# WARWICKSHIRE DRAFT LOCAL AGGREGATE ASSESSMENT 2014

Warwickshire County Council

Working for Warwickshire

# DRAFT WARWICKSHIRE LOCAL AGGREGATE ASSESSMENT

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## 1.0 INTRODUCTION

Sand and gravel and crushed rock are the major primary aggregates which have supplied the construction industry in the county and the West Midlands region for many years and have also helped to support manufacturing, infrastructure, house building and sustainable economic growth.

Historically, there has always been a requirement to plan for steady and adequate supply of aggregates. The national Planning Policy Framework (NPPF) published in March 2012 has introduced a requirement to produce Local Aggregate Assessments (LAAs). The NPPF spells out the requirements as to what should be included in an LAA. Para 145 of the NPPF states that it should be based on a 10 year rolling average of sales data and other relevant local information and an assessment of all supply options (including marine dredged and recycled sources).

The NPPF also states that advice should be sought and taken from the Aggregate Working Party[1] (which is a technical advisory body) when preparing an LAA and account should also be taken of the National and Sub-National Guidelines which should be used when planning for the future demand for a supply of aggregates[2]. The draft version of this report will therefore be taken to the West Midlands Aggregate Working Party (WMAWP) for comment from the bodies on the working group which comprises a mix of other mineral planning authorities, industry representatives and statutory undertakers such as the Environment Agency. The members of the Aggregate Working Party are set out in Appendix 1.

In addition to the NPPF this LAA been produced with reference to the following documents:

Guidance on the Managed Aggregate Supply System (DCLG – 2012)

Planning Practice Guidance –Minerals (DCLG- 2014)

## 2.0 BACKGROUND TO THE LAA AND THE MINERALS PLAN

Work on the Minerals Plan has restarted following the successful adoption of the Waste Core Strategy[3] in July 2013. Previously, the emerging Minerals Plan had progressed as far as the Revised Spatial Options consultation in 2009. All the evidence and the draft preferred spatial option and policy principles will be further developed and will now be taken forward to the production of a Preferred Option

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[1] West Midlands Regional Aggregate Working Party until 2012 (now renamed the West Midlands Aggregate Working Party from 2012 onwards)

[2] The latest guidelines are the National and Regional Guidelines for Aggregate Provision in England 2005-2020 published in June 2009 (CLG). These will replace the current working Guidelines 2001-2016. The latest national figures when apportioned at a sub-regional level were not agreed by all members of the Aggregate Working Party.

[3] Warwickshire Waste Core Strategy was adopted on 7th July 2013

Document with Development Management Policies ready for consultation in late Summer 2014. The LAA will underpin the Minerals Plan by setting out the parameters of how much aggregate will be required to plan for over the plan period. This will impact on how many sites might be required for aggregate extraction in the county until 2030.

Prior to starting work on the new minerals plan, the saved policies of the previous Minerals Plan for Warwickshire adopted in 1995 have been in place. Only a handful of the 9 allocated Preferred Areas and the 11 Areas of Search were ever fully implemented.

## 3.0 SOURCES OF AGGREGATES IN WARWICKSHIRE

### 3.1 Sand and Gravel

Sand and gravel extracted from the Quaternary deposits have been extensively exploited and traditionally have provided an important source of aggregate for asphalt and concrete. Extraction has focussed on the river terrace deposits along the Tame and Avon along with some pre-glacial deposits around Warwick and Coventry. Glaciofluvial sand and gravel deposits also represent a valuable resource, particularly in the east of the county around Rugby and in the north west of the county around Coleshill.

Where sand and gravel is situated in the county there are generally few physical constraints. The Cotswold Area of Outstanding Natural Beauty is situated in the very south of the county, whereas the sand and gravel resource is situated north of this area. Although much of the western side of the county is in the Green Belt, minerals is not an inappropriate use in the Green Belt provided minerals operations preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. Therefore, apart from local constraints such as ecological and archaeological for instance, there are no major physical constraints to stop future sites coming forward.

In the past the pattern of sites in the county reflected this description; see Fig. 1 below and corresponding site information contained in Table 1.

*Figure 1: Sand and Gravel - Geology and Sites in Warwickshire*

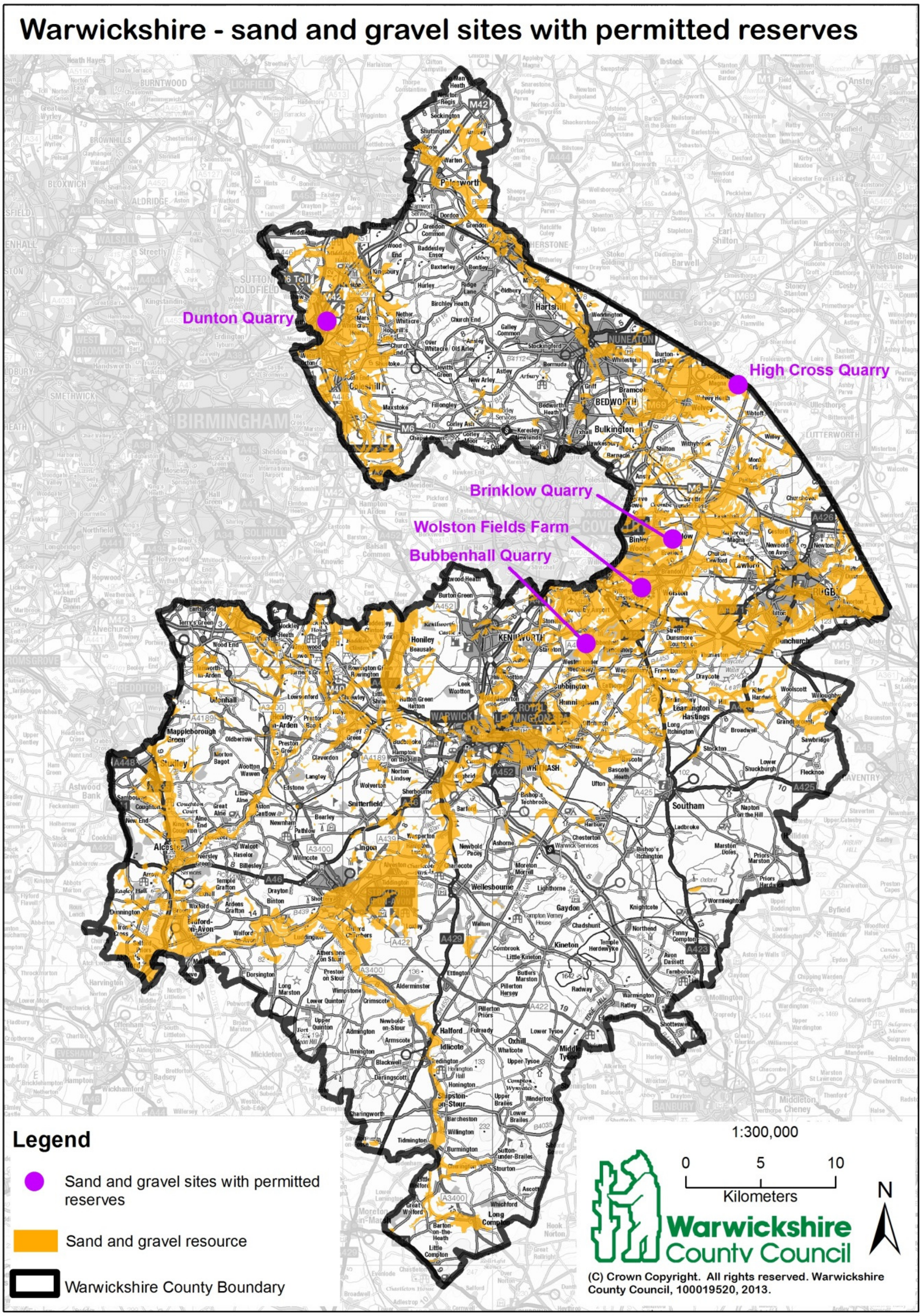


*Table 1 Sand and Gravel sites in Warwickshire with reserves in 2014*

| Site | Operator | Active? | Comments |
|---|---|---|---|
| Brinklow Quarry | Aston Family | Yes | Ongoing production |
| Bubbenhall | Hansons/ Smith's Concrete | Yes | Limited reserves left – site will be used to process material from Wolston Fields. |
| Wolston Fields | Hansons /Smith's Concrete | No | Approved in 2013- yet to start on site |
| High Cross | KSD | No | Dormant site |
| Dunton Landfill | KSD | Yes for landfill not mineral extraction | Small reserve maintained |

