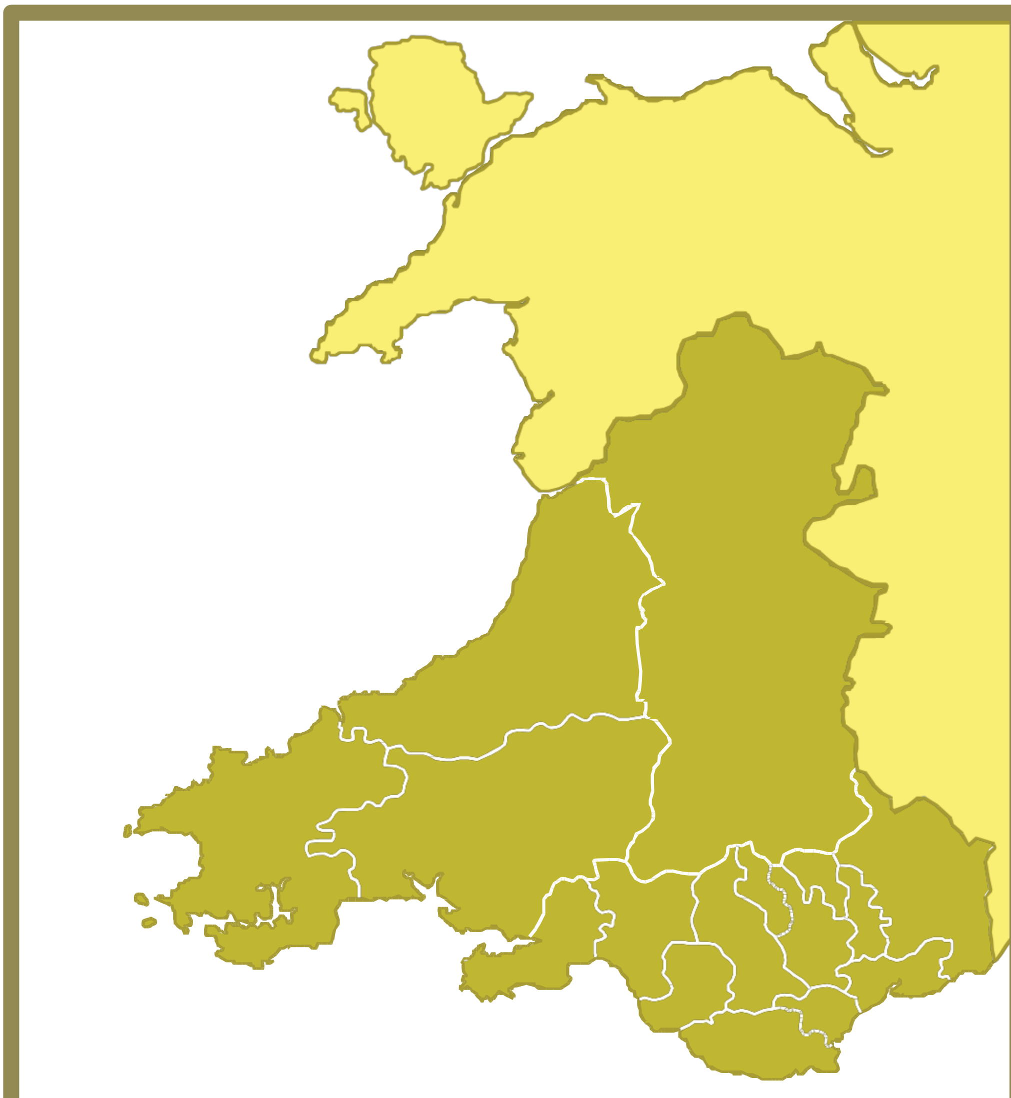

SOUTH WALES REGIONAL AGGREGATES WORKING PARTY

ANNUAL REPORT FOR 2013

Published December 2014

The statistics and statements contained in this report are based on information from a large number of sources and are compiled to an appropriate level of accuracy and verification. Readers should use corroborative data before making major decisions based on this information.

The SWRAWP wishes to acknowledge the financial support of the Welsh Government which has enabled this report to be coordinated and published. The SWRAWP also wishes to record its thanks to all those in the mineral industry and the Mineral Planning Authorities in South Wales who have contributed to the production of this report.

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CONTENTS PAGE

TABLES

FIGURES

MAPS

1. INTRODUCTION

1.1. This report has been prepared by the South Wales Regional Aggregate Working Party (SWRAWP) and **covers the calendar year 2013**. Each year, the SWRAWP co-ordinates the aggregate sales information received from all mineral operators via the eighteen mineral planning authorities which make up the South Wales region. Where annual survey returns have not been made, estimated data has been used. The work of the SWRAWP has been funded by Welsh Government (WG) since April 2002. The current grant funding runs until March 2015.

1.2. The collated information in this report makes a significant contribution to the ongoing study of supply and demand patterns, and provides a vital input into the monitoring and review of WG's supply and demand policy for aggregates enshrined in Minerals Technical Advice Note 1: Aggregates (MTAN1). It also assists in the monitoring of progress towards the achievement of the recommendations set out in the *Regional Technical Statement (RTS) – October 2008*. This information is also useful to Mineral Planning Authorities in carrying out their statutory functions in respect of the preparation of local development plans and the determination of planning applications. The information is also made available to the general public and industry, the latter using it to assist in planning new investment.

1.3. The Mineral Products Association (MPA) has issued revised advice to its members in relation to the confidentiality of data on aggregates supply which is supplied to Mineral Planning Authorities in response to the annual aggregate working party returns. All data is provided on a 'Commercial in Confidence' basis and can be used by Mineral Planning Authorities for purposes associated with their planning functions so long as it prevents data being ascribed to individual planning units, unless specific permission to use the data is given by the operator. The British Aggregates Association has not revised its guidance and although their membership is relatively small, the 'three company rule'[1] still applies to their members unless the companies concerned have given written permission otherwise. It has therefore, been necessary to amalgamate data in this report in order to maintain confidentiality.

[1] At least three companies must have sites within an area before the data can be used

2. SOUTH WALES REGIONAL AGGREGATES WORKING PARTY

2.1. The SWRAWP is one of eleven Aggregates Working Parties (AWPs) in England and Wales which provide information and advice to the Department for Communities and Local Government (DCLG) and to the Welsh Government in the supply of and the demand for, aggregate minerals.

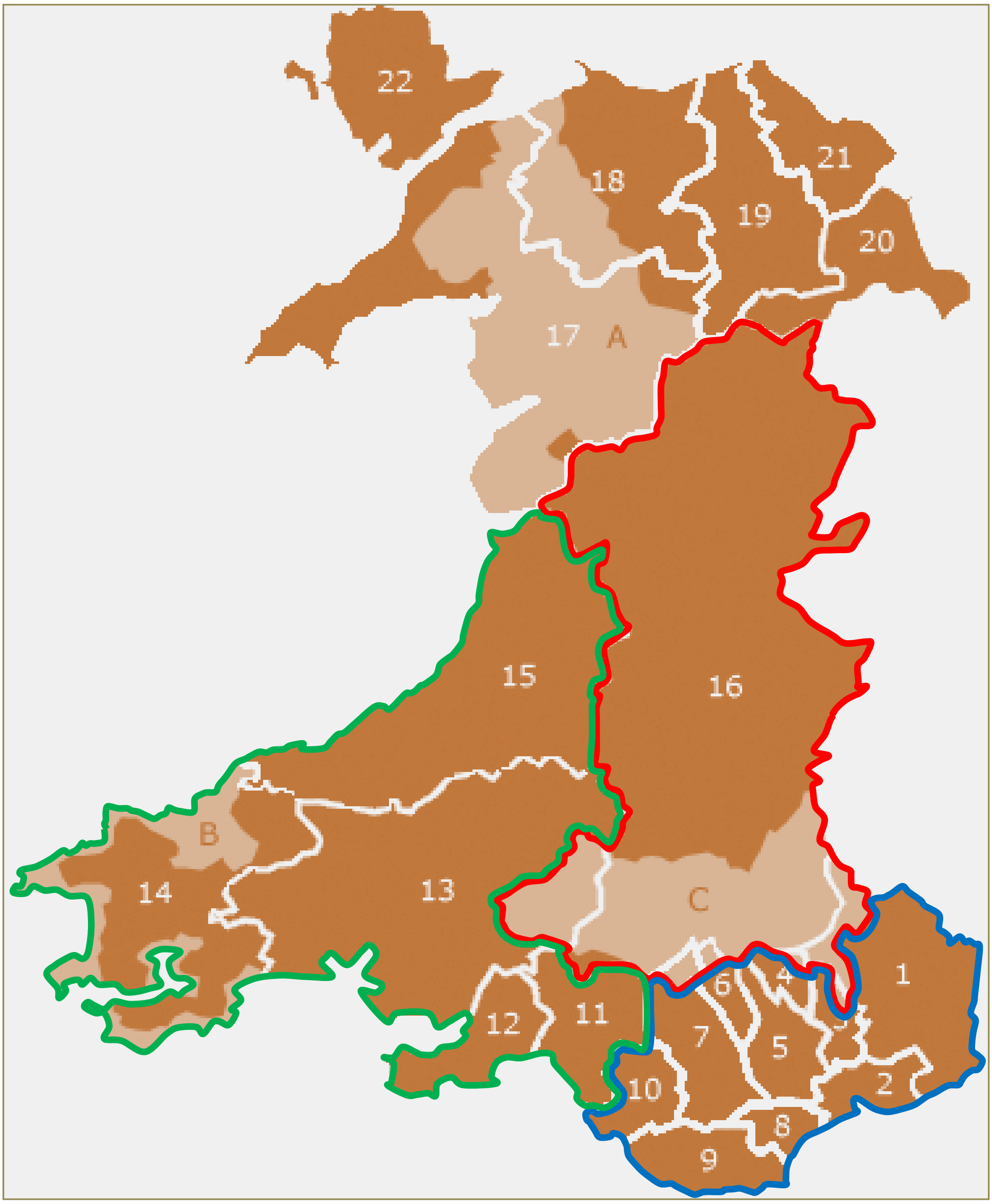
2.2. The SWRAWP is a technical working group with membership drawn from officers of the 18 Mineral Planning Authorities, representatives of the Mineral Products Association (MPA), the British Aggregates Association (BAA), the construction/demolition industry, Welsh Government, The Crown Estate and Natural Resources Wales. It is not a policy making body. A list of members is provided in Appendix A.

