

**WEST MIDLANDS METROPOLITAN AREA
LOCAL AGGREGATE ASSESSMENT (LAA)
2015**

(November 2015)

Agreed by West Midlands Aggregates Working Party on 21.03.16



**WEST MIDLANDS METROPOLITAN AREA:
JOINT LOCAL AGGREGATE ASSESSMENT 2015
November 2015**

Contents:

1.	Introduction	1
2.	Development Plan Context	4
3.	Demand for Aggregates	5
	3.1 Background	5
	3.2 National and Sub-national Guidelines	5
	3.3 Aggregate Sales – Past Trends	7
	3.4 Construction Activity	9
	3.5 Mineral Products - Manufacturing Plants	16
	3.6 Consumption: Imports and Exports	18
	3.7 Aggregate Transport & Distribution Networks	23
	3.8 Potential Future Demand - Conclusions	26
4	Aggregate Supply – Existing and Potential Sources	28
	4.1 Background	28
	4.2 Primary Land Won Aggregates	30
	4.3 Secondary Aggregates	37
	4.4 Recycled Aggregates	42
	4.5 Imports	52
	4.6 Other Potential Sources of Supply	55
	4.7 Potential Future Aggregate Supply – Conclusions	55
5	Supply and Demand – Conclusions	56
	5.1 Overall Conclusions	56
	5.2 Key Issues for Future Local Plans and LAAs	58

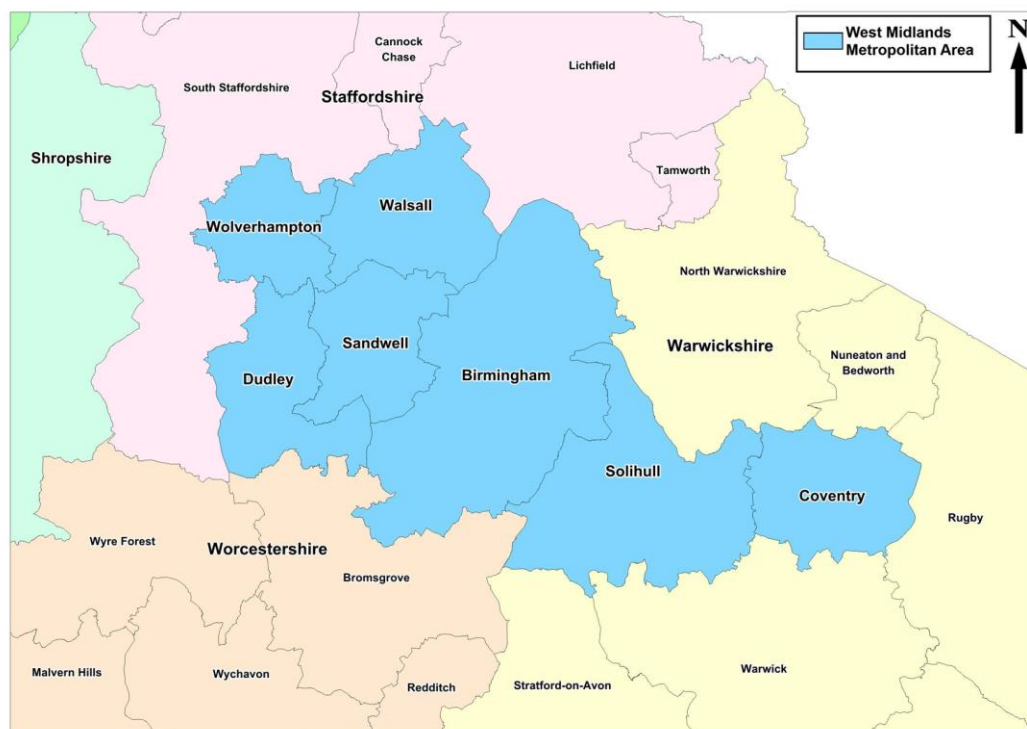
Appendices

1	Operational Sites Producing Mineral Products in the West Midlands Metropolitan Area @ 31.12.13	i
2	Permitted Sand and Gravel Extraction Sites in the West Midlands Metropolitan Area @ 31.12.13	vi
3	Operational Aggregate Recycling Facilities in the West Midlands Metropolitan Area @ 31.12.13	viii

1. Introduction

- 1.1 This Local Aggregates Assessment (LAA) is the first to be produced for the West Midlands Metropolitan Area, which covers the area administered by the seven unitary authorities of Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall and Wolverhampton. The LAA was originally produced as a Draft in November 2015, and was formally endorsed by the West Midlands Aggregates Working Party (AWP) on 21 March 2016. Figure 1 below shows the location of the area within the wider former West Midlands region.

Figure 1: West Midlands Metropolitan Area



- 1.2 National policy guidance requires mineral planning authorities to plan for a steady and adequate supply of aggregates and to prepare an annual Local Aggregate Assessment (LAA) to provide an assessment of the demand for and supply of aggregates. This report provides the first LAA produced by the West Midlands Metropolitan Area Authorities in accordance with the National Planning Policy Framework, 2012 (NPPF) and National Planning Policy Guidance, 2014 (NPPG).

1.3 The NPPG has superseded the previous Managed Aggregate Supply System Guidance (MASS) (2012). However the longstanding MASS continues to operate through national, sub-national and local partners working together to deliver a steady and adequate supply of aggregates in the following ways:

- At local level, mineral planning authorities are expected to prepare Local Aggregate Assessments, to assess the demand for and supply of aggregates;
- At sub-national level, mineral planning authorities belong to and are supported by Aggregate Working Parties, who produce fit-for-purpose and comprehensive data on aggregates covering specific geographical areas; and
- At national level, there exists the National Aggregate Co-ordinating Group, who monitor the overall provision of aggregates in England.

1.4 A key additional tool which underpins the working of the Managed Aggregate Supply System is the aggregate landbank, which is principally a monitoring tool and the main basis for the mineral planning authority to consider whether to review the local plan.

1.5 The purpose of an LAA is to establish whether there is a shortage or surplus of aggregate supply, and to provide evidence for determining the level of provision for mineral aggregates to be made in the Local Plans / Minerals Local Plans. The NPPG identifies three core aims for an LAA:

- A forecast of the demand for aggregates based on both the rolling average of 10-years sales data and other relevant local information;
- An analysis of all aggregate supply options, as indicated by landbanks, mineral plan allocations and capacity data e.g. marine licences for marine aggregate extraction, recycled aggregates and

the potential throughputs from wharves. This analysis should be informed by planning information, the aggregate industry and other bodies such as local enterprise partnerships; and

- An assessment of the balance between demand and supply, and the economic and environmental opportunities and constraints that might influence the situation. It should reach conclusions as to whether there is a shortage or a surplus of supply and, if the former, how this is being addressed.

1.6 In accordance with the above guidance, the LAA considers the current and potential future demand for, and supply of, aggregates for the West Midlands Metropolitan Area. The Area is a producer of primary land won sand and gravel, all of which currently takes place in Solihull. While there are also potentially viable primary sand and gravel resources in Walsall, these are not being worked at the present time. There is no longer any viable crushed rock resource in the West Midlands Metropolitan Area, as the last quarry producing this in Sandwell closed in 2007. Facilities where recycled and secondary aggregates are produced are distributed more widely across the Area. An inevitable consequence of this is that the Area is a significant importer of aggregates, and this situation can be expected to continue.

1.7 Historically, the authorities in the West Midlands Metropolitan Area have worked together on aggregates matters as the Area is identified as a sub-region for the purposes of apportioning the future provision for aggregates set out in the National and Sub National Guidelines. LAAs are being prepared separately for each of the counties in the West Midlands. As most of the authorities in the Metropolitan Area do not have viable supplies of primary sand and gravel resources, it makes sense to work together on the LAA. This approach has been agreed through the West Midlands Metropolitan Area Duty to Co-operate Group. The Draft LAA has been submitted to the Aggregate Working Party (AWP) for the West Midlands Area for scrutiny, in accordance with the NPPF.

1.8 The first section of the report reviews the local plan policy context for aggregates. It then goes on to assess relevant information to provide a forecast for demand and the need for additional aggregate mineral resources. Finally it considers evidence relating to the supply of aggregates in the West Midlands Metropolitan Area. Unless otherwise indicated, the information used in the report relates to the period up to the end of the 2013 calendar year (1 January – 31 December) which is the latest information available.

2. Development Plan Context

2.1 The West Midlands Metropolitan Area includes seven separate unitary authorities, and has no single over-arching plan or strategy for minerals or other development. There is a Joint Core Strategy covering the four Black Country authorities (Dudley, Sandwell, Walsall and Wolverhampton) which includes policies on minerals, but otherwise, each authority has developed its own individual plans covering all or part of its area.

2.2 Table 2.1 below shows the current status and position on the preparation of Development Plans in the West Midlands Metropolitan Area, and refers to policies relating to aggregates.

Table 2.1: Development Plan Status in West Midlands Metropolitan Area

Development Plan	Status	Aggregates Policy
Birmingham Development Plan 2011 - 2031	Examination	TP14, TP15A
Black Country Core Strategy 2006 – 2026	Adopted	MIN1, MIN2, MIN5
Coventry Local Development Plan 2011 – 2031	Options	N/A
Solihull Local Plan 2011 – 2028	Adopted ¹	P13
Walsall Site Allocation Document (SAD) 2006 - 2026	Preferred Options (Sep 2015)	M1 - M5

Source: West Midlands Metropolitan Authorities

¹ The housing policies have been quashed following a High Court challenge on the basis that the number of dwellings proposed is inadequate. See Section 3 below for the possible implications for the future demand for aggregates.

3. Demand for Aggregates

3.1 Background

3.1.1 Government guidance in the NPPF expects authorities to base LAAs on a rolling average of 10 years aggregate sales data and other relevant local information. The guidance indicates that the published National and Sub National Guidelines are themselves an indicator of future demand, as they are based on evidence of past trends indicating projected demand to 2020.

3.1.2 The main local driver of aggregate demand is construction, albeit different types of construction have different 'intensities of use'. Housing and infrastructure are 'more intensive than industrial and commercial construction and repairs.'² Other indicators of demand are manufacturing plants which produce construction materials from aggregates.

3.1.3 This section considers each of these indicators in turn.

3.2 National and Sub National Guidelines

3.2.1 As noted above, the National and Sub National Guidelines³ are an indicator of future demand for aggregates in that:

- They seek to provide an indication of the total amount of aggregate provision that the mineral planning authorities, collectively within each Aggregate Working Party, should aim to provide; and
- They provide individual mineral planning authorities, where they are having difficulty in obtaining data, with some understanding of the overall demand and possible sources that might be available in their Aggregate Working Party area.

² Forecasting Aggregate Demand – A Technical Summary DCLG (March 2006)

³ NPPG ID27-065-20150306

3.2.2 These guidelines should be considered on this basis and not as rigid standards, but they are nonetheless capable of being a material consideration when determining the soundness of minerals plans and in taking decisions on individual planning applications for mineral extraction. The NPPG also states that in those areas where apportionment has taken place, the figures may be used as an indicators as to how much to plan for.

3.2.3 The 2009 guidelines suggest that 165 million tonnes of sand and gravel will be required in the former West Midlands region over the 16 year period from 2005 to 2020 along with 82 tonnes of crushed rock. A review of the sub-national apportionments for the West Midlands was undertaken during 2009 and 2010 following the publication of the guidelines, but was overtaken by the abolition of the regional tier of government and the subsequent revocation of the West Midlands Regional Strategy. However, an indicative set of “apportionments” produced by the AWP Secretariat in 2009, based on previous trends in sales, included a proposed “apportionment” of 0.55 million tonnes of sand and gravel per year for the West Midlands Metropolitan Area. No crushed rock apportionment was proposed as there are no viable resources remaining.

3.2.4 However, these proposed “apportionments,” which were supported by a majority of AWP members, have informed the preparation of development plans in the Area and is reflected in the indicative targets set in the Black Country Core Strategy, which was found sound and adopted in February 2011, and the Solihull Local Plan, which was found sound and adopted in December 2013. The Black Country Core Strategy (Policy MIN2) includes an indicative production target of 50,000 tonnes of sand and gravel per annum for Walsall, reflecting the levels achieved in the recent past when two quarries were operating. The Solihull Local Plan sets out a requirement for 7.5 million tonnes of sand and gravel production over the plan period. This reflects that the main source of sand and gravel reserves within the Metropolitan Area is Solihull, and the constraints to working in the resource areas within Walsall.

3.3 Aggregate Sales – Past Trends

3.3.1 Data on historic sales of aggregates within the West Midlands Metropolitan Area is contained in the West Midlands Aggregates Working Party Annual Monitoring Reports. The latest information available relates to the 2013 calendar year. Sales data for the ten years to 2013 and average (mean) sales over the 10-year period are shown in Table 3.1, compared to the indicative “apportionment” for the West Midlands Metropolitan Area referred to above, and the current requirements identified in the adopted Local Plans. Production of data for specific sites is regarded as commercially confidential, so in line with what has been agreed by AWP, figures are provided only for total annual production in the West Midlands Metropolitan Area rather than for individual Mineral Planning Authorities.

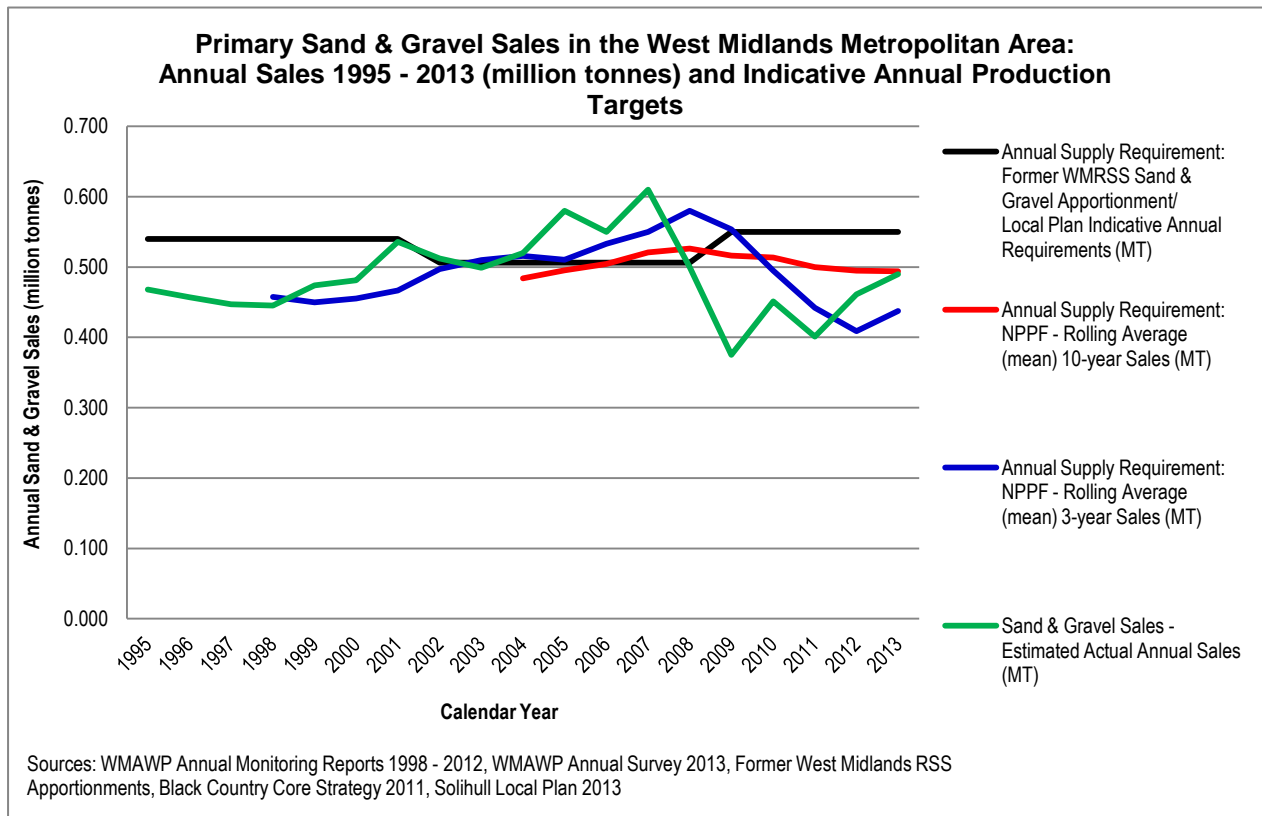
Table 3.1: Sand and gravel sales in the West Midlands Metropolitan Area 2003 – 2013 (million tonnes)

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	10-Year Ave.
Annual Sales	0.520	0.579	0.550	0.610	0.500	0.375	0.451	0.401	0.460	0.490	0.494
Apportionment/ Local Plan Requirements	0.506	0.506	0.506	0.506	0.506	0.506	0.506	0.550	0.550	0.550	0.519
Deviation (+/-)	+14	+73	+44	+104	-6	-131	-55	-149	-90	-60	-25

Source: AWP Annual Reports, AWP annual survey data for 2013

3.3.2 Nationally and regionally, sales of aggregates fell during the period 2007 – 2009 and remained at the lower level to 2013, which has been attributed to lower levels of construction activity during the economic recession (Competition Commission Report, 2014). This is reflected in the West Midlands Metropolitan Area where production fell in 2008 and again the following year, but is now showing signs of recovery.

Figure 2: Comparison of Annual Sand and Gravel Sales in the West Midlands Metropolitan Area 1998 – 2013 with Annual Supply Requirements



3.3.3 Comparisons with previous regional apportionments are shown in table 3.1 as these remain the most up to date and tested requirements having been examined through the Black Country Core Strategy and Solihull Local Plan. It is of note that this apportionment and the rolling average of the last ten years sales, which is the starting point for assessing future needs, give very similar results, as illustrated in Figure 2 above, although there are significant year on year variations with sales exceeding the apportionment during the boom years but falling well short of it during the recession.

3.3.4 There has been no production of crushed rock in the West Midlands Metropolitan Area since 2007 when the last quarry closed, and there are no winnable deposits of crushed rock remaining in the Area.