In recent years several sites have closed at around the same time leaving only one site currently producing any sand and gravel in the county at Brinklow, east of Coventry. A new permission has been granted at Wolston Fields in 2013[4] which will use the existing plant at Bubbenhall to process the excavated material. There are some scattered permitted reserves including a significant reserve at High Cross Quarry in the north east of the county, but this is not currently active. Quarries at Coleshill (2007), Middleton Hall (2011) Marsh Farm (2012), Bubbenhall (2013) and Ling Hall (2012) have all ceased production in recent years and not been replaced with new sites. This has led to declining sales a low landbank of around 4 years (Table 3). The county's sand and gravel landbank is worked out by dividing the county's total permitted reserve by its annual apportionment. The apportionment is calculated by subdividing national guideline figures through the sub-national Aggregate Working Parties for each mineral planning authority. The current guidelines have established a figure of 1.043 million tonnes for Warwickshire until 2016[5]. More recent guidelines have been produced but these were not agreed by the West Midlands AWP.

Table 2 and Fig. 4 show very clearly that sales of sand and gravel have only once met the current apportionment in the previous ten year period up to 2012. In particular the critical figures for the last three years[6] show sales have reduced to just

[4] Wolston Fields Farm, Wolston Lane, Wolston, Warwickshire Application no RBC/12CM018 Approved 06-Feb-2014

[5] National and Regional Guidelines for Aggregates Provision in England: 2001 – 2016 (ODPM 2003)

[6] Mineral Practice Guidance notes 2014 state that the last 3 years in particular should be looked at to identify the general trend of demand (CLG 2014)

over one third of the apportionment, with few new deliverable sites in the pipeline for the future.

*Table 2: Warwickshire Sand and Gravel Sales 2003-2012 (million tonnes)*

| Year | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Ave |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sales | 0.84 | 0.85 | 0.90 | 0.98 | 1.19 | 0.85 | 0.75 | 0.33 | 0.42 | 0.40 | 0.751 |
| Appt | 1.043 | 1.043 | 1.043 | 1.043 | 1.043 | 1.043 | 1.043 | 1.043 | 1.043 | 1.043 | 1.043 |
| Appt +/- | -0.2 | -0.19 | -0.14 | -0.06 | +0.15 | -0.19 | -0.29 | -0.71 | -0.62 | -0.64 | -0.27 |

Source – Regional Aggregate Working Party Reports

*Figure 2: Sand and Gravel sales in relation to existing apportionment*

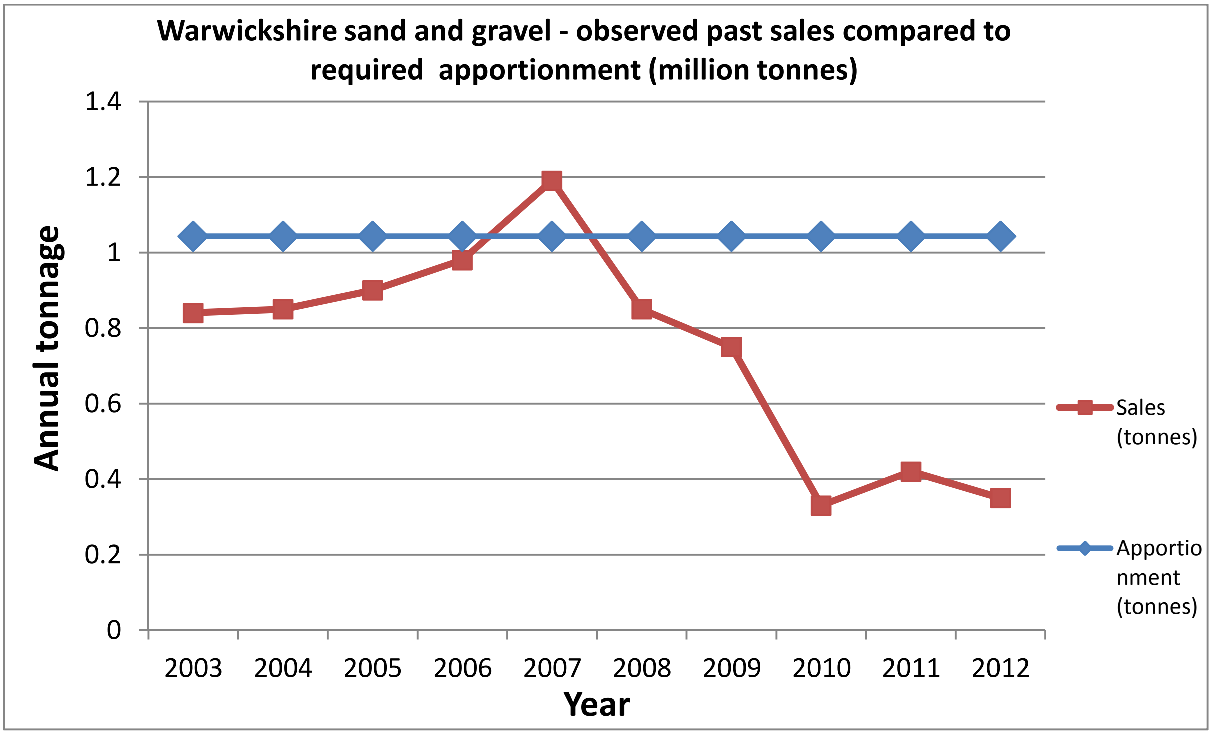



*Table 3: Sand and gravel Permitted Reserves and Landbank in Warwickshire 2003-2012 (million tonnes)*

| Year | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Ave |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Reserves | 9.30 | 8.45 | 8.50 | 6.20 | 5.00 | 4.76 | 3.95 | 3.12 | 4.51 | 4.33 | 5.81 |
| Landbank | 8.9 | 8.1 | 8.1` | 5.9 | 4.8 | 4.56 | 3.78 | 2.99 | 4.33 | 4.15 | 5.56 |

