

Technical Paper M2

Local Aggregates Assessment

Cornwall Council
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1 Introduction

The National Planning Policy Framework (NPPF) published in March 2012 requires Mineral Planning Authorities to ensure a steady and adequate supply of aggregates and prepare a Local Aggregates Assessment. Guidance has been published, in October 2012, on the Managed Aggregates Supply System and the Local Aggregates Assessment.

The Local Aggregates Assessment should contain information on sales of aggregates, both primary and those from secondary and recycled materials, based on a 10-year rolling average of sales data, relevant local information and an assessment of supply options. Information should also be presented on sales of aggregates over the last three years, which will enable trends to be identified.

This is the first Local Aggregate Assessment for Cornwall and has been prepared by Cornwall Council, the Mineral Planning Authority for the county. Local Aggregate Assessments will be prepared on an annual basis in the future.

The South West Aggregates Working Party considered this Local Aggregate Assessment and agreed that it accorded with the Government's guidelines.

2 Geology of Cornwall

Cornwall has a complex and diverse geology which has been exploited for hundreds of years for different materials.

Igneous rock and sandstone are worked for primary aggregate in Cornwall. China clay by-products and other mineral by-products are used as secondary aggregates.

Figure 2.1 Cornwall Mineral Resources Map, BGS 1997 shows the extent of igneous and sandstone resources in Cornwall, as well as other mineral resources. This map was prepared by the British Geological Survey in 1997.

Granites are the most extensive igneous rocks in Cornwall and occur as four large intrusions together with a number of smaller bodies. Granite accounts for the major proportion of the crushed rock output.

A variety of basic igneous rock occurs in Cornwall; basalt, dolerite, gabbro and picrite. They occur within the Devonian and Lower Carboniferous slate and sandstone sequences as variably sized bodies of extrusive (volcanic) material or intrusive (dolerite) sills and dykes. They tend to form positive features in the landscape, being harder than the host rock. Considerable variation in lithology exists, the coarsely crystalline gabbros of the Lizard contrast with microcrystalline lavas of East Cornwall. They may be relatively unaltered or show extreme alteration.

Many sedimentary rock formations in Cornwall contain sandstone and in some cases sandstone is thickly bedded. Elsewhere it is interbedded with slate, shale or siltstone in variable proportions. Thick beds are found in the Late Carboniferous Bude Formation (North Cornwall) and parts of the Devonian Staddon Grit. Interbedded sandstones are found in the late Carboniferous Crackington Formation (North Cornwall) and the late Devonian Portscatho Formation. Most of the sandstones are technically 'greywackes' (finely-grained or medium-grained sandstones with a matrix of clay and silt). Individual sandstones vary in thickness, lateral persistence, grain size and strength (depending upon the degree of metamorphism and state of weathering).

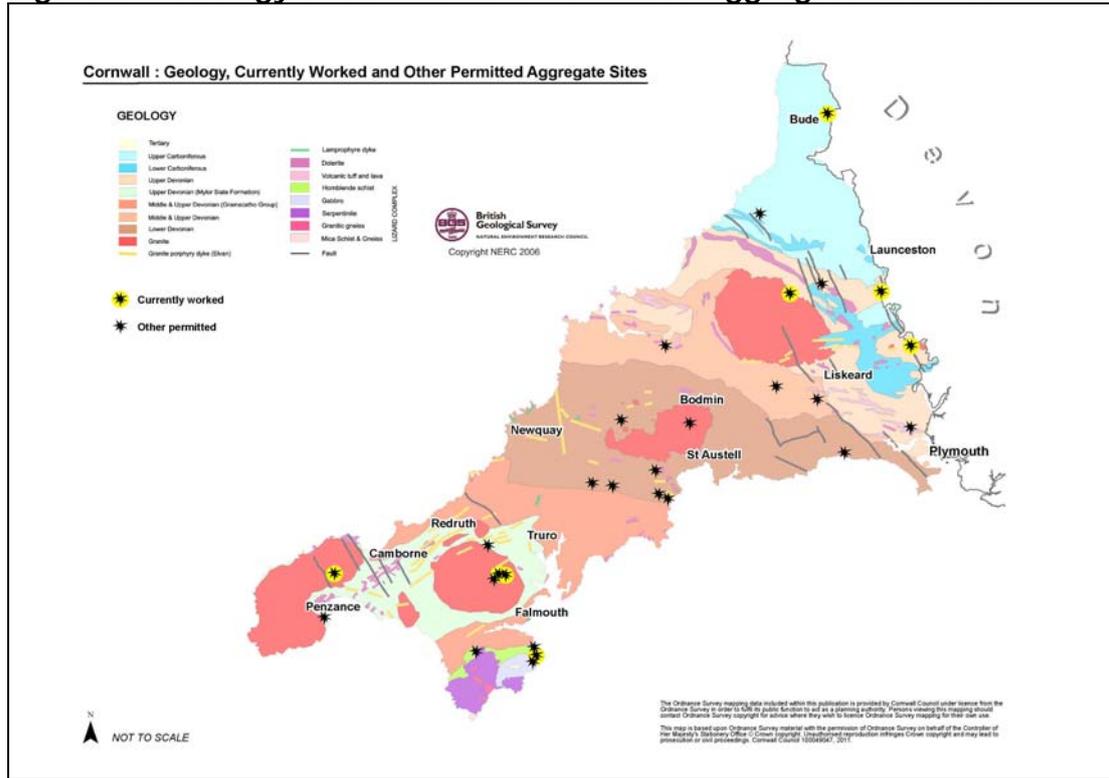
Cornwall has very limited resources of natural sand and gravel from naturally occurring primary deposits. Small outcrops of Tertiary and Quaternary sediments (on the Lizard and around St Agnes Head) have been worked in the past. Beach and dune sands have also been worked in the past, mainly as an alkaline soil conditioner; this material is not suitable for use as building sand.

3 Primary Aggregates

In Cornwall primary aggregates are extracted from granite, sandstone and basic igneous rocks. There are limited resources of primary sand and gravel in the County.

Figure 3.1 Geology of Cornwall and Permitted Aggregate Quarries shows the geology of Cornwall and the permitted aggregate quarries.

Figure 3.1 Geology of Cornwall and Permitted Aggregate Quarries



3.1 Crushed Rock

Crushed rock aggregates are derived from granite, igneous rock or sandstone resources.