Aggregate Sales – Issues for Future Planning

3.3.5 Trend data shows that while there has been some fluctuation, mainly as a result of the economic recession, production of primary land won sand and gravel in the West Midlands Metropolitan Area has been fairly consistent, and has been on average just over 0.5 million tonnes per annum since 1995. Supply has therefore been in line with current indicative requirements. Annual sales will continue to be monitored and reported on in future LAAs, using information obtained from annual surveys co-ordinated by the AWP and other relevant sources.

3.4 Construction Activity

3.4.1 Aggregates are used in construction and they are the largest tonnage of material used by the sector overall. Whilst demand is driven by construction and economic performance, the relationship is not straightforward and forecasting based on estimates of future construction activity is difficult. Past forecasts have proved to be too high or too low, and so it is necessary to keep estimates under review. The main use for sand and gravel is concrete, accounting for 67% of all sales in Great Britain in 2011, whereas 41% of crushed rock sold in 2011 was used as roadstone in road construction⁴. The most recent data available indicates a similar pattern of use for construction aggregates in 2013 – see Figures 3 and 4 below.⁵

3.4.2 There is evidence to suggest that the intensity of use of primary aggregates has declined in recent years despite construction activity increasing in real terms. Nationally, consumption has fallen from 300 million tonnes per annum in 1989 to less than half of that (around 146 million tonnes) in 2010. Since

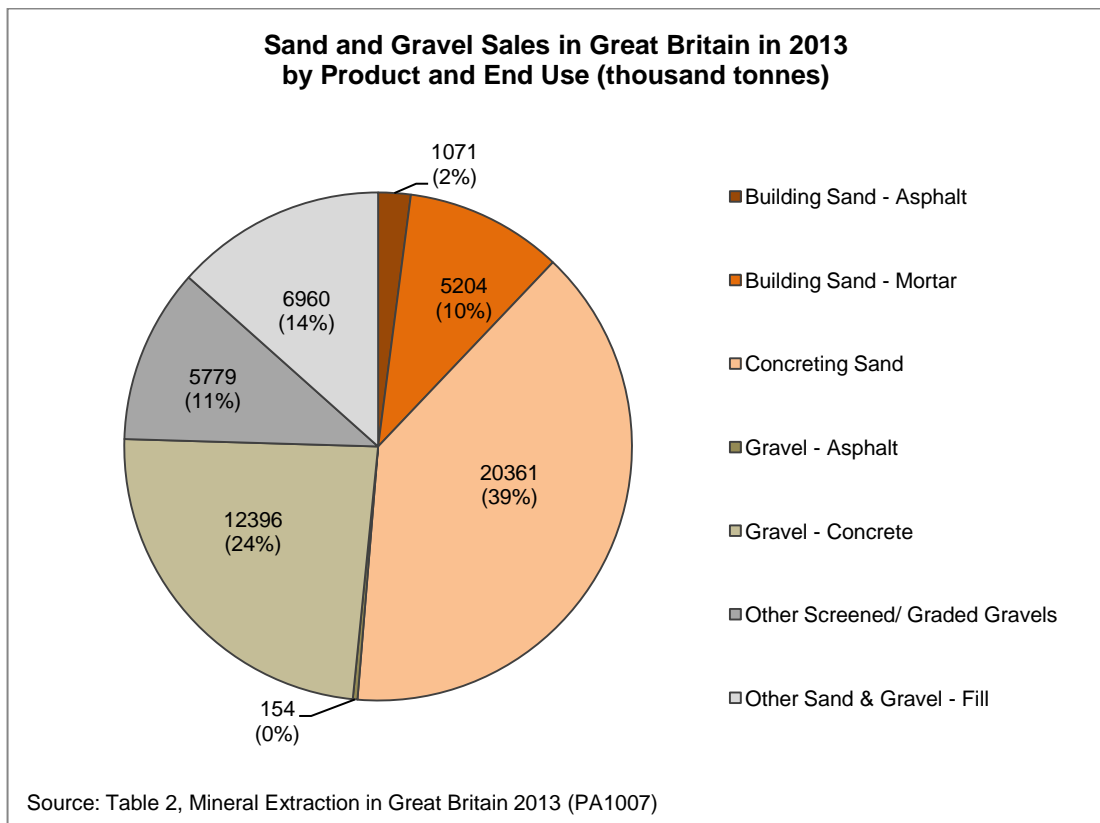
⁴ Table 1, Construction Aggregates Mineral Planning Factsheet (June 2013), British Geological Survey and CLG (Department for Communities and Local Government)

⁵ Tables 2 and 7, Mineral Extraction in Great Britain 2013: Business Monitor PA1007 (February 2015), CLG (Department for Communities and Local Government)

then it has fallen further, to around 134 million tonnes in 2013.⁶ Macroeconomic performance aside, other factors which are likely to have influenced this include:

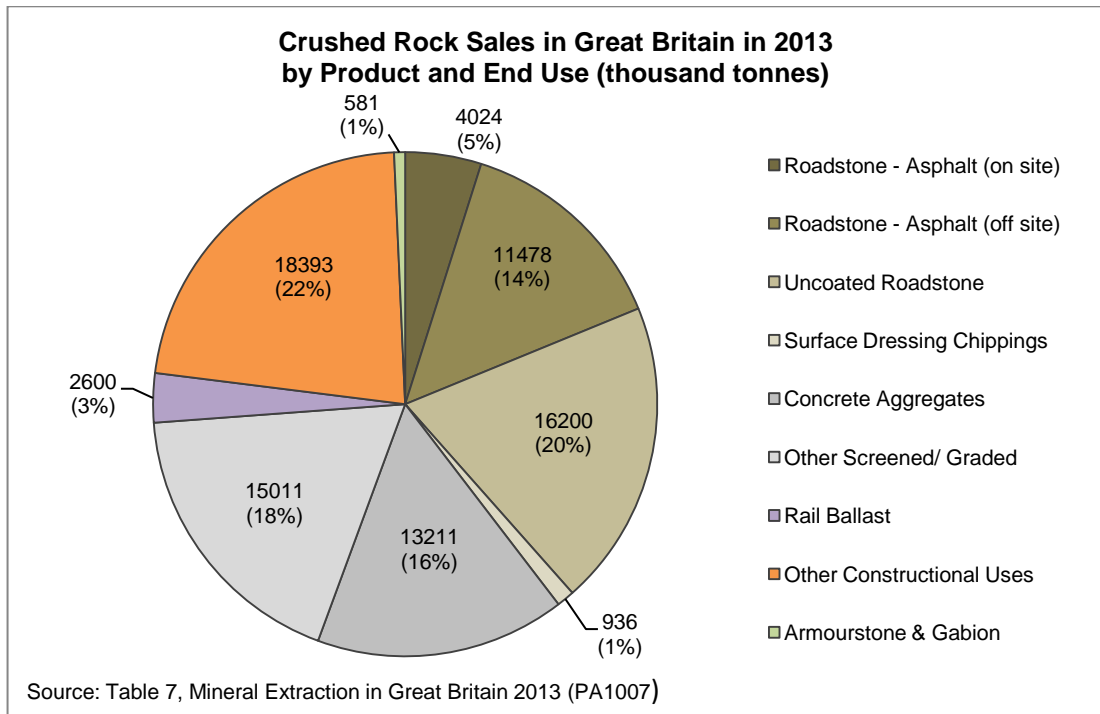
- Environmental taxation – The Landfill Tax and Aggregates Levy leading to increased usage of construction and demolition waste;
- Changes in construction techniques with increased use of steel and glass externally and plasterboard for internal walls; and
- Less waste of materials at construction sites.

Figure 3: Sand & Gravel Sales and Uses in Great Britain in 2013



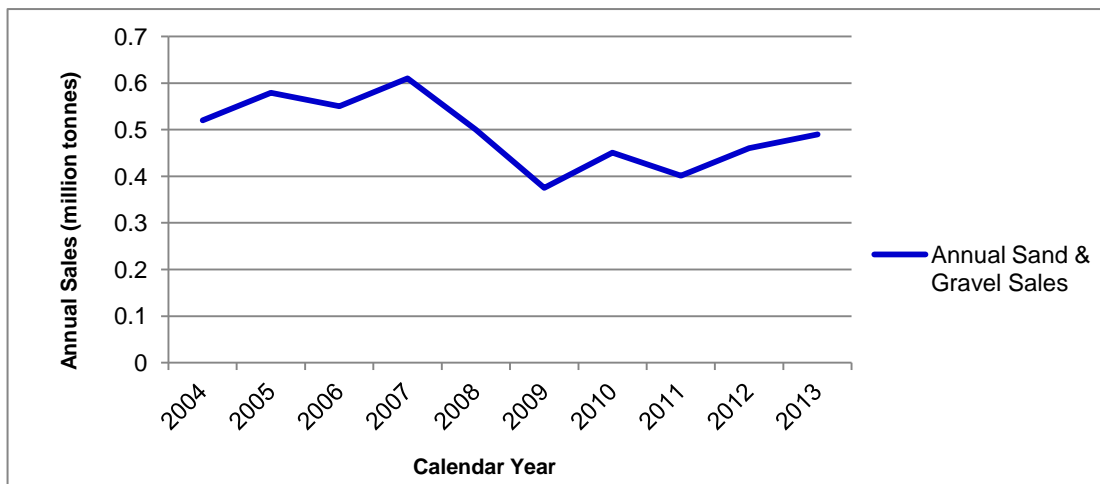
⁶ Construction Aggregates Mineral Planning Factsheet (June 2013), British Geological Survey and CLG (Department for Communities and Local Government) and Tables 2 and 7, Mineral Extraction in Great Britain 2013: Business Monitor PA1007 (February 2015), CLG (Department for Communities and Local Government)

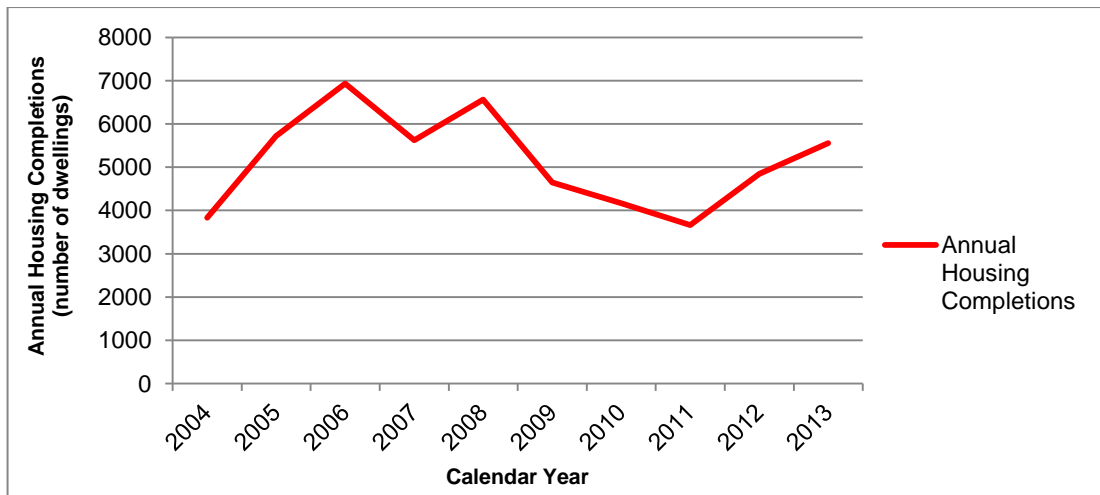
Figure 4: Crushed Rock Sales and Uses in Great Britain in 2013



3.4.3 Housing is the major element of construction activity and over the last ten years, it does appear that there has been some relationship between net housing completions and sales of aggregates in the West Midlands Metropolitan Area (see Figure 5 and Table 3.2 below), with sales falling off from 2008 onwards at the onset of the recession and gradually recovering as house building rates began to increase once again.

Figure 5: West Midlands Metropolitan Area - Comparison of Sand and Gravel Sales with Housing Completions 2004 - 2013





Source: See Table 3.2

That said, this relationship must be considered with caution, as imported materials account for the vast majority of aggregate consumption within the West Midlands Metropolitan Area. This is discussed further at 3.6 and 4.3.

Table 3.2 Annual Sand and Gravel Sales (million tonnes) and Housing Completions (net increase in number of dwellings) in the West Midlands Metropolitan Area 2004 - 2013

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Ave.
Annual Sand & Gravel Sales	0.520	0.579	0.550	0.610	0.500	0.375	0.451	0.401	0.460	0.490	0.494
Annual (net) Housing Completions	3832	5718	6936	5622	6566	4647	4164	3666	4846	5558	5155

Source: AWP Annual Reports, AWP annual survey data for 2013 and Joint Monitoring

3.4.4 Although there is evidence to suggest that aggregate use by the construction sector is less intensive, it is apparent that development plans are seeking to significantly boost the rate of house building in line with Government priorities set out in the NPPF. Within the Metropolitan Area boundary future annual housing requirements identified in existing and emerging local plans (totalling 7,385 dwellings per annum net) are around 65% higher than past rates of completions in the area, which on average have been 4,425 dwellings per annum net (see Table 3.3, total excluding “Birmingham shortfall”).

Table 3.3: Local Plan Housing Completions (Net) v Annualised Net Housing Requirements in the West Midlands Metropolitan Area, 2001/02 – 2012/13

Mineral Planning Authority	Average (mean) Net Housing Completions 2001/02 to 2012/13	Annualised Net Plan Requirement⁷
Birmingham	1625	2,555
Black Country	1770	3,150
Coventry	635	1,180
Solihull	395	500 ⁸
Total	4425	7385
Birmingham Shortfall	0	1895
Overall Total	4425	9280

Source: Adopted Local Plans and Joint Monitoring

3.4.5 These figures are based on the new housing requirements set out in the most recently published local plan documents (set out in Table 2.1). The calculation in the previous paragraph does not take account of the fact that Birmingham is unable to meet all of its future needs within its own boundary. Table 3.3 also includes a projected shortfall figure in the planned housing provision for Birmingham. Planning further to meet this shortfall implies a need to increase the requirements for housing in other local authority areas, both within and outside of the Metropolitan Area. When allowance is made for the Birmingham shortfall, planned future provision would be more than double the average annual completions for the Metropolitan Area over the past 11 years.

3.4.6 This proposed step change in housing delivery is inevitably dependent on continued economic recovery and the development sector's capacity to deliver. In addition future housing delivery is not scheduled to happen uniformly over the plan period. Housing trajectories in plans indicate higher rates of delivery in the latter stages of the period, and it will take time for land to be identified and brought forward for development to meet the Birmingham

⁷ The annualised requirement is based on the time period of the latest adopted local plans, so does not correspond with the period over which annual completions are measured.

⁸ See footnote to Table 2.1

shortfall. However it is clear that the direction of travel is towards much higher levels of housing development, which is likely to bring with it an increased demand for aggregates.

3.4.6 Major infrastructure projects may also lead to an increase in demand. Development of the High Speed 2 rail link between London and Birmingham is expected to commence in 2017, subject to the successful passage through Parliament of the Hybrid Bill, with services anticipated to start in 2026. The proposed line runs through the east of Solihull into Birmingham city centre. A new international terminus would be developed around the former Curzon Street station in Eastside, an area of major regeneration. There are plans for major development around the proposed HS2 Interchange east of the NEC in Solihull, branded as UK Central, to unlock the growth potential of the strategic economic assets of Birmingham Airport, the NEC, Birmingham Business Park and Jaguar Land Rover. The HS2 project will include a connectivity package of infrastructure investments across the West Midlands.

3.4.7 Major infrastructure development, particularly associated with HS2 and other transport infrastructure projects, will clearly have implications for demand for materials, although there is also scope for excavated material to be used in the construction of HS2 and for surplus materials to be used for local construction projects.⁹ That said, as well as increasing demand for aggregate minerals, the HS2 project will potentially sterilise a significant proportion of the Area's sand and gravel resources, and will require the relocation of a major rail-linked production and distribution facility at Washwood Heath Sidings in Birmingham (see 3.5 and 4.2 below).

Construction Activity – Issues for Future Planning

3.4.8 The evidence outlined above indicates that planned housing and infrastructure requirements for the West Midlands Metropolitan Area will be much higher over the next 10 – 15 years than in the last 10 years. The increased

⁹ Hs2 Draft Environmental memorandum (November 2013)

requirement for housing and related infrastructure will therefore generate an increase in demand for construction aggregates over the same period. However, there is currently no reliable method for estimating the quantities of aggregate minerals that will be required cumulatively to support the future planned levels of development.

3.4.9 Discussions at recent meetings of the West Midlands AWP suggest that new house building and related infrastructure accounts for only around 15% of the aggregates market,¹⁰ which in turn suggests that a significant increase in housing requirements may not translate into a very significant increase in demand for aggregate minerals. Evidence presented at recent minerals local plan examinations also suggests that there is no direct link between planned levels of development and growth in a particular area, and the aggregate mineral requirements for that area, as aggregate minerals are not necessarily used in the same area where they are produced.¹¹

3.4.10 That said, the evidence in Section 3.6 below suggests that most of the aggregate minerals used in the West Midlands Metropolitan Area are sourced from within the West Midlands or the East Midlands. It will therefore be important to ensure that sufficient supplies of aggregate minerals are planned for to support the levels of growth anticipated in the West Midlands Metropolitan Area between now and 2031, not only within the Metropolitan Area itself, but also within the wider West Midlands and East Midlands, where it is not possible to identify sufficient resources more locally.

3.4.11 It is not possible to say at present whether the increased demand for aggregate minerals in the Metropolitan Area between now and 2031 will be so great as to have an impact on the existing guideline requirements for the West Midlands sub-national area. Therefore, until new guidelines are issued, or other evidence of demand for aggregate minerals in the West Midlands

¹⁰ Minutes of West Midlands AWP 24.06.14 (Item 4)

¹¹ Inspector's Report on the Examination into the Northamptonshire Minerals and Waste Local Plan (August 2014), see paragraph 58

Metropolitan Area becomes available, the existing guidelines will continue to provide a “benchmark” for aggregate minerals supply in the West Midlands. In the meantime, it is proposed to provide an update on construction activity and on general indicators of potential future demand, such as housing completions, in future LAAs.

