



Friends of Ringwood Forest

Hampshire Minerals & Waste Plan

**Main Modifications & DCLG Guidance
Consultation – Response**

December 2012

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1.0 Introduction

This response to the Draft Hampshire Waste & Minerals Plan (HM&WP) proposed Main Modifications & the Department for Communities and Local Government 'Guidance on the Managed Aggregate Supply System', known as the DCLG Guidance (October 2012), Consultation is submitted by the Friends of Ringwood Forest (FoRF).

FoRF is a community led action group and the governing body of the No2PurpleHaze Campaign. Its aim is to protect Ringwood Forest as an environmentally important and highly valued public amenity space – see http://www.no2purplehaze.co.uk/about_us.html

FoRF currently represents around 2,600 supporters residing in the UK and internationally. FoRF supporters submitted 3,159 of the 4,100+ adverse comments regarding the proposed Purple Haze site allocation within the HM&WP which were received by the Hampshire Authorities between April 2011 & October 2011.

We are authorised by virtue of the FoRF Constitution to make this submission which has been published previously via the internet for membership & public scrutiny and comment. For this reason our response has been written with lay people in mind and some of the arguments presented have therefore required detailed explanations.

We wish to meet with the Planning Inspectorate during any related Public Examination to further explain our members' concerns where such discussion would aid consideration of our view that the inclusion of the proposed Purple Haze site within the Draft HM&WP is Unsound and that the site should therefore be excluded.

Signed:

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2.0 DCLG Guidance (October 2012) & Hampshire submission LAA: Comments on the Need & Demand for Soft Sand

This section sets out our considerations and analysis of statistical information obtained in relation to the extraction and use of Sand & Gravels with direct reference to the Department for Communities and Local Government 'Guidance on the Managed Aggregate Supply System', referred to below as the DCLG Guidance (October 2012), and the Local Aggregate Assessment (LAA) included in Hampshire's submission.

2.1 Introduction

A large part of the following analysis does not go back any further than 2000. The main reason for this is that as from 1997 the statistical geography was changed by central government and the "new" regional boundaries for statistical analysis were changed. Any regional considerations before this date may therefore be incorrect. National figures are, to the best of our knowledge, still correct and have, where available, been used before this date. Regional figures exist for 1997 to 1999 but 2000 seemed a good starting point. A quick review of these earlier figures does not add anything to the argument and supports the findings given.

Our considerations are based on and use the "DCLG Guidance on the Managed Aggregate Supply System (October 2012)" as the underlying text for the following analysis. This document, referred to throughout as "DCLG Guidance (October 2012)", lays down the principals for undertaking a re-evaluation of the demand both locally and regionally which is then fed back to the "Aggregate Working Parties" (AWPs) which considers the implications and demands on a regional and national basis. The whole tenor of this guidance is the provision of an evidence base. The preparations of submissions must therefore be evidence based in order to follow the guidance requirement and it is also necessary to undertake certain tasks described within the guidance.

We have used the following sources of information in preparing our evidence. There are undoubtedly others - these are considered the most comprehensive sources:

1. Office of National Statistics (ONS) annual business survey for 2010
2. ONS Material flow account for 2009
3. ONS Mineral Extraction in Great Britain (Business Monitor PA1007) for 2009
4. ONS Collation of the Aggregate Minerals 2009 Survey
5. British Geological Survey (BGS) United Kingdom Yearbook 2011
6. Hampshire Minerals & Waste Plan SOFT SAND TOPIC PAPER (v2 Nov 2011)
7. South East Aggregates Monitoring Report 2009 (SEERAWP 11/01)
8. Planning4Minerals: A Guide on Aggregates (*by Quarry Products Association, the British Marine Aggregate Producers Association, the British Geological Survey and Entec UK Ltd.*)
9. Guidance on the Managed Aggregate Supply System (DCLG Oct 2012)

These are the latest figures we can find and they generally relate to the years 2008/2009 except for the BGS report which relates to 2011. It is important to realise that item 3 above contains sales figures and not excavated or reserves figures. Item 2 above, the Minerals Flow Account, provides the extraction figures. These are not broken down in as much detail as the sales

figures; probably due to the need for companies to transfer materials between depots without a detailed record being kept against a detailed point of sales record.

2.2 Cross Boundary Communication

As of 1997 Dorset is classified in the South West region and Hampshire is in the South East region. There is therefore a crossover and a degree of communication required between both Dorset and Hampshire Authorities and the Working groups in order that the export and import supply/demand figures can be properly assessed. It is of particular importance as the Hampshire authorities have repeatedly stated that most of the Purple Haze extraction would be intended for the Dorset area - notably during the Hampshire County Council's (HCC's) Full Council meeting held on 13th October 2011. This has to be borne in mind as the sustainability of supply is one of the main counter arguments used by Hampshire regarding the import of materials and use of other sites. They have therefore geographically identified that there is a shortage of supply in this area of the county where the DCLG guidance requires "to spread locations as far as possible". **This guidance does not seem to have been followed through in that no sensible balance between supply locations/demand locations against a sustainable approach nor does a breaking down of locations appear to have been undertaken.**

As Purple Haze is located some distance from Hampshire conurbations Dorset is surely the main sustainable supply route for minerals extracted from the site. Our extensive Freedom of Information (FOI) requests have, however, surfaced no evidence of communication between Dorset and Hampshire addressing a cross border analysis of need and demand. Nor is there any evidence available elsewhere in the public domain to show that Dorset County Council, or indeed any other planning authority within the Dorset boundary, has provided forecast / demand figures to Hampshire for their assessment. In order to meet the DCLG Guidance the Authority has to take into account "all demand" so a "Key Principal" of the assessment can be met. **In summary, there is no evidence within the submission of such cross boundary communication having taken place, notably between Dorset and Hampshire, and for this reason the Plan should be considered Unsound.**

In addition, when considering the LAA, we have been unable to establish from Hampshire's evidence base:-

1. How much soft sand has been sold within 30 miles of Purple Haze over the 10 year sales period used to calculate the average requirement for soft sand, and
2. Where the need for soft sand lies within 30 miles of Purple Haze for 4m tons (approx.) of soft sand over the Plan period as stated in the draft HM&WP

Point 2 above is particularly significant. On 13th October 2011, HCC Council members were assured that the majority of soft sand from Purple Haze would be exported to Dorset. When considering information in the public domain about the target county's infrastructure, construction & housing development plans, examination of the Core Strategies being developed across Dorset do not, in themselves, provide any evidence of the need for the amount of soft sand being sought from Purple Haze in Hampshire's Plan period. It is worth noting that Dorset has its own soft sand reserves and is not, we are told by informed County Council sources, going to be dependent on the Purple Haze site allocation. **Hard evidence regarding exports to Dorset which relate directly to that county's needs should therefore be included and evidenced in Hampshire's calculations in order to make the Plan Sound.**

This now creates a difficulty in analysing the figures as we are having to 1. cross boundaries and 2. do not have an effective starting point.

In the absence of any evidence to the contrary, we have therefore commenced by assuming that Hampshire Authorities have NOT communicated with Dorset Authorities, nor have they undertaken any detailed analysis of the supply/demand requirement other than to use others' figures or, as described in item 6 above, an average of the previous 10 years' figures.

2.3 What are the materials being considered?

In the most part, quarried sand and gravel is used in the construction and road building industries. It also has other industrial uses such as glass making, foundry work and horticulture. Glass and Foundry work uses specialised products and, whilst neither the South East nor Hampshire has a declared figure for them, only small quantities have been supplied in the past. We have therefore excluded them from the figures.

ONS have figures for road building (asphalt) and they are also very small. This is probably due to the nature of the material in Hampshire in that it is not angular. (MOT Type 1 road sub-base, for example, is made from crushed rock and is shipped from the Mendips to all over the country). Figures are available for Horticulture and have been used particularly as it is an important use for soft sand.