The types of granite worked for aggregate vary considerably in their texture and appearance, but most are coarse-grained biotite or biotite/muscovite granites, with some prominent large potassium feldspar crystals. Fine-grained granites are less common. According to technical data there is considerable variation in the strength of rocks from one site to another, where resistance to polishing is relatively low. This suggests that the strength and Polished Stone Value (PSV) are independent of granite variety and texture, and instead, reflect local variations in weathering and secondary alteration.

The technical properties of the basic igneous rocks also vary and therefore so do their suitability for use as an aggregate.

Variations in the properties of sandstones have a bearing on the physical properties and therefore the aggregate potential of sandstone. Despite apparently extensive resources relatively little sandstone is produced in the County, perhaps reflecting the high cost of working and competition from igneous rock. Some high specification sandstones occur in the late Carboniferous Culm Measures of North Cornwall, which have shown considerable resistance to polishing and wear. In both the Bude Formation and Crackington Formation the presence of interbedded shales reduces the opportunity for quarry development.

Table 3.1 Active Primary Crushed Rock Quarries in Cornwall below, lists the primary aggregate quarries in Cornwall which have current planning consent along with an indication of the status of that planning consent. This excludes 'dormant' and restored sites.

Table 3.1 Active Primary Crushed Rock Quarries in Cornwall

Quarry	Location	Type	Status
Blackhill Quarry	Launceston	Igneous	Active (not currently working)
Cansford Quarry	Otterham	Sandstone	Active (not currently working)
Carnsew Quarry	Mabe	Igneous	Active
Castle-an-Dinas Quarry	Penzance	Igneous	Active
Chywoon Quarry	Longdowns	Igneous	Active
Dairy Quarry	Pentewan	Sandstone	Active (not currently working)
Dean Quarry	St Keverne	Igneous	Active (not currently working)
Greystone Quarry	Lawhitton	Igneous	Active
Hingston Down Quarry	Gunnislake	Igneous	Active
Kessel Downs Quarry	Mabe	Igneous	Active (not currently working)
Luxulyan Quarry	Luxulyan	Igneous	Active (not currently working)
Penlee Quarry	Newlyn	Igneous	Active (not currently working)
Pigsdon Quarry	Launcells	Sandstone	Active
Pilsamoor Quarry	Egloskerry	Sandstone	Active
Tredinnick (Grampound) Quarry	Grampound	Sandstone	Active (not currently working)
Trevassack Quarry	Lizard	Igneous	Active (not currently working)
West of England Quarry	Porthoustock	Igneous	Active

3.1.1 Sales

Aggregates data is collected on an annual basis, by local authorities and the regional Aggregates Working Party. A four-yearly survey of aggregate minerals¹ is also carried out nationally, which in addition to sales and reserves information collects data on exports and imports. The last such survey was undertaken in 2009.

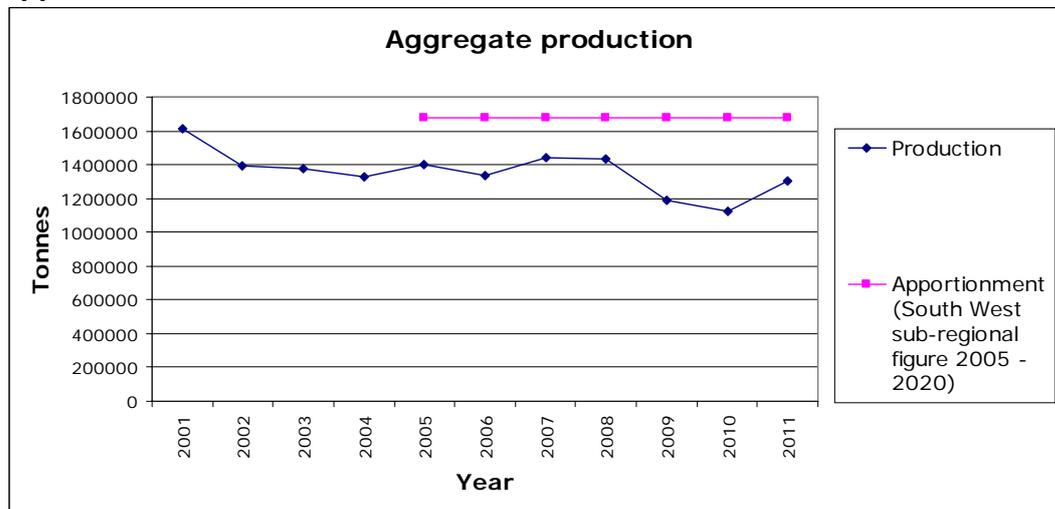
A requirement of the National Planning Policy Framework is that information is collected on the production of aggregates over a ten-year period. Figure 3.2 Aggregate production 2001 – 2011 and Cornwall's

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<http://www.communities.gov.uk/planningandbuilding/planningbuilding/planningresearch/researchreports/mineralswasteresearch/aggregatemineralssurveys/>

apportionment (2005 – 2011) shows aggregate production since 2001, along with Cornwall’s sub-regional apportionment from 2005.

Figure 3.2 Aggregate production 2001 – 2011 and Cornwall’s apportionment (2005 – 2011)



It can be seen that production during the last 10 years has been around the same level until 2009 when there was a decrease in production for a couple of years. Production is below the sub-regional apportionment guidelines, further information on the guidelines for aggregates production is contained in section 3.1.3, below.

Taking the 10-year period 2001 – 2011, average annual production of primary crushed rock aggregate was 1,490,000 tonnes.

The guidance produced on Local Aggregate Assessments² advises that Mineral Planning Authorities should also consider average sales over three years so as to enable trends to be identified. Taking this into account the annual average production over the last three years (2009, 2010 and 2011) was 1,205,019 tonnes.

3.1.2 Imports and Exports

Information on exports is collected as part of the four-yearly aggregate mineral survey. The last such survey was completed in 2009. That survey indicated that just under 320,000 tonnes of primary aggregate was exported from Cornwall. Destinations of those exports are generally spread throughout the country including Nottinghamshire, London, Wiltshire and the Republic of Ireland as well as counties closer to Cornwall such as Devon, Dorset and Somerset. Table 3.2 Primary crushed rock exports from Cornwall shows the destination of exports and the proportion of total exports.

Table 3.2 Primary crushed rock exports from Cornwall, 2009

² Communities and Local Government: Guidance on the Managed Aggregate Supply System, October 2012.