Source – Regional Aggregate Working Party Reports

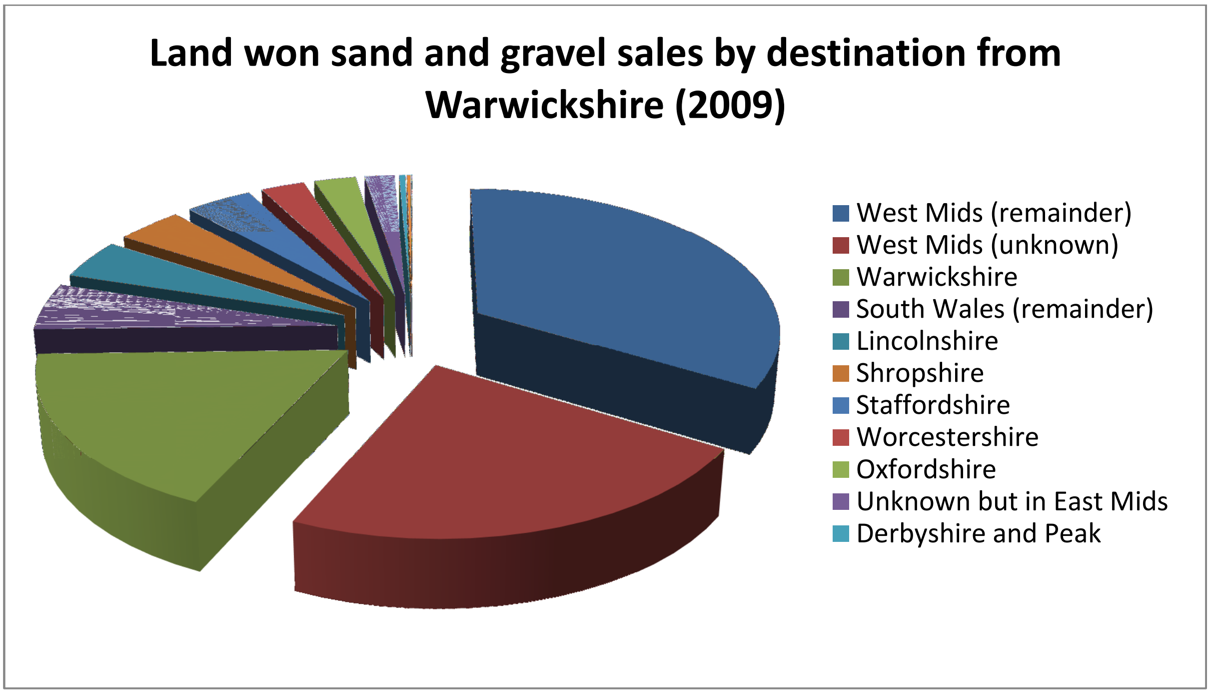
The lack of new sites coming forward in recent years may be due to a number of factors including the low number of new construction projects over the period of the recession since 2008, the consolidation of the aggregates industry where there are now a very few large global companies with less incentive to keep a large number of sites open at the same time and finally the slow Local Plan process has created uncertainty and possibly slowed down investment in the aggregates sector. Another factor could be that the quality of the resource in Warwickshire is not considered good enough to be commercially viable in some cases.

Warwickshire County Council has carried out another "Request for Sites" (only for sand and gravel) as part of the Minerals Plan process. The findings of the LAA will determine how many new sand and gravel sites are needed in Warwickshire over the plan period.

**3.11 Sand and Gravel Exports (Sales)**

The results of the 2009 Collation of the Aggregate Minerals Survey carried out through the British Geological Survey[7] show that only 134,000 tonnes (18%) of sand and gravel sold in Warwickshire was consumed in the county, whereas 509,000 tonnes (68%) was used in the West Midlands and 69,000 tonnes (9%) was used elsewhere outside the West Midlands region. The destinations and indicative breakdown of sales are provided in Fig. 3 below.

*Figure 3: Sand and Gravel Sales by destination from Warwickshire 2009*

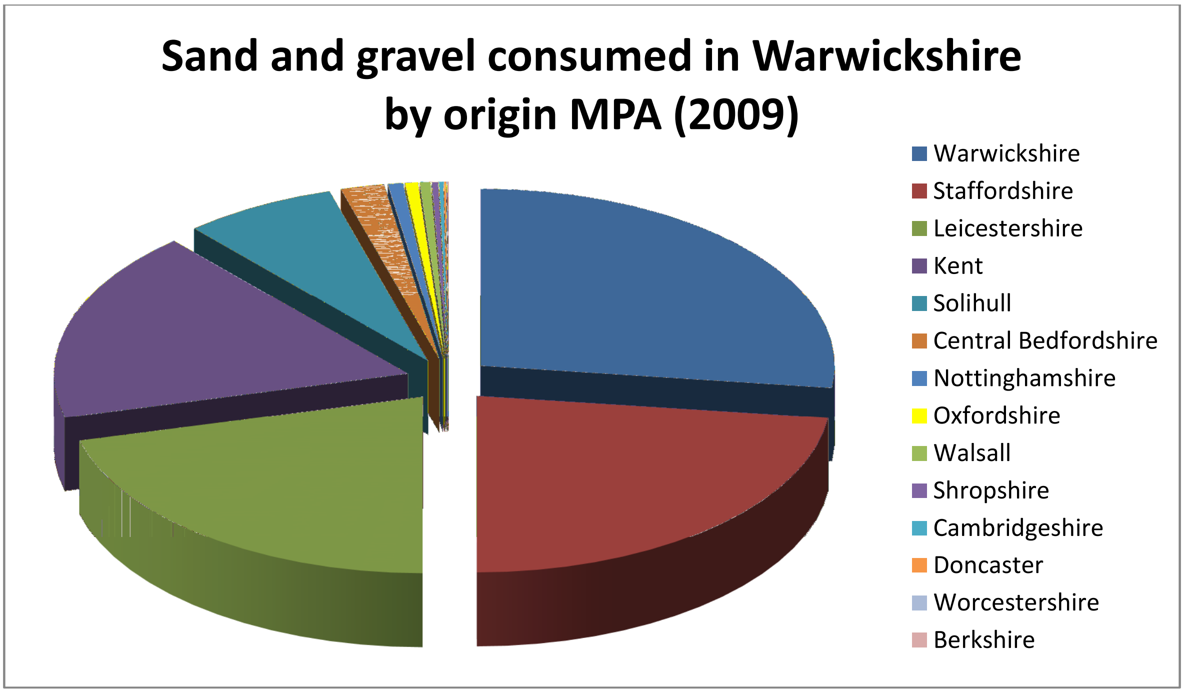



[7] Collation of the results of the 2009 aggregate minerals survey for England and Wales (Communities and Local Government, British Geological Survey -National Environment Research Council and the Welsh Assembly Government).

## 3.12 Sand and Gravel Imports

In terms of imports, Warwickshire imported 359,000 tonnes of sand and gravel in 2009. Results of the Collation of the Aggregate Minerals 2009 BGS Survey show that of the total sand and gravel consumed within the county, 27% was supplied by Warwickshire itself. Other major exporters into Warwickshire include Staffordshire and Leicestershire which each supplied between 20-25% and Kent which supplied 15-20%. Solihull also supplied between 5-10%. Very small amounts (1% or below) were supplied form Nottinghamshire, Oxfordshire, Walsall, Shropshire, Cambridgeshire, Doncaster, Worcestershire and Berkshire. The origin MPAs and indicative breakdown of imports are provided in Fig. 4 below

*Figure 4: Sand and Gravel Imports consumed in Warwickshire 2009*




Given that the survey showed that Warwickshire produced 750,000 tonnes and imported 359,000 tonnes in 2009 then the county has generally been a net exporter of sand and gravel.