2.3.1 Sand

Sand is separated from aggregates by particle size. Between 63 microns and 2mm is sand; above this size it is termed "aggregate". Soft or sharp sand is distinguished by particle shape; angular shapes are sharp sand, rounded shapes are soft sand. Within this rough description there are quality grades for determining the suitability of the sand for a particular job. (*Source: Tarmac.co.uk / sand and gravel web site*)

Hampshire state (ref: item 6 above) "*Soft sand is used in the construction industry and cannot be substituted by any other mineral resource*" they further state "*Soft sand can be used in construction as asphalt, mortar and plaster, or for other uses such as horticulture and sports pitches.*"

These two comments are misleading in that there are substitutes possible and the quantities required are very low in some of these activities.

To help clarify this view a construction industry expert advises us –

- The sand used for asphalt work can be either soft or sharp and today is often sharp
- Sand has not been used regularly in plastering for decades. It is still used in historic plastering for renovations but most plastering uses premium mixes and even these are becoming increasingly out of favour in preference to dry wall systems
- Rendering (another form of plastering) does not use soft sand and is undesirable because of its poor matrix binding properties
- Screed material also uses sharp sand for the same reason, particularly as screeds often have a structural requirement

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Mortar for bricklaying is the principal use for soft sand in construction and here there is also a substitute. It is probably worth noting that prior to the 1960s all mortar was a mix of sand, lime and cement. During the 1960s, with the advent of alternative products, changes in mix designs, safety considerations and the cost of production the lime was omitted, a sand/cement mix being preferred. Time has proved this to have been a poor choice as better information became available and the cost of production swayed back. For example, lime has been reintroduced into some mortar mixes and different types of cements are also now being used. There are also other alternatives to traditional brick construction which are being used more. These practices combine to reduce soft sand demand for construction purposes.

Additionally, the requirements to increase sustainability & efficiency requirements of modern homes have necessitated the introduction of differing materials. The principal cost in construction is labour and bricklaying (utilising soft sand) is very labour intensive, therefore expensive.

Currently most homes are being built to a standard known as Code 3. This is based on a BRE (Building Research Establishment) / German standard. The drive to achieve this standard, although not statutory, has been underway for some years now. Code 4 was introduced about two years ago and Code 5 is expected to be introduced in the next year or two; eventually leading to Code 6 which is carbon neutral. These code developments tie into the “BRE AAM” assessment process which uses the familiar A, B, C, D & E classifications.

Both these standards require energy efficiency levels that cannot be achieved using bricks and mortar alone. Currently under Building Regulations, and to achieve the required levels of thermal conductivity, a cavity wall has to be nearly 350mm thick. This uses more sand and cement, which in turn decreases the points awarded under both the Code and BRE AAM. The decision for developers is an obvious one, i.e. to reduce traditional brick construction, so driving the construction industry to move towards meeting the more recent Codes as described above. This trend to move away from brick construction is therefore likely to continue directly in line with the drive towards more energy efficient carbon neutral homes.

All the above factors have led to a reduction in the need for soft sand in construction which, even allowing for a future economic upturn to stimulate the construction industry, is going to further reduce during the Plan period. Hampshire’s assessment does not evidence any consideration of this reduction in demand driven by changing building techniques and materials and so does not fit with the latest DCLG Guidance. **Until the LAA is revised to take account of this reduction, the Plan evidence base is not robust and the Plan should be considered to be Unsound.**

The second largest use for soft sand is in the horticulture and leisure industries. It is used in play pens, golf course bunkers, riding schools (*source: ED026*) and for sports field dressing, with 1.03Mt used in 2008 compared with 6.98Mt used for mortar nationally. There are no comparable figures for Hampshire and the South East.

As in the construction industry, substitutes are available and are being utilised in some instances – examples include school sports fields which are being replaced with synthetic surfaced MUGAs (Multi-use Games Areas) and Play pens which are being replaced with synthetic material as biological contaminants make some of these play areas out of bounds.

This then begs the question - **where is all this sand going to be used?**

2.3.2 Aggregates

The statistical figures for other quarried aggregates follow the same trends. Without a geological survey of the proposed Purple Haze site it is not possible to say how much aggregate is available on the site and indications from the data sources available to us is that it is not high. The reasons provided for the proposed excavations at Purple Haze are for Soft Sand. Again without a geological study it is not possible to identify the quantity or quality of sand that may be present.

Using the information provided by Hampshire (Soft Sand Reserves Map ref 6), what little information is available from the BGS and in the absence of detailed survey data there is, in our opinion, no proven reason to identify Purple Haze as an extraction site. From the enquiry submission it's all supposition and the Plan should therefore be considered Unsound.

2.4 How much is needed?

2.4.1 The “Local” Perspective: Background

The DCLG Guidance (October 2012) encourages the consideration of local circumstances for aggregate planning.

Taking the historic perspective into account when forecasting soft sand requirements, it should be noted that between the years 2000 and 2010, which fall into the period used for the 10 Years Sales Standard Average driving Hampshire’s calculated aggregate needs, Verwood (located near to Plumley Wood, Blue Haze & Purple Haze – all soft sand extraction sites) was one of the fastest growing towns in Europe. Other towns also had similar new build growth in the same period. Despite this build growth period, however, overall soft sand sales declined both locally & nationally. Even in 2003, one of the busiest years in recent times for the construction industry, sales of soft sand declined.

Evidence of this decline may be found in Dorset’s Revised Draft Minerals Core Strategy July 2011, Section 7 – The Strategy for Aggregates Extraction.

In addition, the South West Regional Aggregates Working Party (SWRAWP) Annual Report 2009 demonstrates that land won sand and gravel production in the South West has fallen from a consistent level of 4-5mt each year in the 1990s.

This decline, analysed in the following section, should be reflected in Hampshire’s aggregate calculations as national economic forecasts and the local Core Strategies we have reviewed do not forecast a great upturn in construction using soft sand during the Plan period, especially within a 30 mile radius of Purple Haze.

2.4.2 Challenging the 10 Years Sales Standard Average

Publication of the DCLG Guidance (October 2012) drives the need to review the approach adopted by Hampshire & SEERAWP (South East of England Regional Aggregates Working Party) towards aggregate forecasting. Our detailed analysis follows.

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Using all the aforementioned publications (see Section 2.1) and when drawing up the projections there appears to be reluctance by Hampshire to fully analyse the trends, their preferred approach being to take an average of the previous 10 Year period. This approach also seems to have been adopted by SEERAWPs and DCLG.

Hampshire state:

*“4 It is considered that the use of long term (10 years) average sales can provide a more realistic picture of the amount of aggregate required, both now and in the future. There has been a continual reduction in sales of land-won sand and gravel over the past decade. Latest sales evidence (collected by Hampshire County Council in May 2011) indicates that the 10-year average sales of soft sand amounts to 0.28 million tonnes per year. This means a total soft sand requirement over the plan period of 5,350,000 tonnes, of which 2,221,800 tonnes comprises total permitted reserves leaving a requirement of 3,128,200 tonnes to be found in the period up to 2030. More information on the methodology used in calculating the apportionment figure at national and regional level is set out in the **Minerals in Hampshire Background Study (2011)**. “*

1. We would contest this figure, as set out below.
2. We cannot see any methodology in the stated publication, only the reasoning for making the assumptions.

Using their approach and comparing to the ONS figures between 2000 and 2008 Hampshire sales for aggregate amounted to 5.378 tonnes¹, however this is only eight years. It is clear that for a 10 year period the figure used by Hampshire should be higher than this but it is lower. The only reason can be that the figures for 2009 and 2010 must be considerably less than the annual average to produce a 10 year average of 5.35m tonnes.