Destination	Amount of primary crushed rock exported (tonnes)	% of total exports*
Avon	1,898	0.60%
Berkshire	13,593	4.27%
Devon	294,667	92.59%
Dorset	10	0.003%
Greater London	500	0.16%
Nottinghamshire	6,500	2.04%
Republic of Ireland	500	0.16%
Somerset	516	0.16%
Wiltshire	58	0.02%
Total	318,242	100%

*Total might not add due to rounding

The 2009 survey also collected information on imports, although no imports were reported for Cornwall.

3.1.3 Primary Crushed Rock Sub-regional Apportionment

The Government produces guidelines '*National and Regional Guidelines for Aggregates Provision in England 2005 – 2020*³ which sets out the expected level of provision each region in the country should make for the supply of aggregates over a given period. The South West is required to supply 412 million tonnes of crushed rock over the period 2005 – 2020; this is known as the aggregates apportionment.

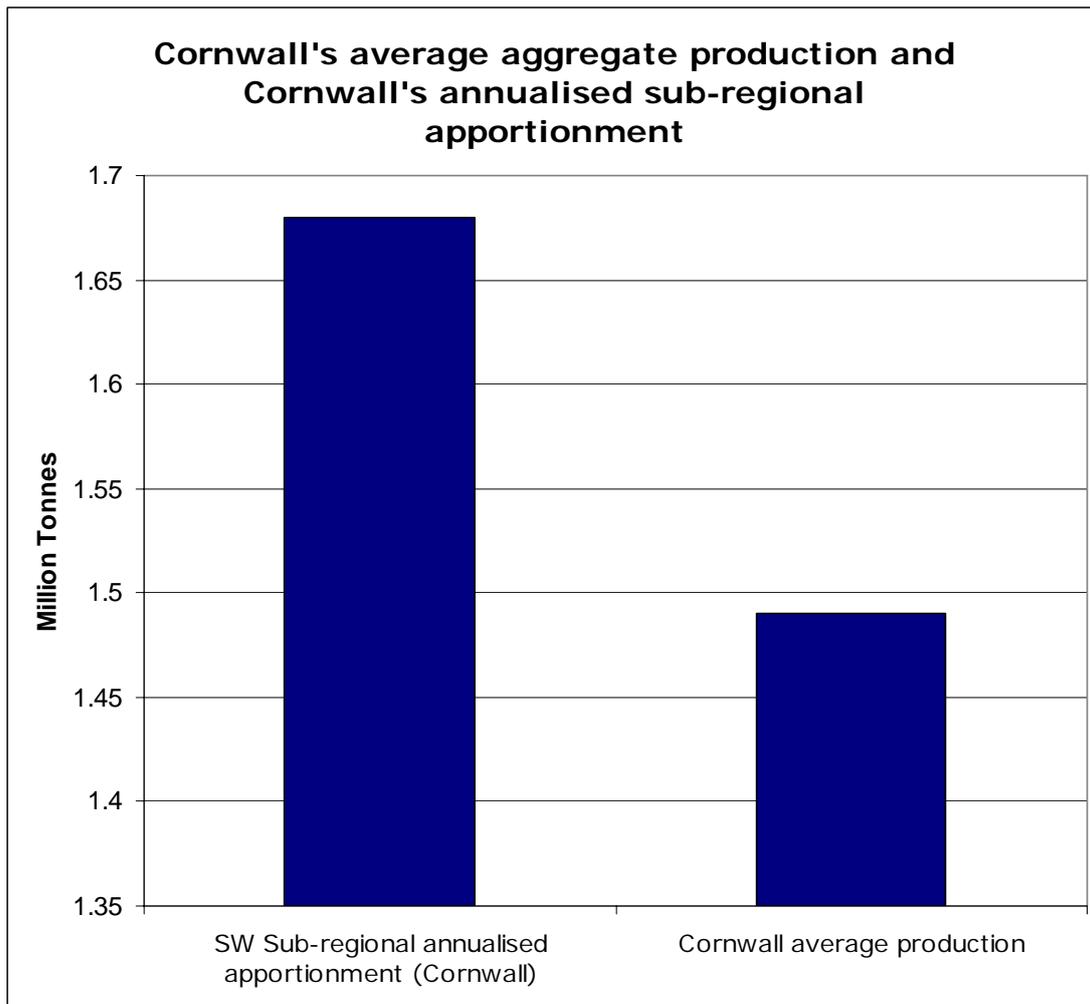
The regions then divide that level of provision down to Mineral Planning Authority, known as the sub-regional apportionment. The sub-regional apportionment of the 2005 – 2020 national guidelines was undertaken by Capita Symonds on behalf of South West Councils, the work involved the Mineral Planning Authorities in the South West. However, with the abolition of the Regional Assemblies the Government requested the South West Aggregates Working Party (SWAWP) to identify the sub-regional apportionment. The SWAWP, taking the work already completed on behalf of South West Councils, provided technical advice to the Government on the South West's sub-regional apportionment.

In the technical advice to the Government SWAWP indicates that Cornwall should plan for **26.9 million tonnes** of crushed rock over the period 2005 – 2020.

Figure 3.3 Cornwall's annualised crushed rock apportionment and average annual production shows a comparison of the level of crushed rock apportionment set out by the South West sub-regional guidelines and the average annual production in Cornwall from 2001 – 2011.

Figure 3.3 Cornwall's annualised crushed rock apportionment and average annual production

³ <http://www.communities.gov.uk/publications/planningandbuilding/aggregatesprovision2020>



It can be seen that average production is considerably less than Cornwall's sub-regional annualised apportionment. However, as discussed in section 3.1.4 below the county is able to meet its sub-regional apportionment.

3.1.4 Future Supply/Landbank

Cornwall can easily meet the sub-regional apportionment, of 26.9 million tonnes up to 2020. However, the Cornwall Local Plan covers a longer time period, up to 2030, and it is important to consider provision of primary crushed rock aggregate until that time.

The total permitted reserves of primary crushed rock aggregate from 'active' quarries in Cornwall amounts to over **130** million tonnes.

The aggregate landbank is the tonnage of permitted reserves with extant planning permission, including sites not currently working. However, the landbank excludes those sites with 'dormant' or 'inactive' planning permission⁴. National policy requires a landbank of at least 10 years to be maintained for crushed rock.