3.5 Mineral Products – Manufacturing Plants

3.5.1 The West Midlands Metropolitan Area has a number of sites manufacturing building products from aggregates, such as concrete batching plants, ready-mixed concrete plants, coating plants, and concrete product factories. Known major companies are listed in Appendix 1, and Table 3.4 below provides a summary of the number of facilities of each type in the Area. It is of note that aggregate markets tend to be local in nature, and that markets for ready mixed (RMX) concrete have catchments of between eight and ten miles of the batching plant reflecting the perishable nature of the product.¹²

Table 3.4: Manufacturing Plants in the West Midlands Metropolitan Area

Facility Type	Number of Facilities by Area			
	Birmingham	Black Country	Coventry & Solihull	Metropolitan Area Total
Coating Plants	1	3	1	5
RMX Plants/ Concrete Batching Plants	9	13	3	25
Manufacture of Concrete Products	1	1	0	2
Lime/ Cement Works	0	0	0	0
Dry Silo Mortar Plants	0	1	1	2
Total Number of Facilities by Area	11	18	5	34

Source: Various sources, see also Appendix 1

¹² See 20, 2.74 – 2.76, 5.28 – 5.30 and 6.14 of Aggregates, Cement and Ready Mix Concrete Market Investigation: Final Report (January 2014), Competition Commission, see also Figure 7 below.

Manufacturing Plants – Issues for Future Planning

- 3.5.2 Information on the requirements of these plants for aggregate consumption is limited, and where it exists may be confidential. The combination of raw materials used is also likely to vary from plant to plant. Nevertheless, the number of sites and their distribution provides some indication of the likely ongoing need for aggregate minerals (as well as “intermediate” products such as cement) within the West Midlands Metropolitan Area.
- 3.5.3 National policy guidance expects Local Plans to safeguard existing production and distribution sites such as those identified in Appendix 1 (NPPF paragraph 143). Many of these sites are in industrial areas. There is likely to be increasing pressure for housing development on industrial land within the Metropolitan Area in the future, which could put some of these facilities at risk, although some plans, such as the Black Country Core Strategy, include policies to safeguard industrial land. Future Local Plan reviews will therefore need to consider the extent to which the manufacturing plants and distribution facilities identified in Appendix 1 should be safeguarded from redevelopment or possible encroachment from housing development, where they are not already protected through existing policies.
- 3.5.4 For example, provision has been made to relocate an existing rail-linked facility at Washwood Heath Sidings in Birmingham whose site is needed to accommodate the main construction depot for the HS2 project. The existing facilities on this site which are to be relocated include a specialist manufacturing plant for pre-stressed concrete railway sleepers, a RMX concrete plant and a coating plant. The manufacturing facility produces 600,000 pre-stressed railway sleepers per annum, providing 75% of Network Rail’s sleeper requirements and all of London Underground’s requirements. In addition, the coating plant provides around 25% of the West Midlands

conurbation's requirement for asphalt, and the distribution hub handles 300,000 tonnes of aggregate products per annum.¹³

3.5.5 The main issue for local plans is to ensure that the role of the existing network of manufacturing plants is recognised and that where appropriate, they are identified and safeguarded in local plans. Local plans are also likely to have a role in identifying opportunities to develop new manufacturing facilities where there is an identified need, and to relocate existing facilities where this is necessary in order to meet local requirements for other development. Future LAAs should be able to report on significant changes to the existing network of manufacturing plants and development of new plants.

3.6 Consumption: Imports and Exports

3.6.1 Guidance requests that LAAs capture the amount of aggregate that is imported into and exported from the area. The main source of evidence for inflows and outflows of aggregate minerals is the national Aggregate Minerals Surveys, normally carried out at four yearly intervals. The last national survey was carried out in 2009 and the results were published in the 2011 Collation Report.¹⁴ Clearly, given the built up nature of the Metropolitan Area, its large population and corresponding level of development activity, it is inevitably heavily reliant on imports.

3.6.2 The survey results indicated that in 2009, more than 80% of the sand and gravel used in the Area came from within the former West Midlands region, whereas only 10% of crushed rock came from within the former region (see Figures 6 and 7 below). This reflects the dwindling supplies of crushed rock resources available meaning that primary crushed rock resources now have to be sourced from further afield. However, locally produced recycled materials

¹³ Information published on Birmingham City Council website – see: HS2 Consultations web page: <http://www.birmingham.gov.uk/hs2consultations>

¹⁴ Collation of the Results of the 2009 Aggregate Minerals Survey for England and Wales (May 2011), CLG, British Geological Survey and Welsh Assembly Government

are likely to be contributing towards supplies to some extent (see Section 4.3 below for further information).

Figure 6: West Midlands Metropolitan Area - Sources of Sand and Gravel Consumed in 2009

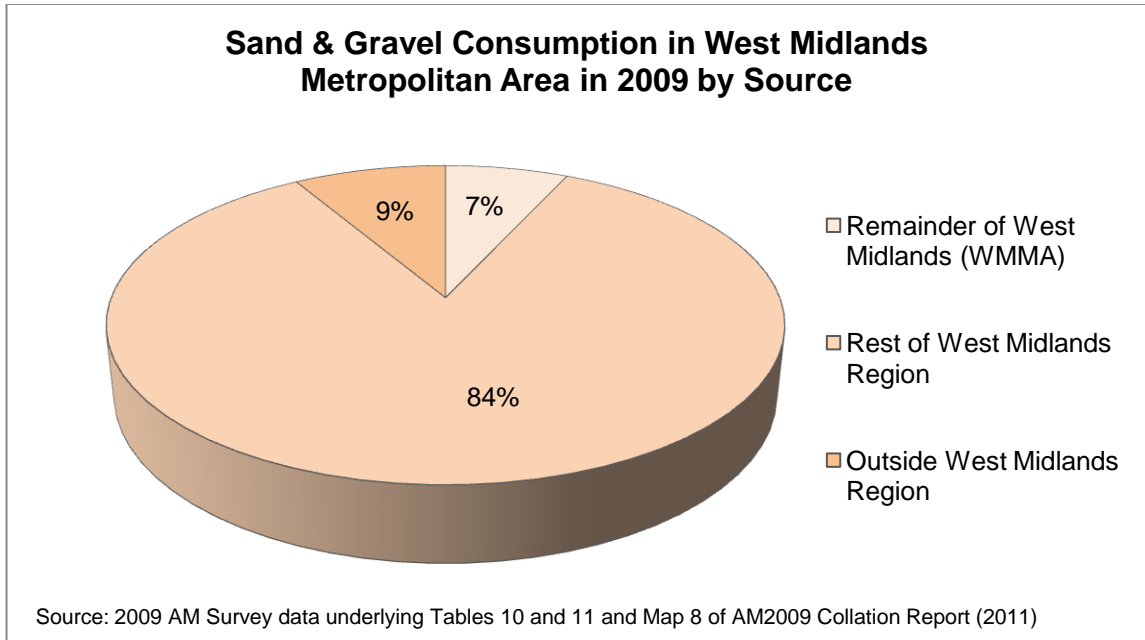
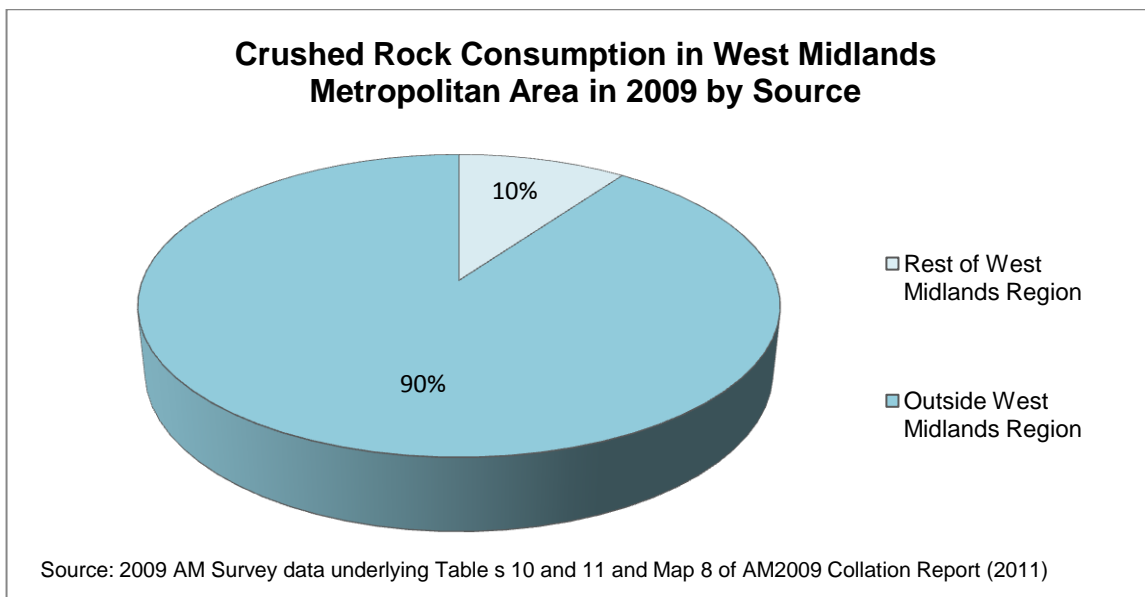


Figure 7: West Midlands Metropolitan Area - Sources of Crushed Rock Consumed in 2009



3.6.3 Further information from the survey is provided in Table 3.5 which sets out imports of primary aggregates by Mineral Planning Authority Area across the former West Midlands region. In all instances, the Metropolitan Area imports at least twice as much as the other MPAs and in some cases far more. In addition to importing 1,228 thousand tonnes of sand and gravel in 2009, a further 91 thousand tonnes of locally sourced material was also consumed, resulting in total consumption of 1,319 thousand tonnes.

3.6.4 In terms of the origin of imports, the published 2009 data does not disaggregate beyond sales in the host MPA and wider (former) regions. However, information from the survey, provided by British Geological Survey (BGS) to Staffordshire County Council and kindly shared with the Metropolitan Authorities, provides a general indication of which areas imported primary land-won sand and gravel and crushed rock came from in the survey year.

Table 3.5: Imports of primary aggregates by Mineral Planning Authority Area in the former West Midlands Region in 2009

Thousand Tonnes					
Source	Land won sand and gravel	Marine sand and gravel	Total sand and gravel	Crushed rock	Total Primary Aggregates
Metropolitan Area	1,228		1,228	903	2,131
Herefordshire	63	4	67	421	488
Shropshire	166		166	207	303
Staffordshire	141		141	544	685
Warwickshire	359		359	449	808
Worcestershire	45	13	58	192	250
Unknown in WM	674		674	820	1494
Total	2,676	17	2,693	3,536	6,229

Source: Aggregate Minerals Survey 2009 Collation Report, Table 10 (see footnote 9)

3.6.5 This indicates that the main source of imported sand and gravel is Staffordshire, which supplied around 65% of the primary land won sand and gravel consumed in the West Midlands Metropolitan Area, accounting for 23% of Staffordshire's sand and gravel sales. A further 15 – 20% came from Warwickshire, 5 -10% came from within the Metropolitan Area (nearly all from Solihull) as noted above, and the rest came from a number of different mineral planning authorities, including some remote from the West Midlands. Staffordshire is still the main producer of sand and gravel in the West Midlands, and produced just over 4 million tonnes in 2013, around 67% of the total sub-national area supply.¹⁵ Warwickshire is no longer a significant producer as a number of quarries have closed in recent years, and actually produced less than the West Midlands Metropolitan Area in 2013.¹⁶

3.6.6 By contrast, the main source of crushed rock was the East Midlands, and in particular, Leicestershire, which contributed 60 – 65% of primary land-won crushed rock consumed in the West Midlands Metropolitan Area, and Derbyshire, which provided a further 20 – 25%. Derbyshire is also a significant source of imported lime and cement, distributed via a major rail linked depot in Walsall operated by Hope Construction Materials. The latest LAA for Leicestershire indicates that annual production of crushed rock has increased since 2009 and that in 2013 there were significant permitted reserves of igneous rock. In Derbyshire there are also significant reserves of limestone and gritstone, although annual production of crushed rock has reduced since 2009.¹⁷ The only source of crushed rock from within the West Midlands was Shropshire, which provided the 10% of supplies indicated in

¹⁵ Based on information from the 2013 annual survey collated by the West Midlands AWP for the forthcoming 2013 annual report, see also Draft Staffordshire Local Aggregates Assessment 2015 (June 2015).

¹⁶ Based on the above, see also 3.1, Draft Warwickshire Local Aggregates Assessment 2015 (October 2015) and Warwickshire Minerals Local Plan Preferred Option and Policies (October 2015)

¹⁷ See Section 3, Table 7, Leicestershire Local Aggregates Assessment January 2015 and pages 15 - 21, Derby City Council, Derbyshire County Council and Peak District National Park Local Aggregates Assessment 2014

Figure 7. Shropshire is now the only significant area of crushed rock production in the West Midlands.¹⁸

3.6.6 Whilst clearly the Metropolitan Area is a net importer of aggregate, it is important not to overlook the fact that it also exports a significant proportion of its output. Table 3.4 shows that some 75% of sand and gravel sales from the Metropolitan Area in 2009 were to destinations beyond its collective boundaries. Overall the Metropolitan Area produced the equivalent of 28% of its sand and gravel consumption in 2009, although in practice only 7% of consumption was actually produced within the area. This reflects the fact that the only significant source of sand and gravel in the area is located in Solihull. As there is no production of crushed rock within the Area all of this material is imported.

Table 3.6: Sand and Gravel Sales in the West Midlands Metropolitan Area in 2009 - Destination

Destination	Sales (thousand tonnes)	Percentage of total sales
Within Metropolitan Area	91	24%
Elsewhere West Midlands	280	75%
Elsewhere other	1	1%
Total	375	100%

Source: Aggregate Minerals Survey 2009 Collation Report, Table 9f (see footnote 9)

3.6.7 The requirement for land-won aggregate products can be reduced through the use of recycled materials. All of the Mineral Planning Authorities in the Area are actively seeking to encourage an increase in recycling. Unfortunately there is no accurate data on the quantity of recycled aggregates produced or on the proportion of aggregate consumption which is made up of recycled products. However, it is reasonable to expect a continued increase in the importance of this sector in the future. Further information on the production of

¹⁸ See West Midlands AWP Report for 2011 and 2012 (December 2014), and Table 7, Mineral Extraction in Great Britain 2013: Business Monitor PA1007 (February 2015), CLG (Department for Communities and Local Government).

recycled materials within the West Midlands Metropolitan Area can be found in paragraphs 4.4.1 – 4.4.6 below.

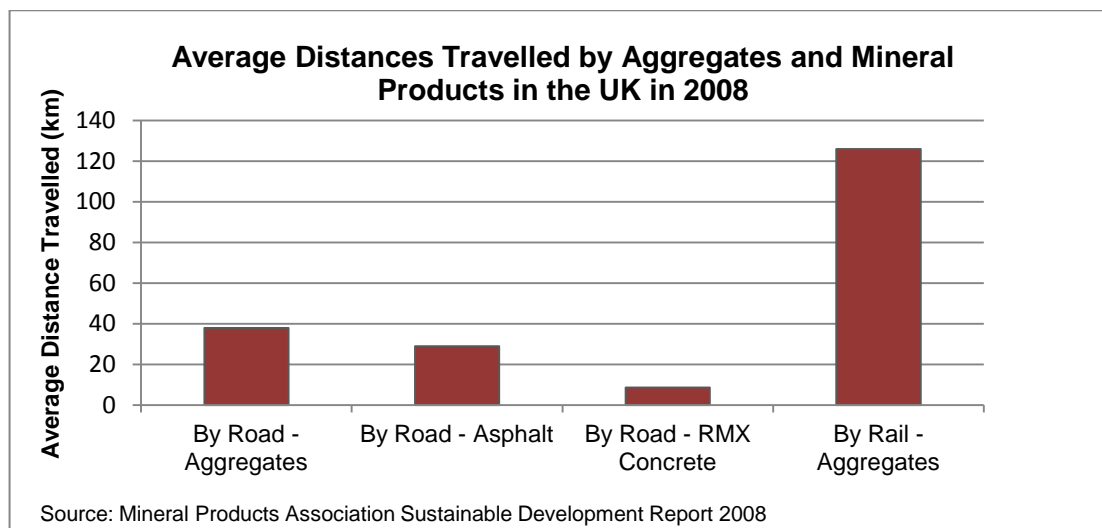
Imports and Exports – Issues for Future Planning

3.6.8 The Metropolitan Area is likely to continue to rely on imports from other areas going forward, and reliance on imports could increase. It will be important for the mineral planning authorities in the West Midlands Metropolitan Area to engage with the other mineral planning authorities in the East and West Midlands who will be expected to provide a source of aggregate minerals to support development and growth within the Area, to ensure that appropriate provision is made in their local plans.

3.7 Aggregate Transport and Distribution Networks

3.7.1 This is an important issue for the West Midlands Metropolitan Area, given the reliance on supplies of aggregates from outside the Area. While some mineral products tend to travel relatively short distances from their site of manufacture (see 3.4 above), raw materials (e.g. sand and gravel, crushed rock and equivalent secondary and recycled materials) may travel much further, particularly by rail. Figure 8 below illustrates the differences in average distances between aggregate minerals generally, and mineral products.

Figure 8: Transportation of Aggregates – Average Distances



3.7.2 There are three rail-linked sites for aggregates of significance in the West Midlands Metropolitan Area:

- **Washwood Heath Sidings in Birmingham** – this facility is operated by CEMEX and includes an aggregates distribution depot, a RMX plant, a coating plant and a facility for manufacture of railway sleepers (see 3.5 above regarding impact of HS2 project on this site);
- **Network Rail Local Distribution Centre (LDC) at Bescot Sidings in Sandwell** – this is a facility for storage, recycling and distribution of rail ballast, and is one of seven such facilities operated by Network Rail across the rail network; and
- **Hope Construction Materials in Walsall** – this was originally a bulk cement distribution facility only, but has recently (2015) expanded to include a RMX plant and aggregates distribution depot.