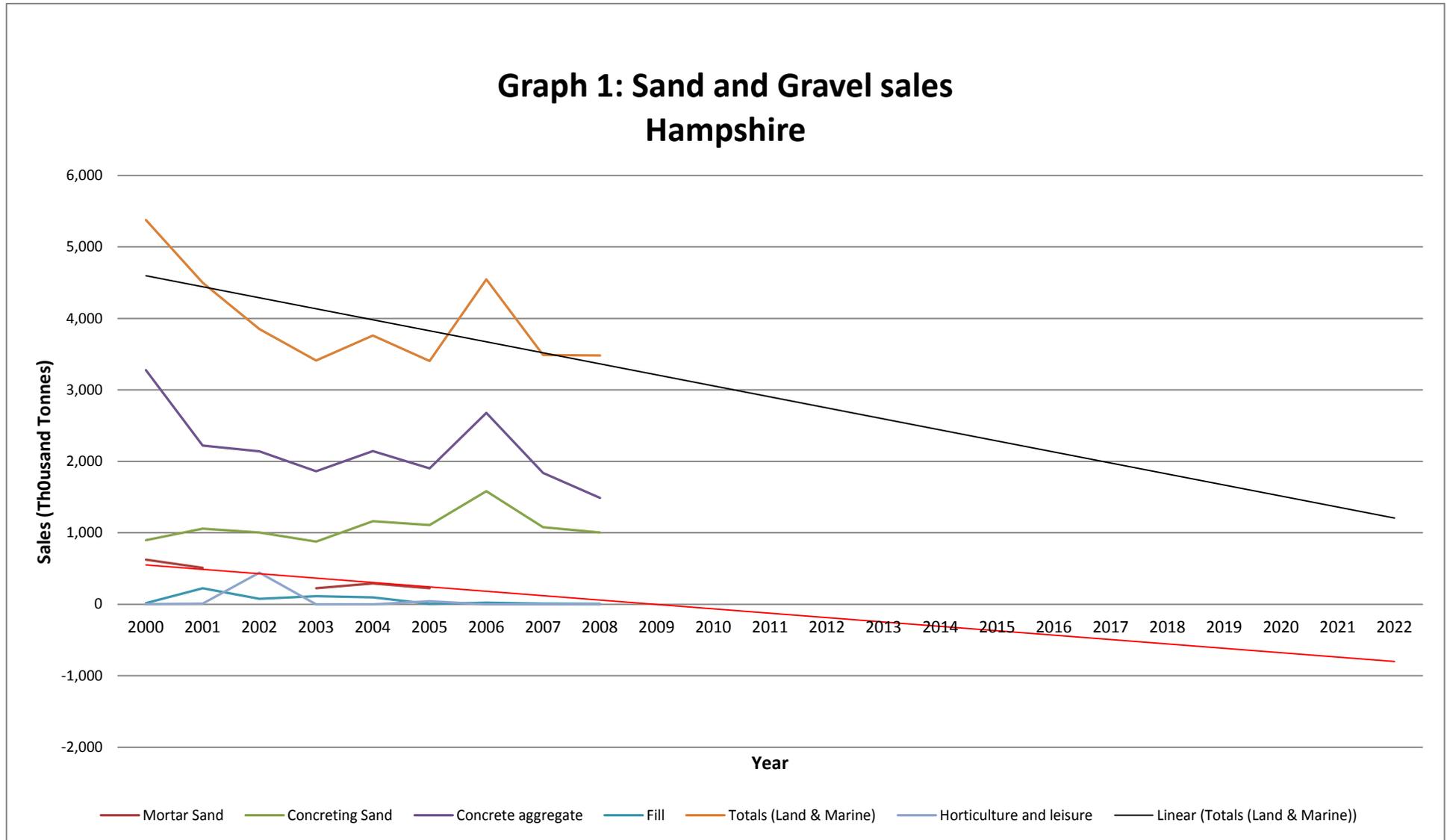
The downward trend is not new information and Hampshire refer to it in the above quoted document but still prefer to use this 10 year average rather than a recommended reducing figure. They should at the very least be using a moving average trend. Put simply - on a declining trend, if 10 years ago we dug out 10 units, then 9 years ago we dug out 9 units and so on to then today we would need to dig out 0 units. However, using a simple average we would be digging out 5.5 units. Clearly from the half way point, and for any future requirement, there would be a demonstrable excess in the amount dug.

Graphs 1, 2 and 3 (see below) are extractions from the ONS Mineral Extraction in Great Britain (Business Monitor PA1007). They provide the sales figures for sand and gravel in Hampshire, the South East and England as a whole. All these figures show this downward trend in aggregate demand. This, we believe, is being driven by both the construction industry and central government in drawing up plans for a more sustainable and efficient housing and the built environment generally as explained above.

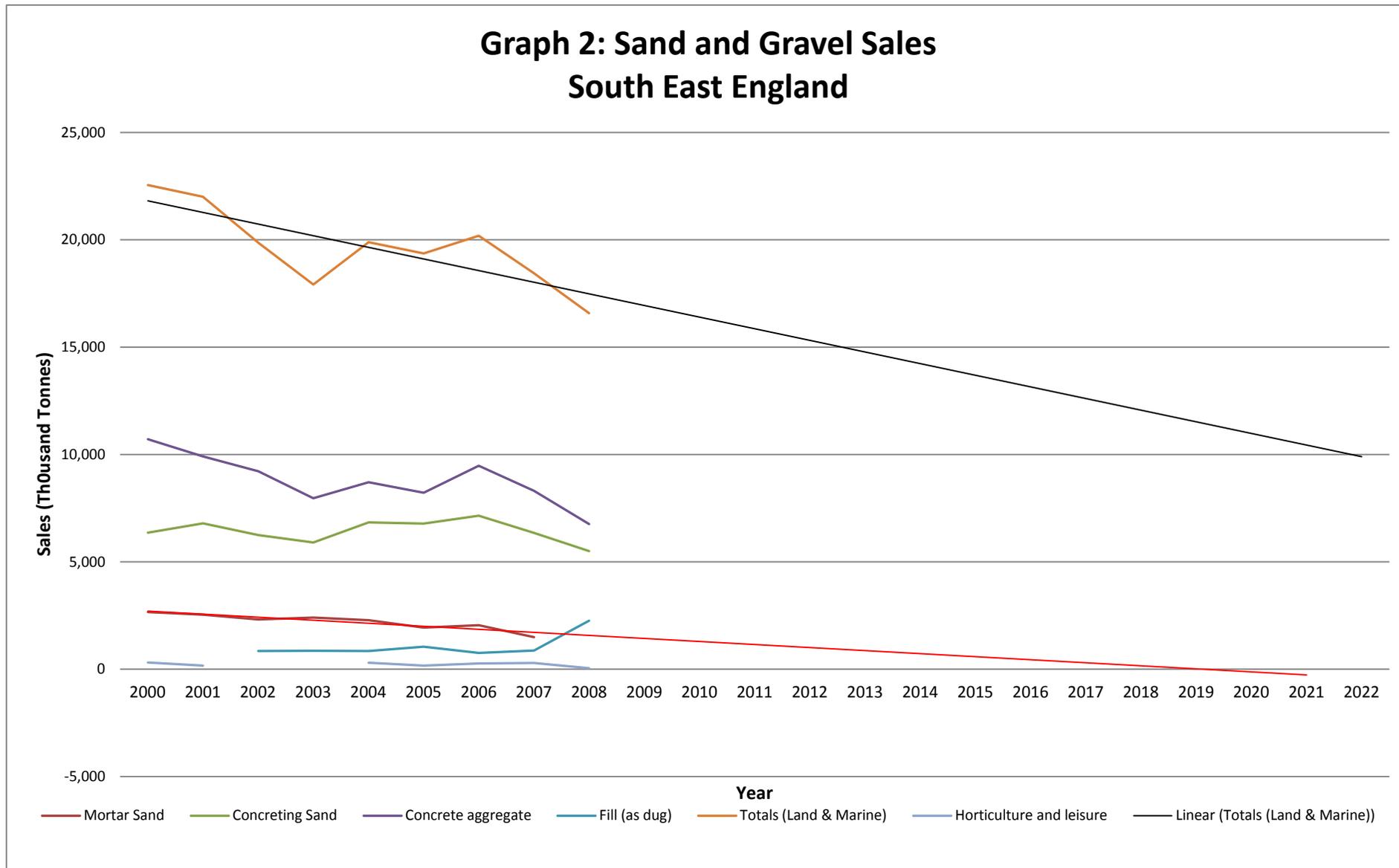
The trend for these figures actually shows that Hampshire no longer needs soft sand for mortar and hasn't needed it since 2009². Extreme as it sounds (and perhaps that's why), along with the associated quality issues the quarries have been stock piling soft sand at both Plumley and Eversley.