2.3. A joint meeting of the SWRAWP/NWRAWP was held in September 2013 specifically to discuss the review of the Regional Technical Statement (RTS). Three sub-committee meetings were held to discuss the RTS review and a consultation event was also held. No elected Member Forum meetings were held in 2013.

2.4. Meetings were held with the NWRAWP Secretary and Welsh Government officials to discuss RAWP contract work and the RTS review. Regular contact has been maintained with Mineral Planning Authority Officers to ensure robust and consistent data is used for the annual survey.

MAP 1

S.W.R.A.W.P. Mineral Planning Authorities



South East Wales	South West Wales
1. Monmouthshire	11. Neath-Port Talbot
2. Newport	12. Swansea
3. Torfaen	13. Carmarthenshire
4. Blaenau Gwent	14. Pembrokeshire
5. Caerphilly	15. Ceredigion
6. Merthyr Tydfil	B. Pembrokeshire Coast National Park
7. Rhondda Cynon Taf	
8. Cardiff	**Powys/BBNPA**
9. Vale of Glamorgan	16. Powys
10. Bridgend	C. Brecon Beacons National Park

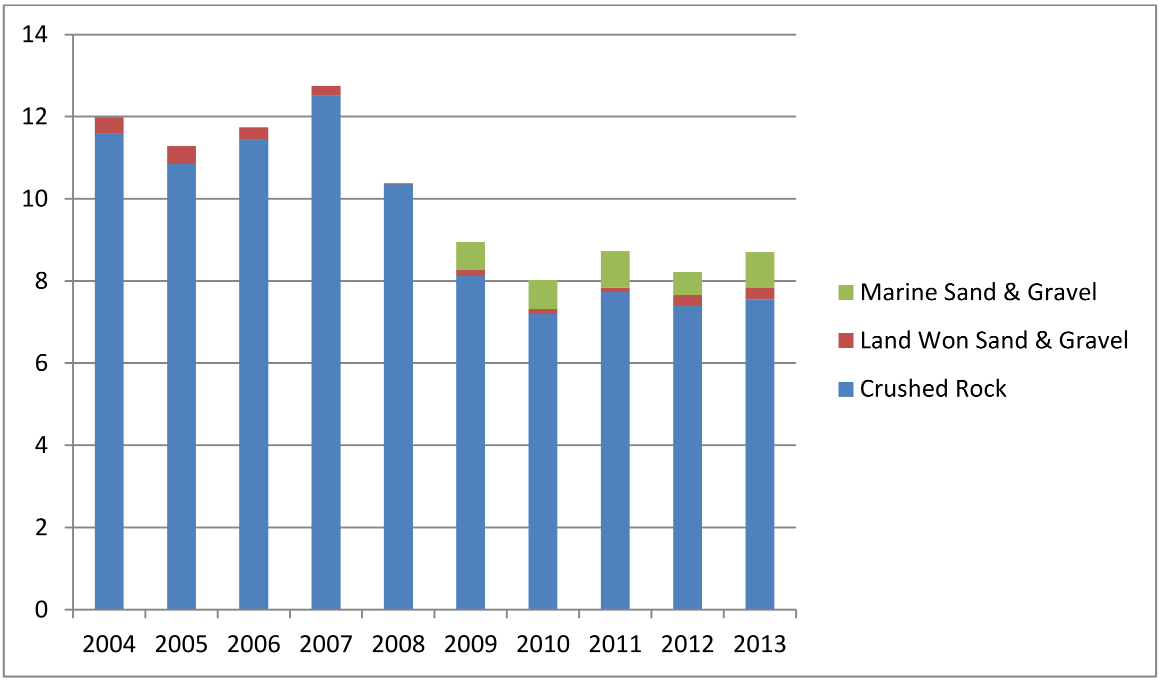
3. AGGREGATE SALES 2004-2013

*Data not available or confidential

Table 1
Primary Aggregate Sales 2004-2013 (million tonnes)

	Crushed Rock					**Land Won Sand & Gravel**					**Marine Dredged Sand & Gravel**					**All Primary Aggregates**	
Year	Powys (inc Brecon Beacons)	South West Wales	South East Wales	Total Sales	% of Total Sales	Powys (inc Brecon Beacons)	South West Wales	South East Wales	Total Sales	% of Total Sales	Powys (inc Brecon Beacons)	South West Wales	South East Wales	Total Sales	% of Total Sales	Sales	% change from previous year
2004	3.15	2.77	5.87	11.58	*	*	*	*	0.40	*	0	*	*	*	*	*	*
2005	3.00	2.66	5.19	10.85	*	*	*	*	0.44	*	0	*	*	*	*	*	*
2006	3.30	1.90	6.26	11.46	*	*	*	*	0.28	*	0	*	*	*	*	*	*
2007	3.20	3.27	6.04	12.51	*	*	*	*	0.24	*	0	*	*	*	*	*	*
2008	2.90	2.85	4.60	10.35	*	*	*	*	0.03	*	0	*	*	*	*	*	*
2009	2.58	2.47	3.08	8.13	90.83	*	*	*	0.14	1.56	0	*	*	0.68	7.60	8.95	*
2010	2.71	1.89	2.65	7.20	89.66	*	*	*	0.12	1.49	0	*	*	0.71	8.84	8.03	-10%
2011	2.89	1.99	2.85	7.73	88.54	*	*	*	0.11	1.26	0	*	*	0.89	10.19	8.73	+9%
2012	2.73	1.74	2.92	7.39	89.90	0	0.27	0	0.27	3.28	0	*	*	0.56	6.81	8.22	-6%
2013	2.88	1.84	2.83	7.55	86.78	0	0.28	0	0.28	3.21	0	0.26	0.61	0.87	10.00	8.70	+6%

FIGURE 1 – Primary Aggregate Sales 2014-2013 (million tonnes)



3.1 Table 1 shows the total primary aggregate sales from the region over the 10 year period 2004-2013, subdivided between South West Wales, South East Wales and Powys/BBNPA. These sub-regions correspond to the areas for which data has been available over the last 10 years allowing data to be compared and at the same time respecting confidentiality.

3.2 South West Wales is made up of the following Mineral Planning Authorities – Carmarthenshire, Ceredigion, Pembrokeshire, Pembrokeshire Coast National Park, Neath Port Talbot and Swansea.

3.3 South East Wales is made up of Blaenau Gwent, Merthyr Tydfil, Monmouthshire, Newport, Torfaen, Bridgend, Caerphilly, Cardiff, Rhondda Cynon Taf and the Vale of Glamorgan.

3.4 The sale of primary aggregates rose in 2013 to 8.7 million tonnes compared to 8.22 million tonnes in 2012. Crushed rock sales rose to 7.55 million tonnes in 2013 compared to 7.39 million tonnes in 2012. Marine sand and gravel sales rose to 870,000 tonnes compared to 560,000 tonnes in 2012. Land-won sand and gravel sales in 2013 showed relatively minor change from 2012 sales. Figure 1 shows that the steep decline in aggregate sales during the economic recession from 2008 onwards has certainly slowed and stabilised. There is no clear trend upwards or downwards in total aggregate sales since 2010. However, sales of crushed rock aggregate continue to be approximately 40% lower than they were in 2007.

3.5 Crushed rock continues to account for almost 87% of primary aggregate sales with marine landings contributing 10% and land won sand and gravel approximately 3%. Powys (including Brecon Beacons) has the highest crushed rock sales at 2.88 million tonnes (38%), with South East Wales at 2.83 million tonnes (38%) and South West Wales 1.84 million tonnes (24%). Marine sand and gravel sales are highest in South East Wales at 610,000 tonnes (70%) with South West Wales accounting for 260,000 tonnes (30%). Land won sand and gravel sales come exclusively from sites in South West Wales.

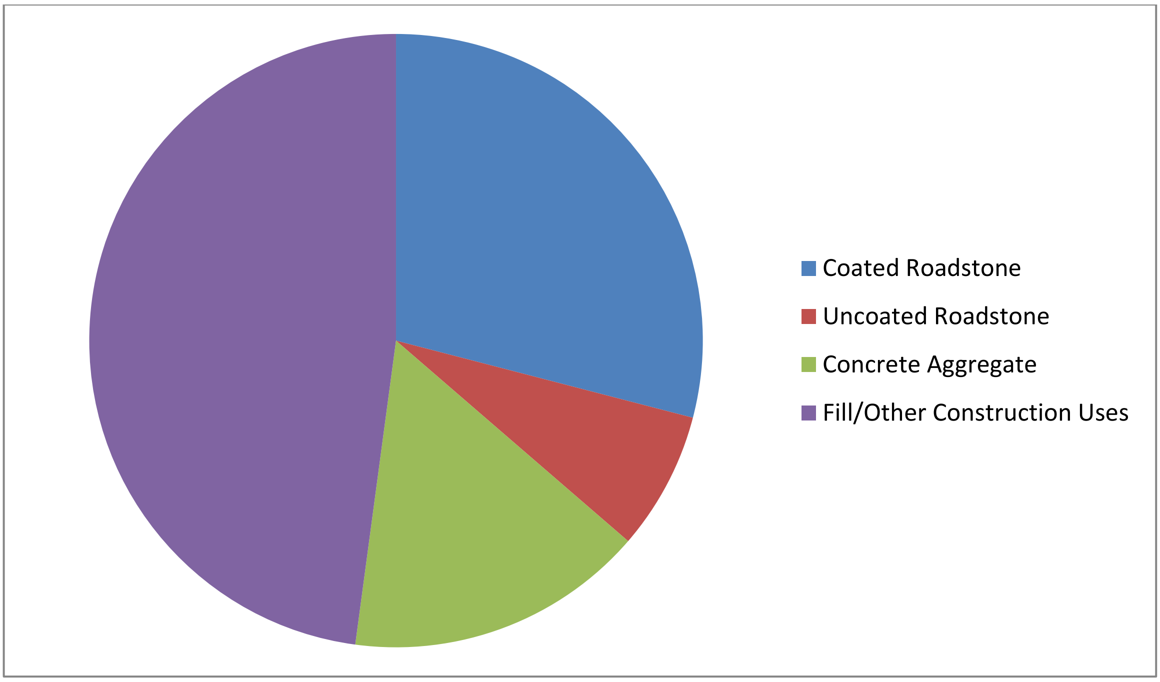
4. CRUSHED ROCK

Table 2
Crushed Rock Sales by Rock type and End Use (million tonnes)