## 3.2 Crushed Rock

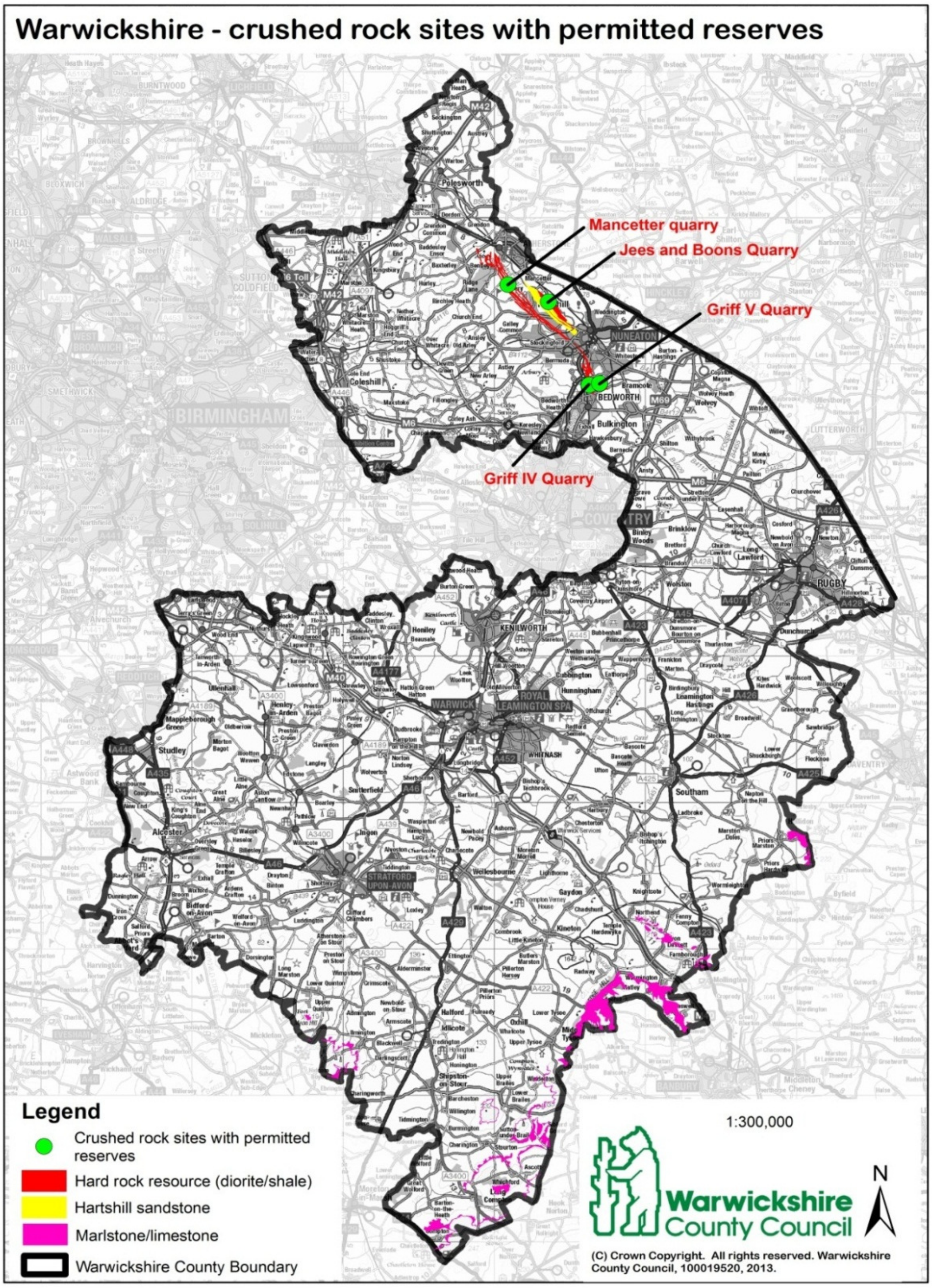
There is a regionally important resource of hard rock which is restricted to the outcrop known as the Nuneaton Inlier, containing some Precambrian to Ordovician age rocks. They form a narrow outcrop of hard rock which extends from Bedworth to Nuneaton and Atherstone[8] and these provide one of the few sources of high strength hard rock, known as Diorite, for crushed rock aggregates in central England. These

[8] Warwickshire Strategic Stone Study – A Building Stone Atlas of Warwickshire published 2011 (English Heritage)

rocks have a high polished stone value (PSV) content and are used mainly for roadstone and rail ballast.

There is now only one active crushed rock quarry in Warwickshire near Atherstone at Mancetter, although there are other reserves which may not be economically viable to extract. These are at Griff (V) and Jees and Boon. The quarries have been previously worked but have been left dormant in recent years.

*Figure 5: Crushed Rock – Geology and Sites in Warwickshire*



At the same time the permitted reserves for the county appear relatively healthy (see Table 4) below. A readjustment was made in 2010 as reserves that had been reported previously as available were no longer considered viable[9]. Further discussion with the industry is being carried out to reassess the reserves as it appears that there may have been recent changes in land ownership of crushed rock quarries which may impact on the quantity of viable reserves available in the future. Permitted reserves figures are provided by the mineral operators for each site and then added together to provide a final figure for each county. The landbank of the county's crushed rock is given in years and is worked out by dividing the county's total permitted reserve by its annual apportionment. The county should aim to hold a 10 year landbank for crushed rock. The current landbank at December 2012 stands at 26.5 million tonnes based on figures reported by the minerals industry.

*Table 4: Crushed Rock – 10 year Permitted Reserves and Landbank for Warwickshire*

| **Year** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** |
|---|---|---|---|---|---|---|---|---|---|---|
| Reserves (Million tonnes) | 31.5 | 31.4 | 29.2 | 30.8 | 30.2 | 29.91 | 29.1 | 21.6 | 21.0 | 26.5 |
| Landbank Years) | 53.12 | 52.95 | 33.2 | 35 | 34.34 | 34 | 33.1 | 24.5 | 23.86 | 30.11 |

Source – Regional Aggregate Working Party Reports

*Table 5: Crushed Rock Sites in Warwickshire with reserves 2014*

| **Site** | **Operator** | **Aggregate** | **Active?** |
|---|---|---|---|
| Mancetter | Tarmac/ Lafarge | Diorite/Shale | Yes |
| Griff IV | Hansons/ MQP | Diorite | No |
| Griff V | Hansons /MQP | Diorite | No |
| Jees and Boon | MQP | Diorite | No |

Source – Regional Aggregate Working Party Reports

## 3.21 Crushed Rock Sales (Exports)

There is an issue with reporting crushed rock sales figures due to a requirement for confidentiality where there are less than three operational sites in one county. This is due to long standing arrangements between the industry and government to protect commercial interests of mineral operators. This means that when sales for crushed rock are reported in Warwickshire the figures are usually added to those of another county, which in this case is Staffordshire. This is required so that industry competitors do not know the amount produced by any single quarry. Therefore the figures shown below in Table 6 have been combined with those of Staffordshire. Warwickshire has requested a meeting with industry representatives to see whether any confidentiality restrictions can be removed.

[9] West Midlands Regional Aggregate Working Party Report 2010

The sales of hard rock over the past ten years are well below the regional apportionment and have dropped to a particularly low level in recent years since 2008, mainly due to the recession and an associated lack of demand. Some of the crushed rock production may have been partly replaced by increasing recycled aggregate production in the county. The recycling industry produces a Type 1 stone from recycled aggregate which accords with the WRAP Aggregates Protocol[10]. This may also have replaced some of the crushed rock imports from other counties.

It appears that the lowest point in production may now have been reached and the declining trend in crushed rock sales appears to have been halted.

The current crushed rock apportionment for Warwickshire is 0.88mt[11]. When added to the figure for Staffordshire (1.395mt) the figures are well below what the combined apportionment would be and are falling further (see Table 6).

*Table 6: Crushed Rock sales in Warwickshire and Staffordshire 2003-2012 (million tonnes)*

| Year | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Sales | 0.70 | 0.66 | 1.4 | 1.4 | 1.3 | 0.9 | 1.0 | 0.6 | 0.48 | 0.525 |
| Warks App't | 0.593 | 0.593 | 0.593 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Staffs App't | 1.395 | 1.395 | 1.395 | 1.395 | 1.395 | 1.395 | 1.395 | 1.395 | 1.395 | 1.395 |

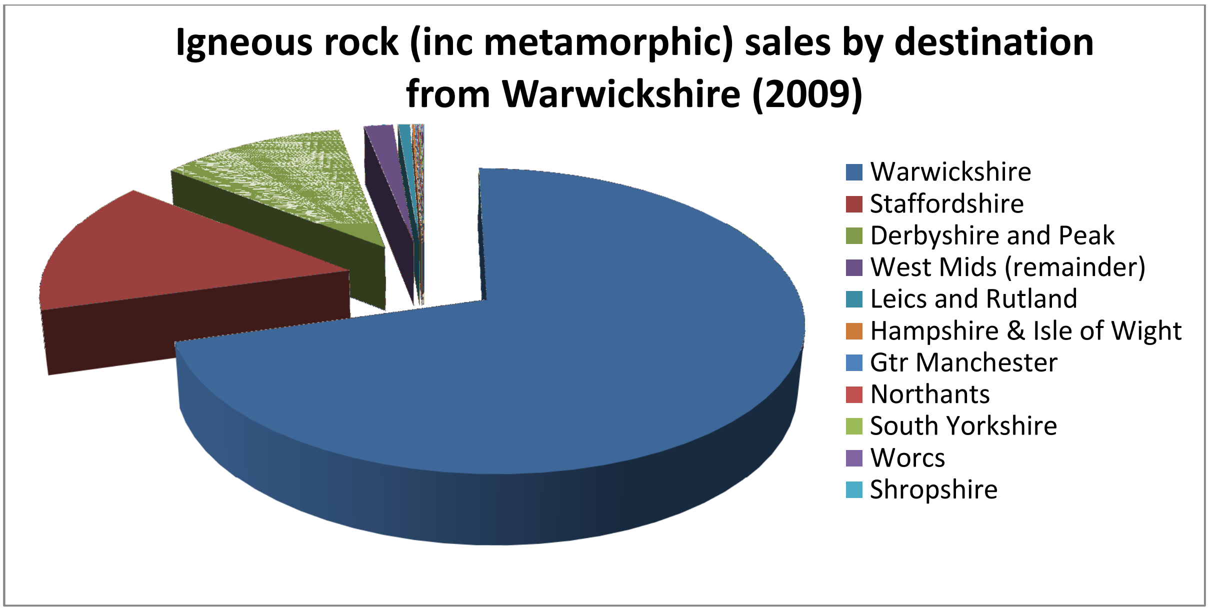
Source – Regional Aggregate Working Party Reports