¹ These are aggregate figures not soft sand and it is difficult to compare to the ONS figures for Hampshire with the HCC one. According to the ONS the total aggregate figure for the SE of England was 12.3Mt in 2009 of which just under half was land won. In this there is comparison between SEERAWP and ONS. HCC figures do not compare to SEERAWP's figure for sales but do compare to their reserves figure.

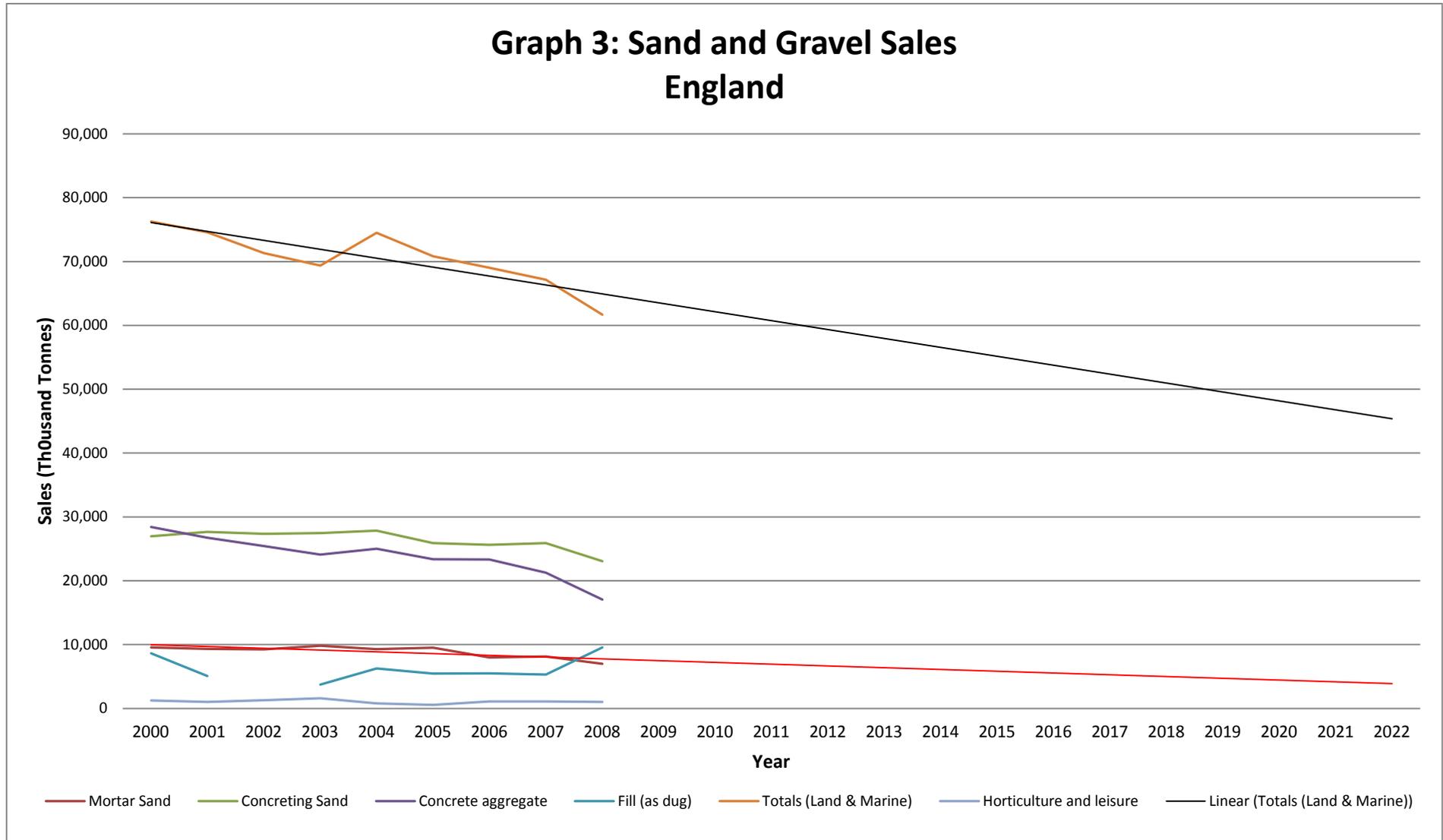
² SEERAWP report on sales for 2009 show 101000 tonnes being sold and that reserves exceed demand.



Graph 1: The breaks in the graphs are where information has been deleted by ONS grounds of confidentiality. Figures in graphs 2 & 3 include London. Trend lines and are black for all aggregate sales and red for mortar sand sales in all graphs.



Graph 2: Note the discrepancy with the SEERAWP figures these appear very different.



Graph 3: Source: graphs 1-3 ONS Mineral Extraction in Great Britain (Business Monitor PA1007)

Soft sand extracted from the same geological strata as Purple Haze has been, we are advised by a construction industry source, of such poor quality (*See also Blue Haze Planning Application - Bore Hole information*) it has been used primarily as inert fill & landscaping with few sales direct to the construction industry. In fact, during the Public Examination (June 2012) it was stated, by Quarry Plan for Tarmac who are mineral operators working in Ringwood Forest and other nearby areas, that **only 20,000 tons of soft sand had been sold in the previous year when 240,000 tons of soft sand p.a. is forecast to be extracted from Purple Haze and reserves increased – why?**

The economic argument is also the stronger one. If supply is greater than demand, as strongly indicated by our earlier analysis of Hampshire's LAA and of submission figures when considering the DCLG Guidance (October 2012), then the resource value drops. With supply exceeding demand then the price will be driven down and the management of the over burden could prove to be economically prohibitive.

We believe this is further evidence that likely future requirements for soft sand locally do not drive the need for Purple Haze to be developed and that, by applying the DCLG Guidance, **alternative sources should be found within Hampshire to meet their requirements** where other lower yield soft sand sites are potentially already available to meet the reduced volumes likely to be required during the Plan period.

The SEERAWP Report 2009 states:-

“5.4 The short and medium term trends in sand and gravel sales in the region are shown in Table 3, and Figure 2. Over the last ten years sales have fallen from 12.6Mt in 2000 to 6Mt this year, a decline of over 50%, and reserves have fallen by over 60Mt in the same period”

This all suggests that reserves are being set aside when the sales are not present. **So why are more reserves needed?** It would also infer that SEERAWP are not looking hard enough at the long term figures as their statement considers only the medium term. This is also borne out by the acceptance of only a minimal reduction in the guidance for land won sand and gravel issued by DCLG.

There are 2 figures in the SEERAWP report which will now be considered, see below³. If in annual apportionment for the South East is their higher figure of 12.18mtpa and in 2009 the annual sales of soft sand in Hampshire are 101,000 tonnes then this is only 0.83%. Taking the

³ Figures from SEERAWP

3. Regional and Sub-regional Apportionment

3.1 Revised National and Regional Guidelines for Aggregates* were issued by

DCLG in June 2009, giving a figure of 12.18mtpa for land won sand and gravel in the South East and 2.2mtpa for crushed rock. This confirmed the figures in the earlier April 2008 consultation draft, to which SEERAWP raised no objection. The Regional Planning Bodies (RPBs) were expected to undertake sub regional apportionment between MPAs within six months, taking into account advice from the MPAs and RAWPs.