	Coated Roadstone	Uncoated Roadstone	Concrete Aggregate	Fill/Other Construction Uses	Rail Ballast	TOTAL AGGREGATE	Building Stone	Total Non Aggregate
Limestone	0.29	0.31	0.99	1.96	0	3.55	0.05	0.80
Sandstone	1.58	0.22	0.14	0.94	0	2.88	0.01	0.03
Igneous	0.32	0.02	0.06	0.71	0	1.12	0.00	0.00
TOTAL	2.19	0.55	1.19	3.61	0	7.55	0.06	0.83

NB - Figures contain estimates where no survey return was provided

FIGURE 2 – Crushed Rock Sales by End Use 2013



4.2 Use of primary aggregate for roadstone has remained relatively static since 2012, although the amount of sandstone used has increased slightly and the amount of limestone and igneous rock has decreased slightly.

4.3 Use as concrete aggregate has risen to 1.19 million in 2013 from 1.01 million in 2012 with 95% of the increased use being from limestone resources. Use of sandstone and igneous rock for concrete aggregate remained fairly static.

4.4 Use of primary aggregate for fill/other construction uses has risen to 3.61 million tonnes in 2013 from 3.46 million tonnes in 2012, with significant increases in the use of sandstone (34%) and igneous rock (18%) and a significant reduction in the use of limestone (-10%) for this purpose.

<table>
<tr><th colspan="6">Table 3
Crushed Rock Sales by Mineral Planning Authority (million tonnes)</th></tr>
<tr><th>Sub-Region</th><th>Mineral Planning Authority</th><th>Crushed Rock Sales 2011</th><th>Crushed Rock Sales 2012</th><th colspan="2">Crushed Rock Sales 2013</th></tr>
<tr><td rowspan="2">Powys (inc Brecon Beacons)</td><td>Powys</td><td rowspan="2">2.89</td><td rowspan="2">2.73</td><td colspan="2" rowspan="2">2.88</td></tr>
<tr><td>Brecon Beacons NP</td></tr>
<tr><td rowspan="6">South West Wales</td><td>Carmarthenshire</td><td rowspan="6">1.99</td><td rowspan="6">1.74</td><td>0.78</td><td rowspan="6">1.84</td></tr>
<tr><td>Ceredigion</td><td>0.20</td></tr>
<tr><td>Pembrokeshire</td><td rowspan="2">0.47</td></tr>
<tr><td>Pembrokeshire Coast NP</td></tr>
<tr><td>Neath Port Talbot</td><td>0.39</td></tr>
<tr><td>Swansea</td><td>0</td></tr>
<tr><td rowspan="10">South East Wales</td><td>Blaenau Gwent</td><td rowspan="10">2.85</td><td rowspan="10">2.92</td><td rowspan="2">0.38</td><td rowspan="10">2.83</td></tr>
<tr><td>Caerphilly</td></tr>
<tr><td>Torfaen</td><td>0</td></tr>
<tr><td>Newport</td><td>0</td></tr>
<tr><td>Monmouthshire</td><td>0</td></tr>
<tr><td>Rhondda Cynon Taf</td><td rowspan="2">0.68</td></tr>
<tr><td>Merthyr Tydfil</td></tr>
<tr><td>Bridgend</td><td rowspan="3">1.77</td></tr>
<tr><td>Cardiff</td></tr>
<tr><td>Vale of Glamorgan</td></tr>
<tr><td>TOTAL</td><td></td><td>7.73</td><td>7.39</td><td colspan="2">7.55</td></tr>
</table>

4.5 Table 3 sets out the Crushed Rock aggregate sales figures subdivided by sub-region and Mineral Planning Authority, however some data has been amalgamated for confidentiality reasons.

4.6 Sales of crushed rock in Powys and South West Wales reduced by 160,000 tonnes and 250,000 tonnes respectively between 2011 and 2012. Sales in these sub-regions have increased in 2013 by 150,000 tonnes and 100,000 tonnes respectively but are still below 2011 levels.

4.7 The converse is true for South East Wales where sales of crushed rock increased by 70,000 tonnes between 2011 and 2012 but decreased by 90,000 tonnes between 2012 and 2013.

LANDBANK

4.8 A landbank is a stock of planning permissions for the winning and working of minerals. The landbank figures in Table 4 below have been calculated according to the method set out in MTAN 1(Wales), except that no allowance has been made for the demand trend i.e. they have been calculated using the average of the last three years sales. The permitted reserves are those estimated to be suitable for production of saleable aggregates, including low quality fill. Where operators did not provide information on aggregate sales and/or reserves, best estimates have been made from the local knowledge of Mineral Planning Officers and any past returns.

4.9 Caution must be exercised in using these landbank figures. The landbank calculation does not take account of geographical or operational aspects which may restrict the availability of certain types of reserves. In addition, the reserves in many cases have been estimated using limited sampling and testing information and the marketing conditions prevailing at the time and may be subject to revision.

4.10 Dormant sites have not been included in the landbank calculations. Mineral Planning Authorities should carry out their own assessments of the likelihood of reactivation of each site but in any case dormant reserves must be counted separately.

4.11. It is important to note that reserves earmarked as being suitable for aggregates may also be suitable for non-aggregate use. Many carboniferous limestone hard rock quarries produce significant amounts of rock suitable for both uses and these may change from year to year with market demand. Whilst many quarries may have less than 10% non-aggregates, some may have up to 50%.

Table 4 **Crushed Rock Reserves and Landbanks by Mineral Planning Authority (million tonnes) based on 3 year average sales 2011-2013**				
Region	**Mineral Planning Authority**	**Crushed Rock Reserve 2013**	**Average Annual Sales 2011-2013**	**Landbank (years) based on 3 year sales average**
Powys (inc Brecon Beacons)	Powys	216.68	2.88	63
	Brecon Beacons NP			N/A
South West Wales	Carmarthenshire	49.69	0.67	74
	Ceredigion	5.84	0.20	29
	Pembrokeshire	26.19	0.56	56
	Pembrokeshire Coast NP			N/A
	Neath Port Talbot	17.64	0.41	42
	Swansea	0	0	0
South East Wales	Blaenau Gwent	28.49	0.52	12
	Caerphilly			78
	Torfaen	0	0	0
	Newport	0	0	0
	Monmouthshire	*	*	318
	Rhondda Cynon Taf	73.48	0.70	23
	Merthyr Tydfil			324
	Bridgend	101.76	1.69	91
	Cardiff			36
	Vale of Glamorgan			67
SOUTH WALES TOTAL		*	*	

4.11 On the basis of the figures in Table 4, only Blaenau Gwent and RCT have a landbank of less than 25 years and only Blaenau Gwent has a landbank of less than 20 years.

4.12 The landbank in Ceredigion has reduced significantly from 92 years to 29 years. This is primarily down to production in 2013 was almost double the production in 2010 that it replaces in the 3 year calculation.

4.13 The landbank decrease from 541 years to 318 years in Monmouthshire reflects the loss of the reserve in Livox following the expiry of its planning permission.

4.14 The landbank increase in Merthyr Tydfil from 176 years to 324 years is primarily down to production in 2013 being almost half the production in 2010 that it replaces in the 3 year calculation, and a re-assessment of reserves at existing sites.

4.15 The landbank in Bridgend has increased from 63 years to 91 years on the basis of a re-assessment of the available aggregate reserves.

4.16 The landbank in Cardiff has reduced from 57 years to 36 years due to significant increase in production during 2013 and the loss of some reserve at Blaengwynlais which is in Caerphilly but was previously counted in the Cardiff reserve.

4.17 The landbank in the Vale of Glamorgan has increased from 33 years to 67 years. This is primarily down to production in 2013 being almost half the production in 2010 that it replaces in the 3 year calculation, and a re-assessment of reserves at existing sites.

4.18 The Consultation Draft of the RTS 1st Review (as at December 2013) suggests that it may be prudent to consider a ten year average as providing a more reliable baseline than a 3 year average. Table 5 therefore sets out the crushed rock landbank based a ten year sales average 2004-2013.

Table 5
Crushed Rock Reserves and Landbanks by Mineral Planning Authority (million tonnes) based on 10 year average sales 2004-2013

Region	Mineral Planning Authority	Crushed Rock Reserve 2013	Average Annual Sales 2004-2013	Landbank (years) based on 10 year sales average
Powys (inc Brecon Beacons)	Powys	216.68	2.94	64
	Brecon Beacons NP			N/A
South West Wales	Carmarthenshire	49.69	0.94	53
	Ceredigion	5.84	0.21	28
	Pembrokeshire	26.19	0.81	39
	Pembrokeshire Coast NP			N/A
	Neath Port Talbot	17.64	0.57	32
	Swansea	0	0	0
South East Wales	Blaenau Gwent	28.49	0.80	12
	Caerphilly			42
	Torfaen	0	0	0
	Newport	0	0	0
	Monmouthshire	*	*	123
	Rhondda Cynon Taf	73.48	0.89	18
	Merthyr Tydfil			251
	Bridgend	101.76	2.37	68
	Cardiff			33
	Vale of Glamorgan			34
SOUTH WALES TOTAL		*	*	

4.19 The 10 year average sales figures are higher across the board than the 3 year average sales figures, which is not surprising given the significant reduction in sales since 2007. Strategic planning for aggregate minerals based on 3 year average sales figures as advocated in MTAN1 therefore has the potential to result in under provision in the medium to long term as it will be based on an unusually low baseline. Use of a 10 year sales average is considered to be a more reliable indicator as it evens out the sales over the period pre 2008 and the recessionary period post 2008.