Potential for further rail diversion is limited in the absence of expansion of the freight network to allow the provision of additional integrated rail freight terminals, particularly in Black Country which is not currently well served by the rail freight network.

3.7.3 Although the West Midlands Metropolitan Area is well served by Inland waterways, these offer little potential for the transport of aggregates, except in special cases, due to the constraints of the canal network and conflicting land uses. There is no evidence that bulk transport of aggregates or mineral products by inland waterways is viable, and no proposals for the development of canal wharves have come forward in the Area to date.

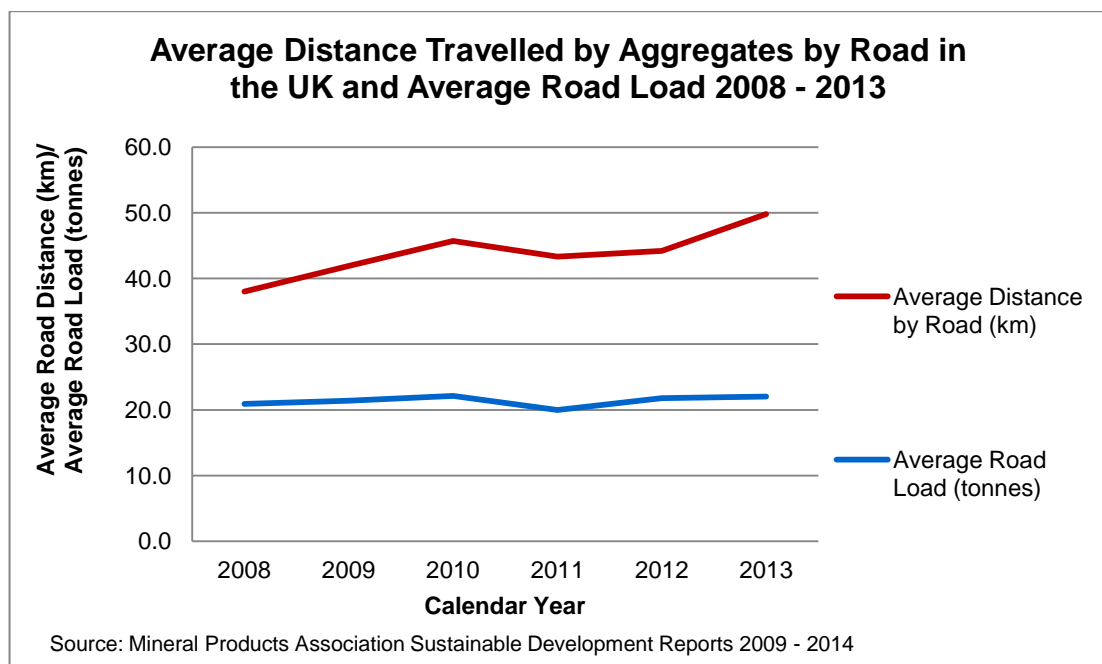
3.7.4 The West Midlands Metropolitan Area is at the hub of the national motorway network, the main connections being via the M5, M6, M6 Toll, M54 and M42 Motorways. Currently there is heavy reliance on motorways and the local

strategic highway network (SHN) to transport aggregates to and around the Area. This is likely to continue in the foreseeable future.

3.7.5 Information published by the Mineral Products Association suggests that the distance aggregate minerals travel by road has increased from around 38 km in 2008 to nearly 50 km in 2013, the latest year for which figures are available (see Figure 9 below). However, the average road load has not changed significantly over the same period, and was around 22 tonnes in 2013. This suggests that the overall number of delivery trips has not increased.

3.7.6 The impact of road transport of aggregates on air quality is an important issue for the West Midlands Metropolitan Area, as Air Quality Management Areas for nitrogen dioxide (NO₂) have been declared over most of the Area. Road freight transport has been identified as a major source of NO₂ as well as being a significant source of carbon dioxide (CO₂) emissions, and congestion is also a major contributing factor. HGVs are forecast to increase by 43% between 2010 and 2035.¹⁹

Figure 9: Transportation of Aggregates by Road – Key Trends



¹⁹ See Key Issue B4 (3.32 – 3.37) and Appendices 5 and 13, West Midlands Metropolitan Area Freight Strategy 2030: Supporting Our Economy, Cutting Carbon (April 2013), Centro

3.7.7 The West Midlands Metropolitan Area Freight Strategy 2030 (2013),²⁰ the West Midlands Low Emissions Strategy,²¹ and most recently, the draft replacement West Midlands Local Transport Plan (July 2015),²² are aiming to address this by promoting modal shift onto rail where feasible, by supporting improvements to transport infrastructure to tackle congestion, and by promoting increased use of low emission freight vehicles. It is not clear to what extent the aggregates industry is likely to be moving towards the use of low emission freight vehicles to transport aggregate minerals by road, as the latest MPA Sustainable Development Report (2014) does not provide any information on this issue.

Distribution Networks – Issues for Future Planning

3.7.8 While the influence of local plans is likely to be limited, they are likely to have a role in safeguarding existing storage, handling and distribution facilities for aggregates and mineral products, and ensuring that new production facilities (including facilities that produce aggregates from secondary and recycled sources) are appropriately located in relation to existing transport networks.

3.8 Potential Future Demand – Conclusions

3.8.1 The main conclusions in relation to demand are as follows:

- Under the most recent Sub-national Guidelines, the West Midlands Metropolitan Area has an apportionment for the production of 0.55 million tonnes of sand and gravel per annum. There is no apportionment for crushed rock;

²⁰ See above.

²¹ See West Midlands Low Emissions Towns and Cities Programme - documents published on Walsall Council website:
http://cms.walsall.gov.uk/index/low_emissions_towns_and_cities_programme.htm

²² See 2.15, 3.1, 4.3, 4.7, 4.44, 5.1, Movement for Growth: The West Midlands Local Transport Plan Public Consultation Draft (July 2015), West Midlands Integrated Transport Authority.

- Over the past ten years, sand and gravel sales have averaged just under half a million tonnes per annum, but there is much variation from year to year, with sales being much higher during the boom years and much lower during the recession;
- Planned future levels of house building are some 65% higher per annum than the average level of completions over the last ten years and more than double past rates if planned overspill housing is taken into account. There are also a number of major planned infrastructure projects, notably HS2;
- The Area has a significant number of plants manufacturing products from aggregates, for which demand is likely to continue;
- The Area is heavily reliant on imports of land-won aggregates from adjoining areas, Staffordshire is particularly important in terms of the supply of sand and gravel, and the East Midlands in terms of the supply of crushed rock;
- Aggregate recycling is being encouraged through existing local plans, and is likely to be making an important contribution to consumption in the Area, but no accurate data is available on the extent of this (see 4.3 below);
- In view of the Area's reliance on imported material, the availability of transport and distribution networks for aggregates is an important issue for future local plans and reviews of local plans.

4. Aggregate Supply – Existing and Potential Sources

4.1 Background

4.1.1 Guidance on the Managed Aggregate Supply System is now contained in the NPPG²³, which says that:

The Managed Aggregate Supply System seeks to ensure a steady and adequate supply of aggregate mineral, to handle the significant geographical imbalances in the occurrence of suitable natural aggregate resources, and the areas where they are most needed. It requires mineral planning authorities which have adequate resources of aggregates to make an appropriate contribution to national as well as local supply, while making due allowance for the need to control any environmental damage to an acceptable level. It also ensures that areas with smaller amounts of aggregate make some contribution towards meeting local and national need, where that can be done sustainably. (para 27.060)

4.1.2 Sources of aggregate mineral supply include the following:

- Primary land-won aggregates;
- Secondary aggregates;
- Recycled aggregates;
- Imports from other areas; and
- Marine-dredged aggregates (not applicable in West Midlands Metropolitan Area).

²³ NPPG ID 27-060—201400306

In considering sources of supply, the LAA should have regard to the types of material and what they can be used for, e.g. manufacture of specific products.

4.1.3 Section 4.2 below summarises provision for production of primary land won aggregates in the West Midlands Metropolitan Area, and how this contributes to the current guidelines for the former West Midlands region. The Metropolitan Area currently produces sand and gravel only, as there are no workable crushed rock deposits in the area. However, the Metropolitan Area is likely to be producing significant quantities of “alternative materials” in the form of secondary and recycled aggregates.

4.1.4 The National and Regional Guidelines (2009) assume that a proportion of the requirements for aggregates in England 2005 - 2020 will be met from “alternative materials.” It is assumed that the supply of aggregates in the former West Midlands region will include 100 million tonnes of “alternative materials.” This equates to around 6.25 million tonnes per annum and represents 27% of the total supply guideline of 370 million tonnes. Sections 4.3 and 4.4 below set out the available evidence for production of “alternative materials” in the West Midlands Metropolitan Area.

4.1.5 Section 4.5 provides an overview of current imports of aggregates into the Area. While there is evidence that the Metropolitan Area is importing aggregates and mineral products from other mineral planning authority areas, there is no evidence that aggregates are being imported from outside the UK.

4.2 Primary Land Won Aggregates

West Midlands Metropolitan Area – Aggregate Mineral Resources

4.2.1 Primary land won aggregates are naturally occurring mineral deposits that can be extracted from quarrying, or where feasible, as part of the preparatory ground works in advance of development. They include both crushed rock, of which there are unlikely to be any viable sources remaining in the West Midlands Metropolitan Area, and sand and gravel.

4.2.2 Nationally, sand and gravel comes mainly from superficial ‘drift’ deposits typically concentrated in river valleys. However, in Walsall and adjoining areas in Staffordshire they are found in bedrock ‘solid’ deposits, from the Sherwood Sandstone Group.²⁴ There are various types of hard rock suitable for crushing, such as types of limestone, sandstone and igneous/metamorphic rocks such as dolerite, the latter being the only type occurring in the West Midlands Metropolitan Area.

4.2.3 The main hard rock resource in the West Midlands Metropolitan Area is dolerite, or ‘Rowley Rag’ as it is known locally, which is found in Rowley Regis in Sandwell and Dudley, with a smaller area in Walsall at Pouk Hill. The last dolerite quarry in the West Midlands Metropolitan Area in Sandwell closed in 2007, and any remaining resources of this mineral are unlikely to be economically viable to work.

4.2.4 Sand and gravel deposits are more extensive, with both glacial and river sand and gravel resources in parts of Birmingham and Solihull, and bedrock deposits in parts of northern Birmingham and the east of Walsall.²⁵ However, the only areas where there are known economically viable resources are at Berkswell, Meriden and Stonebridge in Solihull, and at Aldridge in Walsall. Much of the resource identified in “Mineral Resource Information for Development Plans West Midlands” is constrained by built development, particularly the resource areas in Aldridge in Walsall. This reflects the fact that the boundary of the Metropolitan Area is for the most part drawn tightly around the edge of the built-up area.

²⁴ See: Mineral Resource Information for Development Plans: West Midlands - Mineral Resource Map WF/99/3 (1999), British Geological Survey. See also 3.5 and Figures 2, 3 and 4, Provision of Geological Information and a Revision of Mineral Consultation Areas for Staffordshire County Council (2006), CR/06/133 British Geological Survey.

²⁵ See: Mineral Resource Information for Development Plans: West Midlands - Mineral Resource Map WF/99/3 (1999), British Geological Survey. See also Figure 3.3 and Chapter 6, Walsall SAD and AAP Minerals Project – Review of Evidence Base for Minerals and Viability and Deliverability of Mineral Development Options (2015), Amec Foster Wheeler.

Sand and Gravel – Permitted Reserves and Areas of Search

4.2.5 The existing permitted sand and gravel sites in the West Midlands Metropolitan Area are listed in Appendix 2. Permitted reserves of sand and gravel within these sites amounted to 5.38 million tonnes at the end of 2013. Permitted reserves describe the amount of aggregates for which planning permission has been granted for excavation.

4.2.6 Current production of sand and gravel aggregates in the West Midlands Metropolitan Area takes place predominantly in Solihull, at Berkswell and Meriden quarries, and at a new quarry at Stonebridge which opened in 2012. There has also been some production in Walsall, at Branton Hill Quarry, although extraction ceased in May 2013 when the operator went into receivership, and the remaining reserves are believed to be negligible. Table 4.1 shows that permitted reserves have increased in the Metropolitan Area in recent years, reflecting the additional capacity in Solihull. This increase runs counter to the trends experienced elsewhere in the West Midlands, where permitted reserves have declined or stabilised.

Table 4.1: West Midlands Metropolitan Area - Sand and Gravel Permitted Reserves 2004 - 2013

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Reserves	2.50	2.00	1.60	2.39	5.21	5.06	4.61	4.65	6.23	5.38

Source: Solihull MBC and Walsall Council

4.2.7 The NPPF requires that a 7 year landbank of permitted reserves of sand and gravel should be maintained (NPPF paragraph 145). The length of the landbank is calculated by dividing permitted reserves by the annual requirement. The overall annual production requirement for sand and gravel in the West Midlands Metropolitan Area, based on indicative “apportionments” identified in Local Plans (1) and rolling average (mean) 10-year sales (2), is just over 0.5 million tonnes. Therefore, to provide a 7-year landbank the Area needs to identify permitted reserves of around 3.5 million tonnes in total.

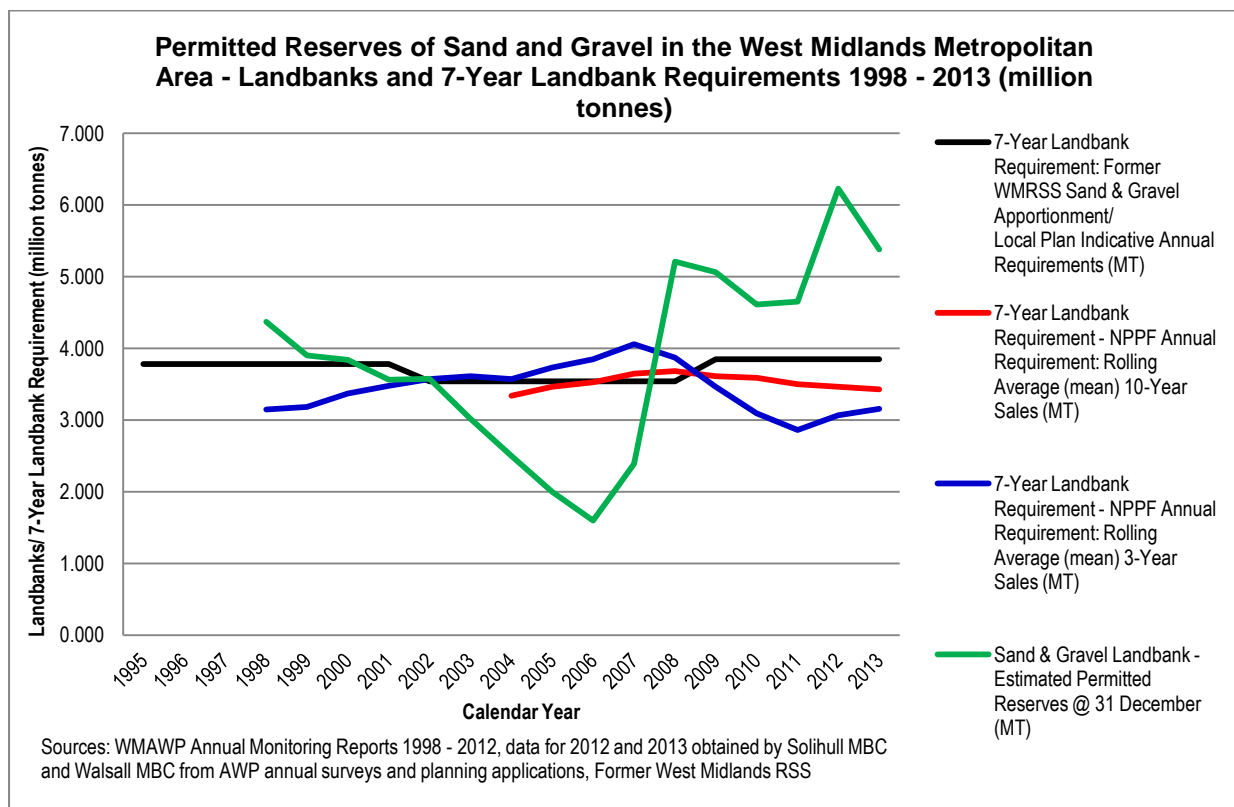
4.2.8 As at the end of 2013, the landbank in the Metropolitan Area was estimated to be around 5.4 million tonnes, sufficient to provide a supply of between 9.8 and 10.9 years, dependent on the method of calculating provision, well above the required figure (see Table 4.2 and Figure 10).

Table 4.2: West Midlands Metropolitan Area - Estimated Sand and Gravel Landbank @ 31.12.13

Permitted Reserves @ 31.12.13	SMBC Local Plan - Annual Provision (1)	2004 – 2013 Rolling Average (mean) Sales (2)	Landbank (1) years	Landbank (2) years
5.4	0.55	0.494	9.8	10.9

Source: Solihull MBC

Figure 10: Comparison of Permitted Reserves of Sand and Gravel in the West Midlands Metropolitan Area 1998 – 2013 with Landbank Requirements



4.2.9 The Solihull Local Plan 2013 identifies three preferred areas for sand and gravel extraction at Berkswell, and two areas of search for sand and gravel, which include the existing quarries in the Borough. Solihull's Minerals

Background Paper dated 29 November 2012 indicates that the preferred areas could provide for about 2.5 million tonnes with the remaining requirement of around 5 million tonnes from the areas of search. However, the preferred areas and areas of search in Solihull are subject to various constraints, notably the line of the proposed High Speed 2 (HS2) railway, which could sterilise sand and gravel resources along the rail corridor. There are also significant areas of biodiversity importance, including Berkswell Marsh Site of Special Scientific Interest, within the areas of search.