Regional and Sub-regional Apportionment

In March 2010 the Government Office for the South East published 'Proposed changes' to Policy M3 in the South East Plan, setting a regional apportionment of 11.12mtpa for land-won sand and gravel and 1.44mtpa for crushed rock.

Table 1 on page 10 of the same report gives the sand and gravel sales for 2009 (this seems to be the last year recorded) as Hampshire with sales of 101,000 tonnes for “soft sand (building sand)”. Table 2 of the same document shows a fall in soft sand sales from years 2000 to 2009 of 57% and a fall in all sand and gravel sales of 52%

total sand and gravel sales for Hampshire, then on the same basis, Hampshire supplies only 8.65% of the apportionment which is only 3.23mtpa. Their current reserves are 3.128mtpa. Given that the demand trend is downward - **why apportion more reserves?**

It could be argued that using the latest figures (2008 & 2009) is disingenuous as there was a marked down turn in demand in 2008 & 2009. This was probably due to the current economic climate. However, the latest government and OECD figures suggest that the down turn in the economy will not start to recover until 2016 at best and more likely 2020. **The supply, demand trend should therefore be considered over a much longer period which would require a full statistical analysis.** However, the data available to us already shows this downward trend which has been continuing for over 40 years. A reasonably accurate view can be construed from the same table 2 figure from the SEERAWP report by considering the difference in sales year by year and correcting for 2008 and 2009.

From 2000 to 2007 sales fell by an average of 5.25% per annum. This rate of fall is greater in 2008 by 14% and in 2009 by 18%. Taking this into account, and by also assuming the decline to be a constant trend, the average rate of decline is therefore between 5.25% and 7.4% per annum. In tonnage terms this represents an average demand requirement of between 9.8mtpa and 10.58mtpa. We have seen that Hampshire only supply 8.65% of this, so Hampshire's portion is between 0.83mtpa and 0.92mtpa. Bear in mind that these are historic figures on a declining trend. If this trend (ignoring 2008 and 2009) is continued then the demand by 2020 will be falling by just over 6% per annum at best. **It is therefore reasonable to project that the current Hampshire reserves are considerably in excess of demand.** In real terms this means that sand and gravel demand from Hampshire by 2020 will not be 10.58mtpa but 0.06mtpa. The projections using the ONS figures, which do not reflect the down turn in 2008 that SEERAWP does, nonetheless forecast a demand of only just over 1mtpa in 2020.

By any measure a declining trend must eventually reach zero and the current trends from SEERAWP and ONS show that by 2020 (well within the Plan period) there will be virtually zero demand for sand from Hampshire. Furthermore, if in 2009 we only needed 6Mt of sand a 10 year reserve only requires 60Mt. Yet the current reserves stand at 79Mt – this is a SEERAWP total as we cannot find the corresponding figures for Hampshire alone. **Why did SEERAWP not require a larger reduction?**

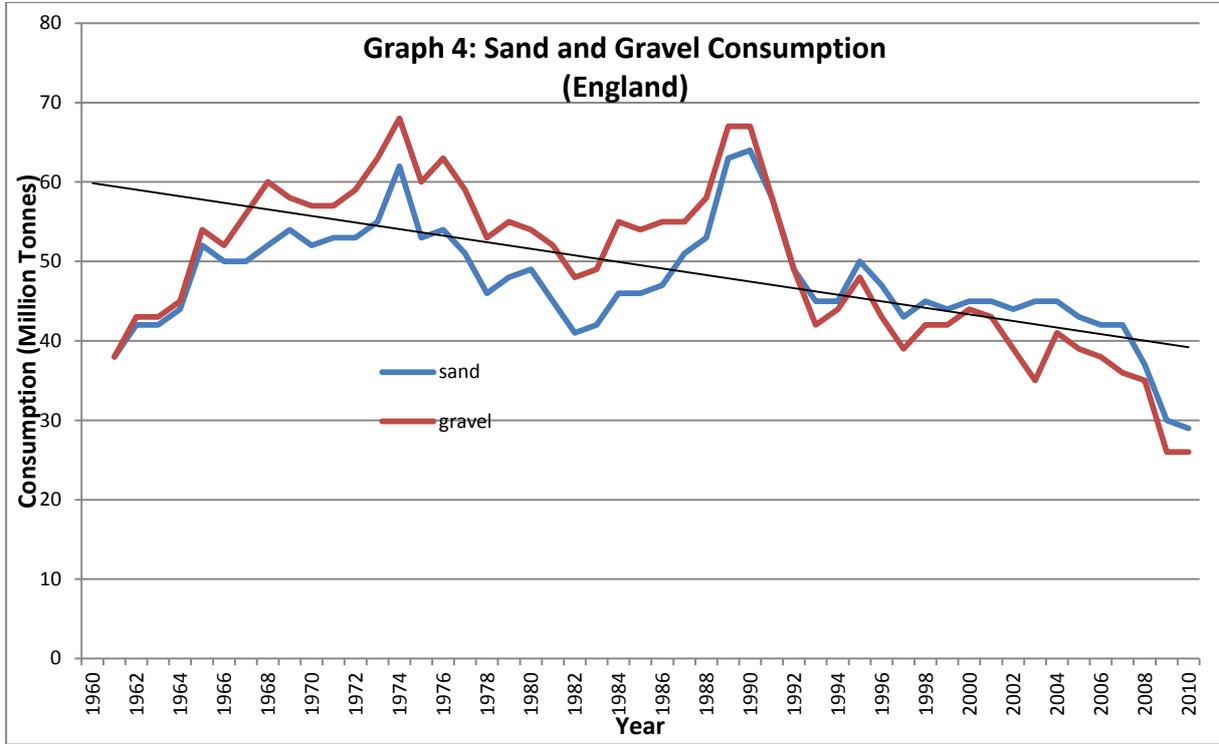
Also, an examination of the SEERAWP supply / demand figures for 2009 shows that these differ from those used by Hampshire.

With regard to soft sand specifically, in the SEERAWP Report for 2009 their Table 1 page 10 shows the Hampshire figures to be sales of 101,000 tonnes and end of year reserves of 1,073,000 tonnes. Taking a straight 10 year projection of this figure then the total sales will be just over 1Mt: that is less than current stated reserves. However, does this take into account the long term and medium term declining sales picture? It cannot explain why a reserve of 5.35Mt is required by Hampshire and they are not prepared to accept a reserve reduction.