⁴ As defined under the Planning and Compensation Act 1991 and the Environment Act 1995.

In Cornwall, the primary crushed rock aggregates landbank is between **87** and **107** years depending upon the average annual production used to calculate the landbank. Table 3.3 Primary crushed rock landbank shows how the range of landbanks has been calculated.

Table 3.3 Primary crushed rock landbank

Average production (tonnes)		Reserves (tonnes)	Landbank (years)
10 year past production data	1,490,000	130,115,312	87.32
3 year past production data	1,205,019		107
2011 production	1,304,266		99.76

Given the level of permitted reserves and the landbank there is more than sufficient permitted primary crushed rock aggregate reserves to meet the needs of the county over the plan period and beyond.

3.2 High Specification Aggregates (HSA)

High specification aggregates are noted (in a report by Capita Symonds 'The sustainable use of high specification aggregates for skid resistant road surfacing in England'⁵) as being relatively rare and highly specialised with limited geological distribution. High Specification Aggregates (HSA) are resistant to polishing and abrasion and are therefore important in road construction.

The study set out the thresholds used to define HSA's as being:

- Polished Stone Value (PSV) or more than 58,
- Aggregate Abrasion Value of less than 16,
- Los Angeles Coefficient of less than 30, and
- Magnesium sulphate value of more than 25.

The study went on to categorise quarries throughout England and identify those that are considered to be producing HSAs:

- Category 1: +58 PSV active and able to supply
- Category 2: +58 PSV inactive/dormant some potential for future supply
- Category 3: +58 PSV low potential for future supply
- Category 4/5: 55-57PSV some potential for future supply
- Category 6: 55-57PSV potential suppliers but not to England

It was identified in the study that in Cornwall only two sites were identified as being in category 1 (Blackhill Quarry and Lean Quarry) both of which have now closed. Table 3.4 High specification aggregate sites in Cornwall shows the permitted sites in Cornwall, their relative PSV value,

⁵ http://www.sustainableaggregates.com/library/docs/samp/l0057_samp_1_039

their planning status and where appropriate the category identified by Capita Symonds in their study.

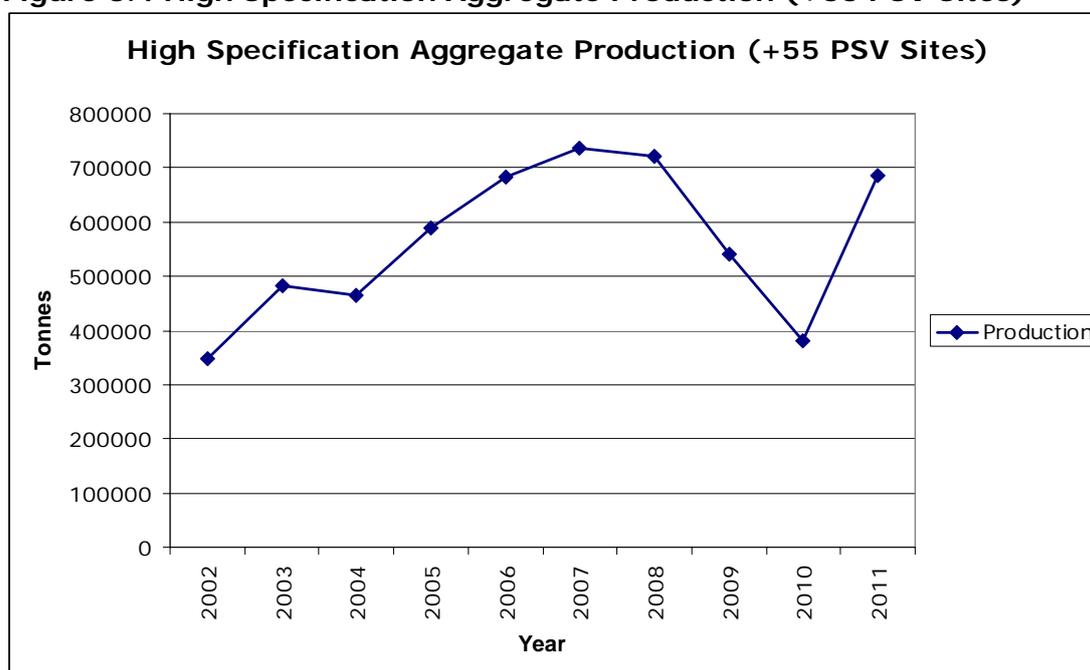
Table 3.4 High specification aggregate sites in Cornwall

Site	PSV	Planning Status	Category
Tredinnick Quarry, Grampound	63	Active – not operating	3
Pigsdon Quarry	68	Active - working	3
Greystone Quarry	57	Active - working	4
Castle-an-Dinas Quarry	57	Active - working	4
Carnsew Quarry	57	Active - working	6
De Lank Quarry	54	Active – working (building stone quarry)	7
Dean Quarry	54	Active – not operating	7
Hingston Down Quarry	53	Active - working	7
Penlee Quarry	44	Active – not operating	7

3.2.1 Sales of High Specification Aggregates

Between 2001 – 2011 production from sites with a PSV greater than 55 amounted to 5,638,770 tonnes, however, it is unclear from the data collected the proportion of high specification aggregate to other products. Figure 3.4 High Specification Aggregate Production (+55 PSV Sites) shows production from sites with a PSV greater than 55.

Figure 3.4 High Specification Aggregate Production (+55 PSV Sites)



3.2.2 Imports and exports of High Specification Aggregates

From the data collected, it is not possible to report exports or imports of high specification aggregates in isolation from primary crushed rock aggregates. However, this information would be useful and consideration will be given as to whether this information could be obtained in the future.

3.2.3 Future Supply of High Specification Aggregates

The Capita Symonds study into the sustainable use of high specification aggregates went on to assess reserves for high specification aggregates but in doing so only considered those reserves with a PSV of more than 58. In Cornwall it is not possible to report the equivalent reserves, as there are only two sites in the county where PSV is greater than 58.

However, total reserves of categories 1 -5 high specification aggregate sites (PSV of greater than 55) identified in Table 3.4 High specification aggregate sites in Cornwall above amounts to around **63 million tonnes**. Although the quality of that reserve may vary as it is often interbedded with other lower grade materials.