4.20 Using the 10 year sales average, landbanks across the SWRAWP region are still relatively healthy, with only Blaenau Gwent and RCT having a landbank of less than 25 years.

Table 6
Crushed Rock Reserves at Dormant Sites by Mineral Planning Authority (million tonnes)

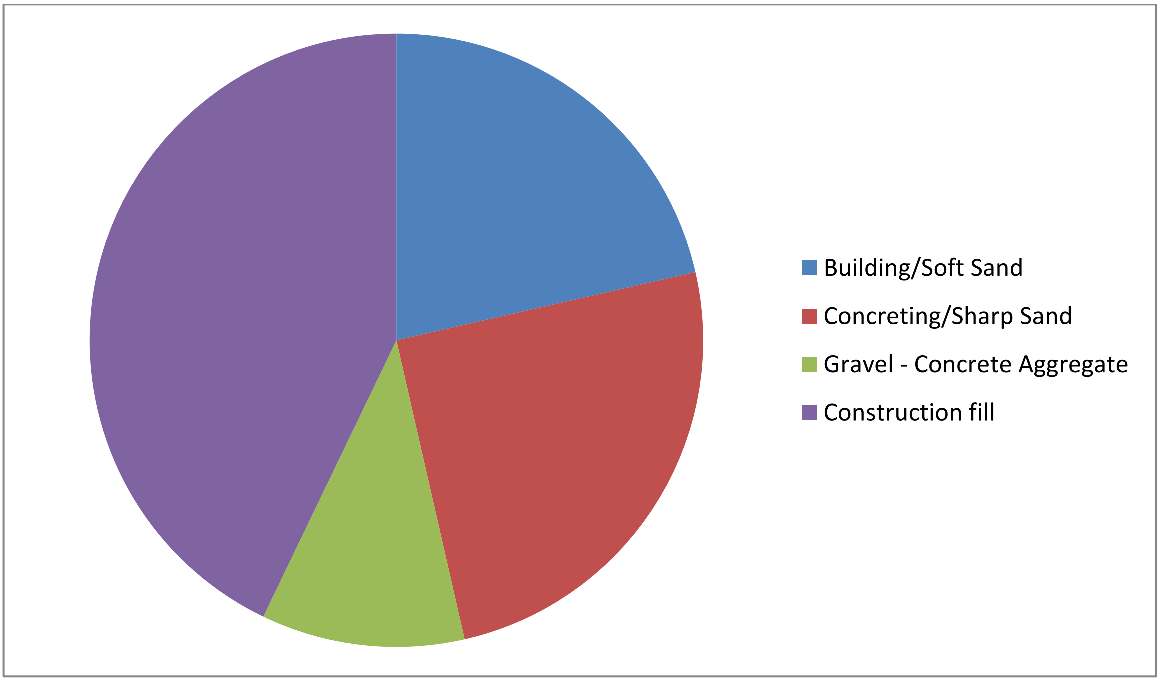
Region	**Mineral Planning Authority**	**Crushed Rock Reserve 2013**
Powys (inc Brecon Beacons)	Powys	0.36
	Brecon Beacons NP	
South West Wales	Carmarthenshire	15.10
	Ceredigion	0
	Pembrokeshire	0
	Pembrokeshire Coast NP	
	Neath Port Talbot	0
	Swansea	0
South East Wales	Blaenau Gwent	5.21
	Caerphilly	
	Torfaen	0
	Newport	0
	Monmouthshire	0
	Rhondda Cynon Taf	0
	Merthyr Tydfil	
	Bridgend	8.43
	Cardiff	
	Vale of Glamorgan	
SOUTH WALES TOTAL		**29.1**

4.21 Table 6 above sets out the reserves of crushed rock at dormant sites which could be included separately within landbanks provided there is an assessment which concludes that the sites are likely to work again in the future.

5.0 LAND WON SAND & GRAVEL

Table 7 **Land won Sand & Gravel Sales by end use 2013**		
	Million tonnes	**%**
Building/soft sand for coating for asphalt/mortar	0.06	24
Concreting/sharp sand	0.07	25
Gravel – concrete aggregate, other uses	0.03	10
Raised material for constructional fill/unknown	0.12	41
Total	**0.28**	**100**

FIGURE 3 – Land Won Sand and Gravel by End Use 2013



5.1 The percentage use of land won sand and gravel for building/soft sand and concreting/sharp sand has increased to 24% and 25% respectively from 19% and 18% in 2012. The use of land won sand and gravel for constructional fill has reduced from 49% in 2012 to 41% in 2013. No land won sand and gravel was used for Non-Aggregates purposes in 2013.

Table 8 Land Won Sand & Gravel Sales by Mineral Planning Authority (million tonnes)				
Region	**Mineral Planning Authority**	**Sand & Gravel Sales 2011**	**Sand & Gravel Sales 2012**	**Sand & Gravel Sales 2013**
Powys (inc Brecon Beacons)	Powys	0.11	0.27	0.28
South West Wales	Carmarthenshire			
	Ceredigion			
	Pembrokeshire			
	Pembrokeshire Coast NP			
	Neath Port Talbot			

5.2 Table 8 shows the Mineral Planning Authorities where land won sand and gravel is produced. The total sales for 2013 are only slightly up on 2012 but are substantially above the 2011 sales figure.

LANDBANK

5.3 Table 9 and Table 10 below set out the land won sand and gravel landbank in the same way as the crushed rock landbank has been set out in Section 4 above. Table 9 is based on a three year sales average and Table 10 is based on a 10 year sales average. Dormant sites have not been included.

Table 9 Land Won Sand & Gravel Reserves and Landbanks by Mineral Planning Authority (million tonnes) based on 3 year average sales 2011-2013				
Region	**Mineral Planning Authority**	**Sand & Gravel Reserve 2013**	**Average Annual Production 2011-2013**	**Landbank (years) based on 10 year sales average**
Powys (inc Brecon Beacons)	Powys	4.34	0.27	208
South West Wales	Carmarthenshire			204
	Ceredigion			12
	Pembrokeshire			0
	Pembrokeshire Coast NP			N/A

Table 10
Land Won Sand & Gravel Reserves and Landbanks by Mineral Planning Authority (million tonnes) based on 10 year average sales 2004-2013

Region	Mineral Planning Authority	Sand & Gravel Reserve 2013	Average Annual Sales 2004-2013	Landbank (years) based on 10 year sales average
Powys (inc Brecon Beacons)	Powys	4.34	0.25	1,333
South West Wales	Carmarthenshire			114
	Ceredigion			15
	Pembrokeshire			0
	Pembrokeshire Coast NP			N/A

5.4 On the basis of either the 3-year or 10-year landbank calculations only Ceredigion has a landbank of less than 25 years.

5.5 Care must be exercised in relying on the landbank figures for Powys and Carmarthenshire as these are based on very small annual sales from relatively small sites. Pembrokeshire has no land won sand and gravel sites and there is significant production from sites within the Pembrokeshire Coast National Park. The RTS 1st Review Consultation Draft suggests that the four Mineral Planning Authorities in South West Wales work collaboratively to plan strategically for adequate reserves of land won sand and gravel in the period up until 2033.

6.0 MARINE DREDGED SAND & GRAVEL

6.1 Marine Dredged Sand and Gravel is landed in the Region by Cemex UK Ltd, Hanson Aggregate Marine Ltd, Lafarge Tarmac Marine Ltd, Severn Sands Ltd and Llanelli Sand Dredging Ltd.

6.2 Dredging Licences (as at December 2013) exist for North Middle Ground, West Middle Ground, North Bristol Deep, Holm Sands and Nobel Bank. A site with planning permission at Bedwyn Sands, Monmouthshire also contributes towards sales data.

Table 11
Port Statistics for Marine Dredged Aggregate Landings 2013

Mineral Planning Authority	Landing Port	2011 Tonnages	2012 Tonnages	2013 Tonnages
Neath Port Talbot	Briton Ferry/Port Talbot	5,828	5,904	5,700
Carmarthenshire	Burry Port	70,546	87,236	102,029
Cardiff	Cardiff Docks	214,302	201,430	172,055
Pembrokeshire	Port of Pembroke	20,907	21,037	13,300
Newport	Newport Docks	108,587	165,295	201,739
Monmouthshire (Bedwyn Sands)	Newport/Chepstow	*	*	*
Swansea	Swansea Docks	135,814	166,095	129,515
Total		**558,984**	**646,997**	**624,338**