Warwickshire's sales of crushed rock are generally for the local market. From the results of the Collation of the Aggregate Minerals 2009 BGS Survey, 71% of crushed rock produced in Warwickshire was used in the county. The remainder was exported to other parts of the West Midlands region. When the 2009 Survey took place there were two crushed rock sites in production. There is no graph of actual sales due to the confidentiality issue mentioned above. However, the proportions of material exported can be shown (See Fig. 7).

[10] Originally it was known as the "Quality Protocol for the production of aggregates from inert waste in 2004 but is now known as the "Quality Protocol: Aggregates from inert waste. End of Waste Criteria for the production of aggregates from inert waste" produced by WRAP, the Environment Agency, the Welsh Assembly Government and the Northern Ireland Environment Agency.

[11] Figure based on the National and Regional Guidelines for Aggregate Provision in England 2001-2016 published in June 2003 (CLG)

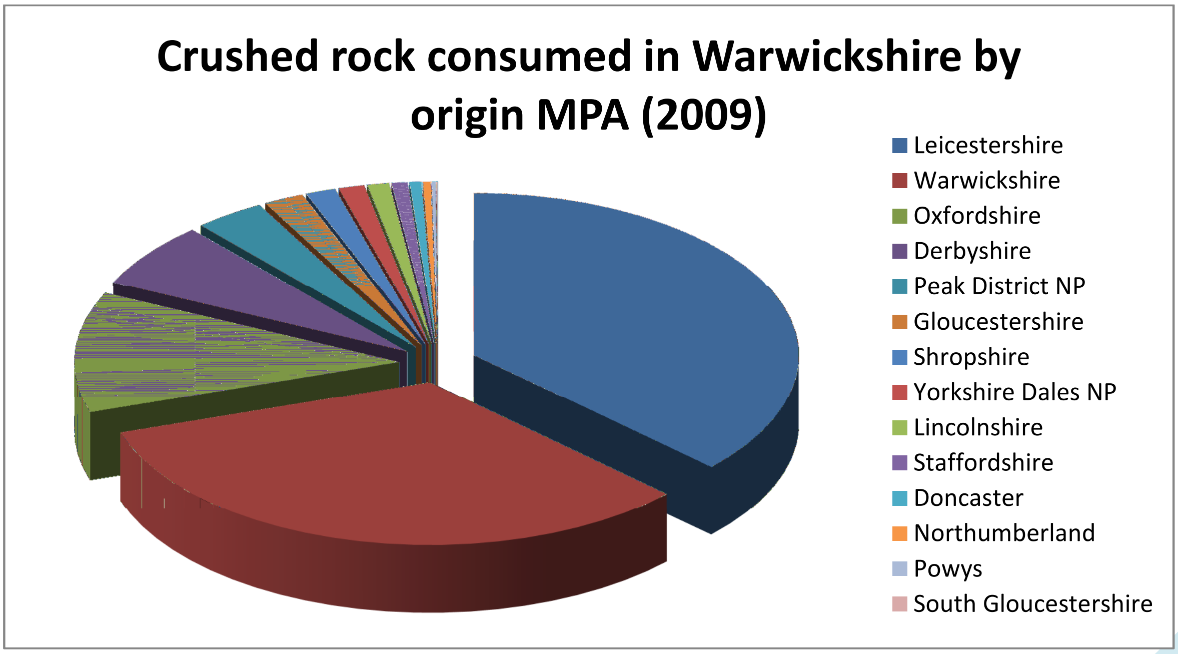
*Figure 6: Igneous Rock Sales from Warwickshire 2009*




**3.22 Crushed Rock Imports**

In regard to crushed rock imported in to Warwickshire the total amount was 448,753 tonnes in 2009. Leicestershire supplied between 35-40% Warwickshire supplied 33%, Oxfordshire supplied 10-15% and Derbyshire supplied between 5-10%. In descending order, the Peak District National Park, Gloucestershire, Shropshire, Yorkshire Dales National Park and Lincolnshire supplied between 1-5%. Staffordshire, Doncaster, Northumberland and Powys each supplied less than 1% in descending order. South Gloucestershire was also reported to have supplied an extremely small amount.

*Figure 7: Crushed Rock consumed in Warwickshire 2009*



Therefore, whilst Warwickshire imported 449,000 tonnes of crushed rock, consumption in total was 667,000 tones.

In summary therefore, in 2009 Warwickshire was a net importer of crushed rock. It is unlikely that this situation will have changed since 2009.

## 3.3 Recycled and Secondary Aggregates

### 3.31 Recycled Aggregates:

Recycled aggregates comprise construction, demolition and excavation waste such as brick, stone, concrete and asphalt which have been reprocessed to provide products for the construction industry to re-use. Traditionally much of the material was recycled by mobile plant on construction sites but recently there has been an increase in the number of new permanent sites associated with live or exhausted quarries. This is certainly the case in Warwickshire with several recent permissions at former quarries. It is apparent that recycling of aggregates is becoming as important in the county as the production of primary aggregate production.

Currently there are 9 recycled aggregates sites in the county; these are set out below with their permitted capacities.

*Table 7: Aggregate recycling sites in the county*

| Site number | Site name | Operator | Permitted Capacity (tpa) | Date of permission | Time Limited? |
|---|---|---|---|---|---|
| 1 | ABS, Tuttle Hill, Nuneaton | ABS | Unlimited | October 1992 | No |
| 2 | Hammonds Bayton Road, Bedworth | Hammonds | 30,250 | Originally approved in 1999 | No |
| 3 | Brinklow Quarry, Highwood Farm, Brinklow | Mrs J Aston | 45,000 | February 2007 | Required to cease at end of the mineral operation |
| 4 | Canalside Yard, Napton | Jordan Contracts Midlands Ltd | Unlimited | Sept 2004 | No |
| 5 | Coleshill Quarry, Coleshill | Cemex/ Weavers Hill Aggregates | 90,000 | Sept 2011 (Renewal of permission) | 20.09.14 |
| 6 | Dunton Quarry, Curdworth | KSD | 500,000* | May 2012 (Renewal of permission) | 31.12.21 |
| 7 | MAC Griff Clara | MAC Contracting | 75,000 | July 2012 | No |
| 8 | Griff IV | WCL Quarries | 25,000 | October 2012 | 31.12.32 |

| | | | | | |
|---|---|---|---|---|---|
| | Quarry, Nuneaton | Ltd | | (subject to S106) | |
| 9 | Middleton Hall Quarry, | Parkstone /Hanson Aggregates | 65,000 | May 2012 | 31.12.22 |