4.2.10 The Black Country Core Strategy 2011 identifies two indicative areas of search for sand and gravel extraction around former quarries within Walsall (MA1: Birch Lane and MA2: Branton Hill). Core Strategy Policy MIN2 aims to provide for a minimum of 0.05 million tonnes per annum. However, the policy identifies that the areas of search are subject to various constraints. Proposed boundaries for the areas of search are identified in the Draft Walsall Site Allocations Document (September 2015) which sets out Walsall Council's Preferred Options for the plan. Walsall Council estimates that there may be around 6.4 million tonnes of unpermitted resources within the two areas of search identified.²⁶

4.2.11 The potential for future sand and gravel extraction in Walsall has been considered in a recent viability and deliverability study commissioned by Walsall Council from Amec Foster Wheeler in 2015, to inform the preparation of the Site Allocation Document. The Study considered potential alternatives to the areas of search identified in the Core Strategy within the sand and gravel resource area. It notes the current lack of interest in working the resources in Walsall (as evidenced by the responses received from the aggregates industry), and that none of the potential locations identified is without significant constraints. It is therefore concluded that future sand and gravel extraction proposals are most likely to come forward within the areas identified in the Core Strategy, and that there is sufficient flexibility within Core Strategy Policy MIN2 to allow for possible alternatives.

²⁶ See Table 9.1, Policy M6, Chapter 9, Walsall Site Allocation Document: Preferred Options (September 2015), Walsall Council

4.2.12 Hence, the Draft Walsall Site Allocation Document does not identify any further potential working areas in Walsall, other than the two areas of search identified in the Core Strategy. Draft Policy M6 identifies the main constraints to future working in each area of search, which planning applications will be expected to address. The main constraints are the need to progress restoration of the former quarries (the Council is unlikely to support further working otherwise), proximity of potential future working areas to existing housing, potential impacts on hydrology and groundwater resources, and site access/ highway capacity constraints, and possible related impacts on amenity and air quality from increases in HGV traffic.

Sand and Gravel Extraction – Potential for “Prior Extraction”

4.2.13 Current good practice guidance on minerals safeguarding includes two documented examples of where “prior extraction” of sand and gravel has happened or has been required under a planning condition,²⁷ suggesting that where the circumstances allow, this may be feasible in the West Midlands Metropolitan Area. Where this is the case, “prior extraction” could provide a source of sand and conglomerate for use on-site, or which could be offered for sale, which may help offset the costs of individual development projects, or the cost of having to source these raw materials from elsewhere.

4.2.14 The Black Country Core Strategy and Solihull Local Plan have identified minerals safeguarding areas (MSAs) covering sand and gravel resources and other minerals of “local and national importance,” in accordance with national policy guidance (NPPF paragraph 143). Both plans include policies that encourage the “prior extraction” of any underlying mineral resources, where feasible. However, annual monitoring has so far not identified any recent cases where “prior extraction” of sand and gravel has been proposed as part of an urban development project in the Metropolitan Area.

²⁷ See Case Studies 10 and 11 in Chapter 10, “Mineral Safeguarding in England: Good Practice Advice (2011), British Geological Survey

4.2.15 It has not been possible to identify any other published examples of where “prior extraction” of sand and gravel has actually taken place in an urban area, or any evidence that it is common practice. The scope for “prior extraction” of sand and gravel is likely to be limited in areas such as the Black Country, where many urban sites are covered by a significant depth of “made ground” and have already been subject to mineral extraction in the past, which is likely to have removed any resources likely to be of value.²⁸ While it is impossible to quantify how much sand and gravel could be generated through “prior extraction” in the Metropolitan Area between now and 2031, it is unlikely to make a significant contribution towards future supplies.

Primary Land Won Sand and Gravel – Issues for Future Planning

4.2.16 The available evidence shows that the West Midlands Metropolitan Area currently has a sufficient landbank of sand and gravel reserves to meet short-term requirements. Sufficient provision has also been made in local plans to meet potential longer-term requirements. Table 4.3 below summarises the potential long-term landbank requirements up to 2031 and beyond (reflecting the period covered by the most recent housing needs assessments for local plans) under each supply requirement scenario, compared to the existing supply identified from permitted reserves and unpermitted resources within the areas of search identified in the local plans. This shows that sufficient requirements have been identified to meet the indicative requirements under both scenarios.

4.2.17 However, there is no guarantee that the resources identified in the local plans will actually come forward, as this will depend on demand and overcoming the constraints to working where they exist. Furthermore, in some parts of the Metropolitan Area, difficult choices may have to be made between safeguarding any mineral resources present, and allowing non-mineral development to take place to meet identified requirements. This is a particular

²⁸ See Chapter 10, Walsall SAD and AAP Minerals Project – Review of Evidence Base for Minerals and Viability and Deliverability of Mineral Development Options (2015), Amec Foster Wheeler.

issue for the Black Country, where there are mineral resources underlying nearly the whole of the administrative area of each authority.

Table 4.3: Sand and Gravel Requirements and Provision in the West Midlands Metropolitan Area @ 31.12.13

West Midlands Metropolitan Area – Sand and Gravel Supply Requirements	Resources Required (Million Tonnes)
Sand and Gravel Supply Requirement Scenario (1): Black Country Core Strategy 2011 - Policy MIN2 Solihull Local Plan 2013 – Policy P13	
Indicative Annual Production Requirement	0.550
7-Year Landbank Requirement (1)	3.850
Long Term Landbank Requirement 2014 – 2031 (1) (18 years + 7 years = 25 years)	13.750
Sand and Gravel Supply Requirement Scenario (2): Average (mean) 10-year Sales 2004 – 2013	
Indicative Annual Production Requirement	0.494
7-Year Landbank Requirement (2)	3.458
Long Term Landbank Requirement 2014 – 2031 (2) (18 years + 7 years = 25 years)	12.359
West Midlands Metropolitan Area – Potential Supply Available	Estimated Resources (Million Tonnes)
Permitted Reserves @ 31.12.13	5.400
Unpermitted Resources in Walsall Areas of Search (Black Country Core Strategy 2011/ Walsall SAD)	6.400
Unpermitted Resources in Solihull Areas of Search (Solihull Local Plan 2013)	2.500
TOTAL SUPPLY	14.300

Source: West Midlands Metropolitan Authorities

4.3 Secondary Aggregates

- 4.3.1 Secondary aggregates are aggregates produced as a by-product of another industrial process. Examples include slag from furnaces, ash from incinerators and recycled materials such as glass and tyres. It also includes natural by-products of industrial activity, such as colliery spoil.²⁹ There is sometimes confusion between secondary and recycled aggregates (and there are some “grey areas”), but the main difference is that secondary aggregates are generally by-products rather than “waste.”³⁰
- 4.3.2 Information on secondary aggregates production is difficult to come by, as there are no arrangements in place to monitor production of minerals from these sources either at a local or a national level, except for secondary aggregates produced as a by-product of other mineral extraction, which have been included in the last two national aggregate surveys. The last national study to provide sub-national estimates of aggregates produced from “alternative materials” was carried out in 2005³¹ prior to the current guidelines.
- 4.3.3 The survey estimated that around 38.3 million tonnes of “other materials” (i.e. materials other than recycled construction, demolition and excavation waste) were generated in England in 2005, but of this, only 8.4 million tonnes (22%) was actually used as aggregate. Table 4.4 below summarises the data in the 2005 survey report relating to use of “Other” materials as aggregates in the West Midlands Metropolitan Area.

²⁹ Construction Aggregates Mineral Planning Factsheet (June 2013), British Geological Survey and CLG (Department for Communities and Local Government)

³⁰ To qualify as a “by-product,” further use of the substance or object must be certain, it must be capable of being used directly without further processing other than “normal industrial practice,” it must be produced as an integral part of a production process and its further use must be lawful – see Article 5 of the Waste Framework Directive (2008/98/EC).

³¹ Survey of Arisings and Use of Alternatives to Primary Aggregates in England 2005: Construction, Demolition and Excavation Waste and Other Materials (February 2007), Capita Symonds and WRc plc for CLG

Table 4.4: Estimated Production of “Other” Materials in the West Midlands Metropolitan Area in 2005 by Source (million tonnes)

Area	Incinerator Bottom Ash	Spent Rail Ballast	Waste Glass	Total “Other” Materials
Birmingham and Black Country ³²	0.08	0.11	0.08	0.22
Coventry Solihull & Warwickshire ³³	0.00	0.00	0.04	0.04
Total	0.08	0.11	0.12	0.26

Source: Annex 2, Survey of Arisings and Use of Alternatives to Primary Aggregates in England 2005: Other Materials (February 2007), Capita Symonds and WRc plc for CLG

4.3.4 The table reproduces the figures for Aggregate Use in Annex 2 of the report. Due to the limitations of the data, the total figure is for the West Midlands Metropolitan Area and Warwickshire combined. Assuming that most of this related to production in Coventry and Solihull, the data suggests that the Metropolitan Area produced around a quarter of a million tonnes of aggregates from “other” material sources in 2015.

4.3.5 Evidence recently gathered by the Metropolitan Authorities on the sites known to be producing aggregates from secondary sources suggests that the Area currently has around 0.4 million tonnes of capacity for recovery and processing of such materials, which is nearly twice as much as the estimated production in the 2005 national survey. A breakdown of estimated annual throughput/ production capacity is provided in Table 4.5 below.

4.3.6 The following paragraphs summarise the types of facilities in the Area, the by-product materials they process, and the end uses of the materials.

³² This area is referred to as “West Midlands Excluding Coventry & Solihull” in the report.

³³ It is unfortunately not possible to disaggregate figures for Coventry and Solihull from this data, although most of the estimated production is likely to relate to Coventry and Solihull.

Table 4.5: West Midlands Metropolitan Area – Estimated Capacity at Secondary Aggregates Production Facilities @ 31.12.13

Facility Type	Number of Facilities				Estimated Annual Throughput/ Production Capacity (TPA)
	B'ham	Black Country	Coventry & Solihull	Total	
Use of Secondary Aggregates at Coating Plants and RMX Plants	1	3	0	4	Not known
Secondary Aggregates - Road Planings	1	1	0	2	140,000
Secondary Aggregates - Industrial By-Products	1	1	0	2	85,000
Secondary Aggregates - Rail Ballast	0	1	0	1	175,000
Total Number of Facilities / Production Capacity	3	6	0	9	400,000

Source: West Midlands Metropolitan Authorities

Secondary Aggregates from Other Mineral Extraction

4.3.7 There are no quarries in the West Midlands Metropolitan Area which are producing any aggregates as by-products. The main sources of secondary aggregates produced in the Area are therefore industrial by-products (including incinerator bottom ash), road planings, and rail ballast.

Use of Secondary Aggregates at Coating Plants and RMX Plants

4.3.8 There are three coating plants in the Black Country (Express Asphalt in Darlaston, Walsall, and the Oldbury and Ettingshall plants in Sandwell and Wolverhampton operated by Midland Quarry Products) each of which has on-site facilities for recovery of aggregates from secondary materials, including

waste resin foundry sand.³⁴ It is assumed that most of the end products are used on-site within the coating plants and it is not known whether any of the plants generate any surplus material offered for sale. The Aggregate Industries RMX plant at Perry Barr in Birmingham also produces a variety of graded aggregate products from both secondary and recycled materials, including road planings and spent rail ballast.³⁵

Industrial By-Products

4.3.9 The Ballast Phoenix facility in Birmingham specialises in recovery of secondary aggregates from non-hazardous incinerator bottom ash (IBAA) sourced from municipal energy from waste (EfW) plants. Processing involves recovery of recyclable metals, and most of the rest is useable aggregate.³⁶ The West Midlands Metropolitan Area has four EfW plants (Birmingham, Coventry, Dudley and Wolverhampton), but it is not known whether all of them are recovering IBAA for use as aggregate or whether what is being recovered is sent to the Ballast Phoenix facility.³⁷ There is also a much smaller facility in Willenhall in Walsall (G & GB Morris) which specialises in recovery of aggregates from similar industrial wastes and quarry wastes.³⁸

Road Planings

4.3.10 The Metropolitan Area has two specialist facilities for recovery of aggregates from road planings: National Road Planings in Birmingham (Tarmac) and a

³⁴ Information obtained from Midland Quarry Products website and planning application for Walsall site

³⁵ Information obtained from Appendix 9, Birmingham City Council Waste Capacity Study (February 2010), Enviros (N.B. Site identified as Bardon Aggregates), and Aggregate Industries website

³⁶ Information obtained from Appendix 9, Birmingham City Council Waste Capacity Study (February 2010), Enviros, Ballast Phoenix company website

³⁷ Information obtained from the relevant authorities indicates that IBAA from the Coventry and Dudley plants is being recovered for use as aggregate. While the benefits in terms of resource efficiency and carbon reductions are acknowledged, the economics may not necessarily stack up in every case - see Case Study 16: Delivering Resource Efficiencies in the West Midlands (2013), Improvement and Efficiency West Midlands.

³⁸ Information obtained from planning application for Walsall site

facility developed in 2012 by SITA at their waste facility in Wolverhampton. The National Road Planing facility is one of three facilities operated by Tarmac which process road planings from the Highways Agency and local highway authorities (under contracts) into high quality secondary aggregates, and supplies the end products to asphalt manufacturers, the construction industry and other private sector customers.³⁹ The SITA facility also processes road planings from local highway authority contracts and the main end products are sand and aggregates for use in road construction.⁴⁰

Rail Ballast

3.2.11 Network Rail's Local Distribution Centre (LDC) and recycling facility for rail ballast is based at Bescot Sidings in Sandwell and is part of a national network of such facilities across the rail network. The operation of these facilities used to be sub-contracted, but in 2013 the rail ballast supply chain was brought back "in house" by Network Rail, generating significant cost savings. Together, the seven facilities are estimated to be accepting 1.2 million tonnes of used materials (ballast and associated waste materials generated by excavation) annually.⁴¹ The Bescot facility has an estimated capacity of up to 175,000 TPA.

Secondary Aggregates – Issues for Future Planning

4.3.12 While we have provided an estimate of capacity for secondary aggregates production, there is currently no information available on actual production of secondary aggregates in the West Midlands Metropolitan Area in 2013. Existing capacity is not necessarily an indicator of production, which is likely to vary from year to year, depending on the demand for aggregates and the

³⁹ Information obtained from Tarmac website – National Road Planing

⁴⁰ Information obtained from Case Study 15: Delivering Resource Efficiencies in the West Midlands (2013), Improvement and Efficiency West Midlands and SITA Press Release dated 14.12.11

⁴¹ Information obtained from Railway Gazette News Release 11.07.13 and other similar sources

availability of suitable by-product materials. The factors influencing this are largely outside the control of mineral planning authorities. However, local plans are likely to have an important role to play in safeguarding industrial land, ensuring that a supply of industrial by-products can be sustained for as long as the relevant industries remain viable, and in ensuring that existing production facilities can be safeguarded, and that there are opportunities to develop new production facilities where there is an identified demand.

4.3.13 It is unlikely to be feasible for the Metropolitan Authorities to monitor the actual tonnages of secondary aggregates produced per annum with the resources available. These are likely to become even more constrained in the future given the budgetary pressures on local planning authorities. Future LAAs will therefore focus on reporting development of new secondary aggregate production facilities in the Area, and projects in the pipeline.

4.4 Recycled Aggregates

4.4.1 Recycled aggregates are produced primarily through the recycling of construction, demolition and excavation waste (CD&EW).

4.4.2 As with secondary aggregates, there is no reliable local information on the scale of production of recycled aggregates, as recycled aggregates are generated from various sources and there are no arrangements in place to collect this data in most cases. However, national surveys have shown that recycled aggregates are a much more significant source of supply than secondary aggregates.⁴² Production has been encouraged by national and European policies aimed at reducing the amount of waste going to landfill, and development plans seek to promote recycling and to safeguard sites.

4.4.3 The quality of the recycled product can vary significantly. Historically it has often been of relatively low quality, which has limited its use to general fill, but

⁴² See Survey of Arisings and Use of Alternatives to Primary Aggregates in England 2005: Construction, Demolition and Excavation Waste and Other Materials (February 2007), Capita Symonds and WRc plc for CLG

there are now some plants (e.g. Coleman and Company in Birmingham and Solihull) which are capable of producing material to a higher specification, comparable to land-won aggregates.

4.4.4 The Metropolitan Area has a number of fixed recycling sites for CD&EW (see Appendix 3 for a list of known sites, although this list may not be exhaustive). An overview of the types of facilities available in each part of the Area and their combined annual throughput/ production capacity is provided in Table 4.6 below. It is estimated that known existing fixed sites have the capacity to process around 1.125 million tonnes of CD&EW per annum.

Table 4.6: West Midlands Metropolitan Area – Estimated Capacity at Fixed Aggregates Recycling Facilities @ 31.12.13

Facility Type	Number of Facilities				Estimated Annual Throughput/ Production Capacity (TPA)
	B'ham	Black Country	Coventry & Solihull	Total	
Recycling/ Recovery at Quarries	0	2	2	4	375,000
Recycling/ Recovery at Coating Plants and RMX Plants	1	1	0	2	Not known
Recycling/ Recovery by Demolition and Engineering Contractors	6	5	1	12	500,000
Recycling/ Recovery at Waste Facilities	3	2	0	5	250,000
Total Number of Facilities / Production Capacity	10	10	3	25	1,125,000

Source: West Midlands Metropolitan Authorities

- 4.4.5 The annual throughput of waste is not necessarily the same as the annual production rate of recycled aggregates, as the CD&EW waste stream will normally include a fraction of waste that is unsuitable for recycling into aggregate, although some materials (in particular, metals) may be recovered or recycled for other purposes – for example, see Figure 14 below.
- 4.4.6 Some demolition companies claim to be achieving very high recycling rates (for example, more than 90%) on their websites. However, this cannot be verified, as it depends on how they define “recycling,” and in particular whether this includes material processed and used on-site, and material used for infilling, engineering or land remediation off-site.
- 4.4.7 Four broad categories of fixed recycling sites have been identified in the Area. The following paragraphs provide an overview of the sites falling into each category. Most of the recycling sites identified are small and constrained by other development, and their capacity is limited. It is likely that most recycled aggregates are produced as a result of on-site recycling using mobile plant, rather than production on fixed sites. While it is in many cases possible to estimate the annual throughput capacity of a fixed site, it is impossible to know how much recycled aggregate is produced and used on-site.