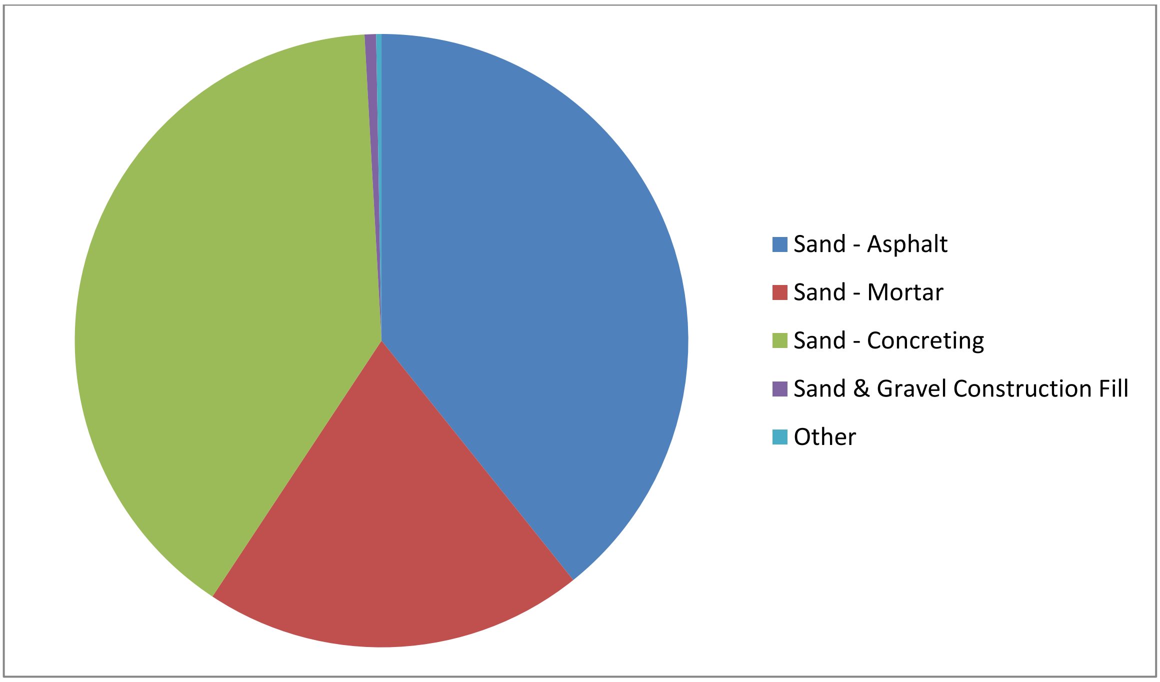
Source: The Crown Estate Summary of Statistics 2011, 2012 and 2013

* The aggregate removed from the Bedwyn Sands in Monmouthshire is above low water mark and is therefore under the jurisdiction of the Mineral Planning Authority. The material is landed in Newport and Chepstow by a single company. The landing data is therefore confidential.

6.3 Landings of marine sand and gravel have reduced by approximately 22,500 tonnes (-3.5%) between 2012 and 2013, with increased landings in Carmarthenshire and Newport but reductions in Cardiff, Pembrokeshire and Swansea.

Table 12 Marine Sand & Gravel Sales by end use 2013		
	tonnes	**%**
Sand – Asphalt	339,843	39
Sand – Mortar	173,489	20
Sand – Concreting	344,776	40
Gravel (suitable for concrete aggregates)	0	0
Sand & Gravel (suitable for construction fill)	5,222	0.6
Undifferentiated Aggregate Use	2,441	0.4
Total	**865,836**	**100**

FIGURE 4 – Marine Sand and Gravel Sales by End Use 2013



6.4 Marine Sand and Gravel Sales in 2013 have significantly exceeded the amount of material dredged from the Crown Estate. Part of the reason for this difference is that sales figures include material dredged from the Bedwyn Sands which is not within the Crown Estate. In addition, there would be sales from stocks being held at the wharfs and differences in timing between sales and landings. Conversion factors from cubic metres to tonnes may also be playing a part.

6.5 Sales of marine sand and gravel have increased significantly from 560,000 tonnes in 2012 to 865,000 tonnes in 2013. The largest increase has been in sand used for asphalt which rose from 170,000 tonnes in 2012 to 340,000 tonnes in 2013. There were smaller rises in sand used for mortar and concrete of 80,000 tonnes and 50,000 tonnes respectively. Only, 1,300 tonnes of marine sand and gravel was used for Non-Aggregate purposes.

7. SECONDARY AGGREGATES

7.1 Secondary Aggregates are usually defined as

- aggregates obtained as a by-product of other quarrying and mining operations, such as china clay waste, slate waste and colliery spoil, or
- aggregates obtained as a by-product of other industrial processes, such as blast furnace slag, coal-fired power station ash, incinerator ash and spent foundry sand.

A list of Secondary Aggregate sites within the SWRAWP Region is set out in Appendix C

Table 13
Secondary Aggregate Sales by end use 2013 (million tonnes)

	Million Tonnes	**%**
Coated Roadstone	0.11	13
Uncoated Roadstone	0.30	37
Railway Ballast	0	0
Concrete Aggregate	0.18	22
Other Constructional Uses/Unknown	0.23	28
Artificial Aggregate	0	0
Total	**0.82**	**100**

FIGURE 5 – Secondary Aggregate Sales by End Use 2013

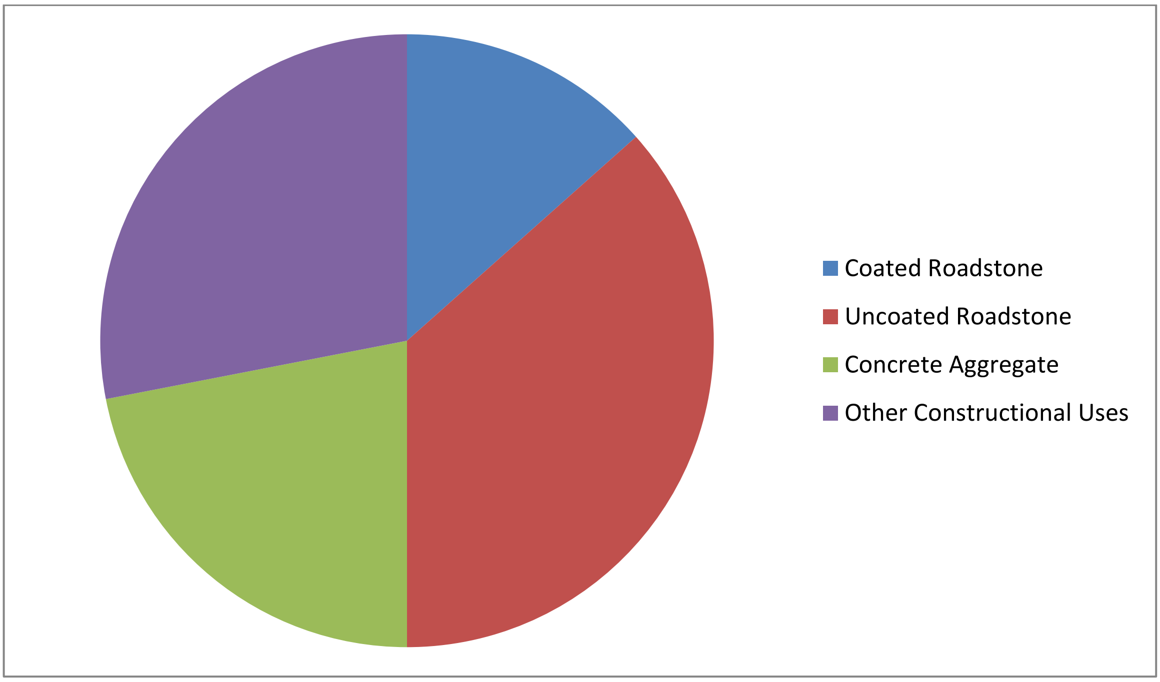


Table 14 Secondary Aggregate Sales by Mineral Planning Authority 2013 (million tonnes)				
Region	**Mineral Planning Authority**	**Secondary Aggregate Sales 2011**	**Secondary Aggregate Sales 2012**	**Secondary Aggregate Sales 2013**
South West Wales	Pembrokeshire	1.04	1.58	0.82
	Neath Port Talbot			
South East Wales	Cardiff			
	Newport			
	Vale of Glamorgan			

7.2 Secondary Aggregate Sales have declined by almost 50% from 1.58 million tonnes in 2012 to 820,000 tonnes in 2013. It appears that there was an unusual spike in sales in 2012 and that sales of secondary aggregate have returned to a more normal level in 2013.

7.3 In 2013, 50% of the secondary aggregate sold was used for roadstone and 50% was used as concrete aggregate and for other constructional uses. Approximately, 120,000 tonnes of material was used for Non-Aggregate purposes.

7.4 The Survey of Industrial and Commercial Waste Generated in Wales 2012, published by Natural Resources Wales, indicates that 34% of the Industrial Waste arising in Wales comes from combustion waste and 89% of that combustion waste comes from the energy supply sector. This equates to approximately 600,000 tonnes per annum. The Survey also indicated that landfill accounted for 71% of combustion waste with only 23% being re-used. In South Wales the primary source of combustion waste would be Aberthaw B.

7.5 The Survey of Industrial and Commercial Waste Generated in Wales 2012 treated blast furnace slag as a 'Non-Waste'. This material was not included in the report but the technical appendices indicate approximately 2 million tonnes was generated in South Wales in 2012, 1.75 million tonnes from South West Wales and 0.25 million tonnes from South East Wales. The survey data indicates that 98% of this material is prepared for re-use or recycled. Not all of this material is used for aggregate purposes and a significant percentage (approximately 60%) is used for non-aggregate purposes.

8. RECYCLED AGGREGATES

8.1 Recycled Aggregates are defined as aggregates obtained from the demolition or construction of buildings or structures or from civil engineering works, including asphalt road planings and railway ballast. A list of known aggregate recycling facilities in the SWRAWP Region is set out in Appendix D.

8.2 Even though recycled materials play and increasingly important role as a substitute for primary aggregates it is difficult to obtain accurate figures of the volumes produced. A Survey of Construction and Demolition Waste Generated in Wales was carried out in 2012. The previous survey was in 2005-6.

8.3 The Survey of Construction and Demolition Waste Generated in Wales 2012, published by Natural Resources Wales indicates that a total of 2.62 million tonnes of construction and demolition waste was generated in South Wales (not including North Powys). Of this total, 1.44 million tonnes was generated in South East Wales and 1.18 million tonnes in South West Wales.

8.4 In South East Wales 47% (677,000 tonnes) of waste generated was aggregate and in South West Wales 23% (271,000 tonnes) was aggregate. In Wales approximately 90% of C&D waste aggregate is either prepared for re-use or recycled and only 2% is landfilled. The recovery target for non-hazardous C&D waste in Towards Zero Waste is 70%.