The Capita Symonds study recommended that mineral planning authorities identify a separate landbank for High Specification Aggregates. The National Planning Policy Framework also states the need to *“calculate and maintain separate landbanks for any aggregate materials of a specific type or quality which have a distinct and separate market”*.

Taking a total average annual production (at sites with a PSV of greater than 55) of 563,877 tonnes and the permitted reserves at sites with a PSV of greater than 55, the landbank for high specification aggregates ranges between 92 years and 118 years. Table 3.5 High specification aggregates (+55 PSV) landbank shows how these landbanks have been calculated. However, this does not take into account the proportion of that production which is high specification aggregates or indeed the quality of the resource. Therefore it is not possible, at present, to identify with any confidence a landbank of high specification aggregates.

Table 3.5 High specification aggregates (+55 PSV) landbank

Total average production (tonnes)*		Reserves (tonnes)	Landbank (years)
10 year past production data	563,877	63,326,849	112.3
3 year past production data	536,727		118
2011 production data	686,922		92.2

*This includes production of all materials at the site and not just material sold as high PSV material.

3.3 Sand and Gravel

Cornwall has limited resources of primary sand and gravel. Table 3.6 Active Primary Sand and Gravel Quarries in Cornwall lists the active sand and gravel quarries in the county.

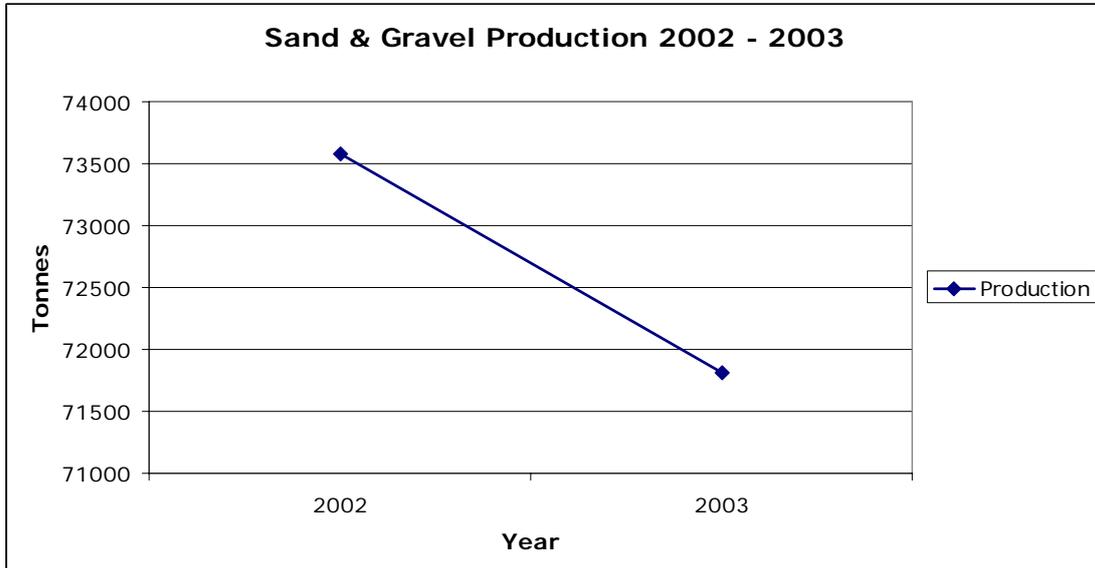
Table 3.6 Active Primary Sand and Gravel Quarries in Cornwall

Quarry	Type	Status
Trewint Marsh	Sand	Active (not currently working)

3.3.1 Sales

Production of sand and gravel in Cornwall ceased altogether in 2009 however, it is only possible to report sales from 2002 and 2003 as after that time less than three operators produced sand and gravel, as show in Figure 3.5 Production of Sand & Gravel 2002 - 2003.

Figure 3.5 Production of Sand & Gravel 2002 - 2003



3.3.2 Imports and Exports

The aggregate minerals survey, completed every four years, collects information on imports and exports. The latest survey was carried out in 2009 and showed that sand and gravel was neither imported nor exported into Cornwall.

3.3.3 Primary Sand and Gravel Sub-regional Apportionment

The Government produces guidelines *National and Regional Guidelines for Aggregates Provision in England 2005 – 2020*⁶ which sets out the expected level of provision each region in the country should make for the supply of aggregates over a given period. The South West is required to supply 85 million tonnes of sand and gravel over the period 2005 – 2020.

The regions then divide that level of provision down to Mineral Planning Authority, known as the sub-regional apportionment. The sub-regional apportionment of the 2005 – 2020 national guidelines was undertaken by Capita Symonds on behalf of South West Councils, the work involved the Mineral Planning Authorities in the South West. However, with the abolition of the Regional Assemblies the Government requested the South West Regional Aggregates Working Party (SWRAWP) to identify the sub-regional apportionment. The SWRAWP, taking the work already completed on behalf of South West Councils, provided technical advice to the Government on the South West's sub-regional apportionment.

⁶ <http://www.communities.gov.uk/publications/planningandbuilding/aggregatesprovision2020>

In the technical advice to the Government SWRAWP indicates that Cornwall, due to commercial confidentiality, with Devon and Somerset, should make provision for **14.91 million tonnes** of sand and gravel.

3.3.4 Future Supply/Landbank

National policy requires a landbank of at least 7 years to be maintained for sand and gravel.

It is acknowledged that there are limited resources of natural sand and gravel in Cornwall⁷ and the county is unlikely to be able to contribute to the shared sub-regional apportionment from primary resources. As part of the Duty to Co-operate Devon County Council and Cornwall Council have agreed that “any shortfall in the sub-regional apportionment would be met by Devon (and potentially some contribution from Somerset), with no further contribution from Cornwall”, see for further information.

Also, given the amount of potential substitute material available from china clay by-products it is unlikely that any new resources will need to be identified.

4 Secondary and Recycled Aggregates

4.1 China Clay By-products and Other Mineral By-products

By far the largest source of secondary aggregate in Cornwall is from china clay by-products. This can be used for a range of purposes including block making, concreting sand and bulk fill in highway schemes in the County and is frequently regarded as an equivalent material to quarried primary aggregate. In the case of concreting sand, in many areas there is no commercially available alternative. Other mineral extraction also produces by-products which can be used as secondary aggregate; in particular slate is sold for use as construction fill and sub-base material.