Recycling/ Recovery at Quarries

- 4.4.8 Recycling operations are being carried out at Meriden Quarry in Solihull⁴³ (Coleman and Company) and Ketley Quarry (WCL Quarries) in Dudley. Both sites are producing high quality graded products of similar quality to quarried aggregates, suitable for various construction and engineering applications (including fill and capping materials).⁴⁴ There is also a small permitted

⁴³ At Meriden Quarry there is also another “recycling” operation by NRS Waste Care - however, this operation appears to involve mainly pre-treatment of waste prior to use in quarry restoration, rather than recycling of aggregate for sale.

⁴⁴ Information obtained from the Coleman Group and WCL Quarries company websites

recycling facility at Branton Hill Quarry in Walsall which ceased operating in 2013 when the quarry closed.

Recycling/ Recovery at Coating Plants and RMX Plants

4.4.9 The Express Asphalt coating plant in Walsall has an on-site recycling facility which is believed to producing aggregates from recycled waste as well as from secondary (by-product) materials (see 4.3.6 above) , but it is not known whether this site generates any surplus recycled material offered for sale. Recycling is also being carried out at the Aggregate Industries RMX plant at Perry Barr in Birmingham. This site accepts concrete, masonry, bricks, tiles and ceramics and mixed CD&EW as well as secondary (by-product) materials, and produces graded aggregates.

Recycling/ Recovery by Demolition and Engineering Contractors

4.4.10 As well as the facility at Meriden Quarry (see 4.4.6), Coleman and Company have a smaller recycling facility at their head office at Shady Lane in Birmingham producing similar high quality graded aggregates. Another demolition contractor that has invested in production of high quality recycled aggregates is McAuliffe Engineering based in Wolverhampton.⁴⁵ While other contractors have indicated on their website that they produce graded materials of different specifications, it is unclear what proportion of the output is of this quality and what proportion is ungraded or low-grade material that is not a substitute for quarried aggregates.

4.4.11 As noted above, in many cases, annual throughput/ production of recycled aggregate by demolition contractors is not known, and is impossible to quantify with certainty, because a significant amount of recycling is taking place at demolition sites using mobile plant, rather than at the contractor's

⁴⁵ Information obtained from the Coleman Group and McAuliffe Engineering websites, information about other sites obtained from published studies (for example, Appendix 9, Birmingham City Council Waste Capacity Study (February 2010), Enviro and Table 22, Update to Waste Capacity Study – Birmingham City Council, Addendum (June 2014), Jacobs) or provided by the relevant authorities.

main site. The combined annual throughput figure in Table 4.6 is based on a rounded estimate of the capacity of the sites for which figures are available.

Recycling/ Recovery at Waste Facilities

4.4.12 There are a number of waste facilities in the Metropolitan Area which are specialising mainly in recovery or recycling of aggregates from construction, demolition and excavation waste. These include the Tarmac Recycling facility in Wolverhampton which specialises in aggregates recycling, and the Interserve Materials Recycling Facility in Walsall which also recycles commercial and industrial waste, and the Weir Waste facility in Birmingham.⁴⁶ The end products produced by these facilities are similar to those produced by demolition and engineering contractors.

4.4.13 The Metropolitan Area also has a number of recycling and transfer facilities (including some not listed in Appendix 3 or included in Table 4.6) which accept significant quantities of CD&EW, but it is unclear how much waste recycling/ recovery takes place at these sites.

4.4.14 There is information available from the Environment Agency Waste Data Interrogator which records the tonnages of waste falling within the “Inert C&D” category - which includes CD&EW - entering and leaving these sites each year. The Environment Agency data is not a substitute for actual data on aggregates recycling or even CD&EW arising in the Area, because it only records consignments of waste entering and leaving permitted sites and does not capture information about inert wastes that bypass the permitting system because they are managed elsewhere under “exemptions.”

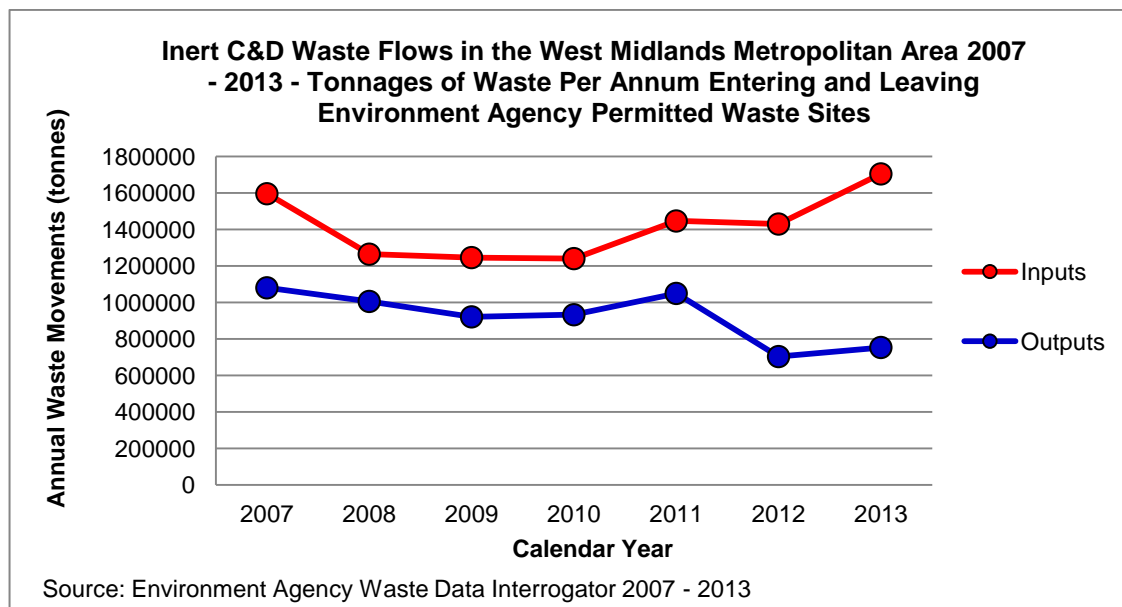
4.4.15 However, it does provide a time series of data from 2007 onwards, which can give a broad indication of changes in the generation of CD&EW in the Area over time, as well as providing other potentially useful information, such as the

⁴⁶ Information obtained from various sources, including planning applications, AWP annual survey returns, Table 22, Update to Waste Capacity Study – Birmingham City Council, Addendum (June 2014), Jacobs and Environment Agency Waste Data Interrogator for permitted sites.

potential to recycle more of this waste for aggregate use. Figure 11 below shows that tonnages of “Inert C&D” waste entering and leaving permitted waste sites in the Area has fluctuated significantly since 2007, and may be compared with trends in sand and gravel sales in Figure 5 (Section 3.4).

4.4.16 The overall trend in waste inputs appears to be upwards, which may reflect increased capacity to handle these types of waste rather than an increase of “Inert C&D” waste arising in the Area. Evidence from national surveys of CD&EW arising and use and other national statistics indicates that the construction sector is the largest generator of waste in the UK. However, although there have been some fluctuations, the tonnages of construction and demolition waste generated nationally do not appear to have changed significantly between 2004 and 2012.⁴⁷ This suggests that the amount of potentially recyclable waste available is also unlikely to have changed significantly, and that the scope to significantly increase the tonnages of aggregates produced from recycled waste is limited.

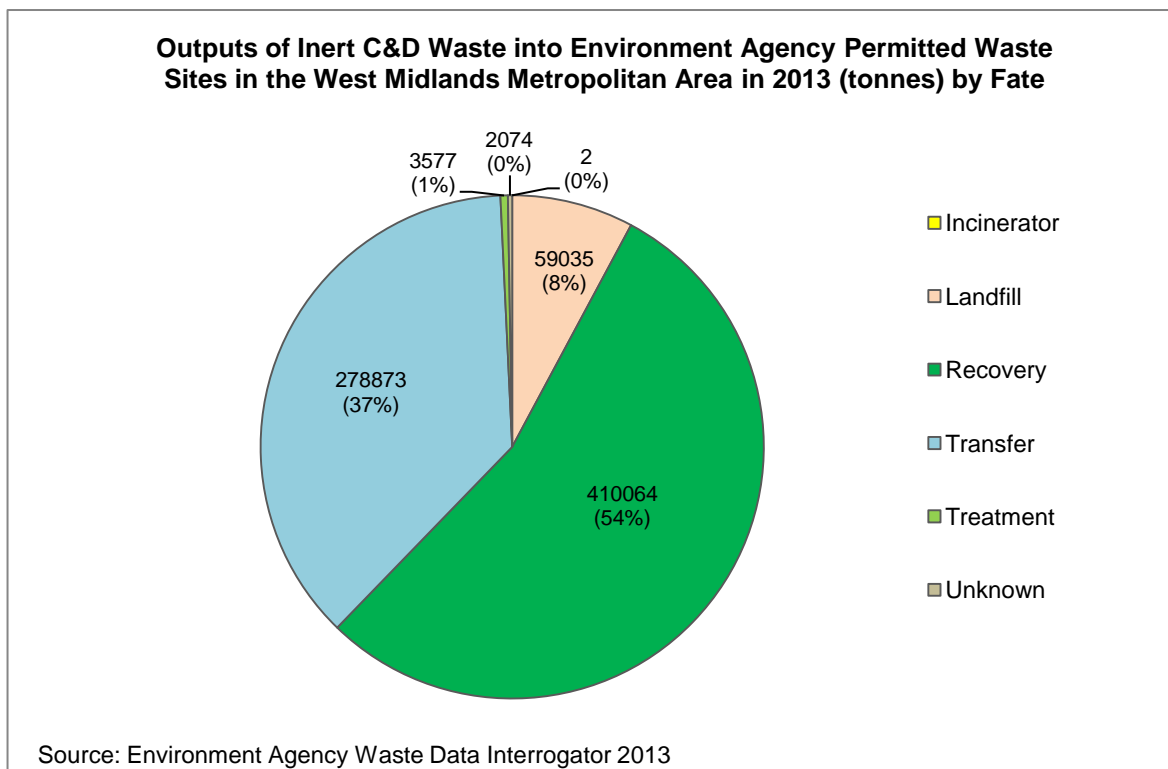
Figure 11: West Midlands Metropolitan Area – Trends in Inert C&D Waste Movements by Tonnage 2007 - 2013



⁴⁷ See Figure 2.1, Digest of Waste and Resource Statistics (February 2015), Defra, see also Table 7.1, Construction, Demolition and Excavation Waste Arisings, Use and Disposal for England 2008 (April 2010), Capita Symonds Ltd in association with Alfatek Redox (UK) Ltd,

4.4.17 By contrast, the overall trend in outputs from permitted waste sites in the Metropolitan Area is downwards, suggesting that more value is being captured through the waste management process.⁴⁸ The Environment Agency data records that “landfill” was the final fate of only around 8% of the outputs in 2013 (by tonnage) – see Figure 12. Around 54% of outputs (by tonnage) was recorded as “recovery” and 37% as “transfer.”

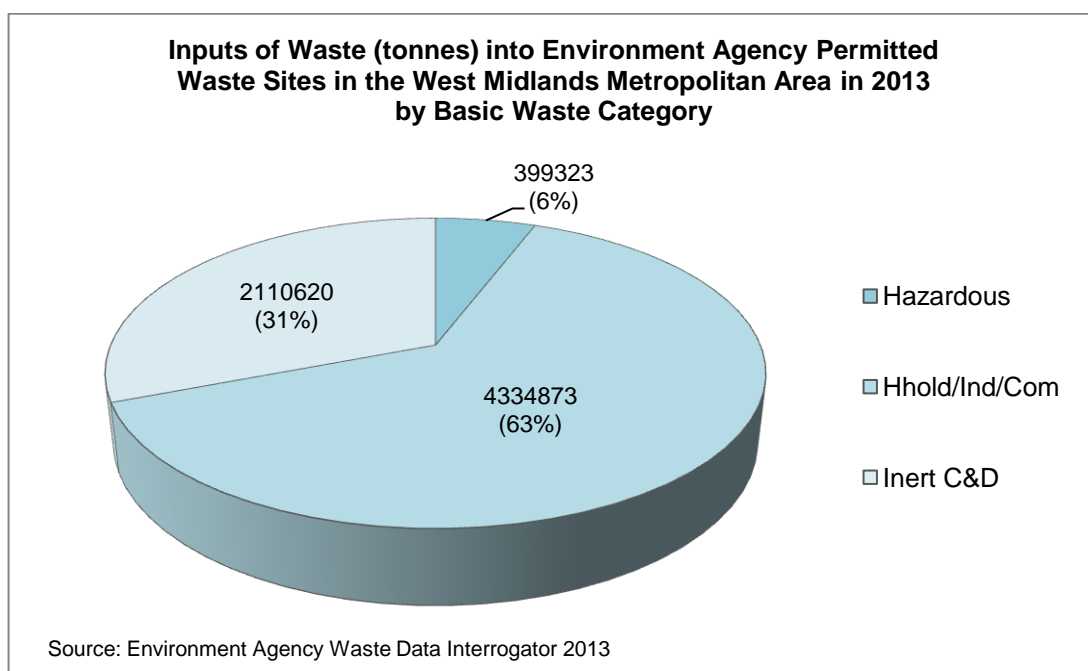
Figure 12: West Midlands Metropolitan Area – Waste Outputs from Permitted Waste Sites in 2013 by Fate



4.4.18 Figure 13 shows that around a third of the waste entering permitted waste sites in the West Midlands Metropolitan Area in 2013 (by tonnage) fell within the “Inert C&D” category, the rest being general household, industrial and commercial waste (63%) and hazardous waste (6%). This is likely to reflect the types of facilities available in the Area and their capabilities as much as the combination of wastes arising.

⁴⁸ See Section 2.2 and Table 2.2, Construction, Demolition and Excavation Waste Arisings, Use and Disposal for England 2008 (April 2010), Capita Symonds Ltd in association with Alfatek Redox (UK) Ltd, which indicates that at a national level, there has been an increase in the proportion of graded recycled products generated since the previous national survey in 2005.

Figure 13: West Midlands Metropolitan Area – Overview of Waste Entering Permitted Waste Sites in 2013 by Basic Waste Category

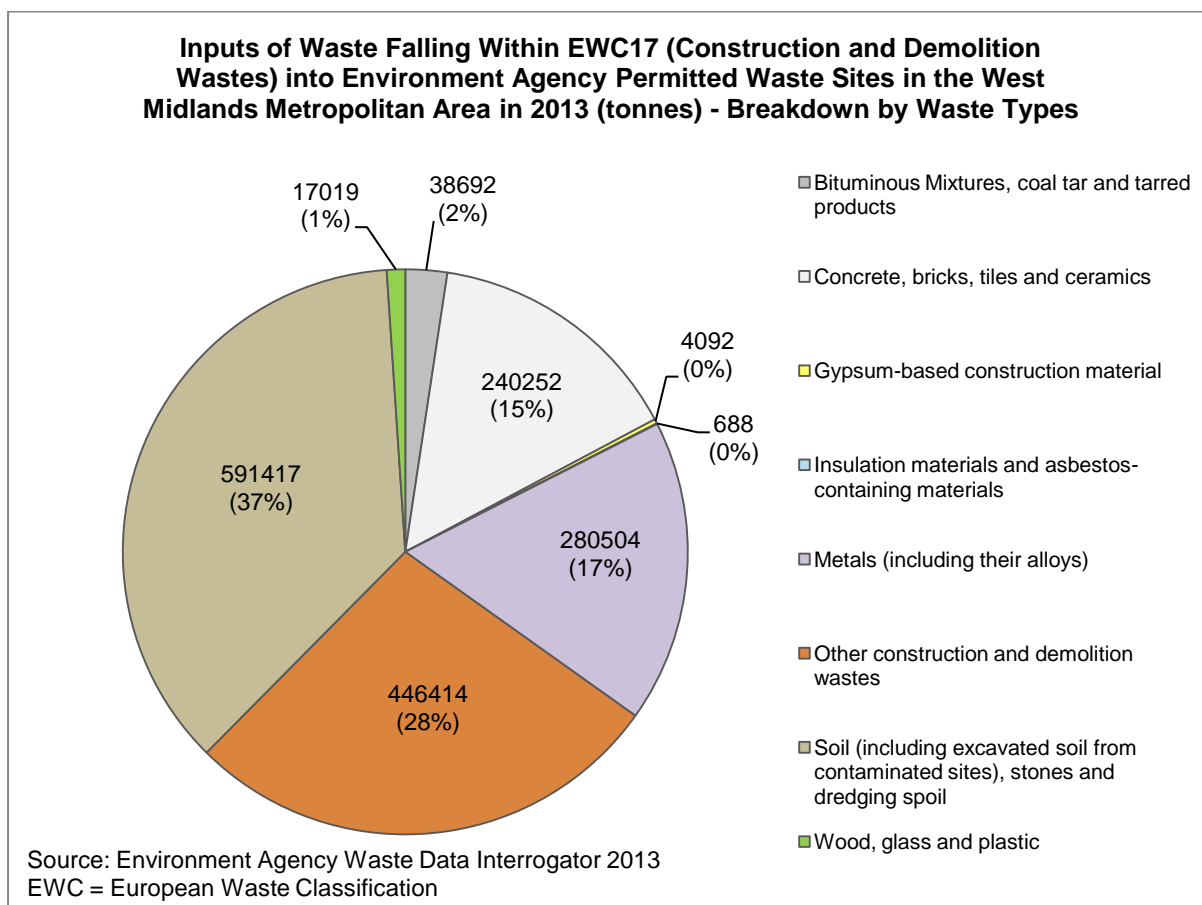


4.4.19 Permitted sites in the Area accepted around 2.111 million tonnes of “Inert C&D” waste in 2013, and 95% of this fell within the European Waste Classification (EWC) Chapter 17: Construction and Demolition Wastes. However, not all of this was potentially recyclable for use as aggregates. Figure 14 provides a breakdown of the waste falling within EWC17. This shows that soils and similar materials represent around 37% of the waste, metals account for around 17% of the waste, and wood, glass and plastics make up a further 1%. This suggests that only around 45% (around 0.950 million tonnes) has potential for recycling.