ROAD PLANING ARISINGS

8.5 All the 16 Councils in the region together with SWTRA and MWTRA, were contacted and asked to supply data in relation to road planing arisings. The response has been poor with only Ceredigion, Pembrokeshire, Carmarthenshire and RCT responding.

8.6 Ceredigion confirmed that they had no arisings. Their tender documents have required the contractor to dispose of any arisings to a licensed tip since 2013. Pembrokeshire generated 1,700 tonnes of road planings which were all re-used. Torfaen generated 13,500 tonnes, which was higher than normal, with all arisings re-used or stockpiled for re-use. Carmarthenshire generated 10,700 tonnes with all arisings re-used or stockpiled for re-use.

8.7 Barriers to re-use of road planings are stated to be

- no British Standard so it is only used for lower specification works e.g. footways etc
- the area required to store the material for re-use is significant and becomes a maintenance burden in having to regularly re-shape stockpiles
- it is costly to transport arisings if the area where it is generated is remote from where it is re-used or stored.

9. RTS UPDATE

9.1 The Regional Technical Statement (RTS) is a requirement of Minerals Technical Advice Note 1: Aggregates (MTAN1) which was issued by the Welsh Government in March 2004.

9.2 MTAN1 sets an overarching objective which seeks to ensure a sustainably managed supply of aggregates (which are essential for construction), striking the best balance between environmental, economic and social considerations. The RTS provides a strategic basis for LDPs in the region.

9.3 The first Regional Technical Statement for the area covered by the South Wales Regional Aggregates Working Party was published in October 2008.

9.4 The RTS 2008 sets out the apportionment of primary aggregates for each Local Planning Authority based on two approaches, one using traditional methods (i.e. applying past sales data) and the second using population as a proxy for the distribution of demand.

9.5 Using the apportionment figures from the two sets of data it was anticipated that the need for crushed rock cumulatively across South Wales would be between 163 and 175Mt over the period 2007-2021. This compares with permitted reserves of 584Mt in the region recorded in sites then operational in 2005, with a further 131Mt at inactive sites with planning permission.

9.6 The RTS analysis of the situation in each of the 18 MPAs in terms of their ability to meet anticipated requirements (using the two methods noted above) indicates that in a significant number of MPAs, the levels of permitted reserves are theoretically sufficient to maintain present levels of production for 20 years, i.e. the threshold point beyond which MTAN1 considers that the release of further reserves should not generally be made.

9.7 Mineral Planning Authorities required by the RTS 2008 to consider resource allocations are Swansea, RCT, Blaenau Gwent, Torfaen and Newport. To date, RCT, Torfaen and Blaenau Gwent have made specific resource allocations in their LDP. Newport does not propose any allocations in its submitted LDP but relies on a criteria based policy to guide mineral development. Swansea is yet to produce their LDP.

9.8 In addition to landbank figures and the recommendations of the RTS, all MPAs are expected to take into account local circumstances and take fully into account factors that may be material to the ensuring an adequate supply of aggregates obtained from appropriately located sources in preparing Local Development Plans. Such factors include:-

- The technical capability of one type of material to interchange for another.
- The relative environmental cost of substitution of one type of material by another.
- The relative environmental effects of changing patterns of supply.
- Whether adequate production capacity can be maintained to meet the required supply.

The possible implications of meeting the demand currently sourced from National Parks in the longer term, from non-park areas also needs to be considered.

9.9 MTAN1 also requires the RTS to be reviewed every 5 years. The review process has been ongoing during 2013 with a draft 1st Review document issued for consultation on 28th October 2013. The consultation period closed on 23rd December 2013 and it is anticipated that the 1st Review document will be finalised by April 2014 and be endorsed by the constituent Mineral Planning Authorities. Once it is endorsed by each Mineral Planning Authority it is intended that the Minister for Housing and Regeneration will endorse it as the product of collaborative working across the region.

9.10 The consultation draft recommends that apportionment is based on a 10 year average of sales, refined as necessary to take account of other factors of sustainability. The 'Per capita' apportionment suggested in the RTS 2008 is dispensed with as there is no statistical correlation between population and the demand for aggregates. The results of the final RTS 1st Review document will be included in the Annual Report 2014.

10. SIGNIFICANT TRENDS AND EVENTS

In general, there was a trend towards companies mothballing some of their units and consolidating production at key units.

Brecon Beacons National Park

The planning permission at Penwyllt Quarry was effectively surrendered as part of a planning permission for additional reserves at Torcoed Quarry in Carmarthenshire. The Section 106 Agreement also makes provision for restoration.

Caerphilly

Machen Quarry has been mothballed resulting in a reduction in crushed rock sales from Blaenau Gwent/Caerphilly. Planning permission has been granted for a 1.2 million tonne extension to Bryn Quarry. Caerphilly has carried out an assessment of their dormant sites and has identified sites not likely to work in future.

Carmarthenshire

Crushed rock sales increased by approximately 160,000 tonnes in 2013. Planning permission was granted for an additional 2 million tonnes of reserve at Torcoed Quarry. The Periodic Review of Dinas Quarry was completed. Carmarthenshire has assessed its list of dormant sites and has identified four sites where Prohibition Orders might be served in 2014.

Ceredigion

The Local Development Plan was adopted in April 2013. The Plan allocates extensions to the Penyparc Quarry and Pant Quarry in order to meet the shortfall in sand and gravel supply.

Merthyr Tydfil

Gelligaer Quarry was mothballed. A Prohibition Order was made for Morlais Castle/Bryniau/Twyniau on 26 November 2013 and submitted to Welsh Government for confirmation.

Monmouthshire

The planning permission at Livox Quarry expired at the end of 2012.

Newport

Cemex UK Ltd ceased landings of Marine Sand & Gravel at Newport. Secondary Aggregate production at Llanwern is coming to an end.

Pembrokeshire

Crushed rock sales in Pembrokeshire/PCNPA continued to decline now that the major infrastructure projects such as Pembroke Power Station and Robeston Wathen By-pass have come to an end.

Powys

The deepening of Tanyfoel Quarry was granted planning permission in 2013. The Periodic Review of Caerfagu Quarry was submitted.

RCT

The Periodic Review for Hendy Quarry was submitted in November 2013.

Vale of Glamorgan

Wenvoe Quarry and Ewenny Quarry have been mothballed with no production taking place from the face at either site. Dormant sites have been assessed as part of the LDP process and only those likely to work in future have been included in the Minerals Background Paper.

11. MAJOR INFRASTURUCTURE PROJECTS

Major infrastructure projects are an important consideration in the assessment of the future demand for aggregates. The following is a list of projects which may have an impact on future demand if they go ahead

M4 Newport Relief Road from Magor to Castleton

Circuit of Wales, Blaenau Gwent

A465 Heads of the Valleys Road dualling

Cardiff Eastern Bay Link Road

Swansea Bay Tidal Lagoon

Severn Barrage

12. MONITORING OF PLANNING APPLICATIONS

Planning Applications and Decisions in 2013							
Planning Reference	**Site Name**	**Type**	**Mineral**	**Reserve (mt)**	**Date Submitted**	**Decision**	**Decision Date**
03/P/09336	Tirpentwys (Torfaen)	Tip	Sandstone	4.75	10.11.03		
W/25443	Torcoed Quarry (Carmarthenshire)	Ext (Lat)	Limestone	2.0	08.08.11	Approved	06.03.13
12/0570/Full	Bryn Quarry (Caerphilly)	Ext (Lat)	Sandstone	1.2	23.07.12	Approved	13.08.13
P/2013/0458	Tan Y Foel Quarry (Powys)	Ext (Vert)	Gritstone	9.3	24.04.13	Approved	16.09.13
13/0247/MN	Tangiers Farm (Pembrokeshire)	Ext (Lat)	Shale	0.2	07.06.13	Approved	25.10.13
P/13/0260	Gelligaer Quarry (Merthyr Tydfil)	Ext (Vert)	Sandstone	18.5	14.08.13		
13/0692/MN	Austalise, Keeston (Pembrokeshire)	Time Ext	Shale	0.001	05.11.13		

13. MONITORING REVIEWS OF MINERAL PERMISSIONS

ROMP Applications in 2013							
Planning Reference	**Site Name**	**Type**	**Mineral**	**Reserve (mt)**	**EIA**	**Date Submitted**	**Decision Date**
P/97/0085	Gaens Quarry (Bridgend)	Initial	Limestone		Yes	30 January 1997	
P/97/0618	Grove Quarry (Bridgend)	Initial	Limestone		Yes	26 June 1997	
P/97/0623	Cornelly Quarry (Bridgend)	Initial	Limestone		Yes	30 June 1997	
97/01967/N	Blaengwynlais (Cardiff)	Initial	Limestone		No	31 October 1997	
P/97/0981	Blaengwynlais (Caerphilly)	Initial	Limestone		No	31 October 1997	
P/16141	Blaenonnau Quarry (BBNPA)	DoC	Limestone	23.9	Yes	7 September 1998	Suspended
W/19666	Coygen Quarry (Carmarthenshire)	Periodic	Limestone	4.5	Yes	27 July 2008	
P2002/0931	Morfa Sand & Gravel (Neath Port Talbot)	Initial	Sand	0	Yes	7 August 2002	30 July 2013
P/09/0738	Cornelly & Grove Quarries (Bridgend)	Periodic	Limestone		Yes	16 September 2009	
2009/00935/ENV	Pant Quarry (Vale of Glamorgan)	Initial	Limestone	5.3	Yes	16 September 2009	
W/21986	Maesdulais Quarry (Carmarthenshire)	DoC	Limestone	0.225	Yes	5 November 2009	
E/22876	Llwynjack Quarry (Carmarthenshire)	Periodic	Sand & Gravel	0.23	Yes	28 April 2010	
11/06445	Penderyn Quarry (BBNPA)	Periodic	Limestone	26.3	Yes	24 March 2011	
E/25114	Dinas Quarry (Carmarthenshire)	Periodic	Sandstone	12.9	Yes	8 July 2011	8 October 2013
E/26450	Alltygarn Quarry (Carmarthenshire)	Periodic	Silica Sandstone	2.77	Yes	11 April 2012	
NP/12/0601	Carew Quarry (PCNPA)	Periodic	Limestone	3.7	Yes	13 December 2012	
P/2013/0642	Caerfagu Quarry (Powys)	Periodic	Sand & Gravel	0.1	Yes	20 June 2013	
13/1221	Hendy Quarry (RCT)	Periodic	Limestone	0.756	Yes	20 November 2013	