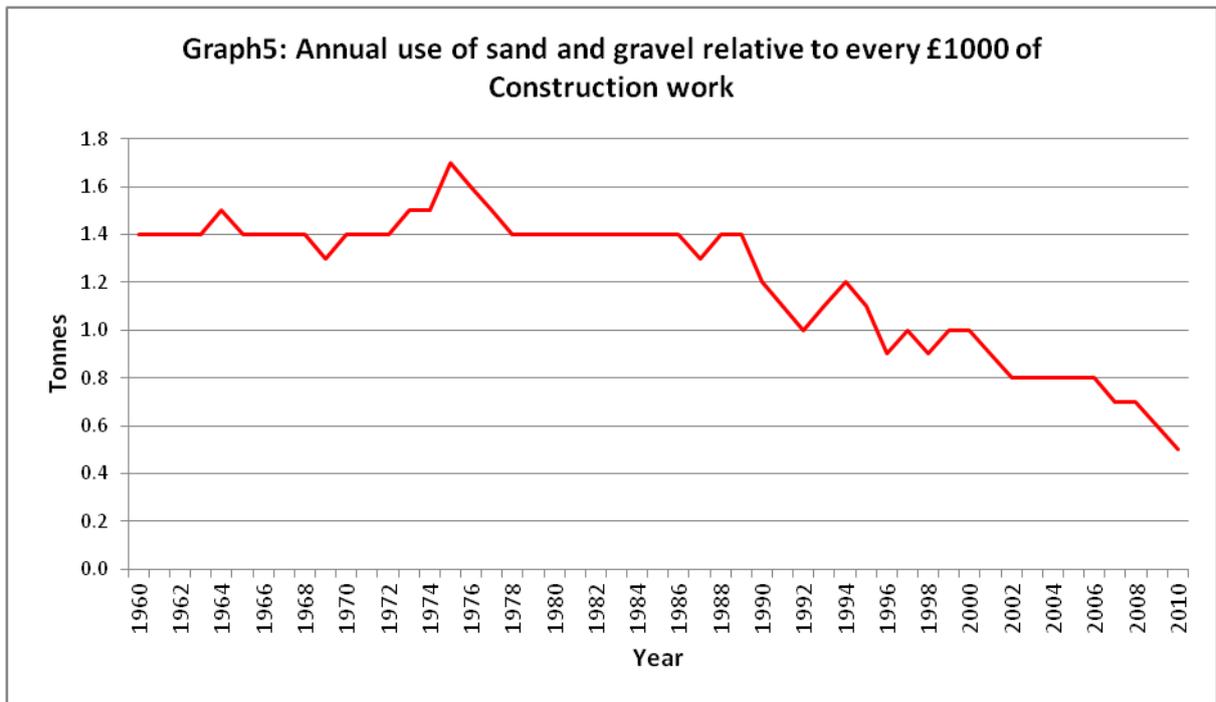
There is, however, an important question with regard to the figures used in this table as we can't understand how the reserves for Hampshire at the beginning of 2009 were 2.936Mt and the reserves on sales of 0.101Mt suddenly dropped to 1.073Mt by the end of the year.

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The previous figures show a declining sales picture from 2000, using the BGS survey figures for sand and gravel over the last 40 years trend has been very long term. To illustrate this, Graphs 4 & 5 (below) use two important pieces of information. Graph 4 relates to the consumption of sand and aggregate, whilst graph 5 relates to the quantity of sand and aggregate used for every £1000 of construction spend.



Graph 4: Excludes imports, exports and marine dredged but includes crushed rock. Source BGS: British Geological Survey United Kingdom Yearbook 2011



Graph 5 (above) demonstrates that the amount of sand and gravel required for construction has been on a steadily declining track since about 1990 and took a noticeable downturn in 2000/2001, repeated in 2006. These two events happen to coincide with the introduction of quarrying levies and when sustainable construction started to become more important. This further supports the argument that demand for these materials is reducing in the supply chain for the reasons given earlier. It also shows that this picture is a long term one and NOT one driven by the recent economic pressures - **supporting our opinion that Hampshire should take more into consideration than simply the 10 year average sales.**

The analysis of demand by Hampshire appears to be wanting as it does not take into account either long or medium term trends. If, as suggested, a moving average is used then even by this measure the future demand is declining and will continue to decline. If a straight line trend is used the decline is even quicker and suggests that supply has already exceeded demand.

We have found that reviewing the figures provided by Hampshire against those of the Office of National Statistics shows some marked differences. Given that the methodologies might be different, direct correlation would not be expected but they should bear comparison which they do not.

The SEERAWP report does provide comparison but this seems to counter the points raised by Hampshire in their demand and reserve figures.

SEERAWP Report 2009 executive summary states:

- *Sales continue well below the 'Proposed Changes' figure of 11.12mtpa. At 6.0Mt, sales in 2009 were some 46% below the recommended apportionment.*
- *Reserves have declined by over 60Mt in the last 10 years to 79Mt. In the years 2000-2006 sales were 2½ times the tonnage of reserves in new permissions. However in the last three years 2007-2009 the tonnage in new reserves has exceeded sales.*

The second paragraph supports the points we have made regarding method of analysis in that reserves are exceeding sales demand. We find it difficult to understand from these statements why SEERAWP have only accepted minor reductions in regional apportionment from DCLG and why Hampshire do not believe a reduction is correct. These figures show the significant reductions required should be demanded. In our opinion, if sales trends are downward there seems little point in maintaining or increasing the current reserves bank.

Until these differences are resolved and reductions achieved, and until Hampshire's figures are shown to have been adjusted accordingly, the evidence base is not robust and the Plan should be considered Unsound.

Allowing for bulking and waste and if we double this figure to 0.036mTpa then over 10 years a reserve of 3.6Mt should be sufficient. Incidentally, Hampshire's current reserves are 3.128Mt according to the Hampshire Minerals & Waste Plan soft sand topic paper. **It is therefore plain that Hampshire's requirements are already being over reserved.**

In determining the reserves requirement it also appears that everyone from the DCLG to Hampshire have made presumptions for future reserves based solely on short term demand. In

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either a rising or falling market this approach is heavily flawed as it does not account for the long term situation and so distorts future trend analysis. **This is at odds with the DCLG Guidance introduction** which states:

4. Since quarries take many years to plan and bring into production, the Managed Aggregate Supply System has provided the mechanism to deliver long term planning for the supply of aggregates, based on sound evidence. It has also served to proactively manage the rate of primary extraction, by placing added emphasis on the need to meet demand from other sources – including secondary and recycled materials and marine dredged aggregates.

It then goes on to say under item 8 -

b) providing an assessment on the position of overall demand and supply for the Aggregate Working Party area, including whether, in its view, the area is making a full contribution towards meeting both national and local needs. This assessment should be based on local aggregate assessments and should be informed by other economic data. The assessment should also include an indication of emerging trends of demand in the Aggregate Working Party area; and

c) obtaining, collecting and reporting on data on minerals activity in their area. Each Aggregate Working Party should collate annual data on sales, permissions and mineral reserves in their area, data on recycled and secondary sources, and produce an annual report on these issues.

Consideration of the evidence and analysis we have provided above can drive only one conclusion - that the Hampshire approach, as stated in their submitted documents, is in fact at significant variance with the DCLG Guidance (October 2012).

The degree of error using the Hampshire approach will vary depending upon the rapidity of decline or rise - the steeper the trend, the more severe the error. This flaw in the methodology on this occasion has, we believe, led to a massive over estimation in the future demand requirement.

It would appear that the DCLG Guidance has NOT been fully considered when preparing the Hampshire submission and whilst, in our opinion, it adopts some flawed methodology, the failure to capture all the requirements has plainly also led to an overestimate in demand and an overestimate in the reserve requirement.

The Hampshire LAA does NOT therefore evidence sufficient adjustments from the 10 Year Sales Average method used to calculate the need and demand for soft sand as set out in the DCLG Guidance (October 2012). The LAA figures do not reflect real trends over the last 10 years, changes in the demand for soft sand or the location of the need in relation to Purple Haze.

When taking the DCLG Guidance (October 2012) into account together with the evidence provided above, **a standard average of the last 10 years of sales is not appropriate for soft sand** and the Hampshire LAA should be updated accordingly.

Until the LAA is updated to fit better with the DCLG Guidance (October 2012), we believe that the evidence to support Hampshire's figures for soft sand, so justifying the Purple Haze site allocation, are neither robust nor correct and therefore the Plan is Unsound.

2.5 Conclusion

In summary - when considering Hampshire's approach with regard to the DCLG Guidance, the above analysis of available figures for Demand, Supply and Reserves together with our later evidence regarding the questioned quality & availability of soft sand at Purple Haze, as well the related environmental & hydrological concerns yet to be addressed and the proposed site's extensive Development Considerations, it is clear that **Hampshire's evidence base is not robust when considering the DCLG Guidance (October 2012) and the Plan should therefore be considered Unsound.**

We further believe our analysis of Hampshire's submission against the DCLG Guidance (October 2012) demonstrates that the Hampshire Plan is at severe risk if Purple Haze is included as an unnecessary strategic soft sand extraction site (the primary reason given for inclusion) and that it must therefore be excluded from the Plan.

