel, thus the 'required' part of the section commented upon. However the purpose of the amount used is principally as a monitoring tool to provide the MPA with early warning of possible disruption to the provision of an adequate and steady supply and therefore can be taken to be an indicator, or indicative of any further actions as set out in Paragraph 080 Planning for Aggregate Minerals, Aggregate Landbanks, What are landbanks of aggregate mineral reserves? (revision date: 06 03 2014) of the NPPG. No change. |
| M North | p.25 Contingency planning | ... relatively significant role. | It is either significant or it isn't. What does relatively significant mean? | Noted, the term 'relatively significant' here is intended the differing scales of significance when considering a mineral resource within the MPA area, and then within the wider strategic context of the AWP, where, relatively speaking, all amounts of aggregate handled on the Isle of Wight are minor. Further clarification will be provided to explain the context of this term.  |

\* M North is an MPA member of the EEAWP