14. MONITORING OF DEVELOPMENT PLANS

Mineral Planning Authority	LDP Position
Pembrokeshire Coast National Park	LDP Adopted in September 2010
Caerphilly	LDP adopted in November 2010. Council resolved to commence work of the first review. Candidate sites invited up until 6 March 2014.
Rhondda Cynon Taf	LDP Adopted in March 2011.
Merthyr Tydfil	LDP Adopted in May 2011
Blaenau Gwent	LDP Adopted in November 2012
Pembrokeshire	LDP Adopted in February 2013
Ceredigion	LDP Adopted April 2013
Bridgend	LDP Adopted September 2013
Torfaen	LDP Adopted in December 2013
Brecon Beacons National Park	LDP Adopted in December 2013
Monmouthshire	The LDP Examination was carried out during 2013. The Inspectors Report is anticipated in January 2014.
Carmarthenshire	LDP submitted to Welsh Government in September 2013 for Examination.
Newport	LDP submitted to Welsh Government in December 2013
Vale of Glamorgan	LDP Deposit Plan produced and consulted upon.
Neath Port Talbot	Consultation on Deposit LDP was completed on 15th October 2013. Register of Alternative Sites public consultation to commence in January 2014.
Cardiff	Consultation on the Deposit Plan closed on 26th November 2013. Preparing for consultation on alternative sites
Powys	Candidate Site Assessment completed in December 2013.
Swansea	Draft Preferred Strategy Consulted Upon during 2013

APPENDIX A

MEMBERS OF THE SOUTH WALES AGGREGATES WORKING PARTY

(December 2013)

Martin J Hooker
(Chair)

Steve Bool (Secretary)
Principal Planning Officer
Bridgend County Borough Council

G Jones
Chief Regeneration Officer (Development Services & Private Sector Housing)
Blaenau Gwent County Borough Council
(Represented by Lynda Healey)

John Cook
Chief Executive/National Park Officer
Brecon Beacons National Park
(Represented by Chris Morgan)

Pauline Elliot
Head of Regeneration and Planning
Caerphilly County Borough Council
(Represented by Ruth Amundsen)

Philip Williams
Head of Planning
City of Cardiff Council
(Represented by Stuart Williams)

Allan Thomas
Head of Economic and Community Development Services
&
Huw Williams
Head of Lifestyle Services
Ceredigion County Council
(Represented by Graham Dorrington)

Eifion Bowen
Head of Planning
Carmarthenshire County Council
(Represented by Hugh Towns/Tom Boothroyd)

Judith Jones
Head of Town Planning
Merthyr Tydfil County Borough Council
(Represented by Justin Waite)

G Ashworth
Head of Planning

Monmouthshire County Council
(Represented by Martin Davies)

Nicola Pearce
Head of Planning Services
Neath Port Talbot County Borough Council
(Represented by Neville Morgan/Ceri Morris)

Mark Hand
Development Services Manager
Newport City Council
(Represented by Lindsay Christian)

Cath Ranson
Development Plans & Conservation Manager
Pembrokeshire County Council
(Represented by Bob Smith)

Jane Gibson
Director of Park Direction & Planning
Pembrokeshire Coast National Park
(Represented by Richard James)

Susan Bolter
Head of Regeneration, Property & Commissioning (Place)
Powys County Council
(Represented by Chris O'Brien)

Jane Cook
Director of Regeneration & Planning
Rhondda-Cynon-Taf County Borough Council
(Represented by Owen Jones)

Phil Holmes
Head of Economic Regeneration and Planning
City & County of Swansea
(Represented by Ruth Henderson)

Duncan Smith
Chief Officer Planning & Public Protection
Torfaen County Borough Council
(Represented by Adrian Wilcock)

Robert Thomas
Director of Development Services

Vale of Glamorgan Council
(Represented by Marcus Goldsworthy)

Ken Hobden
Planning Director
Mineral Products Association

Mark Russell
Representative MPA - BMAPA
Mineral Products Association

Mark Frampton
Representative MPA - Hanson UK
Mineral Products Association

Malcolm Lawer
Representative MPA – Lafarge Tarmac
Mineral Products Association

Mike McGee
Representative MPA - Cardigan Sand and Gravel
Mineral Products Association

Murray Alston
British Aggregates Association

Joanne Smith
Welsh Government
Planning Division

James Cooke
Welsh Government
Dept for Economy, Science and Transport

Carolyn Drayton
Natural Resources Wales

Karen Maddock-Jones
Natural Resources Wales

M Wrigley/N Everington
The Crown Estate

Vacant
British Geological Survey

J Cuddy

Cuddy Demolition & Dismantling

Ivan Skidmore
RWE npower

APPENDIX B

Sites Included In 2013 Aggregates Mineral Survey

Mineral Planning Authority	Site Name	Mineral Type	Site Owner or Operator	Designation
Blaenau Gwent	Trefil	Limestone	Gryphon Quarries	Active

			Ltd	
Brecon Beacons National Park	Ammanford	Limestone	Messrs Williams & Griffiths	Active
	Penderyn	Limestone	Hanson UK	Active
	Blaen Onneu	Limestone	Hanson UK	Suspended
	Llanfair	Sandstone	Glanusk Estate	Dormant
	Cefn Cadlan		Tredegar Estate	Dormant
	Vaynor (shared with Merthyr Tydfil	Limestone	Hanson UK	Inactive
Bridgend	Cornelly	Limestone	Cambrian Stone Ltd	Active
	Gaens	Limestone	TS Rees Ltd	Active
	Grove	Limestone	Cambrian Stone Ltd	Inactive
	Cefn Cribwr	Sandstone	TS Rees Ltd	Inactive
	Stormy Down	Limestone	Hobbs Holdings Ltd	Dormant
Caerphilly	Machen	Limestone	Hanson UK	Inactive
	Hafod Fach	Sandstone	Lafarge Tarmac	Active
	Bryn	Sandstone	A Price & Co	Active
	Cefn Onn	Limestone	Wyndham Lewis Trust	Dormant
	Cwm Leyshon	Limestone	Hanson UK	Inactive
	Blaengwynlais (shared with Cardiff)	Limestone	Lafarge Tarmac	Inactive
Cardiff	Blaengwynlais (shared with Caerphilly)	Limestone	Lafarge Tarmac	Inactive
	Creigiau	Limestone	Lafarge Tarmac	Inactive
	Cefn Garw	Limestone	Glen Harry Group	Inactive
	Taffs Well	Limestone	Cemex UK Ltd	Active
	Ton Mawr	Limestone	TS Rees Ltd	Active
	Roath Basin Wharf	Marine Sand	Cemex UK Ltd	Active
	Brassways Wharf	Marine Sand	Hanson UK	Active
	Roath Dock	Marine Sand	Lafarge Tarmac	Active
	Rover Way	Slag/Secondary	Celsa UK	Active
Carmarthenshire	Blaenyfan	Limestone	Cemex UK Ltd	Inactive
	Cilyrychen	Limestone	Lafarge Tarmac	Inactive
	Coygen	Limestone	GD Harries	Active
	Crwbin	Limestone	Lafarge Tarmac	Inactive
	Torcoed	Limestone	Lafarge Tarmac	Active
	Garn Bica	Limestone	M Jones	Active
	Limestone Hill	Limestone	D Williams	Dormant
	Llwynyfran	Limestone	Hobbs Holdings Ltd	Dormant
	Maesdulais	Limestone	M Jones	Dormant
	Penybanc	Limestone	Mrs A Davies	Dormant
	Pwllymarch	Limestone	M Jones	Dormant
	Ty'r Garn	Limestone	G Morgan	Dormant
	Ty Hywel	Sandstone	D Williams	Active
	Coedmoelion	Sandstone	N Richards	Active
	Pennant	Sandstone	P Bowen	Active
Carmarthenshire (Cont)	Alltygarn	Sandstone	Bardon Aggregates	Inactive
	Cynghordy	Sandstone	D Roderick	Dormant