There is potential for greater exploitation of the estimated 120 million tonnes of useable secondary aggregate resources in the Hensbarrow (St Austell China Clay) Area (embedded in china clay waste tips). The introduction of the Aggregates Levy, payable on sales of primary aggregates, has resulted in greater use of this secondary resource. The current rate of Aggregates Levy on primary aggregates is £2.00 per tonne; this levy is not payable on secondary aggregates.

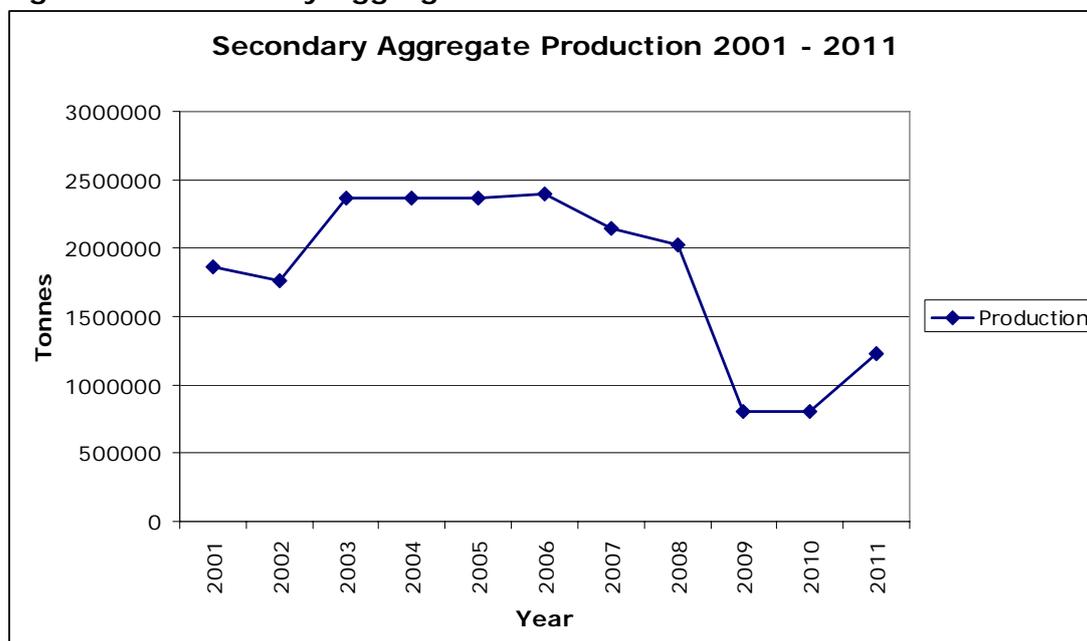
4.1.1 Sales

Sales of secondary aggregates during 2011 were approximately 1.2 million tonnes compared with a peak of 2.39 million tonnes in 2006. In 2011 a large proportion (97.04%) of the secondary aggregate material sold was china clay waste, the remainder being slate waste.

⁷ 'Mineral Resource Information for Development Plans - Cornwall: Resources and Constraints' BGS 1997

Figure 4.1 Secondary Aggregate Production 2001 - 2011 shows the production of secondary aggregate from china clay by-products and other mineral by-products since 2001.

Figure 4.1 Secondary Aggregate Production 2001 - 2011



4.1.2 Imports and Exports

The aggregate minerals survey, completed every four years, collects information on imports and exports. The latest survey was carried out in 2009 and showed that exports of china clay by-products amounted to just over 123,000 tonnes. No secondary aggregate from slate by-products was reported as being exported from Cornwall. Table 4.1 Exports of secondary aggregates, 2009, below, shows the destinations of secondary material exported from Cornwall and the proportion of total exports.

Table 4.1 Exports of secondary aggregates, 2009

Destination	Amount of secondary aggregate (tonnes)	% of total exports
Derbyshire and the Peak District	29	0.02%
Devon	50,333	40.72%
Dorset	29	0.02%
East London	67,877	54.90%
Essex	345	0.28%
Gloucestershire	305	0.25%
Hertfordshire	143	0.12%
Leicestershire and Rutland	115	0.09%
Lincolnshire	29	0.02%
Nottinghamshire	29	0.02%
Somerset	312	0.25%
South East Wales	343	0.28%

Destination	Amount of secondary aggregate (tonnes)	% of total exports
Staffordshire	28	0.02%
Unknown	3,654	2.96%
Wiltshire	56	0.05%
Total	123,627	100%

4.1.3 Alternative Materials Regional Apportionment

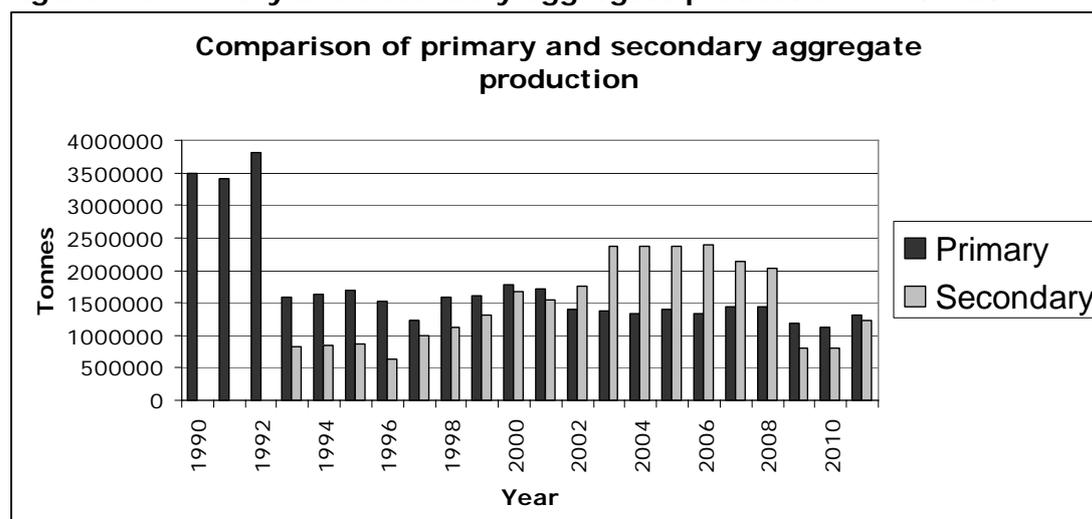
The Government produces guidelines *National and Regional Guidelines for Aggregates Provision in England 2005 – 2020*⁸ which sets out the expected level of provision each region in the country should make for the supply of aggregates over a given period. The South West is expected to supply **142 million tonnes** of alternative materials over the period 2005 – 2020.