3.0 DCLG Guidance (October 2012) & Hampshire submission LAA: Additional Comments

Soundness Opinion: the Plan is Unsound because it is NOT....

- Justified – lack of robust, detailed evidence base

Our evidence to justify the above Soundness Opinion follows.

3.1 Introduction of the Silica landbank

See Research Source: Aggregates Monitoring Report 2009 - SEERAWP

With regard to point 1 of the Hampshire LAA report, and when considering the proposed Main Modifications to the draft HW&MP concerning silica sand, we do not believe that all the soft sand considered in the landbank is a critical raw material for the construction sector when a large percentage (75% from Kingsley Quarry, for example) is used for sports pitches and leisure.

Hampshire LAA Table 1 shows that 102,000 tons of soft sand was sold in 2009 and LAA Table 2 demonstrates an overall decline in soft sand over ten years of 57%.

It is our understanding that the above figures include sales from Kingsley where 75% (approx.) of the processed soft sand was used for non-construction purposes and where these volumes have been incorporated in the soft sand landbank calculations.

Soft sand used in construction has significantly declined as clearly evidenced by the 75% of soft sand from Kingsley sold to the sports & leisure industry. The ratio of sports/leisure to construction usage of soft sand (75% / 25%) has increased year on year in favour of non-construction (*Source: Quarry Plan report ED026*). **Hampshire's aggregate forecast calculations should reflect correctly with specific regard to the introduction of the silica sand landbank this reduction in soft sand usage for construction – this latter need theoretically drives the need for the Purple Haze allocation as the soft sand likely to be extracted from that site is not fit for sports/leisure usage (*Source: Quarry Plan*) - and also make a clear differentiation from soft sand processed for sport/leisure uses and now referred to for Kingsley as silica sand.**

When reviewing Hampshire's landbank calculations we also cannot find any reference to the inclusion of the silica sand sales at Frithend Quarry.

Sales figures in the LAA include figures from the Kingsley Quarry and Frithend Quarry that are selling soft sand, after processing, as silica sand to the sports and leisure industry. This is evidenced in the Minerals in Hampshire report tables 4.14 and 4.15. The average figure of .28 has not been changed since the Kingsley site moved over to silica sand. The current Kingsley site is selling 75% of the soft sand extracted as silica sand and we believe these figures have been reflected in overall soft sand sales ever since permission was granted for processing into silica in 2004.

In addition -

- Point 306 in Minerals in Hampshire states quite clearly that 75% of the sand is sold for non-construction purposes. We assume this would have made up the silica sand landbank and NOT the soft sand landbank.
- Point 309 of the same document shows that 33% of sales from Frithend Quarry is also silica. This has not been reflected in the LAA to support the soft sand landbank figures.
- In figure 3 of the LAA the figures include sand from Kingsley. We assume table 10 also includes these figures incorrectly.

Until the figures for non-construction soft sand processed as silica sand (the latter now with its own landbank) are removed from the yearly sales of soft sand, the 10 year average apportionment figure does not accurately reflect soft sand sales. The evidence is therefore not robust and the Plan is Unsound.

The above evidence also casts considerable doubt upon the completeness of Hampshire's landbank calculations. It also encourages the conclusion that there has been double counting of the sand/soft sand data for one quarry (Kingsley) into two landbanks (sand/soft sand and silica) while excluding entirely from the same landbank calculations the silica sand sales from another quarry (Frithend).

3.2 Where is the Sand?

Our analysis of the Hampshire Plan submission with regard to the LAA and DCLG Guidance (October 2012) required conclusions to be drawn about the calculations impacting specifically the Purple Haze site allocation proposal where the assumption in Hampshire's Need, Supply & Reserve submission figures is that the soft sand reserves at Purple Haze (their strategic soft sand extraction site) will be available and of sufficient quality.

It is difficult to comment on the location, and therefore the quality and availability of the soft sand at Purple Haze, as the information is simply not present.

From what we understand, and following the related Public Examination debate (June 2012), there seem to be opposing views between Hampshire who say it is above the water table and Tarmac who say it is below. If it is above, the overriding consideration is an environmental one related to Ebblake Bog SSSI (SPA, SAC, Ramsar). If it is below, then there are two considerations, both the environmental one and an economic consideration as it will be more expensive to extract.

Ebblake Bog is fed by both groundwater and a few minor surface water streams draining off the forest in side valleys. The bog area extends eastward outside the SSSI up the side valleys. Surface drainage into these side valley streams extends back into the minerals area. Thus any excavation in the catchment will impact on the hydrology of this internationally designated site.

Taking Hampshire's view that the sand is above the water table then protective measures would be needed to prevent contamination from the quarry entering the bog. Of particular concern is the problem of silt. In practice, experience shows that sediment run-off is not possible to prevent from mineral/landfill sites as the operation creates much bare ground that is readily erodible by run-off, and intense rainfall events invariably occur and overwhelm sediment capture measures (and they are not adequately maintained). Fine sediment in particular is very difficult to capture

due to very long retention times required for it to settle out and there is rarely adequate space given around mineral sites to allow such retention of run-off in large interception areas (which in themselves will cause change to existing habitat – in this case heathland). Thus there is a need for space for sediment interception that will be at the expense of existing heathland downslope of the mineral extraction/landfill and even so a likelihood of episodic sediment run-off and its progressive movement down the stream valleys and into the bog, locally smothering bog vegetation.

Much effort went into designing, implementing and then modifying over time sediment capture at Beacon Hill mineral and landfill site to protect Upton Heath SSSI/SAC. Despite this the measures were not fully successful over the 20 years of operation and silt escaped into and damaged the mire system.

The source of water it would be proposed to use for any settlement ponds and on-site washing has not been identified. Clearly it cannot be abstracted from Ebblake Stream, part of the Moors River SSSI. Equally if not more important is how that water will be disposed of without discharge and damage to internationally and nationally designated sites. Chlorinated alkaline mains water would contaminate the surrounding heathland soils, Ebblake Bog and Ebblake Stream all of which are highly acidic. Additional load would impact on Ebblake Bog and Ebblake Stream with further consequences downstream. Similarly discharge to the R Avon would be unacceptable. Changes to the hydrology and chemistry of such delicate habitats cannot be mitigated. Discharge to the mains sewer would not be an option due to the limited capacity of the local sewage works.

The Hampshire Authorities have provided no evidence to support their opinion that the sand is above the water table. The BGS bore hole reports do not cover the area of the site itself as the only samples come from either along Ebblake Stream or from the one at Bakers Hanging. If they have supplementary data then they should have been submitted with Hampshire's report or at the very least referred to in their submission

If Tarmac is correct, then environmentally the reverse position has to be considered. Excavating below the water table will affect the whole catchment and cause and create problems for both Ebblake Bog and Ebblake Stream with reduction of the water feeding these ecosystems and a probable change to the chemical composition of the water.

Additionally there is the economic element - the deeper the sand lies the more expensive it becomes to excavate and there is also greater overburden that has to be managed. This in itself will give rise to its own environmental problems.

So, considering the economics of the excavation and therefore the viability of the options, the question arises - **how must soft sand is present at Purple Haze and is it worth digging it out even if there is some value in the over burden?** It is our opinion that Tarmac must have carried out trial holes in the area prior to nominating the site so the argument is more likely that their statement is correct.

Whilst it will no doubt be stated by Hampshire that the above concerns will be addressed at any Planning Application stage, we have shown in the above comments that there can be no guarantee that adequate mitigation would be achieved to protect Ebblake Bog. **In the absence of a potential operator for the site to whom these questions can be addressed directly, in the absence of sufficient information to satisfy DCLG guidance about the**

“appropriateness” of the soft sand at Purple Haze and with no evidence either way of a resolution to the soft sand/water table location concerns, the only conclusion we can draw is that the evidence base is not robust and therefore the Plan is Unsound.