Recycled Aggregates – Issues for Future Planning

4.4.20 As assumptions have been made about production of “alternative materials” within the current national and regional guidelines (see 4.1 above), it cannot be assumed that increased recycling (even if it is feasible) would help make up for any future shortfalls identified in the supply of primary land won aggregates in the Metropolitan Area or elsewhere within the West Midlands.

Figure 14: West Midlands Metropolitan Area – Construction and Demolition Waste Entering Permitted Waste Sites in 2013 by Type



4.4.21 As with secondary aggregates, existing capacity is not necessarily an indicator of actual production per annum, and accurate quantification of production of recycled aggregates is not possible given the lack of any effective arrangements in place to collect data on recycling performance at a local level from each of the identified sources. This is not likely to change in the foreseeable future because of the difficulties of collecting such data and the limited resources available for monitoring within the Authorities.

4.4.22 The evidence that is available indicates that the West Midlands Metropolitan Area already has significant capacity for recycling of CD&EW into aggregates, and that recycled aggregates already make an important contribution to aggregate supply in the Area. Local plans have an important role to play in

safeguarding existing aggregates recycling capacity, as well as in identifying opportunities to develop new recycling facilities in suitable locations where there is an identified demand.

4.4.23 However, aggregates recycling on any scale requires a large, open site and is a noisy, dusty operation, which is not generally regarded as acceptable near to “sensitive receptors” such as housing or community facilities. The sites with the greatest production capacity in the Area are at existing quarries, and the other sites where recycling is taking place are relatively small and their annual production rate is likely to be relatively low. Identifying suitable locations for new recycling facilities will be a challenge in the Metropolitan Area, where there are many competing demands for land, and where many of the sites that may be available are constrained by existing development.

4.4.24 While there may be some scope to increase production of recycled aggregates in the future, in view of the emphasis on recycling and the improving quality of recycled products, which is encouraged in existing local plan policies, the evidence currently available suggests that a significant increase is unlikely, as this depends on the quantities of suitable wastes generated by the construction process. The evidence from national surveys and statistics suggests that high rates of recycling are already being achieved, and that the quantity of CD&EW arising has not changed significantly since 2004. If the tonnage of CD&EW arising is not expected to increase at either a national or a local level, it is questionable whether there is scope for a significant increase in the quantities of recycled aggregates produced.

4.4.25 It is also relevant to note that there is a tension between the objective of increasing the production of recycled aggregates, and the continuing need for inert waste for use as fill material in restoration projects, such as the restoration of former quarries, and for use in the remediation of derelict sites, including land affected by industrial and mining “legacy,” which is a particularly important issue in the Black Country.

4.5 Imports

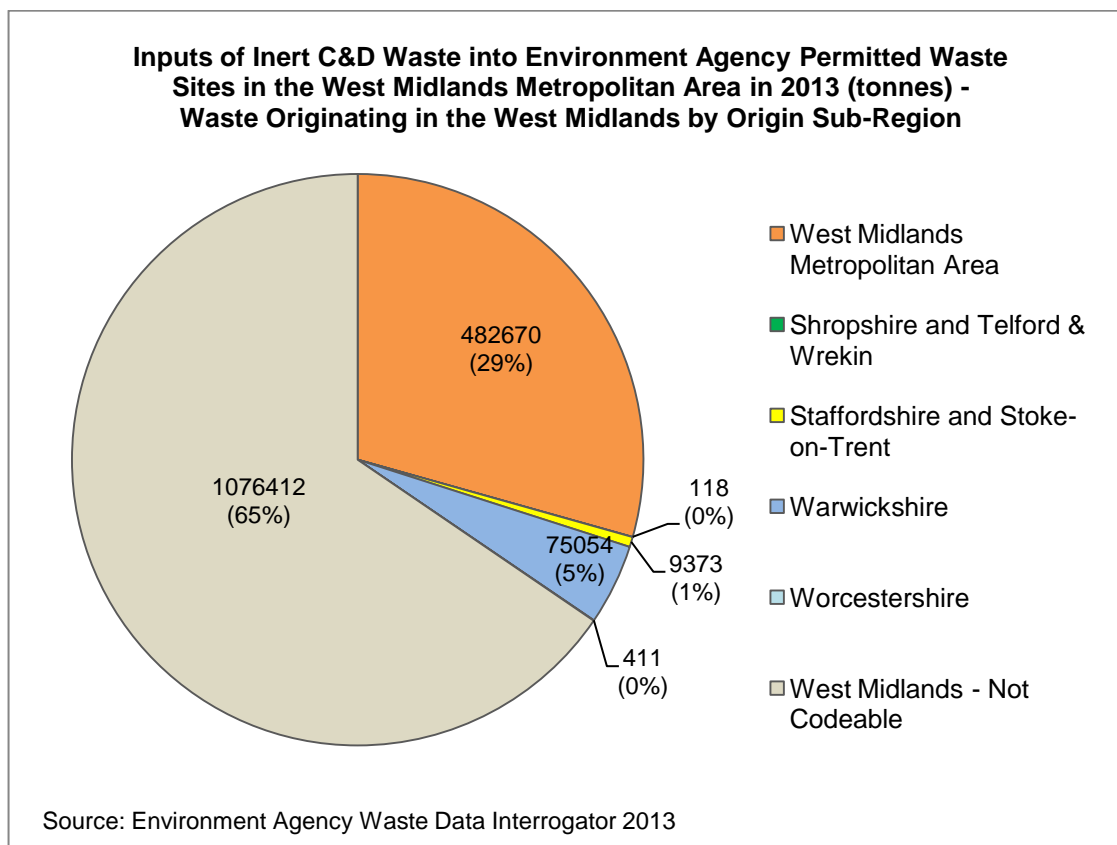
- 4.5.1 There is no evidence that any aggregate minerals are being imported into the West Midlands Metropolitan Area from outside the UK. However, the bulk of aggregate minerals consumed are sourced from outside the Area – in 2005, imports represented more than 90% of the Area’s sand and gravel consumption and 100% of its crushed rock consumption (see 3.5 above). In particular there is reliance on Staffordshire to meet a significant proportion of demand for sand and gravel in Birmingham and the Black Country. A smaller proportion originates in Warwickshire, which has particular significance for Coventry.
- 4.5.2 The Draft Staffordshire LAA for 2015 acknowledges the demand for sand and gravel from the West Midlands Metropolitan Area. It indicates that provision within the County will be made to meet the current average 10 years sales figure, and this is reflected in the latest version of the Staffordshire Minerals Local Plan (July 2015). However, at 5 million tonnes per annum, this is currently significantly below the former West Midlands RSS apportionment of 6.71 million tonnes per annum for Staffordshire and Stoke-on-Trent.
- 4.5.3 The Draft Warwickshire LAA for 2015 also notes the extent of the demand from the West Midlands Metropolitan Area, but notes that only two sand and gravel quarries are currently operating in the County. Warwickshire proposes to maintain its current apportionment rate to 2016, but then to use the 10 years sales average as a guide for working out future sand and gravel requirements. As in the case of Staffordshire, this is below the former West Midlands RSS apportionment rate for Warwickshire. However, the County Council has identified future sand and gravel supply as the most important issue for the Minerals Local Plan, and has identified a number of proposed new sand and gravel sites, including sites at Lea Marston and Ryton-on-Dunsmore which would be well-located to supply Birmingham and Coventry.⁴⁹

⁴⁹ Warwickshire Minerals Local Plan Preferred Option and Policies (October 2015)

- 4.5.4 Although some new potential supply sites have been identified in the emerging minerals local plans in both areas, the evidence currently available suggests that planned levels of sand and gravel provision in the two most important areas in the West Midlands which have historically been exporting material to the West Midlands Metropolitan Area are likely to reduce in the future. This means that alternative sources of supply will need to be identified, or there will need to be a radical change in the way that aggregates are used in new developments, which enables a significant reduction in consumption.
- 4.5.5 The evidence from the Aggregates Minerals 2009 Survey and from reviewing existing production sites in the West Midlands Metropolitan Area also shows that the East Midlands is likely to be the primary existing source for supply of crushed rock aggregates consumed in the West Midlands. It has been noted above (3.6.6) that the latest LAAs for Leicestershire and Derbyshire show there are significant permitted reserves of igneous rock, limestone and gritstone in these areas. It is proposed to consult the East Midlands AWP, and the mineral planning authorities most likely to be the source of imported materials (i.e. Derbyshire and Leicestershire) on the Draft LAA before it is finalised, to ensure that they are aware of a potential future increase in demand for crushed rock from the West Midlands Metropolitan Area to support planned levels of development up to 2031.
- 4.5.6 We have only limited information about where secondary aggregates come from, but a significant proportion of the by-product materials used as secondary aggregates are likely to be imported. Evidence obtained by Coventry City Council and Walsall Council from local foundries and forges suggests that significant quantities of spent foundry sand or metallic slag are no longer being produced in the Area. Increasingly, industrial by-product material is likely to be sourced from beyond the Area, as the industries that produce it have significantly contracted in recent years and this process is likely to continue. Spent rail ballast is likely to be coming from all over the rail network, and road planings could be coming from any highway authority that has a contract with one of the facilities in the Area.

4.5.7 However, most of the CD&EW used to produce recycled aggregates is likely to be sourced locally, because these materials do not tend to travel very far, and the Metropolitan Area is also a major focus for construction projects that tend to generate this type of waste. Nearly all of the “Inert C&D” waste entering permitted waste sites in the Area in 2013 (around 1.679 million tonnes, representing 99% of all inputs) came from within the former West Midlands region. However, as Figure 15 below shows, the precise origin of 65% of this waste is not known. Most of the waste whose origin is known came from within the Metropolitan Area.

Figure 15: West Midlands Metropolitan Area – Inert C&D Waste from West Midlands Entering Permitted Waste Sites in 2013 by Origin



4.5.8 Most “Inert C&D” waste outputs also did not travel very far – 91% of the recorded outputs by tonnage did not go any further than the former West Midlands region.⁵⁰ However, as with inputs, the exact destination of a high

⁵⁰ The destination of 6% of outputs in 2013 was the former Yorkshire and Humber region. However, analysis of the exported waste consignments suggests that these were mostly waste metals and

proportion of the outputs within the West Midlands (72%) was not recorded. Where the destination was recorded, most (18%) stayed within the Metropolitan Area although a further 8% went to Warwickshire and 2% to Staffordshire or Stoke-on-Trent.

Imports – Issues for Future Planning

4.5.9 See 3.6.8 above for consideration of key issues.

4.6 Other Potential Sources of Supply

4.6.1 The National Planning Policy Guidance on the Managed Aggregate Supply System includes two other sources, marine sand and gravel dredging and international imports. The geographical location of the West Midlands Metropolitan Area means these are of little or no significance, and this is confirmed by the results of the 2009 Aggregate Minerals Survey for England and Wales.

4.7 Potential Future Aggregate Supply– Conclusions

4.7.1 The main conclusions in relation to supply are as follows:

- The potential for land-won supply of aggregates from within the Metropolitan Area is limited to a relatively small amount of sand and gravel production primarily in Solihull. There is currently a landbank of over 9 years' supply, based either on past sales (0.494 million tonnes per annum) or the most recent sub-regional "apportionment" (0.55 million tonnes per annum) which has been used as the indicative requirement in local plans.
- There are a number of facilities producing secondary aggregates, whose combined annual throughput capacity is estimated to be around

waste treatment residues being transported from facilities in the Black Country to other facilities in the control of the same waste operators located in Sheffield.

0.4 million tonnes per annum, but there is no reliable local data on the actual amount produced, which is likely to be somewhat less than this.

- There are also a significant number of fixed sites producing aggregates from recycled construction, demolition and excavation waste, the combined annual throughput capacity of which is around 1.125 million tonnes, but as with secondary aggregates there is no reliable local data on actual production on an annual basis.
- There is a lack of reliable local data in relation to the on-site production of recycled aggregates. However national data and information on CD&EW arising suggest that it is making a significant contribution to current supplies and will continue to do so going forward.
- The Area relies heavily on imported land-won aggregates. In the case of sand and gravel the main source of supply is Staffordshire with a smaller contribution from Warwickshire. The main source of supply of crushed rock is the East Midlands.

5. Supply and Demand – Conclusions

5.1 Overall Conclusions

5.1.1 The West Midlands Metropolitan Area is substantially built-up, with administrative boundaries that are for the most part drawn tightly around the developed area. Inevitably in these circumstances it relies heavily on imported land-won aggregate, and this situation can be expected to continue.

5.1.2 The Area does produce a limited amount of sand and gravel, predominantly from within Solihull, but has no workable reserves of crushed rock. There are sufficient reserves of sand and gravel to enable production to continue at the level of past apportionments – but no realistic prospect of increasing this given the significant constraints to mineral extraction in the Area. Recycled aggregates do make an important contribution to supply and there may be

some potential for this to be increased, but it is unlikely that a significant increase in production of recycled aggregates will be feasible.

5.1.3 Emerging evidence commissioned by the Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP) and the Black Country Local Authorities suggests that there is likely to be a significant increase in requirements for new housing development in the housing market area identified, centered on Birmingham, in the period between now and 2031, compared to the rates of completions achieved in the recent past.⁵¹ In the Coventry and Warwickshire housing market area, having regard to the most up to date available evidence, Coventry's population is projected to grow by in excess of 89,000 people between 2011 and 2031, with growth in the working age population of approximately 48,000 people. This results in an Objectively Assessed Need (OAN) for housing of 42,400 homes over the same period.⁵²

5.1.4 There are also continued pressures for new infrastructure provision, in particular HS2 and transport projects likely to come forward through the West Midlands Metropolitan Area Local Transport Plan, which is currently under review. These pressures are likely to result in an increase in aggregate consumption as well as affecting important sources of supply within the Area (including sand and gravel resources in Solihull and the Washwood Heath Sidings production and distribution facility in Birmingham).

5.1.5 The main source of imported land-won sand and gravel is currently Staffordshire, as Warwickshire has seen a reduction in the number of sand and gravel quarries and is no longer a significant source of supply. Both of these Counties are proposing to reduce planned levels of sand and gravel production within their areas.

5.1.5 The main source of imported crushed rock (as well as lime and cement) is the East Midlands. However, the latest LAAs indicate that there are significant

⁵¹ Greater Birmingham and Solihull LEP (GBSLEP) and Black Country Strategic Housing Needs Study (SHNS): Stage 3 Report (August 2015), Peter Brett Associates

⁵² Coventry and Warwickshire Strategic Housing Market Assessment, GLH Report, 2015

permitted reserves of igneous rock and limestone remaining in the relevant areas to meet potential future supplies.

5.2 Key Issues for Future Local Plans and LAAs

- 5.2.1 Table 5.1 summarises the key issues for future local plans/ local plan reviews identified through this LAA. Most of the proposals are aimed at safeguarding existing mineral resources and infrastructure as far as possible, ensuring that new infrastructure is appropriately located.
- 5.2.2 The other important issue is that there is appropriate “co-operation” with other mineral planning authorities likely to be supplying aggregate minerals to the West Midlands Metropolitan Area to support future development and growth. Part of this process will involve consulting the relevant mineral planning authorities in the East and West Midlands on the draft of this LAA.
- 5.2.3 In preparing this first LAA, the authorities have considered what should be included in future LAAs to monitor supply and demand for aggregate minerals in the Metropolitan Area. The preparation of this LAA has been a major challenge for the authorities with the limited resources available. The resources for monitoring of future aggregate demand and supply are likely to reduce further going forward.
- 5.2.4 This first LAA is inevitably a relatively lengthy document, as it is necessary to present the available evidence – some of which is not published elsewhere, or has never been brought together before in one place - to provide a context for future monitoring. However, it is intended that subsequent LAAs will be much shorter and will focus on the key indicators identified in Table 5.1 below.