4.1.4 Future Supply/Landbank

There are in excess of **120 million tonnes** of secondary aggregates embodied in china clay waste tips in Cornwall. Reserves of china clay are in excess of an estimated 60 million tonnes. The BGS acknowledge that *"the average waste to clay ratio in the largest pits is some 9:1"*⁹. Therefore, if china clay production continues at current rates it is estimated that some 8.3 million tonnes of secondary aggregate will be generated annually from china clay production.

Since the early 1990's production of secondary materials has increased, as can be seen in Figure 4.2 Primary and secondary aggregate production 1990 - 2011 below, production peaked in 2006 when secondary aggregates supplied 64% of the aggregate market and this has gradually fallen away to around 49% in 2011.

Figure 4.2 Primary and secondary aggregate production 1990 - 2011



⁸ <http://www.communities.gov.uk/publications/planningandbuilding/aggregatesprovision2020>

⁹ Mineral Resource Information for Development Plans – Cornwall: Resources and Constraints. BGS, 1997

Currently production of secondary aggregates is similar to primary aggregate production. This has not always been the case, when secondary aggregates first entered the market they accounted for approximately 50% of the market. However, since the introduction of the Aggregates Levy in 2002 secondary aggregates have been taking an increased amount of the market. As secondary aggregates from china clay by-products are exempt from the Aggregates Levy they continue to have a monetary advantage over primary aggregates.

4.2 Recycled aggregates

Recycled aggregates are derived from construction, demolition and excavation waste which has been re-processed. There is limited data available on the amount of recycled aggregate produced in Cornwall and even the location of that production, as it often takes place during any demolition or construction work.

Some primary aggregate quarries in Cornwall have planning permission to process construction, demolition and excavation waste as well as infrastructure to produce recycled aggregates from that waste. Those sites which have planning permission to process recycled aggregates are set out in Table 4.2 Sites processing recycled aggregates below.

Table 4.2 Sites processing recycled aggregates

Site	Company	Location/ Grid Reference
Blackpool Pit	Aggregate Industries	SW 982 534
Carnsew Quarry	Colas	SW 761 346
Castle Gate	M Leah	SW 485 339
De Lank Quarry	Ennstone Johnson Ltd	SX 101 755
Dean Quarry	Cemex Ltd	SW 802 205
Dinscott Farm	Bude Skip Hire	SS 234 108
Domelick Manor	DRS Demolition	SW 943 586
Forth Kegyn	Keith Ozzard Skip Hire Ltd	SW 665 406
Greystone Quarry	Aggregate Industries	SX 363 805
Hayle Recycling Yard	CIB Lello Plant Hire	SW 554 379
Herniss Farm	L Winn and Sons Ltd	SW 735 335
Lean Quarry	Viridor Ltd	SX 267 613
Parc an Chy	T H Douce and Sons	SW 720 432
Roodscroft	Roods Environmental Services Ltd	SW 983 572
St Eval Recycling	St Eval Recycling Co	SW 867 692
Stoneybridge	Peake (GB) Ltd	SX 265 653
Woodlands Transfer Station	Julian and Son	SW 905 572

It has been estimated, in a Technical Paper on Future Waste Arisings (as part of the evidence for waste planning policy in Cornwall) that re-use of construction, demolition and excavation waste amounted to 696,310 tonnes in 2008. The detailed methodology for this estimation is available at:

<http://www.communities.gov.uk/publications/planningandbuilding/aggregatesprovision2020>.

As Cornwall has a large secondary aggregate resource from china clay by-products, the contribution that recycled aggregates can make is likely to be limited.

5 Government planning policy and guidance for aggregates

5.1 National Planning Policy Framework

In March 2012 the Government published the National Planning Policy Framework (NPPF), which replaced existing national planning policy. This includes a section on minerals and makes specific reference to the sustainable use of important minerals and also to defining Mineral Safeguarding Areas for minerals of national and local importance. Certain Mineral Policy Statements and Mineral Planning Guidance notes were replaced by the NPPF and are no longer extant.

The NPPF is supportive of aggregates extraction, especially recognising their contribution to sustainable economic growth and providing materials for infrastructure and buildings. It also states that the contribution of substitute, secondary and recycled materials should be taken into account.

The NPPF requires local planning authorities to include policies for local and nationally important mineral resources and to safeguard those resources and infrastructure necessary for aggregate production. Mineral Planning Authorities should plan for a steady and adequate supply of aggregates and use the published national and sub-national guidelines on future provision as a guideline for the future demand and supply of aggregates. Provision should be made for a landbank of at least 10 years for crushed rock and at least 7 years for sand and gravel.

The NPPF is accompanied by a technical guidance document which provides guidance on the implementation of policies contained in the NPPF. This mainly relates to amenity issues, dust, noise, stability and restoration. Guidance has also been produced on the Managed Aggregate Supply System and sets out the detail expected in the Local Aggregates Assessment, as previously discussed in section 1 above.

In addition, the Localism Act received Royal Assent in November 2011. The aims of the new legislation include decentralising and strengthening local democracy, empowering communities and the introduction of neighbourhood planning. Information on the Localism Act can be viewed at:

<http://www.communities.gov.uk/localgovernment/decentralisation/localismbill/>

6 History of local planning policy in Cornwall for aggregates

6.2 Cornwall Structure Plan 2004

The policies of the Cornwall Structure Plan 2004 have been saved and will remain extant until replaced by Cornwall Local Plan. Structure Plan Policy 5 Minerals states that *“Mineral resources should be conserved and managed to provide a steady supply of minerals to meet the needs subject to environmental and special considerations and the need for high standards in restoration and aftercare. Development should ensure:*

- *The conservation of mineral resources;*
- *A steady supply of mineral is available;*
- *Impacts on the environment are minimised and encouragement given to the use of secondary or recycled aggregates;*
- *An increased use in non road based transport;*
- *The improvement of operational standards in all mineral workings;*
- *The high standards of restoration and aftercare are secured on a progressive basis;*
- *That adequate overall capacity for mineral waste arisings in Cornwall is provided for during the Plan period.”*

6.3 Cornwall Minerals Local Plan

The Cornwall Minerals Local Plan (CMLP) adopted in 1997 contains planning policies for the development of aggregate quarries and related development. The primary aim of the CMLP is to ensure the stable and long term production of the Cornish mining and quarrying industry. Chapter 9 is dedicated to aggregates and sets out a policy relating to landbanks for permitted aggregate reserves.