	Dinas	Sandstone	Lafarge Tarmac	Inactive
	Garn	Sandstone	Mrs Morgan	Dormant
	Garn Wen	Igneous	GD Harries	Active
	Cerrig-yr-wyn	Igneous	J Mousley & Sons	Dormant
	Llwynjack	Sand & Gravel	C Lewis	Active
	Glantowy	Sand & Gravel	A Lewis	Dormant
	Burry Port	Marine Sand	Llanelli Sand Dredging Ltd	Active
Ceredigion	Moelfryn Maen	Shale	RG & JV Jenkins	Active
	Alltgoch	Sandstone	GD Harries	Active
	Ystrad Meurig	Sandstone	Hanson UK	Active
	Esgair Newydd	Shale	C Davies	Active
	Penparc	Sand & Gravel	Cardigan Sand & Gravel Co Ltd	Active
	Cryg yr Eryr	Sand & Gravel	DR Powell	Active
	Pant	Sand & Gravel	R Cutter	Active
	Glanyrafon	Sand & Gravel	C Dowse	Inactive
	Tylau	Gritstone/Shale	K Morgan	Active
	Llechwedd Dderi Farm	Sand & Gravel	D Jones	Active
	Gwarallt Faerdre	Sandstone	I Evans	Inactive
Merthyr Tydfil	Vaynor (shared with BBNPA)	Limestone	Hanson UK	Inactive
	Gelligaer	Sandstone	Hanson UK	Inactive
	Morlais Castle /Bryniau/Twynau	Limestone	Various	Dormant
Monmouthshire	Ifton	Limestone	Hanson UK	Inactive
	Newport Docks	Marine Sand	Severn Sands Ltd	Active
	Chepstow Wharf	Marine Sand	Severn Sands Ltd	Active
Neath Port Talbot	Cwm Nant Lleici	Sandstone	Aggregate Industries	Active
	Gilfach	Sandstone	Cemex UK Ltd	Active
	Port Talbot Steelworks	Sand	Associated British Ports	Inactive
	Port Talbot	Slag/Secondary	Cambrian Stone Ltd	Active
	Port Talbot	Slag/Secondary	Civil & Marine Slag Cement	Active
	Briton Ferry Wharf	Marine Sand	Hope Construction Materials	Active
	Bwlch Ffos OCCS	Sandstone	Horizon Mining Ltd	Active
Newport CBC	Alexandra Dock	Marine Sand	Severn Sands Ltd	Active
	Felnex Wharf	Marine Sand	Hanson UK/Lafarge Tarmac Ltd	Active
	Llanwern Works	Slag/Secondary	Cambrian Stone Ltd	Active
	Llanwern	Slag Secondary	Civil & Marine Slag Cement	Inactive
Pembrokeshire Coast National Park	Bottom Meadow	Limestone	Croft Construction	Inactive
	Carew	Limestone	T Scourfield &	Active

			Sons	
	Penberry	Igneous	Mr Jamieson	Dormant
	Rhyndaston	Igneous	Mason Bros	Active
	Syke	Igneous/Sandstone	GD Harries	Inactive
	Pantgwyn	Sand & Gravel	L Rees	Active
	Trefigin	Sand & Gravel	Trefigin Quarries Ltd	Active
Pembrokeshire	Cefn	Sandstone	AD Plant	Inactive
	Bolton Hill	Igneous	GD Harries	Active
	Plascwrt Farm	Igneous	M Evans	Inactive
	Slade Hall Farm	Shale	NW Jones	Active
	Glogue	Slate/Secondary	Mansel Davies & Sons	Active
	Treffgarne	Igneous	Various	Dormant
	Penlan	Shale	S Griffiths	Active
	Gilfach	Shale	Mrs G Davies	Dormant
	Pope Hill	Shale	Lawrence Bros	Active
	Tangiers Farm	Shale	Mason Bros	Active
	Blaencilgoed	Limestone	GD Harries	Active
	Cotts Lane	Shale	F Credland	Inactive
	Cronllwyn	Slate/Secondary	E Evans	Inactive
	Keeston Borrow Pit	Shale	A Belton	Active
	Dale Road Borrow Pit	Shale	Persimmon Homes	Active
Powys	Cribarth	Sandstone	Aggregate Industries Ltd	Active
	Gore	Sandstone	Lafarge Tarmac	Active
	Dolyhir/Strinds	Sandstone/Limestone	Lafarge Tarmac	Active
	Tan y Foel	Sandstone	HV Bowen & Sons	Active
	Tredomen	Sandstone	K Jones	Active
	Rhayader	Sandstone	Lafarge Tarmac	Inactive
	Criggion	Igneous	Hanson UK	Active
	Llanelwedd	Igneous	Hanson UK	Active
	Little Wernwilla	Sandstone	R Mills	Active
	Buttington Brickworks	Sandstone	Border Hardcore & Rockery Stone	Active
	Middletown	Igneous	Border Hardcore & Rockery Stone	Inactive
	Berwin Granite	Igneous	Powis Estate	Dormant
	Garreg	Igneous	Powis Estate	Dormant
	Caerfagu	Sand & Gravel	Caerfagu Products Ltd	Inactive
Rhondda Cynon Taf	Forest Wood (shared with Vale of Glamorgan)	Limestone	Hanson UK	Active
	Hendy	Limestone	Lafarge Tarmac	Active
	Craig yr Hesg	Sandstone	Hanson UK	Active
Swansea	Barland	Limestone	Cuddy Group	Inactive
	Swansea Docks	Marine Sand	Lafarge Tarmac	Active
	Swansea Docks	Marine Sand	Cemex UK Ltd	Active
Vale of Glamorgan	Aberthaw	Limestone	Lafarge Tarmac	Active
	Garwa Farm	Limestone	Lafarge Tarmac	Inactive

	Lithalun	Limestone	Hanson UK	Active
	Pantyffynnon	Limestone	Seth Hill & Son	Active
	Wenvoe	Limestone	Cemex UK Ltd	Inactive
	Forest Wood (shared with RCT)	Limestone	Hanson UK	Active
	Argoed Isha	Limestone	T Pritchard	Dormant
	Ewenny	Limestone	Lafarge Tarmac	Inactive
	Cnap Twt	Limestone	Duchy of Lancaster	Dormant
	Longlands	Limestone	Green Circle	Active
	Pant	Limestone	Lafarge Tarmac	Active
	Ruthin	Limestone	Lafarge Tarmac	Dormant
	St Andrews	Limestone	TJ Bowles	Dormant
	Barry Docks	Marine Sand	Cemex UK Ltd	Active
	Aberthaw Power Station	PFA/FBA/Secondary	RWE npower	Active
	Beaupre	Limestone	Unknown	Dormant

APPENDIX C

List of Secondary Aggregate Sites in South Wales

Cambrian Stone Ltd, Port Talbot Steel Works, Neath Port Talbot

Celsa UK, Celsa Works, East Moors Road, Cardiff, CF24 5NN

Civil & Marine Slag Cement Ltd, Rio Tinto Wharf, The Docks, Port Talbot, SA13 1RX

Civil & Marine Slag Cement Ltd, Llanwern Works, Newport

E Evans, Cronllwyn Quarry, Llanychaer, Pembrokeshire

Generation Aggregates, Aberthaw, Vale of Glamorgan

Mansel Davies & Son Ltd, Glogue Quarry, Glogue Pembrokeshire

APPENDIX D

List of Recycled Aggregate Producers in South Wales

A Lewis Skip Hire, Milfraen View, Blaenant Road, Nantyglo, Ebbw Vale, NP23 4PQ

Amber Services, The Recycling Centre, Willow Way, Dyffryn Business Park, Ystrad Mynach, Hengoed, CF82 7TR

Atlantic Recycling, Ty-To-Maen Farm, Newton Road, Rumney, Cardiff, CF3 2EJ

Bryn Group, Gelliargwellt Farm, Gelligaer, Hengoed, CF82 8FY

Carmarthenshire Recycling and Environmental Services, Cillefwr Industrial Estate, Carmarthen

CB Environmental Ltd, Cwm Nant Yard, Capel Bangor, Aberystwyth, Ceredigion, SY23 3LL

Construction Recyclate Management, Unit 7, Dyffryn Court, Riverside Business Park, Swansea Vale, Swansea, SA7 0AP

Cuddy Group, Francis House, Tank Farm Road, Llandarcy, Neath, SA10 6EN

Derwen Aggregates, Neath Abbey Wharf, Neath Abbey, Neath Port Talbot, SA10 6BL

GD Environmental Services Ltd , 19 East Bank Road, Felnex Industrial Estate, Newport, NP19 4PP

GD Environmental Services Ltd, Taybrite, Heol-Y-Bwlch, Bynea, Llanelli, SA14 9SU

Glass Tech Recycling, Unit 10, Tank Farm Road, Llandarcy, Neath, SA10 6EN

GLJ Recycling Ltd, Chapel Farm Industrial Estate, Cwmcarn, Newport, Gwent, NP11 7NL

Green Cycle, Unit 10, Ty-Verlon Industrial Estate, Cardiff Road, Barry, CF63 2BE

Greens Recycling, The Business Centre, Unit 28, Pontcynon Industrial Estate, Abercynon, CF45 4EP

Gwendraeth Valley Recycling Ltd, Carway Fawr Site Office, Cynheidre Colliery, Five Roads, Llanelli, Carmarthenshire, SA15 5YN

Hughes & John, New Croft Garage, Cresselly, Kilgetty, Pembrokeshire, SA68 0TU

Lafarge Tarmac Ltd, Hendy Quarry, School Rd, Miskin, CF72 8PG

Lawrence Brothers, Lawrence Landfill, Pope Hill, Johnston, Haverfordwest

LCC Wales Ltd, Unit R, Hirwaun Industrial Estate, Rhigos, Aberdare CF44 9UP

Neal Soil Suppliers Ltd, Ty-To-Maen Farm, Newton Road, Rumney, Cardiff, CF3 2EJ

Penyfan Processing & Recycling Ltd, Penyfan Leisure Park, Manmoel Rd, Manmoel, Blackwood, Gwent, NP12 0HY

Shillibiers, 43 Village Farm Industrial Estate, Pyle, CF33 6NU

Stenor Environmental Services, Burrows Road, Kings Dock, Swansea, SA1 8QT

TBS Skips, Plot 10, Waterston Industrial Estate, Milford Haven, Pembrokeshire

Tom Prichard Contracting Ltd, Castellau Fach Farm, Llantrisant, CF72 8LP

T. Richard Jones Ltd, Betws Industrial Park, Foundry Road, Ammanford, SA18 2LS

United Recycled Aggregates, Waterways House, Merthyr Road, Llanfoist, Abergavenny, NP7 9PE

The Woodstock Waste Disposal Unit 7B, Castle Way Severn Bridge Industrial Estate Portskewett Caldicot NP26 5PR

APPENDIX E

SWRAWP PUBLICATIONS

SWRAWP Annual Report 2004

SWRAWP Annual Report 2005

SWRAWP Annual Report 2006

SWRAWP Annual Report 2007

SWRAWP Annual Report 2008

Final RTS October 2008

SWRAWP Annual Report 2009

SWRAWP Annual Report 2010

SWRAWP Annual Report 2011

SWRAWP Annual Report 2012