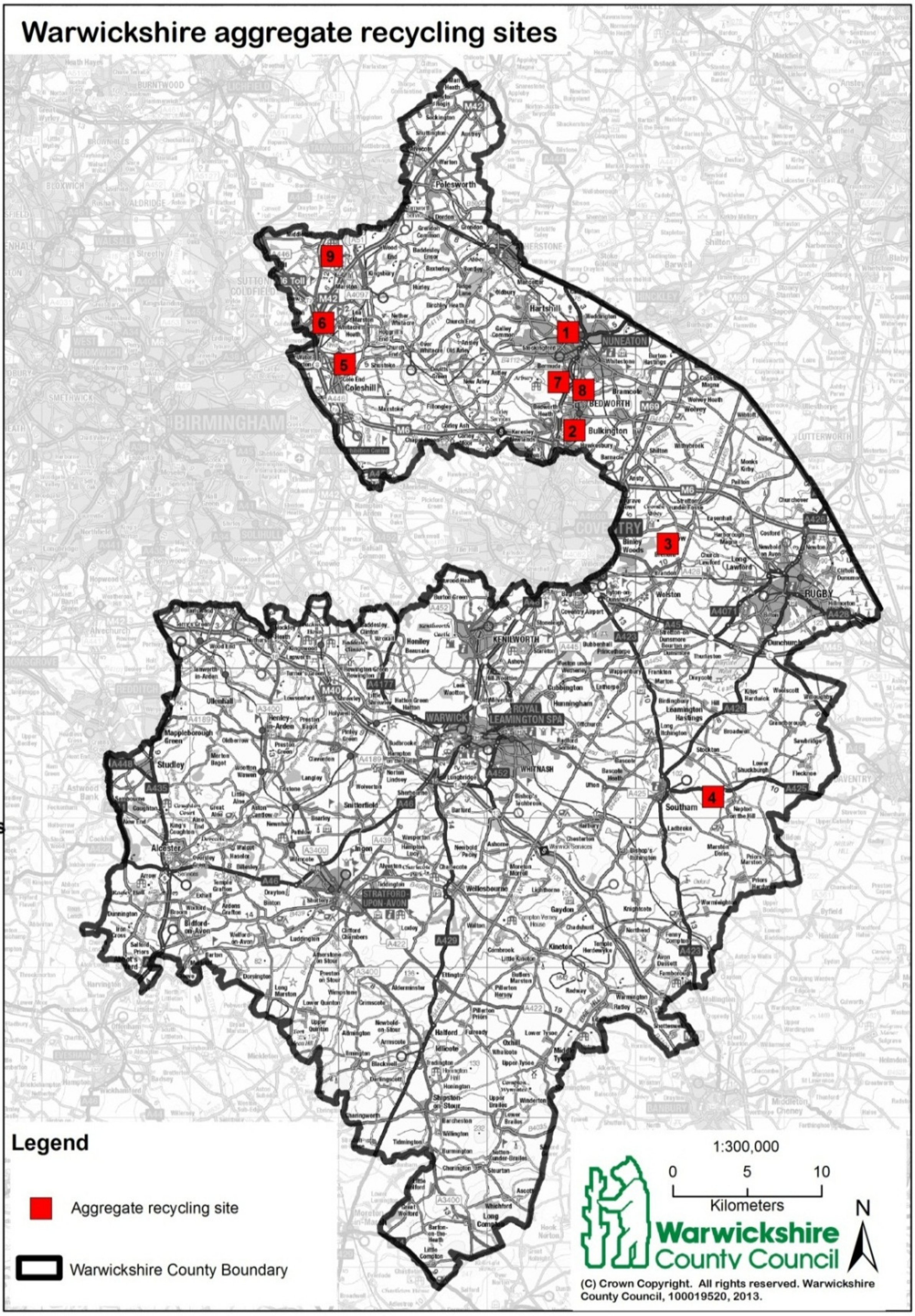
*Unlimited capacity for planning. Figure refers to EA Licenses.

In recent years C and D recycling figures have not been fully monitored because of the difficulty in getting returns from operators and the number of temporary sites with mobile plant. In addition there are also issues regarding the accuracy of the returns and the extent of the number of exempt sites.

Monitoring work carried out for the adopted Waste Core Strategy looked at permitted capacity at such sites and when added to recent permissions gives an approximate total of 830,250 tonnes of capacity per annum. However, for 2012 the AWP survey has tried harder to focus on recycled and secondary elements and from 10 monitoring forms sent out to operators there have been a full set of returns sent back, which have produced a reported total of 524,148 tonnes of construction and demolition waste material recycled for 2012. Recent permissions at Griff IV Quarry (a former hard rock quarry), Griff Clara and at the former Middleton Hall Quarry have added 100,000 tonnes of capacity since the start of 2012. In addition a recent permission at Dunton Quarry (a former sand and gravel quarry) has secured the lifespan of the county’s largest recycling site for a further 10 years.

Fig. 9 below shows where the major materials recycling facilities are located in the county.

*Figure 8: Warwickshire Aggregate Recycling Sites*



3.32 C and D Waste Arisings

Work carried out for the Warwickshire Waste Core Strategy adopted in July 2013 identified, through the EA's Waste Data Interrogator that, 454,926 tonnes of inert/C&D type waste arose in Warwickshire, of which 115,840 tonnes was classified as SOC2 - 'Construction and Demolition wastes'. The Interrogator also showed that 679,038 tonnes of inert/C&D type waste was managed at Warwickshire facilities, of which 139,945 was classified as SOC2- 'Construction and Demolition wastes'.

WCC set out its preferred approach for calculating C&D waste projections over the plan period from several methodologies and concluded the most robust methodology was the Scott Wilson Landfill Capacity Update Report (June 2009) - Scenario 1 data as the most up-to-date arisings baseline data (i.e. Capita Symonds 2005 data), and its associated development index growth scenarios as it took in to account housing growth unlike some other options. The figures revealed a decline in C and D arisings from 890,378 tonnes in 2011 down to 801,158 tonnes by the end of the plan period.

*Table 8: Warwickshire Projected C and D Waste Arisings 2010-2031*

WMRA/Scott Wilson Landfill Capacity Update report - June 2009 (Scenario 1)

| | 2010/11 | 2015/16 | 2020/21 | 2030/31 | Cumulative total |
|---|---|---|---|---|---|
| Warwickshire | 890,378 | 816,727 | 808,530 | 801,158 | 20,022,653 |

*Source: Appendix C – WMRA/Scott Wilson Landfill Capacity Update Report – June 2009*[12]

It was estimated that to meet the revised EU Waste Framework target of 70% of non-hazardous construction and demolition waste (excluding naturally occurring materials) to be recovered by 2020, approximately 571,708 tpa of C&D treatment capacity would be required. Warwickshire, taking in to account potential loss of some temporary permitted capacity at some stage over the plan period, is still in a good position to exceed this target substantially throughout the plan period and can offset this against the trend in reduction of primary aggregate production. When potential exempt sites are added to the equation it is clear that there will be even greater capacity for C and D recycling to contribute to aggregate production in the county.

Therefore it is evident that construction and demolition waste recycling is a growing industry in Warwickshire and is becoming as important as the production of primary aggregates in the county.

[12]Landfill Capacity Update report - June 2009 (Scenario 1) WMRA/Scott Wilson

3.33 Secondary Aggregates:

Secondary aggregates are aggregates which derive from the residue from various types of industrial process such as incinerator bottom ash. They also include recycled glass which can also be added to primary aggregate.

The main industrial process from which secondary aggregates can be produced in Warwickshire is via the cement production process at Rugby Cement Works. The residue from the process is cement kiln dust (CKD). In previous times the dust has always been landfilled but it can also be used for construction purposes. However, in the last year or two the CKD has been sent onwards to a recycling facility where it is used to make agricultural fertiliser.

Incinerator bottom ash is used as secondary aggregate and mixed in with recycled aggregates at Dunton Landfill in North Warwickshire. Recycled glass is also used a secondary aggregate when mixed with other materials. This process is undertaken at Brinklow Quarry near Coventry in Rugby Borough.

3.34 Marine Aggregates:

The NPPF states that MPA's should take in to account all supply options including marine aggregates. There is no evidence that Warwickshire receives any marine aggregates. The Collation of the Aggregate Minerals Survey 2009 revealed that there were no marine aggregates reported at that time. Being landlocked and not accessible by river from the coast, it is unsurprising that Warwickshire has no reliance on marine aggregates.

## 4.0 WARWICKSHIRE FUTURE AGGREGATES DEMAND

Future Demand

Consumption of aggregates was 667,000 tonnes for crushed rock and 493 000 tonnes for sand and gravel in 2009.