6.4 Cornwall Minerals Development Framework

Since the reform of the planning system (as required by the Planning and Compulsory Purchase Act 2004), work has been undertaken to replace the Cornwall Minerals Local Plan. Initially, Cornwall County Council was working towards the production of a Cornwall Minerals Development Framework.

To progress this work consultations / stakeholder participation has been undertaken to date on the following publications:

- Cornwall Minerals Development Framework: Report on Issues and Options October 2004
- Cornwall Minerals Development Framework: Report on Preferred Options November/December 2006
- Cornwall Minerals Development Framework: Core Strategy Revised Report on Preferred Options May 2008

These documents can be viewed on Cornwall Council's website <http://www.cornwall.gov.uk/Default.aspx?page=22887>.

However, since the amalgamation of the former County and District/Borough Councils to form the unitary Cornwall Council in April 2009 minerals policy is now to be included in the Cornwall Local Plan see Section 6.5 below.

The Minerals Development Framework will no longer be progressed; strategic mineral policies are included in the Cornwall Local Plan – Strategic Policies

6.5 Cornwall Local Plan

As mentioned above, minerals planning policy is now being prepared for inclusion in the Cornwall Local Plan, although it is anticipated that a specific Minerals Plan will be prepared following adoption of the Local Plan.

A consultation document, "Options and Preferred Options for Minerals, Waste and Energy" was prepared in January 2012 and detailed options and preferred options for minerals. With reference to aggregates, the preferred options included:

- Support for further aggregate extraction only where certain criteria are met and needs cannot be met from existing reserves,
- Option to allocate appropriate sites for High Specification Aggregate,
- Support for secondary aggregate extraction in response to market demand, allocate sites from china clay waste tips and actively encourage further exploitation of Cornwall's secondary resource.

The pre-submission Local Plan – Strategic Policies March 2013 sets out the Council's proposed strategic mineral policies. These aim to support appropriately scaled primary aggregate development for a particular grade of material not provided for by other permitted reserves and secondary aggregate extraction in the St Austell (Hensbarrow) China Clay Area. Proposed policy also seeks to safeguard aggregate (both primary and secondary) resources and reserves.

7 Future issues for aggregates planning policy

7.6 New sites

There are sufficient permitted reserves of primary aggregate in Cornwall to meet estimated needs for 'mainstream' crushed rock over the Plan period. Consequently it would appear that there is no need to identify new sites for crushed rock aggregate.

7.7 Provision of particular grades of material

There is a need to consider the provision of high specification aggregates over the plan period, although it would appear that there is sufficient permitted resources the quality of those resources are unclear.

7.8 Restoration

The considerable level of permitted reserves of primary and secondary aggregate (particularly those from china clay by-products) has resulted in a situation where potential supply from permitted reserves vastly exceeds existing and likely future demand. Consequently many quarries work sporadically, are mothballed or are defined as dormant. Consideration should be given to the future of quarries which lie unworked or dormant.

7.9 Secondary aggregate opportunities from china clay by-products

There are vast reserves of secondary aggregate within existing tips in the Hensbarrow China Clay area. In addition this resource is being added to as clay production proceeds. There is the potential to increase secondary aggregate production to serve markets outside of Cornwall. Even with an increase in production for export there is likely to be sufficient reserves to meet needs until the end of the Plan period. Consideration should be given to the promotion of increased use (and export) of china clay by-products as a substitute for primary aggregate through the Local Plan. Sites relating to the bulk transport of secondary aggregates should be safeguarded and new or extended sites could be allocated in the Local Plan.

Appendix 1 Minutes from South West Aggregates Working Party concerning sub- regional apportionment of aggregate provision

**South West Regional Aggregates Working Party (SWRAWP)
6th August 2010**

5. Sub Regional Apportionment of the National and Regional Guidelines for Aggregates Provision in England 2005-2020

A PowerPoint presentation was given on the work of South West Councils on Sub-Regional Apportionment (SRA). The presentation was followed by discussion on the way in which SRA could be carried forward in the South West following the abolition of the Regional Assembly and consideration of a discussion paper that had been prepared by the Secretary and which posed questions about the various ways in which SRA might be done in the South West. He reported that at a recent Secretaries' meeting Communities and Local Government (CLG) had requested RAWPs to complete SRA work where necessary and to find a solution to undertaking any necessary SA/SEA work in support of SRA; this request had in part resulted in the letter from SWRAWP to CLG.

The Chairman asked if members were happy for SWRAWP to provide technical advice to CLG and there were no objections.

**South West Regional Aggregates Working Party (SWRAWP)
14th March 2011**

8. Sub Regional Apportionment of the National and Regional Guidelines for Aggregates Provision in England 2005-2020

The Secretary reported that, despite reminders, there had been no reply from CLG to the SWRAWP letter of September 2010 and that it was questionable as to what weight might be attached to the figures produced by SWRAWP. The Secretary agreed to write again to CLG asking for a reply.

Appendix 2: Extract from 'Devon Minerals Plan: Review of Cross-boundary Minerals Issues – Scoping Report'¹⁰

June 2012

Within Greater Devon, only the Plan Area has existing or potential sand and gravel resources. Of the adjoining counties:

- Cornwall has one sand and gravel quarry with very limited reserves, and the county has little, if any, potential for delivering new primary sand and gravel resources (but does have substantial secondary aggregate resources from china clay waste believed to exceed 120 million tonnes);
- Somerset has no operational sand and gravel quarries, but does have resources within the Budleigh Salterton Pebble Beds adjacent to the boundary with Devon; and
- Dorset has substantial bedrock sand and gravel resources in the south east of the county, with smaller areas of river terrace gravels including within the Axe valley in the western part of the county.

Greater Devon is grouped with Cornwall and Somerset for sand and gravel sub-regional apportionment purposes. It is assumed that, in the light of its geological characteristics and the availability of substantial alternative resources in the form of its china clay waste, Cornwall will not contribute any further primary sand and gravel.

¹⁰ http://www.devon.gov.uk/dcc_cross-boundary_minerals_issues_scoping_report_1.1.pdf