3.3 Environmental cost of extraction

There is no expectation from government that each AWP must meet the total set out in the sub-national guidelines, **especially if the environmental cost of meeting the DCLG Guidance is likely to be unacceptable.** In the submission ISA report the scoring for Purple Haze was mostly negative and so we believe the environmental cost of soft sand extraction at Purple Haze is likely to prove to be unacceptable and would therefore be at variance with the DCLG guidance.

When considering the high proportion of soft sand that is processed as silica sand for sports/leisure uses (for example, 75% at Kingsley) we believe alternatives to soft sand extraction are available. New Milton Sand & Ballast, for example, described at the Public Examination (June 2012) how they could make recycled “sand” to support the leisure industry so reducing the need for soft sand extraction.

We are therefore concerned that due account has not been taken of the overall objective set out in the DCLG Guidance to minimise the amount of primary extraction where soft sand is being used for the leisure industry and where this waste of a primary resource could be considered unsustainable.

4.0 Additional Main Modification to the Plan required: DC38

Amendments to existing text read as follows: *The screening of sites [text continues as before]... It is standard practice in Hampshire for operational mineral extraction and inert waste recycling sites to have a minimum buffer zone of 100 metres from the nearest sensitive receptors, such as homes and schools though this distance **will be reviewed on a case-by case basis** (our highlight)*

We object strongly to the new wording that **buffer zones will be reviewed on a case by case basis** as the criteria to determine the width of a buffer zone are not included in policy.

Purple Haze is a very narrow site. There will be a requirement for a buffer zone between it and Moors Valley users, as well as the B3081, Verwood's mains water supply running through the middle of the proposed site and the other utility ducts present.

In addition a significant buffer will be required to mitigate damage to Ebblake Bog SSSI (SAC, SPA, Ramsar). There is no evidence that such mitigation is possible. Indeed the known issues relating to the hydrology of the site indicate that it would be impossible.

This updated wording (DC38) although in itself quite a small textual change is, in our opinion, a Main Modification which MUST be rejected as one possible and likely interpretation is that there could be situations where the buffer zone would be less than 100 metres from a sensitive receptor.

5.0 HRA report (updated) is not accurate

Soundness Opinion: the Plan is Unsound because it is NOT....

- Justified – lack of robust, detailed evidence base

Our evidence to justify the above Soundness Opinion is as follows:

There is an inconsistency within the updated HRA concerning the position of the proposed Purple Haze site location which leads to the conclusion that dust screening needs, potentially impacting Ebblake Bog, have not been taken into account.

Dust

Paragraph 47 states “A number of the minerals and waste sites were found to be located **more than 500m** from any European sites, therefore adverse effects on integrity associated with dust deposition were able to be ruled out on this basis. This was the case for Forest Lodge Farm, Bleak Quarry, Michelmersh Brickworks, **Purple Haze**, Roeshot Hill and Selborne Brickworks, and all the waste sites and areas that were excluded from the initial screen of Policies 28 and 30.”

Non-physical disturbance from noise/vibration and light

Paragraph 53 states “Where allocated sites are **within 500m** of European sites, the potential for noise/vibration and/or light pollution to affect the integrity of the site was flagged up. This was the case for the following sites (the European sites that could be affected are shown in brackets):Bramshill Quarry (Thames Basin Heaths SPA) Hamble Airfield (Solent and Southampton Water SPA/Ramsar site), Bleak Hill Quarry (Avon Valley SPA/Ramsar site, Dorset Heathlands SPA/Ramsar site) **Purple Haze** (Avon Valley SPA/Ramsar site, Dorset Heathlands SPA/Ramsar site”

We are concerned that no dust screening has been carried out for Purple Haze and are at a loss to understand why this has not happened based solely on location as other screening is stated to have been carried out. As a result, no provision has been made within the Plan to address how any impact from dust might affect the fragile ecosystem of Ebblake Bog SSSI (SAC, SPA, Ramsar) and visitors to Moors Valley Country Park.

An alternative interpretation might be, unfortunately, that due to the view taken for dust screening Purple Haze might have fallen inadvertently through the net at a detail level when considering non-physical disturbance issues so requiring the ISA scoring to be revisited. We sincerely hope this is not the case and so would wish **the Development Considerations for Purple Haze to be extended to include Dust Screening.**

6.0 ISA: Impact of Text Changes

Soundness Opinion: the Plan is Unsound because it is NOT....

- Justified – lack of robust, detailed evidence base

Our evidence to justify the above Soundness Opinion is as follows:

Although ISA numeric scores have not been updated, changes have been made to some supporting commentaries leaving it unclear whether a numeric value or its supporting text has the higher value/priority when sites have been considered. A few examples are detailed below.

1. Has Mortimer Quarry Extension (Benyon’s Inclosure) been removed as a possible sand and gravel site? It is missing from the updated ISA Report and has not been referenced.
2. In the section covering Purple Haze we note a paragraph which states that other sites were considered, but none were considered to be as sustainable as Forest Lodge Farm. Does HCC believe that Forest Lodge Farm is a more sustainable site than Purple Haze? We believe, however, that this paragraph has been copied and pasted from the section on Forest Lodge Farm and that the reference to Forest Lodge Farm has not been replaced with “Purple Haze”. *“Other proposal in locality have also been considered as part of site appraisal but are not considered to be as sustainable as the proposal at Forest Lodge Farm...”*

Additionally, ISA site appraisal (appendix 18 sand and gravel sites) is littered with inconsistencies/contradicting evidence. The scoring in the site appraisal tables says one thing whilst the supporting descriptive text says another thing entirely as demonstrated by these examples -

- **Hamble Airfield** - the score in the appraisal table does not match the descriptive text that follows;

“The scoring has been adjusted for A5 (Prudent use of resources, land and soils) to a negative score from a negligible negative to reflect the location of BMV agricultural land (even though it is considered to be poor quality).” [table shows - / +]

- **Cutty Brow** - the score in the appraisal table does not match the descriptive text that follows;

“The scorings for A10 (Communities and amenity) and A12 (Health and Quality of Life) have also both been adjusted from significant negatives to negatives, reflecting the inclusion of development considerations (see below) on this issue, as well as the provisions of other policies within the Plan.” [A10 in table shows -?] [A12 in table shows -? / +]

- **Bramshill Quarry** – the score in the appraisal table does not match the descriptive text that follows;

“The scoring for A1 (Biodiversity) has also been adjusted from a significant negative to a negative, reflecting the inclusion of development considerations (see below) on this issue, as well as the provisions of other policies within the plan.” [table shows - / +]

“The scoring for A5 (Prudent use of resources, land and soils etc) has been adjusted to reflect the location of a small proportion of best and most versatile land. It has been adjusted from a negligible impact to a negative impact.” [table shows - / +]

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- **Bleakhill Quarry** - the score in the appraisal table does not match the descriptive text that follows;
“The scoring for A6 has been adjusted from a negligible to a negative.” [table shows 0]
- **Roeshot, Christchurch** - the score in the appraisal table does not match the descriptive text that follows;
“The scoring for A1 (Biodiversity) has been adjusted from a significant negative to a negative, reflecting the inclusion of development considerations (see below) on this issue, as well as the provisions of other policies within the Plan.” [table shows - / ++]
“The scoring for A5 (Prudent use of resources, land and soils etc) has been adjusted to reflect the location of a small proportion of best and most versatile land. It has been adjusted from a negligible impact to a negative impact.” [table shows - / +]
- **Forest Lodge Farm** - the score in the appraisal table does not match the descriptive text that follows;
“The scorings for A10 (Communities and amenity) have been adjusted to show an significant positive rather than a positive, to reflect the potential opportunities in the longer term to provide open space to offset recreational pressure on nearby international designations.” [table shows - / +]

While we assume the inconsistencies referred to above are probably simple drafting errors, **we believe that until the ISA numeric values and commentaries are fully aligned, and the questions raised above have been addressed, the evidence base is not robust and the Plan should be considered Unsound.**

END