The main end uses for aggregates are for the construction of housing and infrastructure as well as industrial and commercial building. Large scale development is proposed in all of the Districts and Boroughs in the county including major developments at the Masts site in Rugby and a potential new settlement at Gaydon near the M40 junction 12 in Stratford District. There are also large-scale developments proposed to the south of Leamington, the north of Nuneaton and to the south of Coventry at the Warwick Gateway site. Recently, a Strategic Housing Market Assessment (SHMA)[13] has been carried out for most of the Boroughs and Districts in the county along with Coventry City Council. This will identify the total number of dwellings required for each authority.

[13] Coventry and Warwickshire Joint Strategic Housing Market Assessment 2014 - G L Hearn

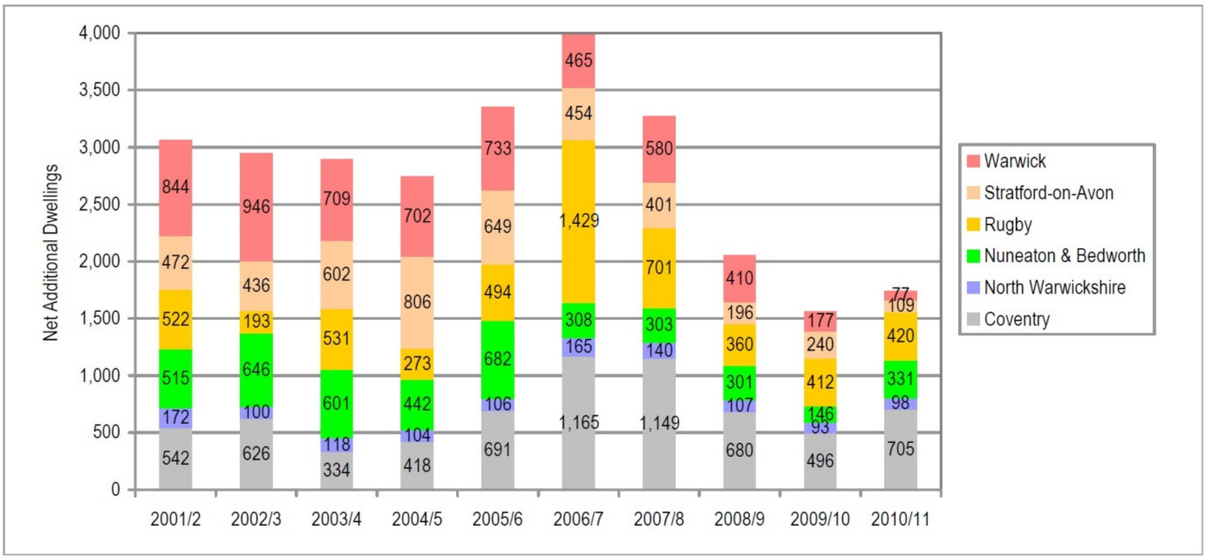
Nationally important projects in Warwickshire include the Government's High Speed Rail 2 (HS2) which is proposed to run through the county from south to north. The construction of HS2 will place demands on aggregates but at the current time WCC has been informed that all the sand and gravel for the construction project will be sourced from quarries predominantly in the south east[14]. If this position changes then the overall LAA figures need to be re-assessed.

Housing Needs in Warwickshire

The main factor affecting the quantity of minerals to be supplied is construction and in particular the construction of new housing and its associated infrastructure. Until recently there has been much uncertainty about housing numbers for each district in Warwickshire.

Over the last few years since the recession started in 2007 the number of houses built in the sub-region has declined. The situation has been exacerbated with the housing moratoria in Warwick and Stratford Districts. This is evident from the pattern shown in Fig 10. The graph also reflects very well the peaks and troughs of the sand and gravel sales graph previously set out in Fig. 2.

*Figure 9: Warwickshire and Coventry net housing completions – 2001/2-2010/11*




*Source: GL Hearn 'Coventry and Warwickshire Joint Strategic Housing Market Assessment – Final Report' (November 2013)*

Currently, only the Rugby Core Strategy has been adopted. However, Local authorities in Warwickshire and Coventry have jointly commissioned the preparation of a Joint Strategic Housing Market Assessment (SHMA) for their functional housing market area. The commissioning authorities were:

• Rugby Borough Council;

[14] Meeting between HS2, Mott McDonald Consultants and Warwickshire Officers dated 13.03.13

• Coventry City Council;

• Warwick District Council;

• North Warwickshire Borough Council;

• Nuneaton & Bedworth Borough Council.

Whilst Stratford District was not involved in the commissioning, figures were produced which give a broad indication of how much housing it will be required to provide over its plan period.

The purpose of the SHMA is to guide, inform and support the development of planning and housing policies and provides the evidence base for the development of local plans and core strategies. In particular it seeks to explain:

• how many homes might need to be developed in the future;

• what mix of homes might be needed;

• the housing needs of specific groups within the population.

The housing figures that were produced below in tables are based on the Government's 2011 Household Projections[15]. The figures from the Regional Spatial Strategy – Phase 2 Revision Preferred Option are also provided in Table 9 for comparison.

Housing Figures

*Table 9: Summary of proposed housing in Coventry/Warwickshire (original housing numbers based on the Regional Spatial Strategy Phase 2 Revision Figures).*

| | Plan Period | Housing numbers proposed | Houses per annum |
|---|---|---|---|
| Coventry | 2011 - 2028 | 11,373 | 669 |
| North Warwickshire Borough Council | 2006 - 2028 | 3,800 | 173 |
| Nuneaton and Bedworth Borough Council | 2010 - 2028 | 7,900 | 439 |
| Rugby Borough Council | 2006 - 2026 | 10,800 | 540 |
| Stratford District Council | 2008 - 2028 | 9,500 | 475 |
| Warwick District Council | 2011 - 2029 | 12,300 | 683 |

[15] 2011 Household Projections – Communities and Local Government

*Table 10: Coventry and Warwickshire Strategic Housing Market Assessment (SHMA) figures 2013 - Initial conclusions on housing need per annum based on demographic & economic evidence 2011-2031*

| Local Authority | Minimum | Assessed need based on demographic & economic evidence |
|---|---|---|
| Coventry | 1,040 | 1,180 |
| North Warwickshire Borough Council | 150 | 175 |
| Nuneaton & Bedworth Borough Council | 430 | 495 |
| Rugby Borough Council | 595 | 660 |
| Stratford District Council | 480 | 570 |
| Warwick District Council | 660 | 720 |

## Employment Requirements in Warwickshire

Warwickshire Boroughs and Districts along with Coventry City Council are currently undertaking, in conjunction with the County Council, an Employment Land Review[16] which will set out the requirements for each individual authority in the sub-region. Work had previously been undertaken by the authorities individually but no agreement had been made on sub-regional capacity. Some large employment schemes are in the pipeline which will add to demands on aggregate supply. In addition to the requirements for each Borough and District in the county, Warwick District Council has received a planning application for a major new Technology and Manufacturing / Distribution Park on land around Coventry airport. This proposal is known as the "Coventry & Warwickshire Gateway".

The application has been submitted by the Coventry & Warwickshire Development Partnership and is seeking planning permission to build on two areas of land (totalling 300 hectares (741 acres) to the north, east and south of Coventry airport. If approved, the Coventry & Warwickshire Gateway could provide up to 10,000 new jobs.

Once the Warwickshire Employment Land Review has been completed a summary of the findings will be incorporated into this report.

[16] Warwickshire Employment Land Review – February 2014

## 5.0 WARWICKSHIRE'S FUTURE AGGREGATES ASSESSMENT

Government guidance requires that LAAs should include:

- a forecast of the demand for aggregates based on the average of 10 years sales data and other relevant local information;
- analysis of all aggregate supply options as indicated by landbanks, mineral plan allocations and capacity data e.g marine licences for marine aggregate extraction and potential throughputs from wharves. The analysis should be informed by planning information, the aggregate industry and other bodies such as local enterprise partnerships; and
- an assessment of the balance between demand and supply, and the economic and environmental opportunities and constraints that might influence the situation. It should detail if there is a shortage or a surplus of supply and if the former how this is being addressed. Table 11 below summarises the position in the county with aggregate options for future supply.