Table 5.1: Summary of Issues for Local Plans and Future LAAs

LAA Sections	Issues for Future Local Plans	Issues for Future LAAs - Monitoring Indicators
3. Demand		
3.2 National and Sub-National Guidelines	Need to consider implications for supply of aggregate minerals if new guidelines are issued	New guideline figures and underlying data
3.3 Sand and Gravel Sales – Past Trends	No current issues, no reason to change existing annual sand and gravel production targets at present, but as past trends may not reflect future requirements, will need to keep under review - see 3.4	Annual Sand and Gravel Sales
3.4 Construction Activity	Consider whether future planned levels of development/ new infrastructure projects will significantly increase demand for aggregates over and above existing guidelines/ local annual supply targets	General construction activity, new infrastructure projects, housing completions, revised requirements for new development in local plans
3.5 Manufacturing Plants	Where policies are not already in place to safeguard existing and permitted plants, should consider including them in future local plan reviews	Changes to existing network of manufacturing plants, new plants in the pipeline/ completed

LAA Sections	Issues for Future Local Plans	Issues for Future LAAs - Monitoring Indicators
3.6 Imports and Exports	Continued engagement/ “co-operation” with other mineral planning authorities likely to provide a source of aggregate minerals	Outcomes of engagement/ “co-operation” with other mineral planning authorities, provision made in relevant minerals local plans
3.7 Distribution Networks	Consider whether existing policies for minerals/ freight transport make appropriate provision for moving aggregates and mineral products	Changes to existing distribution networks, transport projects aimed at improving provision or bulk transportation of minerals
4. Supply		
4.2 Primary Land Won Sand and Gravel	Consider safeguarding sand and gravel resources through MSA policy where there is no policy already in place, otherwise, no pressing issues, there is currently a 7-year landbank of permitted sand and gravel reserves, and existing local plans make sufficient provision in Solihull and Walsall to meet longer term requirements up to and beyond 2030	Sand and Gravel Landbanks, new sand and gravel extraction proposals in the pipeline/ implemented

LAA Sections	Issues for Future Local Plans	Issues for Future LAAs - Monitoring Indicators
4.3 Secondary Aggregates	Where policies are not already in place to safeguard existing and permitted production facilities and encourage development of new facilities in appropriate locations, should consider including them in future local plan reviews	Changes to existing network of production facilities, new facilities in the pipeline/ completed
4.4 Recycled Aggregates	Where policies are not already in place to safeguard existing and permitted production facilities and encourage development of new facilities in appropriate locations, should consider including them in future local plan reviews	Changes to existing network of production facilities, new facilities in the pipeline/ completed
4.5 Imports	Continued engagement/ “co-operation” with other mineral planning authorities likely to provide a source of aggregate minerals	Outcomes of engagement/ “co-operation” with other mineral planning authorities, provision made in relevant minerals local plans
4.6 Other Sources of Supply	Unlikely that any other sources will be identified, but if any are, local plans will need to factor this into indicative requirements for aggregate minerals	New sources of supply as and when identified

Appendix 1

Operational Sites Producing Minerals Products in the West Midlands Metropolitan Area @ 31.12.13

Site Name	Address	Operator	MPA	Type of Site
Accumix	West Midlands Depot, Oakdale Trading Estate, Ham Lane, Kingswinford, West Midlands, DY67JH	Accumix Concrete Limited	Dudley	RMX Plant
Aggregate Industries Birmingham	209–211 Walsall Road, Perry Barr, Birmingham, B42 1TY	Aggregate Industries	Birmingham	RMX Plant
Aggregate Industries Bordesley Green (Minimix)	253 Bordesley Green, Bordesley Green Road, Bordesley Green, Birmingham, B8 1BY	Aggregate Industries	Birmingham	RMX Plant
Aggregate Industries Wolverhampton	Manfield Road, Wolverhampton, West Midlands, WV13 3RX	Aggregate Industries	Wolverhampton	RMX Plant
CEMEX Aston Plant	William Henry Street, Birmingham, B7 5ER	CEMEX UK Materials Ltd	Birmingham	RMX Plant
CEMEX Berkswell Plant	Cornets End Lane, Meriden, Coventry, Warwickshire, CV7 7LH	CEMEX UK Materials Ltd	Solihull	Concrete Batching Plant, RMX Plant
CEMEX Kings Norton Plant	Lifford Lane, Kings Norton, Birmingham, B30 3DY	CEMEX UK Materials Ltd	Birmingham	RMX Plant

Site Name	Address	Operator	MPA	Type of Site
CEMEX Oldbury Plant	Cemex House, Wolverhampton Road, Oldbury, West Midlands, B69 4RJ	CEMEX UK Materials Ltd	Sandwell	RMX Plant
CEMEX UK Building Products Ltd - Washwood Heath	Washwood Heath Sidings, off Aston Church Rd, Saltley, Birmingham, West Midlands, B8 1QF	CEMEX UK Materials Ltd	Birmingham	Manufacture of Concrete Products, RMX Plant, Aggregates Depot
CEMEX Washwood Heath Asphalt Plant	Washwood Heath Sidings, off Aston Church Rd, Saltley, Birmingham, West Midlands, B8 1QF	CEMEX UK Materials Ltd	Birmingham	Coating Plant
Concrete Wolverhampton	Unit 1a Thomas Street, Wolverhampton WV2 4JS	G & L Ready Mix Concrete Ltd	Wolverhampton	RMX Plant
Dudleymix Concrete	Peartree Lane, Brierley Hill, Dudley, West Midlands, DY2 0UU	Dudley Mixed Concrete Ltd	Dudley	RMX Plant
Ettingshall Asphalt Plant	Spring Road, Ettingshall, Wolverhampton, West Midlands, WV4 6JP	Midland Quarry Products (MQP) Ltd	Wolverhampton	Coating Plant
Express Asphalt Coventry	Doyle Drive, Aldermans Green Industrial Estate	Aggregate Industries	Coventry	Coating Plant
Express Asphalt Darlaston	Units 6 and 7, 70 Downs Road, Willenhall, Walsall, WV13 2PF	Aggregate Industries	Walsall	Coating Plant

Site Name	Address	Operator	MPA	Type of Site
Hope Construction Materials - Birmingham (Central)	122 Fazeley St Birmingham B5 5RS	Hope Construction Materials	Birmingham	RMX Plant
Hope Construction Materials - Birmingham (Saltley)	51 Landor St, Saltley, Birmingham, B8 1AE	Hope Construction Materials	Birmingham	RMX Plant
Hope Construction Materials - Coventry (Meriden)	Cornets End Lane, Meriden, nr Coventry, CV7 7SG	Hope Construction Materials	Solihull	RMX Plant
Hope Construction Materials – Delph Road	Delph Road, Brierley Hill, West Midlands, DY5 2UA	Hope Construction Materials	Dudley	RMX Plant
Hope Construction Materials - West Bromwich (Oldbury)	Engine Street, Oldbury, B69 4NL	Hope Construction Materials	Sandwell	RMX Plant
Hope Construction Materials - Walsall	Midland Yard, Fairground Way, Walsall WS1 4NU	Hope Construction Materials	Walsall	Aggregates Distribution Depot, Planning Permission for RMX Plant
Landywood Concrete Products Ltd	Neachells Lane, Wednesfield, Wolverhampton, West Midlands, WV11 3PY	Landywood Concrete Products Ltd	Wolverhampton	Manufacturer of Concrete Products
Metamix	Batmans Hill Industrial Estate, Purdy Road, Bilston, WV14 8UB	Metamix Ltd	Wolverhampton	RMX Plant

Site Name	Address	Operator	MPA	Type of Site
Pro Mini Mix Oldbury	Pro Mini Mix Con Cemex House, Wolverhampton Road, Oldbury, West Midlands, B69 4RJ	Pro Mini Mix Concrete Mortars and Screeds Ltd	Sandwell	RMX Plant
S S Concrete	145 Merridale Road, Wolverhampton, West Midlands WV3 9RL	S S Concrete Mix Ltd	Wolverhampton	RMX Plant
Site Concrete	Roway Lane, Oldbury, B69 3EH	Site Concrete	Sandwell	RMX Plant
Tarmac – Birmingham Mortar	Engine Street, Oldbury, West Midlands, B69 4NL	Tarmac	Sandwell	Dry Silo Mortar Plant
Tarmac Readymix Concrete - Coventry (Coventry Concrete)	Aldermans Green Industrial Estate, Barlow Road, Potters Green, Coventry, CV2 2LD	Tarmac Readymix Concrete	Coventry	RMX Plant
Tarmac Readymix Concrete - Ettingshall	Millfields Road, Ettingshall, Wolverhampton, WV4 6JP	Tarmac Readymix Concrete	Wolverhampton	RMX Plant
Tarmac Readymix Concrete - Haymills	Amington Road, Tyseley, Birmingham, B25 8EL	Tarmac Readymix Concrete	Birmingham	RMX Plant
Tarmac Readymix Concrete - Solihull (Garretts Green)	Bannerley Road, Garretts Green, West Midlands, B33 0SL	Tarmac Readymix Concrete	Birmingham	RMX Plant

Site Name	Address	Operator	MPA	Type of Site
Tarmac Readymix Concrete - Walsall (Fenchurch Close)	Fenchurch Close, off Green Lane, Walsall, WS2 8LJ	Tarmac Readymix Concrete	Walsall	RMX Plant
Tarmac Building Products - Meriden Quarry	Meriden Quarry, Cornets End Lane, Meriden, Nr Coventry, Warwickshire, CV7 7LG	Tarmac Building Products	Solihull	Dry Silo Mortar Plant
Wednesbury Asphalt Plant	Smith Road, Wednesbury, West Midlands WS10 0PB	Midland Quarry Products (MQP) Ltd	Sandwell	Coating Plant

Source: Online directories and company websites, information obtained from operators by West Midlands Metropolitan Authorities

Appendix 2

Permitted Sand and Gravel Extraction Sites in the West Midlands Metropolitan Area @ 31.12.13

Site Name	Address	Operator	MPA	Current Status @ 31.12.13
Aldridge Quarry	Birch Lane, Aldridge, Walsall WS9 0NF	CEMEX UK Materials Ltd	Walsall	Closed in 2008, no reserves remaining. Restoration has not commenced.
Berkswell Quarry	Cornets End Lane, Meriden, Nr. Coventry, West Midlands CV7 7LH	CEMEX UK Materials Ltd	Solihull	Closed in 2012 and working now taking place on extension site (Park Farm) – see below. Restoration underway.
Berkswell Quarry Extension	Cornets End Lane, Meriden, Nr. Coventry, West Midlands CV7 7LH	CEMEX UK Materials Ltd	Solihull	Active quarry, extension to former Berkswell Quarry. Planning permission granted in September 2007. This site is the main source of supply of silica sand to CEMEX's Washwood Heath site in Birmingham. Quarry and proposed extension (Marsh Farm) are under threat from the HS2 proposal which could sterilise the remaining sand and gravel reserves within the existing quarry, as well as the resources within the proposed quarry extension area included in the Solihull Local Plan 2013.
Branton Hill Quarry	30A Branton Hill Lane, Aldridge, Walsall WS9 0NS	Formerly Bliss Aggregates.com (in receivership)	Walsall	Inactive – working ceased in May 2013, restoration of previously worked areas not fully complete. Remaining permitted reserve likely to be negligible.

Site Name	Address	Operator	MPA	Current Status @ 31.12.13
Meriden Quarry (Areas E & G)	Cornets End Lane, Meriden, Nr Coventry CV77LG	Tarmac	Solihull	Active quarry. Sand and gravel from this quarry is used at adjacent RMX plant (Hope) and dry silo mortar plant (Tarmac), remainder is either bagged and sold from the site or exported for sales by road. Site is affected by HS2 alignment (most of the extraction area is proposed for development with the station).
Stonebridge Quarry	Coventry Road, Meriden, Nr Coventry, CV7 7HL	Packington Estates	Solihull	New quarry which opened in 2012, supplies aggregates for sale on the open market.

Source: Company websites, information obtained from operators by Solihull MBC and Walsall Council, planning applications, information submitted to HS2 House of Commons Parliamentary Committee by CEMEX UK Materials Ltd

Appendix 3

Permitted Secondary and Recycled Aggregate Production Sites in the West Midlands Metropolitan Area @ 31.12.13

Site Name	Address	Operator	MPA	Products/ End Uses
Aggregate Industries Birmingham	209–211 Walsall Road, Perry Barr, Birmingham B42 1TY	Aggregate Industries	Birmingham	Graded recycled aggregates for sale/ used on-site for manufacture of RMX concrete
Armac Demolition	Former Arden Brickworks, Coventry Road, Bickenhill, B92 0DY	Eaglebeam Ltd (formerly McLean Estates)	Solihull	Recycled aggregates, mostly general capping material
Armac Demolition	253 Bordesley Green Road, Birmingham, B8 1BY	Eaglebeam Ltd (formerly McLean Estates)	Birmingham	Recycled aggregates, mostly general capping material
Ballast Phoenix	Civil Amenities Depot, Tameside Drive, Castle Bromwich, Birmingham, B35 7AG	Ballast Phoenix Ltd	Birmingham	Graded secondary aggregates (industrial by-products including incinerator bottom ash) for general fill/ capping, manufacture of concrete products, coated products, surface treatments for roads
Bloomfield Recycling	Bloomfield Road, Tipton, West Midlands, DY4 9BS	Humphries Holdings Group	Dudley	Graded recycled aggregates, probably mostly for general fill/ capping
Branton Hill CLEUD Site	30A Branton Hill Lane, Aldridge, Walsall, West Midlands, WS9 0NS	Bliss Aggregates	Walsall	Recycled aggregates, probably mostly for general fill/ capping
Bescot LDC	Bescot Sidings, Sandy Lane, Wednesbury, West Midlands WS10 0LH	Network Rail	Sandwell	Secondary aggregates (spent rail ballast), used within national rail network

Site Name	Address	Operator	MPA	Products/ End Uses
Bescot Triangle South ⁵³	Off Bescot Road, Walsall, West Midlands	DSM	Walsall	Recycled aggregates, probably mostly for general fill/ capping
C & J Recycling	251 Bordesley Green Rd, Bordesley Green, Birmingham, B8 1BY	C & J Recycling Ltd	Birmingham	Graded recycled aggregates and topsoil, probably mostly for general fill/ capping
City Demolition Contractors	Blews St, Aston, Birmingham, B6 4EP	City Demolition Contractors (Birmingham) Ltd	Birmingham	Graded recycled aggregates, used as general fill for on-site use by clients, other material transported off-site to local recycling facilities
Coleman and Company - Shady Lane	Shady Lane, Great Barr, Birmingham, B44 9ER	The Coleman Group	Birmingham	High quality graded aggregates including a range of granular fill materials and capping materials, for on-site use by clients, for use within company, also for general aggregate sales (sales off site at Meriden)
Coleman and Company - Meriden Quarry	Cornets End Lane, Meriden, Nr Coventry, CV77LF	The Coleman Group	Solihull	High quality graded aggregates including a range of granular fill materials and capping materials for various construction and engineering purposes, for general aggregate sales

⁵³ This site was inactive in 2013 but has since been taken over by A B Waste and is now active again.

Site Name	Address	Operator	MPA	Products/ End Uses
Coppice Lane ⁵⁴	Coppice Lane, Aldridge, Walsall, West Midlands, WS9 9AA	No current operator	Walsall	Planning permission for aggregates recycling
DSM	Arden House, Arden Rd, Saltley, Birmingham,,B8 1DE	DSM Demolition Group	Birmingham	Graded recycled Aggregates, probably mostly for general fill/ capping
Dismantling & Engineering Services	Noose Lane, Willenhall, West Midlands, WV13 3AE	Dismantling & Engineering Services Ltd	Wolverhampton	Recycled aggregates, probably mostly for general fill/ capping
Ettingshall Asphalt Plant	Spring Road, Ettingshall, Wolverhampton, West Midlands, WV4 6JP	Midland Quarry Products (MQP) Ltd	Wolverhampton	Graded secondary aggregates (industrial by-products including spent foundry sand), probably mostly used on-site in manufacture of coated products
Express Asphalt Darlaston	Units 6 and 7, 70 Downs Road, Willenhall, Walsall, West Midlands WV13 2PF	Aggregate Industries	Walsall	Graded secondary and recycled aggregates, probably mostly used on-site in manufacture of coated products
F C Richardson	194 Yardley Rd, Birmingham, B27 6LR	F C Richardson & Sons Ltd	Birmingham	Recycled aggregates probably mainly general fill for on-site use by clients/ sales
G & B G Morris	Eastacre, Willenhall Trading Estate, Willenhall, Walsall, West Midlands, WV13 2DL	Mr S G Morris Trading as G & B G Morris	Walsall	Secondary Aggregates (industrial by-products and quarry wastes), end use likely to be for manufacture of coated products

⁵⁴ This site was inactive in 2013 and is still vacant but has planning permission for CD&EW recycling.

Site Name	Address	Operator	MPA	Products/ End Uses
Interserve Material Recycling Facility	Brickyard Road, Aldridge, Walsall, West Midlands, WS9 8SR	Interserve Site Services	Walsall	Recycled aggregates, probably mostly general fill and capping, currently mostly used within Interserve Group
McAuliffe Engineering	Mc Auliffe House, Northcott Road, Wolverhampton, West Midlands, WV14 0TP	The McAuliffe Group	Wolverhampton	Graded recycled aggregates including various fill and capping materials, other products for use in construction and engineering projects, also products for use on-site by clients
NRS Waste Care - Meriden Quarry	Cornets End Lane, Meriden, Nr Coventry, CV77LF	NRS Waste Care Ltd	Solihull	Recovery of fill material/ soils for deposit at former quarry for restoration purposes
National Road Planing	Adderley Road South, Saltley, Birmingham, B8 1AD	Lafarge Tarmac	Birmingham	Graded secondary aggregates (road planings) for use in asphalt manufacture and for general construction
PBM Contractors Ltd	15 - 17 Green Lane, Bordesley Green, Birmingham, B9 5BU	PBM Contractors Ltd	Birmingham	Recycled aggregates, probably mostly for general fill/ capping
SITA Wolverhampton Depot and Transfer Station	30 Neachells Lane, Wolverhampton, West Midlands, WV11 3QQ	SITA UK	Wolverhampton	Graded secondary aggregates (road planings) for use in road construction, pipe bedding materials, and blending with rock salt for use as grit on roads

Site Name	Address	Operator	MPA	Products/ End Uses
T & T Aggregates	34 Redfern Rd, Tyseley, Birmingham	ISL Recycling Ltd	Birmingham	Graded recycled aggregates, for use General capping and fill, including use as sub-base and in pipe bedding
Tarmac Recycling - Ettingshall	Millfields Road, Ettingshall, Wolverhampton, West Midlands WV4 6JP	Lafarge Tarmac	Wolverhampton	High quality graded recycled aggregates, some of which are blended with quarried aggregates to produce a wide range of construction aggregates, including capping and fill materials, decorative aggregates and landscaping materials
WCL Ketley Quarry	Dudley Road, Kingswinford, West Midlands, DY6 8WT	WCL Ketley Quarry Ltd	Dudley	High quality graded recycled aggregates for general construction and engineering, including granular fill materials suitable for sub base, drainage and pipe bedding, roads and driveways, and general bulk, back and trench fill
Wednesbury Asphalt Plant	Smith Road, Wednesbury, West Midlands, WS10 0PB	Midland Quarry Products (MQP) Ltd	Sandwell	Graded secondary aggregates (industrial by-products including spent foundry sand), probably mostly used on-site in manufacture of coated products

Site Name	Address	Operator	MPA	Products/ End Uses
Weir Waste Services	Doris Rd, Bordesley Green, Birmingham, B8 1BY	Weir Waste Services	Birmingham	Graded recycled aggregates for capping and fill materials and aggregates for concrete

Source: Company websites, information obtained from operators by West Midlands Metropolitan Authorities, planning applications