Table 11 sets out the most up to date 10 year sales data for crushed rock, sand and gravel and recycled aggregates where the figures are available.

*Table 11: Warwickshire's Future Total Aggregate Supply*

| Year | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Ave |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sand and Gravel | 0.84 | 0.85 | 0.90 | 0.98 | 1.19 | 0.85 | 0.75 | 0.33 | 0.42 | 0.40 | 0.751 |
| Crushed Rock | 0.70 | 0.66 | 1.4 | 1.4 | 1.3 | 0.9 | 1.0 | 0.6 | 0.48 | 0.525 | 0.93^ |
| Recycled Aggregates | 0.5e | 0.5e | 0.5e | 0.5e | 0.5e | 0.5e | 0.5e | 0.5e | 0.5e | 0.524 | 0.502 |
| Primary Aggregate Total | 1.54 | 1.51 | 2.3 | 2.38 | 2.49 | 1.75 | 1.75 | 0.93 | 0.90 | 0.925 | 1.68 |

^Average figure for Staffordshire and Warwickshire combined.

*Figures not available due to Confidentiality issues

e = estimated production as no firm figures available.

The other relevant local factors when assessing future aggregates provision include the following:

1. Currently in 2014 there is only one sand and gravel quarry operating in Warwickshire whilst several have closed down permanently over the last 5 years. One new site was approved in 2013 but for a relatively small reserve of 900,000 tonnes.

2. The Warwickshire sand and gravel permitted reserves at 2014 primarily comprise of three sites; one active, one yet to start and one dormant. There is no evidence to indicate that the dormant site will be developed in the near future.
3. Some of the main operators, which have traditionally carried out quarrying in the county, state that the resource left after centuries of sand and gravel extraction is of inferior quality compared to other resources elsewhere and is not economically viable for extraction.
4. A request for sites was carried out in 2009 and it was estimated that there was not enough capacity over the plan period to meet the current apportionment. A new request for sites was recently made in December 2013. The sites and information submitted is now being assessed.
5. The Warwickshire Minerals Plan which was adopted in February 1995 allocated 9 Preferred Areas for sand and gravel extraction and 11 Areas of Search. Of these sites, in all that time, only 3 sites have been part extracted, one of which was just for prior extraction o a small part of the site.
6. The trend of declining sales and reserves of sand and gravel has been offset by an increase in the production of recycled aggregates.

Evidence from past sales over the last 10 years and the general conditions on the ground demonstrate that Warwickshire will struggle to meet the current sub-regional apportionment set out in the current guidelines, which were due to be replaced in 2016. There is no agreement to the latest guidelines which were never adopted by the West Midlands Aggregate Working Party. Consequently, to allow for an element for future growth contingency in the county and region due to the recent increase in construction projects, it is proposed that for the period 2014-2016 Warwickshire will continue to supply sand and gravel based on the apportionment set out in the 2001-2016 Guidelines i.e. 1.043 million tonnes. From 2016 onwards the apportionment will revert to the 10 year average which at 2014 is 0.751 but will change depending on the next three years sales figures. Therefore the 0.751 is indicative only for the plan period but provides a guide for working out future sand and gravel requirements.

| *Table 12: Warwickshire's proposed sand and gravel apportionment 2014-2029 (million tonnes per annum)* | | | | Total over the plan period (million tonnes) |
|---|---|---|---|---|
| 2014 | 2015 | 2016 | 2017 - 2029 | 15 Years |
| 1.043 | 1.043 | 1.043 | 0.751 | 12.241 |

These figures will feed in to the Minerals Plan for the purposes of allocating enough sand and gravel sites to cover the plan period of 15 years.

Whilst there has been a reduction in primary aggregate sales, there has been a parallel growth in construction and demolition waste recycling in the county. There are now 9 major recycling sites in the county with a minimum permitted capacity of at least 743,250 tonnes. This includes two new sites approved in 2012/13 whose production figures could total another 100,000 tonnes per annum to be added to the 0.524 million tonnes in 2012. A further site near the border with Leicestershire has been submitted for planning approval and if permitted could add a further 25,000 tonnes per annum of capacity.

Based on the NPPF guidance Warwickshire will continue with the sand and gravel and crushed rock apportionments set out in the 2003 Guidelines up to 2016. Beyond 2016, the Council will base its sand and gravel and crushed rock provision on a ten year rolling average of past sales. Currently this would be 0.751 million tonnes per annum for sand and gravel and 0.93 million tonnes per annum for crushed rock (as a combined figure with Staffordshire County Council) although as it is a rolling 10 year average it will vary year on year. This figure takes into account the other relevant local factors described above including the increase in production of recycled aggregate in the county and the limited take up of sand and gravel reserves by the minerals industry in the county.

Finally, it should be noted that the LAA figure was calculated in the context of a 10 year average sales figure which takes account of 6 years of economic growth and 4 years of economic downturn. Therefore the LAA figures are representative of a range of conditions to reflect all market conditions.

## 6.0 CONCLUSION

Warwickshire County Council is required to prepare a Local Aggregates Assessment based on a 10 year rolling average of sales data and other relevant information and an assessment of all supply options including marine dredged, secondary and recycled aggregates in accordance with paragraph 145 of the National Planning Policy Framework.

A ten year rolling average has been calculated for the county's aggregate minerals which comprise crushed rock and sand and gravel. The current indicative 10 year average figure for sand and gravel is 0.751 million tonnes per annum. This will start in 2016. Until then Warwickshire will continue to use the higher apportionment of 1.043 million tonnes per annum.

The current 10 year indicative average figure for crushed rock is 0.93 million tonnes (as a combined figure with Staffordshire). This is based on the most up to date figures for 2002-2012

The other relevant local information is set out in section 4 of this report. This includes evidence to show that Warwickshire's sand and gravel sales are declining and have only met the apportionment figure once in the past ten years even during periods of increased construction activity. Numerous sites have closed in the last five years and currently there is only one active sand and gravel site and one active crushed rock site in the county. In addition it appears that the minerals industry is not putting enough sites forward for future development, the reason being given, that the quality of the material is not economically viable.

In terms of demand, this document has summarised the most up to date information regarding housing numbers for all the Boroughs in Warwickshire and for the other authorities in the Sub-region; Coventry and Solihull through the SHMA. It sets out the local housing requirements which the minerals industry will have to supply locally.

Figures from the BGS in section 3, show that there are cross boundary flows of aggregates from Warwickshire to other regions and flows from other regions into Warwickshire.

Marine dredged aggregates are not readily available in the county at the current time. However, recycled aggregate production is growing in the county with a large permitted capacity some of which is temporary but which is likely to remain in use for the plan period. Secondary aggregate processing is also expected to continue to contribute to the County’s aggregate requirements in the future. It is expected therefore that recycled and secondary aggregate will contribute to offsetting any future reduction in supply of primary aggregate.

# 7.0 APPENDICES

## Appendix 1

**West Midlands Aggregate Working Party Membership**

**Mineral Planning Authorities**

Worcestershire County Council

Sandwell Metropolitan Borough Council

Shropshire Council

Stoke on Trent City Council

Solihull Metropolitan Borough Council

Staffordshire County Council

Telford & Wrekin Council

Herefordshire Council

Warwickshire County Council

Walsall Borough Council

Birmingham City Council

Coventry City Council

Dudley Metropolitan Borough Council

Wolverhampton City Council

**Industry representatives**

Mineral Products Association (MPA)

Hanson Aggregates Ltd

Lafarge Tarmac Aggregates

Cemex UK

Breedon Aggregates Ltd.

National Federation of Demolition Contractors (NFDC)

Armac D.E.L.

British Aggregates Association (BAA)

Montspur

**Central Government Representatives**

Communities and Local Government

DEFRA - Food and Rural Affairs

Environment Agency